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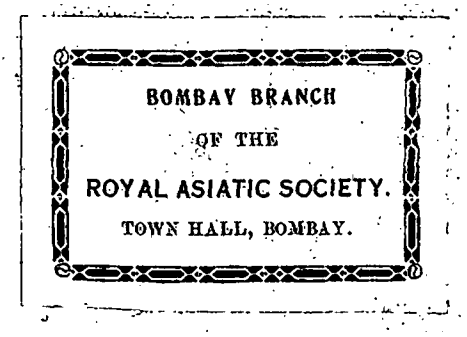

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ARCTIC OCEAN
NORTHERN OCEAN
NORTH PACIFIC OCEAN
SOUTH ATLANTIC OCEAN
INDIAN OCEAN
SOUTH AUSTRALIA
NEW ZEALAND
ISLAND OF SINGAPORE
ISLAND AND TOWN OF SINGAPORE
CAPE OF GOOD HOPE

THE WORLD
ON
MERCATOR'S PROJECTION
NORTH
PACIFIC
OCEAN
SOUTH PACIFIC OCEAN
CANTON RIVER
AND
HONG-KONG

A

DICTIONARY,

PRACTICAL, THEORETICAL, AND HISTORICAL,

OF

COMMERCE

AND

COMMERCIAL NAVIGATION

ILLUSTRATED WITH MAPS AND PLANS.

BY J. R. M^cCULLOCH, ESQ.,

FOREIGN ASSOCIATE OF THE INSTITUTE OF FRANCE.

26835 ac

A NEW EDITION,

WITH NUMEROUS CORRECTIONS AND IMPROVEMENTS,

AND A SUPPLEMENT.

Tutte le invenzioni le più benemerite del genere umano, e che hanno svilupato l' ingegno e la facoltà dell' animo nostro, sono quelle che accostano l' uomo all' uomo, e facilitano la comunicazione delle idee, dei bisogni, dei sentimenti, e riducano il genere umano a massa. VERRI.

——— Reperire apta, atque reperta docendum
Digerere, atque suo quæque ordine rite locare.
Durus uterque labor ——————— VIDÆ POET. lib. ii. lin. 10.

LONDON:

LONGMAN, GREEN, LONGMAN, AND ROBERTS.

MDCCCLIX.

1059

Though immediately and primarily written for the merchants, this Commercial Dictionary will be of use to every man of business or of curiosity. There is no man who is not in some degree a merchant; who has not something to buy and something to sell, and who does not therefore want such instructions as may teach him the true value of possessions or commodities. The descriptions of the productions of the earth and water which this volume contains, may be equally pleasing and useful to the speculatist with any other Natural History. The descriptions of ports and cities may instruct the geographer as well as if they were found in books appropriated only to his own science, and the doctrines of funds, insurances, currency, monopolies, exchanges, and duties, is so necessary to the politician, that without it he can be of no use either in the council or the senate, nor can speak or think justly either on war or trade.

"We, therefore, hope that we shall not repent the labour of compiling this work, nor flatter ourselves unreasonably, in predicting a favourable reception to a book which no condition of life can render useless, which may contribute to the advantage of all that make or receive laws, of all that buy or sell, of all that wish to keep or improve their possessions, of all that desire to be rich, and all that desire to be wise."

JOHNSON, *Preface to Rolt's Dict.*

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PREFACE TO THIS EDITION.

THOUGH in part a reprint, the edition of this Dictionary now laid before the reader, has undergone many alterations, and is, we trust, considerably improved. The extraordinary increase of manufactures and commerce in almost all countries *, and the opening of various new and important channels of intercourse, have rendered changes necessary in most parts of the work. We had, for example, to notice the new arrangements with China and Japan; the abolition of the Sound Duties; the termination of the rule of the East India Company in India; the continued efflux of the precious metals to that continent and China; the introduction of several new articles, such as VEGETABLE WAX and SHEA BUTTER, into the list of imports; with an all but endless variety of other matters.

The rules and regulations, too, under which trade is carried on, have been materially modified within the last four or five years. The United States and Russia passed, in 1857, new and comparatively moderate tariffs. And we are glad to have to state that the greater number of the changes which we have had to notice in the commercial legislation of foreign countries, have been of a liberal character. It seems, also, reasonable to suppose that the freedom of trade and industry will be more and more diffused, according as nations and their rulers become better acquainted with the sound principles on which it is founded, and with the wonderful progress we have made, and are continuing to make, in industrial pursuits, since we shook off the shackles of the protective system.

The greater importance of some of the many topics we have had to discuss, has necessarily required for them the greatest share of our attention. We have not, however, neglected or slurred over the others; but have endeavoured to set the different matters treated of in the clearest point of view that the information at our disposal

* There is, it must be admitted, one great exception to this statement. The fertile, well situated, and extensive countries subjected to Turkish misgovernment and oppression continue sunk in barbarism; or, if there be anywhere any symptoms of improvement, they are only to be found among the subjugated races. The Turks themselves have retrograded; and their religion, and the institutions and opinions to which it has given birth, are insuperable obstacles to anything like real progress. But it is not to be supposed, despite the support it will no doubt receive, that this worthless and superannuated system of misrule should exist much longer. And there can be no doubt that its overthrow, whether it be effected by the righteous rebellion of those it has so long trampled under foot, or by foreign force, will be a vast gain to humanity. It will do more than anything else that can be done to extend the sphere of civilisation and commerce.

would permit. This, it is true, has sometimes been neither so ample, so recent, nor so precise, as might have been desired. But we have done our best to obviate these defects by resorting to the quarters most likely to be well-informed. And on this, as on other occasions, those to whom we applied, have, with but few exceptions, evinced the greatest readiness, and even anxiety, to give us every assistance in their power. We have noticed some gentlemen to whom we have been indebted at the end of the articles to which they especially contributed; and among these and others, we may specify Sir James Emerson Tennent, and W. M. Bucknall, Esq., of the Board of Trade; Alfred Latham, Esq., Deputy Governor of the Bank of England; Andrew Jamieson, Esq., of the firm of Jamieson, Brothers, & Co.; R. C. Crosbie, Esq., of Liverpool; Robert Slater, Esq., of Fore Street, London; Marmaduke Hornidge, Esq., of the East India House; W. S. Lindsay, Esq., M.P.; J. A. Messenger, Esq., Inspector General of Imports and Exports; Dr. Strang, of Glasgow; John Crawfurd, Esq., late of Singapore; and the very learned bookseller, Nicholas Trübner, Esq., of Paternoster Row. It is only by the assistance of individuals having correct information at their disposal, and of those engaged in different lines of business, in different parts of the world, that a work of this sort can be rendered of any considerable value. No diligence of inquiry can acquire satisfactory information respecting most part of the subjects of which we have had to treat from books and statistical returns, even when these exist and are accessible, which is frequently not the case. It can only be acquired by comparing these, or, where they are wanting, supplying their place, with the communications of intelligent individuals familiar with the matters referred to.

We would fain hope that there are fewer errors in this than in the previous impressions of this work, and that it will be found to be in various respects more complete and serviceable. No ordinary amount of labour has been expended upon it. And though the details incident to most part of the subjects which it embraces be perpetually changing, the principles by which it is pervaded, are, we are well assured, of an enduring character, and will be no less applicable in the ages that are to come than at present.

*** We added to the preface to a former edition of this work the following brief notice of one of the most upright and patriotic statesmen that this country has ever produced. However defective it may be reckoned, the place, at least, was not unappropriate for its introduction. And whatever mutations this book may be destined to undergo, this notice will not, we hope, be displaced, unless it be to make room for one less unworthy of the subject.

"We may, perhaps, be excused, if, before concluding this notice introductory to a work which he honoured with his approbation, we briefly advert to the irreparable loss which the United Kingdom, and the commercial world generally, have sustained since the publication of our last edition, in the premature death of Sir Robert Peel. There are but few of the more important topics treated of in this volume in which we have not had to refer to the enlightened and well-digested measures of that great statesman. The maintenance of our old monetary standard, and the sound and comparatively satisfactory state of our banking system, are mainly a consequence of his exertions. To say that he did more to promote the public well-being, by introducing enlarged and liberal principles into our economical policy, than any other minister, would be to say little or nothing; for he did more to forward these great ends than all our other ministers put together, from the Revolution down to the present times. Not that we mean to say that we equally approve of all his measures, or think that some of them might not have been in some respects amended. But we refer to the spirit which pervaded his policy, its object, and its general influence. England was the centre of his solicitude; but the majority of the measures which he supported and carried, and his great example, have redounded, and will continue to redound, not to the advantage of this country only, but of the world. And hence the deep regret which his death excited in all but the most barbarous nations — '*Finis vitæ ejus amicis luctuosus, patriæ tristis, extraneis etiam ignotisque non sine cura fuit.*'*

"Though slow to change an opinion or system of policy, he had none of that miserable pride or partisan bigotry, which so often passes for principle, that disdains to profit by experience, and is above the acknowledgment of an error. He was at all times ready to inquire, and open to conviction. And whenever he had fully satisfied himself that it was necessary, to promote or secure the public welfare, that he should abandon an old or adopt a new course, he did so at once. The moment he was impressed with that conviction, all doubts and difficulties vanished from his mind. His duty to his country absorbed every other consideration. Neither the taunts of opponents nor the desertion of friends could influence his resolution. And he spared no efforts, and shrunk from no sacrifice, however unparalleled, to accomplish his patriotic purposes. Other ministers have equalled, and a few may, perhaps, have surpassed Sir Robert Peel in ability. But he stands foremost among British statesmen for disinterestedness; and for a determination to support and advance, at whatever cost to himself, what he believed to be the lasting and real interests of the community."

* Taciti Vit. Agricol. c. 43.

PREFACE

TO

THE SECOND EDITION.

THE first impression of this Dictionary, consisting of 2,000 copies, was entirely sold off in less than nine months from the date of its publication. We feel very deeply indebted to the public for this unequivocal proof of its approbation; and we have endeavoured to evince our gratitude, by labouring to render the work less undeserving a continuance of the favour with which it has been honoured. In the prosecution of this object, we have subjected every part of it to a careful revision; have endeavoured to eradicate the errors that had escaped our notice; to improve those parts that were incomplete or defective; and to supply such articles as had been omitted. We dare not flatter ourselves with the idea that we have fully succeeded in these objects. The want of recent and accurate details as to several important subjects, has been an obstacle we have not, in all cases, been able to overcome; but those in any degree familiar with such investigations will not, perhaps, be disposed severely to censure our deficiencies in this respect.

The changes in the law bearing upon commercial transactions have been carefully specified. Copious abstracts of the late Customs Acts are contained in the articles COLONIES AND COLONY TRADE, IMPORTATION AND EXPORTATION, NAVIGATION LAWS, REGISTRY, SMUGGLING, WAREHOUSING, &c.

The abolition of the East India Company's commercial monopoly, and the great and growing interest* that has in consequence been excited amongst all classes respecting the commercial capabilities and practices of India, China, and other Eastern countries, have made us bestow peculiar attention to this department. The articles BANGKOK, BATAVIA, BOMBAY, BUSHIRE, BUSSORAH, CALCUTTA, CANTON, COLUMBO, EAST INDIA COMPANY AND EAST INDIES, INDIGO, MACAO, MADRAS, MANILLA, MAULMAIN, MOCHA, MUSCAT, NANGASACKI, OPIUM, RANGOON, SINGAPORE, TATTA, TEA, &c. contain, it is believed, a greater mass of recent and well-authenticated details as to the commerce of the vast countries stretching from the Arabic Gulph to the Chinese Sea, than is to be found in any other English publication.

The article BANKING is mostly new. Besides embodying the late act prolonging the charter of the Bank of England, and the more important details given in the Report of the Select Committee on the Renewal of the Bank Charter, this article contains some novel and important information not elsewhere to be met with. No account of the issues of the Bank of England has hitherto been published, that extends farther back than 1777. But this deficiency is now, for the first time, supplied; the Directors having obligingly furnished us with an

* The recent events in China have added greatly to this interest, and have made us enter, in this edition, into several additional details.

account of the issues of the Bank on the 28th of February and the 31st of August of each year, from 1698, within four years of its establishment, down to the present time. We have also procured a statement, from authority, of the mode of transacting business in the Bank of Scotland; and have been able to supply several additional particulars, both with respect to British and to foreign banks.

We have made many additions to, and alterations in, the numerous articles descriptive of the various commodities that form the materials of commerce, and the historical notices by which some of them are accompanied. We hope they will be found more accurate and complete than formerly.

The Gazetteer department, or that embracing accounts of the principal foreign emporiums with which this country maintains a direct intercourse, was, perhaps, the most defective in the old edition. If it be no longer in this predicament, the improvement has been principally owing to official co-operation. The sort of information we desired as to the great sea-port towns could not be derived from books, nor from any sources accessible to the public; and it was necessary, therefore, to set about exploring others. In this view we drew up a series of queries, embracing an investigation of imports and exports, commercial and shipping regulations, port charges, duties, &c., that might be transmitted to any port in any part of the world. There would, however, in many instances, have been much difficulty in getting them answered with the requisite care and attention by private individuals; and the scheme would have had but a very partial success, had it not been for the friendly interference of Mr. Poulett Thomson. Alive to the importance of having the queries properly answered, he undertook to use his influence to get them transmitted to the Consuls. This was accordingly done; and answers have been received from the greater number of these functionaries. There is, of course, a considerable inequality amongst them; but for the most part they embody a good deal of valuable information, and some of them are drawn up with a degree of skill, and display an extent of research and a capacity of observation, that reflect high credit on their authors.*

The information thus obtained, added to what we received through other but not less authentic channels, supplied us with the means of describing twice the number of foreign sea-ports noticed in our former edition; and of enlarging, amending, and correcting the accounts of such as were noticed. Besides much fuller details than have ever been previously published of the nature and extent of the trade of many of these places, the reader will, in most instances, find a minute account of the regulations to be observed respecting the entry and clearing of ships and goods, with statements of the different public charges laid on shipping, the rates of commission and brokerage, the duties on the principal goods imported and exported, the prices of provisions, the regulations as to quarantine, the practice as to credit, banking, &c., with a variety of other particulars. We have also described the ports; and have specified their depth of water, the course to be steered by vessels on entering, with the rules as to pilotage, and the fees on account of pilots, light-houses, &c. As it is very difficult to convey a sufficiently distinct idea of a sea-port by any description, we have given plans, taken from the latest and best authorities, of about a dozen of the principal foreign ports. Whether we have succeeded, is more than we can venture to say; but we hope we have said enough to satisfy the reader, that we have spared no pains to furnish him with authentic information in this important department.

* The returns furnished by the Consuls at Hamburg, Trieste and Venice, Naples, Dantzic, Bordeaux, Christiania, Amsterdam, Elsineur, New York, Charleston, &c. are particularly good.

The TARIFF, or Table of Duties on Imports, &c., in this edition, is peculiarly valuable. It is divided into three columns: the first containing an account of the existing duties payable on the importation of foreign products for home use, as the same were fixed by the Act of last year, 3 & 4 Will. IV. cap. 56.; the next column exhibits the duties payable on the same articles in 1819, as fixed by the Act 59 Geo. III. cap. 52.; and the third and last column exhibits the duties as they were fixed in 1787 by Mr. Pitt's Consolidation Act, the 27 Geo. III. cap. 13. The duties are rated throughout in Imperial weights and measures; and allowances have been made for differences in the mode of charging, &c. The reader has, therefore, before him, and may compare together, the present customs duties with the duties as they stood at the end of the late war, and at its commencement. No similar Table is to be met with in any other work. We are indebted for it to J. D. Hume, Esq., of the Board of Trade, at whose suggestion, and under whose direction, it has been prepared. Its compilation was a work of much labour and difficulty; and could not have been accomplished by any one not well acquainted with the Customs Acts, and the various changes in the mode of assessing the duties.

On the whole, we trust it will be found that the work has been improved throughout, either by the correction of mistakes, or by the addition of new and useful matter. Still, however, we are well aware that it is in various respects defective; but we are not without hopes that those who look into it will be indulgent enough to believe that this has been owing as much to the extreme difficulty, or rather, perhaps, the impossibility, of obtaining accurate information respecting some of the subjects treated of, as to the want of care and attention on our part. Even as regards many important topics connected with the commerce and manufactures of Great Britain, we have had to regret the want of authentic details, and been obliged to grope our way in the dark. The condition and habits of the English and Scotch are so very different from those of the Irish, that conclusions deduced from considering the trade or consumption of the United Kingdom *en masse*, are frequently of little value; and may, indeed, unless carefully sifted, be the most fallacious imaginable; while, owing to the want of any account of the cross-channel trade between the two great divisions of the empire, it is not possible accurately to estimate the consumption of either, or to obtain any sure means of judging of their respective progress in wealth and industry. As respects manufactures, there is a *still* greater deficiency of trustworthy details. But the articles relating to them in this work having been submitted to the highest practical authorities, we incline to think they are about as accurate as they can well be rendered.

The statistical Tables published by the Board of Trade embrace the substance of hundreds of accounts, scattered over a vast mass of Parliamentary papers. They seem to be compiled with great care and judgment, and are a very valuable acquisition. We have frequently been largely indebted to them. But their arrangement, and their constantly increasing number and bulk, make them quite unfit for being readily or advantageously consulted by practical men. Most part of the returns relating to the principal articles given in this work go back to a much more distant period than those published by the Board of Trade.

We have seen no reason to modify or alter any PRINCIPLE OF COMMERCIAL POLICY advanced in our former edition. In some instances, we have varied the exposition a little, but that is all. In every case, however, we have separated the practical, legal, and historical statements from those of a speculative nature; so that those most disposed to dissent from our theoretical notions will, we hope, be ready to admit that they have not been allowed to detract from the practical utility of the work.

The maps given with the former edition have been partially re-engraved, and

otherwise improved. Exclusive of the plans already referred to, the present edition contains two new maps: one, of the completed and proposed canals and railroads of Great Britain and Ireland; exhibiting, also, the coal fields, the position of the different light-houses, &c.: the other map exhibits the mouths of the rivers Mersey and Dee, and the country from Liverpool to Manchester, with the various lines of communication between these two great and flourishing emporiums. Care has been taken to render them accurate.

We are under peculiar obligations to many official, mercantile, and private gentlemen in this and other countries, who have favoured us with communications. We hardly ever applied to any one, however much engaged in business, for any information coming within his department, which he did not readily furnish. We have seldom met with any mystery, concealment, or affectation of concealment. Most individuals seemed disposed to tell us all that they knew; and several gentlemen have taken a degree of trouble with respect to various articles in this work, for which our thanks make but a poor return.

PREFACE

TO

THE FIRST EDITION.

It has been the wish of the Author and Publishers of this Work, that it should be as extensively useful as possible. If they be not deceived in their expectations, it may be advantageously employed, as a sort of *vade mecum*, by merchants, traders, ship-owners, and ship-masters, in conducting the details of their respective businesses. It is hoped, however, that this object has been attained without omitting the consideration of any topic, incident to the subject, that seemed calculated to make the book generally serviceable, and to recommend it to the attention of all classes.

Had our object been merely to consider commerce as a science, or to investigate its principles, we should not have adopted the form of a Dictionary. But commerce is not a science only, but also an *art* of vast practical importance, in the prosecution of which a very large proportion of the population of every civilised country is actively engaged. Hence, to be generally useful, a work on commerce should combine practice, theory, and history. Different readers may resort to it for different purposes; and every one should be able to find in it clear and accurate information, whether his object be to make himself familiar with details, to acquire a knowledge of principles, or to learn the revolutions that have taken place in the various departments of trade.

The following short outline of what this Work contains may enable the reader to estimate the probability of its fulfilling the objects for which it has been intended: —

I. It contains accounts of the various articles which form the subject matter of commercial transactions. To their English names are, for the most part, subjoined their synonymous appellations in French, German, Italian, Russian, Spanish, &c.; and sometimes, also, in Arabic, Hindoo, Chinese, and other Eastern languages. We have endeavoured, by consulting the best authorities, to make the descriptions of commodities as accurate as possible; and have pointed out the tests or marks by which their goodness may be ascertained. The places where they are produced are also specified; the quantities exported from such places; and the different regulations, duties, &c. affecting their importation and exportation, have been carefully stated, and their influence examined. The prices of most articles have been given, sometimes for a lengthened period. Historical notices are inserted illustrative of the rise and progress of the trade in the most important articles; and it is hoped that the information embodied in these notices will be found to be as authentic as it is interesting.

II. The Work contains a general article on Commerce, explanatory of its nature, principles, and objects, and embracing an inquiry into the policy of restrictions intended to promote industry at home, or to advance the public interests by excluding or restraining foreign competition. Exclusive, however, of this general

article, we have separately examined the operation of the existing restrictions on the trade in particular articles, and with particular countries, in the accounts of those articles, and of the great sea-port towns belonging to the countries referred to. There must, of course, be more or less of sameness in the discussion of such points, the principle which runs through them being identical. But in a Dictionary this is of no consequence. The reader seldom consults more than one or two articles at a time; and it is of infinitely more importance to bring the whole subject at once before him, than to seek to avoid the appearance of repetition by referring from one article to another. In this Work such references are made as seldom as possible.

III. The articles which more particularly refer to commercial navigation are AVERAGE, BILLS OF LADING, BOTTOMRY, CHARTERPARTY, FREIGHT, INSURANCE (MARINE), MASTER, NAVIGATION LAWS, OWNERS, REGISTRY, SALVAGE, SEAMEN, SHIPS, TONNAGE, WRECK, &c. These articles embrace a pretty full exposition of the law as to shipping: we have particularly endeavoured to exhibit the privileges enjoyed by British ships; the conditions and formalities, the observance of which is necessary to the acquisition and preservation of such privileges, and to the transference of property in ships; the responsibilities incurred by the masters and owners in their capacity of public carriers; and the reciprocal duties and obligations of owners, masters, and seamen. In this department, we have made considerable use of the treatise of Lord Tenterden on the Law of Shipping,—a work that does honour to the learning and talents of its noble author. The Registry Act and the Navigation Act are given with very little abridgment. To this head may also be referred the articles on the COD, HERRING, PILCHARD, and WHALE fisheries.

IV. The principles and practice of commercial arithmetic and accounts are unfolded in the articles *Book-keeping*, DISCOUNT, EXCHANGE, INTEREST AND ANNUITIES, &c. The article BOOK-KEEPING has been furnished by one of the official assignees under the new Bankrupt Act. It exhibits a view of this important art as actually practised in the most extensive mercantile houses in town. The tables for calculating interest and annuities are believed to be more complete than any hitherto given in any work not treating professedly of such subjects.

V. A considerable class of articles may be regarded as descriptive of the various means and devices that have been fallen upon for extending and facilitating commerce and navigation. Of these, taking them in their order, the articles BANKS, BROKERS, BUOYS, CANALS, CARAVANS, CARRIERS, COINS, COLONIES, COMPANIES, CONSULS, CONVOYS, DOCKS, FACTORS, FAIRS AND MARKETS, LIGHT-HOUSES, MONEY, PARTNERSHIP, PILOTAGE, POST-OFFICE, RAIL-ROADS, ROADS, TREATIES (COMMERCIAL), WEIGHTS AND MEASURES, &c. are among the most important. In the article BANKS, the reader will find, besides an exposition of the principles of banking, a pretty full account (derived principally from official sources) of the Bank of England, the private banks of London, and the English provincial banks; the Scotch and Irish banks; and the most celebrated foreign banks: to complete this department, an account of Savings' Banks is subjoined, with a set of rules which may be taken as a model for such institutions.* There is added to the article COINS, a Table of the assay, weight, and sterling value of the principal foreign gold and silver coins, deduced from assays made at the London and Paris Mints, taken, by permission, from the last edition of Dr. Kelly's *Cambist*. The article COLONIES is one of the most extensive in the work: it contains a sketch of the ancient and modern systems of colonisation; an examination of the principles of colonial policy; and a view of the extent, trade, population,

* Some of the improvements made on this article are noticed in the Preface to the Second Edition.

and resources of the colonies of this and other countries. In this article, and in the articles CAPE OF GOOD HOPE, COLUMBO, HALIFAX, QUEBEC, SYDNEY, and VAN DIEMEN'S LAND, recent and authentic information is given, which those intending to emigrate will find worth their attention. The map of the British possessions in North America is on a pretty large scale, and is second to none, of those countries, hitherto published in an accessible form. The article COLONIES is also illustrated by a map of Central America and the West Indies. An engraved plan is given, along with the article DOCKS, of the river Thames and the docks from Blackwall to the Tower; and the latest regulations issued by the different Dock Companies here and in other towns, as to the docking of ships, and the charges on that account, and on account of the loading, unloading, warehousing, &c. of goods, are given verbatim. The statements in the articles LIGHT-HOUSES and PILOTAGE have been mostly furnished by the Trinity House, or derived from papers printed by order of the Admiralty, and may be implicitly relied upon. In the article WEIGHTS AND MEASURES the reader will find tables of the equivalents of wine, ale, and Winchester measures, in Imperial measure.

VI. Besides a general article on the constitution, advantages, and disadvantages of Companies, accounts are given of the principal associations existing in Great Britain for the purpose of conducting commercial undertakings, or undertakings subordinate to and connected with commerce. Among others (exclusive of the Banking and Dock Companies already referred to) may be mentioned the EAST INDIA COMPANY, the GAS COMPANIES, the INSURANCE COMPANIES, the MINING COMPANIES, the WATER COMPANIES, &c. The article on the East India Company is of considerable length; it contains a pretty complete sketch of the rise, progress, and present state of the British trade with India; an estimate of the influence of the Company's monopoly; and a view of the revenue, population, &c. of our Indian dominions. We have endeavoured, in treating of insurance, to supply what we think a desideratum, by giving a distinct and plain statement of its principles, and a brief notice of its history; with an account of the rules and practices followed by individuals and companies in transacting the more important departments of the business; and of the terms on which houses, lives, &c. are commonly insured. The part of the article which peculiarly respects marine insurance has been contributed by a practical gentleman of much knowledge and experience in that branch.

VII. In addition to the notices of the Excise and Customs regulations affecting particular commodities given under their names, the reader will find articles under the heads of CUSTOMS, EXCISE, IMPORTATION AND EXPORTATION, LICENCES, SMUGGLING, WAREHOUSING, &c. which comprise most part of the practical details belonging to the business of the Excise and Customs, particularly the latter. The most important Customs Acts are given with very little abridgment, and being printed in small letter, they occupy comparatively little space. The article TARIFF contains an account of the various duties, drawbacks, and bounties, on the importation and exportation of all sorts of commodities into and from this country.—We once intended to give the tariffs of some of the principal Continental states; but, from the frequency of the changes made in them, they would very soon have become obsolete, and would have tended rather to mislead than to instruct. But the reader will notwithstanding find a good deal of information respecting foreign duties under the articles CADIZ, HAVRE, NAPLES, NEW YORK, TRIESTE, &c.

VIII. Among the articles of a miscellaneous description, may be specified ALIENS, APPRENTICE, AUCTIONEER, BALANCE OF TRADE, BANKRUPTCY, CONTRABAND, CREDIT, HANSEATIC LEAGUE, IMPORTS AND EXPORTS, IM-

PRESSMENT, IONIAN ISLANDS, MARITIME LAW, PASSENGERS, PATENTS, PAWNBROKING, PIRACY, POPULATION, PRECIOUS METALS, PRICES, PRIVATEERS, PRUSSIAN OR GERMAN COMMERCIAL UNION, PUBLICANS, QUARANTINE, REVENUE AND EXPENDITURE, SLAVES AND SLAVE TRADE, TALLY TRADE, TRUCK SYSTEM, &c.*

IX. Accounts are given, under their proper heads, of the principal emporiums with which this country has any immediate intercourse; of the commodities usually exported from and imported into them; of their monies, weights, and measures; and of such of their institutions, customs, and regulations, with respect to commerce and navigation, as seemed to deserve notice. There are occasionally subjoined to these accounts of the great sea-ports, pretty full statements of the trade of the countries in which they are situated, as in the instances of ALEXANDRIA, AMSTERDAM, BORDEAUX, BUENOS AYRES, CADIZ, CALCUTTA, CANTON, COPENHAGEN, DANTZIC, GALACZ, GALVESTON, HAVANNAH, HAVRE, LIMA, MONTEVIDEO, NAPLES, NEW YORK, ODESSA, PALERMO, PETERSBURG, RIO DE JANEIRO, SMYRNA, STOCKHOLM, TRIESTE, VALPARAISO, VERA CRUZ, &c.* To have attempted to do this systematically would have increased the size of the Work beyond all reasonable limits, and embarrassed it with details nowise interesting to the English reader. The plan we have adopted has enabled us to treat of such matters as might be supposed to be of importance in England, and to reject the rest. We believe, however, that, notwithstanding this selection, those who compare this work with others, will find that it contains a much larger mass of authentic information respecting the trade and navigation of foreign countries than is to be found in any other English publication.

The reader may be inclined, perhaps, to think that it must be impossible to embrace the discussion of so many subjects in a single octavo volume, without treating a large proportion in a very brief and unsatisfactory manner. But, in point of fact, this single octavo contains about as much letter-press as is contained in two ordinary folio volumes, and more than is contained in Macpherson's Annals of Commerce, in four large volumes quarto, published at 8*l.* 8*s.*! This extraordinary condensation has been effected without any sacrifice of beauty or distinctness. Could we suppose that the substance of the book is at all equal to its form, there would be little room for doubt as to its success.

Aware that, in a work of this nature, accuracy in matters of fact is of primary importance, we have rarely made any statement without mentioning our authority. Except, too, in the case of books in every one's hands, or Dictionaries, the page or chapter of the works referred to is generally specified; experience having taught us that the convenient practice of stringing together a list of authorities at the end of an article is much oftener a cloak for ignorance than an evidence of research.

Our object being to describe articles in the state in which they are offered for sale, we have not entered, except when it was necessary to give precision or clearness to their description, into any details as to the processes followed in their manufacture.

Besides the maps already noticed, the work contains a map of the world, on Mercator's projection, and a map of Central and Southern Europe and the Mediterranean Sea. These maps are on a larger scale than those usually given with works of this sort; and have been carefully corrected, and compared with the best authorities.

Such is a rough outline of what the reader may expect to meet with in this

* Several of these articles have been inserted for the first time in this (the third complete) edition of the work; but we thought it most convenient to enumerate them with the others.

Dictionary. We do not, however, flatter ourselves with the notion that he will consider that all that has been attempted has been properly executed. In a work embracing such an extreme range and diversity of subjects, respecting many of which it is exceedingly difficult, if not quite impossible, to obtain accurate information, no one will be offended should he detect a few errors. At the same time we can affirm that neither labour nor expense has been spared to entitle the Work to the public confidence and patronage. The author has been almost incessantly engaged upon it for upwards of five years; and he may be said to have spent the previous part of his life in preparing for the undertaking. He has derived valuable assistance from some distinguished official gentlemen, and from many eminent merchants; and has endeavoured, wherever it was practicable, to build his conclusions upon official documents. But in very many instances he has been obliged to adopt less authentic data; and he does not suppose that he has had sagacity enough always to resort to the best authorities, or that, amidst conflicting and contradictory statements, he has uniformly selected those most worthy of being relied upon, or that the inferences he has drawn are always such as the real circumstances of the case would warrant. But he has done his best not to be wanting in these respects. Not being engaged in any sort of business, nor being under any description of obligation to any political party, there was nothing to induce us, in any instance, to conceal or pervert the truth. We have, therefore, censured freely and openly whatever we considered wrong; but the grounds of our opinion are uniformly assigned; so that the reader may always judge for himself as to its correctness. Our sole object has been to produce a work that should be generally useful, particularly to merchants and traders, and which should be creditable to ourselves. Whether we have succeeded, the award of the public will show; and to it we submit our labours, not with "frigid indifference," but with an anxious hope that it may be found we have not misemployed our time, and engaged in an undertaking too vast for our limited means.

The following notices of some of the most celebrated Commercial Dictionaries may not, perhaps, be unacceptable. At all events, they will show that there is at least room for the present attempt.

The *Grand Dictionnaire de Commerce*, begun and principally executed by M. Savary, Inspector of Customs at Paris, and completed by his brother, the Abbé Savary, Canon of St. Maur, was published at Paris in 1723, in two volumes folio: a supplemental volume being added in 1730. This was the first work of the kind that appeared in modern Europe; and has furnished the principal part of the materials for most of those by which it has been followed. The undertaking was liberally patronised by the French government, who justly considered that a Commercial Dictionary, if well executed, would be of national importance. Hence a considerable, and, indeed, the most valuable, portion of Savary's work is compiled from Memoirs sent him, by order of government, by the inspectors of manufactures in France, and by the French consuls in foreign countries. An enlarged edition of the *Dictionnaire* was published at Geneva in 1750, in six folio volumes. But the best edition is that of Copenhagen, in five volumes folio; the first of which appeared in 1759, and the last in 1765.

More than the half of this work consists of matter altogether foreign to its proper object It is, in fact, a sort of Dictionary of Manufactures as well as of Commerce; descriptions being given, which are, necessarily perhaps, in most instances exceedingly incomplete, and which the want of plates often renders unintelligible, of the methods followed in the manufacture of the commodities described. It is also filled with lengthened articles on natural history, the

bye laws and privileges of different corporations, and a variety of subjects nowise connected with commercial pursuits. No one, however, need look into it for any development of sound principles, or for enlarged views. It is valuable as a repertory of facts relating to commerce and manufactures at the commencement of last century, collected with laudable care and industry; but it is pervaded by the spirit of a customs officer, and not of a merchant or a philosopher. "*Souvent dans ses réflexions, il tend plutôt à égarer ses lecteurs qu'à les conduire, et des maximes nuisibles au progrès du commerce et de l'industrie obtiennent presque toujours ses éloges et son approbation.*"

The preceding extract is from the Prospectus, in one volume octavo, published by the Abbé Morellet, in 1769, of a new Commercial Dictionary, to be completed in five or probably six volumes folio. This Prospectus is a work of sterling merit; and from the acknowledged learning and talent of its author, and his capacity for laborious exertion, there can be no doubt that, had the projected Dictionary been completed, it would have been infinitely superior to that of Savary. It appears (Prospectus, pp. 353—373.) that Morellet had been engaged for a number of years in preparations for this great work; and that he had amassed a large collection of books and manuscripts relative to national economy, and the commerce, navigation, colonies, arts, &c. of France and other countries. The enterprise was begun under the auspices of M. Trudaine, Intendant of Finance, and was patronised by Messrs. L'Averdy and Bertin, Comptrollers General. But whether it were owing to the gigantic nature of the undertaking, to the author having become too much engrossed with other pursuits, the want of sufficient encouragement, or some other cause, no part of the proposed Dictionary ever appeared. We are ignorant of the fate of the valuable collection of manuscripts made by the Abbé Morellet. His books were sold at Paris within these few years.

A Commercial Dictionary, in three volumes 4to, forming part of the *Encyclopédie Méthodique*, was published at Paris in 1783. It is very unequally executed, and contains numerous articles that might have been advantageously left out. The editors acknowledge in their Preface that they have, in most instances, been obliged to borrow from Savary. The best parts of the work are copied from the edition of the *Traité Général du Commerce* of Ricard, published at Amsterdam in 1781, in two volumes 4to.*

The earliest Commercial Dictionary published in England was compiled by Malachy Postlethwayt, Esq., a diligent and indefatigable writer. The first part of the first edition appeared in 1751. The last edition, in two enormous folio volumes, was published in 1774. It is chargeable with the same defects as that of Savary, of which, indeed, it is for the most part a literal translation. The author has made no effort to condense or combine the statements under different articles, which are frequently not a little contradictory; at the same time that many of them are totally unconnected with commerce.

In 1761, Richard Rolt, Esq. published a Commercial Dictionary in one pretty large folio volume. The best part of this work is its Preface, which was contributed by Dr. Johnson. It is for the most part abridged from Postlethwayt; but it contains some useful articles purloined from other works, mixed, however, with many alien to the subject.

In 1766, a Commercial Dictionary was published, in two rather thin folio volumes, by Thomas Mortimer, Esq., at that time Vice-Consul for the Netherlands. This is a more commodious and better arranged, but not a more valuable work than that of Postlethwayt. The plan of the author embraces, like that of his predecessors, too great a variety of objects; more than half the work being

* This, when published, must have been a very valuable work. It is now, however, in a great measure obsolete.

filled with geographical articles, and articles describing the processes carried on in different departments of manufacturing industry; there are also articles on very many subjects, such as Architecture, the natural history of the ocean, the land-tax, the qualifications of surgeons, &c., the relation of which to commerce, navigation, or manufactures, it seems difficult to discover.

In 1810, a Commercial Dictionary was published, in one thick octavo volume, purporting to be by Mr. Mortimer. We understand, however, that he had but little, if any thing, to do with its compilation. It is quite unworthy of the subject, and of the epoch when it appeared. It has all the faults of those by which it was preceded, with but few peculiar merits. Being not only a Dictionary of Commerce and Navigation, but of Manufactures, it contains accounts of the different Arts: but to describe these in a satisfactory and really useful manner, would require several volumes, and the co-operation of many individuals: so that, while the accounts referred to are worth very little, they occupy so large a space that room has not been left for the proper discussion of those subjects from which alone the work derives whatever value it possesses. Thus, there is an article of twenty-two pages technically describing the various processes of the art of painting, while the general article on commerce is comprised in less than *two* pages. The articles on coin and money do not together occupy four pages, being considerably less than the space allotted to the articles on engraving and etching. There is not a word said as to the circumstances which determine the course of exchange; and the important subject of credit is disposed of in less than *two lines!* Perhaps, however, the greatest defect in the work is its total want of any thing like science. No attempt is ever made to explain the principles on which any operation depends. Every thing is treated as if it were empirical and arbitrary. Except in the legal articles, no authorities are quoted; so that very little dependence can be placed on the statements advanced.

In another Commercial Dictionary, republished within these few years, the general article on commerce consists of a discussion with respect to simple and compound demand, and simple and double competition: luckily the article does not fill quite a page; being considerably shorter than the description of the kaleidoscope.

Under these circumstances, we do think that there is room for a new Dictionary of Commerce and Commercial Navigation: and whatever may be thought of our Work, it cannot be said that in bringing it into the field we are encroaching on ground already fully occupied.

CENTRAL & SOUTHERN EUROPE WITH THE MEDITERRANEAN SEA.

A

DICTIONARY

OF

COMMERCE

AND

COMMERCIAL NAVIGATION.

AAM, Aum, or Ahm, a measure for liquids, used at Amsterdam, Antwerp, Hamburgh, Frankfort, &c. At Amsterdam it is nearly equal to 41 English wine gallons, at Antwerp to 36¼ ditto, at Hamburgh to 38¼ ditto, and at Frankfort to 39 ditto.

ABANDONMENT, in commerce and navigation, is used to express the abandoning or surrendering of the ship or goods insured to the insurer.

It is held, by the law of England, that the insured has the right to abandon, and to compel the insurers to pay the whole value of the thing insured, in every case "where, by the happening of any of the misfortunes or perils insured against, the voyage is lost, or not worth pursuing, and the projected adventure is frustrated; or where the thing insured is so damaged and spoiled as to be of little or no value to the owner; or where the salvage is very high; or where what is saved is of less value than the freight; or where further expense is necessary, and the insurer will not undertake to pay that expense," &c. — (*Marshall*, book i. cap. 13. § 1.)

Abandonment very frequently takes place in cases of capture: the loss is then total, and no question can arise in respect to it. In cases, however, in which a ship and cargo are recaptured *within such a time that the object of the voyage is not lost*, the insured is not entitled to abandon. The mere *stranding* of a ship is not deemed of itself such a loss as will justify an abandonment. If by some fortunate accident, by the exertions of the crew, or by any borrowed assistance, the ship be got off and rendered capable of continuing her voyage, it is not a total loss, and the insurers are only liable for the expenses occasioned by the stranding. It is only where the stranding is followed by *shipwreck*, or in any other way renders the ship incapable of prosecuting her voyage, that the insured can abandon.

It has been decided, that damage sustained in a voyage to the extent of forty-eight per cent. of the value of the ship did not entitle the insured to abandon. If a cargo be damaged in the course of a voyage, and it appears that what has been saved is less than the amount of freight, it is held to be a total loss. — (*Park on Insurance*, cap. 9.)

When by the occurrence of any of the perils insured against the insured has acquired a right to abandon, he is at liberty either to abandon or not, as he thinks proper. He is in no case bound to abandon; but if he make an election, and resolve to abandon, he must abide by his resolution, and has no longer the power to claim for a partial loss. In some foreign countries specific periods are fixed by law within which the insured, after being informed of the loss, must elect either to abandon or not. In this country, however, no particular period is fixed for this purpose; but the rule is, that if the insured determine to abandon, he must intimate such determination to the insurers within a *reasonable period* after he has got intelligence of the loss, — any unnecessary delay in making this intimation being interpreted to mean that he has decided not to abandon.

No particular form or solemnity is required in giving notice of an abandonment. It may be given either to the underwriter himself, or the agent who subscribed for him.

The effect of an abandonment is to vest all the rights of the insured in the insurers. The latter become the legal owners of the ship, and as such are liable for all her future outgoings, and entitled to her future earnings. An abandonment, when once made, is irrevocable.

In case of a shipwreck or other misfortune, the captain and crew are bound to exert themselves to the utmost to save as much property as possible; and to enable them to do this without prejudice to the right of abandonment, our policies provide that, "in case of any loss or misfortune, the insured, their factors, servants, and assigns, shall be at liberty to sue and labour about the defence, safeguard, and recovery of the goods, and merchandises, and ship, &c., without prejudice to the insurance, to the charges whereof the insurers agree to contribute, each according to the rate and quantity of his subscription."

"From the nature of his situation," says Mr. Serjeant Marshall, "the captain has an implied authority, not only from the insured, but also from the insurers and all others interested in the ship or cargo, in case of misfortune, to do whatever he thinks most conducive to the general interest of all concerned, and they are all bound by his acts. Therefore, if the ship be disabled by stress of weather, or any other peril of the sea, the captain may hire another vessel for the transport of the goods to their port of destination, if he think it for the interest of all concerned that he should do so; or he may, upon a capture, appeal against a sentence of condemnation, or carry on any other proceedings for the recovery of the ship and cargo, provided he has a probable ground for doing so; or he may, upon the loss of the ship, invest the produce of the goods saved in other goods, which he may ship for his original port of destination; for whatever is recovered of the effects insured, the captain is accountable to the insurers. If the insured neglect to abandon when he has it in his power to do so, he adopts the acts of the captain, and he is bound by them. If, on the other hand, the insurers, after notice of abandonment, suffer the captain to continue in the management, he becomes their agent, and they are bound by his acts."

As to the sailors, when a misfortune happens, they are bound to save and preserve the merchandise to the best of their power, and while they are so employed they are entitled to wages, so far, at least, as what is saved will allow; but if they refuse to assist in this, they shall have neither wages nor reward. In this the Rhodian law, and the laws of Oleron, Wisby, and the Hanse Towns, agree.

The policy of the practice of abandonment seems very questionable. The object of an insurance is to render the insurer liable for whatever loss or damage may be incurred. But this object does not seem to be promoted by compelling him to pay as for a total loss, when, in fact, the loss is only partial. The captain and crew of the ship are selected by the owners, are their servants, and are responsible to them for their proceedings. But in the event of a ship being stranded, and so damaged that the owners are entitled to abandon, the captain and crew become the servants of the underwriters, who had nothing to do with their appointment, and to whom they are most probably altogether unknown. It is admitted that a regulation of this sort can hardly fail of leading, and has indeed frequently led, to very great abuses. We, therefore, are inclined to think that abandonment ought not to be allowed where any property is known to exist; but that such property should continue at the disposal of the owners and their agents, and that the underwriters should be liable only for the damage really incurred. The first case that came before the British courts with respect to abandonment was decided by Lord Hardwicke, in 1744. Mr. Justice Buller appears to have concurred in the opinion now stated, that abandonment should not have been allowed in cases where the loss is not total.

For further information as to this subject, see the excellent works of Mr. Serjeant Marshall (book i. cap. 13.), and of Mr. Justice Park (cap. 9.) on the Law of Insurance.

ABATEMENT, or REBATE, is the name sometimes given to a discount allowed for prompt payment; it is also sometimes used to express the deduction that is occasionally made at the custom-house from the duties chargeable upon such goods as are damaged, and for loss in warehouses. This allowance is regulated by the act 3 & 4 Will. 4. c. 52. § 32. No abatement is made from the duties charged on coffee, currants, figs, guinea-grains, lemons, opium, oranges, raisins, pepper, tobacco, and wine.

ACACIA. See GUM ARABIC.

ACAPULCO, a celebrated sea-port on the western coast of Mexico, in lat. 16° 50′ 29″ N., long. 99° 46′ W. Pop. 4,000 (?). "It is," says Captain Hall, "the very *beau ideal* of a harbour. It is easy of access; very capacious; the water not too deep; the holding ground good; quite free from hidden dangers *; and as secure as the basin in the centre of Portsmouth dockyard."—(*South America*, ii. 172.) Previously to the emancipation of Spanish America, a galleon or large ship, richly laden, was annually sent from Acapulco to Manilla, in the Philippine Islands, and at her return a fair was held, which was much resorted to by strangers. But this sort of intercourse is no longer carried on, the trade to Manilla and all other places being now conducted by private individuals. The exports consist of bullion, cochineal, cocoa, wool, indigo, &c. The

* This is not quite accurate. There is one shoal on which a vessel was lost in 1781; but being laid down in the charts it is easily avoided.—(*Humboldt, Nouvelle Espagne*, iv. 90.)

imports principally consist of cotton goods, hardware, articles of jewellery, raw and wrought silks, spices, and aromatics. Acapulco is extremely unhealthy; and though it be the principal port on the west coast of Mexico, its commerce is but inconsiderable. The navigation from Acapulco to Guayaquil and Callao is exceedingly tedious and difficult, so that there is but little intercourse between Mexico and Peru. The monies, weights, and measures are the same as those of Spain; for which see CADIZ.

ACIDS, are a class of compounds which are distinguished from all others by the following properties. They are generally possessed of a very sharp and sour taste; redden the infusions of blue vegetable colours; are often highly corrosive, and enter into combination with the alkalies, earths, and metallic oxides; forming compounds in which the characters of the constituents are entirely destroyed, and new ones produced differing in every respect from those previously existing. The quality or strength of an acid is generally ascertained either by its specific gravity, which is found by means of the hydrometer, if the acid be liquid, or by the quantity of pure and dry subcarbonate of potass or soda, or of carbonate of lime (marble), which a given weight of the acid requires for its exact neutralisation. This latter process is termed Acidimetry, or the ascertaining the quantity of *real* acid existing in any of the liquid or crystallised acids.

The principal acids at present known are, the Acetic, Benzoic, Boracic, Bromic, Carbonic, Citric, Chloric, Cyanic, Fluoric, Ferroprussic, Gallic, Hydrobromic, Hydriodic, Iodic, Lactic, Malic, Margaric, Meconic, Muriatic or Hydrochloric, Nitrous, Nitric, Oleic, Oxalic, Phosphoric, Prussic or Hydrocyanic, Purpuric, Saccholactic, Suberic, Sulphurous, Sulphuric, Tartaric, Uric, and many others which it would be superfluous to detail. It is the most important only of these, however, that will be here treated of, and more particularly those employed in the arts and manufactures.

Acetic or pyroligneous acid.—This acid, in its pure and concentrated form, is obtained from the fluid matter which passes over in distillation, when wood is exposed to heat in close iron cylinders. This fluid is a mixture of acetic acid, tar, and a very volatile ether; from these the acid may be separated, after a second distillation, by saturating with chalk, and evaporating to dryness; an acetate of lime is thus procured, which, by mixture with sulphate of soda (Glauber's salt), is decomposed, the resulting compounds being an insoluble sulphate of lime, and a very soluble acetate of soda; these are easily separated from each other by solution in water and filtration; the acetate of soda being obtained in the crystalline form by evaporation. From this, or the acetate of lime, some manufacturers employing the former, others the latter, the acetic acid is obtained by distillation with sulphuric acid (oil of vitriol); as thus procured, it is a colourless, volatile fluid, having a very pungent and refreshing odour, and a strong acid taste. Its strength should be ascertained by the quantity of marble required for its neutralisation, as its specific gravity does not give a correct indication. It is employed in the preparation of the acetate of lead (sugar of lead), in many of the pharmaceutical compounds, and also as an antiseptic.

Vinegar is an impure and very dilute acetic acid, obtained by exposing either weak wines or infusions of malt to the air and a slow fermentation; it contains, besides the pure acid, a large quantity of colouring matter, some mucilage, and a little spirit; from these it is readily separated by distillation. The impurities with which this distilled vinegar is sometimes adulterated, or with which it is accidentally contaminated, are oil of vitriol, added to increase the acidity, and oxides of tin or copper, arising from the vinegar having been distilled through tin or copper worms. These may be easily detected: the oil of vitriol by the addition of a little solution of muriate of barytes to the distilled vinegar, which, should the acid be present, will cause a dense white precipitate; and the oxides of tin or copper by the addition of water impregnated with sulphureted hydrogen. Vinegar is employed in many culinary and domestic operations, and also very largely in the manufacture of the carbonate of lead (white lead).

Benzoic acid—exists naturally, formed in the gum benzoin, and may be procured either by submitting the benzoin in fine powder to repeated sublimations, or by digesting it with lime and water, straining off the clear solution, and adding muriatic acid, which enters into combination with the lime, and the benzoic acid, being nearly insoluble in water, falls as a white powder; this may be further purified by a sublimation. Benzoic acid is of a beautiful pearly white colour when pure, has a very peculiar aromatic odour, and an acrid, acid, and bitter taste; it is used in making pastilles and perfumed incense. This acid also occurs in the balsams of Tolu and Peru, and in the urine of the horse and cow.

Boracic acid—is found in an uncombined state in many of the hot springs of Tuscany, as also at Sesso in the Florentine territory, from whence it has received the name of Sessolin. In Thibet, Persia, and South America, it occurs in combination with soda, and is imported from the former place into this country in a crystalline form, under the name of Tincal. These crystals are coated with a rancid, fatty substance, and require to be purified by repeated solutions and crystallisations; after which it is sold under the appellation of borax (*bi*-borate of soda); from a hot solution of this salt the boracic acid is readily obtained, by the addition of sulphuric acid in slight excess; sulphate of soda is formed, and the boracic acid crystallises as the solution cools. When pure, these crystals are white, and have an unctuous greasy feel; they are soluble in alcohol, communicating a green tinge to its flame; when fused it forms a transparent glass, and has been found by Mr. Faraday to unite with the oxide of lead, producing a very uniform glass, free from all defects, and well adapted for the purpose of telescopes and other astronomical instruments. Borax is much employed in the arts, particularly in metallurgic operations as a flux; also in enamelling, and in pharmacy. (See BORAX.)

Carbonic acid.—This acid occurs very abundantly in nature, combined with lime, magnesia, barytes, aerial acid, fixed air, mephitic acid; from any of these it is easily separated by the addition of nearly any of the other acids. In its uncombined form it is a transparent, gaseous fluid, having a density of 1·53, atmospheric air being unity; it is absorbed to a considerable extent by water, and when the water is rendered slightly alkaline by the addition of carbonate of soda, and a large quantity of gas forced into it by pressure, it forms the well-known refreshing beverage soda water. This gas is also formed in very large quantities during combustion, respiration, and fermentation. Carbonic acid gas is destructive of animal life and combustion, and from its great weight accumulates in the bottoms of deep wells, cellars, caves, &c., which have been closed for a long period, and numerous fatal accidents arise frequently to persons entering such places incautiously; the precaution should always be taken of introducing a lighted candle prior to the descent or entrance of any one; for should the candle be extinguished, it would be dangerous to enter until properly ventilated. The combinations of carbonic acid with the alkalies, earths, and metallic oxides are termed carbonates.

Citric acid—exists in a free state in the juice of the lemon, lime, and other fruits, combined, however with mucilage, and sometimes a little sugar, which renders it, if required to be preserved for a long period, very liable to ferment; on this account the crystallised citric acid is to be preferred. It is pre-

pared by saturating the lemon juice with chalk: the citric acid combines with the lime, forming an insoluble compound, while the carbonic acid is liberated; the insoluble citrate, after being well washed, is to be acted upon by dilute sulphuric acid, which forms sulphate of lime, and the citric acid enters into solution in the water; by filtration and evaporation the citric acid is obtained in colourless transparent crystals. The chief uses to which it is applied are as a preventive of sea scurvy, and in making refreshing acidulous or effervescing drinks; for which latter purposes it is peculiarly fitted from its very pleasant flavour.

Fluoric acid—is found in the well-known mineral fluor spar in combination with lime; from which it is procured in the liquid form by distillation with dilute sulphuric acid in a leaden or silver retort; the receiver should be of the same material as the retort, and kept cool by ice or snow.

This acid is gaseous in its pure form, highly corrosive, and intensely acid; it is rapidly absorbed by water, communicating its properties to that fluid. Its chief use is for etching on glass, which it corrodes with great rapidity. For this purpose a thin coating of wax is to be melted on the surface of the glass, and the sketch drawn by a fine hard-pointed instrument through the wax; the liquid acid is then poured on it, and after a short time, on the removal of the acid and coating, an etching will be found in the substance of the glass. A very excellent application of this property, possessed by fluoric acid, is in the roughing the shades for table lamps. All the metals, except silver, lead, and platina, are acted upon by this acid.

Gallic acid.—The source from which this acid is generally obtained is the nut gall, a hard protuberance produced on the oak by the puncture of insects. The most simple method of procuring the acid in its pure form is to submit the galls in fine powder to sublimation in a retort, taking care that the heat be applied slowly and with caution; the other processes require a very long period for their completion. When pure, gallic acid has a white and silky appearance, and a highly astringent and slightly acid taste. The nut galls, which owe their properties to the gallic acid they contain, are employed very extensively in the arts, for dyeing and staining silks, cloths, and woods of a black colour; this is owing to its forming with the oxide of iron an intense black precipitate. Writing ink is made on the same principle: a very excellent receipt of the late Dr. Black's is, to take 3 oz. of the best Aleppo galls in fine powder, 1 oz. sulphate of iron (green vitriol), 1 oz. logwood finely rasped, 1 oz. gum arabic, one pint of the best vinegar, one pint of soft water, and 8 or 10 cloves; in this case the black precipitate is kept suspended by the gum.

Hydriodic acid,—a compound of iodine and hydrogen,—in its separate form is of very little importance in the arts; its combinations with potass, soda, and other of the metallic oxides, will be treated of hereafter.

Malic acid—exists in the juices of many fruits, particularly the apple, as also in the berries of the service and mountain ash.

Meconic acid—is found in opium, in combination with morphia, forming the meconate of morphia, on which the action of opium principally depends.

Muriatic acid, or spirits of salts.—This acid (the hydrochloric of the French chemists) is manufactured from the chloride of sodium (dry sea salt), by the action of sulphuric acid (oil of vitriol). The most economical proportions are 20 pounds of fused salt, and 20 pounds of oil of vitriol previously mixed with an equal weight of water; these are placed in an iron or earthen pot, to which an earthen head and receiver are adapted, and submitted to distillation; the muriatic acid passes over in the vaporous form, and may be easily condensed. The liquid acid thus obtained should have a specific gravity of 1·17, water being equal to 100; it has a strong acid taste, and a slight yellow colour; this is owing to a small quantity of oxide of iron. By redistillation in a glass retort at a low temperature, it may be obtained perfectly pure and colourless. It sometimes contains a little sulphuric acid; this is detected by a solution of muriate of barytes. Muriatic acid, in its uncombined state, is an invisible elastic gas, having a very strong affinity for water; that fluid absorbing, at a temperature of 40° Fahrenheit, 480 times its volume, and the resulting liquid acid has a density of 121. So great is this attraction for water, that when the gas is liberated into the air, it combines with the moisture always present in that medium, forming dense white vapours. Its combinations with the alkalies, &c., are termed muriates; those of the greatest importance are the muriates of tin, ammonia, barytes, and sea salt. The test for the presence of muriatic acid in any liquid is the nitrate of silver (lunar caustic), which causes a curdy white precipitate.

Nitric acid, or aquafortis.—This, which is one of the most useful acids with which the chemist is acquainted, is prepared by acting upon saltpetre (nitric or nitrate of potass) with oil of vitriol: the proportions best suited for this purpose are three parts by weight of nitre and two of oil of vitriol; or 100 nitre, and 60 oil of vitriol previously diluted with 20 of water; either of these proportions will produce a very excellent acid. When submitted to distillation, which should be conducted in earthen or glass vessels, the nitric acid passes over in the form of vapour, and a bisulphate of potass (sal mixum) remains in the retort.

Nitric acid of commerce has usually a dark orange-red colour, giving off copious fumes, and having a specific gravity of 150, water being 100. It is strongly acid and highly corrosive. It may be obtained perfectly colourless by a second distillation, rejecting the first portion that passes over. It is much employed in the arts, for etching on copper-plates for engraving; also, for the separation of silver from gold, in the process of quartation. In pharmacy and surgery it is extensively used, and is employed for destroying contagious effluvia. Combined with muriatic acid, it forms aqua regia (nitro-muriatic acid), used as a solvent for gold, platina, &c. This acid is frequently contaminated with the muriatic and sulphuric acids; these may be detected by the following methods.—A portion of the suspected acid should be diluted with three or four times its volume of distilled water, and divided into two glasses; to one of which nitrate of silver (lunar caustic in solution) is to be added, and to the other nitrate of barytes: if muriatic acid be present, a white curdy precipitate will be thrown down by the former; and if sulphuric, a white granular precipitate by the latter.

Oxalic acid—occurs in combination with potass as binoxalate of potass in the different varieties of sorrel, from whence the binoxalate of potass has been termed salt of sorrel. This acid is usually prepared by the action of nitric acid upon sugar, evaporating the solution, after the action has ceased, to the consistence of a syrup, and redissolving and recrystallising the crystals which are thus procured.

It is sold in small white acicular crystals, of a strongly acid taste and highly poisonous, and sometimes in its external appearance bears a strong similarity to Epsom salts (sulphate of magnesia), which it has been unfortunately frequently mistaken for. It is instantly distinguished from Epsom salts by placing a small crystal upon the tongue; when its strong acid taste, compared with the nauseous bitter of the sulphate of magnesia, will be quite a sufficient criterion. In cases of poisoning, however, by this acid, lime or chalk, mixed with water to form a cream, should be immediately administered, the combinations of oxalic acid with these substances being perfectly inert. It is employed in removing ink-stains, iron moulds, &c. from linen and leather; the best proportions for these purposes are 1 oz. of the acid to a pint of water. The most delicate test of the presence of oxalic acid is a salt of lime or lime-water, with either of which it forms a white precipitate, insoluble in water, but soluble in acids. Its combinations are termed oxalates.

Phosphoric acid—is of very little importance in a commercial point of view, except as forming with lime the earth of bones (phosphate of lime). It is prepared by heating bones to whiteness in a furnace; from this phosphoric acid is obtained by the action of sulphuric acid, still combined, however, with a small quantity of lime. The action of nitric acid upon phosphorus, the latter being added gradually and in small pieces, yields this acid in a state of purity; its combinations are termed phosphates.

Prussic acid, or hydrocyanic acid.—This acid, which is the most virulent and poisonous acid known, is contained in peach blossoms, bay leaves, and many other vegetable productions, which owe their peculiar

odour to the presence of prussic acid. For the purposes of medicine and chemistry, this acid is prepared either by distilling one part of the cyanuret of mercury, one part of muriatic acid of specific gravity 1·15, and six parts of water, six parts of prussic acid being collected; or, by dissolving a certain weight of cyanuret of mercury, and passing a current of sulphureted hydrogen through the solution, until the whole of the mercury shall be precipitated; if an excess of sulphureted hydrogen should be present, a little carbonate of lead (white lead) will remove it; on filtering, a colourless prussic acid will be obtained. By the first process, which is the one followed at Apothecaries' Hall, the acid has a density 995, water being equal to 1000; by the latter, it may be procured of any required strength, depending on the quantity of cyanuret of mercury dissolved. The best test for the presence of this acid is, first to add a small quantity of the protosulphate of iron (solution of green vitriol), then a little solution of potassa, and lastly diluted sulphuric acid; if prussic acid be present, prussian blue will be formed. Its combinations are called prussiates or hydrocyanates; when in its concentrated form, it is so rapid in its effects that large animals have been killed in the short space of 80 seconds, or from a minute to a minute and a half.

Sulphurous acid—is formed whenever sulphur is burnt in atmospheric air: it is a suffocating and pungent gas, strongly acid, bleaches vegetable colours with great rapidity, and arrests the process of vinous fermentation. For these purposes it is therefore very much employed, especially in bleaching woollen goods and straws. Fermentation may be immediately arrested by burning a small quantity of sulphur in casks, and then racking off the wine while still fermenting into them; this frequently gives the wine a very unpleasant taste of sulphur, which is avoided by the use of sulphate of potass, made by impregnating a solution of potass with sulphurous acid gas.

Sulphuric acid, or oil of vitriol—called oil of vitriol from its having been formerly manufactured from green vitriol (sulphate of iron). In some parts of the Continent this process is still followed. The method generally adopted in this country is to introduce nine parts of sulphur, intimately mixed with one part of nitre, in a state of active combustion, into large leaden chambers, the bottoms of which are covered with a stratum of water. Sulphurous and nitrous acid gases are generated, which entering into combination form a white crystalline solid, which falls to the bottom of the chamber; the instant that the water comes in contact with it, this solid is decomposed with a hissing noise and effervescence, sulphuric acid combines with the water, and nitrous gas is liberated, which combining with oxygen from the air of the chamber is converted into nitrous acid gas, again combines with sulphurous acid gas, and again falls to the bottom of the chamber: this process continues as long as the combustion of the sulphur is kept up, or as long as atmospheric air remains in the chamber; the nitrous acid merely serving as a means for the transference of oxygen from the atmosphere to the sulphurous acid to convert it into sulphuric acid. The water is removed from the chamber when of a certain strength, and replaced by fresh. These acid waters are then evaporated in leaden boilers, and finally concentrated in glass or platina vessels. As thus manufactured, sulphuric acid is a dense oily fluid, colourless, intensely acid, and highly corrosive, and has a specific gravity of 1,846, water being equal to 1,000. This acid is the most important with which we are acquainted; it is employed in the manufacture of the nitric, muriatic, acetic, phosphoric, citric, tartaric, and many other acids; also in the preparation of chlorine, for the manufacture of the bleaching powder (oxymuriate of lime or chloride of lime), for the preparation of sulphate of mercury, in the manufacture of calomel and corrosive sublimate, and in innumerable other chemical manufactures. In the practice of *physic it is also* very much employed. It usually contains a little oxide of lead, which is readily detected by diluting the acid with about four times its volume of water, and allowing the sulphate of lead to subside. Its combinations are denominated sulphates. The fuming sulphuric acid, as manufactured at Nordhausen, contains only one half the quantity of water in its composition.

Tartaric acid.—This acid is procured from the cream of tartar (*bitartrate of potass*), obtained by purifying the crust which separates during the fermentation of wines by solution and crystallisation. When this purified bitartrate is dissolved, and lime or carbonate of lime added, an insoluble tartrate of lime falls, which after washing should be acted upon by sulphuric acid; sulphate of lime is thus formed, and the tartaric acid enters into solution, and may be obtained by evaporation and crystallisation. It is employed very much in the arts, in calico-printing, as also in making effervescing draughts and powders in pharmacy.

Uric acid—is an animal acid of very little importance, except in a scientific point of view: it exists in the excrement of serpents, to the amount of 95 per cent., and forms the basis of many of the urinary calculi and gravel.

N.B. *This article, and that on alkalies, has been furnished by an able practical chemist.*

ACORNS (Ger. *Eicheln, Eckern*; Fr. *Glands*; It. *Ghiande*; Sp. *Bellotas*; Rus. *Schedudii*; Lat. *Glandes*), the seed or fruit of the oak. Acorns formed a part of the food of man in early ages, and frequent allusion is made in the classics to this circumstance (*Virgil, Georg.* lib. i. lin. 8.; *Ovid, Met.* lib. i. lin. 106, &c.). In some countries they are still used, in periods of scarcity, as a substitute for bread. With us they are now rarely used except for fattening hogs and poultry. They are said to make, when toasted, with the addition of a little fresh butter, one of the best substitutes for coffee. Their taste is astringent and bitter.

ACRE, a measure of land. The Imperial or standard English acre contains 4 roods, each rood 40 poles or perches, each pole 272¼ square feet; and consequently each acre = 43,560 square feet. Previously to the introduction of the new system of weights and measures by the act 5 Geo. 4. cap 74., the acres in use in different parts of England varied considerably from each other and from the standard acre; but these customary measures are now abolished. The Scotch acre contains four roods, each rood 40 falls, and each fall 36 ells; the ell being equal to 37·06 Imperial inches. Hence the Imperial is to the Scotch acre nearly as 1 to 1¼, one Scotch acre being equal to 1·261 Imperial acres. The Irish acre is equal to 1 acre, 2 roods, and 19$\frac{21}{121}$ poles; 30¼ Irish being equal to 49 Imperial acres. (See WEIGHTS and MEASURES.)

ADJUSTMENT, in commercial navigation, the settlement of a loss incurred by the insured.

In the case of a total loss, if the policy be an *open* one, the insurer is obliged to pay the goods according to their *prime cost*; that is, the invoice price, and all duties and expenses incurred till they are put on board, including the premium of insurance. Whether they might have arrived at a good or a bad market, is held by the law of England to be immaterial. The insurer is supposed to have insured a constant and not a variable sum; and in the event of a loss occurring, the insured is merely to be put into the same situation in which he stood before the transaction began. If the policy be a *valued* one the practice is to adopt the valuation fixed in it in case of a total loss, unless the insurers can show that the insured had a colourable interest only, or that the goods were greatly over-valued. In the case of all partial losses, the value of the goods must be proved.

"The nature of the contract between the insured and insurer is," says Mr. Justice Park, "that the goods shall come safe to the port of delivery; or, if they do not, that the insurer will indemnify the owner to the amount of the value of the goods stated in the policy. Wherever then the property insured is lessened in value by damage received at sea, justice is done by putting the merchant in the same condition (relation being had to the prime cost or value in the policy) in which he would have been had the goods arrived free from damage; that is, by paying him such proportion of the prime cost or value in the policy as corresponds with the proportion of the diminution in value occasioned by the damage. The question then is, how is the proportion of the damage to be ascertained? It certainly cannot be by any measure taken from the prime cost; but it may be done in this way:—Where any thing, as a hogshead of sugar, happens to be spoiled, if you can fix whether it be a third, a fourth, or a fifth worse, then the damage is ascertained to a mathematical certainty. How is this to be found out? Not by any price at the port of shipment, but it must be at the port of *delivery*, when the voyage is completed and the whole damage known. Whether the price at the latter be high or low, it is the same thing; for in either case it equally shows whether the damaged goods are a third, a fourth, or a fifth worse than if they had come sound; consequently, whether the injury sustained be a third, fourth, or fifth of the value of the thing. And as the insurer pays the whole prime cost if the thing be wholly lost, so if it be only a third, fourth, or fifth worse, he pays a third, fourth, or fifth, not of the value for which it is sold, *but of the value stated in the policy*. And when no valuation is stated in the policy, the invoice of the cost, with the addition of all charge, and the premium of insurance, shall be the foundation upon which the loss shall be computed."

Thus, suppose a policy to be effected on goods, the prime cost of which, all expenses included, amounts to 1,000*l*.; and suppose further, that these goods would, had they safely reached the port of delivery, have brought 1,200*l*., but that, owing to damage they have met with in the voyage, they only fetch 800*l*.; in this case it is plain, inasmuch as goods that would otherwise have been worth 1,200*l*. are only worth 800*l*., that they have been deteriorated *one third*; and hence it follows, conformably to what has been stated above, that the insurer must pay one third of their *prime cost* (1,000*l*.), or 333*l*. 6*s*. 8*d*. to the insured.

In estimating the value of goods at the port of delivery, the *gross* not the *nett* proceeds of the sales are to be taken as the standard.

A ship is valued at the sum she is worth at the time she sails on the voyage insured, including the expenses of repairs, the value of her furniture, provisions, and stores, the money advanced to the sailors, and, in general, every expense of the outfit, to which is added the premium of insurance.

When an adjustment is made, it is usual for the insurer to indorse upon the policy "adjusted this loss at (so much) per cent.," payable in a given time, generally a month, and to sign it with the initials of his name. This is considered as a note of hand, and as such is *primâ facie* evidence of the debt not to be shaken, but by proving that fraud was used in obtaining it, or that there was some misconception of the law or the fact upon which it was made. See, for a further discussion of this subject, the article MARINE INSURANCE, *Park on the Law of Insurance* (cap. 6.), and *Marshall* (book i. cap. 14.)

ADMEASUREMENT. See TONNAGE.

ADVANCE, implies money paid before goods are delivered, or upon consignment. It is usual with merchants to advance from a half to two thirds of the value of goods consigned to them, on being required, on their receiving invoice, bill of lading, orders to insure them from sea risk, &c.

ADVERTISEMENT, in its general sense, is any information as to any fact or circumstance that has occurred, or is expected to occur; but, in a commercial sense, it is understood to relate only to intimations with respect to the sale of articles, the formation and dissolution of partnerships, bankruptcies, meetings of creditors, &c.

Previously to 1833 a duty of 3*s*. 6*d*. was charged upon all advertisements, long or short, inserted in the Gazette, or in any newspaper, or literary work published in parts or numbers. This duty added about 100 per cent. to the cost of ordinary advertisements, and having been in consequence much objected to, it was reduced in the above-mentioned year to 1*s*. 6*d*. We ventured, at the time, to predict that this reduction would not be productive of any very serious injury to the revenue, and the result did not disappoint our expectations. In 1832, the last year of the high duty, the advertisement duty amounted to 170,650*l*., whereas in 1852 it amounted to 181,196*l*.; and though a large portion of this increase must be ascribed to the increase of population and of the demand for advertisements in the interval, still there is no room or ground for supposing that it would have been nearly so great but for the reduction of the duty. But notwithstanding its diminution, the tax was a serious obstruction to the diffusion of information useful to all classes, and especially indispensable to commercial men. And it was, at the same time, unfair and unjust. What could be more partial and oppressive than to impose the same duty on the notice of the publication of a sixpenny pamphlet, or of a servant out of place, as on the intimation of the sale of a valuable estate? And as it was quite impossible to obviate this injustice while the duty was maintained, its repeal, in 1853, was at once a wise and a popular measure. It is too early yet to estimate its influence, but there can be no doubt that it will lead to a great extension of advertising.

ADVICE, is usually given by one merchant or banker to another *by letter*, informing him of the bills or drafts drawn on him, with all particulars of date, or sight, the sum, to whom made payable, &c. Where bills appear for acceptance or payment, they are frequently refused to be honoured for *want of advice*. It is also necessary to give advice, as it prevents forgeries: if a merchant accept or pay a bill for the honour of any other person, he is bound to advise him thereof, and this should always be done under *an act of honour* by a notary public.

AGATE (popularly CORNELIAN), Ger. *Achat*; Du. *Achaat*; Fr. *Agate*; It. *Agata*; Rus. *Agat*; Lat, *Achates*.) A genus of semi-pellucid gems, so called from the Greek *αχατες*, because originally found on the banks of the river of that name in Italy. It is never wholly opaque like jasper, nor transparent as quartz-crystal; it takes a very high polish, and its opaque parts usually present the appearance of dots, eyes, veins, zones, or bands. Its colours are yellowish, reddish, bluish, milk-white, honey-orange, or ochre-yellow, flesh-blood, or brick-red, reddish brown, violet blue, and brownish green. It is found in irregular rounded nodules, from the size of a pin's head to more than a foot in diameter. The lapidaries distinguish agates according to the colour of their ground; the finer semi-transparent kinds being termed oriental. The most beautiful agates found in Great Britain are commonly known by the name of *Scotch pebbles*, and

are met with in different parts of Scotland, principally on the mountain of Cairngorm; whence they are sometimes termed Cairngorms. The German agates are the largest. Some very fine ones have been brought from Siberia and Ceylon. They are found in great plenty at the eastern extremity of the settlement of the Cape of Good Hope; and are still met with in Italy. But the principal mines of agate are situated in the little principality of Rajpepla, in the province of Gujrat, fourteen miles distant from the city of Broach, where they are cut into beads, crosses, snuff boxes, &c. They are exported in considerable quantities to other parts of India, and to this country; and hence, perhaps, the jewellers' term "broach."

AGENT. See FACTOR.

AGIO, a term used to express the difference, in point of value, between metallic and paper money; or between one sort of metallic money and another.

ALABASTER (Ger. *Alabaster*; It. *Alabastro*; Fr. *Albâtre*; Rus. *Alabastr*; Lat. *Alabastrites*). A kind of stone resembling marble, but softer. Under this name are confounded two minerals, the *gypseous* and *calcareous* alabasters; they are wholly distinct from each other when pure, but in some of the varieties are occasionally mixed together. The former, when of a white or yellowish or greenish colour, semi-transparent, and capable of receiving a polish, is employed by statuaries. It is very easily worked, but is not susceptible of a polish equal to marble. Calcareous alabaster is heavier than the former; it is not so hard as marble, but is notwithstanding susceptible of a good polish, and is more used in statuary. The statuaries distinguish alabaster into two sorts, the common and oriental. Spain and Italy yield the best alabaster. That produced at Montania, in the papal states, is in the highest esteem for its beautiful whiteness. Inferior sorts are found in France and Germany. Alabaster is wrought into tables, vases, statues, chimney-pieces, &c.

ALCOHOL (ARDENT SPIRIT), (Fr. *Esprit de Vin*; Ger. *Weingeist*; It. *Spirito ardente, Spirito di Vino, Acquarzente*), the name given to the *pure spirit* obtainable by distillation, and subsequent rectification, from all liquors that have undergone the vinous fermentation, and from none but such as are susceptible of it. It is light, transparent, colourless; of a sharp, penetrating, agreeable smell; and a warm stimulating taste. It is quite the same, whether obtained from brandy, wine, whisky, or any other fluid which has been fermented. The specific gravity of alcohol when perfectly pure is from ·792 to ·800, that of water being 1,000; but the strongest spirit afforded by mere distillation is about ·820; alcohol of the shops is about ·835 or ·840. Alcohol cannot be frozen by any known degree of cold. It boils at 174°. It is the only dissolvent of many resinous substances; and is extensively used in medicine and the arts. — (*Drs. A. T. Thomson, Ure*, &c.)

ALDER, the *Betula alnus* of botanists, a forest tree abundant in England and most parts of Europe. It thrives best in marshy grounds and on the banks of rivers. It rarely attains to a very great size; its wood is extremely durable in water or in wet ground; and hence it is much used for piles, planking, pumps, pipes, sluices, and generally for all purposes where it is kept constantly wet. It soon rots when exposed to the weather or to damp; and when dry, it is much subject to worms. The colour of the wood is reddish yellow, of different shades, and nearly uniform. Texture very uniform, with larger septa of the same colour as the wood. It is soft, and works easily. — (*Tredgold's Principles of Carpentry.*)

ALE and BEER, well known and extensively used fermented liquors, the principle of which is extracted from several sorts of grain, but most commonly from barley, after it has undergone the process termed malting.

1. *Historical Notice of Ale and Beer.* — The manufacture of ale or beer is of very high antiquity. Herodotus tells us, that owing to the want of wine the Egyptians drank a liquor fermented from barley (lib. ii. cap. 77.) The use of it was also very anciently introduced into Greece and Italy, though it does not appear to have ever been very extensively used in these countries. Mead, or metheglin, was probably the earliest intoxicating liquor known in the North of Europe. Ale or beer was, however, in common use in Germany in the time of Tacitus (*Morib. Germ.* cap. 23.). "All the nations," says Pliny, "who inhabit the West of Europe have a liqueur with which they intoxicate themselves, made of corn and water (*fruge madida*). The manner of making the liquor is somewhat different in Gaul, Spain, and other countries, and it is called by many various names; but its nature and properties are every where the same. The people of Spain, in particular, brew this liqueur so well that it will keep good for a long time. So exquisite is the ingenuity of mankind in gratifying their vicious appetites, that they have thus invented a method to make water itself intoxicate." — (*Hist. Nat.* lib. xiv. cap. 22.) The Saxons and Danes were passionately fond of beer; and the drinking of it was supposed to form one of the principal enjoyments of the heroes

admitted to the hall of Odin. — (*Mallet's Northern Antiquities*, cap. 6, &c.) The manufacture of ale was early introduced into England. It is mentioned in the laws of Ina, King of Wessex; and is particularly specified among the liquors provided for a royal banquet in the reign of Edward the Confessor. It was customary in the reigns of the Norman princes to regulate the price of ale; and it was enacted, by a statute passed in 1272, that a brewer should be allowed to sell two gallons of ale for a penny in cities, and three or four gallons for the same price in the country.

The use of hops in the manufacture of ale and beer seems to have been a German invention. They were used in the breweries of the Netherlands, in the beginning of the fourteenth century; but they do not seem to have been introduced into England till 200 years afterwards, or till the beginning of the sixteenth century. In 1530, Henry VIII. enjoined brewers not to put hops into their ale. It would, however, appear that but little attention was paid to this order; for in 1552 hop plantations had begun to be formed. — (*Beckmann's Hist. Invent.* vol. iv. pp. 336—341. Eng. ed.) The addition of hops render ale more palatable, by giving it an agreeable bitter taste, while, at the same time, it fits it for being kept much longer without injury. Generally speaking, the English brewers employ a much larger quantity of hops than the Scotch.

2. *Distinction between Ale and Beer, or Porter.* — This distinction has been well elucidated by Dr. Thomas Thomson, in his article on Brewing, in the Encyclopædia Britannica: —"Both ale and beer are in Great Britain obtained by fermentation from the malt of barley; but they differ from each other in several particulars. Ale is light-coloured, brisk, and sweetish, or at least free from bitter; while beer is dark-coloured, bitter, and much less brisk. What is called *porter* in England is a species of beer; and the term 'porter' at present signifies what was formerly called *strong beer*. The original difference between ale and beer was owing to the malt from which they were prepared. Ale malt was dried at a very low heat, and consequently was of a pale colour; while beer or porter malt was dried at a higher temperature, and had of consequence acquired a brown colour. This incipient charring had developed a peculiar and agreeable bitter taste, which was communicated to the beer along with the dark colour. This bitter taste rendered beer more agreeable to the palate, and less injurious to the constitution than ale. It was consequently manufactured in greater quantities, and soon became the common drink of the lower ranks in England. When malt became high-priced, in consequence of the heavy taxes laid upon it, and the great increase in the price of barley which took place during the war of the French revolution, the brewers discovered that a greater quantity of wort of a given strength could be prepared from pale malt than from brown malt. The consequence was that pale malt was substituted for brown malt in the brewing of porter and beer. We do not mean that the whole malt employed was pale, but a considerable proportion of it. The wort, of course, was much paler than before; and it wanted that agreeable bitter flavour which characterised porter, and made it so much relished by most palates. The porter brewers endeavoured to remedy these defects by several artificial additions. At the same time various substitutes were tried to supply the place of the agreeable bitter communicated to porter by the use of brown malt. Quassia, cocculus indicus, and we believe even opium, were employed in succession; but none of them was found to answer the purpose sufficiently. Whether the use of these substances be still persevered in we do not know; but we rather believe that they are not, at least by the London porter brewers."

3. *Adulteration of Ale and Beer — substitution of Raw Grain for Malt.* — The use of the articles other than malt, referred to by Dr. Thomson, has been expressly forbidden, under heavy penalties, by repeated acts of parliament. The act 56 Geo. 3. c. 58. has the following clauses: —

"No brewer or dealer in or retailer of beer shall receive or have in his possession, or make, or use, or mix with, or put into any worts or beer, any liquor, extract, calx, or other material or preparation for the purpose of darkening the colour of worts or beer; or any liquor, extract, calx, or other material or preparation other than brown malt, ground or unground, as commonly used in brewing; or shall receive, or have in his possession, or use, or mix with, or put into any worts or beer, any molasses, honey, liquorice, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, or opium, or any extract or preparation of molasses, honey, liquorice, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, or opium, *or any article or preparation whatsoever for or as a substitute for malt or hops*, upon pain that all such liquor, extract, calx, molasses, honey, vitriol, quassia, cocculus indicus, grains of paradise, Guinea pepper, opium, extract, article, and preparation as aforesaid, and also the said worts and beer, shall be forfeited, together with the casks, vessels, or other packages, and may be seized by any officer of excise; and such brewer of, dealer in, or retailer of beer, so offending, shall for each offence forfeit 200*l*.

"No druggist or vender of or dealer in drugs, or chemist, or other person whatever, shall sell, send, or deliver to any licensed brewer of, or dealer in, or retailer of beer, knowing him to be so licensed, or reputed to be so licensed, or to any other person for, or on account of, or in trust for, or for the use of such brewer, dealer, or retailer, any colouring, from whatever material made, or any other material or preparation other than *unground brown malt*, for the purpose of darkening the colour of worts or beer; or any liquor or preparation heretofore or hereafter made use of for darkening the colour of worts or beer, or any molasses or other articles, as mentioned in the first section, for or as a substitute for malt or hops respectively; and if any druggist, or vender of or dealer in drugs, or any chemist, or other person whatever, shall so do, all such liquor called colouring, and material or preparation for the purpose aforesaid, and liquor and preparation used for darkening the colour of worts or beer, molasses, and article or

preparation to be used as a substitute for malt or hops, shall be forfeited, and may be seized by any officer of excise; and the druggist, vender, dealer, chemist, or other person so offending, shall forfeit 50*l*.

By the act 1 Will. 4. c. 51. for the repeal of the ale and beer duties, it is enacted (§ 17.), "that no brewer shall have in his brewery, or in any part of his entered premises, or in any mill connected with such brewery, any raw or unmalted corn or grain; and all unmalted corn or grain which shall be found in such brewing premises or mill, and all malted corn or grain with which such unmalted corn or grain may have been mixed, shall be forfeited, and may be seized by any officer, together with all vessels or packages in which such raw or unmalted corn or grain shall be contained, or in which such unmalted corn or grain, and the malted corn or grain with which the same may have been mixed, shall be contained; and every brewer shall for every such offence forfeit 200*l*."

4. *Description of Ale and Beer.* — Previously to 1823 there were only two sorts of beer allowed to be brewed in England, viz. *strong beer*, that is, beer of the value of 16*s.* and upwards the barrel, exclusive of the duty; and *small beer*, or beer of the value of less than 16*s.* a barrel, exclusive of the duty. In 1823, however, an act was passed (4 Geo. 4. c. 51.) authorising the brewing, under certain conditions, of an *intermediate* beer. But this sort of beer was either not suited to the public taste, or, which is more probable, the restrictions laid on the brewers deterred them from engaging extensively in its manufacture.

This limitation and classification of the different sorts of ale and beer, according to their strength, originated in the duties laid upon them; and now that these duties have been repealed, ale and beer may be brewed of any variety or degree of strength.

The brewing of ale has long constituted a principal, or rather, perhaps, we might say the principal, manufacturing employment carried on in Edinburgh. The best Edinburgh ale is of a pale colour, mild, glutinous, and adhesive. It is much stronger and more intoxicating than porter, from 4 to 5 bushels of malt being generally used in brewing a barrel of ale, with about 1 lb. of hops to a bushel of malt. At present (1853) the produce of the ale breweries of Edinburgh may be estimated at above 201,000 barrels a year. Very good ale is also made at Preston Pans, Alloa, and other Scotch towns. Considerable quantities of Edinburgh ale are sent to London; though this trade has latterly been decreasing. Very good ale may be produced by brewers on a small scale, but it is doubtful whether this be the case with porter; at all events the best porter is all produced in very large establishments.

Formerly it was not supposed that really good porter could be made any where except in London. Of late years, however, Dublin porter has attained to high and not unmerited reputation; though we certainly are not of the number of those who consider it as nearly approaching to the best London porter.

Large quantities of a light, pale, and highly-hopped variety of ale have been for some considerable time past exported to the East Indies, where it is in high estimation; and it is now, also, very extensively used in summer in this country.

5. *Regulations as to the Manufacture of Ale and Beer.*—Since the abolition of the beer duties, these regulations are very few and simple; and consist only in taking out a licence, entering the premises, and abstaining from the use of any article, other than malt, in the preparation of the beer. A brewer using any place, or mash-tun, for the purpose of brewing, without having made an entry thereof at the nearest excise office, forfeits for every such offence 200*l*.; and all the worts, beer, and materials for making the same, together with the mash-tun, are forfeited, and may be seized by any officer. — Brewers obstructing officers shall, for every such offence, forfeit 100*l*. — (1 *Will.* 4. c. 51. §§ 15, 16.)

6. *Licence Duties. — Number of Brewers.* —The licence duties payable by brewers of ale and beer, and the numbers of such licences granted during the years 1842 and 1852 were as follows:—

Account showing the Number of Licences issued to Brewers in the Years 1842 and 1852, with the Rates of Duty charged thereon (supplied by the Excise).

	Sums charged for Licences.	Number of Licences granted.	
		1842.	1852.
	£ s. d.		
Common brewers of strong beer, not exceeding 20 barrels	0 10 6	8,123	8,631
Exceeding 20 and not exceeding 50 barrels	1 1 0	8,853	8,368
— 50 — 100 —	1 11 6	9,712	9,478
— 100 — 1000 —	2 2 0	15,407	17,105
— 1000 — 2000 —	3 3 0	694	740
— 2000 — 5000 —	7 17 6	581	552
— 5000 — 7500 —	11 16 3	141	166
— 7500 — 10,000 —	15 15 0	81	89
— 10,000 — 20,000 —	31 10 0	82	112
— 20,000 — 30,000 —	47 5 0	24	27
— 30,000 — 40,000 —	63 0 0	6	9
Exceeding — 40,000 —	78 15 0	22	28
Brewers of table beer only, not exceeding 20 barrels	0 10 6	126	210
Exceeding 20 and not exceeding 50 barrels	1 1 1	17	41
— 50 — 100 —	1 11 6	7	8
Exceeding — — 100 —	2 2 0	12	15
Retail brewers of strong beer	5 10 3	38	83
Total number of Licences		43,906	45,665

N. B. — The barrel contains 36 gallons, or 4 firkins of 9 gallons each, Imperial measure. It is enacted (1 Will. 4. c. 51. §7.), that brewers shall pay their licence duty according to the malt used by them in brewing, and that every brewer shall be deemed to have brewed *one* barrel of beer for every *two* bushels of malt used by such brewer.

Account of the Number of Brewers, Licensed Victuallers, Persons licensed for the Sale of Beer to be drunk on and off the Premises, &c., with the Quantities of Malt used by such Brewers, &c. in England, Scotland, and Ireland, during the Year 1857-58.

	Number of				Number who brew their own Beer.			Bushels of Malt consumed by each Class.			
			Persons licensed to sell Beer.			Persons licensed to sell Beer.				Persons licensed to sell Beer.	
	Brewers.	Victuallers.	To be drunk on the Premises.	Not to be drunk on the Premises.	Victuallers.	To be drunk on the Premises.	Not to be drunk on the Premises.	Brewers.	Victuallers.	To be drunk on the Premises.	Not to be drunk on the Premises.
England	2,213	63,608	39,892	2,830	24,901	11,594	811	23,021,836	7,013,116	2,754,337	338,440
Scotland	109	11,937	- -	- -	121	- -	-	1,150,660	191,447		
Ireland	102	17,119	- -	- -	- -	- -	- -	1,918,257			
United Kingdom	2,424	92,658	39,892	2,830	25,022	11,594	811	26,090,753	7,204,563	2,754,337	338,440

It is enacted (1 Will. 4. c. 51.), that every person who shall sell any beer or ale in less quantities than four and a half gallons, or two dozen reputed quart bottles, to be drunk elsewhere than on the premises where sold, shall be deemed a dealer in beer.

7. *Progressive Consumption of Ale and Beer.* — Malt liquor early became to the labouring classes of England what the inferior sorts of wine are to the people of France, at once a necessary of life and a luxury; the taste for it was universally diffused. There are, however, no means by which an estimate can be formed of the quantity actually consumed previously to the reign of Charles II. But duties, amounting to 2*s.* 6*d.* a barrel on strong, and to 6*d.* a barrel on small ale or beer, were imposed, for the first time, in 1660. These duties being farmed until 1684, the amount of the revenue only is known; and as there are no means of ascertaining the proportion which the strong bore to the small beer, the quantities that paid duty cannot be specified. But, since the collection of the duty was entrusted to officers employed by government, accurate accounts have been kept of the quantities of each sort of beer on which duty was paid, as well as of the rate of duty and its amount. Now it appears that, at an average of the ten years from 1684 to 1693 inclusive, the amount of ale annually charged with duty was as follows: —

Strong ale - - 4,567,293 barrels.
Small do. - - 2,376,278 do.

Soon after the Revolution several temporary duties were imposed on ale and beer; but in 1694 they were consolidated, the established duties being then fixed at 4*s.* 9*d.* a barrel on the strong, and at 1*s.* 3*d.* on the small beer, instead of 2*s.* 6*d.* and 6*d.*, which had been the rates previously to 1690. This increase of duty had an immediate effect on the consumption, the quantity brewed during the ten years from 1694 to 1703 being as follows: —

Strong ale - - 3,374,604 barrels.
Small do. - - 2,180,764 do.

The whole of this decrease must not, however, be ascribed to the increase of the beer duties only, the duty on malt and hops having been, at the same time, considerably increased, operated partly, no doubt, to produce the effect.

During the five years ending with 1750 the ale brewed amounted, at an average, to 3,803,580 barrels of strong, and 2,162,540 barrels of small.—(*Hamilton's Principles of Taxation*, p. 255.)

The ale brewed in private families for their own use has always been exempted from any duty; and it may, perhaps, be supposed that the falling off in the consumption, as evinced by the statements now given, was apparent only, and that the decline in the public brewery would be balanced by a proportional extension of the private brewery. But, though there can be no doubt that the quantity of beer brewed in private families was increased in consequence of the peculiar taxes laid on the beer brewed for sale, it is abundantly certain that it was not increased in any thing like the ratio in which the other was diminished. This is established beyond all dispute, by the fact of the consumption of malt having continued *very nearly stationary*, notwithstanding the vast increase of population and wealth, from the beginning of the last century down to 1750, and, indeed, to 1830.—(See MALT.) Had the fact as to malt been different, or had the demand for it increased proportionally to the increase of population, it would have shown that the effect of the malt and beer duties had not been to lessen the consumption of beer, but merely to cause it to be brewed in private houses instead of public breweries; but the long continued stationary demand for malt completely negatives this supposition, and shows that the falling off in the beer manufactured by the public brewers had not been made up by any equivalent increase in the supply manufactured at home.

It appears from the following tables, that the quantity of strong beer manufactured by the public brewers had increased about a third between 1787 and 1830; but the quantity of malt consumed in 1787 was quite as great as in 1828, a fact which shows conclusively, either that the *quality* of the beer brewed in the public breweries had been deteriorated since 1787, or that less, comparatively, was then brewed in private families, or, which is most probable, that both effects had been produced.

I. An Account of the Quantity of the different Sorts of Beer made in England and Wales, in each Year from 1787 to 1825, both inclusive, the Rate of Duty, and the total Produce of the Duties (English Ale Gallons).

Years ended 5th July.	Strong Beer. Barrels.	Strong Beer. Rate of Duty.	Table Beer. Barrels.	Table Beer. Rate of Duty.	Small Beer. Barrels.	Small Beer. Rate of Duty.	Total Amount of Duty.
1787	4,426,482	8s. 0d.	485,620	3s. 0d.	1,342,301	1s. 4d.	L.1,932,922 10s. 8d.
1788	4,504,895	—	524,176	—	1,334,947	—	1,889,580 17 4
1789	4,437,831	—	514,900	—	1,244,046	—	1,935,303 16 0
1790	4,525,950	—	546,250	—	1,282,157	—	1,977,796 2 8
1791	4,754,588	—	579,742	—	1,347,086	—	2,078,602 4 8
1792	5,082,293	—	625,260	—	1,401,870	—	2,220,164 4 0
1793	5,167,850	—	620,207	—	1,414,255	—	2,254,455 14 4
1794	5,011,320	—	586,554	—	1,446,939	—	2,188,973 14 0
1795	5,037,804	—	576,464	—	1,453,036	—	2,198,460 5 4
1796	5,304,453	—	565,630	—	1,479,130	—	2,385,234 7 4
1797	5,339,627	—	534,422	—	1,518,518	—	2,424,748 4 8
1798	5,784,467	—	622,064	—	1,547,670	—	2,710,267 14 8
1799	5,774,511	—	611,151	—	1,597,139	—	2,507,872 19 8
1800	4,824,506	—	574,995	—	1,360,502	—	2,106,671 15 8
1801	4,735,574	—	500,025	—	1,191,930	—	2,048,695 7 0
1802	5,345,884	9s. 5d.	392,022	—	976,787	—	2,321,198 0 4
1803	5,589,516	—	1,660,828	—		—	2,782,263 13 4
1804	5,965,623	10s. 0d.	1,779,570	—		—	2,810,768 10 0
1805	5,412,131	—	1,776,807	—		—	2,883,746 4 0
1806	5,443,502	—	1,771,754	—		—	2,898,926 8 0
1807	5,577,176	—	1,752,710	—		—	2,961,859 0 0
1808	5,571,360	—	1,710,243	—		—	2,956,704 6 0
1809	5,513,111	—	1,682,899	—		—	2,924,845 8 0
1810	5,555,519	—	1,655,588	—		—	3,040,213 6 0
1811	5,902,903	—	1,649,564	—		—	3,116,407 18 0
1812	5,860,869	—	1,593,395	—		—	3,089,774 0 0
1813	5,382,946	—	1,455,759	—		—	2,837,048 18 0
1814	5,624,015	—	1,432,729	—		—	2,955,280 8 0
1815	6,150,544	—	1,518,302	—		—	3,227,102 4 0
1816	5,982,379	—	1,514,867	—		—	3,142,676 4 0
1817	5,236,048	—	1,453,960	—		—	2,765,420 0 0
1818	5,364,009	—	1,434,642	—		—	2,825,468 14 0
1819	5,629,240	—	1,460,244	—		—	2,960,644 8 0
1820	5,296,701	—	1,444,290	—		—	2,792,779 10 0
1821	5,575,830	—	1,439,970	—		—	2,931,912 0 0
1822	5,712,937	—	1,492,281	—		—	3,005,696 12 0
1823	6,177,271	—	1,419,589	—		—	3,230,594 8 0
1824	6,185,271	—	1,401,281	—		—	3,234,237 12 0
					Intermediate Beer.		
1825	6,500,664	—	1,485,750	—	9,559	—	3,401,296 15 0

II. An Account of the Quantity of all the different Sorts of Beer, stated in Barrels, made in each Year, from 5th of January 1826 to 5th of January 1830, the Rates of Duty per Barrel in each Year, and Total Amount thereof in each Year in England and Scotland.—(*Parl. Paper*, No. 190. Sess. 1830.)

Years ended 5th January	ENGLAND. Number of Barrels, Imperial Measure.* Strong.	Rate per Barrel.	Table.	Rate per Barrel.	Intermediate.	Rate per Barrel.	Total Amount of Duty.
		s. d.		s. d.		s. d.	L. s. d.
1826	7,008,143	9 10	1,606,899	1 11½	6,160	4 11	3,492,779 10 4
1827	4,177,225	9 0	1,040,726	1 9½	7,707	—	3,265,441 14 6
	2,512,767	9 10	562,927	1 11½			
1828	3,895,226	9 0	989,327	1 9½	17,158	—	3,128,047 9 0
	2,900,015	9 10	542,481	1 11½			
1829	3,941,519	9 0	977,962	1 9½	62,617	—	3,217,812 2 11
	2,617,691	9 10	552,457	1 11½			
1830	3,569,364	9 0	879,879	1 9½	55,498	—	2,917,328 8 4
	2,379,930	9 10	500,590	1 11½			
	SCOTLAND.						
		s. d.		s. d.		s. d.	L. s. d.
1826	135,903	9 10	264,035	1 11½	- -	—	91,731 2 2
1827	116,594	9 0	219,722	1 9½	- -	—	79,931 4 7
	5,545	9 10	51,613	1 11½			
1828	102,769	9 0	187,873	1 9½	- -	—	72,855 4 4
	9,250	9 10	53,420	1 11½			
1829	101,475	9 0	173,550	1 9½	- -	—	76,885 9 11
	17,248	9 10	68,913	1 11½			
1830	94,387	9 0	161,488	1 9½	- -	—	71,733 17 5
	16,566	9 10	67,896	1 11½			

N. B.—The duty on beer being repealed in 1830, there are no later accounts of the quantity brewed.

The stationary consumption of malt and beer during the greater part of last century is, most probably, in great part ascribable to the introduction and rapid diffusion of a taste for tea and coffee, and to the consequent change that was effected in the mode of living of the middle and upper classes. No doubt, however, the oppressive duties with which malt and beer were loaded in the latter part of last century and down to 1830 narrowed their consumption in an extraordinary degree. After various previous additions the duty on malt was raised in 1804 to 4*s.* 5½*d.* per bushel, or 35*s.* 10*d.* a quarter, the beer duties being then also raised to 10*s.* per barrel (old measure); and as a quarter of malt produced about three or three and a half barrels of beer, it follows that the duty on malt used in breweries really amounted at that period to from 65*s.* 10*d.* to 70*s.* 10*d.* a quarter, making the duty on strong beer, exclusive of that on hops, about 20*s.* a barrel. The duty on malt continued at this exorbitant rate till 1816; and to show its influence it is only necessary to state that during the 12 years ending with 1816 the consumption of malt amounted to no more than 23,197,754 bushels a year, being, notwithstanding the vast increase of wealth and population in the interval, less than it had been a century previously, the consumption having amounted to 24,191,304

* The ale gallon contains 282 cubic inches, and the Imperial gallon 277¼; the latter being 1·60th part less than the former.

bushels a year during the 12 years ending with 1720!—(See art. MALT.) The duties had, in fact, been completely overdone; and besides hindering the consumption of malt and malt liquors, they had the mischievous effect of vitiating the public taste and stimulating the consumption of ardent spirits, especially of those made from raw grain. In 1816, however, the duty on malt was reduced to 2*s.* 5*d.* a bushel, and since 1823 it has amounted to 2*s.* 7*d.* a bushel, or 20*s.* 8*d.* a quarter; and the beer duty having been abolished in 1830, this has been the only duty with which malt liquor has since been effected. And though we are unable from the want of subsequent returns, to state how much the consumption of beer has increased since 1830, the increase in the consumption of malt shows that it must be very considerable. We subjoin

An Account of the Quantities of Malt brewed by the Fourteen principal London Porter and Ale Brewers, during the 7 Years ending with 1852.

	1846.	1847.	1848.	1849.	1850.	1851.	1852.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
Truman, Hanbury, and Co. -	112,450	101,442	103,212	105,022	106,462	118,366	112,194
Barclay, Perkins, and Co. -	127,535	113,341	103,494	115,542	113,420	126,932	124,416
Meux and Co.* - - -	57,050	61,487	60,276	59,617	60,502	65,117	66,296
Reid and Co.* - - -	67,590	62,700	54,520	56,610	56,380	59,550	60,100
Whitbread and Co. - -	55,048	43,618†	51,621	51,800	51,400	52,213	53,236
Combe and Co. - - -	51,126	42,857	41,128	43,282	45,008	48,692	47,304
Hoare and Co. - - -	32,482	—	—	—	—	31,831	33,769
Elliot, Watney, and Co. - -	33,881	30,850	31,450	29,558	30,660	32,728	36,222
Calvert and Co. - - -	32,724	31,110	28,285	28,630	33,874	35,190	32,310
Mann, Crossman, and Co. -	19,413	19,715	21,295	24,030	25,265	28,690	30,881
Charrington, Head, and Co. -	23,306	21,391	21,144	22,023	22,022	25,350	26,366
Taylor, Walker, and Co. -	17,905	18,064	17,055	15,870	15,925	16,250	17,660
Goding and Co. - - -	19,391	17,515	15,615	13,064	15,143	16,821	16,959
Courage and Co. - - -	13,259	13,460	13,996	14,469	14,950	15,753	16,014

Those marked thus * brew porter only. † 627,188 lb. sugar.

The duties on beer were even more indefensible from the mode in which they were charged than from their amount. They affected only that description of beer which was *brewed for sale;* and as all the higher classes brewed their own beer, the duty fell only on the lower and middle ranks of the community, and particularly the former. It is singular that a tax so grossly unequal and oppressive should have been so long submitted to.

But besides the obstacles to the consumption of beer arising from the oppressive duties with which it was burdened, the system formerly in force for granting licences for its sale opposed obstacles that were hardly less formidable. Previously to 1830 no one could open a house for the sale of beer without first obtaining a licence renewable annually from the magistrates; and as these functionaries were accustomed only to grant licences to the occupiers of *particular houses,* the brewers naturally endeavoured, in order to ensure the sale of their beer, either to buy up those houses or to lend money upon them: and in many extensive districts a few large capitalists succeeded in engrossing most of the public houses, so that even the appearance of competition was destroyed, and a ready market and good prices secured for the very worst beer. We, therefore, look upon the abolition of the beer duties, and the granting of leave to all persons to retail beer on their taking out proper licences, as highly advantageous measures. The conditions under which such licences are taken out, and the sale of beer conducted, are fixed by the acts 1 Will. 4. c. 64. and the 4 & 5 Will. 4. c. 85. Under the former the commissioners of excise, or other persons duly authorised, were bound to grant licences, costing 2*l.* 2*s.* a year, to all persons not excepted in the act, empowering them to sell ale, beer, porter, cider, &c. to be drunk *indifferently either on or off the premises.* But in consequence of the complaints (whether well or ill founded it is now needless to inquire) of the increase and bad character of beer shops, the act 4 & 5 Will. 4. c. 85. makes the obtaining of a licence to retail beer to be drunk on the premises contingent on the applicant being able to produce a certificate of good character, subscribed by certain persons rated at a certain amount to the poor; it also raised the cost of such licence to 3*l.* 3*s.*, and reduced the cost of a licence to sell beer not to be drunk on the premises to 1*l.* 1*s.* These licences are now (1853) 66*s.* 1¾*d.* and 22*s.* ½*d.* We subjoin an abstract of the acts —

Persons applying for a Licence to sell Beer to be drunk on the Premises, to deposit a Certificate of good Character, &c.—Every person applying for a licence to sell beer or cider by retail, to be drunk in the house or on the premises, shall annually produce to and deposit with the commissioners of excise, collector, or other person authorised to grant such licence within the parish or place in which the person applying intends to sell beer or cider by retail, a certificate signed by 6 persons residing in and being and describing themselves to be inhabitants of such parish, place, &c., and respectively rated therein to the poor at not less than 6*l.*, or occupying a house therein rated to the poor at not less than 6*l.*, none of whom shall be maltsters, common brewers, or persons licensed to sell spirituous liquors or beer or cider by retail, nor owners or proprietors of any houses licensed to sell liquors, beer, or cider by retail, stating that the person applying for the licence is of good character; and at the foot of such certificate one of the overseers of the parish, township, or place shall certify (if the fact be so) that such 6 persons are inhabitants respectively rated as aforesaid; and such certificate shall respectively be in the form of the schedule annexed to this act: provided always, that in any parish, township, or district maintaining its own poor, in which there are not 10 inhabitants rated to their relief to the amount of 6*l.* each, or not occupying houses respectively rated to the poor at 6*l.* each (not being maltsters, common brewers, or persons licensed to sell spirituous liquors or beer or cider by retail), the certificate of the majority of the inhabitants of such parish, township, or district maintaining its own poor, as are rated to the amount of 6*l.* each, shall be deemed to be a sufficient certificate for the purposes of this act.—4 & 5 Will. 4. § 2.

Penalty on Overseers.—Any overseer who shall, without due cause, refuse to certify that the persons who have signed the certificate are respectively rated to the poor's rate as aforesaid, to forfeit not more than 5*l.*—§ 3.

Beer drunk in Sheds.—Any person licensed under the act 4 Will. 4. c. 64. to sell beer, cider, &c. not to be consumed on the premises, who shall employ, permit, or suffer any person or persons to take or carry any beer, &c. from his house or premises, to be drunk or consumed for his benefit or profit, in any other house, tent, shed, &c. belonging to, or hired, used, or occupied by such licensed person, such beer, &c. shall be held to have been consumed on the premises, and the person selling the same shall be subject to the like forfeitures and penalties as if it had been actually drunk or consumed in a house or upon premises licensed only for the sale thereof.—§ 4.

Billetting.—Provisions for billetting soldiers under mutiny acts to extend only to those licensed to sell beer or cider to be drunk in the house or on the premises, and not to extend to those licensed to sell beer not to be consumed on the premises.—§ 5.

Justices to regulate the Opening and Closing of Houses.—Justices in petty sessions are authorised to fix the hours at which houses and premises licensed to sell beer under this act shall be opened and closed; but any person thinking himself aggrieved by any such order may appeal at any time, within 4 months from its date, to the justices in quarter sessions, on giving the jus-

tices making the order 14 days' notice of his intention; and the decision of the justices in quarter sessions shall be final: provided, however, that the hour to be fixed for opening any house shall not in any case be earlier than 5 o'clock in the morning, nor for closing the same later than 11 o'clock at night, or before 1 o'clock in the afternoon on Sunday, Good Friday, Christmas Day, or any day appointed for a public fast or thanksgiving; and the hours so fixed by the justices, with reference to the districts within their jurisdictions, shall be taken to be the hours to be observed and complied with under this act as fully as if the same had been specially appointed by it. — § 6.

Constables, &c. to visit licensed Houses. — All constables and officers of police are authorised to enter into all houses licensed to sell beer or spirituous liquors to be consumed upon the premises whenever they shall think proper: and if any person licensed as aforesaid, or any servant or person in his employ or by his direction, shall refuse to admit such constables, &c. into such house or premises, the person having the licence shall for the first offence forfeit and pay any sum not exceeding 5*l.*, together with the costs of conviction, to be recovered within 20 days before 1 or more justices; and it shall be lawful for any 2 or more justices, upon any person being convicted of such offence for the second time, to adjudge (if they think fit) that such offender be disqualified from selling beer, ale, porter, cider, or perry, by retail, for 2 years after such conviction, or for such shorter space as they may think proper. — § 7.

Penalty for making or using false Certificates. — Persons certifying any matter having reference to this act as true, who know the same to be false; or using any certificate, knowing the same to be forged, shall, on conviction of such offence before 2 or more justices, forfeit and pay the sum of 20*l.*; and every licence granted to any person making use of any certificate to obtain the same, such person knowing such certificate to be forged, or the matters certified therein to be false, shall be void to all intents and purposes; and any person using such certificate shall be disqualified for ever from obtaining a licence to sell beer or cider by retail. — § 8.

No Licence to be granted without a Certificate. — No licence for the sale of beer or cider by retail to be consumed or drunk in the house or on the premises shall be granted, except upon the certificate hereby required: provided, that in all extra-parochial places the certificate required by this act may be signed and given by inhabitants rated to the poor at 6*l.* in any adjoining parish or parishes. — § 9.

Retailers to produce their Licences on Requisition of 2 Magistrates. — In case any complaint be laid before 2 justices against any licensed person for an offence against the tenor of his licence, or against this act or the act 1 Will. 4. c. 64., the said justices may require such person to produce his licence before them for their examination; and if he wilfully neglect or refuse so to do, he shall forfeit for such offence any sum, not exceeding 5*l.*, the said justices shall think proper; and such person may be convicted, proceeded against, and dealt with for such offence in the same manner, *mutatis mutandis*, as is directed by the act 1 Will. 4. c. 64. with regard to persons guilty of a first offence against said act; and the penalty imposed for such offence is to be applied in the manner that a penalty for a first offence against said act is directed to be applied. — § 10.

Continuance of Powers, &c. — The powers, provisions, and penalties of 1 Will. 4. c. 64. to apply to persons licensed under this act, and to their sureties, &c. — § 11.

Duties on Beer Licences. — There shall be paid upon the licences hereby authorised to be granted the duties following; viz.

For and upon every licence to be taken out by any person for the sale of beer by retail, not to be drunk or consumed in or upon the house or premises where sold, the annual sum of 1*l.* 1*s.*	For and upon every licence to be taken out by any person for the sale of beer by retail, to be drunk or consumed in or upon the house or premises where sold, the annual sum of 3*l.* 3*s.* — § 13.

The duties to be under the management of commissioners of excise, and to be recovered and accounted for under the provisions of the *act* 1 Will. 4. c. 64. — § 14.

Not to affect Duty on Licences to retail Cider and Perry. — Nothing in this act shall affect the amount of duty payable under the 1 Will. 4. c. 64. on licences to retail cider and perry; but every such licence shall specify whether it be granted for the sale of cider and perry by retail not to be drunk in the house or premises where sold, or for the retail of the same to be drunk in the house or premises where sold: — § 15.

Licence under this Act not to authorise Persons to sell Wine. — No licence granted under the act 1 Will. 4. c. 64. and this act shall authorise any person to take out or hold any licence for the sale of wine, spirits, or sweets or made wines, or mead or metheglin; and if any person licensed under the act 1 Will. 4. c. 64. and this act shall permit or suffer any wine, spirits, &c. to be brought into his house or premises to be drunk or consumed there, or shall suffer them to be drunk or consumed in his house or premises, he shall, over and above any excise penalties to which he may be subject, forfeit 20*l.* — § 16.

Penalty on unlicensed Persons. — Such persons selling beer and cider by retail to be drunk off the premises, 10*l.*; to be drunk on the premises, 20*l.* — § 17.

Board over the Door. — Every person licensed to sell beer, cider, or perry, by retail, under the authority of the act 1 Will. 4. c. 64. and this act, shall, on the board required by the former act to be placed over his door, paint and keep thereon, after the words "licensed to sell beer or cider by retail," the additional words, "not to be drunk on the premises," or "to be drunk on the premises," as the case may be, on pain of forfeiting the penalty imposed by such act for not having such board over the door — § 18.

What is retailing of Beer, &c. — Every sale of beer, or of cider or perry, in any less quantity than 4½ gallons, shall be deemed and taken to be a sale by retail. — § 19.

Penalties for selling Spirits or Wine without a Licence. — Persons licensed to sell beer or cider under the *act* 1 Will. 4. c. 64. and this act, who sell spirits or wine, sweets, &c. without being licensed, are liable to the penalties imposed by the laws of excise for selling spirits or wine, sweets, &c. without licence. — § 20.

Certificate not to be required for Houses in certain Situations, if Population exceed 5,000. — The before-mentioned certificate shall not be required as to any house situated within the cities of London and Westminster, or within any parish or place within the bills of mortality, nor within any city or town corporate, nor within the distance of 1 mile from the place used at the last election as the place of election or polling place of any town returning a member to parliament, provided that the population, determined according to the last parliamentary census taken in such city, town, &c. shall exceed 5,000: provided, that no licence for the sale of beer, ale, porter, cider, or perry by retail on the premises in the cities of London and Westminster, or in any parish within the bills of mortality, or in any such city or town corporate, or town returning a member to parliament as before mentioned, shall be granted after the 5th day of April, 1836, unless the house or premises specified as those in which beer or cider is intended to be sold shall be of the value of 10*l.* per annum. — § 21.

Form of Certificate referred to in § 2.

We, the undersigned, being inhabitants of the parish [*or* township, *as the case may be*] of and respectively rated to the poor at not less than 6*l.* per annum, and none of us being maltsters, common brewers, or persons licensed to sell spirituous liquors, or being licensed to sell beer or cider by retail, do hereby certify, That *A. B.*, dwelling in street, [*here specify the street, lane,* &c.] in the said parish [*or* township, &c.] is a person of good character.

[*Here insert the day of signing the certificate.*]

(Signed) *E. F.*, *G. H.*, *I. K.*, *L. M.*, *N. O.*, *P. Q.* [*Here state the residence of each of the persons signing.*]

I do hereby certify, That all the above-mentioned persons whose names are subscribed to this certificate are inhabitants of the parish [*or* township, &c.] of rated to 6*l.* to the relief of the poor of the said parish.

C. D.
[Overseer of the parish *or* township, &c.]
Date

In addition to the above the following clauses of the act 1 Will. 4. c. 64. are still in force: —

Persons trading in partnership, and in one house, shall not be obliged to take out more than one licence in any one year, provided also, that no one licence shall authorise any person to sell beer, in any other than the house mentioned in such licence. — § 10.

In cases of riot or expected riot or tumult, every person licensed under this act, and keeping any house situate within their jurisdictions, shall close his house at any time which the justice or justices shall direct; and every such person who shall keep open his house at or after any hour at which such justices shall have so ordered or directed such house to be closed, shall be deemed to have not maintained good order and rule therein, and to be guilty of an offence against the tenor of his licence. — § 11.

Every person licensed to sell beer by retail, shall sell (except in quantities less than a half pint) by the gallon, quart, pint, or half pint measure, sized according to the standard; and in default thereof, he shall for every such offence forfeit the illegal measure, and pay not exceeding 40*s.*, together with the costs of the conviction, to be recovered within thirty days next after that on which such offence was committed, before two justices; such penalty to be over and above all penalties to which the offender may be liable under any other act. — § 12.

Every seller of beer by retail, having a licence under this act, who shall permit any person to be guilty of drunkenness, or disorderly conduct, in the house mentioned in such licence, shall forfeit the sums following; for the first offence, not less than 40*s.* nor more than 5*l.*, as the justices, before whom such retailer shall be convicted, shall adjudge; and for the second offence, any sum not less than 5*l.* nor more than 10*l.*; and for the third offence, any sum not less than 20*l.* nor more than 50*l.*; and it shall be lawful for the justices, before whom any such conviction for such third offence shall take place, to adjudge, if they shall think fit, that such offender shall be disqualified from selling beer by retail for the space of two years next ensuing such conviction, and also that no beer shall be sold by retail, by any person in the house mentioned in the licence of such offender; and if any person so licensed shall, knowingly, sell any beer, ale, or porter, made otherwise than from malt and hops, or shall mix, or cause to be mixed, any drugs or other pernicious ingredient, with any beer sold in his house, or shall fraudulently dilute, or

In any way adulterate, any such beer, such offender shall for the first offence forfeit not less than 10*l.* nor more than 20*l.*, and for the second such offence such offender shall be adjudged to be disqualified from selling beer, ale, or porter, by retail, for the term of two years, or to forfeit not less than 20*l.* nor more than 50*l.*, and shall be subject to a like penalty at every house where he shall commit such offence; and if any person shall during any term in which it shall not be lawful for beer to be sold by retail on the premises of any offender, sell any beer by retail on such premises, knowing that it was not lawful to be sold, such offender shall forfeit not less than 10*l.* nor more than 20*l.*; every person suffering the conditions of the licence to be infringed to be deemed guilty of disorderly conduct.—§ 13.

Retailers' houses not to be open before four in the morning, nor after ten in the evening: nor between the hours of ten in the forenoon and one in the afternoon, nor at any time between the hours of three and five in the afternoon, on any Sunday, Good Friday, Christmas-day, or any day appointed for a public fast or thanksgiving: and any person offending herein shall forfeit 40*s.* for every offence; every separate sale to be deemed a separate offence.—§ 14.

All penalties under this act, except for selling beer by any person not duly licensed, shall be recovered, upon the information of any person before two justices in petty sessions; and every such penalty shall be prosecuted for within three calendar months next after the offence; and every person licensed under this act, who shall be convicted before two justices, shall, unless proof be adduced to the satisfaction of such justices, that such person had been theretofore convicted before two justices, within the space of twelve calendar months next preceding, be adjudged by such justices to be guilty of a first offence against this act, and to forfeit and pay any penalty by this act imposed for such offence, or if no specific penalty be imposed, then any sum not exceeding 5*l.*, together with the costs of the conviction; and if proof be adduced to the satisfaction of such justices that such person had been previously convicted, within the space of twelve calendar months next preceding, of one such offence only, such person to be adjudged guilty of a second offence against this act, and to forfeit and pay any penalty by this act imposed for such offence, or if no specific penalty be so imposed, then any sum not exceeding 10*l.*, together with the costs of conviction; and if proof shall be adduced that such person had been previously convicted within the space of eighteen calendar months next preceding, of two such separate offences, and if proof be adduced that such person, so charged, is guilty of the offence charged against him, such person shall be adjudged to be guilty of a third offence against this act, and to forfeit and pay any penalty imposed by this act, in respect of such offence, or if no such specific penalty shall be imposed, then to forfeit and pay the sum of 50*l.*, together with the costs of conviction.—§ 15.

The party, convicted of any such third offence, may appeal to the general sessions, or quarter sessions then next ensuing, unless held within twelve days after conviction, and in that case, to the then next subsequent sessions; and, in such case, the party convicted shall enter into a recognizance, with two sureties, personally to appear at the said general or quarter sessions, to abide the judgment of the court; and to pay such costs as shall be by the court awarded; or, in failure of the party convicted entering into such recognizance, such conviction shall remain good and valid; and the said justices who shall take such recognizance, are also required to bind the person who shall make such charges to appear at such general or quarter sessions, then and there to give evidence against the person charged, and, in like manner, to bind any other person who shall have any knowledge of such offence; and it shall be lawful for the said general or quarter sessions to adjudge such person to be guilty of such third offence against this act, and such adjudication shall be final; and it shall be lawful for such general or quarter sessions to punish such offender by fine, not exceeding 100*l.*, together with the costs of such appeal, or to adjudge the licence to be forfeited, or that no beer be sold by retail in the house for the term of two years, and if such licence shall be adjudged to be forfeited, it shall thenceforth be void; and whenever, in such case, the licence of such offender shall be adjudged to be void, such offender shall be deemed incapable of selling beer, ale, or porter, by retail, in any house kept by him, for the space of two years, to be computed from the time of such adjudication; and any licence granted to such person during such term shall be void.—§ 16.

In default of payment of penalties, proceedings may be had against the sureties.—§ 19.

Any person summoned as a witness, who shall neglect or refuse to appear, and not make such reasonable excuse for such neglect, &c. as shall be admitted by such justices of sessions, or who, appearing, shall refuse to be examined, shall, on conviction, forfeit not exceeding 10*l.*—§ 20.

Offenders refusing or neglecting, within seven days after conviction, to pay the penalty imposed, and any costs assessed, such justices may issue their warrant, to levy the amount by distress and sale, together with the costs of distress and sale; and in every such case, such offenders, if in custody, shall be forthwith discharged; but if the goods and chattels are not sufficient, such justices may commit the offender to the common gaol or house of correction for not exceeding one calendar month, if the penalty shall not be above 5*l.*; for not exceeding three calendar months, if the penalty shall be above 5*l.* and not more than 10*l.*; and for not exceeding six calendar months, if the penalty shall be above 10*l.*; provided, that whenever such offender shall pay to the gaoler or keeper, or to whomsoever such justices shall have appointed, the penalty and costs, together with all the costs of apprehension and conveyance to gaol, at any time previous to the expiration of the time for which such offender shall have been committed, such offender shall be forthwith discharged.—§ 21.

No conviction under this act, nor any adjudication made upon appeal therefrom, shall be quashed for want of form, nor removed by *certiorari*.—§ 27.

Every action against any justice, constable, or other person, for any thing done in execution of his duty under this act, to be commenced within three calendar months, and not afterwards; and if any person be sued, he may plead the general issue, and give the special matter in evidence.—§ 28.

This act not to affect the two universities, nor the vintners' company in London; nor to prohibit the sale of beer at fairs, as heretofore.

11. *Scotch Ale and Beer Duties.*—The duties on ale and beer in Scotland have been for a lengthened period the same as in England.

At the union in 1707, the English duties on ale and beer were introduced into Scotland. But, besides strong and small beer, the Scotch had an intermediate species, which they called *two-penny*, and which was their favourite beverage. The duty on this description of beer was fixed, at the union, at 2*s.* 1½*d.* a barrel. For *thirty* years after its imposition, the quantity of two-penny that paid duty was always above 400,000, and sometimes exceeded 500,000 barrels a year. But in 1760 the duty on two-penny was increased to 3*s.* 4½*d.* and the consumption immediately fell off to between 100,000 and 200,000 barrels! The quantity that paid duty in 1800 amounted to 149,803 barrels. The manufacture of this species of beer ceased entirely in 1802.

The exportation of Beer and Ale has increased very rapidly of late years, and has become an important branch of our foreign trade. It was checked for a while by the difficulty of fixing a drawback proportioned to the duty on the malt and sugar employed in the manufacture. Down to 1847 only two rates of drawback were allowed; viz., 5*s.* per barrel if 2 bush. malt had been used to the barrel, and 7*s.* 6*d.* if 3 bush. were used. But since this epoch the mode of ascertaining the drawback has been greatly improved, and no fewer than *seven* different rates, varying by ½ bush. each, are now allowed. The result of these and other changes has been that whereas only 177,999 barrels were exported in 1850, the exports amounted in 1858 to 533,166 barrels, of the declared value of 1,851,796*l.* We subjoin

An Account specifying the Quantities and Values of the Beer and Ale exported in 1856, 1857, and 1858, the Countries to which they were principally exported, and the Quantities and Values sent to each.

Countries.	Quantities.			Value.		
	1856.	1857.	1858.	1856.	1857.	1858.
United States barrels	54,765	25,974	24,406	£140,067	£114,252	£108,024
Brazil "	7,424	13,933	14,897	31,145	59,781	64,557
British West Indies "	19,623	20,594	23,654	64,831	69,923	85,706
East Indies "	99,997	82,858	217,574	285,604	267,733	672,784
Australia "	169,811	198,733	159,794	629,965	747,766	594,013
Other countries "	81,772	95,242	92,841	505,431	332,809	328,712
Totals "	410,392	435,334	533,166	1,455,043	1,592,267	1,851,796

ALEXANDRIA, so called from its illustrious founder, Alexander the Great, the principal seaport of Egypt, on the coast of the Mediterranean, about 14 miles W.S.W. of the Canopic mouth of the Nile; the lighthouse being in lat. 31° 11′ 31″ N., long

29° 51′ 28″ E. The situation of this famous city was admirably chosen. Until the discovery of the route to India by the Cape of Good Hope, Egypt formed the centre of the commerce between the eastern and western worlds; and Alexandria was placed in the most favourable position in Egypt for an emporium, being the only port on its northern coast where there is, at once, deep water, and security for shipping throughout the year. The ports of Rosetta and Damietta, the former on the west, and the latter on the eastern arm of the Nile, are both difficult of entrance, each having a bar, upon which there is always a dangerous surf. Ships bound for Alexandria avoid this serious inconvenience; and by means of an artificial navigation, stretching from the city to the western branch of the Nile, it has almost the same facilities for internal navigation that are enjoyed by the cities referred to.

It may be proper, however, to mention that this artificial communication with the Nile has not always been open. It existed in antiquity, but fell into decay during the barbarism of more modern times. After being shut up for some centuries, it was reopened by Mehemet Ali, who dug the Mahmoudie canal from Alexandria to Atfeh on the Nile, about 27 miles above Rosetta. This important work is 44 miles in length, 90 feet in breadth, and from 15 to 18 feet deep. It was opened in 1819, but owing partly to the nature of the ground, partly to some defects in its construction, and partly to the mud deposited by the water of the Nile, it is difficult to keep in repair; and can only be navigated by boats that draw little water, and are not suitable for the navigation of the Nile. But, with all its defects, the construction of this canal has been of great advantage, not to Alexandria only, but to Egypt and even Europe. Now (1859), however, that a railway has been constructed from Alexandria to Cairo, the canal has become of less importance.

Ports, &c.—The ancient city was situated a little more inland than the modern one, opposite to the small island of Pharos, on which was erected the lighthouse, so celebrated in antiquity.—(*Cæsar, de Bello Civili*, lib. iii. cap. 112.) This island was, partly by artificial means, and partly by natural causes, gradually joined to the land by a mound, and on this the modern town is principally built. The isthmus and island have now the form of a T, its head being N.E. and S.W. A square castle, or tower, built on a small islet or rock, at the extremity of a mole projecting from the north-east angle of the city, is still called the Pharos, and may, perhaps, occupy the site of the ancient lighthouse: a light was exhibited on it down to 1842, when it ceased. On each side of the city there is a port. That on the western, or African side, called the *Old Port*, the *Eunostos* of the ancients, is by far the largest and best. It stretches from the town westwards to Marabout, about 6 miles, and is about 1½ miles in width. It is bounded on the north, partly by the western tongue or angle of the island on which the city is partially built, at the extremity of which is the new lighthouse, and partly by rocks and sand banks. It has three entrances. The first, or that nearest the city, having 17 feet water, is about 1¾ miles S.W. from the lighthouse; but it is too narrow and difficult to be attempted by any one not thoroughly acquainted with the port. The *eastern* side of the second or middle entrance is marked by buoys which lie about 2¼ miles S.W. from the lighthouse; it is about a quarter of a mile wide, and has, where shallowest, 27 feet water. The third or western entrance has its *western* boundary within about three-eighths of a mile from the east end of Marabout island; it is about half a mile wide, and has from 25 to 27 feet water in its shallowest places. This last is the best entrance. Ships, when in, may anchor close to the town in from 22 to 40 feet water, and there is good anchorage in deep water all along the shore. Foreigners were formerly excluded from this port; but this prohibition no longer exists, and it is now principally resorted to by the shipping frequenting the port.

What is called the New (though it be really the oldest) or Asiatic harbour is on the eastern side of the town. A rock called the Diamond lies a little to the east of the Pharos tower; and ships entering the port ought to have this rock about a cable's length on the right. If they get much further to the left they will come in contact with a shoal which stretches westward from the Pharillon, or little tower, on the east side of the port. The water immediately within the port S. W. from the Pharos is from 30 to 40 feet deep; but the space for anchorage is very limited, and is exposed to the northerly gales; and the ground being foul and rocky, hempen cables are very apt to chafe, and several accidents have happened in consequence to ships unprovided with iron cables. Ordinary tides rise 2 feet; but during the overflow of the Nile the rise is 4 feet. Variation 13° west. — (See *Plan of Alexandria*, by Lieut. Falbe.)

Lighthouse. — The new lighthouse, on the most westerly point of the island (an *Pharos*) on which the city is partly built, was erected in 1842. It exhibits a fixed light, elevated 180 feet above the level of the sea, and is visible in clear weather at a distance of nearly 20 miles. This light must, of course, be kept on the left by those entering the great or western harbour, and on the right by those entering the small or eastern harbour. We may mention that a British vessel was totally lost in attempting to enter the W. harbour by night, in December, 1844. The captain trusted to a chart which identified the lighthouse with the old tower at the entrance to the E. harbour. But the light on the latter has, as already stated, ceased to be exhibited since 1842, and all charts should be corrected accordingly.

Ancient and Modern City.—Under the Ptolemies and Romans, Alexandria was the first commercial city in the world. It suffered greatly by its reduction by the Saracens in 640; but it continued to be a place of considerable commercial importance till the despotism of the Mamelukes and Turks, and the discovery of the route to India by the Cape of Good Hope, completed its ruin. Under the Ptolemies, the population is believed to have amounted to about 300,000, and the city was adorned by a vast number of magnificent structures. At present the population varies with the seasons of the year, but, when greatest, it is not supposed to exceed 100,000; and may vary between this amount and 80,000. The appearance of the modern town used to be most unpromising. "It may be justly said, that in the new city of Alexandria we find a poor orphan, whose sole inheritance has been the venerable name of its father. The vast extent of the ancient city is contracted in the new to a little neck of land, between the two ports. The most superb temples are changed into plain mosques; the most magnificent palaces into

houses of a bad structure; the royal seat is become a prison for slaves; an opulent and numerous people have given way to a small number of foreign traders, and to a multitude of wretches, that are the servants of those on whom they depend: a place formerly so famous for the extent of its commerce, is no longer any thing more than a mere place of embarking; in fine, it is not a phœnix that revives from its own ashes; it is, at most, a reptile, sprung from the dirt, the dust, and corruption with which the Alcoran has infected the whole country."—(*Norden's Travels*, Eng. trans. 8vo. ed. p. 37.) But this striking description, though accurate at the time when it was written (1737), is quite inapplicable to the present state of the city. The vigorous government of Mehemet Ali and his successors, by introducing comparative security and good order into Egypt, revived the commerce of Alexandria, which has again become a place of great importance in the trading world. Many new warehouses and other buildings have been constructed; and its appearance much improved.

Trade of Alexandria.—The imports consist of cotton stuffs and yarn, iron and hardware, copper, plate and plated ware, machinery, coal, ammunition, books, &c., principally from England; with woollen and silk manufactures; timber, cordage, indigo and other dyeing materials, sugar, glass, &c. The exports consist principally of raw cotton; wheat, beans, barley and maize; linseed and flaxseed; gum arabic and other gums; wool; senna, and other drugs; ivory and tortoise-shell; nitre; with opium, pearls, dates, soda, ostrich feathers, linen cloth, coffee, and a great variety of minor articles. It may be necessary to bear in mind that the nominal greatly exceed the real exports and imports, on account of the many articles, especially bullion and silk, that pass through Egypt *in transitu*, from the W. to the E. and conversely. The exports of grain and pulse declined for a while in consequence of the superior encouragement given by the government to the raising of cotton; but they have again largely increased, and we imported from Egypt in 1856, 1857, and 1858, no fewer than 534,603, 204,236, and 464,644 qrs. of wheat, besides large quantities of beans, barley, and maize. The exports of flax have declined, though they are still very considerable. On the whole the trade has considerably increased of late years, and may be said to be in a flourishing condition.

Cotton has been grown in Egypt from a very remote period; previously, however, to the ascendancy of Mehemet Ali it was but little cultivated, and that little was of inferior quality, short-stapled, and closely resembling "Surats," under which name the small quantities exported from the country were usually sold. But, in 1820, a Frenchman of the name of Jumel accidentally observed a very valuable variety of long-stapled cotton, raised from seeds brought from Dongola and Senaar, growing in the garden of Mahè Bey at Cairo. Jumel having represented its superiority to the Pacha, its cultivation was undertaken on a large scale on account of the latter; and has succeeded so well, that Mahè or Makko cotton has been for a lengthened period by far the principal article of export from Egypt. At a later period seeds of the Sea-Island cotton were introduced; and for a while it also answered remarkably well; its produce, which in Egypt was called Senaar, and in England "Egyptian Sea-Island," ranking next in the estimation of the manufacturers to genuine "sea-island." Unfortunately, however, this variety was found to degenerate, and its culture, which was never very extensive, as well as that of the old short-stapled variety, has, we believe, been wholly abandoned.

N.B.—The gross weight of a bale of Egyptian cotton at Alexandria averages 230 rottoli or 228·07 lbs.; and allowing 12 rottoli as tare for sacking and cordage, the nett weight of the bale will be about 219 lbs. The cantar of cotton was fixed in 1836 at 100 rottoli. Exclusive of the cotton shipped from Egypt, about 30,000 cantars a year are supposed to have been annually wrought up in the Pacha's cotton factories at an average of the 10 years ending with 1838; but owing to the failure of most of these establishments, the quantity is now much less.—(See the valuable Tract of George R. Gliddon, Esq. on the Cotton of Egypt.)

We doubt, however, whether the encouragement given to the culture of cotton has not been really injurious to Egypt. At all events, we apprehend that the cotton of that country will have great difficulty in finding a profitable vent in the European markets in competition with American cotton, considering the extremely low price at which the latter can be sold. We have alluded to the degeneracy of the Sea-Island cotton in Egypt, and it is alleged that the Mahè is also degenerating. But in the culture of wheat, beans, barley, and rice, Egypt has nothing to fear from any rivalry. In this department of industry she is, if not superior to every other country, inferior to none. In 1858 we imported 341,560 cwts. of cotton from Egypt; our imports being usually about 2-5rds of the entire exports.

We subjoin an account which shows the principal articles, and their estimated values, exported from Alexandria in 1858.

Account of the Quantities and Values of the Principal Articles exported from Alexandria in 1858.

Articles.		Quantity.	Value.	Articles.		Quantity.	Value.
			Piastres.				*Piastres.*
Cotton -	cant.	579,537	109,104,770	Natron - -	cant.	65,448	7,068,384
Coffee -	—	12,731	4,584,240	Barley - -	ard.	118,296	3,785,472
Elephant tusks -	—	3,101	7,182,200	Salted hides -	no.	99,216	1,916,397
Beans -	ard.	373,239	22,394,300	Rice - -	ard.	45,554	12,071,810
Gums - -	cant.	129,661	11,669,760	Cotton seed -	—	101,886	2,750,922
Wheat - -	ard.	1,170,448	64,374,640	Sesamum seed -	—	1,194	208,950
Maize - -	—	110,148	4,626,216	Linseed - -	—	25,350	2,535,000
Wool - -	cant.	22,811	4,105,980	Other articles -	—	- - -	38,126,709
Flax - -	—	27,159	2,659,622				
Lentils - -	ard.	23,043	1,382,580	Total - -			301,844,582
Mother-o'-pearl -	cant.	6,935	998,630				

Trade of the U. Kingdom with Egypt in 1857.

An Account of the Quantities and Computed Values of the Principal Articles imported into the U. Kingdom from Egypt in 1854, 1855, 1856, and 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Coffee - - - lbs.	21,199	11,576	90,049	447,370	624	341	2,112	14,008
Corn—Wheat - - qrs.	302,905	457,241	534,603	201,256	656,294	1,093,102	1,156,033	405,598
Barley - - - „	26,318	12,890	17,889	70,157	35,284	16,542	25,945	90,550
Beans - - - „	182,419	220,218	244,433	131,064	371,579	423,977	397,285	235,305
Maize - - - „	77,293	76,569	9,159	15,876	154,586	149,375	12,823	26,088
Cotton, raw - - - cwts.	208,510	291,274	307,134	219,038	608,151	866,540	952,116	971,744
Flax, dressed - - „	16,606	10,462	5,720	839	42,515	25,501	15,085	1,791
„ undressed - - „	35,509	8,193	7,621	6,099	60,365	13,313	11,055	7,463
Gum Arabic - - „	18,998	28,027	56,005	41,825	36,096	45,895	102,209	89,924
Hair, or wool, goats', manufactures of - - value	-	-	-	-	155,574	202,719	231,981	206,598
Jewels—Precious stones (except diamonds), unset - „	-	-	-	-	16,724	11,280	16,015	27,343
Musk - - - ounces	10,472	5,890	12,636	3,583	12,043	7,657	15,900	10,730
Opium - - - lbs.	15,027	6,712	2,958	3,014	6,011	2,517	1,035	992
Pearls - - - value	-	-	-	-	19,332	9,660	33,576	36,545
Seed—Lentils - - bushels	150	38,200	99,081	13,284	45	9,550	24,293	2,657
„ Linseed and flaxseed - qrs.	21,608	12,955	30,161	35,498	66,175	40,805	82,197	103,429
„ Unenumerated, for expressing oil therefrom „	-	5,840	17,663	18,398	-	18,396	52,696	54,271
Senna - - - lbs.	62,107	54,462	53,507	10,313	518	905	892	172
Silk, raw * - - - „	1,539,746	772,698	2,514,556	4,485,811	904,601	492,595	2,367,685	5,271,617
Silks of India—Corahs, Bandannoes, and other silk handkerchiefs - - pieces	17,491	66,608	12,290	17,775	10,895	43,489	8,614	9,119
Crape shawls, scarfs, &c. - lbs.	8,829	15,984	17,715	8,120	19,959	34,818	36,885	29,302
China damask - - - yards	11,540	9,082	12,828	1,488	2,597	1,665	2,779	355
Pongees - - - pieces	186	147	1,670	2,159	380	210	2,722	4,911
Pongee handkerchiefs - „	1,146	2,168	6,857	7,663	665	1,747	6,175	6,945
Teeth, elephants' - - cwts.	1,457	1,558	828	1,724	36,643	41,287	29,552	75,960
Tortoiseshell, or turtle shell, unmanufactured - lbs.	8,072	1,818	12,616	6,184	9,686	1,909	13,247	6,181
Wool, sheep and lambs' - „	1,617,865	1,495,499	1,581,198	1,739,445	53,929	55,502	67,530	74,211
Total value of the above, and of all other articles - -	-	-	-	-	3,355,939	3,674,682	5,753,918	7,855,876

Account of the Quantities and Declared Values of the Principal Articles of British and Irish Produce exported from the U. Kingdom to Egypt in 1854, 1855, 1856, and 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apothecary wares, &c. - cwts.	402	317	-	-	5,275	5,982	8,650	10,399
Apparel, slops, and haberdashery - - value	-	-	-	-	69,223	91,664	119,259	129,849
Arms and Ammunition:								
Guns - - - No.	104	-	4,287	1,037	891	-	10,143	13,764
Pistols - - - —	5,267	70	899	4,796	11,995	260	2,709	28,124
Books, printed - - cwts.	2,205	2,148	2,005	2,467	30,684	35,017	34,401	41,910
Carriages of all sorts - No.	8	38	32	58	18,965	15,156	30,383	41,911
Coals, cinders, and culm - ton	57,309	42,151	86,276	115,091	29,114	21,526	44,886	59,380
Copper, wrought and unwrought - - cwts.	2,745	6,622	23,844	25,163	18,626	46,893	153,144	166,788
Cottons, entered by the yard - yards	55,308,398	64,008,657	50,757,855	56,002,292	627,285	775,151	618,608	689,988
„ at value - value	-	-	-	-	19,655	15,027	11,923	9,353
Cotton yarn - - - lbs.	1,290,981	1,414,290	1,147,018	1,719,466	41,507	53,487	36,860	61,298
Earthenware and porcelain - value	-	-	-	-	7,111	8,315	9,193	21,014
Hardwares and cutlery - cwts.	1,554	2,497	3,114	4,110	16,225	18,165	25,323	32,057
Iron, wrought and unwrought, including unwrought steel - tons	12,306	5,111	21,896	16,392	123,545	46,733	181,369	159,907
Linens, entered by the yard - yards	36,597	212,807	183,189	197,415	2,177	5,929	7,468	7,540
Machinery, steam engines - value	-	-	-	-	460	48,419	30,275	36,561
„ all other sorts - —	-	-	-	-	24,984	25,636	19,768	70,752
Mathematical instruments - —	-	-	-	-	9,752	13,514	14,470	14,325
Plate, plated ware, jewellery, and watches - —	-	-	-	-	96,910	103,548	62,407	119,458
Provisions (not otherwise described) - - —	-	-	-	-	8,541	6,769	6,956	15,762
Silk manufactures - - —	-	-	-	-	11,257	14,036	16,196	30,385
Stationery - - - —	-	-	-	-	11,976	17,391	21,983	25,924
Woollens, entered by the piece - pieces	2,650	3,987	4,704	5,420	7,668	8,628	11,675	14,414
„ „ yard - yards	139,157	210,187	149,177	165,929	8,940	8,917	10,317	11,775
„ „ at value value	-	-	-	-	947	2,311	3,12	1,765
All other articles - - —	-	-	-	-	40,619	71,374	122,158	122,664
Total value of the above and of all other articles - -	-	-	-	-	1,253,353	1,451,371	1,587,682	1,899,289

Constantinople and the islands of the Archipelago are great markets for the wheat and other grain exported from Egypt. The supplies are, however, extremely uncertain. Every thing in Egypt depends on the Nile; and when it does not rise to the usual height, the crops are very much below an average. Beans are extensively cultivated, and have sometimes been brought to England, but rarely, if ever, with advantage to the importers. They are inferior to English beans, and are peculiarly subject to the worm. No oats are raised in Egypt, the horses being entirely fed upon barley. Silk is grown to some extent. The date-palm thrives in every part of Egypt, and the fruit is largely exported. It is singular, that notwithstanding the luxuriance of many of its vegetable productions, Egypt should be entirely destitute of timber.

Money.—Here, as at Constantinople, the current money consists in part of new gold and silver coins of 100, 50, 20, 10, and 5 piastres; and in part also of a great variety of European coins. Accounts are kept in piastres of 40 paras or medinis. Considerable sums are reckoned by the *kis* or purse of 500 piastres. The exchange with England is generally about 100 piastres to 1*l.*

Weights and Measures.—The yard, or *pik*, = 26·8 English inches; hence 100 piks = 74·438 English yards. The measures for corn are the *rhebeby*, and the *quillat* or *kislos*; the former = 4·364 English bushels, the latter = 1·729 ditto. The *cantaro* or *quintal* = 100 *rottoli*, but the rottolo has different names and weights: 1 *rottolo forforo* = ·9347 lb. avoirdupois; 1 *rottolo*

* For the most part in transit from India, &c.

uiddno = 1·335 lb. ditto; 1 *rottolo tauro or zaro* = 2·07 lbs. ditto; 1 *rottolo mina* = 1·67 lb. ditto.—(*Manuel Universel de Nelkenbrecher.*)

Duties.—With the exception of the arbitrary principles on which the government sometimes fixes the prices of commodities, there is nothing objectionable in their policy as to commerce. The duties on imports are only 3 per cent. We believe, however, that a small increase of the customs duty would compensate the government for the abolition of other oppressive charges, and there can be little doubt that the country would be materially benefited by the change.

Pilotage.—The pilotage paid by ships of war, for being brought into the W. harbour is 5 dollars, and 4 dollars for being taken out of do. Merchant-vessels pay 3 dollars both on entering and clearing. The pilot-service, though not exempted from defects, is tolerably well conducted. It would be convenient were pilots stationed nearer the entrance of the port, at Marabout Island for example, or at the watering-place.

Quarantine.—Merchant-vessels coming with foul bills of health perform 15 days' quarantine, whether with or without cargo. When the bills are "suspected," the quarantine is 15 days, if with cargo, and 10 days if in ballast. But a vessel may be admitted to free-pratique 10 days after the total discharge of her cargo. The period of quarantine for goods is 20 days. Ships of war, bringing foul bills, perform 12 days: with "suspected" bills, 7 days.

The Quarantine Charges are

For 2 guards, 10 piast. each per diem, and board.
For guard-boat, 15 piast. per diem.
For disinfecting goods, 1 to 15 piast. per bale, according to size.
For dues, 8 to 35 piast. per diem, according to tonnage.
For the interrogatory, from 2 to 20 piast. according to tonnage.
Bills of health for vessels bound to the Levant, 1 to 24 piast. according to size of vessel.

Travellers in Lazaretto pay for the guard 10 piast. per day, and 15 piast. for the whole term, as rent of room, and price of fumigations.

Usages of the Port.—The general usage of the port in loading and unloading vessels, when no clause of the charterparty exists to the contrary, is that Inward cargoes are landed into the Custom-house, at the ship's expense. As regards Outward cargoes, cotton is taken from the Shoona (warehouse) at the cost of the merchant, and is delivered to the ship-master on the quay. The charges for porterage, marking, sacking and commission, come to 1½ piast. per bale. The ship's subsequent outlay for pressing, lighterage, stowage, &c. is 7½ or 8 piast. per bale.

Corn, seeds, &c. are shipped at the charge of the merchant, at the cost of 27 paras per ardeb.

Flax is delivered by the merchant on the quay, and his outlay is much the same as on cotton. This article is not pressed, and the ship's expenses for lighterage and stowage are about 2 piast. per bale.

The charge of lighters is 9 or 10 piast. per diem. Arabs working on board in stowing, &c. are paid 6 piast. per do.

It often occurs that lighters left in the charge of vessels whilst loading meet with injury. In that case the Arab owners apply against the master, and recover.

Most cargoes of corn, &c. are taken from the Pacha's Shoona, and a clause in the charterparties generally obliges the ship to conform to its distribution. That is effected by the receivers being classed and drawing lots for priority.

There is a fine claimed against vessels that discharge their ballast into the harbour, instead of causing it to be taken on to a place appointed.

Charges on business at Alexandria, are as follow.

	Per Cent.
ON SELLING.	
Freights 20*s.* to 30*s.* per ton of 40 feet, and 10*s.* primage, say	2 *to* 3
Custom duties	5
Porterage and camel hire, piast. 12 *to* 15 per package.	
Shrinkage	1
House and street brokerage	½
Commission for effecting sale	3
Ditto for attempting sale	2
Ditto if proceeds are remitted by bill or in specie (exclusively of 1 per mil. brokerage)	½
Del Credere, if required	3
Warehouse rent	½
ON BUYING.	
Custom duties	12
House and street brokerage	½ to 1
Commission on purchasing	3
Commission on drafts	½
Brokerage 1 per mil. on ditto.	
Warehouse rent never incurred on government produce, which is shipped from the Shoona.	

When other produce is stored, the rent depends on the time and on the bulk of the goods.

Shipping Charges:—

On Government cotton, piast. 1½ per bale.
Private ditto, 1 piast. 30 paras, do.
Government corn, 27 paras per ardeb.
Private ditto, piast. 2, per ardeb.
Government flax, piast. 1½, per cant.
Private ditto, piast. 2, per cant.
Gums, barrels, 18 to 19 piast.
Other charges, 4 piast. 20 paras.

Policy of Mehemet Ali.—It is much to be regretted that Mehemet Ali, who was in many respects one of the most extraordinary men of his age, should have had no just conception of the principles by the adoption of which his plans of improvement might have been perpetuated, and industry established on a solid foundation. He interfered with everything, and left as little as possible to the discretion and enterprise of individuals. He may, indeed, be said to have been the sole proprietor, manufacturer, farmer-general, and wholesale merchant in his dominions. It was, no doubt, stipulated in the treaty concluded between this country and the Turkish government in 1838, the provisions of which extend to Egypt, that the monopolies which previously existed in the different parts of the Turkish empire should all be abolished, and that, in future, all parties should be at liberty to buy and sell all descriptions of produce at such prices and in such a way as they thought fit. This stipulation has, however, been of little consequence in Egypt; for, as the largest and best portion of the land has become the property of the Pacha or his dependents, and the taxes are mostly all paid in produce, the government continues, in effect, in possession of its old monopoly of the produce of the country, and has power to determine the price at which it shall be sold. A system of this sort is injurious alike to the interests of the producers and merchants; inasmuch as they are both liable to have their plans and speculations deranged by the caprices and regulations of those in authority. It is difficult, however, to suggest any means by which this inconvenience might be avoided; and it is much to be regretted that, when the European powers dictated the terms on which the Pacha and his family should hold the country, they did not make some stipulations in favour of the rights of the population; which, had they been properly devised, would have been as much for the advantage of the Pachas as of their subjects.

Ancient Trade of Alexandria.—As already remarked, Alexandria was, for a long series of years,—first under the Greek successors of Alexander, and subsequently under the Romans,—the principal *entrepôt* of the ancient world. Most part of the traffic between Asia and Europe that had at a more early period centered at Tyre, was gradually diverted to this new emporium. An intercourse between the ports on the eastern coast of Egypt, and those on the opposite coast of Arabia, had subsisted from a very early period. That between Egypt and India was more recent. It was at first carried on by ships, which having sailed down the Red Sea from Myos Hormos and Berenice, coasted along the Arabian shores till they reached Cape Rasselgate, whence a short course brought them to India near the mouth of the river Indus. This was the course followed during the dynasty of the Ptolemies: but about 80 years after Egypt had been annexed to the Roman empire, Hippalus, the commander of an Egyptian ship trading to India, having observed the regular shifting of the trade winds, ventured to sail with the western monsoon from the Straits of Babelmandeb right across the Atlantic Ocean; and was fortunate enough, after a prosperous voyage, to arrive at Musiris, in that part of India now known by the name of the Malabar coast. Having taken on board a cargo of Indian produce, Hippalus returned in safety with the eastern monsoon to Egypt. This discovery was deemed of so much importance, that the name of the

discoverer was given to the wind which had carried him across the ocean to India; and how trifling so-ever this voyage may now appear, those who consider that Hippalus had no compass by which to direct his course, and that, owing to this circumstance, and the otherwise imperfect state of the art of navigation, the ancients seldom ventured out of sight of land, even in seas with which they were well acquainted, will be forward to admit that his enterprise and daring were no wise inferior to his success; and that he was well entitled to the gratitude of his contemporaries, and the respect of posterity.

From the epoch of this discovery, fleets traded periodically from Egypt to Musiris, conveying the products of Europe to India, and conversely. The Indian goods having been landed at Myos Hormos and Berenice were thence conveyed by caravans to Coptos (the modern Kenné), on the Nile, where they were put on board lighters and sent to Alexandria, whence they were distributed all over the western world. The goods sent to India were conveyed to Myos Hormos and Berenice by the same route. Myos Hormos was situated on the shore of the Arabian gulph, about a degree to the north of the modern port of Cosseir. The distance from it to Coptos, in a straight line, is about 70 English miles. Berenice was situated a good way further south, being nearly under the tropic. It was built by Ptolemy Philadelphus. Its distance from Coptos is stated by Pliny at 258 Roman miles; the different resting-places on the road were determined by the wells, and the journey occupied about 12 days. Ptolemy seems to have preferred this station to Myos Hormos, though the land carriage to Coptos was so much further, from its greater proximity to the Straits of Babelmandeb, and its lessening the voyage up the Red Sea.

Pliny says that the cost of the Indian commodities brought to Rome through Alexandria was increased a hundred fold (*centuplicato veneant*) by the expense of carriage, &c. We suspect, however, that this is a rhetorical exaggeration, meaning merely that their price was very materially enhanced. If the increase was anything like that mentioned, it must have been owing to the imposition of oppressive tolls and duties, for it could not possibly have been occasioned by the mere expenses of conveyance.*—(*Plin. Hist. Nat.* lib. vi. cap. 23.; *Ameilhon, Commerce des Egyptiens*, pp. 161—176, &c.; *Robertson's Ancient India*, note 20, &c.)

Besides this important traffic, which supplied Rome and the western world with the silks, spices, precious stones, and other products of Arabia and India, a great trade in corn was carried on from Alexandria to Rome. Egypt, for a lengthened period, constituted the granary from which Rome, and afterwards Constantinople, drew the principal part of their supplies; and its possession was, on that account, reckoned of the utmost consequence. Augustus employed merchantmen of a larger size than any that had previously traded in the Mediterranean to convey the corn of Egypt to Ostia. They were escorted by ships of war. The fleet received the names of *sacra* and *felix embole*; and enjoyed several peculiar privileges. The ships belonging to it were the only ones authorised to hoist the small sail called *supparum*, when they drew near the coasts of Italy. Some of the fast-sailing vessels attached to the fleet were sent on before, to give notice of its approach; and a deputation of senators went down to Ostia to receive the ships, which anchored amid the acclamations of an immense number of spectators. The captains were obliged to make oath that the corn on board their ships was that which had been delivered to them in Egypt, and that the cargoes were entire as shipped.—(*Huet, Commerce et Navigation des Anciens*, cap. xlviii.; *Senecæ Epist.* cap. lxxvii.; and the chapter on the Commerce of the Romans in the volume of Treatises by the author of this work, 2nd ed. 1859.)

Intercourse with India through Alexandria.—Those few details will, perhaps, serve to give a faint idea of the importance of Alexandria in the commerce of antiquity. It is impossible, indeed, for any one to glance at a map of the world, or of the ancient hemisphere, and not to perceive that Egypt is the natural *entrepôt* of the commerce between Europe and all the vast countries stretching E. from Arabia to China. The discovery of the route to India by the Cape of Good Hope, in 1498, must, no doubt, have, under any circumstances, diverted a considerable portion of the trade with the western states of Europe, and in the heavier and bulkier class of articles, into a new channel. It is, however, abundantly certain, that had the same facilities for conducting the trade with the East existed in Egypt in the sixteenth and seventeenth centuries that existed in it in antiquity, she would have continued to be the centre of the trade for all the lighter and more valuable products, and the route of the greater number of the individuals passing between Europe and Asia. But the lawless and arbitrary dominion of the Mamelukes, who loaded all individuals passing through the country with oppressive exactions, at the same time that they treated all foreigners, and especially Christians, with insolence and contempt, put an entire stop to the intercourse so long carried on by this shortest, most direct, and most convenient route. Happily, however, a new æra has begun, and Egyp thas once more become the grand thoroughfare of the eastern and western worlds. After good order and a regular government had been introduced into Egypt by Mehemet Ali, it was seen that it might be again made the channel of communication with India; and the importance of facilitating the intercourse with that continent forcibly attracted the attention of the British government and the East India Company. The establishment of a steam communication between Europe and Southern Asia, by way of Alexandria and Suez, and the construction of a railway between these towns, are among the most striking and important events in recent times. They have shortened the journey to India from England more than a half, and rendered it comparatively safe and expeditious. We subjoin the following details.

Steam-ships conveying the mails leave Southampton for Gibraltar, Malta, and Alexandria, on the 4th, 12th, 20th, and 27th of every month. They generally arrive at Gibraltar in about 5 days; and after a few hours' stay proceed to Malta, which they reach in about 4 days more, arriving at Alexandria in about 13 days from Southampton. Those passengers who proceed by Marseilles, embark at that port on board steamers which convey them to Malta, where they join the steamers for Alexandria. On arriving at the latter, passengers are now (1859) conveyed by railway to Cairo, where they usually remain over night, and thence by railway to Suez. From the latter they are conveyed by steam-ships to Bombay, Ceylon, Madras, and Calcutta, or to Singapore and China. Another line of steamers sail from Aden to the Mauritius, and thence to Melbourne and other ports in Australia.

The existing (1859) rates of charge in the ships of the Peninsular and Oriental Steam Packet Company are as follows, viz.:—

I.—Rates from Southampton.

To	1st class, single passage.	Children, 3 years and under 10.	2nd class, and passengers' servants.
	£	£ s.	£
Gibraltar	13	6 10	9
Malta	20	10 0	12
Alexandria	30	15 0	19

One child under three years of age, if with the parent, free.

* In the 16th century, the cost of Indian commodities brought to Western Europe by way of Alexandria and Aleppo was about *three* times the cost of those brought by the Cape of Good Hope.—(See *post*, EAST INDIA COMPANY, *History of*.) But Egypt was then occupied by the Mamelukes and Turks, who threw every sort of obstacle in the way of commerce, and loaded it with the most oppressive exactions.

II. — Rates of Passage, including the Amount paid by the Company to the Egyptian Transit Administration, for Conveyance of Passengers through Egypt.

From England to	Aden.	Bombay.	Ceylon.	Madras.	Calcutta.	Penang.	Singapore.	Hong Kong.	Shanghai.	Manilla.	Mauritius.	King George's Sound, Kangaroo Island, (for Adelaide), Melbourne and Sydney.
	£	£	£	£	£	£	£	£	£	£	£	£
Gentlemen or ladies travelling singly, for one berth in a general cabin -	70	95	95	100	105	105	110	130	150	150	100	120
Married couples, occupying a reserved cabin -	200	240	240	250	270	270	290	335	375	375	240	300
Children with the parent, 3 years and under 10 - - -	55	45	45	50	50	50	55	60	70	70	50	60
One child under 3 years (no berth provided) * - - -	Free.	Free.	Free.	Free.	Free.	Free.	Free.	Free.	Free.	Free.	Free.	Free.
Servants, European in fore cabin -	35	45	45	50	50	50	55	60	70	70	50	60
" native	20	25	25	30	30	30	40	45	50	50	50	—

First-class passengers are allowed 3 cwt. of personal baggage free of freight, and children (above three years) and servants 1½ cwt. each.

A passenger taking a whole cabin will be entitled to take in the steamers, free of freight, 4½ cwt.; and a married couple, paying for reserved accommodation, will be entitled to take 9 cwt.

The charge for conveyance of extra baggage, should there be room in the vessel, will be at the rate of 1*l.* per cwt. between Southampton, Gibraltar, Malta, or Alexandria; 2*l.* per cwt. between Suez and India, and 3*l.* per cwt. between Suez, Mauritius, Australia, the Straits and China.

Passengers passing through Egypt will have to pay the Egyptian Transit Administration, 14*s.* per cwt., for conveyance of baggage through, should it exceed, for first-class passengers, 3 cwt. each, and children and servants, 1½ cwt. each. This amount is collected on board the company's steamers for the convenience of passengers.

Canal between the Nile and the Red Sea. — It is affirmed, that had it not been for the hostilities in which the late Pacha was almost always engaged, he would have attempted to reopen the famous canal that formerly connected the Red Sea and the Nile. According to Herodotus, this canal was commenced by Nechos, king of Egypt, and finished by Darius (lib. ii. § 158. iv. 39.). Under the Ptolemies, by whom, according to some authorities, it was completed, this canal became an important channel of communication. It joined the E., or Pelusiac branch of the Nile at Bubastis, the ruins of which still remain; it thence proceeded E. to the bitter or natron lakes of Temrah and Cheik-Aneded, whence it followed a nearly S. direction to its junction with the Red Sea at Arsinoe, either at or near where Suez now stands. It is said by Strabo (lib. xvii. p. 805.) to have been 1000 stadia (122 m.) in length; but if we measure it on the best modern maps, it could hardly have exceeded from 85 to 95 miles. Herodotus says that it was wide enough to admit two triremes sailing abreast. This great work having fallen into decay after the downfal of the Ptolemaic dynasty, was renovated either by Trajan or Adrian; and it was finally renewed by Amrou, the general of the caliph Omar, the conqueror of Egypt, anno 639 (Herodote, par Larcher, iii. 450.). The French engineers traced the remains of this great work for a considerable distance; and but for the construction of a railway from Suez to Cairo, it would probably have been reopened.

But the formation of the latter, and its recent extension to Alexandria, will, most likely, put an end to all attempts to join the Red Sea and the Nile by a canal. It would, however, be of immense consequence to the trade and civilisation of the world, were it practicable to construct a canal between the Red Sea and the Mediterranean that should admit of large ships passing easily from the one to the other; and if we look at the map only we should think that this is an undertaking that might be accomplished without much difficulty. Such, however, is not really the case; and we much fear that the obstacles in its way are really insurmountable. This, at all events, is the well considered opinion of Mr. Robert Stephenson, the highest authority upon such subjects to whom an appeal can be made. We regret that it should be so. Being the greatest commercial nation in the world, and having a vast intercourse with and interest in India, the completion of a canal such as has been referred to would have been of ten times more advantage to us than to any other nation.

ALICANT, a sea-port town of Spain, in Valencia, lat. 38° 20′ 41″. N., long. 0° 30′ W. Population about 25,000.

The port is an open and spacious bay, between Cape de la Huerta on the north-east, and Isla Plana on the south, distant from each other S. W. and N. E. about 10 miles. Ships may enter on any course between these points, steering direct for the castle, which stands on an eminence about 400 feet high. Those of considerable burden moor N. and S. distant from ¼ to 1 mile from shore, in from 4 to 8 fathoms water; they are exposed to all winds, from E. N. E. to S. by W.; but the holding ground is good, and there is no instance during the last twenty years of a ship having been driven from her moorings.

* Except transit expenses through Egypt, if above 2 years.

Vessels drawing from 15 to 18 feet water may lie alongside the mole, a government work of great importance to the town, which has been projected about 600 yards into the sea. There are no pilots. The trade of Alicant has considerably increased of late years, and would be much greater but for the oppressive discriminating duties laid on the importation of most articles of foreign produce into Spain (see CADIZ), and the extensive smuggling carried on from Gibraltar, Algiers, &c.

Raisins form the great article of export; and their produce has increased rapidly of late years. They are principally taken off by England. Of the other articles of export the principal are silk, wool, barilla, almonds, wine, salt, oil, lead, mats, saffron, brandy, liquorice, anise, &c. The exportation of barilla, which formerly amounted to from 50,000 to 100,000 cwt., has declined, partly from its having been largely adulterated, but principally from its being to a great extent superseded by *soude factice* (artificial soda), to little more than 20,000 cwt. The ordinary imports consist principally of sugar, coffee, cocoa, and other colonial products; cotton, and linen stuffs, and other manufactured goods, from England and France, but these are mostly imported on Spanish bottoms to avoid the differential duties. Among the other articles are salted fish, tobacco, iron and hardware, deals and tar, &c. Within the last few years large quantities of rails have been imported both here and at Valencia for constructing the railways from the latter and Alicant to Almanza and thence to Madrid, which will add greatly to the trade of the ports referred to. The rails, with coal, coke, locomotive engines and machinery of all sorts, are brought from England. The value of our direct legitimate imports into Alicant in 1857 were returned at 206,143*l.* the port having been visited in the same year by 136 British ships of the aggregate burthen of 24,487 tons. But it is impossible to form any estimate of the imports from official or other returns, as by far the largest portion are supplied clandestinely. Indeed, the whole population of this part of Spain are clothed in prohibited articles, which are sold as openly in the towns as if they were of Spanish manufacture! Alicant has a considerable trade with Marseilles, and with Valencia, Barcelona, and other ports on the E. coast of Spain, as well as with Gibraltar and the principal ports on North Africa, &c. An *Associacion Britanica* has been formed in this port for smelting and refining the rich argentiferous lead ores of Almagrera and other parts of the province of Murcia. The manufacture of woollens is carried on pretty extensively at Alcoy, 23 miles N. from Alicant; but they are coarse and of inferior quality.

Port Charges on Shipping entering and clearing out.

N.B.—A vessel of 300 tons pays the maximum rate. One of less burthen pays proportionally less.

Spanish Vessels of 300 Tons.	Rs. Vn.	Mar.
Anchorage	75	
Health visit and pratique	15	2
Captain of port	8	
Bill of health	14	
Tonnage duty (300 tons), if loaded outwards	300	
If cleared in ballast		
Mole and light duty	24	
Tarifa light in and out, 24 maravedis per ton (300 tons)	211	26
Equal to 6*l.* 10*s.* sterling	647	28

Foreign Vessels of 300 Tons.	Rs. Vn.	Mar.
Anchorage	75	
Health visit, &c.	98	
Captain of port	8	
Bill of health	25	
Tonnage duty, if loaded outwards	300	
If cleared in ballast		
Mole and light duty	120	
Tarifa light in and out, 48 maravedis per ton (300 tons)	423	18
Equal to 10*l.* 10*s.* Sterling	1,049	18

Custom-house Regulations.—A manifest of the cargo, the ship's tonnage and number of crew, must be presented within 24 hours after pratique being given, when two officers are put on board to prevent smuggling. The consignees then make entry of the articles consigned to them, and obtain an order to discharge from the collector, or custom-house authorities, a *certificate of origin* from the Spanish consul at the port of lading being no longer requisite. To load the whole or part of an outward cargo, the master reports his intention to the collector, who gives his order permitting goods to be shipped, and the shippers make their specific entries. When the vessel is loaded, the waiting officers make their return to the collector; who, on being presented with the receipts of the captain of the port and of the Pratique office for their respective charges, grants his clearance, upon which a bill of health is obtained, and the vessel is clear for sea.

Warehousing System.—Goods legally imported may be deposited in bonded warehouses for twelve months, paying, in lieu of all charges, 2 per cent. *ad valorem*, but at the end of the year, they must be either taken for home consumption or re-shipped. The 2 per cent. is charged, whether the goods lie for a day or the whole year. In charging duties, no allowance is made for waste or damage in the warehouses.

Rates of Commission are usually 2½ per cent. on sales and purchases; ½ per cent. is commonly charged on the negotiation of bills. Goods are commonly sold at 3 months' credit. Ordinary discount at the rate of 6 per cent. per annum.

Alicant is not a favourable place for repairing ships, and provisions of all sorts are scarce and dear.

Vessels with foul bills of health, or coming from an infected or suspected place, though with clean bills, are usually ordered to Fort Mahon to perform quarantine. But vessels coming with clean bills obtain, under ordinary circumstances, immediate pratique.

Money.—Accounts are kept in libras of 20 sueldos; each sueldo containing 12 dineros; the libra, also called the peso, = 10 reals; and a real of Alicant = 27·2 maravedis of plate, or 51·2 maravedis vellon. The libra may be valued at 3*s.* 6*d.* sterling, and the real at 4½*d.* ditto.

Weights and Measures.—The carga = 2½ quintals = 10 arrobas. The arroba consists either of 24 large pounds, or of 36 small ditto; the latter having 12 Castilian ounces to the pound, the former 18. The arroba = 27 lbs. 6 oz. avoirdupois; but at the custom-house the arroba = 25 lbs. of 16 oz. each.

The principal corn measure is the cahiz or cafiise, containing 12 barchillas, 96 medios, or 192 quartillos. The cahiz = 7 Winch. bushels nearly.

The principal liquid measure is the cantaro of 8 medios, or 16 quartillos. The cantaro = 3·05 English wine gallons. The tonneláda or ton contains 2 pipes, 80 arrobas, or 100 cantaros.

The yard or vara, divided into 4 palmos, is = 29·96, or very nearly 30 English inches.

ALIENS. According to the strict sense of the term, and the interpretation of the common law, all individuals born out of the dominions of the crown of England (*alibi natus*) are aliens or foreigners.

It is obvious, however, that this strict interpretation could not be maintained without very great inconvenience; and the necessity of making exceptions in favour of the children born of native parents resident in foreign countries was early recognised. The 25 Edw. 3. stat. 2. enacts, that all children born abroad, provided *both* the parents were at the time of their birth in allegiance to the king, and the mother had passed the seas by her husband's consent, might inherit as if born in England. And this relaxation has been carried still further by several modern statutes: so that all children born out of the king's ligeance, whose fathers, or grandfathers by the father's side, were natural-born subjects, are now deemed to be themselves natural-born subjects; unless their ancestors were outlawed, or banished beyond sea for high treason, or were, at the birth of such children, in the service of a prince at enmity with Great Britain.

Naturalisation of Aliens.—Aliens may be naturalised by act of parliament, which puts them in exactly the same condition as natural-born subjects, except that they are incapable of being members of the privy council, of being elected to serve in parliament, or of holding any office of trust under the crown.

A *denizen* is an alien born, who has obtained letters patent, *ex donatione regis*, to make him an English subject. He occupies a kind of middle station between a natural-born subject and an alien. He may acquire lands by purchase or devise, but not by inheritance; and may transmit such lands to his children born after his denization, but not to those born before. — (*Blackstone's Com.* book i. cap. 10.)

An alien may also be naturalised by serving on board any of his Majesty's ships of war, in time of war, for three years, or, if a proclamation has been issued to that effect, for two years. — (6 *Geo.* 4. cap. 109. §§ 16, 17.)

Influence of the Residence of Aliens. — There can be no doubt that, generally speaking, the resort of foreigners to a country, and their residence in it, are highly conducive to its interests. Those who emigrate in order to practise their calling in an old settled country are pretty uniformly distinguished for activity, enterprise, and good conduct. The native inhabitants have so many advantages on their side, that it would be absurd to suppose that foreigners should ever come into any thing like successful competition with them, unless they were acquainted with some branch of trade or manufacture of which the others were ignorant, or possessed superior skill, industry, or economy. But whether aliens practise new acts, or introduce more perfect processes into the old, or display superior economy, &c., their influx cannot fail to be of the greatest advantage. They practically instruct those among whom they reside in what it most concerns them to know, that is, in those departments of art and science in which they are inferior to others; and enable them to avail themselves of whatever foreign sagacity, skill, or practice has produced that is most perfect. It is not easy, indeed, to overrate the benefits conferred on most countries by the resort of aliens. Previously to the invention of printing, there was hardly any other way of becoming acquainted with foreign inventions and discoveries; and even now it is far easier to learn any new art, method, or process, from the example and instruction of those familiar with its details, than from the best possible descriptions. The experience, indeed, of every age and country shows that the progress of nations in the career of arts and civilisation depends more on the freedom of commerce, and on the liberality with which they have treated foreigners, than on almost any thing else.

English Legislation as to Aliens. — But, notwithstanding what has been stated above, an antipathy to resident foreigners seems to be indigenous to all rude and uncivilised nations. Whatever is done by them appears to be so much taken from the employment, and, consequently, from the subsistence of the citizens; while the advantages resulting from the new arts or improved practices they introduce, for the most part manifest themselves only by slow degrees, and rarely make any impression on the multitude. Hence the jealousy and aversion with which foreigners are uniformly regarded in all countries not far advanced in civilisation. The early Greeks and Romans looked upon strangers as a species of enemies, with whom, though not actually at war, they maintained no sort of friendly intercourse. "*Hostis*," says Cicero, "*apud majores nostros is dicebatur, quem nunc peregrinum dicimus.*" — (*De Off.* lib. 1. cap. 12.) It may, therefore, be considered as a striking proof of the good sense and liberality of those by whom it was framed, that a clause is inserted in Magna Charta which has the encouragement of commerce for its object; being to the effect, that "all merchants (if not openly prohibited before) shall have safe and sure conduct to depart out of and to come into England, to reside in and go through England, as well by land as by water; to buy and sell without any manner of evil tolls, by the old and rightful customs, except in time of war; and if they be of a land making war against us, and such be found in our nation at the beginning of the war, they shall be attached without harm of body or goods, until it be known unto us, or our chief justice, how our merchants be entreated in the land making war against us; and if our merchants be well entreated there, shall be so likewise here."

But until the æra of Edward I. the stipulation in the Great Charter as to foreign merchants seems to have been little attended to. It is doubtful whether, previously to his reign, they could either hire houses of their own, or deal except through the medium of some Englishman. But this intelligent prince saw the advantage that would result to the trade and industry of his subjects from the residence and intercourse of Germans, Flemings, Italians, and other foreigners, who, at that time, were very superior to the English in most branches of manufactures and commerce. He, therefore, exerted himself to procure a repeal of some of the more oppressive restrictions on aliens, and gave them a charter which conveyed considerable privileges.* Down, however, to the reign of Edward III., it continued to be customary to arrest one stranger for the debt, and even to punish him for the crimes and misdemeanors of others! It may appear extraordinary that the gross injustice of this barbarous regulation ever permitted it to be adopted; and yet it was probably, at one period, the common law of most European states. As soon, however, as the foundations of good order and civilisation began to

* This charter was confirmed by Edward III. in 1328. Among other clauses, it has the following; viz. 1st, That on any trial between foreigners and Englishmen the jury shall be half foreigners; 2d, That a proper person shall be appointed in London to be justiciary for foreign merchants; and, 3d, That there shall be but one weight and measure throughout the kingdom. — (*Anderson*, anno 1302.)

be laid, its operation was seen to be most pernicious. In 1325, Edward II. entered into a convention with the Venetians, in which it was expressly stipulated that they should have full liberty to come to England to buy and sell commodities, without being liable for the debts or crimes of others. Conventions to the same effect were entered into with other foreigners. At length, in 1353, this disgraceful practice was put an end to by 27 Edward 3. stat. 2. cap. 17.; it being provided in this statute, not only that no stranger shall be impeached for the trespass or debt of another, but that, in the event of a war breaking out with any foreign power, its subjects, residing amongst us, shall be warned thereof by proclamation, and be allowed forty days to arrange their affairs, and to depart out of the kingdom; and that, under special circumstances, this term may be extended. There are few acts in the statute-book that reflect more credit on their proposers, or that have been more advantageous than this.

In consequence of the encouragement given by Edward III. to such of the woollen manufacturers of Flanders as chose to immigrate to England, a good many came over; and it is from their immigration that we may date the improvement and importance of the woollen manufacture in this country.—(See WOOLLEN MANUFACTURE.) But this policy, however wise and judicious, was exceedingly unpopular. The foreigners were openly insulted, and their lives endangered, in London and other large towns; and a few of them in consequence returned to Flanders. Edward, however, was not to be driven from his purpose by an unfounded clamour of this sort. A proclamation was issued, in which every person accused of disturbing or attacking the foreign weavers was ordered to be committed to Newgate, and threatened with the utmost severity of punishment. In a parliament held at York, in 1335, an act was passed for the better protection and security of foreign merchants and others, by which penalties were inflicted on all who gave them any disturbance. This seems to have had the effect, for a while at least, of preventing any outrages.

The corporations of London, Bristol, and other great towns, have been at all times the principal enemies to the immigration of foreigners. Perhaps, indeed, they were not more hostile to them than to such of their own countrymen, belonging to another part of the kingdom, as should have attempted to settle amongst them without being free of their corporation. But in denouncing foreigners they had the national prejudice on their side; and their attempts to confirm and extend their monopolies by their exclusion were regarded as the noblest efforts of patriotism! Edward III. was fully aware of the real motives by which they were actuated, and steadily resisted their pretensions. But in the reigns of his successors they succeeded better: some of these were feeble and unfortunate, whilst others enjoyed the crown only by a disputed title, and in defiance of powerful competitors. The support of the great towns was of the utmost consequence to such princes, who, whatever might be their own opinion as to its policy, could hardly venture to resist the solicitations of such powerful bodies to exclude strangers, and to impose restrictions on commerce. From the death of Edward III. to the reign of Elizabeth, the progress made by the country was not inconsiderable, but it was little promoted by legislative enactments. Throughout the whole of this period, the influence of corporations seems to have predominated in all matters relating to trade and the treatment of foreigners; and our legislation partook of the selfish, monopolising character of the source whence it was principally derived. Were the acts and proceedings as to aliens the only memorials of our policy from 1377 to 1560, we should certainly seem to have retrograded materially during the interval. Some of these acts were passed with so little consideration, and were so very absurd, that they had to be immediately repealed. Of this sort was the statute of the 8 Henry 6. cap. 24., to the effect "that no Englishman shall within this realm sell, or cause to be sold, hereafter, to any merchant alien, any manner of merchandises, but only for ready payment in hand, or else in merchandises for merchandises, to be paid and contented in hand, upon pain of forfeiture of the same." But as an enactment of this sort was very speedily found to be more injurious to ourselves than to the foreigner, it was repealed in the following session.

The more tyrannical their conduct in other respects, the more were our princes disposed to humour the national prejudice against foreigners. If not a cheap, it was, at least, an easy method of acquiring popularity. In the very first parliament after the accession of Richard III., a statute was passed full of the most ridiculous, contradictory, and unfounded allegations as to the injury sustained by the influx of foreigners, and laying them under the most oppressive restraints. Considering, indeed, the sort of treatment to which aliens were then exposed, it may excite surprise that they should ever have thought of visiting the country; and, in point of fact, it appears that the resort of foreign merchants to our ports was materially impaired by the statutes referred to, and others of the same description. This is evident from the act 19 Henry 7. cap. 6., where it is stated that "woollen cloth is not sold or uttered as it hath been in divers parts," and that "foreign commodities and merchandises are at so dear and exceeding

high price that the buyer cannot live thereon." But in despite of this authoritative exposition of the mischiefs arising from the restraints on aliens, and on trade, they were both increased in the reign of Henry VIII. And it was not till the reign of Elizabeth that the pretensions of the corporations seem to have been disregarded, and an attempt made to act, not by starts, but consistently, on the policy of Edward III.

The influx of foreigners during the reign of Elizabeth was occasioned chiefly by the persecutions of the Duke of Alva and the Spaniards in the Low Countries. The friends of the reformed religion, which, at the time, was far from being firmly established, and the government, were glad to receive such an accession of strength; and from the superiority of the Flemings in commerce and manufactures, the immigrants contributed materially to the improvement of the arts in England. It would seem, however, that the ministers of Elizabeth contented themselves, perhaps that they might not excite the public prejudice, with declining to enforce the laws against aliens, without taking any very active steps in their favour.

In the reign of James I. the corporation of London renewed with increased earnestness their complaints of aliens. In 1622 a proclamation was issued, evidently written by James himself, in which, under pretence of keeping "a due temperament" between the interests of the complainants and those of the foreigners, he subjects the latter to fresh disabilities.

Since the revolution, more enlarged and liberal views as to the conduct to be followed with respect to aliens have continued to gain ground: several of the restraining statutes have fallen into disuse, while others were so much modified by the interference of the courts, which have generally been inclined to soften their severity, that their more offensive provisions became inoperative. In 1708, an act was passed, notwithstanding the strenuous opposition of the corporations, for the general naturalisation of all foreign protestants; but the prejudice against them was still so powerful that it was repealed within about three years. Some attempts were afterwards made to carry a similar measure. One of these, about the middle of last century, occasioned the publication by Dr. Tucker of two excellent pamphlets, in which the policy of a naturalisation act is ably vindicated, and the arguments against it successfully exposed.* But, notwithstanding these efforts, nothing effectual was done to relieve aliens from the disabilities under which they laboured till 1844, when the 7 & 8 Vict. c. 66. was passed. This act authorises the secretary of state for the home department, on his receiving such evidence as he may think necessary in regard to any application by an alien for a certificate of naturalisation, to grant, if he think fit, such certificate. If granted, the certificate conveys to the alien (unless some special reservation be made in it) all the rights and privileges of a natural born British subject, except that he cannot be a member of either house of parliament, or a privy councillor. Probably this is as good a law as could be enacted in regard to this matter.

The following regulations have been issued by the secretary of state in reference to the grant of certificates: —

1. Upon an application to the secretary of state for the grant of a certificate of naturalisation, it will be necessary that the applicant should present to one of Her Majesty's principal secretaries of state a memorial praying for such grant, stating the age, profession, trade, or other occupation of the memorialist, the duration of his residence within the U. K., and of what friendly state he is a subject; whether he intends to continue to reside within this kingdom, and all other grounds on which he seeks to obtain any of the rights and capacities of a natural-born British subject.

2. That the memorialist should make an affidavit before a magistrate, or other person authorised by law to administer an oath, verifying all the statements in his memorial.

3. That a declaration should be made and signed by four householders at least, vouching for the respectability and loyalty of the memorialist, verifying also the several particulars stated in the memorial as grounds for obtaining such certificate; and that this declaration should be made in due form, before a magistrate, or other person authorised by law to receive such declaration, in pursuance of the act passed in the fifth and sixth years of his late majesty King William IV.

Policy of the Laws as to Aliens. — The reason assigned by Mr. Justice Blackstone and others for preventing aliens from acquiring fixed property seem to be very unsatisfactory. In small states there might be grounds, perhaps, for fearing lest the easy admission of aliens to the rights of citizenship should give them an improper bias; but in a country like England such apprehensions would be quite futile. In this respect

* Historical Remarks on the late Naturalisation Bill, 1751; Queries occasioned by the late Naturalisation Bill, 1752.

the example of Holland seems quite decisive. Notwithstanding the comparatively limited population of that country, it was "the constant policy of the republic to make Holland a perpetual, safe, and secure asylum for all persecuted and oppressed strangers; no alliance, no treaty, no regard for, no solicitation of any potentate whatever, has at any time been able to weaken or destroy, or make the state recede from protecting, those who have fled to it for their own security and self-preservation."—(*Proposals for amending the Trade of Holland*, printed by authority. Lond. 1751.)

A short residence in the country, and a small payment to the state, was all that was required in Holland to entitle a foreigner to every privilege enjoyed by a native. And it is of importance to remark, that it has not been so much as insinuated that this liberal conduct was in any instance productive of a mischievous result. On the contrary, all the highest authorities consider it as one of the main causes of the extraordinary progress made by the republic in wealth and commerce. It is said in the official paper just quoted, that "Throughout the whole course of all the persecutions and oppressions that have occurred in other countries, the steady adherence of the republic to this fundamental law has been the cause that many people have not only fled hither for refuge, with their whole stock in ready cash, and their most valuable effects, but have also settled and established many trades, fabrics, manufactures, arts, and sciences, in this country; notwithstanding the first materials for the said fabrics and manufactures were almost wholly wanting in it, and not to be procured but at a great expense from foreign parts."—(*Ibid.*)

With such an example to appeal to, we are warranted in affirming that nothing can be more idle than to suppose that any number of foreigners which it is at all likely should ever come to England under the most liberal system for industrial purposes, or to escape religious or political persecutions in their own countries, should occasion any political inconvenience. But it should always be understood that their residence here is to depend on the propriety of their conduct. If they abuse the privileges accorded to them, and come among us not for the sake of an asylum, or for the prosecution of industrious pursuits, but that they may make this country a theatre for carrying on plots and hatching conspiracies against the governments of countries with which we may be in amity, in such case they forfeit all claim to hospitality; and cannot justly complain if they be (as they ought to be) deprived of their certificates and compelled to quit our shores.

ALKALIES. The distinguishing characters of these bodies are, a strong acrid and powerfully caustic taste; a corrosive action upon all animal matter, destroying its texture with considerable rapidity; exposed to the atmosphere, when in their caustic state, they absorb carbonic acid with great rapidity, and become carbonated (or mild). Their action upon vegetable colours also affords us means by which the presence of an uncombined or carbonated alkali may be detected; the yellow colour of turmeric is changed to a red brown tint when immersed into solutions containing them; the blue colour of the litmus, after being reddened by an acid, is again restored; the infusions of the red cabbage, the violet, and many other purple vegetable colours, are converted to green. Litmus paper reddened by carbonic acid is, however, the most delicate test of the presence of an alkali. With the various acids they also combine, forming the very important and extensive class of compounds generally called salts; a salt being any compound formed by the union of an acid with an alkali or metallic oxide.

Alkalimetry.—The method by which the value of the alkalies, or carbonated alkalies, is determined, being of considerable importance in a commercial point of view, we shall here treat it somewhat in detail. It is an established fact, that 49 parts by weight of oil of vitriol of the specific gravity of 1·8485 are exactly equivalent to the neutralisation of 70 parts by weight of pure carbonate of potash, or 48 of pure potass, or 54 of carbonate of soda, or 32 of soda, and that 70 parts of oil of vitriol will therefore be necessary to neutralise 100 parts of carbonate of potass. Hence, by employing a glass tube of about two ounces' capacity, and accurately divided into 100 equal parts, taking 70 grains of oil of vitriol, and diluting it with water, to make the 100 measures complete, every measure of this dilute acid must be equal to a grain of pure carbonate of potass. The per-centage of real carbonate of potass existing in any sample of pearlash may be at once ascertained by taking 100 grains of the sample, dissolving it in hot water, straining, and adding by degrees 100 measures of the test acid above mentioned; the point of neutralisation (when it ceases to affect litmus paper or reddened litmus) being accurately ascertained, the residual acid will give the per-centage of impurities; for instance, say that 75 measures of the dilute acid have been employed to render 100 grains of a sample of pearlash perfectly neutral, then we have ascertained that it contains 25 per cent. impurities. The same process of course must be followed in examining samples of barilla or kelp, except that the alkali contained in them, being carbonate of soda, 96·75 of oil of vitriol must be employed instead of 70. The process recommended by Mr. Faraday, and in which he uses only one test acid, is as follows:—Into a tube about three quarters of an inch in diameter, and nine and a half long, and as cylindrical as possible throughout its whole length, 1,000 grains of water are to be weighed, and the space occupied marked on the tube by a fine file; this space is then divided from above downwards into 100 equal parts. At 23·44, or 76·56 parts from the bottom an extra line should be made, and soda marked opposite to it; at 48·96 potass should be marked in the same way; at 54·63 carbonate of soda; and at 65 carbonate of potass. A diluted acid is now to be prepared, which shall have a specific gravity 1·127, and this is made by mixing intimately together 19 parts by weight of oil of vitriol and 81 of water. The method to be followed in the employment of this acid is as follows:—The dilute acid is to be measured in the tube up to the line opposite to which the alkali sought for is marked; if barilla, which contains carbonate of soda, 54·63

measures are to be taken. The 100 measures are then made up by the addition of water, and is then ready for use, following the method before stated.

The alkalies are four in number, namely, ammonia (or volatile alkali), potass (or vegetable alkali), soda (or mineral alkali), and lithia; which last is of so little importance that we shall not treat of it here.

The combinations of these alkalies with the various acids, whenever they form compounds of any importance, will be noticed.

Ammonia, or Spirits of Hartshorn, or Volatile Alkali, in its uncombined form, is an elastic gaseous body, having a very pungent and suffocating odour, destroys animal life, converts the yellow of turmeric paper to a brown, which, from the volatility of the alkali, is again restored by a gentle heat to its original colour. This gas is rapidly absorbed by water, which takes into solution about 780 times its volume, forming the liquid ammonia, or what is commonly called hartshorn. Ammonia is liberated whenever any of the compounds of this alkali are acted upon by potass, soda, lime, and many other alkaline earths. Lime, from its being the most economical, is generally employed; the best proportion for its preparations are equal weights of sal ammoniac (muriate of ammonia), and fresh slaked lime. When these are introduced into a retort, and heat applied, ammonia is liberated in the gaseous form, and is conducted by a Wetter's safety tube into a vessel of water, by which the gas is instantly absorbed. Muriate of lime remains in the retort; sometimes water is added to the mixture, and then distilled. As thus obtained, it has a specific gravity of ·930 or ·940, water being equal to 1·000. The most concentrated solution of ammonia has the specific gravity ·875.

Carbonate of Ammonia, or Volatile Salt, or Subcarbonate of Ammonia. — This salt, which is very much employed in various processes of the arts, was formerly obtained by the action of chalk (carbonate of lime) upon muriate of ammonia; a double decomposition takes place. Carbonic acid and ammonia are sublimed in vapour, and muriate of lime remains in the vessel. A much less expensive process is, however, now followed, namely, from the waste gas liquors obtained in the purification of coal gas; these are evaporated, and the black impure sulphuric acid added. By this means a sulphate of ammonia is formed, and the carbonate procured from it by the action of powdered chalk, as in the former process.

Its uses are principally in forming other compounds of ammonia, as smelling salts; and it is likewise employed rather extensively by pastry-cooks for making light pastry, which is caused by the volatile carbonate of ammonia escaping and raising up the pastry by the heat of the oven. It is entirely dissipated during the baking, so that no ill effect can arise from its use.

Both this compound and the preceding act as violent stimulants on the animal system.

Muriate of Ammonia, or Sal Ammoniac, was formerly brought to this country from Egypt, where it was procured by submitting the soot of camels' dung (there employed for fuel) to sublimation in closed vessels; it is, however, at present manufactured in very large quantities in this country in a variety of ways. The most economical processes are either submitting sulphate of ammonia mixed intimately with muriate of soda (sea salt) to sublimation, or by substituting the bittern of sea water, which consists chiefly of muriate of magnesia, for the sea salt. In the first process a sulphate of soda is formed, and the muriate of ammonia, which, being volatile, rises in the vaporous form, and is condensed in the cool parts of the apparatus; in the latter process a sulphate of magnesia (Epsom salts) results. It is generally from this salt (muriate of ammonia) that the liquid ammonia is manufactured; it is also employed in tinning and soldering, to preserve the metals from oxidation. It is a semi-transparent, tough salt, having an acrid and cool taste, and is usually met with in the form of hemispherical masses. Sal ammoniac is made at Calcutta, and is thence exported to Great Britain, the United States, and the Arabian and Persian gulfs. In 1824-25 the exports amounted to 114 tons.

Sulphate of Ammonia. — The preparation of the sulphate has been already given under the head of ammonia; it is employed in the manufacture both of the carbonate and muriate.

Acetate of Ammonia. — The spirit of Mindererus is obtained by acting upon the carbonate of ammonia by acetic acic; the carbonic acid escapes with effervescence, and an acetate of ammonia is formed; it is employed in medicine as a febrifuge.

All these salts of ammonia have the following properties; — they are volatile at a low red heat; the fixed alkalies decompose them, combining with their acid, and the ammonia is liberated.

When combined with a fixed acid, such as the boracic or phosphoric, they are decomposed, the ammonia alone being volatilised, and the acid remaining pure. *This process was described for obtaining pure phosphoric acid.*

Potass, or Vegetable Alkali. — The original source of this alkali is in the vegetable kingdom, whence is derived its name of vegetable alkali. When wood is burnt, and the ashes lixiviated with water, boiled, strained, and evaporated to dryness, an intensely alkaline mass is obtained, which is known by the name of potash, from this process being conducted in iron pots. It is then removed to a reverberatory furnace, and submitted to heat, and a current of air. This burns out extractive matter and other impurities, and the salt assumes a pearly white colour, and is hence called pearlashes. Care should be taken, during this process, that the potashes do not enter into fusion, as this would destroy the full effect of the operation.

Pearlashes. — Pearlashes generally contain about from 60 to 83 or 84 per cent. of pure carbonate of potass. Its uses in manufactures are numerous and important. It is employed in making flint-glass, of which it constitutes about one sixth of the materials employed; in soap-making, especially for the softer kinds of soap; for this purpose, however, it is first rendered caustic by means of lime. In the rectification of spirits large quantities are employed to combine with the water previously in union with the spirit.

Subcarbonate of Potass, or Salt of Tartar, is used in preparing the subcarbonate of potass of the Pharmacopœia (carbonate of potass of the chemical nomenclature), and likewise in rendering hard spring waters soft, and in cleansing substances from grease: it is sometimes called salt of wormwood. When made by the deflagration of two parts of tartar of argol and one of nitre, it is called black flux, and is used extensively in metallurgic operations.

From the subcarbonate of potash the pure and uncombined potass is obtained, by adding an equal weight of fresh burnt lime, previously slaked, and boiling them with half their weight of water. By this process the lime combines with the carbonic acid, and the potass remains in solution in its caustic state; by boiling the clear solution rapidly in iron vessels, and submitting it to fusion, we obtain the fused potass.

If it be required perfectly pure for chemical purposes, it is necessary to evaporate in silver vessels, and dissolve in strong alcohol. This takes up the pure potass, and leaves any portion of the subcarbonate that may not have been acted upon by the lime; then the alcohol is to be distilled off, and the potass fused at a red heat, and poured out in its liquid state on a cold slab. As thus procured, it is a white, brittle mass, highly deliquescent, absorbing moisture and carbonic acid rapidly from the atmosphere. When evaporated in iron vessels it has a dirty colour, and lets fall a quantity of oxide of iron, when dissolved in water from its having acted upon the iron boilers.

Potass acts with great rapidity upon animal substances, destroying their texture, and is on this account employed as a caustic, and was formerly called *lapis infernalis*.

Carbonate (or, in the chemical nomenclature, *Bicarbonate*) *of Potass*, is prepared by passing carbonic acid gas through a solution of the subcarbonate: and evaporating at a temperature below 212°, and crystallising. It is used in making effervescing draughts. It loses one proportion of its carbonic acid when heated, and is converted into the subcarbonate.

Sulphate of Potass, or Sal Polychrest, or Vitriolated Tartar, is obtained by submitting the salt, which remains after the manufacture of nitric acid from nitre and sulphuric acid, to a red heat, or by neutralising the excess of acid contained in that salt by subcarbonate of potass.

Bisulphate of Potass, or Sal Enixum. — This is the salt mentioned above, as the residue from the process for obtaining *nitric* acid. It is employed, in very large quantities, in the manufacture of alum; also in tinning iron, for pickling, as it is termed; it is sometimes also used as a flux.

Nitrate of Potash, Nitre, or Saltpetre. — This salt, which is of so much importance in every branch of the arts, is found native in many parts of the world, especially in the East Indies. It is obtained from soils composed of decomposing granite, the felspar of which gives rise, as is supposed, to the potass. The nitric acid is not so easily accounted for, except it is by a union of the nitrogen and oxygen gases in the atmosphere taking place in those hot climates; for, from authenticated accounts, no decaying animal or vegetable matter exists in the nitre districts of India. By lixiviation with water the nitre is dissolved from the soil, which is again thrown out into the air, to be washed the following year; so that it is formed continually. These lixiviations are then evaporated; and when of a certain strength, a quantity of common salt separates, which is removed as it falls; and the nitre is then crystallised and imported to this country, always containing a certain quantity of impurities, which are deducted in the purchase of large quantities of the article, being termed its refraction. It is generally used for the manufacture of gunpowder and pure nitric acid, refined or re-crystallised.

Nitre may be also made artificially, in beds of decaying vegetable or animal substances, mixed with old mortar, or other refuse calcareous earth; these are watered occasionally, too much moisture being hurtful; after a certain period, depending on the rapidity with which the process has gone on, the whole is submitted to lixiviation together with wood-ashes, which contain subcarbonate of potass, and which decomposes any nitrate of lime formed, of which there is generally a considerable quantity. After the lixiviation is complete, which takes some time, the solution is separated and boiled down; the salt separates as in the other process, and the nitre is then crystallised. It was from this source that the whole of the nitre, nearly, employed by the French during the long protracted war with the continental powers was obtained.

Nitre has a cold, penetrating, and nauseous taste; enters into igneous fusion at a gentle heat, and is then moulded into round cakes called sal prunella. It is employed in the manufacture of nitric acid; of gunpowder, which is composed of 75 parts by weight of nitre, 16 of charcoal, and 9 of sulphur (the nitre for this purpose should be of great purity); and in the manufacture of oil of vitriol: as a flux it is one of the most powerful we possess; it is also used for the preservation of animal food, and in making frigorific mixtures: 1 oz. of nitre dissolved in 5 oz. of water lowers its temperature 15 degrees of Fahrenheit's thermometer. — (See SALTPETRE.)

Oxalate and Binoxalate of Potass. — The binoxalate of potass, or salt of lemon, or sorrel, by both which last names it is very commonly known, is procured from the juice of the common sorrel (Rumex Acetosa), or the wood sorrel (Oxalis Acetosella), by crystallisation, after the feculent matter has been separated by standing a few days. Its chief uses are, in removing ink spots or iron moulds; and also as a refreshing beverage when mixed with sugar and water.

The neutral oxalate is obtained from this salt by combining the excess of acid which it contains with a solution of subcarbonate of potass. Is very much used in chemistry, as the best test of the presence of lime.

Tartrate and Bitartrate of Potass. — Bitartrate of potass, or cream of tartar, is, when in its crude and impure state, called argol, and is deposited in the interior of wine casks during fermentation, and from this source the whole of the cream of tartar is obtained. It is generally of a very dark brown colour, but may be purified and rendered perfectly white by solution and crystallisation. It is employed very extensively in dyeing, hat-making, and in the preparation of tartaric acid, and many of the compounds of tartaric acid, as tartar emetic, soluble tartar (tartrate of potass): when heated to redness it is converted into carbonate of potass and charcoal; mixed with half its weight of nitre and thrown into a red hot crucible it forms the black flux, and with its own weight of nitre the white flux, both of which are very much employed in metallurgic operations. The tartrate is made by the addition of subcarbonate of potass to a solution of the bitartrate until perfectly neutral: it is used in medicine as a mild purgative.

Ferrocyanate or Prussiate of Potass. — This salt is obtained by the action of subcarbonate of potass, at a low red heat, upon refuse animal matter, such as hoofs, horns, skin, &c., in the proportion of two of subcarbonate to four or five of the animal matter. But the process recommended by M. Gautier is preferable; he finds, that when animal matter is heated with nitre, it yields a much larger quantity of the ferroprussiate than when either potass or subcarbonate of potass are employed; the proportions he finds most economical are, 1 part by weight of nitre, 3 parts of dry blood, and iron scales or filings equal to a fiftieth of the blood employed.

The coagulum of blood is mixed intimately with the nitre and iron filings, and dried by exposure to the air; they are then submitted to a very low red heat, in deep iron cylinders, as long as vapours continue to be liberated; when cold, the contents are dissolved in 12 or 15 times their weight and strained. On evaporation till of the specific gravity 1·284, and allowing it to cool, a large quantity of bicarbonate of potass crystallises, and by further evaporation till of the specific gravity 1·306, the ferroprussiate of potass crystallises on cooling. This is to be recrystallised. It is a beautiful yellow salt, very tough, having a tenacity similar to spermaceti, and is decomposed at a red heat. It is employed very extensively in dyeing blues, and in calico printing; also in the manufacture of Prussian blue, which is a compound of the ferroprussic acid and oxide of iron, prepared by adding 1 part of the ferroprussiate of potass dissolved in water, to 1 part of copperas, and 4 parts of alum in solution.

Chromate of Potass. — This salt is obtained from the native chromate of iron by the action of nitre at a full red heat in equal proportions. By solution, filtration, and evaporation, a beautiful lemon-yellow coloured salt results. It is very much employed in dyeing, calico printing, and calico making, from its producing bright yellow precipitates with solutions of lead.

Bichromate of Potass — is prepared from the above-mentioned salt, by the addition of nitric acid to the yellow solution obtained from the heated mass by the action of water; on evaporating this, a dark red coloured salt crystallises, which is the bichromate. This is also very largely employed by the calico printers, and when mixed in solution with nitric acid, possesses the property of destroying vegetable colours; on this account it is of great importance, as it at the same time removes a vegetable colour, and forms a base for a yellow dye.

Chlorate or Hyperoxymuriate of Potass. — The preparation of this salt is attended with some little difficulty, and requires a great deal of nicety. It is obtained by passing a current of chlorine gas through a solution of caustic potass; then boiling and evaporating; the first salt that separates is the chlorate of potass; and by further evaporation, muriate of potass is obtained. It is used in making matches for instantaneous light boxes, which are prepared by first dipping the wood in melted sulphur, and then into a thin paste, formed of 3 parts chlorate of potass, 2 parts starch, and a little vermilion; with sulphur it forms a very explosive compound, generally employed for filling the percussion caps of fowling-pieces.

Soda, or Mineral Alkali. — The sources of this alkali in nature are various. It is obtained in combination with carbonic acid, when plants which grow by the sea-side are burnt. The ashes thus obtained are called barilla and kelp; and also in some countries it is found as an efflorescence upon the surface of the earth, and is called nitrum or natron; this occurs particularly in Egypt and South America. Trona is also another native carbonate of soda, and is exported from Tripoli. In combination with muriatic acid it is also found in immense abundance, forming the rock salt, and sea salt or muriate of soda. It is obtained from the carbonate exactly in the same way as potass is obtained from its carbonate, namely, by boiling it with fresh burnt lime previously slaked, decanting the clear solution, and evaporating and fusing. It is a white brittle substance, and by exposure to the air becomes converted into a dry carbonate. Its uses in the arts and manufactures are of considerable importance. In soap-making it is

employed in very large quantities, and for this purpose is generally procured from barilla or kelp, by mixing them with lime, and by the infusion of water procuring a caustic soda ley; this is mixed with oil and fatty matters in various proportions, and boiled; the saponification of the fatty matter takes place, and the soap formed rises to the surface; the ley is then drawn from beneath, and fresh leys added, until the soap is completely free from oil; it is then allowed to dry. Soda is also employed in the manufacture of plate, crown, and bottle glass, though for this purpose it is generally in the form of carbonate or sulphate.

Subcarbonate of Soda. (In the chemical nomenclature it is called *carbonate.*) — This is generally prepared from barilla, which contains about from 16 to 24 per cent. Barilla is procured by incinerating the *salsola soda*, and other sea-side plants; it is made in large quantities on the coast of Spain. Kelp is another impure carbonate of soda, but does not contain more than 4 or 5 per cent.; it is the ashes obtained from sea weeds by incineration, and is made on the northern shores of Scotland. From these, the crystallised carbonate (or subcarbonate, as it is more frequently called) is made by the addition of a small quantity of water, boiling, straining, evaporating, and skimming off the common salt as it forms on the surface; on cooling, the subcarbonate of soda crystallises. Another method is by heating the sulphate of soda with carbonate of lime and charcoal, and then dissolving out the soluble carbonate; also, by the action of carbonate of potass (pearlash) upon solutions of sea salt. — (See BARILLA and KELP.)

Bicarbonate of Soda — is procured by driving a current of carbonic acid gas through solutions of the carbonate, and then evaporating at a temperature below 212° Fahrenheit; it is chiefly employed in making soda water powders. This is the carbonate of soda of the Pharmacopœia. By the application of a red heat it loses carbonic acid, and is converted into the subcarbonate.

Sulphate of Soda, or Glauber Salts. — This salt, which has received the name of Glauber, from its discoverer, is the residue of a great many chemical processes; for instance, when muriate of soda is acted upon by oil of vitriol, muriatic acid and sulphate of soda result; in making chlorine gas for the manufacture of the chloride of lime, or bleaching powder, sulphate of soda and sulphate of manganese result; the materials employed being sea salt, sulphuric acid (oil of vitriol), and black oxide of manganese: also, in the preparation of acetic acid from the acetate of soda, and in the preparation of muriate of ammonia from sea salt and sulphate of ammonia. Sulphate of soda is a colourless, transparent salt, effloresces readily when exposed to the air, and becomes converted into a dry powder; it has a cold, bitter taste. It is used for the preparation of carbonate of soda, and as a medicine. It is found native in some countries, particularly in Persia and South America — frequently as an efflorescence upon new walls.

Nitrate of Soda. — This salt is found native in some parts of the East Indies, and is called, from its square form, cubic nitre; it is, however, very little used.

Muriate of Soda, or Sea Salt. — This compound is found in immense quantities in the earth, and is called from this circumstance rock salt, or sal gem. The mines of Cheshire and Droitwich, in this country, and those in Poland, Hungary, and Spain, and many others, afford immense quantities of this compound. It is also obtained by the evaporation of sea water, both spontaneously in pits formed for the purpose, and in large iron boilers; the uncrystallisable fluid is called the bittern; basket salt is made by placing the salt after evaporation in conical baskets, and passing through it a saturated solution of salt, which dissolves and carries off the muriate of magnesia or lime. Pure salt should not become moist by exposure to the air; it decrepitates when heated; it is employed for the preparation of muriatic acid, carbonate of soda, muriate of ammonia, and many other operations; also in glazing stone-ware, pottery, &c.; and from its great antiseptic properties, is used largely for the preservation of animal food; as a flux also in metallurgy.

Borate of Soda, or Borax. — This salt is found in Thibet and Persia, deposited from saline lakes; it is called tincal, and is imported into this country, where it is purified by solution; the fatty matter with which the tincal is always coated being removed, and the solution evaporated and crystallised: its principal uses are as a flux, from its acting very powerfully upon earthy substances.

ALKANET, or ANCHUSA (Ger. *Orkanet;* Du. *Ossetong;* Fr. *Orcanette;* It. *Ancusa;* Sp. *Arcaneta*), a species of bugloss (*Anchusa tinctoria* Lin). It has been cultivated in England; but is found of the finest quality in Siberia, Spain, and more particularly in the South of France, in the vicinity of Montpelier. The roots of the plant are the only parts that are made use of. When in perfection, they are about the thickness of the finger, having a thick bark of a deep purplish red colour. This, when separated from the whitish woody pith, imparts a fine deep red to alcohol, oils, wax, and all unctuous substances. To water it gives only a dull brownish hue. It is principally employed to tint wax, pomatum, and unguents, oils employed in the dressing of mahogany, rose-wood, &c. The alkanet brought from Constantinople yields a more beautiful but less permanent dye than that of France. — (*Lewis's Mat. Med.; Magniem, Dictionnaire des Productions.*)

The duty, which was previously very oppressive, was reduced in 1832 to 2*s.* a cwt.; and by the tariff of last year (1842) to 1*s.* a cwt. The imports are inconsiderable. The price varies from 27*s.* to 32*s.* a cwt.

ALLOWANCES, TARES, &c. In selling goods, or in paying duties upon them, certain deductions are made from their weights, depending on the nature of the packages in which they are inclosed, and which are regulated in most instances by the custom of merchants, and the rules laid down by public offices. These allowances, as they are termed, are distinguished by the epithets *Draft*, *Tare*, *Tret*, and *Cloff*.

Draft is a deduction from the original or gross weight of goods, and is subtracted before the tare is taken off.

Tare is an allowance for the weight of the bag, box, cask, or other package, in which goods are weighed.

Real or *open tare* is the actual weight of the package.

Customary tare is, as its name implies, an established allowance for the weight of the package.

Computed tare is an estimated allowance agreed upon at the time.

Average tare is when a few packages only among several are weighed, their mean or average taken, and the rest tared accordingly.

Super-tare is an additional allowance, or tare, where the commodity or package exceeds a certain weight.

When tare is allowed, the remainder is called the nett weight; but if trett be allowed, it is called the *suttle weight.*

Tret is a deduction of 4 lbs. from every 104 lbs. of suttle weight.

This allowance, which is said to be for dust or sand, or for the waste or wear of the commodity, was formerly made on most foreign articles sold by the pound avoirdupois; but it is now nearly discontinued by merchants, or else allowed in the price. It is wholly abolished at the East India warehouses in London; and neither trett nor draft is allowed at the Custom-house.

Cloff or *Clough*, is another allowance that is nearly obsolete. It is stated in arithmetical books to be a deduction of 2 lbs. from every 3 cwt. of the *second suttle;* that is, the remainder after trett is subtracted;

but merchants, at present, know cloff only as a small deduction, like draft, from the original weight, and this only from two or three articles.—(See *Kelly's Cambist*, art. "London.")

For an account of the tares and allowances at London, see TARE; for the tares and allowances at the great foreign trading towns, see their names.

ALMONDS (Ger. *Mandeln*; Du. *Amandelen*; Fr. *Amandes*; It. *Mandorli*; Sp. *Almendra*; Port. *Amendo*; Rus. *Mindal*; Lat. *Amygdalæ amaræ, dulces*), a kind of medicinal fruit, contained in a hard shell, that is enclosed in a tough sort of cotton skin. The tree (*Amygdalus communis*) which produces this fruit nearly resembles the peach both in leaves and blossoms; it grows spontaneously only in warm countries, as Spain, and particularly Barbary. It flowers early in the spring, and produces fruit in August. Almonds are of two sorts, sweet and bitter. They are not distinguishable from each other but by the taste of the kernel or fruit. "The Valentia almond is sweet, large, and flat-pointed at one extremity, and compressed in the middle. The Italian almonds are not so sweet, smaller, and less depressed in the middle. The Jordan almonds come from Malaga, and are the best sweet almonds brought to England. They are longer, flatter, less pointed at one end and less round at the other, and have a paler cuticle than those we have described. The sweet almonds are imported in mats, casks, and boxes; the bitter arrive in boxes."—(*Thomson's Dispensatory.*)

Previously to 1832 almonds were grossly overtaxed; but the duties were then considerably reduced, and they were also still further reduced in 1842 and 1853. The duty on all varieties (inc. Jordan) of sweet almonds was fixed in the last mentioned year at 10s. a cwt., that on bitter almonds having been previously repealed. The imports of sweet and bitter almonds respectively amounted in 1853 to 21,723 and 6,352 cwts.; the bitter being almost entirely supplied by Morocco, which also supplied by far the larger portion, or 15,974 cwt., of the sweet, the residue of the latter being brought, 3,844 cwt. from Spain, 879 do. from France, 347 do. from Portugal, and 699 do. from other parts. During the same year 10,143 cwt. sweet almonds were entered for consumption, whereof 4,482 cwt. were of Morocco, 4,307 do. Spanish, 778 do. French, &c. The Morocco almonds are mostly shipped at MOGADORE, which see.

ALOES (Du. *Aloe*; Fr. *Aloës*; Ger. and Lat. *Aloe*; Rus. *Sabir*; Sp. *Aloè*; Arab. *Mucibar*), a bitter, gummy, resinous, inspissated juice, obtained from the leaves of the plant of the same name. There are four sorts of aloes met with in commerce; viz. *Socotrine, Hepatic, Caballine*, and *Cape*.

1. *Socotrine*—so called from the island of Socotra, in the Indian Ocean, not very distant from Cape Guardafui, where the plant (*Aloe spicata*), of which this species is the produce, grows abundantly. It is in pieces of a reddish brown colour, glossy as if varnished, and in some degree pellucid. When reduced to powder, it is of a bright golden colour. Its taste is extremely bitter; and it has a peculiar aromatic odour, not unlike that of the russet apple decaying. It softens in the hand, and is adhesive: and yet is sufficiently pulverulent. It is imported by way of Smyrna and Alexandria, in chests and casks, but is very scarce in England.

2. *Hepatic*—The real hepatic aloes, so called from its liver colour, is believed to be the produce of the *Aloe perfoliata*, which grows in Yemen in Arabia, from which it is exported to Bombay, whence it finds its way to Europe. It is duller in the colour, bitterer, and has a less pleasant aroma than the Socotrine aloes, for which, however, it is sometimes substituted. Barbadoes aloes, which is often passed off for the hepatic, is the produce of the *Aloe vulgaris*. It is brought home in calabashes, or large gourd shells, containing from 60 to 70 lbs. It is duskier in its hue than the Bombay, or real hepatic aloes, and the taste is more nauseous, and intensely bitter. The colour of the powder is a dull olive yellow.

3. *Caballine* or *Horse Aloes* seems to be merely the coarsest species or refuse of the Barbadoes aloes. It is used only in veterinary medicine; and is easily distinguished by its rank fœtid smell.

4. *Cape Aloes* is the produce of the *Aloe spicata*, which is found in great abundance in the interior of the Cape colony, and in Melinda. The latter furnishes the greater part of the extract sold in Europe under the name of Socotrine aloes. The odour of the Cape aloes is stronger and more disagreeable than that of the Socotrine; they have, also, a yellower hue on the outside; are less glossy, softer, and more pliable; the colour of the powder is more like that of gamboge than that of the true Socotrine aloes.—(*Ainslie's Mat. Indica; Thomson's Dispensatory* and *Mat. Medica.*)

Of 246,575 lbs. aloes imported in 1853, from 190,000 to 200,000 lbs. were probably taken for consumption. Duties repealed in 1845.

ALOES-WOOD (Ger. *Aloeholz*; Du. *Aloëhout, Paradyshout*; Fr. *Bois d' Aloës*; It. *Legno di Aloe*; Sp. *Aloè chino*; Lat. *Lignum Aloes*; Sans. *Aguru*; Malay, *Agila*; Siam. *Kisna*), the produce of a large forest tree, to be found in most of the countries between China and India, from the 24th degree of north latitude to the equator.

It seems to be the result of a diseased action confined to a small part of a few trees, of which the rest of the wood is wholly valueless. It appears to be more or less frequent according to soil and climate, and from the same causes to differ materially in quality. It is produced both in the greatest quantity and perfection in the countries and islands of the east coast of the Gulf of Siam. This article is in high repute for fumigations, and as incense, in all Hindu, Mohammedan, and Catholic countries. It formerly brought a very high price, being at one time reckoned nearly as valuable as gold. It is now comparatively cheap, though the finest specimens are still very dear. The accounts of this article in most books, even of good authority, are singularly contradictory and inaccurate. This is more surprising, as La Loubère has distinctly stated, that it consisted only of "*certains endroits corrumpus dans des arbres d'une certaine espèce. Toute arbre de cette espèce n'en a pas; et ceux qui en ont, ne les ont pas tous en même endroit.*"—(Royaume de Siam, t. i. p. 45. 12mo. ed.) The difficulty of finding the trees which happen to be diseased, and of getting at the diseased portion, has given rise to the fables that have been current as to its origin. The late Dr. Roxburgh introduced the tree which yields this production into the Botanical Garden at Calcutta, from the hills to the eastward of Sylhet, and described it under the name of *Aquillaria Agalocha*.

ALUM (Ger. *Alaun*; Du. *Alun*; Fr. *Alun*; It. *Allume*; Sp. *Allumbre*; Rus. *Kwasszë*; Lat. *Alumen*; Arab. *Sheb*), a salt of great importance in the arts, consisting of a ternary compound of *aluminum*, or pure argillaceous earth, potass, and sulphuric acid. Alum is sometimes found native; but by far the greater part of that which is met with in commerce is artificially prepared. The best alum is the Roman, or that which is manufactured near Civita Vecchia, in the Papal territory. It is in irregular,

octahedral, crystalline masses, about the size of a walnut, and is opaque, being covered on the surface with a farinaceous efflorescence. The Levant, or Roch alum, is in fragments, about the size of the former, but in which the chrystalline form is more obscure; it is externally of a dirty rose-colour, and internally exhibits the same tinge, but clearer. It is usually shipped for Europe from Smyrna; but it was anciently made at Roccha, or Edessa, in Syria; and hence its name Roch alum. English alum is in large, irregular, semi-transparent, colourless masses, having a glassy fracture; not efflorescent, and considerably harder than the others. It is very inferior to either the Roman or Roch alum. The principal use of alum is in the art of dyeing, as a mordant for fixing and giving permanency to colours which otherwise would not adhere at all, or but for a very short time; but it is also used for a great variety of other purposes.

Beckmann has shown (*History of Inventions*, vol. i. art. "Alum") that the ancients were unacquainted with alum, and that the substance which they designated as such was merely vitriolic earth. It was first discovered by the Orientals, who established alum works in Syria in the thirteenth or fourteenth century. The oldest alum works in Europe were erected about the middle of the fifteenth century. Towards the conclusion of the reign of Queen Elizabeth, Sir Thomas Chaloner established the first alum work in England, in the vicinity of Whitby, in Yorkshire, where the principal works of the sort in this country are still carried on; the shipments of alum from Whitby in 1841 amounted to 3,237 tons. There is, also, a large alum work at Hurlett, near Paisley, the produce of which may be estimated at about 1,200 tons a year. Alum is largely manufactured in China, and is thence exported to all the western Asiatic countries. In 1837, 35,642 piculs (2,120 tons) were exported from Canton.

AMBER (Ger. *Bernstein*; Du. *Barnsteen*; Da. *Bernsteen, Rav.*; Fr. *Ambre jaune*; It. *Ambra gialla*; Sp. *Ambar*; Rus. *Jantar*; Pol. *Bursztyn*; Lat. *Succinum, Electrum*), a brittle, light, hard substance, usually nearly transparent, sometimes nearly colourless, but commonly yellow, or even deep brown. It has considerable lustre. Specific gravity 1·065. It is found in nodules or rounded masses, varying from the size of coarse sand to that of a man's hand. It is tasteless, without smell, except when pounded or heated, when it emits a fragrant odour. It is highly electric. Most authors assert that amber is bituminous; but Dr. Thomson states, that "it is undoubtedly of a vegetable origin; and though it differs from resins in some of its properties, yet it agrees with them in so many others, that it may without impropriety be referred to them."—(*Chemistry*, vol. iv. p. 147. 5th ed.)

Pieces of amber occasionally enclose parts of toads and insects in their substance, which are beautifully preserved. It is principally found on the shores of Pomerania and Polish Prussia; but it is sometimes dug out of the earth in Ducal Prussia. It is also met with on the banks of the river Giaretta, in Sicily. Sometimes it is found on the east coast of Britain, and in gravel pits round London. The largest mass of amber ever found was got near the surface of the ground in Lithuania. It weighs 18 lbs., and is preserved in the royal cabinet at Berlin. Most of the amber imported into this country comes from the Baltic, but a small quantity comes from Sicily. Amber was in very high estimation among the ancients, but is now comparatively neglected.

AMBER-GRIS, OR AMBER-GREASE (Ger. *Amber*; Du. *Amber*; Fr. *Ambergris*; It. *Ambra-grigia*; Sp. *Ambar-gris*; Lat. *Ambra, Ambra grisea,*) a solid, opaque, generally ash-coloured, fatty, inflammable substance, variegated like marble, remarkably light, rugged and uneven in its surface, and has a fragrant odour when heated; it does not effervesce with acids, melts freely over the fire into a kind of yellow resin, and is hardly soluble in spirit of wine. It is found on the sea-coast, or floating on the sea, near the coasts of India, Africa, and Brazil, usually in small pieces, but sometimes in masses of 50 or 100lbs. weight. "Various opinions have been entertained respecting its origin. Some affirmed that it was the concrete juice of a tree, others thought it a bitumen; but it is now considered as pretty well established that it is a concretion formed in the stomach or intestines of the *Physeter macrocephalus*, or spermaceti whale."—(*Thomson's Chemistry.*) Ambergris ought to be chosen in large pieces, of an agreeable odour, entirely grey on the outside, and grey with little black spots within. The purchaser should be very cautious, as this article is easily counterfeited with gums and other drugs.

AMETHYST (Ger. *Amethyst*; Fr. *Amethyste*; It. *Amatista*; Sp. *Ametisto*; Lat. *Amethystus*), a precious stone, of which there are two species differing widely in quality and value.

The *Oriental amethyst* is a gem of the most perfect violet colour, and of extraordinary brilliancy and beauty. It is said to be as hard as the sapphire or ruby, with which it also corresponds in its form and specific gravity—(see SAPPHIRE), differing in colour merely. It has been met with in India, Persia, Siam, and other countries; but it is exceedingly scarce. That found in India is said by Pliny to be the best. (*Principatum amethysti Indicæ tenent.*—Nat. Hist. lib. xxxvii. cap. 9.) Mr. Mawe says he had rarely seen an oriental amethyst offered for sale, unless small and inferior in colour. Mr. Hope, the author of Anastasius, had in his cabinet the finest gem of this sort in Europe. This exquisite specimen exceeds an inch in its greatest diameter; in daylight it exhibits the most beautiful violet colour, while by candlelight it is a decided blue.

The *Occidental amethyst* is merely coloured crystal or quartz.—"When perfect, its colour resembles that of the violet, or purple grape; but it not unfrequently happens that the tinge is confined to one part of the stone only, while the other is left almost colourless. When it possesses a richness, clearness, and uniformity of hue, it is considered a gem of exquisite beauty; and as it occurs of considerable size, it is suited to all ornamental purposes. In specific gravity and hardness it bears no comparison with the oriental amethyst; it is also inferior in beauty and lustre; though I have often seen the common amethyst offered for sale as oriental. Brazil, Siberia, and Ceylon produce very fine amethysts: they are found in rolled pieces in the alluvial soil, and finely crystallised in fissures of rock. From the first of these localities, they have lately been imported in such quantities as considerably to diminish their

value: but as they are the only coloured stones, except garnets, that are worn with mourning, they still retain, when perfect, a distinguished rank among the precious gems. The present price of inferior light-coloured stones, in the rough state, is about 20*s.* per pound, whilst those of good quality sell at 10*s.* or 12*s.* per ounce. Amethysts calculated for brooches or seals may be purchased at from 15*s.* to two or three guineas each, for which, ten years ago, treble that sum would have been given."—(*Mawe on Diamonds*, 2d ed. pp. 115—117.)

AMIANTHUS, ASBESTOS, OR MOUNTAIN FLAX, a mineral of which there are several varieties, all more or less fibrous, flexile, and elastic. It is inconsumable by a high degree of heat; and in antiquity the art was discovered of drawing the fibres into threads, and then weaving them into cloth. Pliny says that he had seen napkins made of this substance, which, when soiled, were thrown into the fire, and that they were better cleaned by this means than they could have been by washing! Hence it obtained from the Greeks the name of Αμιαντος (undefiled). Its principal use, as stated by Pliny, was to wrap the bodies of the dead previously to their being exposed on the funeral pile, that the ashes of the corpse might not be mixed with those of the wood. And in corroboration of this statement we may mention, that in 1702, a skull, some calcined bones, and a quantity of ashes, were found at Rome, in a cloth of amianthus nine Roman palms in length by seven in width. Its employment in this way was, however, confined to a few of the very richest families, incombustible cloth being very scarce, and bringing an enormously high price. *Rarum inventu, difficile textu propter brevitatem. Cùm inventum est, æquat pretia excellentium margaritarum.*—(Plin. Hist. Nat. lib. xix. cap. 1.) The disuse of the practice of cremation, or of burning the dead, caused the manufacture of amianthine cloth to be neglected. Several moderns have, however, succeeded in making it; but, if it be not lost, the art is now rarely practised.—(For further particulars, see *Rees's Cyclopædia.*)

AMMONIACUM (Fr. *Gomme Ammoniaque*; It. *Gomma Ammoniaco*; Sp. *Goma Ammoniaco*; Lat. *Ammoniacum*; Arab. *Feshook*), a concrete resinous juice obtained from a plant resembling fennel, found in the north of Africa, Arabia, Persia, the East Indies, &c. Pliny says that it derived its name from its being produced in the vicinity of the temple of Jupiter Ammon in Africa.—(*Hist. Nat.* lib. xii. cap. 23.) It has a faint but not ungrateful smell; and a bitter, nauseous, sweet taste. The fragments are yellow on the outside and white within, brittle, and break with a vitreous fracture; their specific gravity is 1·207. The best ammoniacum is brought from Persia by Bombay and Calcutta, packed in cases and chests. It is in large masses, composed of small round fragments or tears; or in separate dry tears, which is generally considered a sign of its goodness. The tears should be white internally and externally, and free from seeds or other foreign substances. Reject that which is soft, dark-coloured, and foul. It is used principally in the materia medica, and the quantity imported is but small.—(*Rees's Cyclopædia*; *Thomson's Dispensatory*; *Milburn's Orient. Com.* &c.)

AMMONIAC (SAL). See ALKALIES (*Muriate of Ammonia*).

AMMUNITION, a term expressive of the various implements used in war.

No ammunition can be imported into the United Kingdom by way of merchandise, except by licence from his Majesty, for furnishing his Majesty's stores only, under penalty of forfeiture.—(3 & 4 *Will.* 4. cap. 52. § 58.) His Majesty may forbid, by order in council, the exportation of any saltpetre, gunpowder, or any sort of ammunition. Any master of a vessel exporting ammunition when so forbidden, shall for every such offence forfeit 100*l.*—(*29 Geo.* 2. c. 16.)

AMSTERDAM, the principal city of Holland, situated on the Y, an arm of the Zuyder Zee, in lat. 52° 22′ 17″ N., long. 4° 53′ 15″ E. From 1580 to 1750, Amsterdam was, perhaps, the first commercial city of Europe; and though her trade has experienced a great falling off since the last-mentioned epoch, it is still very considerable. In 1785, the population is said to have amounted to 235,000; in 1815 it had declined to 180,179; but its increase in the interval has been such, that it amounted in 1857 to 260,037. The harbour is spacious and the water deep; and it has recently been much improved by the construction of docks, two of which are already completed, and a third in a very advanced state. Owing, however, to a bank (the Pampus) where the Y joins the Zuyder Zee, large vessels going or coming by that sea are obliged to load and unload a part of their cargoes in the roads. The navigation of the Zuyder Zee is also, by reason of its numerous shallows, very intricate and difficult; and as there were no hopes of remedying this defect, it became necessary to resort to other means for improving the access to the port. Of the various plans suggested for this purpose, the preference was given to the scheme for cutting a canal capable of admitting the largest class of merchantmen, from the north side of the port of Amsterdam to Newdiep, opposite to the Texel, and a little to the east of the Helder. This canal has fully answered the views of the projectors, and has proved of signal service to Amsterdam, by enabling large ships to avoid the Pampus, as well as the difficult navigation of the Zuyder Zee, where they were frequently detained for three weeks, and to get to and from Newdiep without any sort of risk in less than 24 hours. The canal was begun

in 1819, and completed in 1825. It has 5 sluices large enough to admit ships of the line; the dues and charges on account of towing, &c. being at the same time very moderate. At Newdiep the water is deeper than in any other port on the coast of Holland, and ships are there in the most favourable position for getting expeditiously to sea. — (See CANALS.) The imports principally consist of sugar, coffee, spices, tobacco, cotton, tea, indigo, cochineal, wine and brandy, wool, grain of all sorts, timber, pitch and tar, hemp and flax, iron, hides, linen, cotton and woollen stuffs, hardware, rock salt, tin plates, coal, dried fish, &c. The exports consist partly of the produce of Holland, partly and principally of the produce of her possessions in the East and West Indies, and other tropical countries, and partly of commodities brought to Amsterdam, as to a convenient *entrepôt* from different parts of Europe. Of the first class are cheese and butter (very important articles), madder, clover, rape, hemp, and linseeds, rape and linseed oils, Dutch linen, &c. Geneva is principally exported from Schiedam and Rotterdam; oak bark and cattle principally from the latter. Of the second class are spices, coffee, and sugar, principally from Java, but partly also from Surinam, Brazil, and Cuba; indigo, cochineal, cotton, tea, tobacco, and all sorts of eastern and colonial products. And of the third class, all kinds of grain, linens from Germany, timber and all sorts of Baltic produce; Spanish, German, and English wools; French, Rhenish, and Hungarian wines, brandy, &c. The trade of Amsterdam may, indeed, be said to comprise every article that enters into the commerce of Europe. Her merchants were formerly the most extensive dealers in bills of exchange, and though London be now, in this respect, far superior to Amsterdam, the latter still enjoys a respectable share of this business.

The Bank of the Netherlands was established at Amsterdam in 1814. It is not, like the old Bank of Amsterdam, which ceased in 1796, merely a bank of deposit, but a bank of deposit and circulation formed on the model of the Bank of England. Its capital, which originally amounted to 5,000,000 fl., was doubled in 1819. It has the exclusive privilege of issuing notes. Its original charter, which was limited to 25 years, was prolonged in 1838 for 25 years more.

For an account of the Dutch fisheries, see the articles HERRING FISHERY and WHALE FISHERY.

About 350 or 380 large ships belong to Amsterdam; they are employed in the East and West India trades, and in trading to the Baltic, the Mediterranean, &c. There is comparatively little coasting trade at Amsterdam, the communication with most other ports in the vicinity being principally kept up by canals, and that with Friesland by regular packets.

There belonged to Holland on the 1st January 1858, 2,428 ships of the aggregate burden of 586,941 tons, ex river craft and small coasters.

The total imports into Holland in 1856 were estimated at 411,741,153 fl., and the exports at 338,248,371. The U. Kingdom, the German Customs Union, Belgium, Java, France, and Russia, are the countries with which she carries on the most extensive trade.

Dutch Commercial Policy. — The policy of Holland, civil, religious, and commercial, has long been of the most liberal and enlightened description (see *post*); and she was the first country to follow the example we set in repealing the Navigation Laws in 1849. The Dutch law on this subject was passed in 1850. Previously to that period discriminating duties were imposed on most articles imported on foreign bottoms; and also on those imported by foreigners into Java and her other colonies. But these preferences no longer exist. The following is an extract from the law relative to these matters:—

Differential duties are abolished on the vessels of those states which

"*a.* Place the Dutch flag on the same footing with their national flag trading to and from their own ports (coasting trade and fisheries excepted;)

"*b.* Which place the Dutch flag on the same footing with their national flag trading to and from their colonies, if they possess any; and

"*c.* Which do not levy other differential duties to the disadvantage of the produce of the Netherland colonies, or to the prejudice of produce imported from other parts of the world, from Netherland ports, than those which are levied in favour of the produce of their own colonies, when imported direct."

The fisheries and the coasting trade of Holland and of her colonies is reserved to Dutch ships. But it is no longer necessary that the latter should be of Dutch built. Foreign built ships have, however, to pay on being registered an *ad valorem* duty of 4 per cent. over and above the fee charged on the registration of Dutch-built ships. Several important reductions were at the same time made in the tariff of import duties.

The navigation dues or tolls that were formerly charged on vessels or goods passing through Holland by the Rhine and the Yssel, and transit duties of all kinds, have also been repealed. And though it may be said, and truly, that these wise and liberal measures will be much more advantageous to the Dutch than to any other people, still they are of the greatest importance to all commercial nations, and especially to those who, like ourselves, have an extensive intercourse with them.

We are glad to have to state that this liberal policy has in Holland, as in England, had its appropriate reward. Commerce has been largely extended. The mercantile

marine is in a highly prosperous state, and is daily receiving large additions. Many Dutch ships have latterly been chartered by English merchants.

Trade of U. Kingdom with Holland.

Account of the Quantities and Computed Values of the Principal Articles imported from the Netherlands into the U. Kingdom during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Computed Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Animals: oxen and bulls	no.	26,305	28,371	19,665	18,435	£315,660	£182,307	£344,138	£315,676
,, cows and calves	,,	40,879	26,401	24,737	32,038	310,064	182,401	193,347	258,819
,, sheep and lambs	,,	137,888	137,783	116,813	120,578	201,255	239,669	210,987	287,522
Bark for tanners' and dyers' use	cwts.	119,615	102,785	74,988	75,307	31,598	26,553	18,747	18,827
Bones of animals and fish (except whalefins)	tons	5,100	4,727	4,453	3,980	26,775	29,780	22,822	24,676
Butter	cwts.	264,290	259,026	278,626	255,879	1,189,305	1,191,521	1,444,214	1,210,011
Cheese	,,	348,259	314,97	337,547	311,629	800,996	843,859	911,578	852,609
Clocks	no.	80,881	63,925	67,561	64,733	20,830	16,435	17,828	16,796
Corn: wheat	qrs.	33,226	59,621	28,139	45,054	124,597	211,654	91,232	147,140
,, barley	,,	79	1	18,856	26,928	103	2	31,112	45,235
,, oats	,,	171,125	86,363	210,597	110,458	239,575	110,113	292,716	151,312
,, beans	,,	45,610	3,587	23,765	37,145	100,303	7,576	49,312	70,552
Fish, entered by weight	cwts.	6,225	6,523	20,432	43,204	6,695	6,729	20,712	43,736
,, entered by the ship load (eels)	ship loads	76	79	76	74	8,816	23,542	22,648	22,052
Flax, undressed	cwts.	102,754	109,821	129,233	120,374	282,573	362,409	305,851	320,928
,, tow and codilla		26,335	26,054	21,370	23,736	62,391	57,319	52,055	53,321
Garancine	,,	8,419	13,647	17,350	12,674	58,933	95,529	121,100	93,788
Hides, not tanned	,,	5,688	12,481	15,407	14,954	18,021	28,217	46,428	55,546
,, tanned, tawed, curried, or in any way dressed	lbs.	727,110	676,528	578,060	535,154	111,504	74,341	115,123	102,628
Hops	cwts.	7,575	1,629	2,451	732	75,750	14,253	6,135	2,151
Madder	,,	27,662	22,010	31,871	14,982	48,409	44,020	71,485	35,208
Madder root	,,	3,516	1,204	2,585	2,299	4,974	2,107	5,041	5,173
Manganese, ore of	tons	20,114	14,516	23,025	23,280	70,398	50,806	184,200	186,240
Oil: seed	tuns	5,142	1,058	1,419	840	235,267	60,585	72,741	39,665
Seeds: clover	cwts.	8,135	12,272	11,991	17,335	22,057	41,725	46,377	61,975
,, linseed and flaxseed	qrs.	10,451	10,553	5,275	7,977	36,910	37,267	18,685	28,229
Silk: raw	lbs.	155,774	95,972	91,915	82,030	167,457	109,168	119,362	151,026
,, waste, knubs, and husks	cwts.	7,146	4,599	6,369	4,162	30,013	25,752	106,994	77,205
,, thrown	lbs.	105,535	41,659	71,184	64,684	134,302	54,851	126,352	132,027
Silk manufactures, stuffs & ribbons	lbs.	8,057	10,691	9,739	7,462	16,451	19,576	17,479	15,498
Spirits: Geneva	gallons	172,744	208,552	189,419	174,108	24,472	29,544	27,624	25,672
Sugar: unrefined	cwts.	734	69,930	15,010	6,823	875	106,573	24,871	13,014
,, refined, and candy	,,	212,654	215,789	82,657	166,424	308,392	369,539	152,516	386,867
Tin	,,	7,852	7,470	30,486	13,835	46,509	44,073	206,797	92,569
Tobacco, unmanufactured	lbs.	1,372,755	2,403,282	4,648,657	1,825,229	55,245	101,863	157,944	66,039
Ultramarine	cwts.	7,994	7,011	11,780	12,634	40,771	37,784	51,885	59,714
Wine	gallons	111,065	87,242	111,104	121,357	83,299	81,017	107,706	96,425
Wood hoops	no.	22,615,627	24,601,755	22,588,189	23,422,839	33,923	36,905	33,882	36,805
Wool: sheep and lambs	lbs.	2,697,577	2,048,857	3,009,060	2,489,184	106,779	177,141	286,801	255,626
Woollen manufactures, not made up	value	-	-	-	-	38,538	44,137	74,090	57,003
Yeast, dried	cwts.	55,312	60,511	70,979	76,930	152,108	145,715	171,504	178,86
Total value of the above and of all other articles	£	-	-	-	-	6,731,141	6,460,952	7,433,442	7,203,785

Account of the Quantities and Values of the Principal Articles, the Growth and Produce of G. Britain and Ireland, exported from the U. Kingdom to the Netherlands during each of the 3 Years ending with 1857.

Principal Articles.		Quantities.			Declared Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
Apothecary wares (drugs and chemical preparations not otherwise described)	cwts.	6,038	- -	- -	£27,987	£21,105	£19,754
Apparel, slops, and haberdashery	value	-	-	-	33,432	40,937	43,897
Coals, cinders, culm	tons	220,208	242,704	275,165	109,982	100,648	116,398
Copper, wrought and unwrought	cwts.	30,114	41,054	37,584	179,673	224,531	220,357
Cottons: entered by the yard	yards	26,841,385	34,837,453	30,591,208	439,050	569,159	524,072
,, ,, at value	value	-	-	-	45,984	50,669	37,853
Cotton yarn	lbs.	27,018,810	31,926,453	38,478,465	1,457,293	1,751,487	2,159,245
Earthenware and porcelain	value	-	-	-	14,517	27,213	32,559
Hardwares and cutlery	cwts.	14,368	15,745	14,501	62,166	71,576	78,246
Iron and steel	tons	68,719	90,959	134,952	503,845	658,327	863,573
Leather wrought and unwrought	lbs.	515,072	464,382	612,273	52,881	46,426	60,989
Linens: entered by the yard	yards	354,176	590,541	798,608	12,344	20,432	26,179
,, ,, at value	value	-	-	-	3,990	5,293	3,563
Linen yarn	lbs.	1,814,508	3,745,344	4,405,029	88,675	197,073	250,784
Machinery: steam engines	value	-	-	-	60,904	115,168	45,3 8
,, all other sorts	,,	-	-	-	121,251	88,308	123,618
Mill grease	cwts.	37,101	64,852	56,791	28,358	47,469	41,056
Oil, linseed	gallons	530,920	952,761	781,246	78,224	135,258	119,352
Painters' colours (not otherwise described)	value	-	-	-	11,861	23,004	24,590
Salt	tons	31,460	29,034	35,800	13,045	10,669	13,573
Silk manufactures	value	-	-	-	136,408	197,079	145,849
Soda	cwts.	114,068	121,645	160,252	33,864	42,411	67,552
Tin plates	value	-	-	-	16,885	23,504	19,245
Wool, sheep and lambs	lbs.	567,706	440,923	514,227	40,896	26,787	31,661
Woollens, entered by the piece	pieces	163,804	167,201	199,999	222,973	225,661	296,380
,, ,, by the yard	yards	1,275,658	1,242,944	986,819	61,788	75,122	65,906
Woollen yarn	lbs.	5,542,896	5,804,960	5,654,944	341,263	541,494	555,545
Total value of the above and of all other articles	£	- -	- -	- -	4,558,210	5,728,253	6,384,594

We, also, export to the Netherlands large quantities of colonial and other foreign produce, partly for consumption in the country, but mostly in *transitu* for Germany. In 1857 the value of these exports amounted to 2,499,208*l*.

The greater portion, however, of the trade between the U. K. and Holland is carried on

with Rotterdam, which is much more conveniently situated for such intercourse than Amsterdam. But the latter continues to engross by far the larger share of the commerce with the flourishing colony of Java and the other Dutch possessions in the East; and is, consequently, the principal continental mart for eastern produce.

Expenses of Ships in Amsterdam. — The expenses of a ship of 300 English tons, or 138 Dutch lasts, with a mixed cargo on board, inwards and outwards, coming and departing by the canal, were, in 1842, nearly as follows: —

	Arriving from Great Britain.			Arriving from the Mediterranean.		
	£	s.	d.	£	s.	d.
Lock dues in the canal, and charges — inwards	4	10	0	8	10	0
Ditto — outwards	2	10	0	5	10	0
Measuring the ship	1	10	0	1	10	0
Tonnage dues, inwards and outwards	25	12	0	25	12	0
A charge called port money	1	12	0	2	0	0
Haven money	0	13	6	0	13	6
Quay or key money	1	2	0	1	2	0
Permit to consume provisions free of excise dues	0	8	0	0	8	0
Clearance	0	5	0	0	12	6
Expenses of clearing fees, &c.	2	18	0	2	18	0
Total	£11	0	6	£48	16	0

There is, besides, the merchants' and brokers' commission on recovering and procuring freights, generally settled by agreement.

The *tonnage duty* is 45 cents (9*d.*) the Netherlands ton (nearly equal to the British), is payable only *once a year* by native ships, and by ships belonging to countries which have reciprocity treaties with Holland.

The charge called port money is payable half on entry, and half on departure; and that called haven money the same. The hire of a horse for towing along the whole line of the canal amounts to 12 flor. 40 cents, or about 1*l.* 1*s.*

Quarantine. — The quarantine station is at the island of Wieringen, near the Helder.

Commission. — The usual rate of the commission or factorage on the purchase or sale of goods is 2 per cent., and on bill transactions ½ and ¼ per cent. according to their nature.

Provisions of all sorts are abundant at Amsterdam, and reasonably cheap. The wages of ships' carpenters vary from 1 flor. 20 cents to 1 flor. 80 cents; that is, from about 2*s.* to 3*s.* a day.

For an account of the corn trade of Amsterdam, see CORN TRADE AND CORN LAWS.

Custom-house Regulations. — Captains of ships are bound to make, within 24 hours of their arrival at Amsterdam, or any Dutch port, a declaration in writing of the goods of which their cargo consists. If the captains be not acquainted with the goods of which the cargo consists, they must make their declaration under the general term of *merchandise*, and exhibit the bills of lading along with the declaration. The custom-house officers are instructed to inform the captains of all formalities required by law.

The warehousing system has been long established in Amsterdam; and all goods, whether for home consumption or transit, may be deposited in bonded warehouses. Speaking generally, goods can only be kept in bonded warehouses for 2 years; but grain of all kinds may be kept for an unlimited period. The warehouse rent chargeable per month on a quarter of wheat is, on an upper loft, 1*d.* and 2-5ths; on an under loft 1½*d.* On a ton (Eng.) of sugar in casks the charge is 8*d.*; in bags 6*d.*

The dock and its adjacent warehouses, belonging to the *Entrepôt General*, or establishment for warehousing goods imported by sea or intended to be re-exported by sea or by the Rhine, are large and commodious. The dock has water to float the largest ships, and the dues and other charges are exceedingly moderate. Merchants may employ their own men or those of the dock in loading or unloading; and may either place their property in separate vaults or floors of which they keep the key, or entrust it to the care of the dock officers.

Dutch Trading Company. — A large proportion of the foreign trade of Holland was for a considerable period engrossed by the large trading company called the *Nederlandsche Handelmaatschappy*, created in 1824. Its capital, which consisted originally of 37 millions flor., was reduced in 1824 to 24 millions do.; but as the company borrowed 10 millions flor. in 1835, and 13 millions more in 1837, its capital consists of 47 millions flor. At first it extended its operations to America and the West Indies, as well as to the East Indies. But it has latterly very much contracted the scale of its operations; and having lent 40 millions of its capital to government, it is now merely the agent employed by the latter to bring home and sell that part of the produce of Java which, under the new colonial system, belongs to the state, and to carry on the trade with Japan, which, however, is of little or no value. The company has no ships of its own, but charters those of private individuals. Its charges on importation are limited to certain fixed rates.

The business of insurance is extensively practised at Amsterdam; the premiums are moderate, and the security unexceptionable. The high duty formerly imposed in this country on policies of insurance contributed to the increase of this business in Holland.

Credit, Discount, &c. — Holland is, and has always been, a country of short credit. A discount is usually given for prompt payment, at the rate of 1 per cent. for six weeks, and 2 per cent. for two months; but the terms of credit on most articles and the discount allowed for ready money, have been fixed by usage, and are regarded as essential conditions in every bargain. Some of the more important of these terms and discounts are specified in the following table. In consequence of the preference given in Holland to ready money transactions, it is not a country in which adventurers without capital have much chance of speedily making a fortune. "Rien, en effet, de plus facile que de s'établir à Amsterdam; mais *rien de plus difficile de s'y soutenir sans des grandes resources.* Dans cette ville, où l'argent abonde, où on le prête contre des sûretés à si bon marché, *il est pourtant impossible de s'en procurer à crédit;* et sans argent il n'y a plus de possibilité d'y travailler, que de trouver quelqu'un qui veuille de se charger d'un papier nouveau qui ne seroit pas appuyé d'un crédit que l'opinion, la protection, ou des effets réels feroient valoir à la bourse. Les Hollandois suivent lá-dessus des maximes très austères, même á l'égard des maisons d'une certaine considération." —

(*Encyclopédie Méthodique, Commerce*, t. ii. p. 650.) But this *austerity* is not a disadvantage, but the reverse. It prevents commerce from degenerating, as it has too often done in other places, into gambling adventures, and places it on a comparatively solid foundation. And it should be mentioned to the honour of the Dutch, and as a proof of the excellence of this system, that notwithstanding the distress and loss of trade occasioned by the invasion and occupation of their country by the French, the bankruptcies in 1795 and subsequent years were not, comparatively, so numerous as in England in ordinary seasons! The regulations in the Code Napoléon as to bankruptcy are enforced in Holland.

It has long been the practice in Holland to make, on selling articles, considerable deductions from their weight, particularly from those of large bulk, as compared with

Tares and Allowances on the principal Articles sold at Amsterdam.

	Tares.	Allowances.
Ashes	42 lbs. per cask	(Draft and Discount) 18 months' discount, and 1 per cent.
Barilla	per cent.	2 per cent. and 2 per cent.
Cocoa, Caracas	42 lbs.	1 per cent.
Maranham	ditto	
Cayenne	ditto	2 per cent. and 2 per cent.
Martinique	ditto	
Surinam	6 per cent.	
Coffee, East and West India in general	bags 3 per cent., casks real tare.	2 per cent. and 2 per cent.
Bourbon	10 lbs. per original mat.	
Java	14 lbs. per gunny	
Mocha	24 lbs. per bale	
Cotton, Surat and Bengal	8 per cent.	2 per cent. and 1 per cent.
all other kinds	6 per cent.	
Cotton yarn twist	——	1 per cent.
Indigo, Bengal	real tare	1 per cent. 2 per cent. and 1 per cent.
Cochineal	3 & 4 lbs.	4 per cent. augment.
		1 per cent. deduct.
Galls	6 lbs. or 20 lbs.	2 per cent. and 2 per cent.
Gums, Senegal	6 lbs. 14 lbs. or 21 lbs.	2 per cent. and 2 per cent.
Barbary		
Arabic	14 lbs. or 30 lbs.	
Logwood	2 and 3 per cent.	2 per cent.
Fustic	2 per cent.	
Hides, Buenos Ayres, &c.	2 lbs. per hide	2 per cent. and 1 per cent.
Linens, Flemish	——	2 per cent. and 1 per cent.
all other kinds	——	1 per cent.
Oils	——	1 per cent.
Rice, Carolina	real tare	2 per cent. and 2 per cent.
East India	6 lbs.	
Saltpetre	8 & 14 lbs.	1 per cent. and 1½ per cent.
Liquorice	real tare and 4 lbs.	2 per cent. and 1 per cent.
Spices, pepper	25 lbs. or 13 lbs.	
cinnamon	——	1 per cent.
cloves and mace		
pimento	42 lbs. and above 100 lbs.	1 per cent.
nutmegs	12 per cent.	
ginger	8 lbs. à 16 lbs.	2 per cent.
Tobacco, Maryland	casks tared	2 per cent. and 1 per cent. damaged, and 1 per cent.
Virginia	2 and 3 per cent.	
Tin plates	2 per cent.	1 per cent.
Wool, Spanish	bags tared, and 24 lbs. per 175 lbs.	21 months' discount, and 1 per cent.
Wines	——	1 per cent.
Madder	casks tared	10 lbs. per cask, and 2 per cent.
Herrings	3 or 5 per cent.	1 per cent. 2 per cent. and 2 per cent.
Smaltz	36 lbs.	2 per cent.
Flax, hams, seeds, greaves, grain	——	1 per cent.
Butter	——	none.
Hides	——	2 and 1 per cent.
Cheese, Edam	——	2 per cent.
Gouda	——	1 per cent.

The above are the customary tares and other allowance made by the merchants in their transactions with each other. But in paying the import duties at the Custom-house, the tare upon goods paying duty by weight is, with the exceptions undermentioned, fixed at 15 per cent. for such as are in casks or barrels, and at 8 per cent. for such as are in packages, canisters, mats, baskets, &c. Merchants dissatisfied with these allowances may pay the duty according to the *real* weight, ascertained by the customs officers at their expense.

Exceptions.—The tare upon grain imported in sacks is fixed at ½ per cent.

Porcelain, 15 per cent.

Indigo { in chests, 25 per cent. / in serons, 15 per cent.

Money.—Accounts used to be kept at Amsterdam by the pound Flemish = 6 florins = 20 schillings = 120 stivers = 240 groats = 1,920 pennings. But in 1820 the decimal system was introduced. In order, however, to cause as little inconvenience as possible, the florin=1*s.* 8*d.* sterling, was made the unit of the new system. The florin is supposed to be divided into 100 equal parts or cents; and the other silver coins are equal multiples or sub-multiples of it. The new gold coin is called the florin piece, and is worth 16*s.* 6¾*d.* very nearly. But accounts are still sometimes kept in the old way, or by the pound Flemish. Par of exchange between Amsterdam and London is 11 flor. 58 cents per pound sterling.

Weights and Measures.—In 1820, the French system of weights and measures was introduced into the Netherlands, the names only being changed.

The *pond* is the unit of weight, and answers to the French *kilogramme*. Its divisions are the ons, lood, wigtje, and korrel.

The *elle*, which is the unit or element of long measure, equals the French *mètre*. Its decimal divisions are the palm, duim, and streep; and its decimal multiples, the roede and mijle.

The *vierkante elle*, or square ell, is the unit of superficial measure; and answers to the *centiare* or *mètre carré* of France. Its divisions are the vierkante palm, vierkante duim, and the vierkante streep; and its multiples, the vierkante roede and vierkante bunder.

The *kubicke elle* is the unit of measures or capacity; and equals the French *stère*. Its divisions are the kubicke palm, kubicke duim, and kubicke streep.

The term *wisse* is given to a kubicke elle of fire-wood.

The *kop* is the unit of measures for dry wares, and is the cube of the palm; answering to the French *litre*. Its division is the maatje, and its multiples the schepel and mudde; the latter is also called the *zak*, and equals the French hectolitre. 30 mudden make 1 last.

The *kan* is the unit for liquid measure, and is the cube of the palm; it corresponds to the French *litre*. Its divisions are the maatje and vingerhoed, and 100 kans make a *vat* or cask, which equals the French hectolitre.

The apothecary's new pound is 12 ounces, 96 drachms, 288 scruples, or 5,760 grains; and answers to 375 grammes, or 5,787 English grains.

By the old method of calculating, which is not yet entirely superseded, the pound of Amsterdam was = to 1·09 lb. avoirdupois, or 100 lbs. Amsterdam=108·925 lbs. avoirdupois.

The *last* measure for corn = 27 mudden or 10 qurs. 5½ bushels Winchester measure. The *aam* of liquid measure = 4 ankers = 8 steckans = 21 viertels = 64 stoops or stoppen = 128 mingles = 256 pints = 41 English wine gallons.

The stoop contains 5 4-8th pints English measure.

100 mingles are equal to 22 English wine gallons, or 26 1-5th English beer gallons, or 26-2-5th Imperial gallons.

French wine is sold per hogshead of	180 mingles.
Spanish and Portuguese wine, per pipe of	349 ditto.
French brandy, per hogshead of	30 viertels.
Beer, per barrel (equal to the aam) of	128 mingles.
Vegetable oils, per aam, of	120 ditto.
Whale oil, per ditto	16 ditto.

Rum is sold per *anker* of 2 steckan = 10½ English wine gallons.

The foot of Amsterdam = 11 1-74th English inches.
The Rhineland foot.... = 12 ditto.
The ell, cloth measure = 27 1-12th ditto.
Rock salt is sold per hoeder of 404 maaten, making 20 tons, or 4,000 lbs. Dutch.

Pit coal is sold per hoed of 38 maaten; nine hoeds are five chaldrons of Newcastle, or six hoeds are five chaldrons of London.

Butter is sold per barrel; the barrel of Leyden is 320 lbs. nett — that of Friesland 28 lbs. nett — and the common Dutch barrel 336 lbs. gross.

A *last of herrings* is reckoned at 12, 13, or 14 barrels.
A *last of pitch* is 12 barrels.
A *last of tar*, 13 barrels.
A bag of seed=2½ Winchester quarters.
A last for freight is reckoned 4,000 lbs., equal to two English tons.

Eight hogsheads (or oxhoft*s*) of wine	are reckoned as one last in settling the freight of ships.
Twelve barrels of pitch	
Thirteen barrels of tar	
Twenty chests of lemons, &c.	
4,000 lbs. of iron, copper, and colonial produce	
4,000 lbs. of almonds	
2,000 lbs. of wool or feathers	

A last of wheat is considered 10 per cent. higher than one of rye, and the latter 20½ per cent. higher than oats, and 12 per cent. higher than seed. A last of ballast is only 2,000 lbs. — These details have been derived from the answers by the British consul to the circular queries; the *Dictionnaire du Commerce* (*Encyc. Method.*), tom. ii. pp. 651-650.; *Kelly's Cambist, private information, &c.*

their value. These tares and drafts, as they are termed, are now fixed by ancient usage: and the most important amongst them are here specified (p. 35.).

The law of 1850 has the following clauses in regard to the tares of sugar, tea, &c., and to the allowance for leakage.

Tare for Sugar. Imported in boxes from Havana, 13 per cent.; in boxes from Rio Janeiro, Pernambuco, East India, 18 per cent.; in boxes from other parts, 15 per cent.; in casks, 14 per cent.; in leather, mats, baskets, or linen, and such like packages, 8 per cent. (5 of said packages, if possible, always to be weighed together); in kanassers and kranjangs, 10 per cent.: all gross weight.

Tare of Tea. Of ordinary tea-chests weighing 55 Netherland lbs. and above, 18 per cent.; ordinary tea-chests weighing less than 55 lbs., 25 per cent. On entering tea coming direct from China or the Netherlands East Indian possessions, the original manifest or other ship's or lading documents, sufficiently showing the origin of the cargo, must be exhibited to identify the cargo; and the functionaries can also claim a legal declaration by the captain, mate, and part of the crew.

As tea, Bohea or course Congou, can only be admitted such tea which is imported unmixed, in whole chests (of about 150 to 200 Netherlands lbs., and without being packed or incased in smaller chests or packages).

As coarse Congou, is not to be admitted such tea, which, although being in whole chests, has at the time of entry a value of 2f. per Netherland pound or above, according to the current price of the day in this country; and is liable to seizure, all tea entered as coarse Congou, when it has less value than 2f. per Netherland pound.

No tare is to be given on transit of all goods on which duty is paid by the weight, but for which no tare is fixed in the tariff; at the importation or exportation, the tare will be paid as follows:

For all casks, cases, &c., made of wood, 15 of 100 lb. gross weight.

For all packages of leather, mats, baskets, kanassers or linen, and such like, 8 of 100 lb. gross weight.

In case the importers are not satisfied with the tare fixed by the tariff, or by the previous Article, they can pay the tare according to the nett weight of the goods. In such a way as it shall be settled by the functionaries, at the expense of the importers.

In case there are a great number of casks and cases of the same size, the tare of the goods can be fixed by weighing a part of the empty casks, cases, &c., to be pointed out by the functionary, and the tare for the whole quantity will then be reckoned according to the average weight.

In case of mixed packages, and if the duty on one part of the goods is to be paid by the weight, and the other by the value, the nett weight of the first can be taken by the functionaries at the expense of the importers, according to the result of which duty then is to be paid.

For all liquids free of excise, rated by the measure, on importation by sea, a reduction will be granted for leakage as follows:

Coming from England, Embden, Bremen, Hamburg, and the Lower Baltic, also from France, Belgium, Spain, Portugal, on this side of the Straits of Gibraltar, 6 per cent.; from other parts, imported by sea, 12 per cent.

If the importers think that this reduction for leakage is not sufficient, or if they should assert a claim to a reduction in those cases in which the law does not grant it, they will be at liberty to pay duty according to the existing quantity, which at their expense will be determined by the functionaries.

Magnitude of the Commerce of Holland in the Seventeenth Century — Causes of its Prosperity and Decline. — We believe we need not make no apology for embracing this opportunity to lay before our readers the following details with respect to the commerce and commercial policy of Holland. It forms one of the most instructive topics of investigation; and it is to be regretted that so little attention should have been paid to it in this country.

Previously to the commencement of the long-continued and glorious struggle made by the Dutch to emancipate themselves from the blind and brutal despotism of Old Spain, they had a considerable marine, and had attained to distinction by their fisheries and commerce; and the war, instead of being injurious to the trade of the republic, contributed powerfully to its extension. After the capture of Antwerp by the Spaniards, in 1585, the extensive commerce of which it had been the centre was removed to the ports of Holland, and principally to Amsterdam, which then attained to the distinction she long enjoyed, of the first commercial city of Europe.

In 1602, the Dutch East India Company was formed; and notwithstanding the pernicious influence of that association, the Indian trade increased rapidly in magnitude and importance. Ships fitted either for commercial or warlike purposes, and having a considerable number of soldiers on board, were sent out within a few years of the establishment of the company. Amboyna and the Moluccas were first wrested from the Portuguese, and with them the Dutch obtained the monopoly of the spice trade. Factories and fortifications were in no long time established, from Bussorah, near the mouth of the Tigris, in the Persian Gulph, along the coasts and islands of India as far as Japan. Alliances were formed with several of the Indian princes; and in many parts, particularly on the coasts of Ceylon, and in various districts of Malabar and Coromandel, they were themselves the sovereigns. Batavia, in the large and fertile island of Java, the greater part of which had been conquered by the Dutch, formed the centre of their Indian commerce; and though unhealthy, its port was excellent, and it was admirably situated for commanding the trade of the Eastern Archipelago. In 1651, they planted a colony at the Cape of Good Hope, which had been strangely neglected by the Portuguese.

Every branch of commerce was vigorously prosecuted by the Dutch. Their trade with the Baltic was, however, by far the most extensive and lucrative of which they were in possession. Guicciardini mentions that the trade with Poland, Denmark, Prussia, &c., even before their revolt, was so very great, that fleets of 300 ships arrived twice a year at Amsterdam from Dantzic and Livonia only; but it increased prodigiously during the latter part of the sixteenth and the beginning of the seventeenth centuries. The great population of Holland, and the limited extent and unfruitful nature of the soil, render the inhabitants dependent on foreigners for the greater part of their supplies of corn. The countries round the Baltic have always furnished them with the principal part of those supplies; and it is from them that they have been in the habit of bringing timber, iron, hemp and flax, pitch and tar, tallow, ashes, and other bulky articles required in the building of their houses and ships; and in various ma-

nufactures. Nothing, however, redounds so much to the credit of the Dutch, as the policy they have invariably followed with respect to the trade in corn. They have, at all times, had a large capital embarked in this business. The variations which are perpetually occurring in the harvests, early led them to engage very extensively in a sort of speculative corn trade. When the crops happened to be unusually productive, and prices low, they bought and stored up large quantities of grain, in the expectation of profiting by the advance that was sure to take place on the occurrence of an unfavourable year. Repeated efforts were made, in periods when prices were rising, to prevail on the government to prohibit exportation; but they steadily refused to interfere. In consequence of this enlightened policy, Holland has long been the most important European *entrepôt* for corn; and her markets have on all occasions been furnished with the most abundant supplies. Those scarcities which are so very disastrous in countries without commerce, or where the trade in corn is subjected to fetters and restraints, have not only been totally unknown in Holland, but became a copious source of wealth to her merchants, who then obtained a ready and advantageous vent for the supplies accumulated in their warehouses. "Amsterdam," says Sir Walter Raleigh, "is never without 700,000 quarters of corn, none of it of the growth of Holland; and a dearth of only one year in any other part of Europe enriches Holland for seven years. In the course of a year and a half, during a scarcity in England, there were carried away from the ports of Southampton, Bristol, and Exeter alone, nearly 200,000*l.*; and if London and the rest of England be included, there must have been 2,000,000*l.* more." — (*Observations touching Trade and Commerce with the Hollander*, Miscel. Works, vol. ii.)

The very well informed author of the *Richesse de la Hollande*, published in 1778, observes, in allusion to these circumstances, "Que la disette de grains regne dans les quatre parties du monde; vous trouverez du froment, du seigle, et d'autres grains à Amsterdam; *ils n'y manquent jamais.*" — (Tome i. p. 376.)

The Bank of Amsterdam was founded in 1609. The principal object of this establishment was to obviate the inconvenience and uncertainty arising from the circulation of the coins imported into Amsterdam from all parts of the world. The merchants who carried coin or bullion to the Bank obtained credit for an equal value in its books: this was called bank-money; and all considerable payments were effected by writing it off from the account of one individual to that of another. This establishment continued to flourish till the invasion of the French in 1795.

Between the years 1651 and 1672, when the territories of the republic were invaded by the French, the commerce of Holland seems to have reached its greatest height. De Witt estimates its increase from the treaty with Spain, concluded at Munster in 1648, to 1669, at fully a half. He adds, that during the war with Holland, Spain lost the greater part of her naval power; that since the peace, the Dutch had obtained most of the trade to that country, which had been previously carried on by the Hanseatic merchants and the English; that almost all the coasting trade of Spain was carried on by Dutch shipping; that Spain had even been forced to hire Dutch ships to sail to her American possessions; and that so great was the exportation of goods from Holland to Spain, that all the merchandise brought from the Spanish West Indies was not sufficient to make returns for them.

At this period, indeed, the Dutch engrossed, not by means of any artificial monopoly, but by the greater number of their ships, and their superior skill and economy in all that regarded navigation, almost the whole carrying trade of Europe. The value of the goods exported from France in Dutch bottoms, towards the middle of the fourteenth century, exceeded 40,000,000 livres; and the commerce of England with the Low Countries was, for a very long period, almost entirely carried on in them.

The business of marine insurance was largely and successfully prosecuted at Amsterdam; and the ordinances published in 1551, 1563, and 1570, contain the most judicious regulations for the settlement of such disputes as might arise in conducting this difficult but highly useful business. It is singular, however, notwithstanding the sagacity of the Dutch, and their desire to strengthen industrious habits, that they should have prohibited insurance upon lives. It was reserved for England to show the advantages that might be derived from this beautiful application of the science of probabilities.

In 1690, Sir William Petty estimated the shipping of Europe at about 2,000,000 tons, which he supposed to be distributed as follows: — viz. England, 500,000; France, 100,000; Hamburgh, Denmark, Sweden, and Dantzic, 250,000; Spain, Portugal, and Italy, 250,000; that of the Seven United Provinces amounting, according to him, to 900,000 tons, or to nearly one half of the whole tonnage of Europe! No great dependence can, of course, be placed upon these estimates; but the probability is, that, had they been more accurate, the preponderance in favour of Holland would have been greater than it appears to be; for the official returns to the circulars addressed in 1701 by the commissioners of customs to the officers at the different ports, show that

the whole mercantile navy of England amounted at that period to only 261,222 tons, carrying 27,196 men.—(*Macpherson's Annals of Commerce, anno* 1701.)

It may, therefore, be fairly concluded that during the seventeenth century the foreign commerce and navigation of Holland was greater than that of all Europe besides; and yet the country which was the seat of this vast commerce had no native produce to export, nor even a piece of timber fit for ship-building. All had been the fruit of industry, economy, and a fortunate combination of circumstances.

Holland owed this vast commerce to a variety of causes: partly to her peculiar situation, the industry and economy of her inhabitants, the comparatively liberal and enlightened system of civil as well as of commercial policy adopted by the republic; and partly also to the wars and disturbances that prevailed in most European countries in the sixteenth and seventeenth centuries, and prevented them from emulating the successful career of the Dutch.

The ascendency of Holland as a commercial state began to decline from about the commencement of last century. After the war terminated by the treaty of Aix-la-Chapelle, the attention of the government of Holland was forcibly attracted to the state of the shipping and foreign commerce of the republic. The discovery of means by which their decline might be arrested, and the trade of the republic, if possible, restored to its ancient flourishing condition, became a prominent object in the speculations of every one who felt interested in the public welfare. In order to procure the most correct information on the subject, the Stadtholder, William IV., addressed the following queries to all the most extensive and intelligent merchants, desiring them to favour him with their answers: —

"1. What is the actual state of trade? And if the same should be found to be diminished and fallen to decay, then, 2. To inquire by what methods the same may be supported and advanced, or, if possible, restored to its former lustre, repute, and dignity?"

In discussing these questions, the merchants were obliged to enter into an examination, as well of the causes which had raised the commerce of Holland to the high pitch of prosperity to which it had once attained, as of those which had occasioned its subsequent decline. It is stated that, though not of the same opinion upon all points, they, speaking generally, concurred as to those that were most important. When their answers had been obtained, and compared with each other, the Stadtholder had a dissertation prepared from them, and other authentic sources, on the commerce of the republic, to which proposals were subjoined for its amendment. Some of the principles advanced in this dissertation apply to the case of Holland only; but most of them are of universal application, and are not more comprehensive than sound. We doubt, indeed, whether the benefits resulting from religious toleration, political liberty, the security of property, and the freedom of industry, have ever been more clearly set forth than in this dissertation. It begins by an enumeration of the causes which contributed to advance the commerce of the republic to its former unexampled prosperity: these the authors divide into three classes, embracing under the first those that were natural and physical; under the second, those they denominated moral; and under the third, those which they considered adventitious and external; remarking on them in succession as follows: —

"I. The natural and physical causes are the advantages of the situation of the country, on the sea, and at the mouth of considerable rivers; its situation between the northern and southern parts, which, by being in a manner the centre of all Europe, made the republic become the general market, where the merchants on both sides used to bring their superfluous commodities, in order to barter and exchange the same for other goods they wanted.

"Nor have the barrenness of the country, and the necessities of the natives arising from that cause, less contributed to set them upon exerting all their application, industry, and utmost stretch of genius, to fetch from foreign countries what they stand in need of in their own, and to support themselves by trade.

"The abundance of fish in the neighbouring seas put them in a condition not only to supply their own occasions, but with the overplus to carry on a trade with foreigners, and out of the produce of the fishery to find an equivalent for what they wanted, through the sterility and narrow boundaries and extent of their own country.

"II. Among the moral and political causes are to be placed, The unalterable maxim and fundamental law relating to the free exercise of different religions; and always to consider this toleration and connivance as the most effectual means to draw foreigners from adjacent countries to settle and reside here, and so become instrumental to the peopling of these provinces.

"The constant policy of the republic to make this country a perpetual, safe, and secure asylum for any persecuted and oppressed strangers. No alliance, no treaty, no regard for or solicitation of any potentate whatever, has at any time been able to weaken or destroy this law, or make the state recede from protecting those who have fled to it for their own security and self-preservation.

"Throughout the whole course of all the persecutions and oppressions that have occurred in other countries, the steady adherence of the republic to this fundamental law has been the cause that many people have not only fled hither for refuge, with their whole stock in ready cash, and their most valuable effects, but have also settled, and established many trades, fabrics, manufactories, arts, and sciences in this country, notwithstanding the first materials for the said fabrics and manufactories were almost wholly wanting in it, and not to be procured but at a great expense from foreign parts.

"The constitution of our form of government, and the liberty thus accruing to the citizen, are further reasons to which the growth of trade, and its establishment in the republic, may fairly be ascribed; and all her policy and laws are put upon such an equitable footing, that neither life, estates, nor dignities, depend on the caprice or arbitrary power of any single individual; nor is there any room for any person,

who, by care, frugality, and diligence, has once acquired an affluent fortune or estate, to fear a deprivation of them by any act of violence, oppression, or injustice.

"The administration of justice in the country has, in like manner, always been clear and impartial, and without distinction of superior or inferior rank, whether the parties have been rich or poor, or were this a foreigner and that a native; and it were greatly to be wished we could at this day boast of such impartial quickness and despatch in all our legal processes, considering how great an influence it has on trade.

"To sum up all, amongst the moral and political causes of the former flourishing state of trade may be likewise placed the wisdom and prudence of the administration, the intrepid firmness of the councils, the faithfulness with which treaties and engagements were wont to be fulfilled and ratified, and particularly the care and caution practised to preserve tranquillity and peace, and to decline instead of entering on a scene of war, merely to gratify the ambitious views of gaining fruitless or imaginary conquests.

"By these moral and political maxims were the glory and reputation of the republic so far spread, and foreigners animated to place so great a confidence in the steady determinations of a state so wisely and prudently conducted, that a concourse of them stocked this country with an augmentation of inhabitants and useful hands, whereby its trade and opulence were from time to time increased.

"III. Amongst the adventitious and external causes of the rise and flourishing state of our trade may be reckoned —

"That at the time when the best and wisest maxims were adopted in the republic as the means of making trade flourish, they were neglected in almost all other countries; and any one reading the history of those times may easily discover that the persecutions on account of religion, throughout Spain, Brabant, Flanders, and many other states and kingdoms, have powerfully promoted the establishment of commerce in the republic.

"To this happy result, and the settling of manufacturers in our country, the long continuance of the civil wars in France, which were afterwards carried on in Germany, England, and divers other parts, have also very much contributed.

"It must be added, in the last place, that during our most burthensome and heavy wars with Spain and Portugal (however ruinous that period was for commerce otherwise), these powers had both neglected their navy; whilst the navy of the republic, by a conduct directly the reverse, was at the same time formidable, and in a capacity not only to protect the trade of its own subjects, but to annoy and crush that of their enemies in all quarters." *

We believe our readers will agree with us in thinking that these statements reflect the greatest credit on the merchants and government of Holland. Nothing, as it appears to us, could be conceived more judicious than the account they give of the causes which principally contributed to render Holland a great commercial commonwealth. The central situation of the country, its command of some of the principal inlets to the Continent, and the necessity under which the inhabitants have been placed, in consequence of the barrenness of the soil and its liability to be overflowed, to exert all their industry and enterprise, are circumstances that seem to be in a great degree peculiar in Holland. But though there can be no doubt that their influence has been very considerable, no one will pretend to say that it is to be compared for a moment with the influence of those free institutions, which, fortunately, are not the exclusive attributes of any particular country, but have flourished in Phœnicia, Greece, England, and America, as well as in Holland.

Many dissertations have been written to account for the decline of the commerce of Holland. But, if we mistake not, its leading causes may be classed under two prominent heads: viz. first, the natural growth of commerce and navigation in other countries; and, second, the weight of taxation at home. During the period when the republic rose to great eminence as a commercial state, England, France, and Spain, distracted by civil and religious dissensions, or engrossed wholly by schemes of foreign conquest, were unable to apply their energies to the cultivation of commerce, or to withstand the competition of so industrious a people as the Dutch. They, therefore, were under the necessity of allowing the greater part of their foreign, and even of their coasting trade, to be carried on in Dutch bottoms, and under the superintendence of Dutch factors. But after the accession of Louis XIV. and the ascendency of Cromwell had put an end to internal commotions in France and England, the energies of these two great nations began to be directed to pursuits of which the Dutch had hitherto enjoyed almost a monopoly. It was not to be supposed that when tranquillity and a regular system of government had been established in France and England, their active and enterprising inhabitants would submit to see one of their most valuable branches of industry in the hands of the foreigners. The Dutch ceased to be the carriers of Europe, without any fault of their own. Their performance of that function necessarily terminated as soon as other nations became possessed of a mercantile marine, and were able to do for themselves what had previously been done for them by their neighbours.

Whatever, therefore, might have been the condition of Holland in other respects, the natural advance of rival nations must inevitably have stripped her of a large portion of the commerce she once possessed. But the progress of decline seems to have been considerably accelerated, or rather, perhaps, the efforts to arrest it were rendered ineffectual, by the extremely heavy taxation to which she was subjected, occasioned by the unavoidable expenses incurred in the revolutionary struggle with Spain, and the subsequent wars with France and England. The necessities of the state led to the imposition of taxes on corn, on flour when it was ground at the mill, and on bread when it came from the oven; on butter, and fish, and fruit; on income and legacies; the sale of

* The Dissertation was translated into English, and published at London in 1751. We have quoted from the translation.

houses; and, in short, almost every article of either necessity or convenience. Sir William Temple mentions that in his time—and taxes were greatly increased afterwards—one fish sauce was in common use, which directly paid no fewer than *thirty* different duties of excise; and it was a common saying at Amsterdam, that every dish of fish brought to table was paid for *once* to the fishermen, and *six* times to the state.

The pernicious influence of this heavy taxation has been ably set forth by the author of the *Richesse de la Hollande*, and other well-informed writers; and it has also been very forcibly pointed out in the Dissertation already referred to, drawn up from the communications of the Dutch merchants. "Oppressive taxes," it is there stated, "must be placed at the head of all the causes that have co-operated to the prejudice and discouragement of trade; and it may be justly said, that it can only be attributed to them that the trade of this country has been diverted out of its channel, and transferred to our neighbours, and must daily be still more and more alienated and shut out from us, unless the progress thereof be stopped by some quick and effectual remedy: nor is it difficult to see, from these contemplations on the state of our trade, that the same will be effected by no other means than a *diminution of all duties*.

"In former times this was reckoned the only trading state in Europe; and foreigners were content to pay the taxes, as well on the goods they brought hither, as on those they came here to buy; without examining whether they could evade or save them, by fetching the goods from the places where they were produced, and carrying others to the places where they were consumed: in short, they paid us our taxes with pleasure, without any farther inquiry.

"But, since the last century, the system of trade is altered all over Europe: foreign nations, seeing the wonderful effect of our trade, and to what an eminence we had risen only by means thereof, they did likewise apply themselves to it; and, to save our duties, sent their superfluous products beside our country, to the places where they are most consumed; and in return for the same, furnished themselves from the first hands with what they wanted."

But, notwithstanding this authoritative exposition of the pernicious effects resulting from the excess of taxation, the necessary expenses of the state were so great as to render it impossible to make any sufficient reductions. And, with the exception of the transit trade carried on through the Rhine and the Meuse, which is in a great measure independent of foreign competition, and the American trade, most of the other branches of the foreign trade of Holland, though still very considerable, continue in a comparatively depressed state.

In consequence principally of the oppressiveness of taxation, but partly, too, of the excessive accumulation of capital that had taken place while the Dutch engrossed the carrying trade of Europe, profits in Holland were reduced towards the middle of the seventeenth century, and have ever since continued extremely low. This circumstance would of itself have sapped the foundations of her commercial greatness. Her capitalists, who could hardly expect to clear more than two or three per cent. of nett profit by any sort of undertaking carried on at home, were tempted to vest their capital in other countries, and to speculate in loans to foreign governments. There are the best reasons for thinking that the Dutch were, until very lately, the largest creditors of any nation in Europe. It is impossible, indeed, to form any accurate estimate of what the sums owing them by foreigners previously to the late French war, or at present, may amount to; but there can be no doubt that at the former period the amount was immense, and that it is still very considerable. M. Demeunier (*Dictionnaire de l'Economie Politique*, tom. iii. p. 720.) states the amount of capital lent by the Dutch to foreign governments, exclusive of the large sums lent to France during the American war, at *seventy-three* millions sterling. According to the author of the *Richesse de la Hollande* (ii. p. 292.), the sums lent to France and England only, previously to 1778, amounted to 1,500,000 livres tournois, or sixty millions sterling. And besides these, vast sums were lent to private individuals in foreign countries, both regularly as loans at interest, and in the shape of goods advanced at long credits. So great was the difficulty of finding an advantageous investment for money in Holland, that Sir William Temple mentions, that the payment of any part of the national debt was looked upon by the creditors as an evil of the first magnitude. "They receive it," says he, "with tears, not knowing how to dispose of it to interest with such safety and ease."

Among the subordinate causes which contributed to the decline of Dutch commerce, or which have, at all events, prevented its growth, we may reckon the circumstance of the commerce with India having been subjected to the trammels of monopoly. De Witt expresses his firm conviction, that the abolition of the East India Company would have added very greatly to the trade with the East; and no doubt can now remain in the mind of any one, that such would have been the case.* The interference of the

* For proofs of this, see the article on the Commerce of Holland in the Edinburgh Review, No. 102., from which most part of these statements have been taken.

administration in regulating the mode in which some of the most important branches of industry should be carried on, seems also to have been exceedingly injurious. Every proceeding with respect to the herring fishery, for example, was regulated by the orders of government, carried into effect under the inspection of officers appointed for that purpose. Some of these regulations were exceedingly vexatious. The period when the fishery might begin was fixed at five minutes past twelve o'clock of the night of the 24th of June! and the master and pilot of every vessel leaving Holland for the fishery were obliged to make oath that they would respect the regulation. The species of salt to be made use of in curing different sorts of herrings was also fixed by law; and there were endless regulations with respect to the size of the barrels, the number and thickness of the staves of which they were to be made; the gutting and packing of the herrings; the branding of the barrels, &c. &c.—(*Histoire des Pêches &c. dans les Mers du Nord*, tom. i. chap. 24.) These regulations were intended to secure to the Hollanders that superiority which they had early attained in the fishery, and to prevent the reputation of their herrings from being injured by the bad faith of individuals. But their real effect was precisely the reverse of this. By tying up the fishers to a system of routine, they prevented them from making any improvements; while the facility of counterfeiting the public marks opened a much wider door to fraud than would have been opened had government wisely declined interfering in the matter.

In despite, however, of the East India monopoly, and the regulations now described, the commercial policy of Holland has been more liberal than that of any other nation. And in consequence, a country not more extensive than Wales, and naturally not more fertile, conquered, indeed, in great measure from the sea, from the irruptions of which it is defended by immense dykes, constructed and kept up at a vast expense, has accumulated a population of upwards of two millions; has maintained wars of unexampled duration with the most powerful monarchies; and, besides laying out immense sums in works of utility and ornament at home, has been enabled to lend hundreds of millions to foreigners. To those who consider what intelligence, industry and perseverance have done for Holland, the ingenious epigram of Pitcairn will not appear extravagant:—

"Tellurem fecere Dii, sua littora Belgæ,
Immensæque fuit molis uterque labos.
Dii vacuo sparsas glomerárunt æthere terras,
Nil ubi quod cœptis possit obesse fuit.
Ast Belgis maria, et cœli, naturaque rerum
Obstitit; obstantes hi domuêre Deos." *

During the occupation of Holland by the French, first as a dependant state, and subsequently as an integral part of the French empire, her foreign trade was almost entirely destroyed. Her colonies were successively conquered by England; and, in addition to the loss of her trade, she was burdened with fresh taxes. But such was the vast accumulated wealth of the Dutch, their prudence, and energy, that the influence of these adverse circumstances was far less injurious than could have been imagined; and, notwithstanding all the losses she had sustained, and the long interruption of her commercial pursuits, Holland continued, at her emancipation from the yoke of the French in 1814, to be the richest country in Europe! Java, the Moluccas, and most of her other colonies were then restored, and she is now in the enjoyment of a large foreign trade. Her connection with Belgium was an unfortunate one for both countries. The union was not agreeable to either party, and was injurious to Holland. Belgium was an agricultural and manufacturing country; and was inclined, in imitation of the French, to lay restrictions on the importation of most sorts of raw and manufactured produce. A policy of this sort was directly opposed to the interests and the ancient practice of the Dutch. But though their deputies prevented the restrictive system from being carried to the extent proposed by the Belgians, they were unable to prevent it from being carried on to an extent that materially affected the trade of Holland. Whatever, therefore, may be the consequences as to Belgium, there can be little doubt that the separation of the two divisions of the kingdom of the Netherlands will redound to the advantage of Holland. It must ever be for the interest of England, America, and all trading nations, to maintain the independence of a state by whose means their productions find a ready access to the great continental markets. It is to be hoped that the Dutch, profiting by past experience, will adopt such a liberal and conciliatory system towards the natives of Java, as may enable them to avail themselves to the full of the various resources of that noble island. And if they do this, and freely open their ports, with as few restrictions as possible, to the ships and commodities of all countries, Holland may still be the centre of a very extensive commerce, and may continue to preserve a respectable place among mercantile nations. Even at this moment, after all the vicissitudes they have undergone, the Dutch are, beyond all question, the most opulent and industrious of European nations. And their present, no less than

* *Selecta Poemata Pitcarnii*, Edinburgi, 1727, p. 3. Though he has not copied, Pitcairn, no doubt, had in his recollection the famous epigram of Sannazarius on Venice: see the art. on that city.

their former state, shows that a free system of government, security, and the absence of restrictions on industry, can overcome almost every obstacle; "can convert the standing pool and lake into fat meadows, cover the barren rock with verdure, and make the desert smile with flowers."

ANCHOR (Fr. *Ancre*; Lat. *Anchora*; Gr. Αγκυρα), a well-known maritime instrument used in the mooring or fastening of ships. It consists of a shank having two hooked arms at one end, and at the other end a bar, or stock, at right angles to the arms, with a ring to which the cable is fastened. The arms, shank, and ring should be made of the very best and toughest iron; the stock is for the most part of oak, but it is frequently also, especially in the smaller anchors, made of iron. On being let go, or cast into the water, the anchor sinks rapidly to the bottom, and is thrown by the stock into such a position that the *fluke*, or point of one of the arms, strikes the ground perpendicularly, and being kept in that direction, unless the bottom be particularly hard or rocky, sinks into it, and cannot be dislodged, where the ground is not soft or oozy, without a violent effort. When the anchor is dislodged, it is said, by the sailors, to *come home*.

Seeing that the safety and preservation of ships and crews are very frequently dependent on their anchors and cables, it is needless to say that it is of the utmost importance that these should be of the most approved quality and construction; and this is, perhaps, one of the few cases in which government might advantageously interfere, by subjecting them to proper tests, to ascertain whether they are of the necessary strength. The Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104., has the following clause, viz.,

"Every manufacturer of anchors shall, in case of each anchor which he manufactures, mark in legible characters on the crown and also on the shank under the stock his name and initials, with the addition of a progressive number and the weight of such anchor; and if he makes default in doing so he shall for each offence incur a penalty not exceeding *5l.*"—§ 483.

No ship is deemed seaworthy unless she be provided with suitable anchors and cables; and any deficiency in this respect has the same legal effect as if it were in the hull or rigging.

Every ship has, or ought to have, four principal anchors; viz. 1st, the *sheet anchor*, the largest of all, and only let down in cases of danger, or when the vessel is riding in a gale of wind; 2d, the *best bower* anchor; 3d, the *small bower* anchor; and, 4th, the *spare* anchor. There are, besides, smaller anchors for mooring in rivers, ports, &c. The largest class of men-of-war have generally six or seven anchors. The weight of an anchor is determined principally by the tonnage; it being usual to allow, for every 20 tons of a merchant ship's burden, 1 cwt. for the weight of her best bower anchor; so that in a ship of 400 tons it should weigh about 20 cwt., or a ton. In the navy the rough rule is to allow 1 cwt. to every gun, so that the best bower anchor of an 80-gun ship should weigh 80 cwt., or 4 tons, of a 100-gun ship 100 cwt., or 5 tons, and so on.

To cast, or let go, the anchor, is to let the anchor fall from the ship's bows into the water, so that it may take hold of the ground.

To drag the anchor, is to make it come home; that is, to dislodge it from its bed, and to drag it over or through the ground. This may be occasioned by the anchor being too light, by the violent straining of the cable in a storm or a current, by the too great hardness or softness of the ground, &c.

To weigh the anchor, is to dislodge it from its hold, and heave it up by means of the capstan.

Law as to Anchors, &c.—Vessels anchoring in a river or other narrow channel are bound to mark the situation of their anchors by buoys; for if they do not, and other vessels be injured by coming in contact with them, they will have to make good the damage.—(*Abbott by Shee*, p. 307. ed. 1854.)

When cables are cut or anchors cast away to avoid imminent danger, they become the subject of general average.

The law as to wrecked or cast-away anchors and cables, &c, is stated in the articles SALVAGE and WRECK, to which we beg to refer.

Invention of the Anchor.—This instrument, admirable alike for its simplicity and effect, is of very considerable antiquity. It was not, however, known in the earliest ages. The President de Goguet has shown that it was not used by the Greeks till after the Trojan war; and that they were then accustomed to moor their ships by means of large stones cast into the sea, a practice which still subsists in some rude nations.—(*Origin of Laws*, vol. ii. p. 330. Eng. Trans.) Pliny ascribes the invention of the anchor to the Tyrrhenians.—(*Hist. Nat.* lib. vii. cap. 56.) At first it had only one arm, the other being added at a subsequent period; some authors say, by Anacharsis the Scythian.—(*Origin of Laws*, vol. i. p. 293.) Since this remote epoch, the form and construction of the instrument seem to have undergone very little change.

ANCHORAGE, or ANCHORING GROUND. Good anchoring ground should neither be too hard nor too soft; for, in the first case, the anchor is apt not to

take a sufficient hold, and in the other to drag. The best bottom is a stiff clay, and next to it a firm sand. In a rocky bottom the flukes of the anchor are sometimes torn away, and hempen cables are liable to chafe and be cut through. It is also essential to a good anchorage that the water be neither too deep nor too shallow. When too deep, the pull of the cable, being nearly perpendicular, is apt to jerk the anchor out of the ground; and when too shallow, the ship is exposed to the danger, when riding in a storm, of striking the bottom. Where a ship is in water that is land-locked, and out of the tide, the nature of the ground is of comparatively little importance.

In most harbours and roadsteads the places where ships may anchor are pointed out, and all masters are bound, except when compelled by stress of weather to act otherwise, to obey the directions that may be given them in respect to anchoring by the harbour master or other parties in authority. In some roadsteads a peculiar locality is appropriated for the use of H. Majesty's ships, and merchant ships are generally prohibited, under considerable penalties, from anchoring in such locality.

ANCHORAGE also means a duty laid on ships for the use of the port or harbour.

ANCHOVY (Fr. *Anchois*; It. *Acciughe*; Lat. *Encrasicolus*), a small fish (*Clupea encrasicolus*, Lin.), common in the Mediterranean, resembling the sprat. Those brought from Gorgona in the Tuscan Sea are esteemed the best. They should be chosen small, fresh pickled, white outside and red within. Their backs should be round. The sardine, a fish which is flatter and larger than the anchovy, is frequently substituted for it. About 120,000 lbs. were entered for consumption in 1852. But being then subject to a duty of 2*s.* 10*d.* per lb., repealed in 1853, the imports have increased to 270,221 lbs. in 1857.

ANGELICA, a large umbelliferous plant, with hollow jointed stalks, of which there are several varieties. It grows wild, and is cultivated in moist places near London, and in most European countries from Lapland to Spain. Its roots are thick, fleshy, and resinous, have a fragrant agreeable smell, and a bitterish pungent taste, mixed with a pleasant sweetness glowing on the lips and palate for a long time after they have been chewed. To preserve them they must be thoroughly dried, and kept in a well-aired place. The other parts of the plant have the same taste and flavour as the roots, but in an inferior degree. The leaves and seeds do not retain their virtue when kept. The London confectioners make a sweetmeat of the tender stems. The faculty used to direct that none but the root of Spanish angelica should be kept by the druggists. In Norway the roots are sometimes used as bread, and in Iceland the stalks are eaten with butter. Here the plant is used only in confectionary and the materia medica.—(*Lewis's Mat. Med.*; *Rees's Cyclopædia*, *&c.*)

A duty of 4*s.* per cwt. on angelica was repealed in 1845. The imports in 1857 amounted to 314 cwt.

ANISEED (Fr. *Anis*; It. *Anise*; Lat. *Anisum*), a small seed of an oblong shape. It is cultivated in Germany, but the best comes from Alicant in Spain. It is also a product of China, whence it is exported. It should be chosen fresh, large, plump, newly dried, of a good smell, and a sweetish aromatic taste.

A duty of 5*s.* a cwt. on aniseed was repealed in 1845. In 1857, 2,615 cwt. were imported, the exports during the same year being 1,376 cwt.

ANKER, a liquid measure at Amsterdam. It contains about 10¼ gallons English wine measure.

ANNOTTO, OR ARNOTTO (Fr. *Rocou*; Ger. *Orlean*; It. *Oriana*), a species of red dye formed of the pulp enveloping the seeds of the *Bixa Orellana*, a plant common in South America, and the East and West Indies; but dye is made, at least to any extent, only in the first.

It is prepared by macerating the pods in boiling water, extracting the seeds, and leaving the pulp to subside; the fluid being subsequently drawn off, the residuum, with which oil is sometimes mixed up, is placed in shallow vessels and gradually dried in the shade. It is of two sorts, viz. *flag* or *cake*, and *roll* annotto. The first, which is by far the most important article in a commercial point of view, is furnished almost wholly by Cayenne. It is imported in square cakes, weighing 2 or 3 lbs. each, wrapped in banana leaves. When well made, it should be of a bright yellow colour, soft to the touch, and of a good consistence. It imparts a deep but not durable orange colour to silk and cotton, and is used for that purpose by the dyers. Roll annotto is principally brought from Brazil. The rolls are small, not exceeding 2 or 3 oz. in weight; it is hard, dry, and compact, brownish on the outside, and of a beautiful red colour within. The latter is the best of all ingredients for the colouring of cheese and butter; and is now exclusively used for that purpose in all the British and in some of the continental dairies. In Gloucestershire it is the practice to allow an ounce of annotto to a cwt. of cheese; in Cheshire, 8 dwts. are reckoned sufficient for a cheese of 60 lbs. When genuine, it neither affects the taste nor the smell of cheese or butter. The Spanish Americans mix annotto with their chocolate, to which it gives a beautiful tint. (*Gray's Supplement to the Pharmacopœias*; *Loudon's Encyc. of Agriculture*, and *private information*.)

Previously to 1832 the duty on flag annotto was 18*s.* 8*d.* a cwt., and on other sorts 5*l.* 12*s.* The duty was then reduced to 1*s.* a cwt. on the former, and to 4*s.* on the latter, and was finally repealed in 1845. In 1857 the imports amounted to 3,720 cwt. Of these, 2,412 cwts. were supplied by France, from Cayenne, and 537 cwt. by British Guiana.

ANNUITIES. (See INTEREST AND ANNUITIES.)

ANTIMONY (Ger. and Du. *Spiesglas;* Fr. *Antimoine;* It. *Antimonio;* Rus. *Antimonia;* Lat. *Antimonium*), a metal which, when pure, is of a greyish white colour, and has a good deal of brilliancy, showing a radiated fracture when broken; it is converted by exposure to heat and air into a white oxide, which sublimes in vapours.

It is found in Saxony and the Hartz, also in Cornwall, Spain, France, Mexico, Siberia, the Eastern Islands, and Martaban in Pegu. We are at present wholly supplied with this metal from Singapore, which receives it from Borneo; it is imported in the shape of ore, and commonly as ballast. It is about as hard as gold; its specific gravity is about 6·7; it is easily reduced to a very fine powder; its tenacity is such that a rod of $\frac{1}{10}$th of an inch diameter is capable of supporting 10 lbs. weight. Antimony is used in medicine, and in the composition of metal types for printing. The ores of antimony are soft, and vary in colour from light lead to dark lead grey; their specific gravity varies from 4·4 to 6·8; they possess a metallic lustre, are brittle, and occur in the crystallised massive forms. (*Thomson's Chemistry*, and *private information*.)

In 1857 the imports amounted to 833 tons ore of antimony, 421 cwt. crude do., and 958 cwt. regulus of do.

ANTWERP, the principal sea-port of Belgium, lat. 51° 13′ 16″ N., long. 4° 24′ 10″ E. A large, well-built, and strongly fortified city, on the Scheldt. Pop. in 1851, 97,602. Previously to its capture by the Spaniards, under Farnese, in 1585, Antwerp was one of the greatest commercial cities of Europe; but it suffered much by that event. In 1648, at the treaty of Westphalia, it was stipulated by Spain and Holland, that the navigation of the Scheldt should be shut up; a stipulation which was observed till the occupation of Belgium by the French, when it was abolished. In 1803, the improvement of the harbour was begun, and extensive new docks and warehouses have since been constructed. Ships of the largest burden come up to the town, and goods destined for the interior are forwarded with the greatest facility by means of canals and railways.

Nine-tenths of the commerce of Belgium carried on by sea centres in Antwerp, which consequently has again become a place of much commercial importance. The great articles of export are corn, especially wheat; flax, butter, cattle, sheep, and pigs; cast and wrought iron; muskets, fowling-pieces, and small arms; woollen fabrics; linen do.; clover and other seeds; coal, spelter, books, &c.

The great articles of import are raw cotton, sugar, coffee, and other colonial products; indigo and all sorts of dyewoods; spices, wine, machinery, rice, ashes, fish, oils, &c.

Goods may be warehoused in Antwerp, *en entrepôt*, at the rates of charge specified in a fixed tariff.

In 1850 and 1851, the values of the imports by sea into Antwerp amounted respectively to 243,571,700 fr. and 265,273,590 fr. and those of the exports to 274,258,900 fr. and 194,487,730 fr. The trade with England is the most extensive; and next to it that with the Baltic, the U. States, France, Holland, &c. The trade of France with Belgium generally is, however, much greater than that of any other country. But it is principally carried on by land, across the frontier between the two countries. A considerable proportion of the imports into Antwerp not being intended for home consumption, but for transit to other countries, their amount is commonly a good deal greater than that of the exports.

Money, Weights, and Measures. — The French system of money, weights, and measures has been adopted in Belgium. Formerly accounts were kept in florins worth 1*s.* 8*d.* sterling. The quintal formerly in use, and still sometimes referred to, = 103½ lbs. avoirdupois. In 1837 the Commercial Bank, a joint-stock association, was founded in Antwerp. It has a capital of 25,000,000 fr. (1,000,000*l.* sterling), divided into 25,000 shares of 1,000 fr. each, and transacts all sorts of banking business. Here also are two considerable insurance companies. The railway from Antwerp to Brussels, 28½ miles in length, has been signally successful, and has been of great advantage to both cities, but especially to Antwerp.

Custom-house Regulations. — Captains of ships arriving at Antwerp, or any of the Belgian ports, must make, within 24 hours, a declaration in writing of the goods of which their cargo consists, specifying the marks and numbers of the bales, parcels, &c., their value, according to the current price at the time when the declaration is made, the name of the ship or vessel, as well as that of the captain, and of the country to which she belongs, &c.

Port Charges. — These, as will be seen from the subjoined statement, are rather heavy.

Account of Port Charges at Antwerp on a national Ship, or on a foreign privileged Ship of 250 Tons, arriving with a Cargo, discharging the same, and clearing out in Ballast.

	frs. cnts.
1. Custom-house officers from Flushing, about	24 0
2. Pilotage from sea to Flushing, 15 Dutch feet	156 0
Ditto from Flushing to Antwerp, 15 ditto	160 0
3. Pilot, for moving the vessel into the dock	2 0
4. Charges for clearing in at Flushing	56 0
5. Leads put to the hatches by the Custom house, and sealing the ship's provisions, about	12 0
6. Harbour dues and quay money	6 0
7. Tonnage duty on 250 tons, at 1 fr. 80 centimes per ton, and additional duty 13 centimes, and stamps 72 frs.	521 0
8. Clearance, passport of the tonnage duty, measuring, and stamps	21 50
9. Custom-house clearance, certificate outwards	20 50
10. Dock duty on 250 tons, at 52 centimes for three months	130 0
11. For the cooking-houses in the dock, four weeks	16 0
12. Ballast, 100 lasts, at 2 fr. per last	200 0
13. Surveyor's visit of the vessel outwards in ballast	13 50
14. To pilot, for moving the vessel into the river	2 0
15. Water-bailiff's certificate, in and out	25 50
16. Charterparty and stamps (if required)	2 0
17. Brokerage on 250 tons, at 25 cents per ton	187 50
18. To the excise, for town dues on ship's provisions, clearance in and out	16 0
19. Pilotage to Flushing on 12 feet	112 0
20. Ditto from Flushing to sea, and clearing charges there	110 0
21. Cancelling custom-house bonds, postages, and small expenses	10 0
22. Pilotage-office for hooking the vessel	2 0

N.B. All vessels leaving Antwerp must be provided with a surveyor's certificate that they are sea-worthy. When in ballast, this certificate costs from 6 fr. to 13 fr. 50 cent.; when loaded, from 10 fr. to 36 fr., according to the burden of the vessel, besides 11 fr. 40 cent. for certificate of tribunal. The cooking-house duties depend on the size of the vessel, and must be made whether the house be used or not.

Shipping. — In 1851, 1,570 ships of the burden of 236,241 tons entered and 1,556 ditto, burd. 234,091 tons, left the port of Antwerp. Of these, inc. arrivals and dep., 745 ships, burd. 116,598 tons, were British; 543, burd. 104,763 tons, Belgian; 77, burd. 40,410 tons, American; the rest being Prussian, Dutch, French, Russian, &c.

Trade of the U. Kingdom with Belgium.—We subjoin

Account of the Quantities and Computed Values of the Principal Articles imported from Belgium into the U. Kingdom in each of the 3 Years ending with 1857.

Principal Articles.		Quantities.			Computed Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Animals: calves	No.	3,547	4,049	5,124	14,188	18,221	20,496
,, horses	—	801	1,168	1,141	20,025	29,200	28,525
Apples, raw	bushels	51,721	215,154	155,093	12,934	71,601	41,091
Bark, for tanners' or dyers' use	cwts.	169,363	147,711	149,934	41,841	36,928	37,488
Butter	—	51,412	62,900	62,288	236,635	326,031	295,571
Chicory, raw or kiln dried	—	12,657	35,853	53,808	6,187	18,822	28,473
Corn: wheat	qrs.	33,826	21,938	48,399	120,083	83,545	124,724
,, other kinds	—	1,857	18,147	51,233	2,423	26,965	79,855
Cotton yarn	lbs.	396,407	351,690	509,351	40,616	37,067	51,144
Eggs	cubic ft.	38,340	41,426	44,813	18,212	19,707	22,407
Flax: undressed	cwts.	96,162	109,691	120,913	280,072	285,795	35,599
,, tow and codilla	—	16,464	5,148	1,389	28,812	7,722	1,888
Glass: window	—	22,080	27,526	51,221	1,573	19,956	37,775
,, flint, cut and not cut (except bottles)	—	184,960	278,756	363,167	3,752	6,380	8,564
Hides: not tanned	—	7,602	17,230	20,139	16,438	47,298	68,185
,, tanned, tawed, curried, or in any way dressed	lbs.	582,334	359,776	311,453	51,876	39,458	30,360
Hops	cwts.	3,806	3,282	492	35,304	8,204	1,445
Oil:—viz., seed oil	tuns	1,798	1,785	1,334	102,695	91,123	62,867
Oil seed cake	tons	1,654	4,400	2,586	16,705	37,810	21,748
Poultry and game	value	—	—	—	29,440	32,716	41,735
Seed, clover	cwts.	9,172	12,249	12,666	31,185	47,365	45,281
Silk, raw	lbs.	10,549	2,544	8,262	11,999	4,154	15,965
,, waste, knubs, and husks	cwts.	501	241	150	2,221	4,046	2,411
,, thrown	lbs.	4,836	4,647	6,998	5,367	8,249	13,814
Silk manufactures:—viz., stuffs and ribbons	—	110,190	132,145	166,056	205,700	329,277	296,438
Spelter	tons	3,421	5,615	3,295	97,231	111,571	112,587
Sugar, refined, and sugar candy	cwts.	150,260	52,152	156,254	257,521	94,259	315,190
Wool, sheep and lambs'	lbs.	1,191,460	1,900,525	2,051,779	105,012	145,057	209,660
Woollen manufactures, unenumerated	value	—	—	—	278,695	391,605	369,937
Yarn, worsted, not dyed, and not fit for embroidery	lbs.	272,723	418,961	455,325	40,908	62,844	68,299
Total value of the above and of all other articles	£	—	—	—	2,535,732	2,936,796	3,392,046

Account of the Declared Values of the Principal Articles the Produce and Manufacture of the U. Kingdom exported to Belgium in each of the 3 Years ending with 1857.

Principal Articles.		Quantities.			Declared Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Apparel, slops, and haberdashery	val.	—	—	—	23,217	25,394	29,641
Caoutchouc manufactures	—	—	—	—	12,589	6,374	8,567
Copper, wrought and unwrought	cwts.	18,502	20,356	22,881	116,622	119,317	140,324
Cottons entered by the yard	yards	2,861,456	2,209,467	1,976,957	65,758	54,722	49,840
,, ,, at value	value	—	—	—	60,208	51,903	55,451
Cotton yarn	lbs.	3,400,205	1,736,857	987,345	175,902	93,441	54,380
Fish: oysters	bushels	11,216	17,082	18,036	14,412	16,728	16,879
Hardwares and cutlery	cwts.	6,180	8,008	7,187	40,352	49,424	50,350
Iron of all sorts	tons	1,851	2,776	6,112	37,453	73,116	95,780
Leather, wrought and unwrought	lbs.	311,709	355,790	445,572	31,551	34,270	40,123
Linens, entered by the yard	yards	157,372	94,161	222,203	7,398	5,067	9,605
,, ,, at value	value	—	—	—	7,817	4,522	3,752
Linen yarn	lbs.	1,541,716	1,725,126	2,072,562	69,789	97,949	117,268
Machinery: steam engines	value	—	—	—	27,099	30,291	6,655
,, all other sorts	—	—	—	—	45,423	79,572	120,547
Oil, linseed	gallons	94,583	98,916	168,574	13,462	14,596	24,785
,, of tallow	cwts.	6,289	5,701	3,602	11,797	8,820	7,539
Painters' colours	value	—	—	—	8,249	9,094	10,337
Salt	tons	26,269	21,474	27,405	10,471	7,815	8,693
Silk manufactures	value	—	—	—	102,380	183,242	165,503
Soda	cwts.	21,293	59,650	40,408	9,084	17,961	21,457
Stationery	value	—	—	—	6,542	7,308	7,794
Wool, sheep and lambs'	lbs.	1,731,224	871,539	1,242,456	124,296	57,927	103,411
Woollens, entered by the piece	pieces	99,906	87,418	128,934	134,019	125,890	181,925
,, ,, by the yard	yards	1,235,024	834,490	591,487	58,544	50,212	37,651
,, ,, at value	value	—	—	—	7,147	7,548	6,966
Woollen yarn	lbs.	2,549,536	2,591,120	1,240,621	224,885	246,087	130,909
Total value of the above and of all other articles	£	—	—	—	1,707,695	1,689,975	1,727,201

We, also, send large quantities of foreign and colonial produce to Belgium, partly for consumption in that country, but principally in *transitu* for Germany, Switzerland, &c. The value of the exports of such produce in 1856 amounted to 2,323,997*l.*

About 85 ships of from 11,000 to 12,000 tons burden belong to Antwerp: and from 4,000 to 5,000 passengers arrive annually at the city by the steam-packets from England.

There entered the various ports of Belgium in 1856, 2,572 ships of the agg. burden of 521,704 tons; of these 1,049 were English, 185 French, 176 Dutch, 103 Prussia, 100 American, &c.

Conditions under which Goods are sold.—On goods generally 2 per cent. is allowed for payment in 20 days, and 1½ per cent. on credit of 6 weeks or 2 months. On cottons, at 20 days' credit, 3 per cent. are allowed, and 1½ per cent. on a credit of 2 or 3 months. On ashes, hides, and sugar, 3 per cent. for 20 days, and 1½ per cent. for 3 months' credit.

APPLES, the fruit of the *Pyrus Malus*, or apple tree. It is very extensively cultivated in most temperate climates.

An immense variety and quantity of excellent apples are raised in England, partly for the table, and partly for manufacturing into cider. Those employed for the latter purpose are comparatively harsh and austere. The principal cider counties are Hereford, Monmouth, Gloucester, Worcester, Somerset,

and Devon. Mr. Marshall estimated the produce of the first four at 30,000 hhds. a year, of which Worcester is supposed to supply 10,000; but it is now probably much greater. Half a hogshead of cider may be expected, in ordinarily favourable seasons, from each tree in an orchard in full bearing. The number of trees on an acre varies from 10 to 40, so that the quantity of cider must vary in the same proportion, that is from 5 to 20 hhds. The produce is, however, very fluctuating; and a good crop seldom occurs above once in three years.—(*Loudon's Encyc. of Agriculture, &c.*)

Besides the immense consumption of native apples, we import, for the table, large supplies of French and other foreign apples. In 1842, the duty, which had previously been an *ad valorem* one of 5 per cent., was fixed at 6*d.* per bushel on raw, and 2*s.* per do. on dried apples; and in 1853 the duties were further reduced to 3*d.* per bushel on raw, and 1*s.* per do. on dried apples. During 1857 the entries for consumption amounted to 433,660 bushels. The apples produced in the vicinity of New York are universally admitted to be the finest of any; but unless selected and packed with care, they are very apt to spoil before reaching England. The exports of apples from the United States during the year ended the 30th June, 1858, amounted to 27,711 barrels, valued at 74,363 dollars. Of these, 941 barrels were shipped for the United Kingdom.—(*Papers laid before Congress.*)

APPRENTICE, a person of either sex, bound by indenture to serve some particular individuals, or company of individuals, for a specified time, in order to be instructed in some art, science, mystery, or trade.

According to the common law of England, every one has a right to employ himself at pleasure in every lawful trade. But this sound principle was almost entirely subverted by a statute passed in the fifth year of the reign of Queen Elizabeth, commonly called the Statute of Apprenticeship. It enacted that no person should, for the future, exercise any trade, craft, or mystery, at that time exercised in England and Wales, unless he had previously served to it an apprenticeship of *seven* years at least; so that what had before been a bye-law of a few corporations, became the general and statute law of the kingdom. Luckily, however, the courts of law were always singularly disinclined to give effect to the provisions of this statute; and the rules which they established for its interpretation served materially to mitigate its injurious operation. But though its impolicy had been long apparent, it was continued till 1814, when it was repealed by the 54 Geo. 3. c. 96. This act did not interfere with any of the existing rights, privileges, or bye-laws of the different corporations; but wherever these do not interpose, the formation of apprenticeships, and their duration, is left to be adjusted by the parties themselves.

Merchant ships of 80 tons and upwards were formerly obliged to carry a certain number of apprentices in proportion to their tonnage (7 & 8 Vict. cap. 112.) But this obligation was suppressed in 1849, by the 12 & 13 Vict. cap. 29. And as the obligation to have a certain proportion of the crew British subjects has also been put an end to (16 & 17 Vict. cap. 131. § 31.), the manning of ships is now quite free.

AQUA FORTIS. See ACID (*Nitric*).

AQUAMARINE. See BERYL.

AQUA VITÆ (Ger. *Aquavit*; Fr. *Eau de vie*; It. *Acqua vite*; Sp. *Agua de vide*; Rus. *Wodka*; Lat. *Aqua vitæ*), a name familiarly applied to all native distilled spirits; equivalent to the *eau de vie*, or brandy, of the French, the *whisky* of the Scotch and Irish, the *geneva* of the Dutch, &c. In this way it is used in the excise laws relating to the distilleries.

ARANGOES, a species of beads made of rough carnelian.

They are of various forms, as barrel, bell, round, &c., and all drilled. The barrel-shaped kind, cut from the best stones, are from two to three inches long, and should be chosen as clear as possible, whether red or white, having a good polish, and free from flaws. The bell-shaped are from one to two inches long, being in all respects inferior. Considerable quantities were formerly imported from Bombay, for re-exportation to Africa; but since the abolition of the slave trade, the imports and exports of arangoes are comparatively trifling.—(*Milburn's Orient. Com.*)

ARCHANGEL, the principal commercial city of the north of Russia, in lat. 64° 32′ 8″ N., long. 40° 33′ E., on the right bank of the Dwina, about 35 English miles above where it falls into the White Sea. Pop. 15,000. The harbour is at the island of Sollenbole, about a mile from the town. The bar at the mouth of the Dwina has from 13 to 14½ feet water; so that ships drawing more than this depth must be partially loaded outside the bar from lighters. The Dwina being a navigable river, traversing a great extent of country, and connected by canals with the Wolga on the one hand, and the Neva on the other, Archangel is a considerable *entrepôt*. It was discovered in 1554, by the famous Richard Chancellor, the companion of Sir Hugh Willoughby in his voyage of discovery; and from that period, down to the foundation of Petersburg, was the only port in the Russian empire accessible to foreigners. Though it has lost its ancient importance, it still enjoys a pretty extensive commerce. The principal articles of export are wheat and oats, rye and rye-flour, tallow, flax, hemp, timber, linseed, potash, mats, tar, &c. Deals from Archangel, and Onega in the vicinity of Archangel, are considered superior to those from the Baltic. Hemp not so good as at Riga, but proportionally cheaper. Tallow is also inferior. Iron, which is sometimes exported, same as at Petersburg, sometimes cheaper and sometimes dearer. The quality of the wheat exported from Archangel is about equal to that from Petersburg. The imports, which are not very extensive, consist principally of sugar, coffee, spices, salt, woollens, hardware, &c.

In 1857 the value of the exports was estimated at 1,348,650*l.*, and it was probably not materially different in 1858. Of 644 ships of the aggregate burden of 112,271 tons which cleared out from Archangel in 1857, 275 ships, aggregate burden 53,771 tons, were for the U. Kingdom; of the latter 219 were British and 56 foreigners. Of the total exports in 1857, about 38½ per cent. were on account of British subjects.

The trade of Archangel has latterly been declining. It is much influenced by the demand from the more southerly parts of Europe, and especially from England, for corn. When a brisk demand is anticipated, oats are brought in large quantities from the interior, sometimes even from a distance of 1,500 miles, in covered barks capable of holding several hundred quarters. But as there are few extensive

Account of the Quantities of the various Articles exported from Archangel in 1858, specifying the Countries to which they were exported, and the Quantities sent to each.

Articles exported.	Great Britain.	Holland.	Belgium.	France.	Germany.	Leghorn.	Spain.	Boston, U.S.	Finmark.	Total exports.
Linseed - chetwerts	59,770	28,552	1,850	- -	- -	- -	- -	- -	- -	70,152
Oats - —	143,140	2,090	- -	- -	- -	- -	- -	- -	80	145,310
Rye - —	487	105,316	700	- -	17,750	- -	- -	- -	1,265	125,518
Wheat - —	19,497	- -	- -	- -	- -	- -	- -	- -	- -	19,497
Barley - —	1,366	- -	- -	- -	- -	- -	- -	- -	- -	1,366
Flax - poods	210,456	- -	48,061	- -	- -	- -	- -	15,218	- -	273,735
Tow and Codilla - —	200,064	- -	40,371	12,392	- -	- -	- -	4,475	- -	257,302
Tallow - —	10,522	2,632	- -	- -	- -	- -	- -	- -	22	13,176
Train oil - —	- -	- -	- -	- -	42,829	- -	- -	- -	- -	42,829
Cordage - —	- -	- -	2,278	- -	- -	- -	- -	- -	12,538	14,816
Feathers and half down —	1,311	1,096	- -	- -	- -	- -	- -	- -	- -	2,407
Bristles - —	262	- -	- -	- -	- -	- -	- -	- -	- -	262
Bones - —	- -	- -	- -	6,543	- -	- -	- -	- -	- -	6,543
Rye flour - —	- -	- -	- -	- -	- -	- -	- -	- -	432,702	432,702
Grits - —	- -	- -	- -	- -	- -	- -	- -	- -	21,745	21,745
Wheaten flour - —	- -	- -	- -	- -	- -	- -	- -	- -	2,675	2,675
Grease, butter - —	259	- -	- -	- -	- -	- -	- -	- -	- -	259
Tar - barrels	63,687	3,958	650	79	1,405	350	- -	- -	10	70,139
Pitch - —	2,514	4,550	350	- -	545	850	- -	- -	34	8,613
Beef and pork - —	885	85	118	- -	- -	- -	- -	- -	15	1,103
Mats - pieces	484,764	59,926	11,530	1,360	12,270	- -	- -	5,130	50	575,030
Calf and seal skins —	12,120	- -	- -	- -	3,991	- -	- -	- -	- -	16,111
Deals - std. doz.	59,798	- -	- -	- -	- -	- -	516	- -	- -	60,314
Battens - —	6,102	- -	- -	1,434	- -	- -	323	- -	- -	7,859

mercantile establishments here, the supplies are scanty, except when a large demand is expected for some time previously to the season for bringing them down.—(*Oddy's European Commerce*, and *private information.*)

Monies, Weights, and *Measures*, same as at Petersburg; which see.

ARGOL, ARGAL, OR TARTAR (Ger. *Weinstein*; Du. *Wynsteen*; Fr. *Tartre*; It. Sp. and Port. *Tartaro*; Rus. *Winnui kamen*; Lat. *Tartarus*), a hard crust formed on the sides of the vessels in which wine has been kept; it is red or white according to the colour of the wine, and is otherwise impure. On being purified, it is termed *cream* or *crystals of tartar*. It consists principally of bitartrate of potash.

White argol is preferable to red, as containing less drossy or earthy matter. The marks of good argol of either kind are, its being thick, brittle, hard, brilliant, and little earthy. That brought from Bologna is reckoned the best, and fetches the highest price. Argol is of considerable use among dyers, as serving to dispose the stuffs to take their colours the better. Pure argol, or cream of tartar, is extensively used in medicine. It has an acid and rather unpleasant taste. It is very brittle, and easily reduced to powder: specific gravity 1·95.

The duty on argol, of 6*d.* per cwt., was repealed in 1845. In 1852 the imports and exports of argol amounted respectively to 17,839 and 3,545 cwt. The price of argol in London, in September, 1853, varied, Bologna, from 58*s.* to 62*s.* per cwt., Leghorn, 46*s.* to 56*s.* per ditto, Naples, Sicily, &c., 33*s.* to 39*s.*

ARISTOLOCHIA (Fr. *Serpentaire*; Ger. *Schlangenwurzel*; It. *Serpentaria*; Lat. *Aristolochia serpentaria*), the dried root of Virginia snake-root, or birthwort: it is small, light and bushy, consisting of a number of fibres matted together, sprung from one common head, of a brownish colour on the outside, and pale or yellow within. It has an aromatic smell something like that of valerian, but more agreeable: and a warm, bitterish, pungent taste, very much resembling camphor.—(*Ency. Metrop.*)

ARMS. See FIRE-ARMS.

ARRACK, OR RACK, (Fr. *Arac*; Ger. *Arrack, Rack*; Du. *Arak, Rak*; It. *Araco*; Sp. *Arak*; Port. *Araco*; Rus. *Arak*), a spirituous liquor manufactured at different places in the East.

Arrack is a term applied in most parts of India, and the India islands, to designate every sort of spirituous liquor; a circumstance which accounts for the discrepancy in the statements as to the materials used in making it, and the mode of its manufacture. The arrack of Goa and Batavia is in high estimation; that of Columbo or Ceylon has been said to be inferior to the former; but this is doubtful. Goa and Columbo arrack is invariably made from the vegetable juice, *toddy*, which flows by incision from the cocoa-nut tree (*Kocos nucifera*). After the juice is fermented, it is distilled and rectified. It usually yields about an *eighth* part of pure spirit. Batavia or Java arrack is obtained by distillation from molasses and rice, with only a small admixture of toddy. When well prepared, arrack is clear and transparent; generally, however, it is slightly straw-coloured. Its flavour is peculiar; but it differs considerably, no doubt in consequence of the various articles of which it is prepared, and the unequal care taken in its manufacture. In England, arrack is seldom used except to give flavour to punch; formerly the imports were quite inconsiderable; but they have recently been a good deal greater, though, as they are mixed up in the official returns with rum from India, it is impossible to state their exact amount. The duty on rack from a British possession is 8*s.* 2*d.* a gallon, and on that from a foreign country 15*s.* per gallon. In the East its consumption is immense. It is issued to the soldiers in India as part of the established rations; and it is supplied, instead of rum, to the seamen of the royal navy employed in the Indian seas. It is one of the principal products of Ceylon. Its prime cost in that island varies from 8*d.* to 10*d.* a gallon; and large quantities are exported to India and elsewhere. It is sold in Ceylon by the legger of 150, and in Java by the legger of 160 gallons. In 1854 the exports from the latter amounted to 7,183 leggers, or 1,149,280 gallons, valued at 291,743 florins. Batavia arrack sold in bond in London in December, 1858, at from 1*s.* 6*d.* to 2*s.* per gallon.

Pariah-arrack is a phrase used to designate a spirit distilled in the peninsula of India, which is said to be often rendered unwholesome by an admixture of *ganga* (*Cannabis sativa*), and a species of *Datura*, in the view of increasing its intoxicating power. But it is not clear whether the term pariah-arrack be meant to imply that it is an inferior spirit, or an adulterated compound. This liquor is sometimes distilled from cocoa-nut toddy, and sometimes from a mixture of jaggery, water, and the barks of various trees.—(See *Milburn's Orient. Com.*; and *Mr. Marshall's valuable Essay on the Cocoa-Nut Tree*, p. 18.)

ARROW-ROOT, the pith or starch of the root *Maranta arundinacea*. It has received its common name from its being supposed to be an antidote to the poisoned arrows of the Indians. The powder is prepared from roots of a year old. It is reckoned

a very wholesome nutritious food; it is often adulterated, when in the shops, with the starch or flour of potatoes. It is a native of South America; but has been long introduced into the West Indies, where it forms a pretty important article of cultivation. An excellent kind of arrow-root, if it may be so called, is now prepared in India from the root of the *Curcuma angustifolia*. The plant is abundant on the Malabar coast, where the powder is made in such quantities as to be a considerable object of trade. Some of it has been brought to England. The *Maranta arundinacea* has been carried from the West Indies to Ceylon, where it thrives extremely well, and where arrow-root of the finest quality has been manufactured from it.—(*Ainslie's Mat. Indica.*)

In 1857, 16,887 cwt. arrow root were retained for consumption. The duties of 6*d*. and 2*s*. 6*d*. a cwt. on colonial and foreign arrow-root were reduced in 1853 to 4½*d*. a cwt. The price varies from 3*d*. or 4*d*. to 1*s*. 3*d*. per lb.

ARSENIC (Ger. *Arsenik*; Fr. *Arsenic*; It. and Sp. *Arsenico*; Rus. *Müschjak*; Lat. *Arsenicum*). This metal has a bluish white colour not unlike that of steel, and a good deal of brilliancy. It has no sensible smell while cold, but when heated it emits a strong odour of garlic, which is very characteristic. It is the softest of all the metallic bodies, and so brittle that it may easily be reduced to a very fine powder by trituration in a mortar. Its specific gravity is 5·76.—(*Thomson's Chemistry.*)

Metallic arsenic is not used in the arts, and is not, therefore, extracted from the ore, except for the purposes of experiment or curiosity. The arsenic of commerce is the white oxide, or *arsenious acid* of chemists. It is a white, brittle, compact substance, of a glassy appearance; is inodorous; has an acrid taste, leaving on the tongue a sweetish impression; and is highly corrosive. In its metallic state arsenic exerts no action on the animal system; but when oxidised, it is a most virulent poison. The arsenic of the shops is sometimes adulterated with white sand, chalk, or gypsum: the fraud may be detected by heating a small portion of the suspected powder; when the arsenic is dissipated, leaving the impurities, if there be any, behind. Though the most violent of all the mineral poisons, the white oxide of arsenic, or the arsenic of the shops, is yet, when judiciously administered, a medicine of great efficacy. It is also used for various purposes in the arts. It is principally imported from Saxony and Bohemia.—(*Thomson's Chemistry; A. T. Thomson's Dispensatory.*)

ASAFŒTIDA (Ger. *Teufelsdreck*; Du. *Duivelsdreck*; Fr. *Assa-fetida*; Sp. *Asafetida*; Lat. *asa-fœtida*; Per. *Unyoozeh*), a gum resin, consisting of the inspissated juice of a large umbelliferous plant, the *Ferula asafœtida*. It is produced in the southern provinces of Persia, and in the territory of Sinde, or country lying at the mouth of the Indus.

It is exported from the Persian Gulph to Bombay and Calcutta, whence it is sent to Europe. It has a nauseous, somewhat bitter, biting taste, and an excessively strong, fœtid, alliaceous smell: the newer it is, it possesses its smell and other peculiar properties in the greater perfection. It is imported, packed in irregular masses, in mats, casks, and cases; the last being, in general, the best. It should be chosen clean, fresh, strong-scented, of a pale reddish colour, variegated with a number of fine, white tears: when broken, it should somewhat resemble marble in appearance; and, after being exposed to the air, should turn of a violet red colour. That which is soft, black, and foul, should be rejected. The packages should be carefully examined, and ought to be tight to prevent the smell from injuring any other article. The imports in 1857 amounted to 610 cwts.: the greater part is, however, re-exported, the consumption being inconsiderable. Here, indeed, it is used only in the materia medica; but in France it is used both in that way, and, to some extent, also as a condiment. It is worth in the London market from 12*s*. to 4*l*. per cwt.—(*Milburn's Orient. Com.; Parl. Papers*; and *private information.*)

ASH (COMMON), the *Fraxinus excelsior* of botanists, a forest tree of which there are many varieties. It is abundant in England, and is of the greatest utility.

The ash is of very rapid growth; and, unlike most other trees, its value is rather increased than diminished by this circumstance. Like the chestnut, the wood of young trees is most esteemed. It grows on a great variety of soils, but is best where the growth has been most vigorous. It is inferior to the oak in stiffness, and is more easily split; but in toughness and elasticity it is far superior to the oak, or to any other species of timber. Hence its universal employment in all those parts of machinery which have to sustain sudden shocks, such as the circumference, teeth, and spokes of wheels, ship-blocks, &c., and in the manufacture of agricultural implements; in the latter, indeed, it is almost exclusively made use of. The want of prolonged durability is its greatest defect; and it is too flexible to be employed in building. The wood of old trees is of a dark brown colour, sometimes beautifully figured; the wood of young trees is brownish white, with a shade of green. The texture is alternately compact and porous: where the growth has been vigorous, the compact part of the several layers bears a greater proportion to the spongy, and the timber is comparatively tough, elastic, and durable. It has neither taste nor smell; and, when young, is difficult to work. The mountain ash (*Pyrus aucuparia*) is quite a different tree from the common ash, and its timber is far less valuable.—(*Tredgold's Principles of Carpentry; Timber Trees and Fruits, in Lib. of Entertaining Knowledge, &c.*)

ASHES (Fr. *Vedasse*; Ger. *Waidasche*; Du. *Weedas*; Da. *Veedaske*; It. *Feccia bruciata*; Sp. *Alumbre de hez*; Rus. *Weidasch*; Lat. *Cineres infectorii*), the residuum or earthy part of any substance after it has been burnt. In commerce, the term is applied to the ashes of vegetable substances; from which are extracted the alkaline salts called potash, pearlash, barilla, kelp, &c.; which see.

ASPHALTUM. See BITUMEN.

ASSETS, in commerce, a term used to designate the stock in trade, and the entire property of all sorts, belonging to a merchant or to a trading association. It is also applied to goods or property placed, for the discharge of some particular trust or obligation, in the hands of executors, assignees, &c.

ASSIENTO, a Spanish word signifying a contract. In commercial history, it means the contract or agreement by which the Spanish government ceded first to a company of French, and afterwards (by the treaty of Utrecht) to a company of English merchants, the right to import, under certain conditions, a specified number of slaves into the

Spanish colonies.—(For full particulars with respect to this contract see Mr. Bandinel's valuable work *on* the Slave Trade.)

ASSIGNEE, a person appointed by competent authority to do, act, or transact some business, or exercise some particular privilege or power, for or on account of some specified individual or individuals.

Assignees may be created by deed, or by law: by deed, where the lessee of a farm assigns the same to another; by law, where the law makes an assignee, without any appointment of the person entitled, as an executor is assignee in law to the testator, and an administrator to an intestate. The term is most commonly applied to the official assignees appointed to manage bankrupt estates. —(See BANKRUPT.)

ASSIZE. See BREAD.

ASSURANCE. See INSURANCE.

AUCTION, a public sale of goods to the highest bidder. Auctions are generally notified by advertisement, and are held in some open place. The biddings may be made either by parties present, or by the auctioneer under authority given to him; the sale is usually terminated by the fall of a hammer.

The duties on property sold by auction were repealed in the course of the present year, (1845). We observed upon them in our Treatise on Taxation, as follows: —

"The auction duties, which were first imposed in 1777, consist of duties proportioned to its value, charged on certain descriptions of property when sold by auction. They amount to 7*d.* per pound sterling on the value of estates, houses, annuities, shares in public companies, ships, funds, and some other articles; and to 1*s.* per pound on the value of household furniture, books, horses, carriages, and all other goods and chattels. The exemptions are, however, very numerous, comprising various descriptions of movable property, with all sorts of property sold by order of the Courts of Chancery and Exchequer, or for behoof of creditors, or under distress for rent, &c. These duties were strongly, and, we think, justly objected to by the Commissioners of Excise Inquiry. As it is admitted on all hands that the exposure of property to sale by auction affords the readiest means of ascertaining its value, it seems unreasonable, by imposing duties on auctions, to prevent resort being had to them in the disposal of property. Certainly, however, the duties materially lessen the number of auctions; and very many, perhaps we might say the greater number, of the estates put up to auction, are merely exposed in the view of ascertaining their value; being, to avoid the duty bought in by the exposers, and then sold by private bargain. But it is not easy to see why, if a duty is to be laid on the transfer of fixed property, it should not be made to press equally on it whatever be the mode of its transfer, or why it should be made to fall heaviest on what has been transferred by auction. We, therefore, are inclined to approve of the suggestion made to the Commissioners of Excise Inquiry, and sanctioned by them, for commuting the duties on the sale of estates and other fixed property by auction for a small *ad valorem* duty upon all transfers of such property conveyed by deed or written instrument, without regard to the mode in which the transfer has been brought about. And were such commutation effected, the duty on sales of other property might be advantageously relinquished; for, while it is of no great importance to the revenue, it presses, from the number of exemptions, severely and unjustly on certain individuals."—(p. 240.)

The commutation suggested above was not, however, adopted, the duty being unconditionally repealed by the act 8 Vict. c. 15.

AUCTIONEER, a person who conducts sales by auction. It is his duty to state the conditions of sale, to declare the respective biddings, and to terminate the sale by *knocking down* the thing sold to the highest bidder. An auctioneer is held to be lawfully authorised by the purchaser to sign a contract for him, whether it be for lands or goods. And his writing down the name of the highest bidder in his book is sufficient to bind any other person for whom the highest bidder purchased, even though such person be present, provided he do not object *before entry*. The following provisions with respect to auctioneers are embodied in the 8 Vict. c. 15.

Every auctioneer must take out a licence (renewable annually on the 5th of July), for which he is to be charged 5*l.* 5*s.*

The statute then goes on to enact:

Auction Licence not necessary in certain Cases. — It shall not be necessary for any person selling any goods or chattels by auction in any of the cases herein-after mentioned to take out the licence by this act required, viz. any person selling any goods or chattels by auction under a distress for nonpayment of rent or tithes to less amount than 20*l.*; or under authority of the act 6 Geo. 4. c. 48., "For the Recovery of Small Debts in Scotland;" or under authority of the act 6 & 7 Will. 4. c. 75., intituled "An Act to extend the Jurisdiction and regulate the Proceedings of the Civil Bill Courts in Ireland," and the act 7 Will. 4. & 1 Vict. c. 43., intituled "An Act to amend the Laws for the Recovery of Small Debts by Civil Bill in Ireland;" or under authority of the act 7 Will. 4. & 1 Vict. c. 41., intituled "An Act for the more effectual Recovery of Small Debts in the Sheriff Courts, and for regulating the Establishment of Circuit Courts for the Trial of Small Debt Causes by the Sheriffs in Scotland;" or under authority of any other act or acts of parliament now in force in which the like exemption as by the act specified is given to the proper officer of court executing the process of such court to sell the effects seized by him by auction, without taking out or having any licence as an auctioneer, provided the sum for which such process is enforced is under 20*l.* — § 5.

6 Geo. 4. c. 81. s. 8. repealed, and 1 Excise Licence to be sufficient.—So much of the act 6 Geo. 4. c. 81. as enacts "that every person exercising or carrying on the trade or business of an auctioneer, or selling any goods or chattels, lands, tenements, or hereditaments by auction, shall, over and above any licence to him or her granted as an auctioneer, take out such licence as is required by law to deal in or retail, or to vend, trade in, or sell, any goods or commodities, for the dealing in or retailing or vending, trading in or selling of which an excise licence is specially required, before he or she shall be permitted or authorized to sell such goods or commodities by auction; and if any such person shall sell any such goods or commodities as aforesaid by auction without having taken out such licence as aforesaid for that purpose, he or she shall be subject and liable to the penalty in that behalf imposed upon persons dealing in or retailing, vending, trading, or selling any such goods or commodities without licence, notwithstanding any licence to him or her before granted as aforesaid for the purpose of exercising or carrying on the trade or business of an auctioneer, or selling any goods or chattels, lands, tenements, or hereditaments by auction, any thing herein contained to the contrary notwithstanding," together with the proviso thereto attached, and so much of any other act or acts of parliament by which it is required that a separate and distinct licence shall be taken out by any auctioneer selling by auction gold or silver plate or patent medicines, or any other articles, are hereby repealed; and any auctioneer having at the time in force a licence on which the duty under the provisions of this act has been paid may sell by auction any such property, goods, or commodities, without taking out any other licence in such respect, any other act or acts to the contrary thereof notwithstanding.—§ 6.

Clause 7. orders that every auctioneer, before he shall commence any sale, shall suspend or affix a ticket or board containing his full Christian name and surname and place of residence in large letters to some conspicuous part of the room or place where the auction is held, under a penalty of 20*l.*

Clause 8. enacts that every person acting as auctioneer shall produce his licence, or make a deposit o. 10*l.*, on pain of 1 month's imprisonment, on the demand at the time of any sale by auction of any officer of excise, customs, or stamps and taxes.

An auctioneer who declines to disclose the name of his principal at the time of sale makes himself responsible. But if he disclose the name of his principal, he ceases to be responsible, either for the soundness of or title to the thing sold, unless he have expressly warranted it on his *own* responsibility.

If an auctioneer pay over the produce of a sale to his employer, after receiving notice that the goods were not the property of such employer, the real owner of the goods may recover the amount from the auctioneer.

It has long been a common practice at certain auctions (called for that reason *mock* auctions) to employ *puffers*, or mock bidders, to raise the value of the articles sold by their apparent competition, and many questions have grown out of it. It was long ago decided, that if the owner of an estate put up to sale by auction employ puffers to bid for him, it is a fraud on the real bidder, and the highest bidder cannot be compelled to complete his contract.—(*6 T. Rep.* p. *642.*) But it would seem as if the mere employment of puffers under any circumstances were now held to be illegal. "The inclination of the courts at the present time is, that a sale by auction should be conducted in the most open and public manner possible; that there should be no reserve on the part of the seller, and no collusion on the part of the buyers. Puffing is illegal, according to a late case, even though there be only one puffer; and it was then decided that the recognised practice at auctions, of employing such persons to bid upon the sale of horses, could not be sustained."—(*Woolrych on Commercial Law*, p. 262.)

A party bidding at an auction may retract his offer at any time before the hammer is down. Another clearly established principle is, that verbal declarations by an auctioneer are not to be suffered to control the printed conditions of sale; and these, when pasted up under the box of the auctioneer, are held to be sufficiently notified to purchasers.

Auctioneers, like all other agents, should carefully observe their instructions. Should those who employ them sustain any damage through their carelessness or inattention, they will be responsible. They must also answer for the consequences, if they sell the property intrusted to their care for less than the price set upon it by the owners, or in a way contrary to order.

An auctioneer who has duly paid the licence duty is not liable, in the city of London, to the penalties for acting as a *broker* without being admitted agreeably to the *6* Anne, c. 16.

The establishment of mock auctions is a common practice among swindlers in London. Persons are frequently placed at the doors of such auctions, denominated *barkers*, to invite strangers to come in; and puffers are in wait to bid up the article much beyond its value. A stranger making an offer at such an auction is almost sure to have the article knocked down to him. Plated goods are often disposed of at these auctions; but it is almost needless to add, that they are of very inferior quality. Attempts have sometimes been made to suppress mock auctions, but hitherto without much success. (For an account of the produce of the late duties on auctions, see head of next page.)

AVERAGE, a term used in commerce and navigation to signify a contribution made by the individuals, when they happen to be more than one, to whom a ship, or the goods on board it, belong, or by whom it or they are insured; in order that no particular individual or individuals amongst them, who may have been forced to make a sacrifice for the preservation of the ship or cargo, or both, should lose more than others. "Thus," says Mr Serjeant Marshall, "where the goods of a particular merchant are thrown overboard in a storm to save the ship from sinking; or where the masts, cables, anchors, or other furniture of the ship, are cut away or destroyed for the

Account of the Produce of the Auction Duties in each of the 3 Years ending the 5th of January, 1843, distinguishing the Amount paid under separate Heads.

	Amount of Auction Duties on the Sale of									Total Produce.		
	Estates, Houses, Annuities, Ships, Plate, Jewels, &c.			Household Furniture, Horses, Carriages, and all other Goods and Chattels.			Sheep's Wool.			Foreign Produce (First Sale thereof.)					
	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.	L.	s.	d.
England	127,413	12	10	156,189	15	0½	21	8	6¾	2,965	14	9¾	286,620	9	2½
Scotland	5,830	4	2	14,024	3	1¼	2	4	7¾	204	4	9¾	20,060	16	7¾
Ireland	2,585	4	10	10,791	14	6¾	0	6	3¼	-		-	13,377	5	8¼
Year ended 5th of January, 1841	135,859	1	10	181,005	10	8¼	23	19	5½	3,169	19	6¾	320,058	11	6¼
England	121,080	8	4	155,956	1	7½	19	13	3	2,792	11	6	279,848	14	8½
Scotland	5,857	12	13¾	14,904	19	7¾	3	2	1¾	137	10	6½	20,883	4	5¾
Ireland	3,016	18	5¾	10,518	8	0¾	-		-	-	-	-	13,535	6	5¾
Year ended 5th of January, 1842	129,954	18	11	181,179	9	3¾	22	15	4¾	2,930	2	0½	314,067	5	7½
England	101,536	13	9	155,839	16	6	17	10	6	2,865	16	2¾	260,259	16	11¾
Scotland	5,067	5	10	14,697	2	6¾	1	19	7¾	74	12	3¼	19,841	0	3¼
Ireland	6,727	10	1¼	10,124	9	5	0	5	5	11	1	3	16,863	6	2¼
Year ended 5th of January, 1843	113,331	9	8¼	180,661	8	5¼	19	15	6¾	2,951	9	9	296,964	3	5¼

preservation of the whole; or money or goods are given as a composition to pirates to save the rest; or an expense is incurred in reclaiming the ship, or defending a suit in a foreign court of admiralty, and obtaining her discharge from an unjust capture or detention; in these and the like cases, where any sacrifice is deliberately and voluntarily made, or any expense fairly and *bonâ fide* incurred, to prevent a total loss, such sacrifice or expense is the proper subject of a general contribution, and ought to be rateably borne by the owners of the ship, freight, and cargo, so that the loss may fall equally on all, according to the equitable maxim of the civil law—no one ought to be enriched by another's loss: *Nemo debet locupletari aliena jactura.*"

Upon this *fair principle* is founded the doctrine of average contributions; regulations with respect to which having been embodied in the Rhodian law, were thence adopted into the Roman law; and form a prominent part of all modern systems of maritime jurisprudence. The rule of the Rhodian law is, that "if, for the sake of lightening a ship in danger at sea, goods be thrown overboard, the loss incurred for the sake of all, shall be made good by a general contribution."—(*Dig.* lib. 14. tit. 2. § 1.; *Schomberg on the Maritime Laws of Rhodes*, p. 60.)

Formerly it was a common practice to ransom British ships when captured by an enemy, the ransom being made good by a general average. But this practice having been deemed disadvantageous, it was abolished by statute 22 Geo. 3. c. 25., which declares, "That all contracts and agreements which shall be entered into, and all bills, notes, and other securities, which shall be given by any person or persons, for ransom of any ship or vessel, merchandize, or goods, captured by the subjects of any state at war with his Majesty, or by any person committing hostilities against his Majesty's subjects, shall be absolutely void in law, and of no effect whatever;" and a penalty of 500*l.* is given to the informer, for every offence against this act.

Average is either *general* or *particular*; that is, it either affects all who have any interest in the ship and cargo, or only some of them. The contributions levied in the cases mentioned above, come under the first class. But when losses occur from ordinary wear and tear, or from the perils naturally incident to a voyage, without being *voluntarily* encountered, such as the accidental springing of masts, the loss of anchors, &c., or when any peculiar sacrifice is made for the sake of the *ship only*, or of the *cargo only*, these losses, or this sacrifice, must be borne by the parties immediately interested, and are consequently defrayed by a *particular* average.

There are also some small charges called *petty or accustomed* averages; it is usual to charge one third of them to the ship and two thirds to the cargo.

No general average ever takes place, except it can be shown that the danger was imminent, and that the sacrifice made *was indispensable, or supposed to be indispensable, by the captain and officers, for the safety of the ship and cargo.* The captain, on coming on shore, should immediately make his protests; and he, with some of the crew, should make oath that the goods were thrown overboard, masts or anchors cut away, money paid, or other loss sustained, for the preservation of the ship and goods, and of the lives of those on board, and for no other purpose. The average, if not settled before, should then be adjusted, and it should be paid before the cargo is landed; for the owners of the ship have a *lien* on the goods on board, not only for the freight, but also *to answer all averages and contributions that may be due.* But though the captain should neglect his duty in this respect, the sufferer would not be without a remedy, but might bring an action either against him or the owners.

The laws of different states, and the opinions of the ablest jurists, vary as to whether

the loss incurred in defending a ship against an enemy or pirate, and in the treatment of the wounded officers and men, should be made good by general or particular average. The Ordinance of the Hanse Towns (art. 35.), the Ordinance of 1681 (liv. iii. tit. 7. § 6.), and the *Code de Commerce* (art. 400. §. 6.), explicitly declare that the charges on account of medicine, and for attendance upon the officers and seamen wounded in defending the ship, shall be general average. A regulation of this sort seems to be founded on reason. But other codes are silent on the subject; and though the contrary opinion had been advanced by Mr. Serjeant Marshall, and by Mr. Justice Park in the earlier editions of his work, the Court of Common Pleas has unanimously decided that in England neither the damage done to a ship, nor the ammunition expended, nor the expense of healing sailors wounded in an action with an enemy or pirate, is a subject of general average.—(*Abbott on the Law of Shipping*, part iii. cap. 8.)

Much doubt has been entertained, whether expenses incurred by a ship in an intermediate port in which she has taken refuge, should be general average or fall only on the ship. But on principle, at least, it is clear, that if the retreat of the ship to port be made in order to obviate the danger of foundering, or some other great and imminent calamity, the expenses incurred in entering it, and during the time she is forced by stress of weather, or adverse winds, to continue in it, ought to belong to general average. But if the retreat of the ship to port be made in order to repair an injury occasioned by the unskilfulness of the master, or in consequence of any defect in her outfit, such, for example, as deficiencies of water, provisions, sails, &c., with which she ought to have been sufficiently supplied before setting out, the expenses should fall wholly on the owners.

When a ship (supposed to be *seaworthy*) is forced to take refuge in an intermediate port, because of a loss occasioned by a peril of the sea, as the springing of a mast, &c., then, as the accident is not ascribable to any fault of the master or owners, and the retreat to port is indispensable for the safety of the ship and cargo, it would seem that any *extraordinary expense* incurred in entering it should be made good by general average.

Supposing, however, that it could be shown, that the ship was not, at her outset, seaworthy, or in a condition to withstand the perils of the sea; that the mast, for example, which has sprung, had been previously damaged; or supposing that the mischief had been occasioned by the incapacity of the master; the whole blame would, in such a case, be ascribable to the owners, who, besides defraying every expense, should be liable in damages, to the freighters for the delay that would necessarily take place in completing the voyage, and for whatever damage might be done to the cargo.

These, however, are merely the conclusions to which, as it appears to us, those must come who look only to principles. The law with respect to the points referred to differs in different countries, and has differed in this country at different periods. "A doubt," says Lord Tenterden, "was formerly entertained as to the expenses of a ship in a port in which she had taken refuge, to repair the damage occasioned by a tempest; but this has been removed by late decisions. And it has been held, that the wages and provisions of the crew during such a period must fall upon the ship alone. But if a ship should necessarily go into an intermediate port for the purpose only of repairing such a damage as is in itself a proper object of general contribution, possibly the wages, &c. during the period of such detention, may also be held to be general average, on the ground that the accessory should follow the nature of its principal."—(*Law of Ship.*, pt. iii. c. 8.)

Perhaps the reader who reflects on the vagueness of this passage will be disposed to concur with Lord Tenterden's remark in another part of the same chapter, "That the determinations of the English courts of justice furnish less of authority on this subject (average) than on any other branch of maritime law."

The question, whether the *repairs* which a ship undergoes that is forced to put into an intermediate port ought to be general or particular average, has occasioned a great diversity of opinion; but the principles that ought to regulate our decision with respect to it seem pretty obvious. Injuries voluntarily done to the ship, as cutting away masts, yards, &c. to avert some impending danger, are universally admitted to be general average. It seems, however, hardly less clear, and is, indeed, expressly laid down by all the great authorities, that injuries done to the ship by the violence of the winds or the waves should be particular average, or should fall wholly on the owners. The ship, to use the admirable illustration of this principle given in the civil law, is like the tool or instrument of a workman in his trade. If in doing his work he break his hammer, his anvil, or any other instrument, he can claim no satisfaction for this from his employer. —(*Dig.* lib. xiv. tit. 2. § 2.) The owners are bound, both by the usual conditions in all charterparties, and at common law, to carry the cargo to its destination; and they must consequently be bound, in the event of the ship sustaining any accidental or natural damage during the voyage, either to repair that damage at their own expense, or to provide another vessel to forward the goods. In point of fact, too, such subsidiary ships have often been provided; but it has never been pretended that their hire was a subject of general average, though it is plain it has quite as good a right to be so considered

as the cost of repairing the damage done to the ship by a peril of the sea. Hence, when a ship puts into an intermediate port for the common safety, the charges incurred in entering the port, and *down to the earliest time that the wind and weather become favourable for leaving it*, ought to be general average; but the repair of any damage she may have sustained by wear and tear, or by the mere violence of the storm, or an accidental peril, and the wages of the crew, and other expenses incurred after the weather has moderated, should fall wholly on the owners.

It has been, however, within these few years, decided, in the case of a British ship that had been obliged to put into port in consequence of an injury resulting from her accidentally coming into collision with another, that so much of the repair she then underwent as was *absolutely necessary to enable her to perform her voyage* should be general average. The Judges, however, spoke rather doubtfully on the subject; and it is exceedingly difficult to discover any good grounds for the judgment.—(Plummer and Another *v.* Wildman, 3 *M.* & *S.* 482.)—It seems directly opposed to all principle, as well as to the authority of the laws of Rhodes (*Dig.* 14. tit. 2.), of Oleron (art 9.), of Wisby (art. 12.), and to the common law with respect to freight. Lord Tenterden has expressed himself as if he were hostile to the judgment. It is, indeed, at variance with all the doctrines he lays down; and the terms in which he alludes to it, "*yet in one case*," appear to hold it forth as an exception (which it certainly is) to the course of decisions on the subject.

It is now usual in this country, when a vessel puts into port on account of a damage belonging to particular average, which requires to be repaired before she can safely proceed on her voyage, to allow in general average the expense of entering the port and unloading, to charge the owners of the goods or their underwriters with the warehouse rent and expenses attending the cargo, and to throw the expense of reloading and departure on the freight.

Considerable doubts have existed in regard to the policy of making the loss of goods stowed upon the deck and thrown overboard the subject of general average. The French Ordinance of 1681, proceeding on the assumption that deck stowage is in all cases improper, has expressly excluded goods so stowed from the benefit of such average.—(Liv. iii. tit. 8. § 13). This, however, is plainly a matter in regard to which no invariable rule can be safely laid down; for, though speaking generally, stowage on the deck be improper and dangerous in most distant voyages, it may not be so, at least in certain seasons of the year, and in certain descriptions of vessels, in the coasting or cross-channel trades, or in over-sea voyages to contiguous countries. And such being the case, the preferable plan would seem to be to leave cases of the jettison of the deck cargo to be decided according to the practice of the peculiar trade in which they may happen to take place. This, too, we infer, though the point has not been judicially determined, is, in fact, the law of England at this moment. *Primâ facie*, deck goods are excluded from the benefit of general average; but if it can be shown that stowage on deck is the usage of the trade in which a jettison takes place, and the custom of the parties engaged in it, the general presumption against the practice would be defeated, and the goods would be admitted to the benefit of general average.—(See Mr. Serjeant Shee's valuable edition of Lord Tenterden's work on the Law of Shipping, pp. 481—489.)

A late statute, the 5 Vict. 2 sess. c. 17., makes it illegal for ships laden with timber and clearing out from any port in British N. America between the 1st of November and the 1st of May to have any portion of the cargo on deck. But, with this exception, the propriety of stowing goods on the deck must be determined by the opinions of those engaged in the particular trade in which it may have occurred.

According to the law of England, when a ship is injured by coming into collision with or *running foul* of another, if the misfortune has been accidental, and no blame can be ascribed to either party, the owners of the damaged ship have to bear the loss. In cases where a collision has taken place through the fault of one party only he, of course, is responsible for the consequences; but where both parties are to blame, without its being possible to discriminate the precise culpability of each, the loss or damage is to be defrayed equally by both parties. And this, also, is the rule laid down by the laws of Oleron and Wisby, and the famous French Ordinance of 1681, in reference to accidental collisions. The *Code de Commerce* (art. 407.), however, throws the loss resulting from accidental collisions on the suffering party, harmonising in this respect with the law of England.—(See Collision, in Supplement.)

The ship and freight, and every thing on board, even jewels, plate, and money, except wearing apparel, contribute to general average. But the wages of seamen do not contribute; because, had they been laid under this obligation, they might have been tempted to oppose a sacrifice necessary for the general safety.

Different states have adopted different modes of valuing the articles which are to contribute to an average. In this respect the law of England has varied considerably at different periods. At present, however, the ship is valued at the price she is worth on

her arrival at the port of delivery. The value of the freight is held to be the clear sum which the ship has earned after seamen's wages, pilotage, and all such other charges as come under the name of petty averages, are deducted. It is now the settled practice to value the goods lost, as well as those saved, at the price they would have fetched in ready money, *at the port of delivery*, on the ship's arrival there, freight, duties, and other charges being deducted. Each person's share of the loss will bear the same proportion to the value of his property, that the whole loss bears to the aggregate value of the ship, freight, and cargo. The necessity of taking the goods lost into this account is obvious; for otherwise their owner would be the only person who would not be a loser.

When the loss of masts, cables, and other furniture of the ship, is compensated by general average, it is usual, as the new articles will, in all ordinary cases, be of greater value than those that have been lost, to deduct *one third* from the value of the former, leaving two thirds only to be contributed.

But the mode of adjusting an average will be better understood by the following example, extracted from Chief Justice Tenterden's valuable work on the *Law of Shipping*, part iii. cap. 8.

"The reader will suppose that it became necessary, in the Downs, to cut the cable of a ship destined for Hull; that the ship afterwards struck upon the Goodwin, which compelled the master to cut away his mast, and cast overboard part of the cargo, in which operation another part was injured; and that the ship, being cleared from the sands, was forced to take refuge in Ramsgate harbour, to avoid the further effects of the storm.

Amount of Losses.		Value of Articles to contribute.	
	L.		*L.*
Goods of A. cast overboard	500	Goods of A. cast overboard	500
Damage of the goods of B. by the jettison	200	Sound value of the goods of B., deducting freight and charges	1,000
Freight of the goods cast overboard	100	Goods of C.	500
Price of a new cable, anchor, and mast *L.*500		——— D.	2,000
Deduct one third 100	200	——— E.	5,000
Expense of bringing the ship off the sands	50	Value of the ship	2,000
Pilotage and port duties going into the harbour and out, and commission to the agent who made the disbursements	100	Clear freight, deducting wages, victuals, &c.	800
Expenses there	25		
Adjusting this average	4		
Postage	1		
Total of losses *L.*	1,180	Total of contributory values *L.*	11,800

Then, 11,800*l.* : 1,180*l.* :: 100*l.* : 10*l.*

That is, each person will lose 10 per cent. upon the value of his interest in the cargo, ship, or freight. Therefore, A. loses 50*l.*, B. 100*l.*, C. 50*l.*, D. 200*l.*, E. 500*l.*, the owners 280*l.*; in all, 1,180*l.* Upon this calculation, the owners are to lose 280*l.*; but they are to receive from the contribution 380*l.*, to make good their disbursements, and 100*l.* more for the freight of the goods thrown overboard; or 480*l.*, minus 280*l.*

They, therefore, are actually to receive	*L.*200
A. is to contribute 50*l.*, but has lost 500*l.*; therefore A. is to receive	450
B. is to contribute 100*l.*, but has lost 200*l.*; therefore B. is to receive	100
Total to be actually received	*L.*750

On the other hand, C., D., and E. have lost nothing, and are to pay as before; viz.	C.	*L.*50
	D.	200
	E.	500
Total to be actually paid		*L.*500

which is exactly equal to the total to be actually received, and must be paid by and to each person in rateable proportion.

"In the above estimate of losses, I have included the freight of the goods thrown overboard, which appears to be proper, as the freight of the goods is to be paid, and their supposed value is taken clear of freight, as well as other charges. In this country, where the practice of insurance is very general, it is usual for the broker, who has procured the policy of insurance, to draw up an adjustment of the average, which is commonly paid in the first instance by the insurers without dispute. In case of dispute, the contribution may be recovered either *by a suit in equity*, or by an action at law, instituted by each individual entitled to receive, against each party that ought to pay, for the amount of his share. And in the case of a general ship, where there are many consignees, it is usual for the master, before he delivers the goods, to take a bond from the different merchants for payment of their portions of the average when the same shall be adjusted."

The subject of average does not necessarily make a part of the law of insurance; though as insurers, from the terms of most policies, are liable to indemnify the insured against those contributions which are properly denominated *general* average, its consideration very frequently occurs in questions as to partial losses. But in order to confine assurances to that which should be their only object, namely, an indemnity against real and important losses arising from a peril of the sea, as well as to obviate disputes respecting losses arising from the perishable quality of the goods insured, and all trivial subjects of difference and litigation, it seems to be the general law of all maritime states, and is expressly, indeed, provided by the famous Ordinance of 1681 (see liv. iii. tit. 6. § 47., and the elaborate commentary of M. Valin), that the insurer shall not be liable to any demand on account of average, unless it exceed *one* per cent. An

article (No. 408.) to the same effect is inserted in the *Code de Commerce*; and by stipulation, this limitation is frequently extended in French policies to *three* or *four* per cent. A similar practice was adopted in this country in 1749. It is now constantly stipulated in all policies, that upon certain enumerated articles of a quality peculiarly perishable, the insurer shall not be liable for any partial loss whatever; that upon certain others liable to partial injuries, but less difficult to be preserved at sea, he shall only be liable for partial losses above *five* per cent.; and that as to all other goods, and also the ship and freight, he shall only be liable for partial losses above *three* per cent. This stipulation is made by a memorandum inserted at the bottom of all policies done at Lloyd's, of the following tenour: — "N.B. Corn, fish, salt, fruit, flour, and seeds are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under *5l.* per cent.; and all other goods free from average under 3*l.* per cent., unless general, or the ship be stranded."

The form of this memorandum was universally used, as well by the Royal Exchange and London Assurance Companies as by private underwriters, till 1754, when it was decided that a ship having run aground, was a stranded ship within the meaning of the memorandum; and that although she got off again, the underwriters were liable to the average or partial loss upon damaged corn. This decision induced the two Companies to strike the words "*or the ship be stranded*" out of the memorandum; so that now they consider themselves liable to no losses which can happen to such commodities, except general averages and total losses. The old form is still retained by the private underwriters.—(See STRANDING.)

The reader is referred, for the further discussion of this important subject, to the article MARINE INSURANCE; and to *Mr. Stevens's Essay on Average; Abbott on the Law of Shipping*, part iii. cap. 8.; *Marshall on Insurance*, book i. cap. 12. s. 7.; *Park on Insurance*, cap. 7.; and *Mr. Beneche's* elaborate and able work on the *Principles of Indemnity in Marine Insurance*.

AVOIRDUPOIS, a weight used in determining the gravity of bulky commodities. See WEIGHTS AND MEASURES.

B.

BACON and HAMS. The former is made from the sides and belly of the pig, and the latter from its hind legs. The process of curing may be effected indifferently by the employment of salt or sugar, or both; but the first is by far the most commonly used. After being impregnated with salt or sugar, and allowed to remain a certain time in the solution, the bacon and hams are taken out, dried and smoked. The counties of England most celebrated for bacon and hams are York, Hants, Berks, and Wilts. Ireland produces great quantities of both; but they are coarse, not so well cured as the English, and much lower priced. Of the Scotch counties, Dumfries, Wigtown, and Kirkcudbright are celebrated for the excellence of their bacon and hams, of which they export large quantities, principally to the Liverpool and London markets. For an account of the imports, &c. see PORK, BACON, and HAMS.

BAGGAGE, in commercial navigation, the wearing apparel and other articles destined for the sole use or accommodation of the crews and passengers of ships. The following are the principal Custom-house regulations with respect to baggage: —

Baggage and apparel accompanied by the proprietor, worn and in use (not made up for the purpose of being introduced into this country), exempted from all duty on importation.

Baggage, containing no article liable to duty, and arriving by continental steam vessels, may be examined between Gravesend and London, provided the proprietor be present, and see the packages reclosed and labelled by the officer. Such baggage is landed before any other, provided the label be not removed or torn.—(*Customs Order*, 3d Aug. 1853.)

At the outports those passengers having but *single packages* landed, will have these first examined.

Articles in baggage (not merchandise) subject to duty, will be delivered to passengers, if the duties thereon, and a small fee for passing the entry, be deposited with the person authorised to receive the same.

If unaccompanied, and examined by sight entry, baggage may be delivered on a proper indorsement being made and certified by the examining officer.

If not cleared at the expiration of six months from the date of landing, it is liable to be sold for duty and charges, the residue (if any) to be paid to the right owner on proof being adduced to the satisfaction of the Board.

One rifle or fowling-piece, and one pair of pistols accompanying the party, for private use, free per Customs Order, 23d Sept. 1829.

Trifling articles of silk, and leather gloves in small quantities, found in passengers' baggage, landed from the continent, admitted for entry for private use on the usual declaration.—(*Customs Order*, August 7. 1833.)

One pint of drinkable spirits of whatever strength, or half a pint of cordial or Cologne water, in baggage, for private use—free—(*Treasury Order*, October 25. 1820.)

Half a pound of cigars or manufactured tobacco in the baggage of passengers delivered *duty free*.

Passengers from short voyages may enter 3 lbs., and those from long voyages may enter 7 lbs. of cigars.—(*Customs Order*, 14th January, 1837.)

Books, plate, or other articles *on which drawback might have been received*, free, on declaration that no drawback has been received.

Drawings and sketches made for amusement, and not for sale, by the proprietor, and accompanied by him, *duty free*.—(*Treasury Order*, 5th August, 1817.)

Foreign Newspapers un-bound, duty free.—(*Customs Order*, 29th April, 1829.)

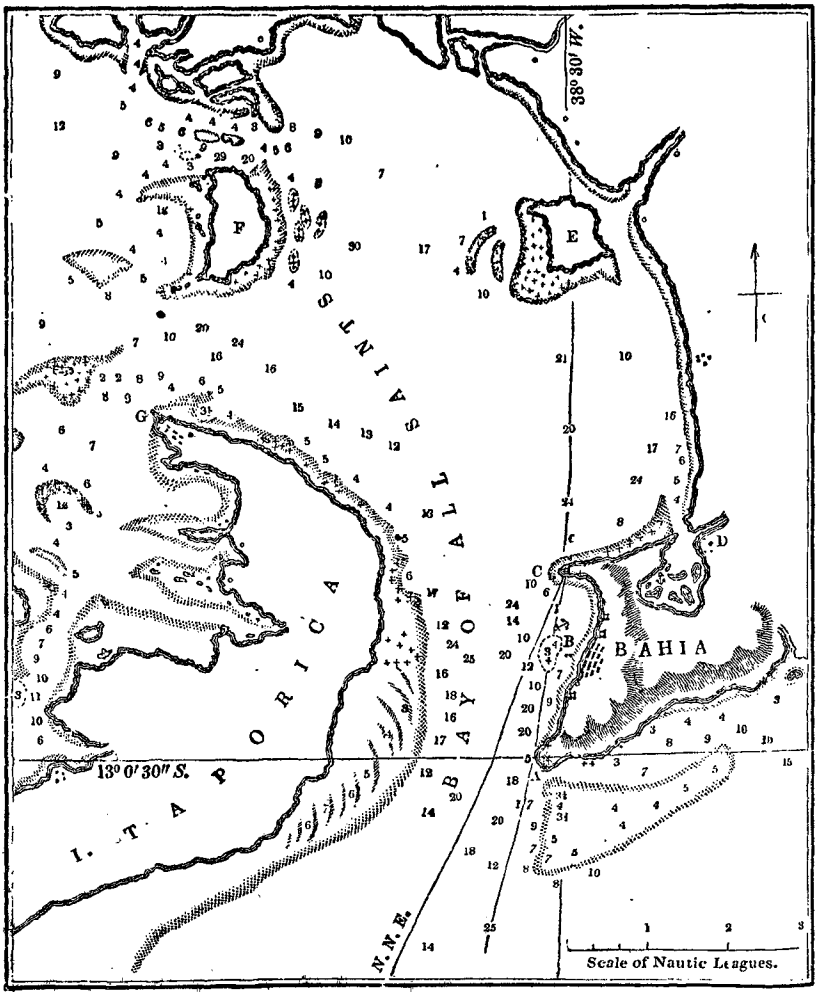
Passengers denying having Foreign Goods in their Possession.—The following clause in the act 16 & 17 Vict. c. 107. has reference to this subject: — If any passenger or other person, on board any ship or boat, or who may have landed from the same, shall, upon being questioned by any officer whether he has any foreign goods upon his person, or in his possession, deny the same, and any such goods shall, after such denial, be discovered to be, or to have been, upon his person, or in his possession, such goods shall be forfeited, and such person shall forfeit treble the value of such goods."—§ 229.

Any *Licensed Agent* overcharging parties for customs duties or other disbursement, will have his licence withdrawn, and be prosecuted.—(*Customs Order*, 24th Dec. 1847.)

A customs officer taking any fee, perquisite, or reward for anything done or omitted to be done by him in discharge of his duty, is to be dismissed.—16 & 17 Vict. c. 107. § 3.

BAHIA, or ST. SALVADOR, a large city (formerly a capital) of Brazil, contiguous to Cape St. Antonio, which forms the right or eastern side of the entrance of the noble bay of Todos os Santos, or All-Saints.

Plan.—The subjoined woodcut conveys a clearer and better idea of this celebrated bay than could be acquired from any description. It is copied, without any reduction, from a revised edition of a Portuguese chart published by M. Laurie, and exhibits the banks, soundings, anchorage, &c.



References to the Plan.—A, Cape, lighthouse, and fort of St. Antonio; B, Fort do Mar; C, Fort St. Philip; D, Tapagippe; E, Isla do Mar; F, Isla dos Frados; G, Fort Beaumont. The figures in the plan are the soundings in fathoms.

According to the observations of M. Roussin, the lighthouse on the Cape is in lat. 13° 0′ 30″ S., long 38° 30′ W. The opposite side of the entrance to the bay is formed by the island of Taporica, distant from Cape St. Antonio about 2½ leagues. But a bank along the shore of the island narrows the passage for large ships to about two-thirds this distance. Another bank runs S. S. W. from Cape St. Antonio about 1½ league. Within, the bay expands into a capacious basin, having several islands and harbours, the depth of water varying from 8 and 10 to 40 fathoms, affording ample accommodation and secure anchorage for the largest fleets.

There is another entrance to the bay, partly exhibited in the annexed plan, on the west side of the island of Taporica; but it is narrow, intricate, and at its mouth has not more than 6 feet water. Several rivers have their embouchure in the bay, which generally occasions a current to set from the north end of the island by Cape St. Antonio; when the rivers are flooded, this current is sometimes very strong. The lighthouse at the extremity of the cape has no great elevation, and cannot be seen at a distance of more than 3 or 3½ leagues. The usual place of anchorage is abreast of the city, north and south of Fort do Mar.

The city is partly built on the beach, but principally on pretty high ground immediately contiguous.

The public buildings, particularly the churches, are numerous, and some of them magnificent; but the streets are narrow, ill paved, and filthy. Population estimated at from 125,000 to 160,000. The city is defended by several forts, but none of them are of great strength. We subjoin

An Account specifying the Quantities and the Destination of the Principal Articles of Native Produce shipped from Bahia in 1856.

Destination.	Sugar.	Cotton.	Coffee.	Cocoa.	Tobacco.	Hides.	Rum.	Piassaba.	Rose-wood.
	Tons.	*Bales.*	*Bags.*	*Bags.*	*Tons.*		*Pipes.*	*Bundles.*	*Logs.*
Channel	6,999	430	4,534	-		32,525	-	38,072	2,092
Gibraltar	1,564	-	2,244	251		4,971	-	5,000	
Great Britain	5,845	4,269	8,062	2,373		7,141	-	109,133	3,477
Germany	2,385	582	4,014	-		20,516	400	25,104	1,486
Holland	320	-	174	-		5,000	-	1,398	
France	887	601	1,584	2,893		7,074	9	5,750	4,840
Sweden	4,935	-	693	20		11,691	-	1,800	154
Denmark	199	-	-	-	5,976				
Portugal	5,315	888	541	1,220		21,971	4	39,591	534
Genoa	689	-	3,300	-		12,731	40	-	1,164
Venice	-	-	300	100		400			
Trieste	1,143	-	-						
United States	2,018	-	27,368	-		11,147	-	6,475	3,133
River Plate	854	141	-	505		-	4,634	2,150	12
Africa	9	-	66	-		52	4,311		
Total	33,160	6,911	52,880	7,362	5,976	156,219	9,398	230,701	16,892

The value of the above articles may be estimated at about 1,500,000*l.* Bahia has long been the principal mart for the sale of diamonds. And the late discovery of a new and highly productive diamond field in the interior, has led to a great increase in the exports of the gem, the value of which is believed to amount to from 450,000*l.* to 550,000*l.* (See DIAMOND.) Tapioca and other articles are also exported. In 1856, 143 British vessels, of the burden of 60,202 tons, entered at, and as many cleared out from, Bahia. —See, for some remarks on the trade with Brazil, the art. on RIO DE JANEIRO.

The imports consist principally of cottons and other manufactured goods, provisions, flour, salt, salt fish, iron, and hardware, coals, soap, wines, &c.

The exports from Bahia have rather increased of late years, notwithstanding the greater obstructions thrown in the way of importing slaves; and the greater scarcity and high price of labour.

No articles are prohibited to be imported, nor are there any privileges in favour of ships belonging to any country. The coasting trade is exclusively carried on by Brazilian vessels.

There is no difference made in the duty on goods, whether imported in native or foreign vessels.

Vessels putting into Bahia in distress pay no tonnage dues. Those which discharge or take in cargo pay 50 reis per ton per day, Brazilian measurement; but should a vessel remain in port more than 30 days, this payment ceases to be enforced.

Port Dues on Vessels.

Brazilian hospital for each man specified in muster-roll	640 reis
Bill of health	3,200 reis
English, Portuguese, and Brazilian vessels pay lighthouse, &c.	6,720
Vessels of other nations ditto	10,240

Bahia is the only port of this province where goods may be warehoused on importation, and afterwards exported. A duty is charged thereon at the rate of 4 per cent. on tariff valuation.

The duty of 15 per cent. formerly levied on chronometers and other nautical instruments, in use on board vessels has been recently abolished.

Average Exchange, 30*d.* per 1000 reis.

Weights and Measures.

1 quintal=4 arrobas. 1 arroba=32 lbs.
1 Canada=2 imperial gallons. 1 alqueire=7-8ths of a bushel.

(*Consular Returns and private information.*)

BALACHONG, an article consisting of pounded or bruised fish. It consists principally of small fish, with prawns and shrimps. Though foetid and offensive to strangers, this substance, used as a condiment to rice, is largely consumed in all the countries to the east of Bengal, including the southern provinces of China, and the islands of the Eastern Archipelago. Its distribution gives rise to an extensive internal traffic.

BALANCE, in accounts, is the term used to express the difference between the debtor and creditor sides of an account.

BALANCE, in commerce, is the term commonly used to express the difference between the value of the exports from and imports into a country. The balance used to be said to be favourable when the value of the exports exceeded that of the imports, and unfavourable when the value of the imports exceeded that of the exports. And in this country this was long believed to be the case; and down to a late period we were annually congratulated by our finance ministers on the excess of the exports over the imports.

The attainment of a favourable balance was formerly regarded as an object of the greatest importance. The precious metals, in consequence of their being used as money, were long considered as the only real wealth that could be possessed either by individuals or nations. And as countries without mines could not obtain supplies of these metals except in exchange for exported products, it was concluded, that if the value of the commodities exported exceeded that of those imported, the balance would have to be paid by the importation of an equivalent amount of the precious metals; and conversely. A very large proportion of the restraints imposed on the freedom of commerce, during the last three centuries, grew out of this notion. The importance of having a favourable balance being universally admitted, every effort was made to attain it; and nothing seemed so effectual for this purpose as the devising of schemes to facilitate exportation, and to hinder the importation of almost all products, except gold and silver, that were not intended for future exportation. But the gradual though slow growth of sounder opinions with respect to the nature and functions of

money, showed the futility of a system of policy having such objects in view. It is now conceded on all hands that gold and silver are nothing but commodities; and that it is in no respect necessary to interfere either to encourage their importation, or to prevent their exportation. In Great Britain they may be freely exported and imported, whether in the shape of coin or bullion.—(See COIN.)

The truth is, however, that the theory of the balance of trade was not erroneous merely from the false notions which its advocates entertained with respect to money; but proceeded on radically mistaken views as to the nature of commerce. The mode in which the balance was usually estimated was, indeed, completely fallacious. But had it been correctly ascertained, it would have been found, in opposition to the common opinion, that the imports into commercial countries must, speaking generally, exceed the exports; and that a balance, whether on the one side or the other, is but rarely cancelled by a bullion payment.

I. The proper business of the wholesale merchant consists in carrying the various products of the different countries of the world, from the places where their value is least to those where it is greatest; or, which is the same thing, in distributing them according to the effective demand. It is clear, however, that there could be no motive to export any species of produce, unless that which it was intended to import in its stead were of greater value. When an English merchant commissions a quantity of Polish wheat, he calculates on its selling for so much more than its price in Poland, as will be sufficient to pay the expense of freight, insurance, &c., and to yield, besides, the common and ordinary rate of profit on the capital employed. If the wheat did not sell for this much, its importation would obviously be a loss to the importer. It is plain, then, that no merchant ever did or ever will export, but in the view of importing something more valuable in return. And so far from an excess of exports over imports being any criterion of an advantageous commerce, it is directly the reverse; and the truth is, notwithstanding all that has been said and written to the contrary, that unless the value of the imports exceeded that of the exports, foreign trade could not be carried on. Were this not the case—that is, were the value of the exports always greater than the value of the imports—merchants would lose on every transaction with foreigners, and the trade with them would be speedily abandoned.

In England, the rates at which all articles of export and import are officially valued were fixed so far back as 1696. But the very great alteration that has since taken place, not only in the value of money, but also in the cost of by far the greater number of the commodities of this and other countries, long ago rendered the official valuation of no use whatever, either as a means of learning the values or the quantities of the exports or imports. In so far, however, as respects the former, this defect was unintentionally remedied in 1798, when the "convoy duty," being an *ad valorem* tax laid on the exports, furnished the means of ascertaining their amount. And the importance of the information so obtained was such, that, whether articles of export have or have not been charged with duties, exporters have since been made to declare, in every case, the *real* value of the articles which they export.

It has been alleged, and apparently with some probability, that merchants have not unfrequently been in the habit of exaggerating the value of articles entitled to drawbacks on exportation. But the extension and improvement of the warehousing system, and the diminution of the number of drawbacks, has materially lessened whatever fraud or inaccuracy may have arisen from this source. So long, indeed, as the greater number of articles were charged with an *ad valorem* duty of 10*s.* per cent. on exportation, it may be presumed that their value was rather under than overrated. But since the repeal of that duty (*5 & 6* Vict. *c.* 47. § 40.), their declared value is believed to come very near the truth; at least, sufficiently so for all practical purposes.

But until very recently no authentic information was obtained in regard to the value of the imports. In 1848, however, the Board of Customs having approved a plan suggested by Mr. Messenger, Inspector General of Imports and Exports, for ascertaining the value of the former, it was submitted by them to the Treasury. And its advantages having been fully appreciated by Mr. James Wilson, M.P., then Secretary to their Lordships, it was carried into effect in 1854. It is needless to enter into any minute details with respect to the mode of computing the values of the imports. It is sufficient to state that it is effected by ascertaining the current prices of imported articles from price currents, mercantile circulars, &c., and from these deducing the agg. value of each. It would be idle to suppose that results derived from a process of this sort should be altogether exact; but the errors it involves are of no great moment, and for statistical purposes it may be reckoned quite correct, and most valuable.

In the last edition of this work, we ventured to say that, though we had no means of comparing the real values of the imports with those of the exports, we had no doubt that the former very considerably exceeded the latter. It could hardly, indeed, be

otherwise. The value of an exported commodity is estimated at the moment of its being sent abroad, and *before* its cost is increased by the expense of transporting it to the place of its destination; whereas the value of the commodity imported in its stead is estimated *after* it has arrived at its destination, and, consequently, after its cost has been enhanced by the expense of freight, insurance, importers' profits, &c. It is, therefore, abundantly clear that, except on extraordinary occasions, the value of the imports must be decidedly greater than that of the exports.

And such is now proved to be the case. According to the Customs returns the value of the imports and exports in 1855, 1856, 1857, and 1858, have been as follows, viz.

	1855.	1856.	1857.	1858.
Value of Imports into the U. Kingdom -	£143,542,850	£172,544,154	£187,844,441	£163,795,803
Value of Exports from U. K., inc. foreign and colonial merchandise - - - -	116,691,300	139,220,353	146,174,301	139,413,123
Excess of Imports - - -	£26,851,550	£33,325,801	£31,670,140	£24,382,680

It is clear, therefore, that to measure the advantage of commerce by the excess of the exports over the imports is a proceeding that is false alike in fact and principle. The value of the imports, in all but anomalous and extremely rare instances, invariably exceeds that of the exports. And it is plain that this excess, whatever it may be, forms the only fund whence the expenses and profits of the merchants can be derived. The larger, consequently, it becomes, the more will it be for their advantage.

In the United States, the value of the imports, as ascertained by the Custom-house returns, has usually exceeded the value of the exports. And although our practical politicians were in the habit of considering the excess of the former as a certain proof of a disadvantageous commerce, "it is nevertheless true," says Mr. Pitkin, "that the real gain of the United States has *been nearly in proportion as their imports have exceeded their exports.*"—(*Commerce of the United States*, 2d. ed. p. 280.) The excess of American imports has in part been occasioned by the Americans generally exporting their own surplus produce, and, consequently, receiving from foreigners not only an equivalent for their exports, but also for the cost of conveying them to the foreign market. "In 1811," says the author just quoted, "flour sold in America for *nine dollars and a half* per barrel, and in Spain for *fifteen dollars*. The value of the cargo of a vessel carrying 5,000 barrels of flour would, therefore, be estimated at the period of its exportation at 47,500 dollars; but as this flour would sell, when carried to Spain, for 75,000 dollars, the American merchant would be entitled to draw on his agent in Spain for 27,500 dollars more than the flour cost in America; or than the sum for which he could have drawn, had the flour been exported in a vessel belonging to a Spanish merchant. But the transaction would not end here. The 75,000 dollars would be vested in some species of Spanish or other European goods fit for the American market; and the freight, insurance, &c., on account of the return cargo, would probably increase its value to 100,000 dollars, so that, in all, the American merchant might have imported goods worth 52,500 dollars more than the flour originally sent to Spain." It is as impossible to deny that such a transaction as this is advantageous, as it is to deny that its advantage consists entirely in the excess of the value of the goods imported over the value of those exported. And it is equally clear that America might have had the real balance of payments in her favour, though such transactions as the above had been multiplied to any conceivable extent.

II. In the second place, when a balance is due by one country to another, it is but seldom that it is paid by remitting bullion from the debtor to the creditor country. If the sum due by the British merchants to those of Holland be greater than the sum due by the latter to them, the balance of payments will be against Britain; but this balance will not, and indeed cannot, be discharged by an exportation of bullion, *unless bullion be, at the time, the cheapest exportable commodity*; or, which is the same thing, *unless it may be more advantageously exported than anything else.* To illustrate this principle, let us suppose that the balance of debt, or the excess of the value of the bills drawn by the merchants of Amsterdam on London over those drawn by the merchants of London on Amsterdam, amounts to 100,000*l.*: it is the business of the London merchants to find out the means of discharging this debt with the least expense; and it is plain, that if they find that any less sum, as 96,000*l.*, 97,000*l.*, or 99,900*l.*, will purchase and send to Holland as much cloth, cotton, hardware, colonial produce, or any other commodity, as will sell in Amsterdam for 100,000*l.*, no gold or silver will be exported. The laws which regulate the trade in bullion are not in any degree different from those which regulate the trade in other commodities. It is exported only when its exportation is advantageous, or when it is more valuable abroad than at home. It would, in fact, be quite as reasonable to expect that water should flow from a low to a high level, as it is to expect that bullion should leave a country where its value is great to go to one where

it is low! It is never sent abroad to destroy, but always to find, its level. The balance of payments might be ten or a hundred millions against a particular country, without causing the exportation of a single ounce of bullion. Common sense tells us that no merchant will remit 100*l.* worth of bullion to discharge a debt in a foreign country, if it be possible to invest any smaller sum in any species of merchandise which would sell abroad for 100*l.* exclusive of expenses. The merchant who deals in the precious metals is as much under the influence of *self-interest*, as he who deals in coffee or indigo; and what merchant would attempt to extinguish a debt, by exporting coffee which cost 100*l.*, if he could effect his object by sending abroad indigo which cost only 99*l.*?

The argument about the balance of payments is one of those that contradict and confute themselves. Had the apparent excess of exports over imports, as indicated by the British Custom-house books for the hundred years down to 1853, been always paid in bullion, as the supporters of the old theory contend is the case, there should at this moment be some 500,000,000 or 600,000,000 of bullion in the country, instead of 80,000,000 or 100,000,000, which it is supposed at most to amount to! Nor is this all. If the theory of the balance were good for anything—if it had not been a mere idle delusion—it follows, as every country in the world, with the single exception of the United States, has had its favourable balance, that they must have been paid by an annual importation of bullion from the mines corresponding to their aggregate amount. But it is certain, that the entire produce of the mines, great as it is, though it were increased in a *fivefold* proportion, would be insufficient for this purpose! This *reductio ad absurdum* is decisive of the degree of credit that should be attached to conclusions respecting the flourishing state of the commerce of any country drawn from the excess of the exports over the imports!

Not only, therefore, is the theory with respect to the balance of trade erroneous, but the very reverse of that theory is true. In the *first* place, the value of the commodities imported by every country which carries on an advantageous commerce (and no other will be prosecuted for any considerable period), invariably exceeds the value of those which she exports. Unless such were the case, there would plainly be no fund whence the merchants and others engaged in foreign trade could derive either a profit on their capital, or a return for their outlay and trouble; and in the *second* place, whether the balance of debt be for or against a country, that balance will neither be paid nor received in bullion, unless it be at the time the commodity by the exportation or importation of which the account may be most profitably settled. Whatever the partisans of the doctrine as to the balance may say about money being a preferable product, or *marchandise par excellence*, it is certain it will never appear in the list of exports and imports while there is anything else with which to carry on trade, or cancel debts, that will yield a larger profit, or occasion a less expense to the debtors.

It is difficult to estimate the mischief which the absurd notions relative to the balance of trade have occasioned in almost every commercial country;—here they have been particularly injurious. It is principally to the prevalence of prejudices to which they have given rise, that the restrictions on the trade between this country and France are to be ascribed. The great, or rather the only, argument insisted upon by those who prevailed on the legislature, in the reign of William and Mary, to declare the trade with France a *nuisance*, was founded on the statement that the value of the imports from that kingdom considerably exceeded the value of the commodities we exported to it. The balance was regarded as a *tribute* paid by England to France; and it was sagaciously asked, what had we done, that we should be obliged to pay so much money to our natural enemy? It never occurred to those who so loudly abused the French trade, that no merchant would import any commodity from France, unless it brought a higher price in this country than the commodity exported to pay it; and that the profit of the merchant, or the national gain, would be in exact proportion to this excess of price. The very reason assigned by these persons for prohibiting the trade affords the best attainable proof of its having been a lucrative one; nor can there be any doubt that an unrestricted freedom of intercourse between the two countries would be of the greatest service to both.

BALE, a pack, or certain quantity of goods or merchandise; as a *bale* of silk, cloth, &c.

Bales are always marked and numbered, that the merchants to whom they belong may know them, and the marks and numbers correspond to those in the bills of lading, &c. Selling under the *bale*, or under the *cords*, is a term used in France and other countries for selling goods wholesale, without sample or pattern, and unopened.

BALKS, large pieces of timber.

BALLAST (Du. *Ballast*; Fr. *Lest*; Ger. *Ballast*; It. *Savorra*; Sp. *Lastre*; Sw. *Ballast*), a quantity of iron, stones, sand, gravel, or any other heavy material laid in a ship's hold, in order to sink her deeper in the water, and to render her capable of carry-

ing sail without being overset. All ships clearing outwards, having no goods on board other than the personal baggage of the passengers, are said to be in ballast.

The quantity of ballast required to fit ships of equal burden for a voyage, is often materially different; the proportion being always less or more, according to the sharpness or flatness of the ship's bottom, called, by seamen, the *floor*.

The proper ballasting of a ship deserves peculiar attention, for, although it be known that ships in general will not carry sufficient sail, till they are laden so that the surface of the water nearly glances on the extreme breadth midships, more than this general knowledge is required. If the ship have a great weight of heavy ballast, as lead, iron, &c., in the bottom, the centre of gravity will be too low in the hold; this no doubt will enable her to carry a press of sail, but it will, at the same time, make her sail heavily, and roll so violently, as to run the risk of being dismasted.

The object in ballasting a ship is, therefore, so to dispose of the ballast or cargo, that she may be duly poised, and maintain a proper equilibrium on the water, so as neither to be too *stiff*, nor too *crank*, qualities equally pernicious. If too stiff, she may carry much sail, but her velocity will not be proportionally increased; whilst her masts are endangered by sudden jerks and excessive labouring. If too crank, she will be unfit to carry sail without the risk of oversetting.

Stiffness in ballasting is occasioned by disposing a too great quantity of heavy ballast, as lead, iron, &c., in the bottom, which throws the centre of gravity very near the keel; and this being the centre about which the vibrations are made, the lower it is placed, the more violent is the rolling.

Crankness, on the other hand, is occasioned by having too little ballast, or by disposing the ship's lading so as to raise the centre of gravity too high: this also endangers the masts when it blows hard; for when the masts cease to be perpendicular, they strain on the shrouds in the nature of a lever, which increases as the sine of their obliquity: and it is superfluous to add, that a ship that loses her masts is in great danger of being lost.

Hence the art of ballasting consists in placing the centre of gravity to correspond with the trim and shape of the vessel, so as to be neither too high nor too low; neither too far forward, nor too far aft; and to lade the ship so deep, that the surface of the water may nearly rise to the extreme breadth midships: she will then carry a good quantity of sail, incline but little, and ply well to windward. — (See *Falconer's Marine Dictionary.*)

The mischievous consequences of not attending to the circumstances now mentioned are often experienced by ships loading barilla, brimstone, and such heavy articles, on the coast of Sicily and Spain. The habit there is to cut large quantities of brushwood and faggots, and to spread them in the hold, to hinder the cargo from sinking the centre of gravity too low, and causing the ship to labour violently; but it very frequently happens that the pressure of the cargo on this sort of dunnage is so great as to squeeze it into a much smaller space than could at first have been supposed; so that ships after getting to sea are sometimes obliged to return to port, to unload a part of their cargo, to prevent their foundering. In such cases firm dunnage, such as oak staves, should, if possible, be always employed. — (See *Jackson's Commerce of Mediterranean*, p. 125—128.)

Ships that have cargoes of light goods on board require a quantity of ballast; increasing, of course, according to the greater lightness of the goods.

Ballast in the Thames.—The soil of the river Thames from London Bridge to the sea is vested in the Trinity House corporation, and a sum of 10*l.* is to be paid for every ton of ballast taken from the channel of the river without due authority from the said corporation. Ships may receive on board land ballast from the quarries, pits, &c. east of Woolwich, provided the quantity taken in a year do not exceed the number of tons notified to the Trinity corporation. Land ballast must be entered, and 1*d.* paid per ton on entering. No ballast is to be put on board before entry at the ballast office, under a penalty of 5*l.* a ton. The Trinity corporation is authorised by the 6 & 7 Vict. c. 57., to charge the following rates for all ballast demanded and entered at the ballast office, viz.: —

For every ton (20 cwt.) of ballast, not being washed ballast, carried to any ship or vessel employed in the coal trade, the sum of 1*s.*

For every such ton carried to any other British ship or vessel, the sum of 1*s.* 3*d.*

For every such ton carried to any foreign ship or vessel, the sum of 1*s.* 7*d.*

For every ton of washed ballast carried to any ship or vessel employed in the coal trade, the sum of 2*s.*

For every ton of washed ditto carried to any other British ship or vessel, the sum of 2*s.* 6*d.*

For every ton of washed ditto carried to any foreign ship or vessel, the sum of 3*s.* 2*d.*

And for every ton of ballast delivered in or unladen from the Inward West India Dock, the further sum of 10*d.*; and for every ton of ballast delivered in or unladen from the Outward West India Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the London Docks, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Inward East India Dock, the further sum of 10*d.*; and for every ton of ballast delivered in or unladen from the Outward East India Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Commercial Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the East Country Dock, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the City Canal, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Surrey Canal, the further sum of 4*d.*; and for every ton of ballast delivered in or unladen from the Regent's Canal, the further sum of 4*d.*

Which further rates or prices shall be payable and paid over and above the respective rates first mentioned.

The ballast of all ships or vessels coming into the Thames, is to be unladen into a lighter, at the charge of 6*d.* a ton. If any ballast be thrown or unladen from any ship or vessel into the Thames, the captain, master, &c. shall for every such offence forfeit 20*l.* No ballast is to be received on board otherwise than from a lighter. By the stat. 54 Geo. 3. c. 149. it is enacted, that no person shall, under a penalty of 10*l.* over and above all expenses, discharge any ballast, rubbish, &c. in any of the ports, harbours, roadsteads, navigable rivers, &c. of the United Kingdom; nor take ballast from any place prohibited by the Lords of the Admiralty.

Heaving of Ballast.—The men employed in this laborious occupation have, for a lengthened period, been held in a sort of thraldom by what are called the "Long shore publicans," who have paid them according to a truck system of the very worst kind. To emancipate the labourers from this degrading subjection, and place them on a more independent footing, the Trinity House offers to heave ballast as follows, viz.: —

Trinity House, London, 11th November, 1853.

Her Majesty having, as provided by § 14 of the act 16 & 17 Vict. c. 131., been pleased by order in council, dated the 24th October, 1853, to approve a scale of rates, to be established and paid to this corporation by the owners or masters of, or agents for, any ships, who may be desirous that the Trinity House should undertake to place ballast on board, or unload it from, such ships, in addition to the rates already payable under the act 6 & 7 Vict. c. 57., for placing the ballast alongside the same. The said scale so approved is hereby made public for the information of all persons who may be desirous to avail themselves of this regulation, viz.: —

"For vessels having ports, 4*d.* for every ton of ballast placed on board or unladen;

"For vessels not having ports, 6½*d.* for every ton of ballast placed on board or unladen."

And notice is given, that on and after the 1st day of December, 1853, this corporation will cause ballast to be placed on board of, or unladen from, all ships or vessels, the owners, masters, or agents of which may be desirous that it shall be so placed or unladen, on payment of the rates above specified, at the time of making entry and payment for the quantity of ballast required to be put on board, or unladen, as the case may be. By order, J. Herbert, secretary.

The act 16 & 17 Vict. c. 107. § 145. enacts that before any ship shall depart in ballast from the U. K. for parts beyond seas, not having any goods on board, except stores from the warehouse borne upon the victualling bill of such ship, nor any goods reported inwards for exportation in such ship, the collector or comptroller shall clear such ship in ballast, by notifying such clearance and the date thereof of the victualling bill, and deliver the same to the master of such ship as the clearance thereof; and the master of such ship shall answer to the collector or comptroller such questions touching her departure and des-

tination as shall be demanded of him; and ships having only passengers with their baggage on board, and ships laden only with chalk or slate, shall be deemed to be in ballast; and if any such ship, whether laden or in ballast, shall depart without being so cleared, if she have any such stores on board, the master shall forfeit and pay the sum of 100*l.*

BALSAM (Ger. *Balsam*; Du. *Balsem*; Fr. *Baume*; It. and Sp. *Balsamo*; Lat. *Balsamum*). Balsams are vegetable juices, either liquid, or which spontaneously become concrete, consisting of a substance of a resinous nature, combined with benzoic acid, or which are capable of affording benzoic acid by being heated alone, or with water. The liquid balsams are copaiva, opobalsam, balsam of Peru, storax, and Tolu; the concrete are benzoin, dragon's blood, and red or concrete storax. — (*Ure.*)

1. *Copaiva* (Fr. *Baume de Copahu*; Ger. *Kopaiva Balsam*; Sp. *Copayva*), obtained from a tree (*Copaifera*) growing in South America and the West India islands. The largest quantity is furnished by the province of Para in Brazil. It is imported in small casks, containing from 1 to 1½ cwt. Genuine good copaiva or copaiba balsam has a peculiar but agreeable odour, and a bitterish, hot, nauseous taste. It is clear and transparent; its consistence is that of oil; but when exposed to the action of the air it becomes solid, dry, and brittle, like resin. — (*Thomson's Dispensatory.*)

2. *Opobalsam* (Fr. *Balsamier de la Mecque*; It. *Opobalsamo*; Pat. *Balsamum verum album, Ægyptiacum*; Egypt. *Balessan*), the most precious of all the balsams, commonly called Balm of Gilead. It is the produce of a tree (*Amyris Gileadensis*), indigenous to Arabia and Abyssinia, and transplanted at an early period to Judea. It is obtained by cutting the bark with an axe at the time that the juice is in the strongest circulation. The true balsam is of a pale yellowish colour, clear and transparent, about the consistence of Venice turpentine, of a strong, penetrating, agreeable, aromatic smell, and a slightly bitterish pungent taste. By age it becomes yellower, browner, and thicker, losing by degrees, like volatile oils, some of its finer and more subtile parts. It is rarely if ever brought genuine into this country; dried Canada balsam being generally substituted for it. It was in high repute among the ancients; but it is now principally used as a cosmetic by the Turkish ladies. — (*Drs. Ure and Thomson.*)

The Canada balsam, now referred to, is merely *fine turpentine*. It is the produce of the *Pinus Balsamea*, and is imported in casks, each containing about 1 cwt. It has a strong, but not a disagreeable odour, and a bitterish taste; is transparent, whitish, and has the consistence of copaiva balsam. — (See TURPENTINE.)

"Szafra and Beder are the only places in the Hedjaz where the balsam of Mecha, or Balessan, can be procured in a pure state. The tree from which it is collected grows in the neighbouring mountains, but principally upon Djebel Sobh, and is called, by the Arabs, Beshem. I was informed that it is from 10 to 15 feet high, with a smooth trunk, and thin bark. In the middle of summer small incisions are made in the bark; and the juice, which immediately issues, is taken off with the thumb nail, and put into a vessel; the gum appears to be of two kinds, one of a white, and the other of a yellowish white colour; the first is the most esteemed. I saw here some of the latter sort in a small sheep-skin, which the Bedouins use in bringing it to market: it had a strong turpentine smell, and its taste was bitter. The people of Szafra usually adulterate it with sesamum oil and tar. When they try its purity, they dip their finger into it and then set it on fire; if it burn without hurting or leaving a mark on the finger, they judge it to be of good quality, but if it burn the finger as soon as it is set on fire, they consider it to be adulterated. I remember to have read, in Bruce's Travels, an account of the mode of trying it, by letting a drop fall into a cup filled with water; the good balsam falling coagulated to the bottom, and the bad dissolving and swimming on the surface. I tried this experiment, which was unknown to the people here, and found the drop swim upon the water; I tried also their test by fire upon the finger of a Bedouin, who had to regret his temerity; I therefore regarded the balsam sold here as adulterated; it was of less density than honey. I wished to purchase some; but neither my own baggage, nor any of the shops of Szafra could furnish any thing like a bottle to hold it; the whole skin was too dear. The Bedouins, who bring it here, usually demand two or three dollars per pound for it when quite pure; and the Szafra Arabs resell it to the hadjeys of the great caravan at between 8 and 12 dollars per pound in an adulterated state. It is bought up principally by Persians." — (*Burckhardt's Travels in Arabia*, vol. ii. p. 123.)

3. *Balsam of Peru* (Fr. *Baume de Peru*; Ger. *Peruvianischer Balsam*; Sp. *Balsamo de Quinquina*; Lat. *Balsamum Peruvianum*), the produce of a tree (*Myroxylon Peruiferum*) growing in the warmest parts of South America. The balsam procured by incisions made in the tree is called *white liquid balsam*; that which is found in the shops is obtained by boiling the twigs in water; it is imported in jars, each containing from 20 to 40 lbs. weight. It has a fragrant aromatic odour much resembling that of benzoin, with a warm bitterish taste. It is viscid, of a deep reddish brown colour, and of the consistence of honey. — (*Thomson's Dispensatory.*)

4. *Storax* (Fr. *Storax*; Ger. *Stryaxbroom*; It. *Storace*; Sp. *Azumbar*; Lat. *Styrax*; Arab. *Usteruk*), the produce of a tree (*Styrax officinale*) growing in the south of Europe and the Levant. Only two kinds are found in the shops: storax in tears, which is pure, and storax in the lump, or red storax, which is mixed with sawdust and other impurities. Both kinds are brought from the Levant in chests and boxes. Storax has a fragrant odour, and a pleasant, sub-acidulous, slightly pungent, and aromatic taste: it is of a reddish brown colour, and brittle. — (*Thomson's Dispensatory.*)

5. *Tolu, Balsam of* (Fr. *Baume de Tolu*; Ger. *Tolutanischer Balsam*; Sp. *Balsamo de Tolu*). The tree which yields this balsam is the same as that which yields the balsam of Peru, it being merely the white balsam of Peru hardened by exposure to the air.

6. *Benzoin*, or *Benjamin* (Fr. *Benzoin*; Ger. *Benzoe*; Sp. *Bengui*; It. *Belzuino*; Lat. *Benzoinum*; Arab. *Liban*; Hind. *Luban*; Jav. *Menian*; Malay, *Caminyan*), is an article of much greater commercial importance than any of those balsams previously mentioned. It is obtained from a tree (*Styrax Benzoin*) cultivated in Sumatra and Borneo, but particularly the former. The plants produce in the seventh year. The balsam is obtained by making incisions in the bark, when it exudes, and is scraped off. During the first three years the balsam is of a clear white colour, after which it becomes brown. Having borne 10 or 12 years, the tree is cut down, a very inferior article being obtained by scraping the wood. The balsams procured in these different stages are distinguished in commerce, and differ widely in value. Benzoin has a very agreeable, fragrant odour, but hardly any taste. It is imported in large masses, packed in chests and casks. It should be chosen full of clear, light-coloured, and white spots, having the appearance of white marble when broken: it is rarely, however, to be met with in so pure a state, but the nearer the approach to it the better. The worst sort is blackish, and full of impurities. — (*Milburn's Orient. Com.*, and *private information.*) The price of Benjamin in bond varied in the London market in February, 1843, from 3*l.* to no less than 46*l.* per cwt.!

Mr. Crawfurd has given the following interesting and authentic details with respect to this article: — "Benzoin, or frankincense, called in commercial language Benjamin, is a more general article of commerce than camphor, though its production be confined to the same islands. Benzoin is divided in commerce, like camphor, into three *sorts* (head, belly, foot), according to quality, the comparative value of which may be expressed by the figures 105, 45, 18. Benzoin is valued in proportion to its whiteness, semi-transparency, and freedom from adventitious matters. According to its purity, the first sort may be bought at the *emporia* to which it is brought, at from 50 to 100 dollars per picul (133⅓ lbs.), the second

from 25 to 45 dollars, and the worst from 8 to 20 dollars. According to Linschoten, benzoin in his time cost, in the market of Sunda Calapa or Jacatra, from 19$\frac{5}{100}$ to 25$\frac{49}{100}$ Spanish dollars the picul. By Niebuhr's account, the worst benzoin of the Indian islands is more esteemed by the Arabs than their own best *olibanum*, or frankincense. In the London market, the best benzoin is fourteen times more valuable than *olibanum*, and even the worst 2½ times more valuable. Benzoin usually sells in England at 10*s.* per pound. The quantity generally imported into England in the time of the monopoly was 312 cwt. The principal use of this commodity is as incense, and it is equally in request in the religious ceremonies of Catholics, Mohamimedans, Hindus, and Chinese. It is also used as a luxury by the great in fumigations in their houses, and the Japanese chiefs are fond of smoking it with tobacco. Its general use among nations in such various states of civilisation, and the steady demand for it in all ages, declare that it is one of those commodities the taste for which is inherent in our nature, and not the result of a particular caprice with any individual people, as in the case of Malay camphor with the Chinese."—(*Indian Archipelago*, vol. iii. p. 418.) The imports of benzoin, which are not specified in the Customs' returns, amount to about 40,000 lbs. a year.

An inferior description of benzoin, the produce of a different tree from the *Styrax benzoin*, is produced in Siam. It is comparatively cheap and abundant.

7. *Dragon's blood* (Fr. *Sang-Dragon*; Lat. *Sanguis Draconis*; Arab. *Damulākhwain*; Hind. *Heraduky*), the produce of a large species of rattan (*Calamus Draco*) growing on the north and north-east coast of Sumatra, and in some parts of Borneo. It is largely exported to China, and also to India and Europe. It is either in oval drops, wrapped up in flag-leaves, or in large and generally more impure masses composed of smaller tears. It is externally and internally of a deep dusky red colour, and when powdered it should become of a bright crimson: if it be black, it is worth little. When broken and held up against a strong light, it is somewhat transparent: it has little or no smell or taste; what it has of the latter is resinous and astringent. Dragon's blood in drops is much preferable to that in cakes, the latter being more friable, and less compact, resinous, and pure than the former. Being a very costly article, it is very apt to be adulterated. Most of its alloys dissolve like gums in water, or crackle in the fire without proving inflammable, whereas the genuine dragon's blood readily melts and catches flame, and is scarcely acted on by watery liquors. It sells in the market of Singapore at from 15 to 35 dollars per picul, according to quality; but the Chinese have the art of purifying and refining it, when it sells at from 80 to 100 dollars per picul.—(*Milburn's Orient. Com.*; *Crawfurd's East. Archip.*; and *private information.*) The price of dragon's blood in the London market varied, in November, 1853, from 5*l.* to 15*l.* per cwt.

BALTIMORE, a large, opulent, and commercial city of the United States, in Maryland, on the north side of the Patapsco river, about 14 miles above its entrance into Chesapeake bay, lat. 39° 17′ N., long. 76° 36′ W. Population in 1850, 169,054, and in 1858, probably, 250,000. The harbour is spacious, convenient, and the water deep. The exports principally consist of wheat-flour and wheat, tobacco, (of which it furnishes a larger supply than any other port in the Union, with, perhaps, the single exception of Richmond, in Virginia,) Indian corn and meal; bacon, pork, rice, beef, lard, butter, cheese, and other articles of provision; with candles, soap, refined sugar, &c. The imports principally consist of cottons and woollens, sugar, coffee, tea, iron, wine, brandy, silk goods, spices, rum, &c. The registered, enrolled, and licensed tonnage, belonging to Baltimore, 30th June, 1857, amounted to 191,618 tons, of which nearly a half were employed in the coasting trade. In 1857, 57 vessels of the burden of 12,410 tons were built at Baltimore, but this is rather below the average of late years. The total value of the articles imported into Maryland in the year ending the 30th of June, 1857, almost the whole of which were through Baltimore, was 10,581,208 dollars; the total value of the exports during the same year being 13,706,335 ditto. (*Papers laid before Congress*, 1857.) In Maryland the dollar is worth 7*s.* 6*d.* currency, 1*l.* sterling being = 1*l.* 13*s.* 4*d.* currency. For an account of the currency of the different states of the Union, with a table of the value of the dollar in each, see NEW YORK; and to it also the reader is referred for an account of the foreign trade of the United States. Weights and measures same as those of England.

Value of Foreign Imports and Exports of District of Baltimore during each of the 16 Years ending with 1857.

Years.	Exports.	Imports.	Years.	Exports.	Imports.	Years.	Exports.	Imports.
	Dollars.	*Dollars.*		*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*
1842	4,448,946	4,052,260	1848	7,209,602	5,245,894	1853	9,086,914	6,331,671
1843	4,740,042	3,607,753	1849	8,660,981	5,291,566	1854	11,306,010	7,750,387
1844	4,622,063	4,251,885	1850	8,530,970	6,417,113	1855	11,675,991	7,772,591
1845	6,256,276	3,356,670	1851	6,466,165	7,243,963	1856	13,362,252	10,140,838
1846	6,710,559	4,238,760	1852	7,549,766	6,978,021	1857	11,598,948	11,054,676
1847	9,826,479	4,146,743						

Account of Principal Articles exported from Baltimore to Foreign Parts in 1856 and 1857.

Articles.	1856.	1857.	Articles.	1856.	1857.	Articles.	1856.	1857.
Apples - - brls.	623	55	Domestics value	278,646	341,432	Rum - - gals.	9,727	7,663
Bark, oak value	68,622	107,709	Duck - value	59,520	35,604	Rice - - trcs.	1,850	1,102
Bread, kegs - brls.	35,627	25,617	Fish, cod value	92,434	40,785	Rice - - brls.	3,722	4,613
Beef - - trcs.	1,950	553	Fish, mack'l - brls.	550	800	Spts. turp. - gals.	15,200	20,500
Beef - - brls.	5,332	2,366	Flour, wheat brls.	622,379	458,026	Shooks, &c. value	98,782	97,801
Bycon - - lbs.	3,487,520	4,208,632	Flour, rye - brls.	4,978	2,147	Staves - - M	1,424	1,144
Butter - - lbs.	369,727	375,400	Lumber - M ft.	2,037	2,377	Sugar, refined lbs.	166,492	692,851
Cheese - - lbs.	231,859	235,520	Lard - - lbs.	1,656,576	2,614,782	Sugar, brown -	313,712	80,884
Corn - - bus.	843,515	353,954	Oil, whale - gals.	9,436	5,021	Soap - - lbs.	254,145	240,000
Coal - - tons	10,974	10,278	Oil-meal value	60,849	59,397	Tobacco,leaf,hhds.	55,857	49,301
Chairs, &c. value	40,070	50,900	Pork - - trcs.	21		Tobacco,mf'd. lbs.	275,505	297,356
Cotton - - bales	87	164	Pork - - brls.	18,201	11,140	Whisky - - gls.	54,847	127,854
Coffee - - lbs.	148,424	418,293	Rye, oats, & other			Wax - - lbs.	45,691	28,423
Corn meal - brls.	68,340	46,059	small grain value	118,375	25,856	Wheat - - bus.	1,056,264	176,414
Candles - - lbs.	796,334	800,000	Rosin - - brls.	19,619	21,876			

Account of certain Imports, Foreign and Coastwise, into Baltimore in 1856 and 1857.

Articles.	1856.	1857.	Articles.	1856.	1857.	Articles.	1856.	1857.
Bark, Peruv. ceroons	2,842	7,508	Hides, from—			Provisions, from New Orleans—		
Coffee, Rio - bags	197,989	203,560	Buenos Ayres, No.	48,734	29,499	Beef - brls.		
Laguaira&P.Cabello	12,798	4,077	Montevideo - }			Pork - trcs.		
Maracaibo - -	400		Rio Grande - -	24,866	18,488	Pork - brls.	4,578	3,100
Other ports - -	11,266	1,634	Pacific - -	3,017	7,935	Pork, bulk - tons		
Coastwise - -	5,418	2,026	Porto Cabello -	16,217	11,039	Lard - trcs.	- -	185
Cocoa bags & qtls.	2,844	5,594	Fernambuco - -	- -	3,113	Lard - brls.		
Cocoa-nuts - No.	M1,014	M1,479	Other foreign ports	12,574	5,287	Lard - kegs		
Cotton from—			Coastwise - -	130,709	165,715	Pimento - bags	1,269	4,385
New Orleans bales	2,937	776	Horns - - No.	73,000	40,000	Salt, from—		
Mobile - - ,,	5,311	4,921	Indigo - ceroons	182	48	Liverpool - tons	1,057	50
Charleston - ,,	13,316	14,000	Iron - - - bars	93,273	10,396	Liverpool sacks	188,711	121,219
Savannah - ,,	11,878	10,000	Pig - - - tons	1,176	1,161	Coastwise sacks	6,258	7,266
Other ports - ,,	12,531	5,303	Bundles - -	64,255	46,054	Cadiz - lasts	4084	
Copper - - pigs	8,405	533	Railroad - - tons	951	824	St. Ubes - moys.	1,341	
Copper - - bars	935	5,292	Railroad - - bars	38,548	14,600	West Indies - bus.	76,984	85,347
Dye-wood—			Melado - hhds.	- -	4,097	Sugar, from—		
Logwood - - tons	226	897	Molasses, from—			Foreign ports, hhds.	22,030	22,623
Fustic - - tons	442	23	Foreign ports hhds.	4,450	5,907	,, ,, trcs.	1,220	1,682
Fruit, Lemons - bxs.	15,947	18,737	,, ,, trcs.	1,758	4,017	,, ,, brls.	8,179	9,731
Oranges - bxs.	18,330	36,684	,, ,, brls.	1,125	5,738	,, ,, bxs.	22,294	1,844
Figs - drums	5,800	9,742	Coastwise hhds	826	689	,, ,, bags	53,901	50,989
Figs - -cases	420	611	,, trcs.	168	92	,, ,, ,,	19,685	6,050
Raisins - -casks	100	177	,, brls.	11,817	3,109	Coastwise hhds.	189	51
Raisins - - bxs.	36,436	46,064	Rice - - - trcs.	10,000	10,012	,, casks	973	996
Guano - - tons	38,956	28,625				,, brls.		

State of the Banks of Baltimore in 1858.

Banks.	Capital.	Investments.	Discounts.	Circulation.	Deposits.	Specie.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Merchants' - - - -	1,500,000	25,000	2,969,713	354,155	758,166	333,599
Baltimore - - - -	1,200,200	73,522	1,871,666	220,280	682,955	240,073
Union - - - -	1,258,200	54,201	2,153,687	293,115	548,804	203,941
Farmers' and Planters' - -	800,000	- -	1,426,370	350,347	518,094	210,426
Mechanics' - - - -	600,000	9,000	1,407,785	361,605	634,163	162,184
Commercial and Farmers' - -	512,560	16,198	952,622	158,632	375,760	180,866
Western - - - -	600,000	15,000	961,748	180,213	282,792	150,881
Farmers' and Merchants' - -	718,200	20,020	1,052,778	170,567	238,429	101,631
Chesapeake - - - -	364,473	27,105	572,160	127,610	209,678	74,051
Marine - - - -	397,900	25,000	566,438	57,842	219,417	53,058
Franklin - - - -	600,000	10,536	951,757	130,667	299,969	117,114
Citizens' - - - -	500,000	- -	1,136,174	339,510	511,223	160,005
Commerce - - - -	600,000	33,352	892,853	203,102	367,329	124,075
Howard - - - -	160,800	- -	255,320	38,355	80,539	32,886
Fell's Point Savings - -	350,012	5,000	642,203	72,840	268,512	34,719
Total - -	10,164,345	312,034	17,802,695	3,058,443	6,086,125	2,179,512

Oysters. — Baltimore is one of the principal places in the Union, for the supply of oysters. In 1857 the entire produce of the fishery amounted to no less than 1,660,000 bushels, of which 150,000 bushels were consumed in the city, and the residue sent to other parts of the Union. About eighteen houses are engaged in the trade.

Commercial Regulations adopted by the Board of Trade, in June, 1857 — to obtain where no express agreement to the contrary exists.

COMMISSIONS ON GENERAL BUSINESS.

On sales of foreign merchandise - - - per cent. 5
On sales of domestic merchandise, not otherwise provided for - - - - - ,, 2½
On guarantee - - - - - - ,, 2½
On selling flour and meal - - - - per brl. 12½
On selling grain received by vessels - - per bus. 1
On ditto by railroad or steamboat, exclusive of the expense of delivery - - - ,, 2
On purchase and shipment of merchandise, on costs and charges with funds in bond - - per cent. 2½
On collecting delayed and litigated accounts - ,, 5
On effecting marine insurance, 2½ per cent. on premium for domestic and 5 per cent. on foreign. No charge to be made for effecting insurance on property consigned or shipped.
On landing, re-shipping, or delivering goods from vessels in distress, on value of invoice - per cent. 2½
On procuring or obtaining money on Bottomry or Respondentia Bond on vessels - - ,, 2½
Landing and re-shipping on specie and bullion ,, 2
Receiving and forwarding merchandise entered at Custom House, on invoice value 1 per cent., and on expenses incurred - - ,, 2½
On consignments of merchandise withdrawn or re-shipped full commissions are to be charged, to the extent of advances or responsibilities incurred, and one-half commission on the residue of the value.
The risk of loss by robbery, fire, (unless insurance be ordered,) theft, popular tumult, and all other unavoidable occurrences is in all cases to be borne by the owners of the goods, provided due diligence has been exercised in the care of them.

SHIPPING.

On purchase or sale of vessels - - - per cent. 2½
On disbursements and outfit of vessels - - ,, 2½
On procuring freight and passengers - - ,, 5
On collecting freight - - - - ,, 2½
On collecting insurance losses of all kinds - ,, 2½
Chartering vessels on account of freight, actual or estimated, to be considered as due when the charter parties are signed - - - ,, 2½
No charter to be considered binding till a memorandum or one of the copies of the charter has been signed.
On giving bonds for vessels under attachment in litigated cases, on amount of liability - - ,, 2½
The foregoing commissions are exclusive of auction duty, and commissions, brokerage, storage, and every other charge actually incurred.

FREIGHT AND FREIGHTING.

If a vessel is freighted by the ton, and no special agreement is made, respecting the proportions at which each article shall be computed, the following shall be the standard of computation, viz:—

2240 lbs.	pig and bar iron, lead, copper, coal, logwood, fustic, and other heavy dye-woods	
2000 ,,	Nicaragua and Brazilletto wood	
2240 ,,	nett sugar and rice in casks	
1830 ,,	,, coffee in bags	
1600 ,,	,, do. in casks	
1500 ,,	,, cocoa in bags or bulk	
1120 ,,	,, do. in casks	
1110 ,,	,, pimento in bags	
952 ,,	,, do. in casks	
800 ,,	,, ship bread in bags	
700 ,,	,, do. in casks	
1120 ,,	,, dried hides	
900 ,,	,, wt. green teas and China raw silk	
1120 ,,	,, Bohea and other black tea	
1500 ,,	,, Virginia tobacco in hhds.	
1300 ,,	,, Kentucky do. do.	
1000 ,,	,, Maryland do. do.	
8 brls.	flour of 196 nett	
6 ,,	beef, pork and tallow	
7 ,,	naval stores and pickled fish	
200 gals.	wine measure—estimating the full contents of the cask of oil, wine, brandy, &c.	
22 bush.	grain, peas, beans, &c. in casks	
40 ,,	do. do. do. in bulk	
40 ,,	Liverpool blown salt in bulk	
34 ,,	do. ground do.	
31 ,,	St. Ubes, Cape de Verds, &c. in bulk	
30 ,,	West India salt in bulk	
30 ,,	sea coal in bulk	
40 cubic feet	of plank, boards, timber, bale goods, packages and boxes	

Shall be deemed equal to a ton.

In estimating the contents in cubic feet, of various packages and goods, the following shall be the standard:

A flour barrel	5 feet
A tierce of rice	15 ,,
A hhd. of flaxseed	12 ,,
A hhd. of Virginia tobacco	45 ,,
A hhd. of Kentucky, Georgia, and Carolina	40 ,,
A hhd. of Maryland and Ohio	35 ,,
5 bushels of grain in bulk	5 ,,

In computing boxes of candles and soap, kegs of butter and lard, hams and bacon, and generally all similar articles, 200

lbs. nett weight, shall be considered equal to a barrel of 5 cubic feet.

All goods brought *to this port on freight*, must be delivered on a wharf, at the expense of the vessel bringing the same; a delivery, *after due notice, on* any good wharf at Fell's Point during business hours, is a delivery in the city and port of Baltimore. Hides and articles *prohibited* to be landed in the city at certain periods, may be landed where the public authorities may direct.

In all cases when vessels are obliged (by the quarantine regulations or city authorities) to discharge their cargo in the stream, the expense of delivering the same *east* of Jones' Falls will be borne by the carrier only. But when requested by the consignee to be delivered *west* of Jones' Falls, then the expense shall be equally borne by the carrier and consignee, (each one half).

If a vessel is chartered for a voyage out and home, each shipper shall be entitled to his fair proportion of the whole homeward freight, *pro rata*, of the bulk or space occupied by each shipper on the outward voyage.

In all cases where a vessel is chartered or freighted for a voyage out and home, the freighter or charterer is bound to furnish sufficient cargo or ballast at the port of discharge of the outward cargo, to enable said vessel to return safely home, and the same from port to port, where the charter provides for more than one port; provided no agreement to the contrary is made by the parties.

WEIGHTS AND TARES.

Sugar, copperas, alum, brimstone, shot, lead, iron, steel, hemp, dye-woods, and all other articles heretofore sold by the cwt. of 112 lbs. or ton of 2240 lbs., shall in future be sold by the decimal hundred of 100 lbs., or ton of 2000 lbs.

Tares shall be allowed as follows:—

Sugar, in hhds. or trcs., 12 per cent.; in brls. 10 per cent.; in boxes, 15 per cent.; do. in linen bags, 3, and mats 5 per cent.; and in all other packages, the actual tare.

Coffee in linen, single gunny and grass bags, 2 per cent.; in flour brls., 20 lbs. each; in all other packages the actual tare.

Cocoa in bags, 2 per cent.

Pepper in linen or single gunny bags, 2 per cent., in other packages, the actual tare.

Pimento in linen or single gunny bags, 3 per cent.; in other packages, the actual tare.

Rice in trcs. and half trcs., 10 per cent.

Copperas in hhds. or brls., actual tare.

Teas, green, whole chests 20 lbs., and in all other packages, Canton tare.

Cassia in mats, 10 per cent.; boxes and other packages, the actual tare.

Indigo in ceroons, in single hides, 11 per cent.; in all other cases, the actual tare.

Ginger 2 per cent., and cloves 9 lbs. per bale.

Alum, brimstone, nutmegs, mace, almonds, figs, cheese, soap, candles, chocolate, currants, prunes, starch, and all other articles not before mentioned, the actual tare.

For a sack of ground alum salt, 216 lbs. gross shall be considered as fair average weight.

No charge shall be made for casks, barrels, boxes, or other packages whatever.

Drafts as follows: On all weights *even beam*—½ per cent. to be allowed for draft.

STORAGE.

Hogsheads of sugar, tobacco, molasses, rum, oil, and pipes of wine, brandy, and gin	25 cts. per month.
hds. coffee, copperas, codfish, and tallow	20 „ „
Tierces of sugar, rum, molasses, and half pipes	16 cts. per month.
Tierces of rice, coffee, flaxseed, alum, &c.	12½ „ „
Barrels of rum, whiskey, sugar, fish, cheese, oil, and qr. casks wine	6 „ „
Barrels of molasses	8 „ „
Bags of flour and coffee, and other dry articles	3 „ „
Boxes of Cuba sugar	3 „ „
Boxes of fish, wine, oil, lemons, and oranges	5 „ „
Boxes of soap, candles, cheese, tin, raisins, and drums of figs	1 „ „
Bags of coffee, cocoa, pepper, and pimento	2 „ „
Bales of cotton and hempen yarn, about 300 lbs.	12½ „ „
Bales of India piece, and other similar goods	10 „ „
Indigo in ceroons, 4 cts.; in cases	10 „ „
Tea in chests, 3 cts.; half do., 2 cts.; boxes	1 „ „
Kegs of butter, tobacco, nails, and raisins	5 „ „
Hides, dried	1 „ „
Hemp, per ton	50 „ „
Iron and lead, per ton	20 „ „
Crates of earthenware	20 „ „
Salt, per bus.	⅛ „ „

All goods stored to be subject to one month's storage if in store ten days—if less than ten days half a month's storage.

The owners of goods to be at the expense of putting them in store and delivering them.

RATES OF CHARGES ADOPTED BY THE PROVISION TRADE, TO OBTAIN EXCEPT IN CASES OF SPECIAL AGREEMENT.

On Storage per Month, viz.:—

Bacon or bulk meats, in hhds.	15 cts.
Pickled meats, in hhds.	20 „
„ „ „ trcs.	6 „
Bacon „ „	5 „
Lard, pork, or beef, in brls.	4 „
Lard, in trcs.	5 „
„ „ kegs	2 „
Bulk meats, in cellar, per 1000 lbs.	15 „
Charges.	
For receiving or delivering, per hhd.	5 „
„ „ „ per trc.	3 „
„ „ „ per brl.	2 „
„ „ „ per keg	1 „
„ „ „ loose meat, per 1000 lbs.	15 „
For salting or re-salting (salt extra) loose meat, per 1000 lbs.	37½ „
For packing meat in slack casks, including cooperage	25 „
For packing do. in tight casks	37½ „
For weighing loose meat, per 1000 lbs.	15 „
For weighing meat in casks	7½ „
For smoking shoulders or hams — No extra charge for receiving and delivering	25 „
„ „ sides	50 „
„ joles or tongues	2 „
„ inspecting and repacking beef and pork, per brl.	50 „

including all charges except storage.

For inspecting bacon or bulk meat, per 1000 lbs. 12½ cts.

Scalage on bacon, ½ per cent.; on bulk meat, 1 per cent.

Tares on bacon and bulk meat, actual.

Pork and beef to be packed or repacked in accordance with existing city ordinances.

BAMBOO (Fr. *Bambou, Bambouches*; Ger. *Indianischer Rohr*; It. *Bambu*; Hind. *Rans*; Malay, *Bûlûh*; Jav. *Preng*), a species of cane, the *Bambos arundinacea* of botanists. It grows everywhere within the tropics, and is of the greatest utility; strictly speaking, it is a gigantic grass with a ligneous stem. It often rises to the height of 40 or 50 feet, and sometimes to even double those heights. Like most plants long and extensively cultivated, it diverges into many varieties. Some of these are dwarfish, while others, instead of being hollow canes, are solid. The bamboo is of rapid growth, and in four or five years is fit for many uses, but does not bear fruit or grain till it be 25 years old, after which it perishes. The grain makes tolerable bread. The young, but gigantic shoots, as they spring from the earth, make a tender and good esculent vegetable. The mature bamboo is employed in an immense variety of ways, in the construction of houses, bridges, boats, agricultural implements, &c. Some varieties grow to such a size as to be, in the largest part, near two feet in circumference, and single knees of these are used as pails or buckets. The Chinese are believed to fabricate their cheap and useful paper of macerated bamboo. The canes used in Europe as walking sticks are not bamboos, but rattans — a totally distinct class of plants. Bamboos are never used for that purpose. — (*Private information*.)

BANDANAS, silk handkerchiefs, generally red spotted with white. They were formerly manufactured only in the East Indies; but they are now manufactured of the very best quality at Glasgow and other places.

BANK. — BANKING. Banks are establishments intended to serve for the safe custody and issue of money; for facilitating its payment by one individual to another; and, sometimes, for the accommodation of the public with loans.

I. General Principles in regard to Paper Money and Banking.
II. Banks of Deposit and Banks of Issue.
III. Bank of England (Account of).
IV. Principle and Operation of the Act of 1844.

V. Management of the Bank of England.
VI. Circulation, etc., of the Bank of England, and of the English Provincial Banks.
VII. Banks (Scotch).
VIII. Banks (Irish).
IX. Banks of Venice, Amsterdam, etc.
X. Bank of France.
XI. Banking in U. States.
XII. Banks for Savings.

Sect. I. General Principles in regard to Paper-money and Banking.

Substitution of Notes for Coins. — Notwithstanding the precious metals are in many respects admirably fitted to serve as media of exchange, they have two very serious drawbacks, viz., their cost, and the difficulty and expense of carrying them from place to place. If no bank notes circulated in the U. Kingdom it might be fairly assumed that from 35 to 40 millions more sovereigns would be required for the public accommodation than at present, including in those now employed the reserves held by the bankers: And the expense of such a currency, taking it at 37½ millions, and the rate of profit at 6 per cent., with an allowance of 1 per cent. for wear and tear and loss of coins, would amount to at least 2,615,000*l.* a year. But the inconvenience attending the use of a currency consisting wholly of gold would be a much greater drawback on its employment than its cost. The weight of 1000 sovereigns exceeds 21 lbs. troy; so that were there nothing but coins in circulation, the conveyance of large sums from place to place to discharge accounts would be a very laborious process, and even small sums could not be conveyed without considerable difficulty. Hence it is that most commercial and civilised nations have fabricated a portion of their money of less costly and heavy materials, and resorted to various devices for economising the use of coin. Of the substitutes for the latter hitherto suggested, paper is in all respects the most eligible. When governments are sufficiently powerful and intelligent to enforce the observance of contracts, individuals possessed of written promises from others that they will pay certain sums at specified periods begin to assign them to those to whom they are indebted; and when those by whom such obligations are subscribed are persons of whose solvency no doubt can be entertained, they are readily accepted in payment of the debts due by one individual to another. But when the circulation of obligations or bills in this way has continued for a while, individuals begin to perceive that they may derive a profit by issuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. Hence the origin of bank notes or paper money. An individual in whose wealth and discretion the public have confidence being applied to for a loan, say of 5,000*l.*, grants the applicant his bill or note payable on demand for that sum on his receiving adequate security for its repayment with interest. Now, as this note passes, in consequence of the confidence placed in the issuer, currently from hand to hand as cash, it is quite as useful to the borrower as if he had obtained an equivalent amount of gold; and supposing that the rate of interest is 4 per cent., it will yield, so long as it continues to circulate, a revenue of 200*l.* a year to the issuer. A sense of the advantages that might, in this way, be derived from the circulation of bills or notes led to the formation of banks for their regular issue. Those who issue such notes, coin as it were their credit. They derive the same revenue from the loan of their written promises to pay certain sums that they would derive from the loan of the sums themselves; and while they thus increase their own income, they at the same time contribute to increase the wealth of the society. Besides being incomparably cheaper, bank notes are also incomparably more commodious than a metallic currency. A bank note for 1,000*l.* or 100,000*l.* may be carried about with as much facility as a single sovereign. It is of importance, too, to observe, that its loss or destruction, whether by fire, shipwreck, or otherwise, would be of no greater importance, in a public point of view, than the loss or destruction of as much paper. No doubt it might be a serious calamity to the holder; but to whatever extent it injured him, it would proportionally benefit the issuer, whereas the loss of coin is an injury to the holder without being of service to any one else; it is, in fact, so much abstracted from the wealth of the community.

Regulations in regard to the Issue of Notes. — To obviate the endless inconveniences that would arise from the circulation of coins of every weight and degree of purity, were there no restrictions on their issue, all governments have forbidden the circulation of coins not of a certain specified or standard weight and fineness. And the recurrence of similar inconveniences from the issue of notes for varying sums, and payable under varying conditions, have led, in most countries in which paper-money is made use of, to the enacting of regulations forbidding the issue of notes below a certain amount and laying down rules for their payment. In England at this moment no note payable to bearer on demand can be issued for less than 5*l.*, and they must all be paid the

moment they are presented. In Scotland and Ireland the minimum value of bank notes is fixed at 1*l.*, the regulations as to payment being the same as in England. In order to preserve the monopoly of the London circulation to the Bank of England, no notes payable to bearer on demand are allowed to be issued by individuals or associations, other than the Bank of England, within 65 miles of St. Paul's. But beyond these limits they may be issued by certain banks, under the provisions of the Act 7 & 8 Vic. c. 32. &c.

Distinction between Bills of Exchange and Paper-Money. — Under the phrase paper-money or paper-currency, we do not include bills of exchange, or bills issued by bankers, merchants, and others, and payable some time after date. Such bills perform, in some respects, the same functions as money; and have, in consequence, been frequently regarded in the same light as bank notes. But this is quite improper; for though there are many points in which a bill of exchange and a bank note closely resemble each other, there are others in which there is a distinct and material difference between them. A note bears to be payable on demand; it is not indorsed by a holder on his paying it away; the party receiving has no claim on the party from whom he received it, in the event of the failure of the issuers*; and every one is thus encouraged, reckoning on the facility of passing it to another, to accept bank paper, "*even though he should doubt the ultimate solvency of the issuer.*"† Bills, on the contrary, are almost all drawn payable at some distant period; and those into whose hands they come, if they be not in want of money, prefer retaining them in their possession, in order to get the interest that accrues upon them. But the principal distinction between notes and bills is, that every individual in passing a bill to another, has to indorse it, and by doing so makes himself responsible for its payment. "A bill circulates," says Mr. Thornton, "in consequence chiefly of the confidence placed by each receiver of it in the last indorser, his own correspondent in trade; whereas the circulation of a bank note is owing rather to the circumstance of the name of the issuer being so well known as to give it an universal credit." ‡ Nothing, then, can be more inaccurate than to represent bills and notes in the same point of view. If A. pay to B. 100*l.* in satisfaction of a debt, there is an end of the transaction; but if A. pay to B. a bill of exchange for 100*l.*, the transaction is not completed; and, in the event of the bill not being paid by the person on whom it is drawn, B. will have recourse upon A. for its value. It is clear, therefore, that a great deal more consideration is always required, and may be fairly presumed to be given, before any one accepts a bill of exchange in payment, than before he accepts a bank note. The note is payable on the instant, without deduction — the bill not until some future period; the note may be passed to another without incurring any risk or responsibility, whereas every fresh issuer of the bill makes himself responsible for its value. Notes form the currency of all classes, not only of those who are, but also of those who are not engaged in business, as women, children, labourers, &c., who in most instances are without the power to refuse them, and without the means of forming any correct conclusion as to the solvency of the issuers. Bills, on the other hand, pass only, with very few exceptions, among persons engaged in business, who are fully aware of the risk they run in taking them. There is plainly, therefore, a wide and obvious distinction between the two species of currency; and it cannot be fairly argued, that because government interferes to regulate the issue of the one, it should also regulate the issue of the other. To use the words of Lord Mansfield, "Bank notes are not like bills of exchange, mere securities or documents for debts, nor are so esteemed, but are treated as money in the ordinary course and transactions of business, by the general consent of mankind; and on payment of them, whenever a receipt is required, the receipts are always given as for money, not as for securities or notes." (*Chitty on Bills*, 8th edition, p. 555.)

Necessity of insuring the Conversion of Bank Notes into Coin.—The taking of measures to insure the convertibility of bank notes into coin is a matter which cannot safely be left to the discretion or judgment of individuals, but which must be settled by government. No bank notes should be permitted to circulate, about the equivalency of which to the coins they profess to represent there can be the smallest room for doubt. It is alleged, indeed, that in this, as in most other things, we may safely trust to the prudence and sagacity of those who deal with banks; and that, if left to themselves, the public will very rarely be deceived. But the widest experience shows that but little, if any, dependence can be placed on this doctrine. The public is very apt to be misled, in the first instance, in giving confidence to or taking the paper of individuals or associations; and though that were not the case, the condition of an individual or company may

* Practically speaking, this is the fact; but a person paying away a bank note is liable to be called upon for repayment, should the bank fail before it was in the power of the party to whom it was paid, using ordinary diligence, to present it. The responsibility seldom exceeds a couple of hours, and can hardly in any case exceed a couple of days. In practice it is never adverted to.

† Thornton on Paper Credit, p. 172. ‡ Ibid. p. 40.

change from bad or expensive management, improvident speculation, unavoidable losses, and fifty other things of which the public know nothing, or nothing certain. The fact that any particular banker who issues paper enjoys the public confidence, is, at best, a presumption merely, and no proof that he really deserves it. The public may believe him to be rich and discreet; but this is mere hypothesis; the circumstances which excite confidence at the outset, and which preserve it, are often very deceptive; and in the vast majority of instances the public has no certain knowledge, nor the means of obtaining any, as to the real state of the case. But it is unnecessary to argue this point speculatively. There have, unfortunately, been innumerable instances in which it has turned out that bankers who have long been in the highest credit, and whose notes had been unhesitatingly accepted by the public, have been found to be, on the occurrence of anything to excite suspicion, quite unable to meet their engagements.

The issue of notes is of all businesses that which seems to hold out the greatest prospect of success to the schemes of those who attempt to get rich by preying on the public. The cost of engraving and issuing is nothing compared with the sums for which they are issued: and provided they be got into anything like extensive circulation, they become at once considerably productive. They are not issued, except, as previously explained, on the deposit of bills or other securities, yielding a considerable rate of interest; so that if an individual, or set of individuals, with little or no capital should contrive by fair appearances, promises, and similar devices, to insinuate himself or themselves into the public confidence, and succeed in getting 20,000*l.*, 50,000*l.*, or 100,000*l.* into circulation, he or they would secure a good income in the meantime; and on the bubble bursting, and the imposture being detected, they would be no worse off than when they set up their bank. On the contrary, the presumption is, that they would be a great deal better off; and that they would take care to provide, at the cost of the credulous and deceived public, a reserve stock for their future maintenance. Hence, seeing that the facilities for committing fraud are so very great, the propriety or rather necessity of providing against them.

It is sometimes, no doubt, contended that the grand principle of the freedom of industry should be universally respected; that it can in no case be departed from with impunity; and that it is not only injurious, but unjust, to lay any restrictions upon the business of banking. But we are not to be led astray by a cuckoo-cry of this description. The business of banking — that is, of keeping and dealing in money — is one thing, while the manufacture and issue of notes intended to be substituted for and to serve as money, is another and a totally different thing. And though everybody may perhaps be allowed to undertake the former, it by no means follows that the same licence is to be extended to those who make and issue notes. It is to be recollected that in matters of this sort, neither freedom nor restriction is, abstractly considered, just or unjust, good or bad, expedient or inexpedient. It is by their respective influence upon society that they are to be judged; and though a free and liberal course of policy be in general most for the public advantage, there are very many cases in which it is necessary to impose restrictions. It is admitted on all hands that governments are bound to suppress or regulate every business or pursuit which is likely otherwise to become publicly injurious. And does any one doubt that the issue of notes payable on demand is in the foremost class of these businesses? The experience of all ages and nations is conclusive as to this point. It has been everywhere regulated, in the most democratical as well as in the most despotical states, in England and Russia, Holland and France, the United States and Austria. The reasonableness of the practice accords with its uniformity. *Le droit d'emetre des billets est tres avantageuse; mais aussi il est si dangereuse que l'Etat doit ou s'en reservir l'exercice, ou le regler de manière à en prevenir les abus.**

It may perhaps be said that bank notes are essentially private paper; that the accepting of them in payment is optional; and that as they may be rejected by every one who either suspects or dislikes them, there is no room or ground for interfering with their issue! But vague generalities of this sort are entitled to very little attention. Everybody knows that, whatever notes may be in law, they are, in most parts of the country, practically and in fact legal tender. The bulk of the people are without power to refuse them. The currency of many extensive districts consists in great part of country notes, and such small farmers or tradesmen as should decline taking them would be exposed to the greatest inconveniences. Every one makes use of, or is a dealer in, money. It is not employed by men of business only, but by persons living on fixed incomes, women, labourers, minors, and in short by every class of individuals; very many of whom being necessarily, from their situation in life, quite unable to form any estimate of the solidity of the different banks whose paper may be in circulation, are uniformly severe sufferers by their failure. And as the notes which come into their

* Report on the Extension of the Privilege of the Bank of France in 1840.

hands make a part of the currency or money of the country, it is evidently quite as much the duty of government, in the view of preventing these losses and the ruin they occasion, to take such steps as may be required to make bank notes truly and substantially what they profess to be, as that it should take measures to prevent the issue of spurious coins, or the use of false or deficient weights and measures.

Banks afford great facilities to the public in the negotiation of bills of exchange, or in the making of payments at distant places. Many of the banking companies established in different districts have a direct intercourse with each other, and they have all correspondents in London. Hence an individual residing in any part of the country, who may wish to make a payment in any other part, however distant, may effect his object by applying to the bank nearest to him. Thus, suppose A. of Penzance has a payment to make to B. of Inverness: to transmit the money by letter would be hazardous; and if there were fractional parts of a pound in the sum, it would hardly be practicable: how then will A. manage? He will pay the sum to a banker in Penzance, and his debtor in Inverness will receive it from a banker there. The transaction is extremely simple: the Penzance banker orders his correspondent in London to pay to the correspondent of the Inverness banker the sum in question on account of B., and the Inverness banker, being advised in course of post of what has been done, pays B. A small commission charged by the Penzance banker, and the postages, constitute the whole expense. There is no risk whatever, and the whole affair is transacted in the most commodious and cheapest manner.

Recently, however, the facilities given to the transmission of money by means of post-office orders have materially interfered with this branch of banking business, especially in the transmission of small sums, and are a great convenience to the public. —(See Post Office.)

Legal Description of Bank Notes. — Bank notes are merely a species of promissory notes. They are subscribed either by the parties on whose account they are issued, or by some one in their employment, whose signature is binding upon them. A Bank of England note for *5l.* is as follows —

Bank of England.

I promise to pay the Bearer on Demand
the Sum of Five Pounds.

1858 *Dec*r 14 *London* 14 *Dec*r 1858.

*For the Gov*r *and Comp*y *of the*
BANK OF ENGLAND.
A. B.

£ Five.

No particular form of words is necessary in a bank note. The essential requisites are, that it should be for a definite sum (in England and Wales not less than *5l.*, and in Scotland and Ireland not less than *1l.*), that it should be payable to bearer on demand, and that it should be properly stamped. Promissory notes, though issued by bankers, if not payable to bearer on demand, do not come under the denomination of bank notes; they are not, like the latter, taken as cash in all ordinary transactions; nor are they, like them, assignable by mere delivery.

The circulation of notes for less than *5l.* was restrained by law (stat. 15 Geo. 3. c. 51.) from 1766 to 1797. In 1808, it was enacted by stat. 48 Geo. 3. c. 88., that all bank notes, promissory notes, or other negotiable instruments for less than 20*s.*, should be absolutely void: a penalty of from 20*s.* to *5l.*, at the discretion of the justices, being imposed on their issuers. It was enacted by the 7 Geo. 4. c. 6., that the issue of all bank notes or promissory notes for less than *5l.* by the Bank of England, or by any licensed English bankers and stamped on the 5th of February, 1826, or previously (after which period such notes were not stamped), should terminate on the 5th of April, 1829.

The stamp duties on bank notes or promissory notes payable on demand are—

	£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.
Not exceeding	1	1	0	- - -				-	0	0	5	Exceeding 10 0 0 and not exceeding 20	0	0	-	0	2	0
Exceeding	1	1	0	and not exceeding	2	2	0	-	0	0	10	— 20 0 0 —	30	0	0	-	0	3	0
—	2	2	0	—	5	5	0	-	0	1	3	— 30 0 0 —	50	0	0	-	0	5	0
—	5	5	0	—	10	0	0	-	0	1	9	— 50 0 0 —	100	0	0	-	0	8	6

Which notes may be reissued after payment, as often as shall be thought fit, provided they be issued by a banker or person who has taken out a licence, renewable annually, and costing 30*l.*, to issue notes payable to bearer on demand. Any banker or other person issuing such reissuable notes, without being duly licensed, shall forfeit 100*l.* for every offence. —(55 *Geo.* 3. c. 184. § 27.)

These conditions do not apply to the Bank of England. The stamp duties on the notes of that establishment were formerly compounded for at the rate of 3,500*l.* per million of those in circulation; but the act 7 & 8 Vict. c. 32. has wholly exempted them from all charge on account of stamp duties.

Notes or bills *not* payable to bearer on demand are not reissuable, under a penalty of 50*l.* For the stamp duties affecting them, see Exchange.

By the 9 Geo. 4. c. 23., English bankers not in the city of London, or within three miles thereof, are authorised to issue promissory notes, and to draw and issue bills of exchange, on unstamped paper, for any sum of *5l.* or upwards, expressed to be payable to the bearer on demand, or to order at any period not exceeding 7 days after sight (*bills* may also be drawn at any period not exceeding 21 days

after date), upon obtaining licences, costing 30*l.*, to that effect; provided such bills of exchange be drawn upon bankers in London and Westminster, or Southwark; or provided such bills be drawn by any banker or bankers at the place where he or they shall be licensed to issue unstamped notes and bills, upon himself or themselves, or his or their copartner or copartners, payable at any other place where such banker or bankers shall be licensed to issue such notes and bills. Bankers having such licences are to give security, by bond, that they will keep a true account of all promissory notes and bills so issued, and account for the duties on them at the rate of 3*s.* 6*d.* for every 100*l.*, and also for the fractional parts of 100*l.* of the average value of such notes and bills in circulation. Persons post-dating unstamped notes or bills shall, for every such offence, forfeit 100*l.*

Legal Effect of the Payment of Bank Notes. — Notes of the Bank of England were not, previously to the act 3 & 4 Will. 4. c. 98., like bills of exchange, mere securities or documents of debt, but were treated as money or cash in the ordinary course or transactions of business: the receipts given upon their payment being always given as for money. Now, however, they are legal tender, everywhere except at the Bank, for all sums above 5*l.* All notes payable to bearer are assignable by delivery. The holder of a bank note is *primâ facie* entitled to its prompt payment, and cannot be affected by the previous fraud of any former holder in obtaining it, unless evidence be given to show that he was privy to such fraud. Such privity may, however, be inferred from the circumstances of the case. To use the words of Lord Tenterden, "If a person take a bill, note, or any other kind of security, under circumstances which *ought to excite suspicion* in the mind of any reasonable man acquainted with the ordinary affairs of life, and which ought to put him on his guard to make the necessary inquiries, and he do not, then he loses the right of maintaining possession of the instrument against the lawful owner." —(Guildhall, 25th of October, 1826.)

Country bank notes are usually received as cash. But though taken as such, if they be presented *in due time* and not paid, they do not amount to a payment, and the deliverer of the notes is still liable to the holder. It is not easy to determine what is a due or reasonable time, inasmuch as it must depend in a great measure on the circumstances of each particular case. On the whole, the safest rule seems to be to present all notes or drafts payable on demand, if received in the place where they are payable, on the day on which they are received, or as soon after as possible. When they have to be transmitted by post for payment, no unnecessary delay should be allowed to intervene.—(*Chitty's Commercial Law*, vol. iii. p. 590.; and the art. CHECK in this Dictionary.)

Among the schemes devised to secure the convertibility of notes into coin, the following are, perhaps, the most prominent, viz. —

1. *Measures suggested to insure the conversion of Notes into Coin. Inadequacy of these Measures.* — To confine the issue of notes to joint-stock banks, or associations with large numbers of partners, each of which should be indefinitely liable for the debts of the association. At the time when this description of banks was established by the 7 Geo. 4. c. 46. it was supposed that they would prove to be of the greatest advantage, and afford that complete security to the holders of their notes, and those who entrusted them with money, that is so desirable. But everybody knows that these anticipations have been entirely disappointed, and that the history of the joint-stock banks founded under the above statute discloses some of the most flagrant instances to be met with of recklessness, imposture, and fraud. And this, after all, is only what might have been expected. The shares in many joint-stock banks are small, few being above 100*l.*, the greater number not exceeding 50*l.*, whilst many are only 25*l.*, and some not more than 10*l.*, if so much. Generally, too, it is understood, or rather it is distinctly set forth in the conditions of partnership, that not more than ten, twenty, or fifty per cent. of these shares is to be called for; so that an individual with a few pounds to spare may become a shareholder in a bank. And owing to a practice, or rather a flagrant abuse, introduced into the management of various banks, of making large advances or discounts on the credit of the stock held by shareholders, not a few individuals in doubtful or even desperate circumstances take shares in them, in the view of obtaining loans, and bolstering up their credit! The great danger arising from such banks is obvious, and when one of them stops payment, the claims on it, if ultimately made good, can be so only at the cost, and perhaps ruin, of such of its proprietors as have abstained from the abusive practices resorted to by others.

At the same time, however, it is quite plain that a joint-stock bank, provided it possess adequate capital, and is discreetly managed, may afford ample security to its shareholders and the public. And it is further plain, in the event of its shareholders being a numerous body, comprising as is sometimes the case, hundreds of individuals, many of whom have large fortunes, that its creditors, though exposed to immediate injury, may in the end have little or nothing to fear, even from gross mismanagement. But it is very difficult to discriminate between one variety of joint-stock banks and another. A bank may have a considerable body of proprietors; but, though the contrary opinion may prevail, few of them may be wealthy, and many mere men of straw, so that the security afforded by such a bank may be worth little or nothing. Neither is there any foundation for the notion, that because a bank has fifty or a hundred partners, it will be either richer or better managed than if it had only five or ten. In truth, the presumption seems to be quite the other way. The petty subscriptions of many may amount in the aggregate to a considerable sum, which, however, may be greatly inferior to the fortunes of a few wealthy individuals. And when the latter engage in banking, or any other sort of business, they must, if they would protect themselves from ruin, pay unremitting attention to their concerns, and act in a discreet and cautious manner. But the partners and managers of a great joint-stock company act under no such direct and pressing responsibility. "I think," said the highest authority on such subjects, "that joint-stock banks are deficient in everything re-

quisite for the conduct of banking business, except extended responsibility; the banking business requires peculiarly persons attentive to all its details, constantly, daily, and hourly watchful of every transaction, much more than mercantile or trading businesses. It also requires immediate, prompt decisions upon circumstances when they arise — in many cases a decision that does not admit of delay for consultation; it also requires a discretion to be exercised with reference to the special circumstances of each case. Joint-stock banks being, of course, obliged to act through agents, and not by a principal, and therefore under the restraint of general rules, cannot be guided by so nice a reference to degrees of difference in the character or responsibility of parties; nor can they undertake to regulate the assistance to be granted to concerns under temporary embarrassment by so accurate a reference to the circumstances, favourable or unfavourable, of each case."—(*Evidence of Lord Overstone, before Committee on Bank Charter in* 1840.)

In fact, more than nine-tenths of the partners in joint-stock banks are wholly ignorant of banking business, and have nothing better to trust to than the supposed honesty and intelligence of the directors; and, even if they were acquainted with the business, the result would be nearly the same, as it would not be possible for any one, by a cursory inspection of the books of a bank (if such were permitted), to form an accurate estimate of its condition, or of the mode in which it transacted business. And hence the directors in these establishments are practically all but absolute. If they be carefully selected, and be worthy of the confidence placed in them, all goes on smoothly; and this also is the case when they are most unworthy, till they have involved the concern in inextricable difficulties! The history of the Norwich Bank, of the Northern and Central Bank, the Marylebone Bank, the Manchester Bank, the London and Eastern Bank, the Royal British Bank, the Borough Bank of Liverpool, the Western Bank of Glasgow, and a host of others, sufficiently attests the truth of what has now been stated. The responsibility of the directors to the shareholders has not been found, in any of these instances, to have been any check whatever over their frauds and improvidence. The whole paid-up capital of the Western Bank, amounting to 1,500,000*l.*, had been wasted in the most improvident speculations and a vast debt incurred; while that of the Royal British Bank and of the London and Eastern Bank had been seized upon by the directors or their dependents, and additional debts contracted, before the great body of the shareholders had the least suspicion that the companies were otherwise than prosperous!

We may observe, by the way, that the mischief occasioned by an establishment of this sort, when perverted from its proper objects and mismanaged, is not to be estimated by the ruin it entails on its partners, and probably also on its customers. It becomes, in fact, a public nuisance, and entails privations on many who might be supposed to be beyond the sphere of its influence. Within the ten years ending with 1842 it was estimated that about 1,500,000*l.* of banking capital was wholly dissipated in Manchester and its immediate vicinity. And as nine-tenths of this enormous loss was occasioned by advances made to manufacturers who had little or no capital of their own, it is not easy to imagine what a ruinous stimulus it must have given to reckless competition, and how very injurious it must have been to parties trading on their own capital.

It is clear, therefore, that the institution of joint-stock banks affords no security that their affairs will be properly administered, and their notes uniformly paid on their being presented.

2. To insure the convertibility of bank notes into coin, it has been proposed that they should not be issued except upon security being previously given for their payment. That, for example, an individual or company intending to issue 100,000*l.*, 200,000*l.*, or other sum of notes, should be obliged previously to deposit in the hands of a functionary appointed for the purpose, approved securities over lands, houses, stocks, or other available property for an equal amount. And it is plain that this would be in many respects an efficient measure. Under a system of this sort, adventurers without capital, and sharpers anxious to become indebted to the public, would find that the issue of notes was not a business by which they could expect to profit, and that it must be exclusively reserved for parties possessed of adequate capital.

But though a plan of this sort would effect to a considerable extent the objects in view, it has, notwithstanding, two cardinal defects, viz.—

In the first place, though it were fitted to secure the ultimate payment of notes, it would not secure their immediate payment, which is essential to their advantageous employment as money. The stoppage of a bank which had deposited securities would have to be officially ascertained before any steps could be taken for their sale; and after this had been done, some considerable time would have to elapse before they could be disposed of, and their produce made available for the liquidation of the notes. Most securities, too, are of fluctuating and uncertain value, and might not, even under the most favourable circumstances, realise the sums for which they were pledged. And in the event of the occurrence of a panic, or disturbed state of credit, it might be impossible immediately to convert the securities into cash, or possible only at a heavy loss.

This plan is, therefore, very far from giving that effectual security for the conversion of notes into coin, which, on the first blush of the matter, it appears to afford. Latterly, it has been extensively acted upon in most parts of the United States; and there, when a bank stops payment, its notes are always sold at a discount, which, of course, varies according to the peculiar circumstances affecting each case.—(See *post.*)

But supposing that this plan were effectual, which it is not, to ensure the immediate convertibility of notes into coin, it is defective from its not preventing their over-issue. A paper currency is not in a sound or wholesome state, unless—1st, Each particular note or parcel of such currency be paid immediately on demand; and 2d, Unless the whole currency vary in amount and value exactly as a metallic currency would do were the paper currency withdrawn and coins substituted in its stead. The last condition is quite as indispensable to the existence of a well-established currency as the former; and it is one that cannot be realised otherwise than by confining the supply of paper to a single source.

The issues of paper money should always be determined by the exchange, or rather by the influx and efflux of bullion, increasing when the latter is flowing into a country, and decreasing when it is being exported. And when the issue of paper is in the hands of a single body, a regard to its interests will make it regulate its amount with reference to this principle. But when the power to issue notes is vested in different bodies, some of which may be little, if at all, affected by variations of the exchange, this is no longer the case. And instances have repeatedly occurred, as will afterwards be seen, of the country banks having increased their issues when the exchange was unfavourable and the currency redundant. Hence the plan of exacting securities is doubly defective, inasmuch as it neither insures the immediate conversion of notes into coin, nor prevents their over-issue.

3. The only other plan for insuring the conversion of notes into coin, or rather for keeping them on a level therewith, to which it is at present necessary to allude—consists in providing for the publicity of the affairs of the banks by which they are issued. The issues of banks, under this system, are usually made to bear some fixed proportion to their capital; the whole, or some considerable share, of which is to be paid up before the bank begins business; and monthly, quarterly, half-yearly, or annual returns are thereafter to be published, exhibiting the state of the bank, and enabling, as it is said, the public to judge whether it be safe to deal with it. But it is almost needless to say that such regulations are no protection against fraudulent dealings; and that, in reality, they are good for little, unless it be to deceive and mislead the public. It is impossible, if the managers of a bank or other association wish to make a deceptive or unintelligible return, to hinder them. And even when they wish to make a really accurate return, they must frequently make one that is false, from their inability to estimate their bonds, bills, and other assets at their just value. But it is useless to insist on what is so very obvious. The "cooking of returns," as it has been called, is an art that is well understood and extensively practised. Long after the capital of the British Bank had been wholly lost, and it had been precipitated into the abyss of bankruptcy, its directors did not hesitate to put forth statements, in which it was represented to be in a prosperous condition, and a division of profits recommended! And this, unhappily, is not a solitary instance. It is only one example, and that not the worst, of a very large class of cases. But such as it is, it is more than sufficient to show that it would be childish to place any confidence in the returns referred to.

Act of 1857 against fraudulent Returns by Bankers. — It may, however, be supposed that the late Act, the 20 & 21 Vict. c. 54 (1857), for the punishment of frauds committed by trustees, bankers, and others, will put an end to the practices hitherto complained of. But though it were much to be wished that such should be the case, and though, no doubt, it will have considerable influence, it will not suffice to repress the evil. Besides making bankers and others who embezzle, appropriate, or make away with property entrusted to their care, guilty of a misdemeanour, the statute goes on to enact, "That if any director, manager, or public officer of any body corporate, or public company, shall make, circulate, or publish, or concur in making, circulating, or publishing, any written statement or account which he shall know to be false in any material particular, with intent to deceive or defraud any member, shareholder, or creditor of such body corporate or public company, or with intent to induce any person to become a shareholder or partner therein, or to intrust or advance any money or property to such body corporate, or public company, or to enter into any security for the benefit thereof, he shall be guilty of a misdemeanour."—§ 8.

And it is farther enacted, "That every person found guilty of a misdemeanour under this Act shall be liable, at the discretion of the court, to be kept in penal servitude for the term of three years, or to suffer such other punishment, by imprisonment, for not more than two years, with or without hard labour, or by fine, as the court shall award."—§ 10.

It is difficult to see how, under a law of this sort, such flagrantly false statements as those put forth by the Royal British and other banks, after they were in a state of utter bankruptcy, should not subject their authors to the full penalties of the statute. But villany is fertile in resources; and no severity of punishment has ever been found to be effectual for the suppression of crime. Though it may be fairly presumed that the "cooking of returns" will be less frequent, and less glaring, in time to come than formerly, it would be idle to expect that it should ever be wholly put down. And, as already seen, even when the directors of a bank are so disposed, it will frequently be out of their power to lay before the public a really true statement of their affairs. It is plain, then, that this so called publicity affords nothing approaching to that undoubted and unquestionable guarantee which should be required from all parties and associations empowered to issue notes.

But the difficulties in the way of insuring the conversion of the latter into coins, though great, are not insuperable. A plan, originally suggested by Lord Overstone, and adopted and carried into effect by Sir Robert Peel, has been found to be quite effectual to secure this grand object. And it has the additional and important recommendation, of having done this without subjecting the public to any sensible inconvenience.

But before entering into an exposition of the plan referred to, it will be necessary to premise some details with regard to the constitution and action of the existing banks.

Sect. II. Banks of Deposit and Banks of Issue. Principles on which they are established.

Banks are commonly divided *into banks of deposit and banks of issue*; that is, banks that take care of other people's money, and banks that issue money of their own. But there are few banks of issue that are not at the same time banks of deposit; and the latter are farther divisible into two great classes, viz., those who do and those who do not issue the money of their customers. The banking companies established in this country belong to the first class; while the old Bank of Amsterdam did, and the existing Bank of Hamburgh does, belong to the second class.

Advantages of Bankers. — Instead of keeping money in their own houses, where it would be exposed to various accidents, and to the attacks of thieves and robbers, most people wisely commit it to the care of a banker, and avail themselves of his services in receiving and making payments on their account. They send to their banker such sums of money as they may happen to receive, and all bills and drafts payable to them; and he becomes responsible for their amount, for the regular presentation of the bills for acceptance and payment, and for their proper noting, if not accepted or paid. It is also the practice for parties who have an account at a banker's, to make all considerable payments by cheques payable by him. As the discharge of these functions involves considerable risk and expense, it is usual for bankers, either to charge a per centage for their trouble, or to stipulate that the parties dealing with them shall keep an average balance of cash in their hands corresponding to the amount of business transacted in their behalf. In this way business is carried on with safety, ease, and despatch; and at much less expense than it would be if individuals kept their own money, and made their own payments.

Of the sums paid into banks, some are intended to meet the cheques and orders drawn against them in the ordinary course of business; while others are sent rather for safe custody, to be retained, till opportunities be found for their investment. The former are generally placed under what are called *drawing*, and the latter under *deposit* accounts. But there is no difference between the two, except that the sums in deposit accounts are usually permitted to lie for longer periods, without being operated upon or called up. Such portions of the one or the other as the bankers do not retain in their coffers to meet the usual demands of their customers, they employ in the discount of bills, or in making advances of one sort or other, generally at short dates, to those who require them, and in whom they think they may confide.

This last is one of the most important functions performed by banks of deposit. They become, as it were, receptacles or reservoirs into which the surplus or unemployed capital of the surrounding districts is collected, and from which it is again distributed to those who want it. And it may be proper to observe, that the bankers do not always, nor perhaps even most commonly, confine their advances to those who can give security for their repayment. On the contrary, they are often more influenced in making loans by their knowledge of the conduct, the intelligence, and the pursuits of the parties, than by anything else. And it frequently happens that industrious, frugal, and enterprising young men, who have no guarantee to offer save their character, obtain advances that would be denied to wealthier, but otherwise less trustworthy parties.*

* On this, as on most other points, the late evidence of Lord Overstone is highly instructive.
Quest. But, generally speaking, persons who have no capital, have very little opportunity of raising money, have they? *Ans.* That certainly is not so. The whole principle of banking is to afford capital

But without insisting on these considerations, which, however, are not a little important, it is manifest that those who have capital to lend, and those who wish to borrow, are equally indebted to the agency of the bankers, who while they enable these great classes mutually to assist each other, contribute to increase the public wealth by facilitating the flow of capital into the most productive channels.

Credit, Definition of. — But, however great, this advantage is not to be exaggerated. Though banks afford valuable assistance in the collection and distribution of capital, it must not be supposed, as is often done, that they have any direct influence over its formation. That is the joint effect of industry and economy—the former in producing convenient and desirable articles, and the latter in saving and preserving them for future use. Credit is neither more nor less than the transfer of money or other valuable produce from one set of individuals called lenders, to another set called borrowers—a transfer which is greatly facilitated by the establishment of banks. And as there can be no reasonable doubt that those who borrow have, in the majority of instances, better means of employing capital with advantage than those by whom it is lent, its transference from the one to the other will, in so far as this presumption is realised, be publicly advantageous. But this is the entire extent of the beneficial influence of what is called credit; and when it happens, as is too often the case, to divert capital into the pockets of knaves and gamblers, it is disadvantageous. No doubt we frequently hear of great undertakings being carried on by means of credit; but such statements are entirely false and misleading. They will, indeed, be uniformly found, when analysed, to mean only that the undertakings are carried on by means of borrowed capital. Credit is impotent to effect anything whatever. It is in fact a mere name for the trust reposed by a lender in a borrower. To call it capital is as much an abuse of language as it would be to call weight colour, or colour weight. It may transfer money or produce from A. to B. or from C. to D. but that is *all* that it either does or can do. When credit is said to be high, nothing is really meant save that those who have money or capital to lend have great confidence in the borrowers, and conversely when credit is said to be low.

Banks sometimes encourage Gambling and Overtrading. — Banks, when not conducted by men of probity, skill, and caution, are very apt to excite and inflame a spirit of speculation and gambling. They do this by furnishing speculators with loans and discounts, by means of which they are not enabled merely, but tempted, to engage in hazardous enterprises. And for a time, or while the process is going on, everything wears an air of prosperity; and those old-fashioned houses, as they are called, that carry on a legitimate business on capital of their own, are frequently undersold and driven from the market by the competition of adventurers, trading on the funds of others, ready to encounter any risk, and living in the greatest splendour. But at length the thing is overdone, the bubble bursts, the worthless machinery of fictitious bills, rediscounts, and so forth, is exposed, and the tragi-comedy is wound up by the offer of a composition of some 1s. or 2s. per pound. Bankers and money dealers who employ the money entrusted to their care in so reckless a manner, are fitter for Newgate than for the situations they so unworthily fill. It would be a great stretch of charity to suppose that advances of the kind now alluded to can be wholly the result of imprudence. Bankers have peculiar means at their disposal by which to become acquainted with the character, position, and capabilities of those who apply to them for advances. And it is their duty to avail themselves of these means to distinguish between the careful and the improvident or reckless trader — between the man who may and the man who may not be trusted. It is difficult to believe, provided they make the necessary inquiries, that they should be often or greatly deceived in their judgment of individuals; and, provided they act with due caution, they will never so far commit themselves, even with the most respectable firms, as to endanger their own establishment in the event of the failure of the latter. Bankers may risk their private fortunes, if they have any, as they please, but they are not entitled to risk the money of their constituents by making advances to equivocal parties, and especially to those who are notoriously overtrading. It is impossible, perhaps, to bring an abuse of this sort within the meshes of the penal law, but it cannot be too strongly condemned in the opinion of the public. There is nothing about which people should be so cautious as the employment of bankers; and high character, experience, and reputation for prudent management, ought always to have the preference over fair promises and prospectuses, even when the latter are backed by offers of high interest.

Interest on Deposits. — The private bankers of London have not been, until recently,

—to transfer it from the inactive accumulator to the active and energetic person who wants the capital. The banker is the go-between, who receives deposits on the one side, and on the other applies those deposits, intrusting them, in the form of capital, to the hands of active, energetic persons, who, he thinks, will make a good use of it.

Quest. Who have no security to give? *Ans.* Who have in many instances no security to give, except their character, and skill, and talent, of which the banker forms his judgment.

Quest. To persons of character who have no other security to give? *Ans.* To persons of character who, in some cases, have no security to give; but who, in all cases, have no security to give, equal to the amount advanced to them, except that best form of security, their character, their energy, and their prudence. — *Min. of Evidence*, p. 348.

in the habit of allowing interest on deposits, though in special cases it was sometimes done. But in Scotland, and also in many parts of England, it has been long the practice to pay an interest on deposits of from one to two per cent. less than the market rate at the time. And the joint-stock banks set on foot in the metropolis since 1826, having introduced the practice of giving interest on deposits, provided a certain notice (generally from three to eight days) be given before they are withdrawn, very large sums have been, especially during the last ten years, deposited in these establishments. Most private banks have been compelled, in order to maintain their position, to adopt in a greater or less degree the same system. There can, indeed, be little doubt that it will, in no very lengthened period, become universal, and that the amount of deposits will be progressively and largely augmented.

By bringing, as it were, the advantages of savings' banks, without any of their limitations, within reach of all classes, of the middle and upper as well as of the lower, this system is, in many respects, highly advantageous. It may, indeed, be doubted whether any means could be devised more likely to generate and diffuse a spirit of economy. Unhappily, however, its advantages are alloyed by the formidable disadvantage of its involving a great amount of insecurity and hazard.

Dangers incident to the Deposit System.—Banks that give interest on deposits must employ the balance at their disposal so as to realise that interest, *plus* a profit to themselves. Investment is not optional with them, it is indispensable; and they cannot, in seeking investments, look to security only. Profit must be in their estimation as great, or even a greater consideration. But profit and risk are inseparable, and are always directly proportioned to each other; and hence it is, that in periods of discredit, or when a revulsion occurs, suspicions may be expected to arise in regard to the solidity of deposit banks, especially of those that pay high rates of interest on the sums committed to their custody. These suspicions may frequently, no doubt, be very ill-founded; but if they be entertained, the result will be nearly the same. This was exemplified by what took place the other day in Glasgow. There a run, partly for payment of notes, but more for deposits, compelled two great joint-stock banks to suspend payments, of whose solvency, notwithstanding their gross mismanagement, no reasonable doubt could be entertained; and led to a crisis that has had the most serious consequences.

It is difficult to know how to ward off such contingencies; but it nevertheless seems to be indispensable that something should be done in that view, otherwise we may be said to be always exposed to the most tremendous risks. It may not be practicable to form an accurate estimate of the amount now held as deposits by bankers and money-dealers in Great Britain only; but if we take the entire sum at about two hundred millions, we shall probably be within and not beyond the mark. And of this vast sum more than a half is payable "at call," and more than three-fourths within ten days. But everybody knows that such payments are practically impossible. And hence it is plain, that in the event, which may any day occur, of a bank with a large amount of deposits getting into difficulties, or of any circumstance occurring that should occasion a distrust of the system and a general panic, the whole fabric would fall to pieces, and we should have an universal smash.

This appears to be as unsatisfactory a state of things as can well be imagined. But *de republica nil desperandum.* Though formidable, the evil is not insuperable; and the dangers referred to are so great and imminent, that no time should be lost in adopting measures by which they may be either obviated or mitigated. Explosions of the credit system are, in the commercial and financial, what explosions of gunpowder are in the physical world. And it would seem to be quite as necessary to endeavour to lessen the frequency and violence of the former as of the latter. Hence we think it would be good policy to enact, that all sums *bearing interest*, in the hands of bankers, discount-brokers, and money-dealers generally, should not be legally demandable without a month or six weeks' notice. A regulation of this sort would not interfere with anything that is valuable in the existing system, while it would confer on it some portion of that solidity of which it is at present so miserably deficient. It would protect all classes against the effects of sudden and unreasonable fears and panics. It would give time to the borrowers to collect their resources; and to the depositors calmly to inquire into the character and situation of those to whom they had entrusted their money. This may not be enough; but some such measure as this appears to be indispensable for the security and protection of the public.

Notes deposited in Banks not the Property of the Depositors.—It has sometimes been contended that the notes and monies deposited in banks by private parties continue to be their property, and are as really a portion of their money as the notes or sovereigns which they retain in their tills or their pockets. The place where it is kept is different; but, except in this respect, the money which they have lodged in and that which they have out of banks, is said to be, to all intents and purposes, identical. But though specious, this statement is entirely fallacious. The money which depositors lodge in

banks forms a part of the money of the country; but after its lodgment in them it ceases to belong to, or to make a part of the property or money of the depositors. They have consigned it to banking establishments, and acquired credits in its stead; that is, they have acquired the *right* to draw upon and receive equal sums of money from these establishments. But everybody knows that the right to a thing is not the thing itself, but something altogether different. A banker who owes a million or other sum to depositors, might regard himself as being in a sufficiently secure state, if, according to circumstances, he had a third, a fourth, or a fifth part of that sum in notes and gold in his till to answer the demands of the depositors, while he employed the reserve in advances to others. Hence it is plain that bank credit and money have nothing in common Those who confound things that are so very different can have no clear apprehension either of the one or the other.

It is on the distinction between money and deposits or credits, that the business of banking really depends. It is a business by which a small amount of money is made to supply a large amount of credit, the profits of the bankers arising from the use of the money so economised. The Bank of England, for example, often holds more than twenty millions of public and private deposits, while she is considered to be in a perfectly safe and sound position if she have in the till of her banking department five millions, or even less, in notes and coins.

It is hardly necessary, after these statements, to observe that the profit made by bankers in employing part of the money committed to their custody is extrinsic to, and independent of, any profits which they may realise on capital of their own. "Such banks," to use the words of Mr. Ricardo, "would never be established if they obtained no other profits than those derived from the employment of their own capital. Their real advantage commences only when they begin to employ the capital of others."—(*Economical and Secure Currency*, p. 87.)

Necessity of Capital to the Security of Banks. — But we are not thence to conclude that it is indifferent whether such banks have or have not independent capitals of their own. That would be the greatest of errors. Unless it have a command of capital proportioned in some degree to the extent of its business, those who deposit their money in a bank have but slender security for its payment. For if bankers make improvident or injudicious advances, if the securities in their possession be discredited, or difficulties of any kind arise in the conduct of their business, those who have no capital, or but little of their own, may be obliged to stop payment, when more opulent firms may be but little affected by the like circumstances. Much, no doubt, must always depend on the character and knowledge of the parties. But no amount of skill or caution can ever fully compensate for the want of adequate capital. It is the sheet-anchor of security, the only real and substantial guarantee to which the ordinary creditors of a bank have to look. When such capital has been accumulated by the bank, it shows that its affairs have been well managed, and raises a strong presumption in its favour; and when it has devolved on the partners by inheritance, or been bequeathed to them in legacies, the fair inference would seem to be, that they will not (unless they be mere fools, unworthy of any kind of confidence) rashly compromise its security by engaging in questionable proceedings.

Limited Liability, Disadvantages of. — By a late Act, the 20 & 21 Vict. c. 49., banks may be constituted with limited liability. But this is a vicious principle, lessening the natural responsibility under which every man ought to act, and tempting parties to engage in all manner of desperate adventures. In banking, such a principle must be especially mischievous; for it is a business that requires great caution and prudence — the very virtues with which the principle of limited liability is most at variance. It may, indeed, be said that the numerous instances of mismanagement and embezzlement that now prevail, show that even the principle of indefinite liability is not enough to make joint-stock banks be conducted prudently and honestly. But, however defective, still it is the only principle on which any stress can be safely laid, and the instances referred to, bear, after all, but a small proportion to those of an opposite description. The great majority of banks are discreetly and faithfully managed. And if knavery and folly be sometimes found to prevail where every partner is deeply interested in their prevention, and is liable to the last farthing he possesses for the consequences, the fair presumption is, that they would be much more prevalent were the parties liable only for the amount of their shares in the bank. To suppose the contrary would be a contradiction; it would be equivalent to supposing that a man is to be as much interested in the safety of 10*l.* or 100*l.*, as of 1000*l.* or 10,000*l*, or of his entire fortune, however great it may be.

Whatever else may be the effect of the late disclosures of mismanagement, fraud, and robbery, on the part of the directors and secretaries of joint-stock banks, it can hardly fail to make the partners in those associations more alive to the dangers of their situation, and to convince them, that if they would provide for their own safety, they must be more cautious than hitherto in regard to the persons they elect to fill these situations,

and less disposed to take their statements for granted. Such, however, is the carelessness of most people, even in regard to those matters which most nearly concern them, that these anticipations, though reasonable, may not be fully realised. But, in the case of banks with limited liability, they must be sanguine indeed who look for any improvement. The partners in these associations have no sufficient interest in their prosperity to make them take any unusual trouble about the way in which they are conducted, and they neither fear ruin, nor even any considerable inconvenience, from their failure. The chances, consequently, are ten to one that their managers will be left without let or hindrance to pursue their own schemes; and, when such is the case, what but abuse can be expected to be the result?

But it is argued, whatever may be the influence of unlimited liability on the partners of the banks in which it is established, that the depositors in banks with limited liability will be on their guard, and will not trust them with their money, unless they were well assured of their solidity. But, in truth and reality, they never can have any assurance of the sort on which it would be safe to rely. A bank with limited liability might have, or pretend to have, a large capital. And supposing it really had such a capital in the current year, that may not be the case in the next, or in any subsequent year. And yet as the public can know nothing certain of the bank's losses, its credit may not be impaired, and deposits may be pressed upon it after it is really insolvent. In such cases the public is helpless; and if the indefinite responsibility of the partners in banks be not enough to make them look to their proper management, it would be worse than idle to depend in any degree on the fears or interests of the depositors. This is not a matter about which there needs be any speculation. The experience of the United States is decisive of the question. In the Union, the banks are all, or nearly all, established under a system of limited liability, and, notwithstanding their insecurity, and their perpetually recurring insolvency, they always hold large sums in deposit. Promises, professions, the bait of high interest*, and the confidence placed by every one in his superior sagacity and good fortune, fill the coffers even of the establishments least worthy of credit. And such, no doubt, would be the case in England, were a like system established amongst us. But what, under such circumstances, would be the situation even of a well-managed bank, were any suspicions to be entertained of its credit? The rush would be tremendous; for everybody would reasonably conclude, that if he did not succeed by pressing forward with "hot haste" in getting payment of his deposit, the chances were ten to one he would get little or nothing. He has no proprietary body to which to look for payment of his claims; and if the doors were once shut against him, he could hardly expect more than some miserable dividend at some distant term.

During the late crisis, when the Western and City Bank of Glasgow stopped payment there was comparatively little agitation, the holders of their notes and of deposit receipts being well assured that, whatever inconvenience they might be subjected to in the meantime, in the end they would be fully paid. But had the liability of the partners been limited such would not have been the case, and the panic would have been so great that it is not believed that a single bank would have weathered the storm.

Introduction of Banking into London.—The business of banking was not introduced into London till the seventeenth century. It was at first conducted by the goldsmiths, who lent the money lodged in their hands for security to government and individuals. In the course of time the business came to be conducted by houses who confined themselves to it only, and nearly in the mode in which we now find it. From 1708, as already stated, down to 1826, with the exception of the Bank of England, no company with more than six partners could be established, either in London or anywhere else in England and Wales, for conducting banking business; and a very large portion of that business is still conducted in the metropolis by firms with a small number of partners, or by what are called private banks.

Clearing-House.—By far the largest proportion of the inland bills in circulation in the country, and of the foreign bills drawn upon Great Britain, are made payable in London, the grand focus in which all the pecuniary transactions of the empire are ultimately adjusted. And in order to facilitate this adjustment, and to economise the use of money, the principal bankers of the metropolis established, in 1775, the "clearing-house." This is a house to which each banker who deals with it is in the habit of daily sending a clerk, who carries with him the various bills and cheques in the possession of his house that are drawn upon other bankers; the practice formerly being to exchange them for the bills and cheques in the possession of those others that were drawn upon his constituents, and to pay the balance on the one side or the other in cash or Bank of England notes. By this means the bankers connected with the clearing-house were enabled to settle transactions to the extent of several millions a

* *Vulgus ad magnitudinem beneficiorum aderat; stultissimus quisque pecuniis mercabatur.*"—Tacit. Hist., lib. iii. cap. 55.

day, by the employment of not more, at an average, than from 200,000*l.* to 500,000*l.* in cash or Bank of England notes.

Latterly, however, the arrangements connected with the clearing-house have been so much simplified and improved, that neither notes nor coins are any longer required in settling the largest transactions. The clearing-house itself and the various banking firms connected with it, have accounts at the Bank of England; and the balances that were formerly settled by a money payment are at present settled by transfers from one account to another. The saving of money in the adjustment of large transactions occasioned by this and other contrivances, accounts for the fact, that the proportion of notes of 20*l.* and upwards issued by the Bank has considerably declined of late years, while that of 5*l.* and 10*l.* notes, which are used in ordinary dealings, has been materially increased.

Security afforded by Banks of Deposit.— The security afforded by a bank of deposit is a matter as to which there must always be more or less of doubt. When, indeed, a banking company confines itself to its proper business, and does not embark in speculations of unusual hazard, or from which its funds cannot be easily withdrawn, it can seldom fail, except in periods of panic or general distrust, of being in a situation to meet its engagements; whilst the large private fortunes that frequently belong to the partners afford those who deal with it an additional guarantee. Much, however, depends on the character of the parties, on their living within or beyond their incomes, and on a variety of circumstances with respect to which the public can never be correctly informed; so that though there can be no doubt that the security afforded by many banks of deposit is of the most unexceptionable description, this may not be the case with others.

Not necessary for the State to provide for the Security of Depositors.— All joint-stock banks, or banks having more than six partners, whether for deposit and issue, or for deposit merely, are ordered, by the Act 3 & 4 Will. 4. cap. 83. to send quarterly returns of the number and names of their partners to the stamp-office. But there was no good reason why similar returns should not, and several why they should, be required from *all* banks; and this having been done by the Act 7 & 8 Vict. c. 32. which also provides for their publication, little if any farther interference would seem to be required with banks not issuing notes. There is in this respect a wide difference between them and banks of issue. It is the duty of government to take care that the value of the currency shall be as invariable as possible; but it has never been pretended that it is any part of its duty to inquire into the security given by the borrowers to the lenders of money, any more than into the security given by the borrowers to the lenders of anything else. Government obliges a goldsmith to have his goods stamped, this being a security to the public that they shall not be imposed on in buying articles of the quality of which they are generally ignorant; but it does not require that the person to whom the goldsmith sells or lends his goods should give him a guarantee for their payment. This is a matter as to which individuals are fully competent to judge for themselves; and there is no good reason why a lender or depositor of bullion or notes should be more protected than a lender or depositor of timber, coal, or sugar. Gold being the standard or measure of value, government is bound to take effectual precautions that the currency shall truly correspond in the whole and in all its parts with that standard; that every pound note shall be worth a sovereign; and that the amount and value of the aggregate notes in circulation shall vary exactly as a gold currency would do were it substituted in their stead. But if A. trust a sum of money in the hands of B., it is their affair, and concerns none else. Provided the money afloat correspond with the standard, it is of no importance, in a public point of view, into whose hands it may come. The bankruptcy of a deposit bank, like that of a private gentleman who has borrowed largely, may be productive of much loss or inconvenience to its creditors. But if the paper in circulation be equivalent to gold, such bankruptcies cannot affect either the quantity or value of money, and are, therefore, directly injurious only to the parties concerned.

But though such be the direct effects of the bankruptcies of deposit banks, their indirect effect, by propagating panics and runs on other banks, may be most disastrous. And to prevent their mischievous influence in this respect, it would be good policy, as already seen, to require a month's or six weeks' notice to make deposits bearing interest legally demandable.

Deposit Banks which do not employ the Money of the Depositors.— The other description of banks of deposit, or those which do not employ the funds in their hands, or engage in any sort of business, are established without any view to profit, that they may secure the money, and facilitate the transactions of those who deal with them. The latter obtain *bank credits* or *bank money*, equivalent to the sums they deposit in the bank; and as the principal traders in towns where such a bank is established belong to it, each has a bank credit, and their payments are made without the intervention of money, by writing off so much from the credit or account of one to the credit or account of another. It is only in the event of a person having to pay money to a stranger that he has any motive to withdraw any portion of his deposit from the bank. An insti-

tution of this sort is, to those who deal with it, what the clearing-house is to the London bankers. Its expenses are usually defrayed either by a small fee charged on every transfer of bank credit from one individual to another, or by a charge on the coin or bullion deposited, or both.

A bank of this sort can never, unless its agents act dishonestly, be involved in debt, or in any kind of difficulty. The constitution of the Bank of Amsterdam was in so far vicious that it was not managed by parties interested in its welfare; that is, by agents chosen by the depositors. On the contrary, it was managed in the most secret manner by those who happened to be magistrates of the city, whether they were or were not depositors. And they, in violation of their oaths, privately lent to others a large portion of the funds deposited in the bank. But a proceeding of this sort is hardly possible in the case of a properly constituted deposit bank, like that established in Hamburgh. For in the latter the managers are appointed for short periods by the depositors, who, of course, endeavour to select the most trustworthy persons. And though it be necessary that the strictest secresy should be kept in regard to the accounts of individuals in the bank, its affairs are otherwise transacted with sufficient publicity, while the deposits in its coffers may be withdrawn at any moment.

Notice of banking.— The trade or business of a banker has probably existed in all civilised countries in all ages. The bankers of Greece (τραπεζιται) and Rome (*argentarii, mensarii, nummularii*) exercised nearly the same functions as those of the present day, except that they do not appear to have issued notes. They received money on deposit, to be paid on demands made by cheques or orders, or at some stipulated period, sometimes paying interest for it, and sometimes not. Their profits arose from their lending the balance at their disposal, at higher rates of interest than they allowed the depositors. They were also extensively employed in valuing and exchanging foreign monies for those of Athens, Corinth, Rome, &c., and in negociating bills of exchange. In general they were highly esteemed, and great confidence was placed in their integrity. The rate of interest charged by the bankers was sometimes very high, but that was not a consequence, as has been alleged, of their rapacity, but of the defective state of the law, which, as it gave every facility to debtors disposed to evade payment of their debts, obliged the bankers to guarantee themselves by charging a proportionally high rate of interest.* In modern times the business of banking and exchange was, for a while, almost entirely engrossed by the Jews and the Lombards of Italy.

Sect. III. — Bank of England, Account of.

Establishment and History of the Bank of England.— The Bank of England, which has long been the principal bank of deposit and circulation, in this country and in Europe, was founded in 1694. Its principal projector, Mr. William Paterson, an enterprising and intelligent Scotch gentleman, was afterwards engaged in the ill-fated colony at Darien. Government being at the time much distressed for want of money, partly from the defects and abuses in the system of taxation, and partly from the difficulty of borrowing, because of the supposed instability of the revolutionary establishment, the bank grew out of a loan of 1,200,000*l.* for the public service. The subscribers, besides receiving eight per cent. on the sum advanced as interest, and 4000*l.* a-year as the expense of management, in all 100,000*l.* a year, were incorporated into a society denominated the Governor and Company of the Bank of England. The charter is dated the 27th of July, 1694. It declares, amongst other things, that they shall "be capable, in law, to purchase, enjoy, and retain to them and their successors, any monies, lands, rents, tenements, and possessions whatsoever; and to purchase and acquire all sorts of goods and chattels whatsoever, wherein they are not restrained by Act of Parliament; and also to grant, demise, and dispose of the same.

"That the management and government of the corporation be committed to the governor and twenty-four directors, who shall be elected between the 25th of March and the 25th day of April each year, from among the members of the company duly qualified.

"That no dividend shall at any time be made by the said governor and company, save only out of the interest, profit, or produce arising by or out of the said capital stock or fund, or by such dealing as is allowed by Act of Parliament.

"They must be natural-born subjects of England, or naturalised subjects; they shall have in their own name, and for their own use, severally, viz. the governor at least 4000*l.*, the deputy-governor 3000*l.*, and each director 2000*l.* of the capital stock of the said corporation.

"That thirteen or more of the said governors and directors (of which the governor or deputy-governor must be always one) shall constitute a court of directors, for the management of the affairs of the company, and for the appointment of all agents and servants which may be necessary, paying them such salaries as they may consider reasonable.

* Boeckh's *Political Economy of Athens*, i. 168, &c.; *Voyage d'Anacharse*, cap. 55, *passim*; Smith's *Dictionary of Greek and Roman Antiquities*, *voce* Argentarii, &c.

"Every elector must have in his own name and for his own use, 500*l.* or more capital stock, and can only give one vote. He must, if required by any member present, take the oath of stock; or the declaration of stock, in case he be one of the people called Quakers.

"Four general courts to be held in every year; in the months of September, December, April, and July. A general court may be summoned, at any time, upon the requisition of nine proprietors, duly qualified as electors.

"The majority of electors in general courts have the power to make and constitute by-laws and ordinances for the government of the corporation, provided that such by-laws and ordinances be not repugnant to the laws of the kingdom, and be confirmed and approved, according to the statutes in such case made and provided."

The corporation is prohibited from engaging in any sort of commercial undertaking other than dealing in bills of exchange, and in gold and silver. It is authorised to advance money upon the security of goods or merchandise pledged to it; and to sell by public auction such goods as are not redeemed within a specified time.

It was also enacted in the same year in which the Bank was established, by statute 6 William and Mary, c. 20., that the Bank "shall not deal in any goods, wares, or merchandise (except bullion), or purchase any lands or revenues belonging to the crown, or advance or lend to their Majesties, their heirs or successors, any sum or sums of money by way of loan or anticipation, or any part or parts, branch or branches, fund or funds of the revenue, now granted or belonging, or hereafter to be granted to their Majesties, their heirs and successors, other than such fund or funds, part or parts, branch or branches of the said revenue only, on which a credit of loan is or shall be granted by parliament." And in 1697 it was enacted, that the "common capital and principal stock, and also the real fund of the Governor and Company, or any profit or produce to be made thereof, or arising thereby, shall be exempted from any rates, taxes, assessments, or impositions whatsoever, during the continuance of the Bank; and that all the profit, benefit, and advantage, from time to time arising out of the management of the said corporation, shall be applied to the uses of all the members of the said corporation of the Governor and Company of the Bank of England, rateably and in proportion to each member's part, share, and interest in the common capital and principal stock of the said Governor and Company hereby established."

It was further enacted, in 1697, that the forgery of the Company's seal, or of any sealed bill or bank note, should be felony without benefit of clergy, and that the making of any alteration or erasure in any bill or note should also be felony.

In 1696, during the great recoinage, the Bank was involved in considerable difficulties, and was even compelled to suspend payment of her notes, which were at a heavy discount. Owing, however, to the judicious conduct of the directors, and the assistance of government, the Bank got over the crisis. But it was at the same time judged expedient, in order to place her in a situation the better to withstand any adverse circumstances that might afterwards occur, to increase her capital from 1,200,000*l.* to 2,201,171*l.* In 1708, the directors undertook to pay off and cancel one million and a half of Exchequer bills they had circulated two years before, at 4½ per cent., with the interest on them, amounting in all to 1,775,028*l.*; which increased the permanent debt due by the public to the Bank, including 400,000*l.* then advanced in consideration of the renewal of the charter, to 3,375,028*l.*, for which they were allowed 6 per cent. The Bank capital was then also doubled or increased to 4,402,343*l.* But the year 1708 is chiefly memorable, in the history of the Bank, for the act that was then passed, which declared, that during the continuance of the corporation of the Bank of England, "it should not be lawful for any body politic, erected or to be erected, other than the said Governor and Company of the Bank of England, or for any persons whatsoever, united or to be united in covenants or partnership, exceeding the number of 6 persons, in that part of Great Britian called England, to borrow, owe, or take up any sum or sums of money on their bills or notes payable on demand, or in any less time than 6 months from the borrowing thereof."—This proviso, which has had so powerful an operation on banking in England, is said to have been elicited by the Mine-adventure Company having commenced banking business, and begun to issue notes.

It has been pretty generally imagined, from the private banking companies in the metropolis not issuing notes, that they were legally incapacitated from doing so. But the clause in the act of 1708, which has been the only restriction on the issue of notes, applied generally to all England, and had no peculiar reference to London. The fact that banks with 6 or fewer partners have not issued notes in the metropolis, as well as in the provinces, is, therefore, ascribable either to their being aware that their notes would obtain no considerable circulation concurrently with those of a great association like the Bank of England, or from their believing that their issue would not be profitable.

We subjoin

An Account of the successive Renewals of the Charter, of the Conditions under which these Renewals were made, and of the Variations in the Amount and Interest of the Permanent Debt due by Government to the Bank, exclusive of the Dead Weight.

Date of Renewal.	Conditions under which Renewals were made, and Permanent Debt contracted.	Permanent Debt. £	s.	d.
1694.	Charter granted under the act 5 & 6 Wil. 3. c. 20., redeemable upon the expiration of 12 months' notice after the 1st of August, 1705, upon payment by the public to the Bank of the demands therein specified. Under this act the Bank advanced to the public 1,200,000*l.*, in consideration of their receiving an annuity of 100,000*l.* a year, viz. 8 per cent. interest, and 4,000*l.* for management	1,200,000	0	0
1697.	Charter continued by the 8 & 9 Wil. 3. c. 20. till 12 months' notice after 1st of August, 1710, on payment, &c. Under this act the Bank took up and added to their stock 1,001,171*l.* Exchequer bills and tallies.			
1708.	Charter continued by 7 Anne, c. 7. till 12 months' notice after 1st of August, 1732, on payment, &c. Under this act the Bank advanced 400,000*l.* to government, without interest; and delivered up to be cancelled 1,775,027*l.* 17*s.* 10*d.* Exchequer bills, in consideration of their receiving an annuity of 106,501*l.* 13*s.* being at the rate of 6 per cent.	2,175,027	17	10
1713.	Charter continued by 12 Anne, stat. 1. c. 11. till 12 months' notice after 1st August, 1742, on payment, &c. In 1716, by the 3 Geo. 1. c. 8., Bank advanced to government, at 5 per cent.	2,000,000	0	0
	And by the same act, the interest on the Exchequer bills cancelled in 1708 was reduced from 6 to 5 per cent. In 1721, by 8 Geo. 1. c. 21., the South Sea Company were authorised to sell 200,000*l.* government annuities, and corporations purchasing the same at 26 years' purchase were authorised to add the amount to their capital stock. The Bank purchased the whole of these annuities at 20 years' purchase	4,000,000	0	0
	5 per cent. interest was payable on this sum to Midsummer, 1727, and thereafter, 4 per cent.	9,375,027	17	10
	At different times between 1727 and 1738, both inclusive, the Bank received from the public, on account of permanent debt, 3,275,027*l.* 17*s.* 10*d.*, and advanced to it on account of ditto, 3,000,000*l.*: difference	275,027	17	10
	Debt due by the public in 1738	9,100,000	0	0
1742.	Charter continued by 15 Geo. 2. c. 13. till 12 months' notice after 1st of August, 1764, on payment, &c. Under this act the Bank advanced 1,600,000*l.* without interest, which being added to the original advance of 1,200,000*l.*, and the 400,000*l.* advanced in 1710, bearing interest at 6 per cent., reduced the interest on the whole to 3 per cent.	1,600,000	0	0
	In 1745, under authority of 19 Geo. 2. c. 6., the Bank delivered up to be cancelled 986,000*l.* of Exchequer bills, in consideration of an annuity of 39,472*l.*, being at the rate of 3 per cent.	986,800	0	0
	In 1749, the 23 Geo. 2. c. 6. reduced the interest on the 4 per cent. annuities held by the Bank to 3½ per cent. for 7 years from the 25th of December, 1750, and thereafter to 3 per cent.			
1764.	Charter continued by 4 Geo. 3. c. 25. till 12 months' notice after 1st of August, 1786, on payment, &c. Under this act the Bank paid into the Exchequer 110,000*l.* free of all charge.			
1781.	Charter continued by 21 Geo. 3. c. 60. till 12 months' notice after 1st of August, 1812, on payment, &c. Under this act the Bank advanced 3,000,000*l.* for the public service for 3 years at 3 per cent.			
1800.	Charter continued by 40 Geo. 3. c. 28. till 12 months' notice after 1st of August, 1833, on payment, &c. Under this act the Bank advanced to government 3,000,000*l.* for 6 years without interest; but in pursuance of the recommendation of the committee of 1807, the advance was continued without interest till 6 months after the signature of a definitive treaty of peace.			
	In 1816, the Bank, under authority of the act 56 Geo. 3. c. 96., advanced at 3 per cent., to be repaid on or before 1st of August, 1833	3,000,000	0	0
1833.	Charter continued by 3 & 4 Will. 4. c. 98. till 12 months' notice after 1st of August, 1855, with a proviso that it may be dissolved on 12 months' notice after 1st of August, 1845, on payment, &c.	14,686,800	0	0
	This act directs that in future the Bank shall deduct 120,000*l.* a year from their charge on account of the management of the public debt, and that a fourth part of the debt due by the public to the Bank, or 3,671,700*l.*, be paid off	3,671,700	0	0
	Permanent advance by the Bank to the public, bearing interest at 3 per cent., independent of the advances on account of dead weight, &c.	11,015,100	0	0
1844.	Charter continued by 7 & 8 Vict. c. 32. till 12 months after the 1st of August, 1855, on payment, &c. This act, an abstract of which is given in a subsequent part of this article, exempts the notes of the bank from all charge on account of stamp-duty, and directs that in future the bank shall deduct 180,000*l.* a year from the charge on account of the management of the public debt. It also separates the banking from the issuing department of the establishment, and effects other important changes.			

The charter of the Bank of England, when first granted, was to continue for eleven years certain, or till a year's notice after the 1st of August, 1705. The charter was further prolonged in 1697. In 1708, the Bank having advanced 400,000*l.* for the

public service, without interest, the exclusive privileges of the corporation were prolonged till 1783. And in consequence of various arrangements made at different times, the exclusive privileges of the Bank have been continued by successive renewals, till a year's notice after the 1st of August, 1855.—(See table opposite.)

(For further details as to this subject, see the *Appendix* No. 1. *of the Report of* 1832 *on the Renewal of the Bank Charter*, and the Acts of Parliament referred to in it; see also *Postlethwait's History of the Revenue*, pp. 301—310.; and *Fairman on the Funds*, 7th ed. pp. 85—88, &c.)

The capital of the Bank on which dividends are paid has never exactly coincided with, though till of late it seldom differed very materially from, the permanent advance by the Bank to the public. We have already seen that it amounted, in 1708, to 4,402,343*l.* Between that year and 1727 it was increased to near 9,000,000*l.* In 1746, it amounted to 10,780,000*l.* From this period it underwent no change till 1782, when it was increased 8 per cent., or to 11,642,400*l.* It continued stationary at this sum down to 1816, when it was raised to 14,553,000*l.* by an addition of 25 per cent. from the profits of the Bank, under the provisions of the act 56 Geo. 3. c. 96. The act for the renewal of the charter, in 1833, the 3 & 4 Will. 4. c. 98., directed that the sum of 3,671,700*l.* of the debt due to the bank should be repaid by the public, giving the directors power, if they thought fit, to deduct it from the bank capital. But this was not done; the sum being reinvested in a government annuity, terminable in 1860.

The Bank of England has been frequently affected by panics amongst the holders of its notes. In 1745, the alarm occasioned by the advance of the Highlanders under the Pretender as far as Derby, led to a run upon the Bank; and in order to gain time to concert measures for averting the run, the directors adopted the device of paying in shillings and sixpences! But they derived a more effectual relief from the retreat of the Highlanders; and from a resolution agreed to at a meeting of the principal merchants and traders of the city, and very numerously signed, declaring the willingness of the subscribers to receive Bank notes in payment of any sum that might be due to them, and pledging themselves to use their utmost endeavours to make all their payments in the same medium.

During the tremendous riots in June, 1780, the Bank incurred considerable danger. Had the mob attacked the establishment at the commencement of the riots, the consequences might have proved fatal. Luckily, however, they delayed their attack till time had been afforded for providing a force sufficient to insure its safety. Since that period a considerable military force is nightly placed in the interior of the Bank, as a protection in any emergency that may occur.

In the latter part of 1792 and beginning of 1793, there was in consequence of a previous over-issue on their part, a general run on most of the private banks; and about a *third* part of these establishments were forced to stop payments. This led to a considerable demand for coin from the Bank.

The year 1797, is, however, the most important epoch in the recent history of the Bank. Owing partly to events connected with the war in which we were then engaged—to loans to the Emperor of Germany—to bills drawn on the treasury at home by the British agents abroad—and partly, and chiefly, perhaps, to the advances most unwillingly made by the Bank to government, which prevented the directors from having a sufficient control over their issues,—the exchanges became unfavourable in 1795, and in that and the following year large sums in specie were drawn from the Bank. In the latter end of 1796 and beginning of 1797, considerable apprehensions were entertained of invasion, and rumours were propagated of descents having been actually made on the coast. In consequence of the fears that were thus excited, runs were made on the provincial banks in different parts of the country; and some of them having failed, the panic became general, and extended itself to London. Demands for cash poured in upon the Bank from all quarters; and on Saturday, the 25th of February, 1797, she had only 1,272,000*l.* of cash and bullion in her coffers, with every prospect of a violent run taking place on the following Monday. In this emergency an order in council was issued on Sunday the 26th, prohibiting the directors from paying their notes in cash until the sense of parliament had been taken on the subject. And after parliament met, and the measure had been much discussed, it was agreed to continue the restriction till six months after the signature of a definitive treaty of peace.

As soon as the order in council prohibiting payments in cash appeared, a meeting of the principal bankers, merchants, traders, &c. of the metropolis, was held at the Mansion House, when a resolution was agreed to and very numerously signed, pledging, as had been done in 1745, those present to accept, and to use every means in their power to cause Bank notes to be accepted as cash in all transactions. This resolution tended to allay the apprehensions that the restriction had excited.

Parliament being sitting at the time, a committee was immediately appointed to examine into the affairs of the Bank; and their report put to rest whatever doubts might have been entertained with respect to the solvency of the establishment, by

showing that at the moment when the order in council appeared the Bank was possessed of property to the amount of 15,513,690*l.*, after all claims upon her had been deducted.

Much difference of opinion has existed with respect to the policy of the restriction in 1797; but, considering the peculiar circumstances under which it took place, its expediency seems abundantly obvious. The run did not originate in any over-issue of Bank paper; but grew entirely out of political causes. So long as the alarms of invasion continued, it was clear that no Bank paper immediately convertible into gold would remain in circulation. And as the Bank, though possessed of ample funds, was without the means of instantly retiring her notes, she might, but for the interference of government, have been obliged to stop payment; an event which, had it occurred, must have produced consequences in the last degree fatal to the public interests.

It had been generally supposed previously to the passing of the Restriction Act, that Bank notes would not circulate unless they were immediately convertible into cash; but the event showed, conformably to principles that have since been fully explained, that this was not really the case. Though the notes of the Bank of England were not, at the passing of the Restriction Act, publicly declared to be legal tender, they were rendered so in practice, by being received as cash in all transactions on account of government, and of the vast majority of individuals. For the first three years of the restriction, their issues were so moderate that they not only kept on a par with gold, but actually bore a small premium. In the latter part of 1800, however, their quantity was so much increased that they fell to a discount of 8 per cent. as compared with gold, but they soon after rose nearly to par; and it was not until 1808 that the decline of their value excited any considerable attention. Early in 1810, they were at a discount of about 13½ per cent; and this extraordinary fall having attracted the attention of the legislature, the House of Commons appointed a committee to inquire into the circumstances by which it had been occasioned. The committee examined several witnesses; and in their report, which was drawn up with considerable ability, they justly ascribed the fall to the over-issue of Bank paper, and recommended that the Bank should be obliged to resume cash payments within two years. This recommendation was not, however, acted upon; and the value of Bank paper continued to decline, as compared with gold, till 1814.

At the period when the restriction on cash payments took place in 1797, it is supposed that there were about 280 country banks in existence; but so rapidly were these establishments multiplied, that they amounted to above 900 in 1813. The price of corn, influenced partly by the depreciation of the currency, and the facility with which discounts were obtained, but far more by deficient harvests, and the unprecedented difficulties which the war threw in the way of importation, had risen to an extraordinary height during the five years ending with 1813. But the harvest of that year being unusually productive, and the intercourse with the Continent being then also renewed, prices, influenced by both circumstances, sustained a very heavy fall in the latter part of 1813, and the beginning of 1814. And this fall having ruined a considerable number of farmers, and produced a general want of confidence, such a destruction of provincial paper took place as has rarely been paralleled. In 1814, 1815, and 1816, no fewer than 240 country banks stopped payment; and *eighty-nine* commissions of bankruptcy were issued against these establishments, being at the rate of *one* commission against every *ten and a half* of the total number of banks existing in 1813.

The great reduction that had been thus suddenly and violently brought about in the quantity of country bank paper, by extending the field for the circulation of Bank of England paper, raised its value in 1817 nearly to a par with gold. The return to cash payments being thus facilitated, it was fixed, in 1819, by the act 59 Geo. 3. c. 78., commonly called Sir Robert Peel's Act, that they should take place in 1823. But to prevent any future over-issue, and at the same time to render the measures as little burdensome as possible, it was enacted, in pursuance of a plan suggested by the late Mr. Ricardo, that the Bank should be obliged, during the interval from the passing of the act till the return to specie payments, to pay her notes, if required, in bars of standard bullion of not less than sixty ounces weight. This plan was not, however, acted upon during the period allowed by law; for, a large amount of gold having been accumulated at the Bank, the directors preferred recommencing specie payments on the 1st of May, 1821.—(See Table I. for an account of the price of bullion, the depreciation of paper, &c. from 1800 to 1821.)

A great diversity of opinion has been entertained with respect to the policy of the return to the old standard, in 1819. By one party it has been represented as a wise and politic measure; they contend that Sir Robert Peel's Act not only put an end to those fluctuations in the value of money, which had previously been productive of great mischief, and gave effect to the solemn engagements into which the public had entered

with the national creditor, but that it did this without adding anything material to the national burdens. But another, and also a very numerous party, take a totally different view of this measure: they contend that the public was not really bound to return to cash payments at the old standard at the termination of the war; that the return has very greatly enhanced the value of the currency; and that this enhancement, by adding proportionally to the fixed burdens laid on the industrious classes, has been most injurious to their interests. It will, however, be found in this, as in most cases of the sort, that the statements of both parties are exaggerated; and that if, on the one hand, the measure has not been so advantageous as its eulogists represent, neither, on the other, has it been nearly so injurious as its enemies would have us believe.

In discussing this question, it is material to observe that the value of paper, which had been in 1815 and 1816 about 16¾ per cent. below that of gold, rose in 1817 and 1818, from the causes already mentioned, without any interference whatever on the part of government, to within little more than 2½ per cent of the value of gold; and that in 1819 the depreciation only amounted to 4½ per cent.—(See Table I.) It is, therefore, quite ludicrous to ascribe to the act of 1819, as is often done, the whole rise that has taken place in the value of the currency since the peace, seeing that the currency had been for *three years previously to its enactment* from 12½ to 14½ per cent. above its value in 1815, and from 21 to 23 per cent. above its value in 1814! The main object which the promoters of the act of 1819 had in view, was to sustain the value of the currency at the point to which it had recovered itself without legislative interference. This, however, could not be done without recurring to specie payments; and the difference of 4½ per cent. that obtained in 1819 between the value of gold and paper, was not deemed sufficiently considerable to warrant a departure from the old standard, and from the acts engaging to restore it.

But it is alleged that those who suppose that the act of 1819 added only 4½ per cent. to the value of the currency mistake altogether the effect of the measure. It is admitted, indeed, that paper was then only 4½ per cent. less valuable than gold; but by reverting to specie payments, we made an unexpected purchase of *thirty millions* of gold; and it is affirmed that this novel and large demand, concurring simultaneously with the contraction of paper in several of the Continental states, and with a falling off in the supply of bullion from the mines, had the effect of adding very greatly to the value of gold itself, and consequently to that of the currency. It is very difficult, or rather, perhaps, impossible, to determine the precise degree of credit that should be attached to this statement; but, while we incline to think that it is well founded to a certain extent, we see no grounds for believing that it is so to anything like the extent that has been stated. The gold imported into Great Britain, to enable the Bank to resume specie payments, was not taken from any particular country or district, but was drawn from the market of the world; and considering the vast extent of the supply whence it was derived, it is against all reason to suppose that its value could be materially influenced by our purchases. We doubt, too, whether the contraction of the paper currency of some of the Continental states, and the substitution of specie in its stead, was not more than balanced by the cessation of the demand for specie for the military chests of the different armies, by the stoppage of the practice of hoarding, and the greater security consequent to the return of peace. And with respect to the falling off in the supplies from the mines, it is not a circumstance, supposing it to have had a considerable influence, that parliament could take into account. It could neither determine the extent to which bullion had been raised, nor at what point the rise would stop, nor how soon it might again begin to decline. The diminution in the supply of bullion had then continued for too short a period, and its influence on the value of gold was much too uncertain, to make it a ground for interfering in any degree with the standard. And notwithstanding the falling off in the productiveness of the American mines still continues, the diminution thence arising has been since more than compensated by the extraordinary increase that has taken place of late years in the produce of the Russian mines and washings.

The decline in the price of most articles that has taken place since the peace has been often referred to, as a conclusive proof of the great enhancement in the value of bullion. But the inference is by no means so certain as has been represented. The prices of commodities are as much affected by changes in the cost of their production, as by changes in the quantity of money afloat. Now, there is not one of the great articles of commerce the cost of which has not been considerably reduced, or which has not been supplied from new and more productive sources, within the last few years. The growth of corn, for example, has been vastly extended in France, Prussia, and generally throughout the Continent, by the splitting of large estates, and the complete subversion of the feudal system; and the reduction of its price in this country has been wholly owing to the astonishing improvements made in agriculture, and to the increase of

imports from Ireland. The fall in the price of wool is satisfactorily accounted for by the introduction and rapid multiplication of Merino sheep in Germany, where they seem to succeed even better than in Spain: and by the large and rapidly growing imports from Australia, where little more than 50 years ago there was not a single sheep! And a very large portion, if not the whole, of the fall in the price of colonial products, is admitted, on all hands, to be owing to the destruction of the monopoly system, and the vast extension of cultivation in Cuba, Brazil, Java, Louisiana, &c. Although, therefore, we do not deny that the falling off in the supply of bullion from the mines must, at first, have had some influence over prices, we hold it to be the greatest imaginable error to ascribe to it the entire fall that took place after the peace. Were its effect rated at from 5 to 10 per cent., we believe it would be very considerably overstated.—(See art. PRECIOUS METALS.)

On the whole, therefore, we are disposed to approve of the conduct of those who framed the act of 1819. That it added somewhat to the burdens of the industrious classes, and has been in so far hostile to the public interests, it seems impossible to doubt; but it has not been so in anything like the degree which its enemies represent. The period, too, when it was passed is now so distant, that the existing engagements amongst individuals have almost all been formed with reference to the altered value of the currency; so that whatever injury it may have occasioned in the first instance must be nearly gone by. To modify or change the standard at this late period, would not be to repair injustice, but to commit it afresh. At the end of the war, the circumstances were considerably different. The standard had been really abandoned for the previous 18 years; and perhaps we may now say, that it would have been better, all things considered, had the mint price of bullion been raised in 1815, to the market price. But having surmounted all the difficulties attendant upon the restoration of the old standard, and maintained it since 1821, it would be in the last degree impolitic to subject it to new alterations. Should the country become, at any future period, unable to make good its engagements, it will better consult its honour and its interest by fairly compounding with its creditors, than by endeavouring to slip from its engagements by resorting to the underhand and dishonest expedient of enfeebling the standard.

The price of corn, which had been very much depressed in 1821 and 1822, rallied in 1823; and this circumstance contributed, along with others peculiar to that period, to promote an extraordinary rage for speculation. The issues of the country banks being in consequence far too much extended, the currency became redundant in the autumn of 1824; and the exchanges having been depressed, a drain for gold began to operate upon the Bank of England. But the directors of the Bank having entered, in the early part of that year, into an engagement with government to pay off such holders of 4 per cent. stock as might dissent from its conversion into a 3½ per cent. stock, they were obliged to advance a considerable sum on this account after the depression of the exchange. This tended to counteract the effect of the drain on the Bank for gold; and, in consequence, the London currency was not very materially diminished till September, 1825. When, however, the continued demand of the public on the Bank for gold had rendered money scarce in the metropolis, the pressure speedily extended to the country. Such of the provincial banks—and they were a numerous class—as had been originally established without sufficient capital, or had conducted their business upon erroneous principles, began to give way the moment they experienced an increased difficulty of obtaining pecuniary accommodations in London. The alarm, once excited, soon became general; and confidence and credit were, for a while, almost wholly suspended. In the short space of 6 weeks, above 70 banking establishments were destroyed, notwithstanding the very large advances made to them by the Bank of England; and the run upon the Bank for cash to supply the exigencies of the country banks was so heavy, that she was well nigh drained of all the coin in her coffers, and obliged, as already remarked, to issue about a million of 1*l.* and 2*l.* notes.

To guard against a recurrence of the wide-spread mischief and ruin produced by this and the previous bankruptcies of the country banks, it was resolved, in 1826, with consent of the Bank of England, to make a change in the law of 1708, limiting the number of partners in banking establishments to 6 only. And it was accordingly enacted, that thenceforth any number of partners might form themselves into associations to carry on the business of banking, including the issue of notes, anywhere not within *sixty-five miles* of London. The directors of the Bank of England came, at the same time, to the resolution of establishing branches in some of the principal towns; and these have since been established in Gloucester, Manchester, Birmingham, Leeds, Liverpool, Bristol, Exeter, Newcastle-upon-Tyne, Hull, Norwich, &c.

The branch banks have been useful, but we have already seen that the benefits which it was supposed would result from the formation of joint-stock banks have been in great measure disappointed. At best, the formation of joint-stock banks was but a

feeble palliative of inveterate disorders. It was quite illusory to expect to make any real improvement upon the system of country banking in England, by the mere introduction of a plan for *allowing* banking establishments with large capitals to be set on foot. There had always been, and were at the moment, a great number of such establishments in England. What we really wanted was the adoption of a system that should suppress all local issues, or exclude the possibility of notes being discredited, by making sure that notes when issued should be paid.

Besides attempting to lessen the frequency of bankruptcy among the country banks by repealing the law limiting the number of partners, it was further resolved, in 1826, to prohibit the issue of 1*l.* notes. The policy and effects of this measure gave rise to much dispute. It seems clear that it went far to shut up one of the most convenient channels by which the inferior class of country bankers contrived to get their notes into circulation, and must in so far have done good. But there were many other channels still open to them; and to imagine that this measure was to place the provincial currency on that solid basis on which it should be placed was quite visionary. There were no notes under 5*l.* in circulation in 1792; and yet fully *one third* part of the country banks then in existence became bankrupt! No doubt can, however, be entertained, that the representations of the extreme injury occasioned by the withdrawal of 1*l.* notes were greatly exaggerated. At the same time it is obvious that the means of the bankers to make advances, as well as the profit derived from making them, must both have been diminished by the suppression of the small notes; and it would be foolish to deny that this circumstance must have occasioned some loss and inconvenience to individuals; though, as respects the public, the measure was highly advantageous.

The extraordinary extent to which the forgery of the 1*l.* notes of the Bank of England was carried affords of itself a sufficient vindication of the policy of their suppression. But the comparatively limited circulation of the country banks, and perhaps we may add the greater attention paid to the manner in which their notes were engraved, hindered their forgery from becoming injuriously prevalent.

The defects inherent in the old system were again fully developed in 1836 and 1837. It is needless now to enter upon any investigation of the circumstances which led to the overtrading of these years; but it was carried to a great extent both here and in the U. States. In nothing, however, was this more strikingly evinced, than in the rapid increase of joint-stock banks; their number, which in 1834-35 had amounted in England and Wales to 55, having risen in 1835-36 to no fewer than 100! Many of these were banks of issue, and in consequence of the large additions that were thus suddenly made to the number of notes afloat, and still more to the number of bills, checks, and other substitutes for money, the currency became redundant and the exchange depressed; and the deficient harvests of 1838 and 1839, conspiring with this redundancy, occasioned a further fall in the exchange, and a severe drain upon the Bank of England for gold. But while the latter was narrowing her issues by supplying the exporters of bullion with gold in exchange for notes, the country banks went on increasing their issues! What the former did by contracting on the one hand, the latter more than undid by letting out on the other. The vacuum created by the withdrawal of Bank of England paper was immediately filled up, and made to overflow, by the issue of a more than equal amount of provincial paper; so that had it not been for the rise in the rate of interest, and the other repressive measures adopted by the Bank, the probability is that she might have gone on paying away bullion for notes, till she was drained of her last sixpence, without in any degree affecting the exchange; and as it was, the bullion in her coffers in August 1839 was reduced to 2,420,000*l.*, so that we narrowly escaped a tremendous crisis.

Sect. IV.—Principle and Operation of the Act of 1844.

This perilous experience having again forcibly attracted the public attention to the state of the banking system, Sir Robert Peel was induced to attempt its improvement. And the measures which he introduced and carried through Parliament in 1844 and 1845, for the improvement of our banking system, were so skilfully contrived as to provoke little opposition, at the same time that they effected most important and highly beneficial changes.

The measures in question consisted of the Act 7 & 8 Vict. c. 32, which refers to the Bank of England, and the English country banks; and the Acts 8 & 9 Vict. c. 38, 37, referring to the banks of Scotland and Ireland. These statutes were intended to obviate the chances of over-issue and of sudden fluctuations in the quantity and value of money, by limiting the power to issue notes payable on demand, and by making the amount of such notes in circulation vary with the amount of bullion in the possession of the issuers. In dealing with the Bank of England, Sir Robert Peel adopted the proposal previously made by Lord Overstone, for effecting a complete separation

between the issuing and banking departments of that establishment, and giving the directors *full* liberty to manage the latter at discretion, while they should have no power whatever over the other.

Principle on which Act of 1844 *was founded.*—The notes of the Bank of England in circulation for some years previously to 1844 rarely amounted to 20 or sunk so low as 18 millions. And such being the case Sir Robert Peel was justified in assuming that the circulation of the Bank could not, in any ordinary condition of society, or under any mere commercial vicissitudes, be reduced below fourteen millions. And the Act of 1844 allows the Bank to issue this amount upon securities, of which the 11,015,100*l.* she has lent to the public is the most important item. Inasmuch, however, as the issues of the provincial banks were at the same time limited in their amount, and confined to certain existing banks, it was further provided, in the event of any of these banks ceasing to issue notes, that the Bank of England might be empowered, by order in council, to issue, upon securities, two-thirds, and no more, of the notes which such banks had been authorised to issue. Under this condition, the total secured issue of the Bank has (1858) been increased from 14,000,000*l.* to 14,475,000*l.* *But for every other note which the issue department may at any time issue over and above the maximum amount* (14,475,000*l.*) *issued on securities, an equal amount of coin or bullion must be paid into its coffers.* And hence, under this system, the notes of the Bank of England are rendered really and truly equivalent to gold, while their immediate conversion into that metal no longer depends, as it previously did, on the good faith, the skill, or the prudence of the directors. And these important results have been attained without imposing any burden of which any one has any right to complain. Our currency rests on the fundamental principle, that all debts above forty shillings shall be paid in gold. But individuals and associations, including the banking or commercial department of the Bank, have the option, if they prefer it, to exchange gold for bank notes, and to make use of the latter in their dealings with the public. Hence, if A. or B. goes to the issuers of paper, and gets 100 or 500 notes from them in exchange for an equivalent amount of gold, it is his own convenience he has exclusively in view. He was at full liberty to use gold, but he preferred exchanging it for notes because he could employ the latter more advantageously. This is the way in which paper is issued under the Act of 1844; and such being the case it is contradictory to say that it is productive either of hardship or inconvenience.

It has been alleged that this system is injurious by shackling the Bank in the use of her credit. But it must be clear on the least reflection that it does nothing of the sort. It merely prevents her from issuing substitutes for money which do not represent money. It does not absorb or lock up a single sixpence worth of her capital; nor does it interfere in any manner of way with her employment either of it, or of her credit. The gold in the issue-department of the Bank was not purchased by her, and does not belong to her. She is its keeper, but not its owner. It belongs to the public, or to the holders of bank notes, who deposited it in the Bank in exchange for notes, with and under the express stipulation, that on paying the latter into the Bank, they should receive back their gold. Any interference with these deposits would be an interference with property held in pledge for others, that is, it would be an act precisely of the same kind with that which deservedly subjected Strahan, Paul, and Co. to transportation for fourteen years. The authority of Mr. Sheffield Neave, the present governor of the Bank, may be quoted in corroboration of this statement:—"The issue department is out of our hands altogether. We are mere trustees under the Act of Parliament, to see that those securities are placed there and kept up to that amount; and in no case can any creditor of the Bank touch that which is reserved for a note-holder. We are in that respect merely ministrative; we are trustees to hold that amount in the issue-department, and our banking department has a totally separate function, which has no relation whatever to the issue-department."—(*Min. of Evidence, 1857, p. 99.*)

But though she may not lay violent hands on the property of the public, the Bank, it is obvious, has at this moment the same absolute command over her entire capital and credit, that she would have were the Act of 1844 non-existent. In her banking capacity she is free from all restraint, and is in precisely the same situation as other banking or mercantile establishments. She may lend or not lend as she pleases, and may lay down such conditions as she pleases in regard to the interest and the terms of her loans and discounts. In short, she may do whatever she likes with her own. But further she is not permitted to go. She may not substitute shadows for realities. She cannot, whether to assist others, or to relieve herself from embarrassment, issue a single note except upon a deposit of bullion. But this rule does not operate on herself only. It applies to all individuals and associations. And to relax it in any degree would be—disguise it as you will—to authorise an issue of fictitious or spurious paper, and consequently to vitiate the currency and to abuse credit in the way that is sure to be in the end the most disastrous.

It is further objected to the Act of 1844, that it "limits the currency" "that it makes no provision for the increasing demands of the public"; and confines us, in 1858, when the exports will probably exceed 120 millions, to the same amount of money as in 1844, when the exports did not exceed 58½ millions." But though this statement has been made by parties who ought to have known better, the reader can hardly require to be told that it is completely destitute of foundation. The 14,000,000*l.* issued on securities, is the only thing that is limited in the Act; everything else varies with the varying condition and circumstances of the country, including the means by which the use of money may be economised. In the week ending the 29th of August, 1857, the issue department of the Bank had issued notes to the amount of 25,323,965*l.*, being no fewer than 11,323,965*l.* over and above the amount authorised to be issued on securities. And if the country had really required a larger supply of money, that is, if more coins, or paper equivalent to coins, could have been absorbed into the circulation without rendering the currency redundant, and depressing the exchange, the additional quantity would have been forthwith supplied. For under such circumstances, merchants, bankers, and money-dealers, would have realised a certain and immediate profit by carrying bullion to the Mint or the Bank, that they might obtain coins, or notes, or both, with which to increase the currency. It is one of the chief merits of the Act of 1844, that, under its agency, the supply of money is not to any extent or in any degree regulated or influenced by the proceedings of the Bank, or the government. They have nothing to do in the matter, unless it be to coin the bullion which individuals or firms carry to the Mint for that purpose, and to exchange, when called upon, notes for coins, and coins for notes. The supply of money, like that of all nonmonopolised articles, is wholly dependent upon, and is determined by the free action of the public. It would, indeed, be quite as true to say, that the Act of 1844 limits the amount of corn, of cloth, or of iron produced in the country, as that it limits the amount of money. It maintains the value of the notes issued by the Bank on a level with the coins for which they are substitutes; but beyond that its effect is *nil*. It has nothing whatever to do with the greater or less amount of the currency. That depends entirely on the estimate formed by the public of its excess or deficiency, an estimate which, when wrong, is sure to be corrected by the exchange.

We may add, that no inference can ever be safely drawn from the number of notes or coins, or both, afloat in a country, as to whether its currency be, or be not, in excess. That is to be learned by the state of the exchange, or by the influx and efflux of bullion. If the imports of bullion exceed the exports, it shows that the currency is in some degree deficient, while if the exports exceed the imports, it shows that the currency is in excess, and that no additions can be made to it without further depressing the exchange and increasing the drain of bullion. When the imports and exports of bullion are about equal, then of course the currency is at about its proper level. These are the only criteria by which anything can ever be correctly inferred, in regard to the deficiency or excess of currency. Its absolute amount affords hardly even a basis for conjecture. When there is little speculation or excitement, an issue of 25 or 27 millions bank-notes may be in excess; while, at another time, and with a different state of trade and speculation, an issue of 35 or 37 millions of notes may not be enough. Except in periods of internal commotion, or when we are disturbed by alarms of invasion, the state of the exchange is the only, as it is the infallible, test of the sufficiency and insufficiency of the currency.

We have seen that bills of exchange, about which so much is said, though they serve some of the purposes of money, are not money. But whether the amount of them in circulation be great or small, and whether they be drawn at long or short dates, though highly important in other respects, has no reference to, or bearing upon, this question. When from any cause, whether from an excess in the amount of bills or notes afloat, the currency becomes redundant, the exchange is depressed, and notes are sent to the issue department of the Bank to be exchanged for gold, which is forthwith exported. And it is by the immediate action of the adverse exchange upon notes, and the consequent influence of the contraction of the latter upon bills, that the amount of the currency is lessened, its value raised, and the exchange brought to par. At such periods there is usually more or less of mercantile pressure, and a greater demand for discounts and pecuniary accommodation. This leads to a rise in the rate of interest; but no change in this rate has any influence over the currency, except in so far as its rise may diminish, and its fall may increase, the demands upon the Bank for loans. A system of this sort effectually prevents any great excess of bills from ever getting into the market; and thus checks, *in limine*, what would otherwise be the most copious source of wild speculation, overtrading and bankruptcy.

It may be said, perhaps — for there is no end of apologies for whatever is vicious — that if the issue of notes were in the hands of government, the entire profit accruing thereon would belong to the public. But supposing such to be the case, the difference

between that profit, and that which is or may be realised under the present system, would either be nothing at all, or so inconsiderable as to be wholly unworthy of attention. It will be afterwards seen that at this moment the public receives by far the greater part of the profit made by the Bank on the fixed issue of 14,000,000*l.*, and if it be deemed expedient, that part may be still further increased, or turned into the lion's share. Assuming, therefore, for a moment, that the power to issue notes is vested in government commissioners, it is not pretended that these notes are to be legal tender. Nothing so monstrous as that could be thought of, or at all events, durst be proposed. The notes issued by the commissioners, like those issued by the Bank, must be paid on demand. But to do this, a stock of bullion must be provided; and unless the plan now followed were adopted, and all issues above the amount of 14,000,000*l.*, or thereby, were made upon deposits of bullion, the public would not have that perfect security which is given them by the present system, and which is worth more than ten times all the profits arising out of the fixed issue. Even under the old system, or that which existed previously to 1844, the rule of the Bank was to keep a stock of bullion on hand equal to a third part of her issues. But this rule was not, and in truth could not, be acted upon. It is plain, however, had it been *bona fide* carried out, that the profits on the issue of notes would not have been materially, if at all different, from what they are at this moment. Nothing, therefore, can be more completely futile than the talk about the large profits that would accrue to the public by vesting the power to issue notes in commissioners appointed by government. With the same security as at present for the conversion of the notes into coin, nothing would be gained by such appointment; and if, as would most likely be the case, it lessened the security referred to, and added to the chances of over-issue and mismanagement, the injury to the public hence resulting might be enormous. We, therefore, are disposed to believe, that of the various proposals in regard to the currency, that which proposes to vest the issue of notes in the hands of government commissioners, is one of the most objectionable. The chances are ten to one that they would act as directed by the government of the day; and this, at all events, would be popularly assumed to be the case. Supposing, however, that they did nothing of the sort, but were perfectly independent, still it is obvious, that whatever they did more or less than is done at present, would be mischievous. And such being the case, it is not easy to see what advantage would be gained by their appointment; while it would have the serious disadvantage of making government directly responsible, in the public estimation, for whatever inconvenience might at any time be supposed to result from the limitation of the currency.

The objections to the Act of 1844 are so various and so opposite that they are not easily recollected. Sometimes we are told that it is inconsistent with itself and incomplete, and that it deals stringently with the Bank of England, while it hardly interferes with the country banks. But this is an unfair representation. In dealing with the country banks the Act may not have gone quite so far as it was desirable it should have gone, or as Sir Robert Peel wished it to go; but it notwithstanding effected, even in that respect, a very great improvement, and really left but little to be wished for.

To prevent future over-issues of country paper, it was enacted, that from and after the passing of the Act, no new bank for the issue of notes should be established in any part of the United Kingdom. And it was further enacted, that the *maximum* issue of notes by the existing country banks should, in future, be limited to the average amount which they had respectively in circulation during the twelve weeks preceding the 27th April 1844 *; and various penalties are imposed on those whose issues exceed that fixed amount. It was then, also, ordered that the names of the partners, in joint-stock and other banks, should be periodically published.

These are most important regulations. No doubt it would have been better had provincial issues been entirely suppressed, and Bank of England notes been made the only legal substitute for coins. But in matters of legislation what is practicable is of quite as much importance as what is absolutely just and proper. Sir Robert Peel knew what he could carry through Parliament. Had he attempted more he would not only have failed of his object, but would, most likely, have endangered the success of the other and far more important portion of his measure which related to the Bank of England.

Under the operation of the Act of 1844 the extinction of the country issues is being gradually effected, partly by some of the issuing banks finding it to be for their advantage to use notes of the Bank of England instead of their own, and partly by the winding-up of some concerns and the bankruptcy of others. But, owing to the limitation of the issues, comparatively little inconvenience has resulted to the public from the latter circumstance.

* This condition applies only to banks in England and Wales. The issues of those in Scotland and Ireland are limited to the average amount of those in circulation during the twelve months ending the 1st of May 1845. See *post.*

On the whole, therefore, there does not appear to be much ground on which to object to the existing arrangements in regard to the country banks. Though not theoretically perfect, their practical deficiencies are unimportant. To attempt to obviate them might imperil other and more important arrangements. And we incline to think that the notion that such would be the case has had not a little to do in making them be pressed on the attention of the public.

Suspensions of 1847 *and* 1857. — But it is said, "that even the best system cannot always be carried to an extreme. The Act of 1844 has had to be suspended in 1847, and again in 1857; and machinery for its relaxation in periods of difficulty should be introduced into it!"

We beg, however, to express our dissent from this doctrine. It would be easy to show that the embarrassment of the banking department of the Bank in 1847 which led to the suspension of the Act, was mainly a consequence of the injudicious proceedings of the directors; and it is to be hoped that the experience they acquired on that occasion may not be forgotten. But in whatever way the crisis may have originated, there can be no question that the suspension of 1847 was a measure of doubtful policy. The exchanges had already become favourable, and it was the prevalent opinion in very well-informed quarters, that the panic which had begun to show itself would speedily have disappeared without the intervention of government. It should never be forgotten that, apart from internal panics, the time when the Act is said to be working harshly and oppressively, is the very time when it is most for the public advantage that it should be honestly carried out.

The revulsion in 1857 was occasioned by the stoppage of the American banks. The real value of the exports from this country to the United States amounted in 1856 to 21,476,000*l.* of which a large portion was unpaid when the banks stopped payments; and a further and very large sum was due to us on account of dividends on state, railway and canal stocks, and so forth, held by parties in England. The sudden cessation of so large an amount of payments could not fail to occasion a good deal of distress among the merchants and others dealing with America. And it was among this class, or those intimately connected with it, that the greatest overtrading and abuse of credit had taken place. Some firms in Glasgow, which had been notoriously overtrading for a number of years, were the first to give way. And their failure being on a very large scale, the banks by which they had been principally supported became the objects of suspicion. And from suspicion to distrust there is but a step. Notwithstanding the numbers and wealth of the shareholders responsible for the banks in question, they were subjected to a run on the part of the inferior class of note-holders and depositors, and their resources being either anticipated or locked up, they were obliged to suspend payments. And had they only failed, none could have regretted the result. On the contrary, it would have been nothing more than they deserved, for they had for a lengthened period grossly abused the ample resources at their command, and resorted to the most questionable means to bolster up the speculators with whom they had become identified. But the mischief is, that the disastrous effects of such proceedings cannot be confined to the guilty parties. A fire originating in a pig-stye may destroy a palace. The suspension of the offending banks, by generating uneasy feelings and suspicions in the public mind, led to a run on some of the other banks. And to provide for their own safety these establishments immediately began to sell securities, and to adopt other means, by which to obtain supplies of gold. Large amounts of it were in consequence carried to Scotland. And, in addition to the demand for gold, that for discounts, notwithstanding the high rate of ten per cent. charged by the Bank, continued undiminished, so that the reserve in her possession was reduced on the 11th November to 1,462,153*l.*; and it was the general belief, that this inadequate reserve would be forthwith either much reduced or wholly swallowed up. To avert the possibility of such an event occurring, the directors were authorised, on the 12th of November, to issue notes without being bound by the conditions of the Act of 1844.

This, though a brief, is, we believe, a sufficiently accurate account of the circumstances that led to the suspension of the Act in 1857. The weight to be attached to them will be differently estimated by different individuals. The suspension is believed by some to have been, at least, premature, and others think that probably it might have been avoided. It is alleged that the panic in Scotland had begun to subside previously to the measure being adopted; and it was all but certain that when it had subsided, a considerable portion of the gold that had been sent to Scotland would speedily find its way back to London, and some considerable risk and inconvenience should have been encountered rather than that measures should have been adopted, the effect of which will be to protect speculators and money dealers without capital, and wanting alike in character and conduct, from the consequences of their unjustifiable proceedings. But, at the same time, we admit that the immediate exposure and punishment of these parties, however desirable, was not to be purchased at the risk of a general revulsion. And as

the information laid before ministers made them believe that such a calamity was imminent unless the statute of 1844 was suspended, they were bound to act upon that conviction, and to provide *ne quid detrimenti respublica capiat.*

But whatever may be thought of these conclusions, it is at all events certain that the Act of 1844 had nothing whatever to do with the late revulsion. It did not occasion the American stoppage, and under its operation the foreign drain for gold had been entirely stopped; and though it could not prevent the abuses in banking, and the system of rediscounting and overtrading in which so many banks and firms have been engaged, it contributed in no ordinary degree, by preventing the issue of spurious paper, to confine them within comparatively narrow limits, and to lessen the violence of the crisis.

The Act of 1844 is a rule to be enforced in all but extraordinary and unforeseen emergencies, the urgency of which cannot be appreciated beforehand, but must be determined at the moment. But when these occur, it may, like the *Habeas Corpus* Act, be properly suspended. It is mainly calculated to regulate our currency by the exchanges, or through our commercial intercourse with other countries; but it is not applicable, nor is any system of which the convertibility of paper into coin makes a part applicable to a state of internal discredit or panic. Had it existed in 1797, it must have been suspended; and its suspensions in 1847 and 1857 are only to be justified by the state of our domestic affairs making an adherence to principle inexpedient and impracticable. But, whenever the circumstances referred to, that is, when the panic and distrust that occasioned the suspension of the Act subsided, it is clear it should be, and it has been, revived in its pristine vigour. The *Habeas Corpus* Act is not the less efficient at this moment that it has been repeatedly suspended in periods of danger and difficulty. We beg to subjoin a full

ABSTRACT OF THE ACT 7 & 8 VICT. C. 32, FOR REGULATING THE ISSUE OF BANK NOTES, AND FOR GIVING TO THE BANK OF ENGLAND CERTAIN PRIVILEGES FOR A LIMITED PERIOD. 19 JULY, 1844.

Bank to establish a separate Department for the Issue of Notes.—Whereas it is expedient to regulate the issue of bills or notes payable on demand: and whereas the act 3 & 4 Will. 4. c. 98. gave to the corporation of the governor and company of the Bank of England certain privileges for a limited period, under certain conditions; and it is expedient that the privileges of exclusive banking therein mentioned should be continued to the said governor and company of the Bank of England, with such alterations as are herein contained, upon certain conditions: be it therefore enacted, that from and after the 31st day of August, 1844, the issue of promissory notes of the governor and company of the Bank of England, payable on demand, shall be separated and thenceforth kept wholly distinct from the general banking business of the said governor and company; and the business of and relating to such issue shall be thenceforth conducted and carried on by the said governor and company in a separate department, to be called "The Issue Department of the Bank of England," subject to the rules and regulations hereinafter contained; and it shall be lawful for the court of directors of the said governor and company, if they shall think fit, to appoint a committee or committees of directors for the conduct and management of such issue department of the Bank of England, and from time to time to remove the members, and define, alter, and regulate the constitution and powers of such committee, as they shall think fit, subject to any bye-laws, rules, or regulations which may be made for that purpose: provided nevertheless, that the said issue department shall always be kept separate and distinct from the banking department of the said governor and company.—§ 1.

Management of the Issue by Bank of England.—Upon the 31st August, 1844, there shall be transferred, appropriated, and set apart by the said governor and company to the issue department of the Bank of England securities to the value of 14,000,000*l.*, whereof the debt due by the public to the said governor and company shall be and be deemed a part; and there shall also at the same time be transferred, appropriated and set apart by the said governor and company to the said issue department so much of the gold coin and gold and silver bullion then held by the Bank of England as shall not be required by the banking department thereof; and thereupon there shall be delivered out of the said issue department into the said banking department of the Bank of England such an amount of Bank of England notes as, together with the Bank of England notes then in circulation, shall be equal to the aggregate amount of the securities, coin, and bullion so transferred to the said issue department of the Bank of England; and the whole amount of Bank of England notes then in circulation, including those delivered to the banking department of the Bank of England as aforesaid, shall be deemed to be issued on the credit of such securities, coin, and bullion so appropriated and set apart to the said issue department; and from thenceforth it shall not be lawful for the said governor and company to increase the amount of securities for the time being in the said issue department save as herein-after is mentioned, but it shall be lawful for the said governor and company to diminish the amount of such securities, and again to increase the same to any sum not exceeding in the whole the sum of 14,000,000*l.*, and so from time to time as they shall see occasion; and from and after such transfer and appropriation to the said issue department as aforesaid, it shall not be lawful for the said governor and company to issue Bank of England notes, either into the banking department of the Bank of England or to any persons or person whatsoever, save in exchange for other Bank of England notes, or for gold coin or for gold or silver bullion received or purchased for the said issue department under the provisions of this act, or in exchange for securities acquired and taken in the said issue department under the provisions herein contained: provided always, that it shall be lawful for the said governor and company in their banking department to issue all such Bank of England notes as they shall at any time receive from the said issue department or otherwise, in the same manner in all respects as such issue would be lawful to any other person or persons.—§ 2.

Proportion of Silver Bullion to be retained in the Issue Department.—Whereas it is necessary to limit the amount of silver bullion on which it shall be lawful for the issue department of the Bank of England to issue Bank of England notes; be it therefore enacted, that it shall not be lawful for the Bank of England to retain in the issue department of the said Bank at any one time an amount of silver bullion exceeding 1-4th part of the gold coin and bullion at such time held by the Bank of England in the issue department.—§ 3.

All Persons may demand of the Issue Department Notes for Gold Bullion.—From and after the 31st day of August, 1844, all persons shall be entitled to demand from the issue department of the Bank of England Bank of England notes in exchange for gold bullion, at the rate of 3*l.* 17*s.* 9*d.* per ounce of standard gold: provided always, that the said governor and company shall in all cases be entitled to

require such gold bullion to be melted and assayed by persons approved by the said governor and company at the expence of the parties tendering such gold bullion.—§ 4.

Power to increase Securities in the Issue Department, and issue additional Notes.—If any banker who on the 6th day of May, 1844, was issuing his own bank notes shall cease to issue his own bank notes, it shall be lawful for H. M. in council at any time after the cessation of such issue, upon the application of the said governor and company, to authorise and empower the said governor and company to increase the amount of securities in the said issue department beyond the total sum or value of 14,000,000*l.*, and thereupon to issue additional Bank of England notes to an amount not exceeding such increased amount of securities specified in such order in council, and so from time to time: provided always, that such increased amount of securities specified in such order in council shall in no case exceed the proportion of 2-3rds the amount of bank notes which the banker so ceasing to issue may have been authorised to issue under the provisions of this act; and every such order in council shall be published in the next succeeding London Gazette.—§ 5.

Account to be rendered by the Bank of England.—An account of the amount of Bank of England notes issued by the issue department of the Bank of England, and of gold coin and of gold and silver bullion respectively, and of securities in the said issue department, and also an account of the capital stock, and the deposits, and of the money and securities belonging to the said governor and company in the banking department of the Bank of England, on some day in every week to be fixed by the commissioners of stamps and taxes, shall be transmitted by the said governor and company weekly to the said commissioners in the form prescribed in the schedule hereto annexed marked (A), and shall be published by the said commissioners in the next succeeding London Gazette in which the same may be conveniently inserted.—§ 6.

Bank of England exempted from Stamp Duty upon their Notes.—From and after the said 31st day of August, 1844, the said governor and company of the Bank of England shall be released and discharged from the payment of any stamp duty, or composition in respect of stamp duty, upon or in respect of their promissory notes payable to bearer on demand; and all such notes shall thenceforth be and continue free and wholly exempt from all liability to any stamp duty whatsoever.—§ 7.

Bank to allow 180,000*l. per Annum.*—From and after the said 31st day of August, 1844, the payment or deduction of the annual sum of 120,000*l.*, made by the said governor and company under the provisions of the said act passed in the 4th year of the reign of his late Majesty King William IV., out of the sums payable to them for the charges of management of the public unredeemed debt, shall cease, and in lieu thereof the said governor and company, in consideration of the privileges of exclusive banking, and the exemption from stamp duties, given to them by this act, shall, during the continuance of such privileges and such exemption respectively, but no longer, deduct and allow to the public, from the sums now payable by law to the said governor and company for the charges of management of the public unredeemed debt, the annual sum of 180,000*l.*, any thing in any act or acts of parliament, or in any agreement, to the contrary notwithstanding: provided always, that such deduction shall in no respect prejudice or affect the rights of the said governor and company to be paid for the management of the public debt at the rate and according to the terms provided in the act 48 G. 3. c. 4., intituled "An Act to authorise the advancing for the Public Service, upon certain Conditions, a proportion of the Balance remaining in the Bank of England, for the payment of Unclaimed Dividends, Annuities, and Lottery Prizes, and for regulating the Allowances to be made for the Management of the National Debt."—§ 8.

Bank to allow the Public the Profits of increased Circulation.—In case, under the provisions hereinbefore contained, the securities held in the said issue department of the Bank of England shall at any time be increased beyond the total amount of 14,000,000*l.*, then and in each and every year in which the same shall happen, and so long as such increase shall continue, the said governor and company shall, in addition to the said annual sum of 180,000*l.*, make a further payment or allowance to the public, equal in amount to the net profit derived in the said issue department during the current year from such additional securities, after deducting the amount of the expences occasioned by the additional issue during the same period, which expences shall include the amount of any and every composition or payment to be made by the said governor and company to any banker in consideration of the discontinuance at any time hereafter of the issue of bank notes by such banker; and such further payment or allowance to the public by the said governor and company shall, in every year while the public shall be entitled to receive the same, be deducted from the amount by law payable to the said governor and company for the charges of management of the unredeemed public debt, in the same manner as the said annual sum of 180,000*l.* is hereby directed to be deducted therefrom.—§ 9.

No new Bank of Issue.—From and after the passing of this act no person other than a banker who on the 6th day of May, 1844, was lawfully issuing his own bank notes shall make or issue bank notes in any part of the U. K.—§ 10.

Restriction against Issue of Bank Notes.—From and after the passing of this act it shall not be lawful for any banker to draw, accept, make, or issue, in England or Wales, any bill of exchange or promissory note or engagement for the payment of money payable to bearer on demand, or to borrow, owe, or take up, in England or Wales, any sums or sum of money on the bills or notes of such banker payable to bearer on demand, save and except that it shall be lawful for any banker who was on the 6th day of May, 1844, carrying on the business of a banker in England or Wales, and was then lawfully issuing, in England or Wales, his own bank notes, under the authority of a licence to that effect, to continue to issue such notes to the extent and under the conditions herein-after mentioned, but not further or otherwise, and the right of any company or partnership to continue to issue such notes shall not be in any manner prejudiced or affected by any change which may hereafter take place in the personal composition of such company or partnership, either by the transfer of any shares or share therein, or by the admission of any new partner or member thereto, or by the retirement of any present partner or member therefrom; provided always, that it shall not be lawful for any company or partnership now consisting of only 6 or less than 6 persons to issue bank notes at any time after the number of partners therein shall exceed 6 in the whole.—§ 11.

Bankers ceasing to issue Notes may not resume.—If any banker in any part of the U. K. who after the passing of this act shall be entitled to issue bank notes shall become bankrupt, or shall cease to carry on the business of a banker, or shall discontinue the issue of bank notes, either by agreement with the governor and company of the Bank of England or otherwise, it shall not be lawful for such banker at any time thereafter to issue any such notes.—§ 12.

Existing Banks of Issue to continue under certain Limitations.—Every banker claiming under this act to continue to issue bank notes in England or Wales shall, within 1 month next after the passing of this act, give notice in writing to the commissioners of stamps and taxes at their head office in London of such claim, and of the place and name and firm at and under which such banker has issued such notes during the 12 weeks next preceding the 27th day of April last; and thereupon the said commissioners shall ascertain if such banker was, on the 6th day of May, 1844, carrying on the business of a banker, and lawfully issuing his own bank notes in England or Wales, and if it shall so appear, then the said commissioners shall proceed to ascertain the average amount of the bank notes of such banker which were in circulation during the said period of 12 weeks preceding the 27th day of April last, according to the returns made by such banker in pursuance of the act 4 & 5 Vict. c. 50., intituled "An Act to make further Provision relative to the Returns to be made by Banks of the Amount of their Notes in Circulation;" and the said commissioners or any 2 of them shall certify under their hands to such banker the said average amount, when so ascertained as aforesaid; and it shall be lawful for every such

banker to continue to issue his own bank notes after the passing of this act; provided nevertheless, that such banker shall not at any time after the 10th day of October, 1844, have in circulation upon the average of a period of 4 weeks, to be ascertained as herein-after mentioned, a greater amount of notes than the amount so certified.—§ 13.

Provision for united Banks.—If it shall be made to appear to the commissioners of stamps and taxes that any 2 or more banks have, by written contract or agreement (which contract or agreement shall be produced to the said commissioners), become united within the 12 weeks next preceding such 27th day of April as aforesaid, it shall be lawful for the said commissioners to ascertain the average amount of the notes of each such bank in the manner herein-before directed, and to certify the average amount of the notes of the 2 or more banks so united as the amount which the united bank shall thereafter be authorised to issue subject to the regulations of this act.—§ 14.

Duplicate Certificate to be published in the Gazette.—The commissioners of stamps and taxes shall, at the time of certifying to any banker such particulars as they are herein-before required to certify, also publish a duplicate of their certificate thereof in the next succeeding London Gazette in which the same may be conveniently inserted; and the Gazette in which such publication shall be made shall be conclusive evidence in all courts whatsoever of the amount of bank notes which the banker named in such certificate or duplicate is by law authorised to issue and to have in circulation as aforesaid.—§ 15.

If Banks become united, Commissioners to certify the Amount of Bank Notes which each Bank was authorised to issue.—In case it shall be made to appear to the commissioners of stamps and taxes, at any time hereafter, that any 2 or more banks, each such bank consisting of not more than 6 persons, have, by written contract or agreement (which contract or agreement shall be produced to the said commissioners), become united subsequently to the passing of this act, it shall be lawful for the said commissioners upon the application of such united bank, to certify, in manner herein-before mentioned, the aggregate of the amounts of bank notes which such separate banks were previously authorised to issue, and so from time to time; and every such certificate shall be published in manner herein-before directed; and from and after such publication the amount therein stated shall be and be deemed to be the limit of the amount of bank notes which such united bank may have in circulation: provided always, that it shall not be lawful for any such united bank to issue bank notes at any time after the number of partners therein shall exceed 6 in the whole.—§ 16.

Penalty on Banks issuing in excess.—If the monthly average circulation of bank notes of any banker, taken in the manner herein-after directed, shall at any time exceed the amount which such banker is authorised to issue and to have in circulation under the provisions of this act, such banker shall in every such case forfeit a sum equal to the amount by which the average monthly circulation, taken as aforesaid, shall have exceeded the amount which such banker was authorised to issue and to have in circulation as aforesaid.—§ 17.

Issuing Banks to render Accounts.—Every banker in England and Wales who, after the 10th day of October, 1844, shall issue bank notes, shall on some I day in every week after the 19th day of October, 1844 (such day to be fixed by the commissioners of stamps and taxes), transmit to the said commissioners an account of the amount of the bank notes of such banker in circulation on every day during the week ending on the next preceding Saturday, and also an account of the average amount of the bank notes of such banker in circulation during the same week; and on completing the first period of 4 weeks, and so on, completing each successive period of 4 weeks, every such banker shall annex to such account the average amount of bank notes of such banker in circulation during the said 4 weeks, and also the amount of bank notes which such banker is authorised to issue under the provisions of this act; and every such account shall be verified by the signature of such banker or his chief cashier, or, in the case of a company or partnership, by the signature of a managing director or partner or chief cashier of such company or partnership, and shall be made in the form to this act annexed marked (B); and so much of the said return as states the weekly average amount of the notes of such bank shall be published by the said commissioners in the next succeeding London Gazette in which the same may be conveniently inserted; and if any such banker shall neglect or refuse to render any such account in the form and at the time required by this act, or shall at any time render a false account, such banker shall forfeit the sum of 100*l.* for every such offence.—§ 18.

Mode of ascertaining the average Amount of Bank Notes of each Banker.—For the purpose of ascertaining the monthly average amount of bank notes of each banker in circulation, the aggregate of the amount of bank notes of each such banker in circulation on every day of business during the first complete period of 4 weeks next after the 10th day of October, 1844, such period ending on a Saturday, shall be divided by the number of days of business in such 4 weeks, and the average so ascertained shall be deemed to be the average of bank notes of each such banker in circulation during such period of 4 weeks, and so in each successive period of 4 weeks, and such average is not to exceed the amount certified by the commissioners of stamps and taxes as aforesaid.—§ 19.

Commissioners empowered to cause the Books of Bankers to be inspected.—Whereas, in order to insure the rendering of true and faithful accounts of the amount of bank notes in circulation, as directed by this act, it is necessary that the commissioners of stamps and taxes should be empowered to cause the books of bankers issuing such notes to be inspected, as herein-after mentioned; be it therefore enacted, that all and every the book and books of any banker who shall issue bank notes under the provisions of this act, in which shall be kept, contained, or entered any account, minute, or memorandum of or relating to the bank notes issued or to be issued by such banker, or of or relating to the amount of such notes in circulation from time to time, or any account, minute, or memorandum the sight or inspection whereof may tend to secure the rendering of true accounts of the average amount of such notes in circulation, as directed by this act, or to test the truth of any such account, shall be open for the inspection and examination, at all seasonable times, of any officer of stamp duties authorised in that behalf by writing, signed by the commissioners of stamps and taxes or any two of them; and every such officer shall be at liberty to take copies of or extracts from any such book or account as aforesaid: and if any banker or other person keeping any such book, or having the custody or possession thereof, or power to produce the same, shall, upon demand made by any such officer, showing (if required) his authority in that behalf, refuse to produce any such book to such officer for his inspection and examination, or to permit him to inspect and examine the same, or to take copies thereof or extracts therefrom, or of or from any such account, minute or memorandum as aforesaid, kept, contained, or entered therein, every such banker or other person so offending shall for every such offence forfeit the sum of 100*l.*: provided always, that the said commissioners shall not exercise the powers aforesaid without the consent of the Lords of the Treasury.—§ 20.

All Bankers to return Names once a Year to the Stamp Office.—Every banker in England and Wales who is now carrying on or shall hereafter carry on business as such shall, on the 1st day of January in each year, or within 15 days thereafter, make a return to the commissioners of stamps and taxes at their head office in London of his name, residence, and occupation, or, in the case of a company or partnership, of the name, residence, and occupation of every person composing or being a member of such company or partnership, and also the name of the firm under which such banker, company, or partnership carry on the business of banking, and of every place where such business is carried on; and if any such banker, company, or partnership shall omit or refuse to make such return within 15 days after the said 1st day of January, or shall wilfully make other than a true return of the persons as herein required, every banker, company, or partnership so offending shall forfeit and pay the sum of 50*l.*; and the said commissioners of stamps and taxes, shall, on or before the 1st day of March in every year, publish in some newspaper circulating within each town or county respectively, a copy of the return so made by every

banker, company, or partnership carrying on the business of bankers within such town or county respectively, as the case may be.—§ 21.

Bankers to take out a separate Licence for every Place at which they issue Notes or Bills.—Every banker who shall be liable by law to take out a licence from the commissioners of stamps and taxes to authorise the issuing of notes or bills, shall take out a separate and distinct licence for every town or place at which he shall, by himself or his agent, issue any notes or bills requiring such licence to authorise the issuing thereof, any thing in any former act contained to the contrary thereof notwithstanding: provided always, that no banker who on or before the 6th day of May, 1844, had taken out four such licences, which on the said last-mentioned day were respectively in force, for the issuing of any such notes or bills at more than 4 separate towns or places, shall at any time hereafter be required to take out or to have in force at one and the same time more than 4 such licences to authorise the issuing of such notes or bills at all or any of the same towns or places specified in such licences in force on the said 6th day of May, 1844, in which towns or places respectively, such bankers had on or before the said last-mentioned day, issued such notes or bills in pursuance of such licences or any of them respectively.—§ 22.

Compensation to certain Bankers named in the Schedule.—Whereas the several bankers named in the schedule hereto annexed marked (C) have ceased to issue their own bank notes under certain agreements with the governor and company of the Bank of England; and it is expedient that such agreements should cease and determine on the 31st day of December next, and that such bankers should receive by way of compensation such composition as hereafter mentioned; and a list of such bankers, and a statement of the maximum sums in respect of which each such banker is to receive compensation, hath been delivered to the commissioners of stamps and taxes, signed by the chief cashier of the Bank of England; be it therefore enacted, that the several agreements subsisting between the said governor and company and the several bankers mentioned in the schedule hereto relating to the issue of bank of England notes shall cease and determine on the 31st day of December next; and from and after that day the said governor and company shall pay and allow to the several bankers named in the schedule hereto marked (C), so long as such banker shall be willing to receive the same, a composition at and after the rate of *11.* per cent. per annum on the average amount of the bank of England notes issued by such bankers respectively and actually remaining in circulation, to be ascertained as follows; (that is to say,) on some day in the month of April, 1845, to be determined by the said governor and company, an account shall be taken of the bank of England notes delivered to such bankers respectively by the said governor and company within 3 months next preceding, and of such of the said bank of England notes as shall have been returned to the bank of England, and the balance shall be deemed to be the amount of the bank of England notes issued by such bankers respectively and kept in circulation; and a similar account shall be taken at intervals of 3 calendar months; and the average of the balances ascertained on taking 4 such accounts shall be deemed to be the average amount of bank of England notes issued by such bankers respectively and kept in circulation during the year 1845, and on which amount such bankers are respectively to receive the aforesaid composition of 1 per cent. for the year 1845; and similar accounts shall be taken in each succeeding year; but in each year such accounts shall be taken in different months from those in which the accounts of the last preceding year were taken, and on different days of the month, such months and days to be determined by the said governor and company; and the amount of the composition payable as aforesaid shall be paid by the said governor and company out of their own funds; and in case any difference shall arise between any of such bankers and the governor and company of the bank of England in respect of the composition payable as aforesaid, the same shall be determined by the Chancellor of the Exchequer for the time being, or by some person to be named by him, and the decision of the Chancellor of the Exchequer, or his nominee, shall be final and conclusive; provided always, that it shall be lawful for any banker named in the schedule hereto annexed marked (C) to discontinue the receipt of such composition as aforesaid, but no such banker shall by such discontinuance as aforesaid thereby acquire any right or title to issue bank notes.—§ 23.

Bank of England to be allowed to compound with Issuing Banks.—It shall be lawful for the said governor and company to agree with every banker who under the provisions of this act shall be entitled to issue bank notes, to allow to such banker a composition at the rate of 1 per cent. per annum on the amount of bank of England notes which shall be issued and kept in circulation by such banker, as a consideration for his relinquishment of the privilege of issuing his own bank notes; and all the provisions herein contained for ascertaining and determining the amount of composition payable to the several bankers named in the schedule hereto marked (C) shall apply to all such other bankers with whom the said governor and company are hereby authorised to agree as aforesaid; provided that the amount of composition payable to such bankers as last aforesaid shall in every case in which an increase of securities in the issue department shall have been authorised by any order in council be deducted out of the amount payable by the said governor and company to the public under the provisions herein contained: provided always, that the total sum payable to any banker under the provisions herein contained by way of composition as aforesaid, in any 1 year, shall not exceed, in case of the bankers mentioned in the schedule hereto marked (C), 1 per cent. on the several sums set against the names of such bankers respectively in the list and statement delivered to the commissioners of stamps as aforesaid, and in the case of other bankers shall not exceed 1 per cent. on the amount of bank notes which such bankers respectively would otherwise be entitled to issue under the provisions herein contained.—§ 24.

Compositions to cease on 1st August, 1856.—All the compositions payable to the several bankers mentioned in the schedule hereto marked (C), and such other bankers as shall agree with the said governor and company to discontinue the issue of their own bank notes as aforesaid, shall, if not previously determined by the act of such banker as herein-before provided, cease and determine on the 1st day of August, 1856, or on any earlier day on which parliament may prohibit the issue of bank notes.—§ 25.

Banks within Sixty-five miles of London may accept, &c. Bills.—From and after the passing of this act it shall be lawful for any society or company or any persons in partnership, though exceeding 6 in number, carrying on the business of banking in London, or within 65 miles thereof, to draw, accept, or endorse bills of exchange, not being payable to bearer on demand, anything in the herein-before recited act passed in the 4th year of the reign of his said majesty King William IV., or in any other act, to the contrary notwithstanding.—§ 26.

Bank to enjoy Privileges, subject to Redemption.—The said governor and company of the bank of England shall have and enjoy such exclusive privilege of banking as is given by this act, upon such terms and conditions, and subject to the termination thereof at such time and in such manner as is by this act provided and specified; and all and every the powers and authorities, franchises, privileges, and advantages, given or recognised by the said recited act, 3 & 4 Will. 4. c. 98, as belonging to or enjoyed by the said governor and company of the bank of England, or by any subsequent act or acts of parliament, shall be and the same are hereby declared to be in full force, and continued by this act, except so far as the same are altered by this act; subject, nevertheless, to redemption upon the terms and conditions following; viz., at any time upon 12 months' notice to be given after the 1st day of August, 1855, and upon repayment by parliament to the said governor and company or their successors of the sum of 11,015,100*l.*, being the debt now due from the public to the said governor and company, without any deduction, discount, or abatement whatsoever, and upon payment to the said governor and company and their successors of all arrears of the sum of 100,000*l.* per annum, in the last-mentioned act mentioned, together with the interest or annuities payable upon the said debt or in respect thereof, and also upon repayment of all the principal and interest which shall be owing unto the said governor and company and their successors upon all such tallies, exchequer orders, exchequer bills, or parliamentary funds which

the said governor and company or their successors shall have remaining in their hands or be entitled to at the time of such notice to be given as last aforesaid, then and in such case, and not till then, the said exclusive privileges of banking granted by this act shall cease and determine at the expiration of such notice of 12 *months*; and any vote or resolution of the house of commons, signified under the hand of the speaker of the said house in writing, and delivered at the public office of the said governor and company, shall be deemed and adjudged to be a sufficient notice. — § 27.

Interpretation Clause.—The term "bank notes" used in this act shall extend and apply to all bills or notes for the payment of money to the bearer on demand other than bills or notes of the governor and company of the bank of England; and the term "bank of England notes" shall extend and apply to the promissory notes of the governor and company of the bank of England payable to bearer on demand; and the term "banker" shall extend and apply to all corporations, societies, partnerships, and persons, and every individual person carrying on the business of banking, whether by the issue of bank notes or otherwise, except only the governor and company of the bank of England; and the word "person" used in this act shall include corporations; and the singular number in this act shall include the plural number, and the plural number the singular, except where there is any thing in the context repugnant to such construction; and the masculine gender in this act shall include the feminine, except where there is any thing in the context repugnant to such construction.— § 28.

SCHEDULE A.

BANK OF ENGLAND.

An Account pursuant to the Act 7 & 8 Vict. cap. 32, for the Week ending on Wednesday the 15th of December, 1858.

Issue Department.

	£		£
Notes issued	32,852,470	Government Debt	11,015,100
		Other Securities	3,459,900
		Gold coin and bullion	18,377,470
		Silver bullion	—
Dated the 16th of December, 1858.	32,852,470		32,852,470

(Signed) M. MARSHALL, Chief Cashier.

Banking Department.

	£		£
Proprietors' capital	14,553,000	Government securities (including Dead Weight Annuity)	10,808,591
Rest	3,100,144	Other Securities	15,988,503
Public deposits (including Exchequer, savings banks, commissioners of National debt, and dividend accounts)	9,526,771	Notes	15,106,215
Other deposits	12,686,131	Gold and silver coin	646,899
Seven day and other bills	763,862		40,550,208
Dated the 16th December, 1858.	40,550,208		

(Signed) M. MARSHALL, Chief Cashier.

SCHEDULE B.

[*To be annexed to this Account at the End of each Period of 4 Weeks.*]

Name and title as set forth in the license ——— bank.
Name of the firm ——— firm.
Insert head office or principal place of issue ——— place

An Account pursuant to the act 7 & 8 Vict. c. 32. § 18, of the notes of the said bank in circulation during the week ending Saturday the day of 18 .

	£
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
	6)
Average of the week	

Amount of notes authorised by law £
Average amount in circulation during the 4 weeks ending as above

I, being [the banker, chief cashier, managing director, or partner of the bank, *as the case may be*], do hereby certify that the above is a true account of the notes of the said bank in circulation during the week above written.

[*Signed*]

Dated the day of 18 .

SCHEDULE C. includes the names of the various Banks that have ceased to issue Notes; but they are not of interest enough to be reprinted.

SECT. V. — MANAGEMENT OF THE BANK OF ENGLAND.

Since 1826 the Bank has established branches in some of the great commercial towns. The mode and terms of conducting business at which have been described as follows: —

"The branch bank at Swansea (and the same is true of those established in other places) is to be a secure place of deposit for persons having occasion to make use of a bank for that purpose; such persons are said to have *drawing accounts*: to facilitate to the mercantile and trading classes the obtaining discounts of good and unexceptionable bills, founded upon real transactions, two approved names being required upon every bill or note discounted; these are called *discount accounts*. The applications of parties who desire to open discount accounts at the branch are forwarded to the parent establishment for approval, and an answer is generally received in about ten days. When approved, good bills may be discounted at the branch without reference to London. Bills payable at Swansea, London, or any other place where a branch is established, are discounted under this regulation. The dividends on any of the public funds, which are payable at the Bank of England, may be received at the branch by persons who have opened 'drawing accounts,' after signing powers of attorney for that purpose, which the branch will procure from London. No charge is made in this case, except the expense of the power of attorney and the postages incurred in transmitting it. Purchases and sales of every description of government securities are effected by the branch at a charge corresponding to that made by the local bankers where the branch is situated. A commission, including brokerage in London, and all expenses of postage, is charged on paying at the Bank of England bills accepted by persons having drawing accounts at Swansea, such bills to be advised by the branch; also for granting letters of credit on

London, or on the other branches. The branch grants bills on London, payable at seven days' date, without acceptance, for sums of 10*l.* and upwards. Persons having drawing accounts at Swansea may order money to be paid at the bank in London to their credit at Swansea, and *vice versa*, at a charge of 6*d.* in lieu of postage. The branch may be called upon to change any notes issued and *dated* at Swansea; but they do not change the notes of the bank in London, nor receive them in payment, unless as a matter of courtesy where the parties are known. Bank post bills, which are accepted and due, are received at the branch from parties having drawing accounts, and taken to account without any charge for postage; but unaccepted bank post bills, which must be sent to London, are subject to the charge of postage, and taken to account when due. No interest is allowed on deposits. No advance is made by the branch upon any description of landed or other property, nor is any account allowed to be overdrawn. The notes are the same as those issued by the parent establishment, except being dated Swansea, and made payable there and in London. No note issued exceeds the sum of 500*l.*, and none are for a less amount than 5*l.*"

But though it might have been advisable to establish offices in Manchester, Birmingham, and one or two more great towns, for the interchange of bank-notes and gold, we much doubt whether the establishment of the branch banks has been advantageous. Speaking generally, it may be laid down that local affairs are best conducted by local agencies; and this is believed to be especially the case in banking. It is a business which is most likely to flourish when those by whom banks are established in country districts belong to those districts, and are well acquainted with the character and pursuits of those with whom they deal.

Bank of England in connection with Government. — The Bank of England transacts the whole business of government. "She acts not only," says Adam Smith, "as an ordinary bank, but as a great engine of state. She receives and pays the greater part of the annuities which are due to the creditors of the public; she circulates Exchequer bills; and she advances to the government the annual amount of the land and malt taxes, which are frequently not paid till some years thereafter."

Assistance rendered by Bank to the Mercantile Interest. — The greater part of the paper of the Bank has generally been issued in the way of advances or loans to government, upon security of certain branches of the revenue, and in the purchase of Exchequer bills and bullion; but her issue through the medium of discounts and advances to individuals has also been at all times considerable, while during war, and in periods of distress, it is occasionally very great. Generally, however, the directors do not appear to have thought it advisable to enter into any very keen competition with private bankers in the discounting of mercantile paper. And hence it is that the rate of interest charged by the Bank for loans being usually equal to, and sometimes rather above the market rate, comparatively few applications are made to her, in ordinary periods, for discounts. But, at the same time, every one who has any reasonable security to offer, knows where they may always be had; while the rate of interest charged by the Bank necessarily forms a *maximum* rate which no other establishment can exceed. When, however, any circumstances occur to occasion a pressure in the money-market, or a difficulty of obtaining accommodation in the usual channels, the market rate of interest generally rises to the rate fixed by the Bank, how high soever that may be, and on such occasions the private bankers, and the public generally, resort to the Bank for aid. She then becomes, as it were, *a bank of support;* and has, as such, on various occasions, rendered good service to public credit, and to the commercial interests of the country.

But, at the same time, it must be admitted that the interference of the Bank in assisting the commercial interest is a matter that requires the greatest consideration, and that it can only be safely undertaken in rare instances and under very peculiar circumstances. We repeat again, that however a drain for gold may originate, the fact of its existence shows conclusively that gold is more valuable abroad than here, and consequently that the currency is redundant and ought to be diminished. Under such circumstances, it is the imperative duty of the directors, if they would prevent the total exhaustion of their banking reserve, not to fill up the vacuum caused by the exchange of notes for bullion, by the issue of fresh notes. It is at such periods, no doubt, that the applications for assistance are the most urgent; but it is impossible to yield to them, and at the same time to enforce that systematical and continuous reduction of the issues which is indispensable for the safety of the banking department of the Bank. She can no longer assist herself, as on former occasions, by making fresh issues of paper. And in truth that resource was of no real advantage to her, but the reverse. It tempted her to disregard those great principles and warnings which never can be neglected with impunity. The great commercial crises that took place in 1793, in 1815-16, in 1825, and in 1836-39, were all increased in violence and destructiveness by the Bank declin-

ing to narrow her issues immediately on the exchange becoming unfavourable, and deferring her repressive action till too late a period.

Methods by which the Bank may reduce her Issues.—When the Bank sets about reducing her issues, she may effect her object in various ways, viz., by rejecting a portion of the bills sent to her for discount, by raising the rate of interest at which she discounts or makes advances, by shortening the dates or *echéance* of the bills which she negotiates, and by selling bullion and securities. Of these means, some may be more or less expedient at one time, and some at another. On the whole, however, the first mode, or the rejection of bills, seems to be, in all respects, the most objectionable. The Bank will not, of course, discount any bill in regard to the payment of which there can be any reasonable doubt. And when the solidity of the bills offered for discount cannot be objected to, it becomes an invidious, if not an unjust proceeding, to discount some and reject others. Under such circumstances, the true plan is to raise the rate of interest, for while such rise operates equally and universally, it makes rich parties, or those who can avail themselves of other means of accommodation, withhold their demands, and thus effects its object in the fairest and easiest way, and without sacrificing individuals.

Inasmuch, however, as any sudden rise in the rate of discount, especially if it be considerable, is always productive of more or less inconvenience to the mercantile world, it may be proper, when the exchange becomes unfavourable, to endeavour to restore it to par by shortening the dates of bills, and, if circumstances will permit, by selling bullion and securities. But, at all events, the redundancy of the currency must be got rid of, and the exchange redressed; and if the other means at the disposal of the Bank be inadequate to effect this object, a rise in the rate of interest should be at once resorted to, and carried to the necessary extent.

It may be observed, with respect to the sale of securities, that they may be wholly or partly paid by drafts against deposits held by the Bank. But, if so, it is clear that, at all events, her debts, or the obligation under which she lies to pay notes or gold to depositors when demanded, will be in so far reduced.

The fact that the applications for discounts at the Bank are usually most numerous when the rate of discount is highest, has made some doubts be entertained in regard to the efficacy of a rise in that rate to raise the value of the currency, and restore an unfavourable exchange to par. But the additional demand for discounts, on the occasions referred to, is most commonly a consequence of the increased difficulty of obtaining them in other quarters; and when the rate of discount becomes unusually high, apprehensions of a revulsion begin to be entertained, and bankers and others carry bills to the Bank, not that they may get gold to send abroad, but that they may provide for their own security, by getting a supply of notes or gold, or both, to keep in reserve. And it is further to be observed, that the rise in the rate of interest, whether it be, as it usually is, the result of capital becoming scarcer or more productive, or of a temporary increase in the demand for money, uniformly operates to hinder the exportation of the latter. That such is the case is evinced by what took place in 1825, and in 1836-37. And on the recent occasion, notwithstanding the large sums lent by the Bank on bills and advances of one sort or other, the ten per cent. rate of interest charged by her was sufficient to stop the efflux of bullion to the Continent and the United States; and, but for the abuse of credit by some private establishments, the restoration of the exchange to par would have been effected without any internal revulsion.

Mischievous Effects of discounting Bills at long Dates. — The Bank of England rarely discounts bills that have more than two, or at most three, months to run, and it were well were this rule generally observed by other establishments. The discounting of bills at long dates is a powerful stimulus to unsafe speculations. When individuals obtain loans which they are not to be called upon to pay for six, twelve, or, perhaps, eighteen months, they are tempted to adventure in speculations which are not expected to be wound up till some proportionally distant period, and as these not unfrequently fail, the consequence is that, when the bills become due, there is commonly little or no provision made for their payment. In such cases the discounters, to avert an imminent loss, sometimes consent to renew the bills. But, while a proceeding of this sort is rarely productive of ultimate advantage to either party, the fact of its having taken place makes other adventurers reckon that in the event of their speculations proving to be less successful than they anticipated, their bills will be treated in the same manner, and thus aggravates and extends the evil.

In other respects, too, the discount of bills at long dates, or their renewal, or the making of permanent loans, is altogether inconsistent with sound banking principles, for it prevents the bankers from having that command over their resources which is advantageous at all times, and indispensable in periods of difficulty or distress.

Distinction between real and accommodation Bills.—In the discounting of bills, a great

deal of stress is usually laid, or pretended to be laid, on the distinction between those that arise out of real transactions and those that are fictitious, or that are intended for accommodation purposes. The former are said to be legitimate, while the latter are stigmatised as illegitimate. But Mr. Thornton* has shown that the difference between these two classes of bills is neither so well marked nor so wide as most persons suppose. A notion seems to be generally entertained that all real bills are drawn against produce of one sort or other, which, or its value, is supposed to form a fund for their payment. Such, however, is not always, nor even most commonly, the case. A., for example, sells to B. certain produce, for which he draws a bill at sixty days' date. But prices are rising, trade is brisk, or a spirit of speculation is afloat, and in a week or two (sometimes much less), B. sells the produce at an advance to C., who thereafter sells it to D., and so on. Hence it may, and in fact frequently does happen, that bills amounting to four, five, or even ten times the value of a quantity of merchandise, have grown out of its successive sales, before the first bill of the series has become due. And not only this, but bills are themselves very frequently rediscounted; and in this case the credit of the last indorser is generally the only thing looked to; and there is not, perhaps, one case in ten in which any inquiries are made in regard to the origin and history of the bills, though they are often of the most questionable description.

On the whole, therefore, it would seem that the real or presumed solidity of the parties signing a bill, and responsible for its payment, is the only safe criterion by which to judge whether it should or should not be discounted. But the fact of a merchant or other trader offering accommodation bills for discount ought unquestionably to excite a suspicion that he is trading beyond his capital. Inquiries of the most searching description should forthwith be instituted; and unless satisfactory explanations are given, his paper should be rejected. On the same principle, the offering of bills for rediscount ought to awaken suspicions of the bankers and others who resort to so questionable a mode of carrying on business. But, except in so far as a feeling of distrust may be thus very properly excited, there does not appear to be anything in an accommodation bill *per se* to hinder it from coming within the pale of negociability. It is a mode of obtaining a loan from a bank; and when the character of the bill is known to the banker, or is openly declared, it does not appear to be an objectionable mode.

Besides bills avowedly intended for accommodation purposes, another and a different variety of such bills is drawn by parties at a distance from each other, often men of straw, and made to appear as if they were bottomed on real transactions. And we are sorry to say, that bills of this sort are always current, and often to a large extent. Of course no person of respectability can be knowingly connected with such bills, which are almost always put in motion either to bolster up some bankrupt concern, or to cheat and defraud the public. But despite the mischief of which they are productive, it appears to be pretty generally supposed that the currency of these bills is an evil which cannot be prevented. There can, however, be no real doubt that it may, at all events, be very greatly diminished; and this desirable result would be effected were it enacted that all bills should henceforth bear upon their face what they really are. That those that are intended for accommodation purposes shall have at their head the words "*Accommodation Bill;*" and that those only shall bear to be for "value received" that have grown out of *bona fide* transfers of property. An enactment of this sort could not be felt as a grievance by any one unless he had a fraudulent purpose in view. And were the impressing of a false character on a bill made a criminal offence punishable by three years' imprisonment, or some such penalty, there is every probability that a formidable check would be given to the issue of spurious bills, and to the manifold abuses to which the practice gives rise.

Bill-discounters who have got fictitious paper on their hands, and attempt, as has been done, to get rid of it by concealing its character, or representing it in a favourable light, make themselves parties to the fraud. Such conduct is so very flagitious, that when it can be fairly brought home to the parties, it should subject them to the severest penalties.

Rates of Discount charged by Bank.—The rates of discount charged by the Bank fluctuate with the variations in the demand for money, and in the rate of interest. Within the last few years they have been as low as 2 and 2½ per cent., and in November 1857, they rose to 10 per cent., the highest interest which they have hitherto reached. Speaking generally they may be taken at from 2½ to 5½ per cent.

The dividends on Bank stock, from the establishment of the company to the present time, have been as follows: —

* On the Paper Credit of Great Britain, cap. 2.

Years.	Dividend.	Years.	Dividend.	Years.	Dividend.
1694	8 per cent.	1738	5½ per cent.	1807	10 per cent.
1697	9 ,,	1747	5 ,,	1825	8 ,,
1708	Varied from 9 to	1753	4½ ,,	1850	7 ,,
1729	5½ per cent.	1764	5 ,,	1852	7½ ,,
1730	6 ,,	1787	5½ ,,	1853	8 ,,
1730	5½ ,,	1781	6 ,,	1836	9½ ,,
1731	6 ,,	1788	7 ,,		

Bank does not allow Interest on Deposits.—The Bank of England does not allow, either at the head office in London, or at her branches, any interest on deposits; and in doing so she acts wisely. Notwithstanding the non-payment of interest, she has often very large amounts of deposits on her hands, and were she to pay interest, the probability is that they would be very greatly increased, and might, in periods of difficulty, seriously compromise her safety. At present the Bank may either retain deposits or invest them in those securities from which they may be most easily withdrawn. But if she allowed interest, the case would be different, and she would be obliged to look quite as much or more to the profits to be made by investments as to the facility of repossessing herself of funds. We beg, in corroboration of what has now been stated, to draw the reader's attention to the following extract from the evidence of Mr. Weguelin, late Governor of the Bank, before the Committee of 1857:—

"We," said he, "at the Bank of England, have always considered that the proper functions of a banker were to keep the spare cash of his customer, such cash as his customer required for his daily expenditure, for the sudden demands of his business, and any accidental accumulation which might happen before the customer had occasion to invest it. That is contrasted with the system pursued by the joint-stock banks. The joint-stock bank invites a large deposit by offering a certain rate of interest for the deposit; in point of fact, the joint-stock bank becomes the investor of the money instead of the customer. The customer of a joint-stock bank does not himself invest his own money, but he employs the joint-stock bank to do it, taking the guarantee of the joint-stock bank, and taking, possibly, a lower rate of interest. Now that system, if applied to the Bank of England, would be, I think, very prejudicial to the public interests. It would, in the first place, force upon the Bank of England to invest its reserves much more closely than it does now. If it had to pay interest upon its deposits, it could only do so by investing them in some securities that would pay a higher rate of interest than that which it pays. Its deposits are also of that particular character which would render it still more inexpedient that they should be closely invested. They consist, in the first place, of government deposits, which rise from a low rate at one period of a quarter up to five or six millions higher at another period of a quarter, and again collapse to a very low rate at another period. Again, the private deposits consist, to a certain extent, of the deposits of the bankers and the joint-stock banks of London. Those deposits are the amounts which those bankers require to work their own business. Consequently, they are not deposits which should be very closely invested by the Bank of England. In times when there is a great accumulation of deposits in the Bank of England, it is because the public are not able at those times to find investments to their mind to employ those deposits; and consequently, it is not at all likely that the Bank of England, if that is the case with the public generally, will be able to find investments which the public themselves have not been able to do. All these reasons combined would lead me to think that to force a system upon the Bank of England by which it should be obliged to employ its deposits very closely—much more closely than it does at present—would be not only prejudicial and unsafe as regards the Bank of England, but would be prejudicial to the public interest."—*Quest.* 159.

The truth is, that the whole subject of deposits is beset with difficulties. The extent to which it has been already carried has deeply endangered the stability of the banking system, and we have seen that it is indispensable it should be subjected to regulation.

Previously to 1786, the Bank received an allowance for trouble in paying the dividends, superintending the transfer of the stock, &c., of the national debt of 562*l.* 10*s.* a million on its amount. In 1786 this allowance was reduced to 450*l.* a million, the Bank being, at the same time, entitled to a considerable allowance for her trouble in receiving contributions on loans, lotteries, &c. This, though long regarded as a very improvident arrangement on the part of the public, was acquiesced in till 1808, when the allowance on account of management was reduced to 340*l.* per million on 600,000,000*l.* of the public debt, and to 300*l.* per million on all that it exceeded that sum, exclusive of some separate allowances for annuities, &c. The impression, however, was still entertained that the allowances for management should be further reduced, and this has been effected in the interim.

Exclusive of her functions as public banker, and manager of the public debt, the Bank of England is connected with government through the circulation. We have

seen that she is entitled to issue upwards of 14,000,000*l.* upon securities, that is, on the credit of the funds she has lent to government. But for these she receives about 3 per cent. interest, and such being the case, the public is clearly entitled to a portion, if not to the whole amount of the profits realised by the Bank on the issue of these 14,000,000*l.* It is difficult to say how much this may amount to. The issue department of the Bank seldom re-issues notes, but for the most part destroys them as soon as they are returned to it. This practice is said to be necessary to enable the Bank to obviate fraud, by keeping a proper account of the numbers of the notes afloat. An opinion is, however, pretty generally entertained that this might be effected by a less expensive process than that which is now resorted to. And, certainly, it seems to be a very wasteful proceeding, that a quantity of newly manufactured notes issued by the Bank in the forenoon, and returned to her in the afternoon, should not be reissued, but consigned to the flames. The Scotch banks are justly censurable for keeping their notes too long afloat, but this is running with a vengeance into the opposite extreme.

But, as it is, the cost of maintaining an issue of 14,000,000*l.* is estimated by the Bank at about 113,000*l.* a year; and taking the gross profits of the issue at 3 per cent., or 420,000*l.*, the nett profits may be estimated at 307,000*l.* a year; and of this sum the Bank pays to government 180,000*l.*, viz., 60,000*l.* in lieu of the old charge for stamp duty, abolished in 1844, and a further sum of 120,000*l.*, leaving the Bank 127,000*l.* for her share of the profits. And so long as the cost of the issues remains at about its present amount, we do not know that there is much to object to in this arrangement. Probably, however, were the allowance to government further increased by some 50,000*l.* or 60,000*l.*, the Bank might find means, without injury to the public, of reissuing her notes, or of otherwise reducing the cost of their circulation. During the year ended the 31st March, 1856, the payments made to the Bank for managing the national debt and annuities amounted to 95,875*l.*

It should be observed that the responsibility and expense incurred by the Bank, in managing the public debt, are very great. The temptation to the commission of fraud, in transferring stock from one individual to another, and in the payment of the dividends, is well known; and notwithstanding the skilfully devised system of checks adopted by the Bank for its prevention, she has frequently sustained very great losses by forgery and otherwise. In 1803 the Bank lost, through a fraud committed by one of her principal cashiers, Mr. Astlett, no less than 340,000*l.*; and the forgeries of Fauntleroy, the banker, cost her a still larger sum! At an average of the ten years ending with 1831, the Bank lost, through forgeries on the public funds, 40,204*l.* a year.—(*Report on Bank Charter, Appen.* p. 165.)

Besides the transactions alluded to, the Bank entered, on the 20th of March, 1823, into an engagement with government with respect to the public pensions and annuities, or, as they have been more commonly termed, the *dead weight*. At the end of the war, the naval and military pensions, superannuated allowances, &c., amounted to above 5,000,000*l.* a year. They would, of course, have been gradually lessened, and ultimately extinguished, by the death of the parties. But it was resolved in 1822 to attempt to spread the burden equally over the whole period of *forty-five* years, during which it was calculated the annuities would continue to decrease. To effect this purpose, it was supposed that, upon government offering to pay 2,800,000*l.* a year, for forty-five years, capitalists would be found who would undertake to pay the entire annuities, according to a graduated scale previously determined upon, making the first year a payment of 4,900,000*l.*, and gradually decreasing the payments until the forty-fifth and last year, when they were to amount to only 300,000*l.* This supposition was not, however, realised. No capitalists were found willing to enter into such distant engagements. But in 1823 the Bank agreed, on condition of receiving an annuity of 585,740*l.* for *forty-four* years, commencing on the 5th of April, 1823, to pay, on account of the pensions, &c., at different specified periods, between the years 1823 and 1828, both inclusive, the sum of 13,089,419*l.*—(*4 Geo. 4. c.* 22.)

Formerly the business transacted at the Bank was so much encumbered with forms and conditions, that the generality of merchants and ordinary people rarely thought of employing her to keep their money or make their payments. But in this respect an entire change has been effected. Cheques, the minimum amount of which was formerly 10*l.*, may now be drawn of any amount, great or small; and all sorts of banking business is conducted with facility and despatch, and, we may add, with perfect security.

The Bank opens banking accounts, or, as they are called, "drawing accounts," for the safe custody, and the receipt and payment of cash, not only with merchants and traders, but with all persons who choose to keep their money at a banker's, and to draw cheques against it. The Bank also takes charge of their customers' bills of exchange, exchequer bills, and other securities, and does all that is needful either in the collection of bills of exchange, the exchange of exchequer bills, or the receipt of dividends, and so forth, free of any charge. Plate-chests, and deed and security boxes, may be deposited, free of expense, by customers, for safe custody. The Bank looks to the average balance of cash on each account, to compensate for the trouble and expense of keeping it, and in this respect the requirements of the Bank are certainly not greater than those of ordinary bankers. No particular sum is required to be lodged on opening an account; it is only necessary that the party should be known as respectable, and in a condition to require a banking account. But the Bank receives and holds sums of money for safe custody for parties who have no current accounts.

The following are the regulations under which accounts are conducted:—

1. All letters should be addressed to the chief cashier.
2. It is desirable that drafts should be drawn upon cheques furnished by the Bank.
3. Cheques upon city bankers, eastward of King Street, Cheapside,

Paid in by 12 o'clock may be drawn for after 1.
Do. 2 o'clock „ „ after 3.

4. Cheques paid in after 2, and before 3 o'clock, and cheques upon all other London bankers paid in before 12 o'clock, may be drawn for on the following morning.

5. Cheques paid in after 3 o'clock are sent out at 9 the following morning, and may be drawn for as soon as received.

6. Dividend warrants are received at the drawing office until 4 o'clock in the afternoon for all persons having accounts at the Bank.

7. It is requested that notice be given at the drawing office of bills accepted payable at the Bank, with the date of their maturity.

8. Persons keeping a drawing account with the Bank (although not having a discount account) may tender bills for discount through the drawing office. Application for discounts, or for advances on stock, exchequer bills, &c., must be made before 2 o'clock.

9. Bills of exchange and notes not paid when due, will be noted.

10. The Bank will make purchases or sales of British or foreign securities upon an order in writing addressed to the chief cashier; and dividends on stock may be received under powers of attorney granted to the cashiers of the Bank.

11. Exchequer bills, bonds, railway debentures, or any other securities may be deposited, and the interest, when payable, will be received and placed to account.

12. Credits paid in to account are received without the Bank book, and are afterwards entered therein without the party claiming them.

13. Notes of country bankers, payable in London, are sent out the same day for payment if paid in before 3 o'clock.

14. The pass-books should be left at the drawing office, at least once a month, to be written up.

15. Where post-bills are required, or a payment is to be made to any office of the Bank by cheque on the Bank of England, the cheque must be presented to the office upon which it is drawn, and exchanged for an order on the post-bill office, or on the office at which the payment is to be made.

16. Cash-boxes taken in, contents unknown, for such parties as keep accounts at the Bank.

17. A person having a drawing account may have a discount account; but no person can have the latter without at the same time having the former. When a discount account is opened, the signatures of the parties are entered in a book kept for that purpose, and powers of attorney are granted empowering the persons named in them to act for their principals. Bills of exchange having more than 95 days to run are not eligible for discount.

N.B.—All changes in the residence of persons keeping cash at the Bank are requested to be made known at the drawing office; and it is particularly requested not to offer any gratuities to the clerks of the banking offices, such gratuities being strictly forbidden.

There are no holidays at the Bank except Christmas and Good Friday.

We subjoin an account of the days for transferring stock, and when the dividends are due at the Bank, the South Sea House, and the East India House:—

Transfer Days at the Bank.	Dividends due.
Bank Stock.—Tues. Wed. Thurs. and Frid.	April 5.
3 per Cent. Red.—Tues. Wed. Thurs. and Frid.	Oct. 10.
3 per Cent. 1726.—Tues. Wed. Thurs. and Frid.	Jan. 5.
3 per Cent. Cons.—Tues. Wed. Thurs. and Frid.	July 5.
Long Annuit. to Jan. 1860.—Tues. Wed. Thurs. and Frid.	April 5. Oct. 10.
New 3½ per Cent. Annuit.—Tues. Wed. Thurs. and Frid.	Jan. 5.
New 5 per Cent. Annuit.—Tues. Wed. Thurs. and Frid.	July 5.
Annuities for Terms of Years, some payable on	April 5. Oct. 10.
Ditto, others on	Jan. 5. July 5.
Life Annuit., if transferred between Jan. 5 and April 4., or between July 5. and Oct. 9.	Jan. 5. July 5.
Life Annuit., if transferred between April 5. and July 4., or between Oct. 10. and Jan. 4.	April 5. Oct. 10.
At the South Sea House.	
S. S. Stock.—Mond. Wed. and Frid.	Jan. 5. July 5.
5 per Cent. Old Annuit.—Mond. Wed. and Frid.	April 5. Oct. 10.
3 per Cent. New Annuit.—Tues. Thurs. and Sat.	Jan. 5.
3 per Cent. 1751.—Tues. and Thurs.	July 5.
At the East India House.	
India Stock. Tues. Thurs. and Sat.	Jan. 5. July 5.
Interest on India Bonds, due	Mar. 31. Sept. 30.

Tickets for preparing transfer of stock must be given in at each office before one o'clock: at the East India House, before two o'clock. Private transfers may be made at other times than as above, the books not being shut, by paying, at the Bank and India House, 2*s.* 6*d.* extra for each transfer; at the South Sea House, 3*s.* 6*d.*

Transfer at the Bank must be made by half-past two o'clock: at the India House, by three: at the South Sea House, by two.

Expense of transfer in Bank Stock, for 25*l.* and under, 9*s.*; above that sum, 12*s.*

India Stock for 10*l.* - 1*l.* 10*s.* - - 1*l.* 14*s.*
South Sea Stock, if under 100*l.* - 9*s.* 6*d.* - 12*s.*

Powers of attorney for the sale or transfer of stock to be left at the Bank, &c., for examination, one day before they can be acted upon: if for receiving dividends, they may be left at any time.

The expense of a power of attorney is 1*l.* 1*s.* 6*d.* for each stock; but for Bank, India, and South Sea stock, 1*l.* 11*s.* 6*d.* If wanted for the same day, half-past twelve o'clock is the latest time for receiving orders. The boxes for receiving powers of attorney for sale close at two.

Probates of wills, letters of administration, and other proofs of decease, must be left at the Bank, &c. for registration, from two to three clear days, exclusive of holidays.

Stock cannot be added to any account (whether single or joint) in which the decease of the individual, or one or more of a joint party, has taken place; and the decease to be proved as soon as practicable. Powers of attorney, in case of the death of the party or parties granting them, become void.

The unaltered possession of 500*l.* or upwards Bank stock, for six months clear, gives the proprietor a vote.

Sect. VI.—Circulation of the Bank of England, and of the English Provincial Banks.

No. I.—An Account of the Average Market Price of Bullion in each Year, from 1800 to 1821 (taken from Official Documents); of the Average Value per Cent. of the Currency, estimated by the Market Price of Gold for the same Period; and of the Average Depreciation per Cent.

Years.	Average Price of Gold per oz.	Average per Cent. of the Value of the Currency.	Average Depreciation per Cent.	Years.	Average Price of Gold per oz.	Average per Cent. of the Value of the Currency.	Average Depreciation per Cent.
	£ s. d.	£ s. d.	£ s. d.		£ s. d.	£ s. d.	£ s. d.
1800	3 17 10½	100 0 0	Nil.	1811	4 4 6	92 3 2	7 16 10
1801	4 4 0	92 12 4	8 7 8	1812	4 15 6	79 5 5	20 14 9
1802	4 4 0	92 14 2	7 5 10	1813	5 1 0	77 2 0	22 18 0
1803	4 0 0	97 6 10	2 13 2	1814	5 4 0	74 17 6	25 2 6
1804	4 0 0	97 6 10	2 13 2	1815	4 13 6	83 5 9	16 14 3
1805	4 0 0	97 6 10	2 13 2	1816	4 13 6	83 5 9	16 14 3
1806	4 0 0	97 6 10	2 13 2	1817	4 0 0	97 6 10	2 13 2
1807	4 0 0	97 6 10	2 13 2	1818	4 0 0	97 6 10	2 13 2
1808	4 0 0	97 6 10	2 13 2	1819	4 1 6	95 11 0	4 9 0
1809	4 5 0	91 19 4	8 7 8	1820	3 19 11	97 8 0	2 12 0
1810	4 10 0	86 10 6	13 9 6	1821	3 17 10½	100 0 0	Nil.

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No. II. An Account of the Notes, Post Bills, &c., of the Bank of England in Circulation, on the 28th of February and 31st of August in each year, from 1698 to 1792 both included, as near as the same can be made up.

Year.	28th Feb.	31st Aug.	Year.	28th Feb.	31st Aug.	Year.	28th Feb.	31st Aug.	Year.	28th Feb.	31st Aug.
	£	£		£	£		£	£		£	£
1698	1,221,290	1,240,400	1722	2,365,640	3,006,430	1746	3,383,720	3,842,500	1770	5,237,210	5,736,780
1699	743,850	519,150	1723	3,516,110	3,482,210	1747	4,107,420	3,652,310	1771	6,822,780	6,014,110
1700	938,240	781,430	1724	3,232,830	3,857,710	1748	3,894,650	3,789,720	1772	5,962,160	5,987,570
1701	298,860	763,860	1725	3,734,480	3,343,400	1749	3,737,110	4,183,390	1773	6,037,060	6,362,220
1702	920,730	1,030,900	1726	3,076,850	3,152,340	1750	3,964,970	4,318,490	1774	7,550,780	9,886,220
1703	933,760	1,214,040	1727	3,388,180	4,677,640	1751	4,022,160	5,195,310	1775	9,135,930	8,398,310
1704	961,990	946,010	1728	4,574,920	4,513,790	1752	4,444,960	4,750,350	1776	8,699,720	8,551,090
1705	556,610	1,043,150	1729	4,152,590	4,199,910	1753	4,401,580	4,420,290	1777	8,712,230	7,753,590
1706	996,840	805,410	1730	3,998,280	4,416,870	1754	4,062,970	4,081,280	1778	7,440,330	6,758,070
1707	959,820	824,860	1731	4,451,720	5,249,880	1755	3,950,650	4,115,280	1779	9,012,610	7,276,540
1708	648,680	598,940	1732	4,251,660	4,592,400	1756	4,106,790	4,516,360	1780	8,410,790	6,341,600
1709	707,470	691,350	1733	4,385,060	4,543,000	1757	5,319,130	5,149,940	1781	7,092,450	6,309,430
1710	601,580	486,920	1734	4,203,070	4,671,930	1758	5,320,590	4,864,110	1782	8,028,880	6,759,310
1711	477,510	573,230	1735	4,627,990	4,738,550	1759	4,586,840	4,809,790	1783	7,675,090	6,307,270
1712	738,920	2,025,200	1736	4,907,750	5,077,570	1760	4,969,250	4,936,280	1784	6,202,760	5,592,510
1713	1,221,880	800,810	1737	5,215,010	4,414,690	1761	5,632,350	5,246,680	1785	5,923,090	6,570,650
1714	623,640	1,651,780	1738	4,766,280	4,609,420	1762	5,741,090	5,886,980	1786	7,581,960	8,184,330
1715	972,160	978,840	1739	4,347,270	4,152,420	1763	5,999,910	5,314,600	1787	8,329,840	9,685,720
1716	1,460,660	1,579,730	1740	4,550,980	4,444,000	1764	5,501,300	6,210,680	1788	9,561,120	10,002,880
1717	2,053,150	2,188,030	1741	4,841,840	4,084,450	1765	6,316,670	5,356,490	1789	9,807,210	11,121,800
1718	2,782,420	1,806,640	1742	4,471,510	4,911,390	1766	5,617,570	5,246,410	1790	10,040,540	11,433,340
1719	1,807,010	1,939,550	1743	4,654,890	4,250,180	1767	5,510,990	4,883,440	1791	11,439,200	11,672,320
1720	2,466,880	3,032,460	1744	4,253,610	4,270,590	1768	5,778,990	5,415,530	1792	11,307,380	11,006,300
1721	2,244,280	2,206,260	1745	4,279,610	3,465,350	1769	5,707,190	5,411,450			

No. III.—Account of the Circulation, Deposits, Securities, Bullion, and Surplus (exclusive of Capital) of the Assets over the Liabilities of the Bank of England on the 31st August (or as near thereto as the Accounts can be made up) in each of the following Years.

Dates.	Circulation.	Deposits.	Securities.	Bullion.	Rest or Surplus of Assets over Liabilities.
1793	£10,865,050	£6,442,810	£14,809,680	£5,522,010	£2,823,830
1794	10,286,780	5,935,710	12,446,460	6,770,110	2,994,080
1795	10,862,200	8,154,980	16,989,920	5,156,350	3,109,090
1796	9,246,790	6,656,320	17,025,470	2,122,950	3,215,310
1797	11,114,120	7,765,350	18,261,170	4,089,620	3,171,320
1798	12,180,610	8,300,720	17,349,640	6,516,100	3,414,410
1799	13,389,490	7,642,240	16,830,440	7,000,780	2,939,090
1800	15,047,180	8,333,060	22,138,420	5,150,450	3,906,630
1801	14,566,440	8,133,830	22,209,570	4,335,260	3,854,890
1802	17,097,630	9,739,140	27,113,360	3,891,780	4,169,370
1803	15,983,330	9,817,240	26,918,840	3,592,500	4,710,770
1804	17,153,890	9,715,530	25,826,680	5,879,190	4,836,450
1805	16,386,400	14,048,080	27,772,850	7,621,500	4,960,870
1806	21,027,470	9,656,330	29,473,100	6,215,020	5,094,730
1807	19,678,360	11,789,200	29,956,950	6,181,350	4,953,740
1808	17,111,290	13,012,510	29,244,090	6,015,940	5,136,250
1809	19,574,180	12,257,180	33,455,270	3,652,480	5,256,390
1810	21,793,990	13,617,520	40,975,770	3,791,850	5,751,110
1811	23,286,850	11,075,660	37,083,280	3,215,500	5,964,070
1812	23,026,880	11,848,910	38,176,120	3,099,270	6,399,600
1813	24,828,120	11,159,730	40,106,080	2,712,270	6,830,500
1814	28,368,290	14,849,940	48,545,960	2,197,680	7,225,540
1815	27,248,670	12,696,000	44,854,180	5,409,010	8,318,550
1816	26,758,720	11,856,380	37,279,540	7,562,780	6,227,220
1817	22,513,780	9,084,590	32,605,650	11,668,260	5,645,520
1818	26,209,150	7,927,730	32,570,760	6,563,160	4,604,040
1819	25,252,690	6,304,150	31,740,550	3,595,360	3,779,060
1820	24,299,340	4,420,910	29,846,120	8,211,080	3,536,950
1821	20,295,300	5,818,450	18,475,540	11,235,190	5,595,580
1822	17,464,790	6,399,440	17,990,510	10,097,960	3,524,240
1824	19,231,240	7,827,350	17,467,570	12,658,840	5,067,020
1825	19,152,120	9,679,810	20,904,550	11,787,430	2,880,030
1826	19,398,340	6,410,360	25,106,030	3,634,520	2,950,950
1827	21,563,560	7,189,860	25,085,650	6,754,230	2,074,440
1828	22,747,600	8,052,090	25,199,320	10,165,770	2,863,400
1829	21,357,510	10,201,280	23,905,550	10,498,880	2,845,620
1830	19,517,385	9,035,070	24,661,810	6,295,530	2,874,890
1831	21,464,700	11,820,840	24,565,690	11,150,480	2,650,630
1832	18,538,630	9,068,510	23,905,030	6,439,760	2,736,850
1833	18,320,000	10,278,000	23,420,000	7,514,000	2,536,000
1834	19,925,000	11,927,000	23,245,000	10,871,000	2,264,000
1835	19,195,000	15,300,000	27,732,000	7,303,000	2,540,000
1836	18,085,000	13,725,000	28,173,000	6,255,000	2,618,000
1837	18,018,000	12,040,000	27,697,000	5,250,000	2,889,000
1838	18,887,000	10,940,000	25,357,000	6,548,000	2,978,000
1839	19,488,000	8,922,000	21,611,000	9,540,000	2,741,000
1840	17,982,000	6,488,000	23,141,000	2,420,000	3,091,000
1841	17,470,000	6,254,000	22,075,000	4,299,000	2,950,000
1842	17,320,000	6,975,000	22,602,000	4,822,000	3,079,000
1843	20,339,000	8,690,000	29,759,000	9,729,000	2,866,000
1844	19,339,790	11,307,000	21,631,650	12,295,000	3,279,800
1845	21,485,260	12,137,690	21,872,190	15,314,540	3,563,790
1846	22,109,220	14,401,560	24,507,380	15,592,290	3,588,890
1847	21,390,420	16,322,310	25,164,380	16,388,100	3,839,750
	18,528,970	14,446,850	23,006,710	9,163,840	3,925,630

No. IV.—Account of Bank of England Notes Issued in each Month of each Year from 1850 to 1856 inclusive, showing the Numbers held by the Public and by the Bank, with the Amounts of Bullion, Securities, and Deposits held by the latter; and showing, also, the Discounts and Advances made by the Bank, and the Rate of Interest.

	Bank Notes Issued.		Amount of Bullion.	Government Securities.	Other Securities.	Public Deposits.	Other Deposits.	Minimum Rate of Interest.	Discounts and Advances.
	Held by the Public.	Held in Reserve by the Bank.							
1850.	£	£	£	£	£	£	£	Per Cent.	£
Jan. 5	18,257,000	12,011,000	17,020,000	14,375,681	11,691,026	10,521,413	9,735,268	2½	4,938,000
Feb. 2	19,625,000	10,479,000	16,811,000	14,296,554	9,828,759	5,727,761	10,591,701	,,	3,139,000
March 2	19,908,000	11,568,000	17,126,000	14,419,752	10,425,030	7,838,208	9,881,889	,,	3,183,000
April 6	19,371,000	10,816,000	16,936,000	14,418,854	11,981,434	9,255,123	10,024,993	,,	5,002,000
May 4	20,107,000	9,817,000	16,573,000	14,292,170	9,778,216	4,997,051	10,649,502	,,	2,982,000
June 1	19,215,000	10,738,000	16,733,000	14,316,135	9,760,048	7,577,660	9,215,738	,,	2,937,000
July 6	19,457,000	10,696,600	16,569,000	14,314,908	11,445,340	9,564,513	9,373,018	,,	4,915,000
Aug. 3	20,744,000	9,477,000	16,822,000	14,285,583	10,139,611	5,480,874	9,976,414	,,	3,186,000
Sept. 7	19,482,000	10,619,000	16,707,000	14,430,847	11,700,259	8,885,786	9,106,676	,,	4,358,000
Oct. 5	19,304,000	10,527,000	16,452,000	14,443,637	13,389,578	10,652,937	8,899,290	,,	6,078,000
Nov. 2	19,722 000	9,703,000	16,025,000	14,228,901	11,038,486	6,594,381	9,932,226	,,	3,638,000
Dec. 7	18,707,000	10,642,000	15,942,000	14,228,901	12,722,488	9,775,399	9,511,556	,,	5,435,000
1851.									
Jan. 4	19,057,000	9,236,000	14,830,000	14,232,319	15,181,698	10,796,555	9,480,319	3	7,860,000
Feb. 1	19,630,000	8,074,000	14,347,000	14,145,696	11,946,360	6,051,128	9,787,615	,,	4,835,000
March 1	19,236,000	8,537,000	14,448,000	14,145,696	13,174,857	7,794,344	9,521,505	,,	5,674,000
April 5	19,065,000	8,229,000	13,907,000	14,145,250	14,147,070	8,866,091	9,572,840	,,	6,669,000
May 3	19,685,000	6,957,000	13,251,000	14,125,102	11,141,155	4,762,496	9,565,751	,,	4,535,000
June 7	19,008,000	8,190,000	13,857,000	13,544,329	12,538,110	7,488,615	8,726,683	,,	5,786,000
July 5	19,345,000	8,037,000	14,251,000	13,515,235	14,243,192	9,251,362	8,695,802	,,	7,357,000
Aug. 2	20,546,000	6,922,000	13,895,000	13,464,021	11,800,143	4,758,458	9,009,461	,,	5,207,000
Sept. 6	19,363,000	8,344,000	14,290,000	13,464,216	13,193,878	8,093,413	8,121,451	,,	6,227,000
Oct. 4	19,458,000	8,958,000	14,991,000	13,464,216	14,624,018	9,655,588	7,556,950	,,	7,551,000
Nov. 1	20,469,000	8,175,000	15,290,000	13,241,768	12,688,022	5,437,553	10,337,251	,,	5,617,000
Dec. 6	18,855,000	11,048,000	16,519,000	13,241,768	11,547,043	8,077,344	9,539,188	,,	4,570,000
1852.									
Jan. 3	19,285,000	11,707,000	17,558,000	13,290,972	12,214,222	9,447,516	9,371,117	2½	5,138,000
Feb. 7	20,348,000	11,364,000	18,282,000	13,420,923	11,181,921	5,263,972	12,128,638	,,	3,997,000
March 6	20,237,000	12,660,000	19,410,000	13,565,325	11,602,383	6,902,929	12,124,056	,,	3,588,000
April 3	20,687,000	12,397,000	19,597,000	13,567,593	11,720,843	7,687,708	11,191,626	,,	3,461,000
May 1	21,832,000	11,586,000	19,901,000	13,538,023	11,022,332	3,194,817	14,365,920	2	3,261,000
June 5	21,685,000	12,697,000	20,839,000	14,174,572	10,697,573	6,119,961	13,030,750	,,	2,976,000
July 3	22,211,000	13,554,000	22,197,000	13,873,545	11,773,967	7,647,476	12,968,501	,,	4,032,000
Aug. 7	23,040,000	12,116,000	21,474,000	15,790,720	10,756,634	3,825,713	13,885,973	,,	3,064,000
Sept. 4	22,811,000	12,545,000	21,853,000	14,189,182	11,100,487	6,667,129	12,136,546	,,	2,901,000
Oct. 2	22,214,000	12,746,000	21,551,000	14,189,182	12,474,729	8,937,158	11,532,546	,,	4,344,000
Nov. 6	23,351,000	11,212,000	20,895,000	13,950,375	11,362,535	5,040,143	12,655,673	,,	3,298,000
Dec. 4	22,723,000	12,524,000	21,808,000	15,962,688	12,410,821	7,637,710	12,699,303	,,	4,263,000
1853.									
Jan. 1	23,054,000	10,960,000	20,528,000	13,961,691	15,875,756	9,366,342	12,993,952	3	7,585,000
Feb. 5	22,695,000	9,359,000	18,701,000	13,764,651	13,705,812	5,568,205	12,606,230	,,	5,349,000
March 5	22,276,000	10,086,000	18,894,000	13,464,538	13,401,220	7,312,751	12,622,301	,,	7,156,000
April 2	22,387,000	10,183,000	19,007,000	13,464,538	16,385,120	8,234,115	12,690,203	,,	8,050,000
May 7	23,470,000	8,274,000	18,225,000	13,221,382	13,608,166	4,265,469	12,901,614	,,	5,607,000
June 4	23,423,000	8,367,000	18,251,000	13,121,653	14,632,359	4,635,454	12,902,839	3½	6,909,000
July 2	22,848,000	9,404,000	18,534,000	13,116,997	14,374,331	5,615,362	12,504,620	,,	6,737,000
Aug. 6	23,423,000	7,529,000	18,500,000	13,202,741	12,218,227	2,218,227	12,475,528	,,	5,538,000
Sept. 3	22,466,000	7,697,000	16,500,000	12,773,176	14,546,194	4,701,598	11,017,513	4	6,384,000
Oct. 1	22,773,000	6,259,000	15,613,000	12,539,083	19,124,799	6,738,755	11,885,565	5	10,881,000
Nov. 5	22,627,000	6,420,000	15,080,000	11,498,152	16,749,699	4,077,189	12,171,032	,,	8,787,000
Dec. 3	21,206,000	7,201,000	15,093,000	13,622,039	16,586,818	7,659,924	11,480,162	,,	8,687,000
1854.									
Jan. 7	21,348,000	7,801,000	15,831,000	14,833,299	16,736,409	8,391,993	12,744,634	,,	8,830,000
Feb. 4	22,557,000	6,967,000	16,227,000	12,537,716	13,570 465	2,121,718	12,008,926	,,	5,670,000
March 4	21,558,000	7,600,000	15,909,000	11,751,555	13,241,821	2,741,851	11,244,639	,,	4,875,000
April 1	21,684,000	5,998,000	14,450,000	11,607,616	16,522,726	4,445,788	11,037,153	,,	8,194,000
May 6	21,974,000	5,900,000	12,608,000	12,566,607	14,749,460	2,358,822	10,688,531	,,	6,866,000
June 3	20,540,000	5,467,000	12,750,000	9,856,509	15,494,525	2,557,654	10,212,244	5½	7,672,000
July 1	20,099,000	7,385,000	14,216,000	10,332,795	16,740,401	5,315,198	11,119,544	,,	9,064,000
Aug. 5	20,302,000	6,291,000	13,500,000	11,360,383	15,638,957	3,347,590	10,609,668	5	5,973,000
S pt. 2	19,852,000	6,836,000	13,368,000	10,980,029	15,178,013	3,996,427	10,402,859	,,	6,910,000
Oct. 7	19,959,000	6,291,000	12,972,000	11,015,466	16,677,517	5,766,065	9,598,807	,,	8,521,000
Nov. 4	20,004,000	6,566,000	13,525,000	11,524,492	14,155,089	2,858,100	10,932,023	,,	6,025,000
Dec. 2	19,617,000	7,627,000	13,870,000	11,517,738	13,710,468	4,994,895	9,759,246	,,	5,561,000
1855.									
Jan. 6	19,682,000	7,307,000	13,667,000	11,611,800	15,481,228	6,391,361	9,981,364	,,	7,297,000
Feb. 3	19,826,000	6,265,000	12,800,000	11,538,652	14,590,176	3,740,512	10,383,727	,,	6,365,000
March 3	19,078,000	7,415,000	13,190,000	11,626,463	15,012,782	5,033,184	10,607,057	,,	6,554,000
April 7	19,812,000	8,580,000	13,079,000	13,026,749	13,655,995	6,008,895	11,596,875	4½	5,217,000
May 5	20,168,000	8,743,000	15,619,000	13,591,373	12,721,050	4,337,590	12,645,651	4	4,393,000
June 2	19,740,000	11,345,000	17,789,000	12,677,816	12,419,158	5,211,168	15,282,876	,,	4,006,000
July 7	20,483,000	10,412,000	17,584,000	13,757,224	13,328,306	6,852,350	12,586,891	3½	4,856,000
Aug. 4	20,709,000	8,892,000	16,232,000	12,851,030	13,592,925	5,152,221	11,857,328	,,	4,796,000
Sept. 1	20,105,000	8,363,000	14,959,000	13,051,095	15,681,981	7,267,963	11,098,018	,,	6,464,000
Oct. 6	20,292,000	5,475,000	12,779,000	11,415,143	12,791,293	3,105,524	10,537,543	4½	10,706,000
Nov. 3	20,097,000	4,644,000	11,300,000	10,201,276	13,355,548	3,569,984	11,694,200	,,	9,999,000
Dec. 1	19,075,000	5,305,000	11,227,000	10,275,480	13,868,757	4,459,589	12,234,788	,,	10,072,000
1856.									
Jan. 5	18,901,000	5,530,000	10,357,000	10,327,515	19,871,874	5,514,535	12,607,840	60 days and under 6 per cent.; above 6 and under 35 days 7 per cent.	11,295,000
Feb. 2	19,122,000	5,412,000	10,706,000	12,092,361	18,416,497	3,782,879	13,807,258		9,929,000
March 1	19,353,000	5,493,000	10,500,000	11,451,006	19,490,762	4,085,033	13,918,379		10,830,000
April 5	19,445,000	4,470,000	10,057,000	11,871,778	19,711,720	6,010,439	11,510,329		11,108,000
May 3	20,226,000	3,451,000	9,807,000	13,755,083	15,146,266	3,871,799	10,806,090		7,208,000
June 7	19,579,000	5,953,000	11,688,000	11,682,126	14,333,306	3,497,127	10,734,512	5	6,197,000
July 5	19,947,000	6,552,000	12,611,000	11,308,515	15,527,912	4,817,074	10,470,957	4½	7,111,000
Aug. 2	20,476,000	5,795,000	12,433,000	12,483,015	14,186,000	3,677,416	10,581,413	,,	5,790,000
Sept. 6	19,980,000	6,022,000	12,179,000	12,114,078	16,126,921	6,087,068	9,624,407	,,	7,262,000
Oct. 4	20,926,000	5,776,000	10,784,000	11,464,278	21,582,464	7,759,499	10,323,532	5	12,746,000
Nov. 1	20,536,000	2,944,000	9,596,000	10,757,841	19,053,446	4,713,651	9,912,776	,,	10,341,000
Dec. 6	19,195,000	5,151,000	10,486,000	10,640,867	17,389,715	5,870,709	9,297,193	6½	8,791,000

No. V. — Account of the Average Aggregate Amount of Promissory Notes, payable to Bearer on Demand, in circulation in England and Wales, Scotland and Ireland, at the undermentioned Periods.

Month ended.	England and Wales.				Scotland.	Ireland.		Total for United Kingdom.
	Bank of England.	Country Banks.			Chartered, Private and Joint Stock Banks.	Bank of Ireland.	Private and Joint Stock Banks.	
		Private Banks.	Joint Stock Banks.	Total.				
1840.	£	£	£	£	£	£	£	£
March -	16,224,400	6,190,30 6	3,895,748	10,148,450	2,761,692	3,132,500	2,663,925	34,933,947
1841.								
March -	16,209,000	6,254,653	3,673,889	10,093,259	2,914,300	3,164,250	2,314,169	34,724,978
1842.								
March 5	16,894,000	5,299,455	2,990,986	8,290,441	2,811,109	3,188,750	2,407,625	33,591,925
1843.								
March 4	20,340,000	4,785,724	2,811,077	7,629,801	2,688,370	3,196,125	2,097,225	35,851,521
June 24	18,111,000	4,505,478	2,863,179	7,367,257	2,869,863	3,105,150	1,734,750	33,188,003
September 16	19,132,000	4,288,180	2,763,302	7,051,482	2,659,176	2,975,950	1,699,946	33,518,554
December 10	18,791,000	4,533,018	3,161,033	7,691,051	3,166,920	3,502,475	2,376,676	35,531,152
1844.								
March 2	21,471,000	4,992,709	3,427,149	8,419,998	2,681,191	3,609,000	2,128,498	38,612,587
June 22	20,634,000	4,743,057	3,665,104	8,408,161	3,117,988	3,488,300	2,080,277	37,728,726
September 14	21,285,000	4,338,569	3,158,290	7,496,859	2,940,156	3,359,150	2,052,262	37,133,727
December 7	20,986,000	4,442,725	3,086,676	7,529,401	3,186,818	3,900,275	2,945,046	38,547,940
1845.								
March 1	21,080,000	4,411,507	3,089,879	7,501,386	2,986,708	3,991,050	3,130,508	38,689,652
June 21	21,277,000	4,398,833	3,151,109	7,529,942	3,185,531	3,882,600	2,736,432	38,911,505
September 13	21,931,000	4,358,253	3,142,112	7,500,395	3,311,397	3,712,725	2,547,130	39,032,647
December 6	22,015,000	4,569,278	3,221,883	7,791,161	3,804,031	4,404,975	3,311,855	41,327,022
1846.								
March 28	20,346,000	4,515,407	3,176,935	7,692,342	3,018,771	4,257,200	3,187,760	38,502,073
June 20	20,553,000	4,456,629	3,128,185	7,584,814	3,508,655	4,119,850	2,852,176	38,618,495
September 12	21,192,000	4,407,765	3,111,536	7,519,301	3,446,787	3,923,575	2,664,600	38,746,263
December 5	21,055,000	4,596,549	3,190,417	7,786,966	3,996,861	4,375,025	3,464,505	40,678,357
1847.								
March 27	20,087,000	4,541,543	3,247,531	7,789,074	3,360,348	3,857,800	2,846,936	37,941,158
June 19	19,978,000	4,385,608	3,088,327	7,473,935	3,647,314	3,327,400	2,137,551	35,564,200
September 11	18,918,000	4,179,178	2,954,347	7,133,525	3,197,525	3,926,350	2,021,760	34,597,360
December 4	20,161,000	3,691,304	2,576,686	6,267,990	3,732,585	3,475,100	2,147,341	35,484,316
1848.								
March 25	18,610,000	3,601,089	2,572,329	6,173,418	2,951,937	2,990,875	2,116,520	32,872,750
June 17	18,683,000	3,628,563	2,598,625	6,227,188	3,437,587	2,863,800	1,797,546	33,009,121
September 9	19,134,000	3,482,809	2,471,710	5,954,519	3,021,307	2,583,825	1,683,307	32,376,958
December 2	18,702,000	3,703,728	2,727,165	6,430,893	3,570,126	2,851,750	2,117,300	33,672,069
1849.								
March 24	18,986,000	3,467,078	2,590,875	6,057,953	2,935,120	2,598,650	1,803,100	32,380,823
June 16	19,312,000	3,540,417	2,661,300	6,201,717	3,380,902	2,481,775	1,564,700	32,941,094
September 8	19,520,000	3,527,758	2,457,526	5,785,284	3,053,322	2,308,575	1,502,870	32,170,051
December 1	19,244,000	3,676,728	2,705,093	6,379,821	3,500,186	2,656,225	2,017,906	33,798,138
1850.								
March 23	19,936,000	3,516,644	2,686,798	6,203,442	2,993,621	2,601,500	1,888,824	33,623,387
June 15	20,401,000	3,552,821	2,745,227	6,298,048	3,471,528	2,530,125	1,711,686	34,112,387
September 7	20,949,000	3,412,011	2,611,505	6,023,516	3,173,784	2,438,700	1,715,279	34,300,279
December 28	19,757,000	3,450,811	2,685,543	6,136,354	3,345,649	2,647,600	2,209,359	34,095,962
1851.								
March 22	19,908,000	3,386,962	2,685,756	6,072,718	3,033,235	2,574,275	2,046,637	33,634,865
June 14	20,154,000	3,513,765	2,805,280	6,319,045	3,474,171	2,460,900	1,808,018	34,216,134
September 6	21,018,000	3,219,275	2,569,918	5,789,193	3,125,691	2,252,350	1,719,907	33,905,141
December 27	19,899,000	3,370,976	2,678,391	6,049,367	3,356,974	2,470,225	2,256,542	34,032,108
1852.								
March 20	21,341,000	3,397,432	2,733,688	6,131,120	3,031,769	2,428,700	2,133,794	35,116,383
June 12	22,722,000	3,504,864	2,850,555	6,355,419	3,580,302	2,510,625	2,018,364	37,186,710
September 4	24,157,000	3,406,593	2,764,442	6,171,035	3,334,198	2,505,875	2,002,826	38,170,954
December 25	23,893,000	3,647,713	2,914,201	6,561,914	3,764,064	2,857,675	2,827,766	39,904,419
1853.								
March 19	23,206,000	3,671,532	2,993,634	6,665,166	3,443,894	2,801,800	2,715,744	38,835,604
June 11	24,270,000	3,758,260	3,041,149	6,799,409	4,026,225	2,771,650	2,594,518	40,461,802
September 3	21,296,000	3,648,294	2,984,629	6,632,923	3,728,890	2,693,250	2,537,137	39,888,200
December 24	22,112,000	3,833,753	3,056,085	6,889,838	4,112,787	3,096,900	3,357,327	39,567,852
1854.								
March 18	22,376,000	3,811,787	3,076,582	6,888,369	3,844,363	3,217,425	3,493,353	39,819,310
June 10	22,542,000	3,756,925	3,023,221	6,780,196	4,319,098	3,427,550	3,052,538	38,821,582
September 2	21,100,000	3,485,046	2,853,908	6,338,954	3,867,441	2,869,125	2,708,286	36,883,806
December 23	20,298,000	3,513,896	3,072,727	6,921,623	4,316,095	3,260,275	3,462,374	38,258,367
1855.								
March 17	19,924,000	3,744,604	3,022,000	6,766,604	3,811,583	3,581,575	3,276,196	37,159,758
June 9	20,616,000	3,830,714	3,071,352	6,902,046	4,377,695	3,180,575	2,841,410	37,917,726
September 1	21,227,000	3,605,892	2,900,971	6,506,863	3,965,833	2,936,875	2,657,687	37,292,258
December 22	19,554,000	3,842,755	3,058,159	6,900,914	4,400,763	3,424,025	3,619,254	37,898,956
1856.								
March 15	19,396,000	3,692,037	2,993,672	6,685,709	3,819,813	3,338,425	3,259,088	36,495,053
June 7	20,278,000	3,815,905	3,066,419	6,882,324	4,472,739	3,250,550	3,113,829	37,997,462
September 27	20,850,000	3,669,837	3,018,232	6,718,069	4,002,666	3,132,475	3,254,236	37,957,446
December 20	19,808,000	3,696,543	3,044,845	6,741,388	4,349,383	3,529,600	3,777,703	38,206,074
1857.								
March 14	19,366,000	3,635,502	3,043,057	6,678,659	3,828,478	3,561,575	3,611,634	37,046,346
June 6	19,734,000	3,731,726	3,078,630	6,810,356	4,388,189	3,469,050	3,444,781	37,846,376
September 26	19,827,000	3,590,488	3,055,579	6,646,067	4 051,239	3,160,225	3,336,569	37,001,100
December 19	21,398,000	3,200,715	2,604,310	5,803,025	4,365,251	3,502,500	2,773,223	37,581,999

No. VI.—A List of the Joint Stock Banking Companies existing in England and Wales in 1838; specifying the Dates of their Establishment, the Number of their Partners, the Amount of their paid-up Capital, the Number of their Branches, when they have any, with the fixed Issues of those authorized to issue Notes.* N. B. The seat of head-office in Italics.

Name of Bank.	When Estab.	No. of Partners.	Paid-up Capital.	No. of Branches.	Amount of Fixed Issue.
			£		£
Ashton, Stalybridge, Hyde, and Glossop Bank, *Ashton.*	1836	152	25,000	0	B. of Eng. Notes.
Bank of *Bolton*	1836	104	68,760	0	
Bank of *London*	- -	400	300,000	1	
Bank of Stockport	1836	155	60,000	0	
Bank of Westmorland, *Kendal.*	1835	120	21,140	0	12,225
Bank of *Whitehaven*	1837	125	50,000	1	32,681
Bank of *Liverpool*	1831	393	625,000	0	
Bank of *Manchester*	1828	86	106,068	0	
Barnsley Bnkg. Co.	1832	92	34,436	0	9,563
Bilston Dist. Bank, *Wolverhampton.*	1836	90	30,375	0	9,418
Birmingham Town and District Banking Company.	1836	206	75,000	0	
Birmingham Banking Company.	1829	495	260,000	2	
Birmingham and Midland Bank.	1836	101	150,000	1	
Bradford Commercial Banking Co.	1833	140	47,550	0	20,084
Bradford Bnkg. Co.	1827	137	154,000	0	49,292
Bucks and Oxon Union Bank, *Aylesbury.*	1833	9	55,000	7	
Burton, Uttoxeter, and Ashbourne Union Bank.	1839	200	97,312	2	60,701
Bury Banking Co.	1836	90	53,820	0	
Carlisle City and District Bank.	1837	239	58,000	1	19,972
Carlisle and Cumberland Bnkg. Co.	1836	221	51,925	2	25,610
Chesterfield and N. Derbyshire Banking Company.	1834	92	25,000	0	10,421
City Bank, *London*	1835	268	300,000	0	
Commercial Bank of *London.*	1840	331	200,000	0	
Co. of Gloucester Bank, *Cheltenham*	1836	265	180,000	10	144,352
Coventry Union Banking Co.	1836	111	56,000	1	16,251
Coventry and Warwick Bnkg. Co.	1835	121	95,000	0	28,734
Cumberland Union Banking Co., *Workington.*	1829	161	80,000	5	35,595
Darlington District Banking Co.	1831	220	Unknown	5	26,134
Derby and Derbyshr. Banking Co.	1833	156	62,500	1	20,093
Devon and Cornwall Banking Co., *Plymouth.*	1832	237	100,000	12	B. of Eng. Notes.
Dudley and West Bromwich Banking Co.	1833	134	91,400	1	37,696
East of England Bank, *Norwich.*	1835	170	100,000	11	25,025
Glamorgansh. Bkg. Co., *Swansea.*	1836	132	125,000	2	B. of Eng. Notes.
Gloucestershr. Bkg. Co., *Gloucester.*	1831	432	225,000	9	155,920
Halifax Coml. Bkg. Com.	1836	102	61,700	0	13,736
Halifax Joint-Stk. Banking Co.	1829	135	75,000	0	18,534
Halifax & Huddersfield Union Banking Co.	1836	269	170,000	1	44,157
Hampshire Bkg. Co., *Southampton.*	1834	166	100,000	6	B. of Eng. Notes
Halton Banking Co.	1836	10	- -	0	1,503
Herefordshire Bkg. Co., *Hereford.*	1836	88	45,257	4	25,047
Huddersfield Banking Co.	1827	229	188,265	11	37,334
Hull Banking Co.	1833	220	Unknown	3	29,335
Kingsbridge Jt-Stk. Bank.	1841	- -	Unknown	0	5,952
Knaresborough and Claro Banking Co.	1831	104	Unknown	7	23,059
Lancaster Bkg. Co.	1826	215	175,000	3	64,311
Leamington Priors and Warwickshr. Bank.	1835	44	Unknown	3	13,875
Leeds Banking Co.	1832	251	110,100	0	23,076
Leicestershire Bkg. Co., *Leicester.*	1829	160	150,000	7	86,060
Lincoln and Lindsey Bank.	1833	190	77,000	10	31,620
Liverpool Com. Bkg. Com.	1832	237	326,400	0	B. of Eng. Notes.
Liverpool Royal Bk.	1836	200	650,000	0	B. of Eng. Notes.
Liverpool Union Bk.	1835	197	375,000	0	B. of Eng. Notes.
London and County Jt.-Stk. Bkg. Co.	1836	800	500,000	62	B. of Eng. Notes.
London Joint-Stock Bank.	1836	- -	600,000	1	
London and Westminster Bank.	1834	- -	1,000,000	6	
Ludlow and Tenbury Bankg. Co.	1840	11	Unknown	0	10,215
Manchester and Salford Bank.	1836	150	284,300	0	
Manchester and Liverpool District Banking Co.	1829	689	750,000	14	
Moore and Robinson's Nottingsh. Banking Company, *Nottingham.*	1836	181	84,312	0	35,813
National Provincial Bank of England, *London.*	1833	990	600,000	79	412,371
Northamptonshire Banking Co., *Northampton.*	1836	264	60,000	3	26,401
Northamptonshire Union Bank, *Northampton.*	1836	656	192,500	3	84,356
N. and S. Wales Bank, *Liverpool.*	1836	211	161,587	17	63,951
N. Wilts Banking Co., *Melksham.*	1835	173	40,000	10	63,939
Nottingham and Nottinghamshire Banking Co.	1834	258	205,500	7	29,477
Pares' Leicestershire Banking Company, *Leicester,* (Portsmouth, Portsea, Gosport, and) South Hants Bkg. Co., *Portsea.*	1836	161	168,750	4	59,300
Preston Bankg. Co.	1839	60	Unknown	1	
Sadleworth Bnkg. Co., *Dobcross.*	1844	130	100,000	3	
Sheffield Union Banking Co.	1833	100	Unknown	2	8,122
Sheffield and Rotherham Banking Co.	1843	87	81,600	1	
Sheffield Bankg. Co.	1836	212	121,231	3	52,496
Sheffield and Hallamshire Bank.	1831	181	157,840	1	35,843
Shropshire Banking Co., *Shiffnall.*	1836	278	158,725	0	23,524
Stamford, Spalding, and Boston Bnkg. Co.	1836	250	45,000	3	47,951
Stourbridge & Kidderminster Banking Co.	1832	About 70	Unknown	7	55,721
Stuckey's Banking Co., *Langport.*	1834	151	100,000	3	56,830
Swaledale & Wensleydale Banking Co., *Richmond.*	1826	73	- -	23	356,976
Unity Joint Stock Mutual Bnkg. Association, *London*	1836	149	53,400	3	54,372
Union Bank of London.	1855	440	164,600	1	
Union Bnk. of Manchester.	1839	990	600,000	3	
West Riding Union Co., *Huddersfield.*	1836	132	240,000	1	B. of Eng. Notes.
Whitchurch & Ellesmere Banking Co.	1832	460	Unknown	1	34,029
Wakefield & Barnsley Union Bank.	1840	32	Unknown	1	7,475
Warwick & Leamington Bnkg. Co.	1832	88	40,000	1	14,604
West of England & S. Wales District Bank, *Bristol.*	1834	43	32,800	4	37,121
Western Bank of *London.*	1831	800	621,995	15	83,535
Whitehaven Joint-Stock Bank.	1856	278	200,000	0	- -
Wilts and Dorset Bnkg. Co., *Salisbury.*	1829	220	42,375	1	31,916
Worcester City and Co. Bank.	1835	246	100,000	23	76,162
Wolverhampton and Staffordshire Bkg. Co.	1840	61	40,000	1	6,848
Yorkshire Banking Co., *Leeds.*	1832	195	150,000	0	35,378
York City & County Bank.	1843	234	112,445	13	122,532
York Union Banking Co.	1850	- -	100,000	8	94,695
	1833	166	99,000	4	71,210

* We are indebted for this table to a valuable publication, the Banker's Almanack for 1847: we have also derived much useful information from the *Banker's Magazine*, by the intelligent author of the Almanac.

We subjoin, from the *Economist* of the 5th February, 1859, the following statements with respect to the principal London Joint Stock Banks:—

Banks.	Year founded.	Paid-up Capital.	Current and Deposit Accounts.
		£	£
London and Westminster	1834	1,000,000	11,465,815
London Joint Stock	1836	600,000	9,367,722
Union Bank of London	1839	600,000	10,146,565
London and County	1839	500,000	4,264,126
Commercial Bank of London	1839	500,000	902,884
City Bank	1855	300,000	1,749,747
Bank of London	1855	300,000	1,500,902
Unity Bank	1855	172,660	106,718
Western Bank of London	1856	200,000	278,951
		3,972,660	39,583,230

Banks.	Guarantee Fund.	Ratio of Paid-up Capital and Guarantee Fund to Current and Deposit Accounts.	Rate of Dividend and Bonus per Annum.
	£	per cent.	per cent.
London and Westminster	169,334	10·19	18
London Joint Stock	202,867	8·57	32½
Union Bank of London	165,000	7·54	15
London and County	105,000	14·19	12
Commercial Bank of London	75,000	41·53	6
City Bank	30,000	18·86	5
Bank of London	8,160	23·68	5
Unity Bank		161·79	
Western Bank of London	2,243	72·50	5 c
	757,604		

Current and Deposit Accounts.

Banks.	1848.	1853.	1858.
	£	£	£
London and Westminster	3,089,659	6,259,540	11,465,815
London Joint Stock	2,328,056	5,010,623	9,367,722
Union Bank of London	2,644,728	4,878,751	10,146,565
London and County	1,354,750	3,417,130	4,264,126
Commercial Bank of London	406,217	1,246,824	902,884
	9,823,390	20,812,848	36,146,912

N.B.—The ratio of paid-up capital to current and deposit accounts in the aggregate is 10·04 per cent.; of guarantee fund, 1·91 per cent.

In addition to the Joint-Stock Banks there are, in England and Wales, above 130 private banking companies authorised to issue notes, and a great many more which are merely banks of deposit. The fixed issues of the former amount in the aggregate to above 4 millions; but they are gradually being diminished and replaced by notes of the Bank of England.

The amount of notes afloat varies from time to time, with the varying condition of the country, the state of credit, and so forth. It may, however, in ordinary years, be estimated as follows, viz.—

Issued by Bank of England	£28,000,000
,, Private banks in England	3,700,000
,, Joint-stock banks in England	3,050,000
,, Scotch banks	4,000,000
,, Irish banks	7,000,000
Total Issues	£45,750,000

Of this sum, from 5 to 6 millions is usually in the till of the banking department of the Bank.

Sect. VII. — Banks (Scotch).

The Act of 1708, preventing more than six individuals from entering into a partnership for carrying on the business of banking, did not extend to Scotland. In consequence of this exemption, several banking companies, with numerous bodies of partners, have existed, for a lengthened period, in that part of the empire.

Bank of Scotland. — The Bank of Scotland was projected by Mr. John Holland, merchant, of London, and was established by Act of the Scotch Parliament (Will. 3. Parl. 1, § 5) in 1695, by the name of the Governor and Company of the Bank of Scotland. Its original capital was 1,200,000*l.* Scotch, or 100,000*l.* sterling, distributed in shares of 1000*l.* Scotch, or 83*l.* 6*s.* 8*d.* sterling, each. The Act exempted the capital of the bank from all public burdens, and gave it the exclusive privilege of banking in Scotland for 21 years. The objects for which the bank was instituted, and its mode of management, were intended to be, and have been, in most respects, similar to those of the Bank of England. The responsibility of the shareholders is limited to the amount of their shares.

The capital of the bank was increased to 200,000*l.* in 1744, and was enlarged by subsequent Acts of Parliament, the last of which (44 Geo. 3. c. 23) was passed in 1804, to 1,500,000*l.*, its present amount. Of this sum 1,000,000*l.* has been paid up. The last-mentioned Act directed that all sums relating to the affairs of the bank should henceforth be rated in sterling money; that the former mode of dividing bank stock by shares should be discontinued; and that, for the future, it should be transferable in sums or parcels of any amount. On the union of the two kingdoms in 1707, the

Bank of Scotland undertook the recoinage, and effected the exchange of the currency in Scotland. It was also the organ of Government in the issue of the new silver coinage in 1817.

The Bank of Scotland is the only Scotch bank constituted by Act of Parliament. It began to establish branches in 1696, and issued notes for one pound so early as 1704. The bank also began, at a very early period, to receive deposits on interest, and to grant credit on cash-accounts, a minute of the directors with respect to the mode of keeping the latter being dated so far back as 1729. It is, therefore, entitled to the credit of having introduced and set on foot the distinctive principles of the Scotch banking system, which, whatever may be its defects, is perhaps superior to most other systems hitherto established. Generally speaking, the Bank of Scotland has been cautiously and skilfully conducted; and there can be no doubt that it has been productive, both directly and as an example to other banking establishments, of much public utility and advantage.

It may be worth mentioning, that the Act of Will. III. establishing the Bank of Scotland, declared that all foreigners who became partners in the bank should, by doing so, become, to all intents and purposes naturalised Scotchmen. After being for a long time forgotten, this clause was taken advantage of in 1818, when several aliens acquired property in the bank in order to secure the benefit of naturalisation. But after being suspended, the privilege was finally cancelled in 1822.

We subjoin an *official* abstract of the constitution and objects of the Bank of Scotland, printed for the use of the proprietors; — the terms and mode of transacting business are, of course, sometimes altered, according to circumstances.

I. The Bank of Scotland is a public national establishment, erected and regulated by the legislature alone: and expressly as a public bank in this kingdom; for the benefit of the nation, and for the advancement of agriculture, commerce, and manufactures; and for other objects of public policy.—(Will. Parl. 1, § 5; 14 Geo. 3. c. 32; 24 Geo. 3. c. 8; 32 Geo. 3. c. 25; 34 Geo. 3. c. 19; 44 Geo. 3. c. 23.)

II. The statutory capital is at present 1,500,000*l.* sterling. It is raised by voluntary subscription; and has been subscribed for. 1,000,000*l.* has been called for, and paid in.—(44 Geo. 3. c. 23.)

III. Subscribers, if not under obligations to the bank, may, at pleasure, transfer their right. If under obligation to the bank, the obligation must be previously liquidated; or the proceeds of the sale, at a price to the satisfaction of the directors, must be applied towards such liquidation. Transfers are made by a short assignment and acceptance thereof, both in a register appointed for that purpose. The expense, beside the government stamp, is 1*s.*—(Will. Parl. 1, § 5.)

IV. Bank of Scotland stock may be acquired, in any portions, by any person, community, or other lawful party whatsoever; without selection, exclusion, or limitation of numbers.—(Will. Parl. 1, § 5; 14 Geo. 3. c. 23.)

V. Bank of Scotland stock may be conveyed by will, and if specially mentioned, without expense of confirmation. It cannot be arrested: the holder's right may be adjudged. Dividends may be arrested.—(Will. Parl. 1, § 5.)

VI. The Bank of Scotland is a public corporation by Act of Parliament. The bank's transactions are distinct from those of the stockholders: and theirs from those of the bank.—(Will. Parl. 1, § 5.)

VII. The establishment is expressly debarred from any other business than that of banking.—(Will. Parl. 1, § 5.)

VIII. The management is vested, by statute, in a governor, deputy governor, twelve ordinary, and twelve extraordinary directors. They are chosen annually, on the last Tuesday of March, by the stockholders having 250*l.* of stock or upwards. Those above 250*l.* have a vote for every 250*l.*, to 5000*l.*, or 20 votes. No person can have more than 20 votes. The governor must hold, at least, 2000*l.* of stock; the deputy governor 1500*l.*; and each director 750*l.* They swear to be equal to all persons; and cannot hold any inferior office in the bank.—(Will. Parl. 1, § 5; 14 Geo. 3. c. 32; 44 Geo. 3. c. 23.)

IX. The executive part is conducted by a treasurer, secretary and other public officers, all sworn. These having the official charge of cash find due security.—(Will. Parl. 1, § 5.)

X. The board of directors sits for the general administration of the bank, at the bank's public head office in Edinburgh. The local business of that district is also conducted at that office. For the local business in the other parts of the kingdom, the bank has its regular public offices in the principal towns. At each of these offices there is the bank agent or cashier, who gives due security, and conducts the bank's business for that district in the manner after mentioned.—(Will. Parl. 1, § 5.)

XI. The bank takes in money at all its public offices, on deposit receipts or on current deposit accounts. At the head-office drafts on the branches, and at the branches drafts on the other branches and on the head-office are granted. Both at the head-office and branches drafts are granted on the London, Dublin, and English and Irish provincial correspondents of the bank. All receipts and drafts are on the bank's engraved forms, and bear to be granted "for the Bank of Scotland" or "for the Governor and Company of the Bank of Scotland." At the head-office official documents are signed by the treasurer, and at the branches by the agents, and all are countersigned.

Remittances can be made to the principal colonial and continental towns; and bills, payable in the colonies, and in foreign countries, can be negotiated through the bank.—(*Resolution of Court, 1793, as since modified.*)

N.B.—The bank has always allowed interest on deposits, at a rate varying according to circumstances. At present (1839) it is 2 per cent.

XII. Bills on London, Edinburgh, or any town in the United Kingdom, are discounted at all the bank's public offices. The bank's agents judge, in ordinary cases, of the bills presented; so that parties meet with no delay. The bank does not re-issue the bills which it has discounted.—(*Resolution of Court, 25d Feb. 1789, and subsequent Modifications.*)

XIII. Government stock and other public funds may be purchased or sold, and dividends thereon may be received through the bank.

XIV. The bank gives credit on cash accounts at any of its offices, on bond, with security. The security may be personal co-obligants, or such other security as may be specially agreed on. Applications for cash accounts are given in to the office where the cash account is wanted, and must specify the credit desired, and the security proposed; and the individual partners, where copartneries are proposed. Cash accounts are granted by the directors only; and are not recalled unless by their special authority. It is understood that these credits are not used as dead loans, to produce interest only. In the fair course of business, the advantage of the bank is consulted by an active circulation of its notes, and by frequent repayments to it in a way least affecting that circulation.—(*Resolution of Court, 6th Nov. 1729, and 23d Feb. 1789.*)

XV. The bank's dividend has been for some time 8 per cent. per annum on its paid-up capital of 1,000,000*l.* sterling. The dividends are paid regularly twice a year, without expense. They may be drawn either at the bank's head-office, or at any of its other offices, as most agreeable to the stockholder.

The above may suffice as a general outline of the mode in which the business of banking is conducted in Scotland.

The *Royal Bank of Scotland* was established in 1727. Its original capital of 151,000*l.* has been increased to 2,000,000*l.*

The *British Linen Company* was incorporated in 1746, for the purpose, as its name applies, of undertaking the manufacture of linen. But the views in which it originated were speedily abandoned; and it became a banking company only. Its capital amounts to 1,000,000*l.*

None of the other banking companies established in Scotland are chartered associations with limited responsibility, the parties being liable, to the whole extent of their fortunes, for the debts of the firms. Some of them, such as the Edinburgh and Glasgow Bank, the National Bank, the Commercial Bank, &c., have very numerous bodies of partners. Their affairs are uniformly conducted by a Board of Directors, annually chosen by the shareholders.

The Bank of Scotland began, as already stated, to issue 1*l.* notes so early as 1704; and their issue has since been continued without interruption. "In Scotland," to use the statement given in the Report of the Committee of the House of Commons of 1826, on the Promissory Notes of Scotland and Ireland, "the issue of promissory notes payable to the bearer on demand, for a sum of not less than 20*s.*, has been at all times permitted by law; nor has any Act been passed limiting the period for which such issue shall continue legal in that country."

Deposits. — All the Scotch banks receive deposits of so low a value as 10*l.*, and sometimes lower, and allow interest upon them.

The interest allowed by the banks upon deposits varies, from time to time, according to the variations in the current rate of interest. At present (1859) it amounts to 2 per cent. And it has been estimated, by the best authorities, that the aggregate amount of the sums deposited with the Scotch banks is little, if anything, under 50,000,000*l.*

The following Table exhibits an Account of the different Scotch Banks, their Partners, Branches, Authorised Circulation of Bank Notes, with their Actual Circulation and the Coin in their Possession at an Average of the Four Weeks ending the 15th January, 1859.

Banks.	Instituted.	Partners. (About)	Br.	Paid-up Capital.	Authorised Circulation.	Average Circulation.	Coin.
	Years.			£	£	£	£
Bank of Scotland * - - -	1695	615	35	1,000,000	300,185	448,030	358,594
Royal Bank * - - -	1727	958	35	2,000,000	183,000	460,688	392,356
British Linen Co.* - - -	1746	650	48	1,000,000	438,024	515,994	329,250
Commercial Bank * - -	1810	657	61	600,000	374,880	531,919	276,737
National Bank of Scotland* -	1825	1453	49	1,000,000	297,024	436,885	247,890
Union Bank of Scotland - -	1829	950	73	1,000,000	415,690	605,520	219,018
Aberdeen Town and County Bank	1825	495	20	151,575	70,133	127,407	87,188
North of Scotland Banking Co. -	1836	1437	30	200,000	154,519	183,958	76,812
Dundee Banking Co. - -	1763	79	1	60,000	38,451	42,599	25,004
Eastern Bank of Scotland - -	1838	400	4	121,140	33,636	36,913	21,973
Clydesdale Banking Co. - -	1838	1381	13	807,380	101,028	336,143	158,264
City of Glasgow Bank - -	1839	1306	97	1,000,000	72,921	254,619	249,933
Caledonian Banking Co. - -	1838	805	10	125,000	53,134	54,866	31,677
Perth Banking Co. - - -	1766	200	10	100,050	38,656		
Central Bank of Scotland -	1834	440	8	78,125	42,953	56,213	26,013

A witness, connected for many years with different banks in Scotland, being examined by the Commons Committee of 1826, stated that more than half the deposits in the banks with which he had been connected were in sums from 10*l.* to 200*l.* Being asked what class of the community it is that makes the small deposits, he gave the following answer; from which it appears that the mode of conducting this branch of the banking business in Scotland has long given to that country most part of the benefits derivable from the establishment of savings banks.

"*Question.* What class of the community is it that makes the smallest deposits?—

"*Answer.* They are generally the labouring classes in towns like Glasgow: in country places like Perth and Aberdeen, it is from servants and fishermen, and that class of the community who save small sums from their earnings, till they come to be a bank deposit. There is now a facility for their placing money in the Provident Banks, which receive money till the deposit amounts to 10*l.* When it comes to 10*l.* it is equal to the minimum of a bank deposit. The system of banking in Scotland is an extension of the Provident Bank system. Half-yearly or yearly those depositors come to the bank, and add the savings of their labour, with the interest that has accrued upon the deposits from the previous half-year or year, to the principal; and in this way it goes on, without being at all reduced, accumulating (at compound interest) till the depositor is able either to buy or build a house—when it comes to be 100*l.*, or 200*l.*, or 300*l.*, or till he is able to commence business as a master in the line in which he has hitherto been a servant. A great part of the depositors of the bank are of that description, and a great part of the most thriving of our farmers and manufacturers have arisen from such beginnings."

Cash Accounts. — The loans or advances made by the Scotch banks are either in the shape of discounts, or upon cash-credits, or, as they are more commonly termed, *cash-accounts*.

A cash-credit is a credit given to an individual by a banking company for a limited sum, seldom under 100*l.* or 200*l.*, upon his own security, and that of two or three individuals approved by the bank, who become sureties for its payment. The individual who has obtained such a credit is enabled to draw the whole sum, or any part of it, when he pleases, replacing it, or portions of it, according as he finds it convenient; interest being charged upon such part only as he draws out. "If a man borrows 5000*l.* from a private hand, besides that it is not always to be found when required, he pays interest for it whether he be using it or not. His bank credit costs him nothing, except during the moment it is of service to him, and this circumstance is of equal advantage as if he had borrowed money at a much lower rate of interest."—(*Hume's Essay on the Balance of Trade.*) This, then, is plainly one of the most commodious forms in which advances can be made. Cash-credits are not, however, intended to be a *dead loan*, though they not unfrequently become such; a main object of the banks in granting them is to get their notes circulated, and they do not grant them except to persons in business, or to those who are frequently drawing out and paying in money.

The system of cash-credits has been very well described in the Report of the Lords' Committee of 1826 on Scotch and Irish Banking. "There is also," say their Lordships, "one part of their system which is stated by all the witnesses (and, in the opinion of the Committee, very justly stated) to have had the best effects upon the people of *Scotland*, and particularly upon the middling and poorer classes of society, in producing and encouraging habits of frugality and industry. The practice referred to is that of cash-credits. Any person who applies to a bank for a cash-credit is called upon to produce two or more competent sureties, who are jointly bound; and, after a full inquiry into the character of the applicant, the nature of his business, and the sufficiency of his securities, he is allowed to open a credit, and to draw upon the bank for the whole of its amount, or for such part as his daily transactions may require. To the credit of the account he pays in such sums as he may not have occasion to use, and interest is charged or credited upon the daily balance, as the case may be. From the facility which these cash-credits give to all the small transactions of the country, and from the opportunities which they afford to persons who begin business with little or no capital but their character, to employ profitably the minutest products of their industry, it cannot be doubted that the most important advantages are derived to the whole community. The advantage to the banks who give these cash-credits arises from the call which they continually produce for the issue of their paper, and from the opportunity which they afford for the profitable employment of part of their deposits. The banks are indeed so sensible that, in order to make this part of the business advantageous and secure, it is necessary that their cash-credits should (as they express it) be frequently operated upon, that they refuse to continue them unless this implied condition be fulfilled. The total amount of the cash-credits is stated by one witness to be 5,000,000*l.*, of which the average amount advanced by the banks may be one third."

The expense of a bond for a cash-credit of 500*l.* is 12*s.* 6*d.* stamp duty, and a charge of from 5*s.* to 10*s.* 6*d.* per cent. for preparing it.

Stability of the Scotch Banks. — There have been, until lately, comparatively few failures among the Scotch banks. In 1793 and 1825, when so many of the English banks were swept off, there was not a single establishment in Scotland that gave way. This

* The capital of the banks marked with an asterisk is not in shares, but in stock transferable to any amount.

superior solidity appears to have been owing to various causes, partly to the banks having, for the most part, large bodies of partners, who, being conjointly and individually bound for the debts of the companies to which they belong, go far to render their ultimate security all but unquestionable; and partly to the facility afforded by the law of Scotland, of attaching a debtor's property, whether it consist of land or moveables, and making it available for the payment of his debts.

But, on the whole, we are inclined to think that the long familiarity of the inhabitants with banks and paper money, and the less risk that has attended the business of banking in Scotland, have been the principal causes of the greater stability of the Scotch banks. Latterly, however, owing to the rapid growth of Glasgow, Dundee, and other commercial towns, the risk attending banking in Scotland has materially increased. And while hazard has been augmenting on the one hand, there appears, on the other, to have been a still more rapid decrease of that cautious policy that was supposed to be a characteristic of Scotch bankers. In the crisis of 1857 two of the principal Scotch banks, the head-quarters of which were in Glasgow, were compelled to stop payments. They had very large capitals, the Western Bank 1,500,000*l.* and the City of Glasgow Bank 1,000,000*l.*, with a great many branches, large amounts of deposits, and very numerous and wealthy proprietary bodies. Had their management displayed anything like ordinary skill and prudence, they might have gone triumphantly through a far more serious trial. But it was characterised, especially that of the Western Bank *, by the most marvellous folly and recklessness. Having advanced immense sums to a few firms that never were entitled to any considerable credit, the Western Bank was so crippled that, for a lengthened period before its stoppage, the directors were reduced to the miserable expedient of sending up the bills they had discounted in Glasgow to be re-discounted in London; and when this resource failed them, and the other banks declined to come forward to their assistance, they had nothing for it but to shut their doors. On the stoppage taking place the affairs of the bank were found to be in a much worse state than any one could have anticipated. The losses are estimated at above 3,000,000*l.*, so that, besides the sacrifice of their paid-up capital of 1,500,000*l.*, the shareholders have had to advance a farther sum of more than that amount to meet the demands upon them. No such gigantic failure ever occurred in Scotland. The holders of notes and deposit-receipts will be paid in full. But of the 1200 or 1300 individuals who held shares in the bank, a large proportion have been nearly, and many entirely, ruined. It is difficult, indeed, to imagine the distress and misery of which this catastrophe has been productive.

The ruin in which the bank has been involved did not come suddenly upon it. On the contrary, it was accumulating for years. And yet the directors took no steps, or none that were efficient, to arrest the progress of the evil; nor did they apprise their confiding constituents of the perilous condition into which the bank had got. Concealment was practised to the very last moment, till the concern was irretrievably sunk in the abyss of bankruptcy. It is much to be wished that directors who have so acted were really responsible for their conduct. No charge of corruption is brought against them; but their inattention to, and neglect of, the important interests committed to their charge, has been wholly inexcusable. They were bound, on undertaking the office of directors, to bestow unremitting care and diligence upon the performance of the duties which it imposed on them. They might neglect their own business; but they could not, without a flagrant breach of trust, neglect the duties they had undertaken to discharge on account of others. This, however, is precisely what they have done. They appear to have selected the most reckless and incompetent managers, and then to have given them *carte blanche*. Whatever such conduct may be in law, it is morally and politically in the highest degree culpable. Hundreds have been sent to the antipodes and the treadmill for offences that were comparatively innocuous. No doubt, however, the grand source of mismanagement in banks and other associations is to be found in the apathy of the shareholders, in the blind and often undeserved confidence they place in those who are, no matter how, at the head of their concerns. If those who may be ruined by the proceedings of their own officers and servants will not look after them, it were idle to attempt to throw such a duty upon others.

In a public point of view the stoppage of the Glasgow banks was productive of the very worst results. By creating a panic, and occasioning a heavy internal demand for gold, it may indeed be said to have been the main cause of the suspension of the Act of 1844.

Sect. VIII.—Banking in Ireland.

Banking in Ireland.—"In no country, perhaps," says Sir Henry Parnell, "has the issuing of paper-money been carried to such an injurious excess as in Ireland. A national bank was established in 1783,

* The management of the City of Glasgow Bank, though in many respects blameworthy, has been, as compared with that of the Western Bank, prudent and skilful. It has recommenced business; and it is to be hoped that its managers will profit by the lesson they have received.

with similar privileges to those of the Bank of England, in respect to the restriction of more than six partners in a bank; and the injury that Ireland has sustained from the repeated failure of banks may be mainly attributed to this defective regulation. Had the trade of banking been left as free in Ireland as in Scotland, the want of paper-money that would have arisen with the progress of trade, would in all probability have been supplied by joint-stock companies, supported with large capitals, and governed by wise and effectual rules.

"In 1797, when the Bank of England suspended its payments, the same privilege was extended to Ireland; and after this period the issues of the Bank of Ireland were rapidly increased. In 1797, the amount of the notes of the Bank of Ireland in circulation was 621,917*l.*; in 1801, 2,266,471*l.*; and in 1814, 2,986,999*l.*

"These increased issues led to corresponding increased issues by the private banks, of which the number was fifty in 1804. The consequence of this increase of paper was its great depreciation; the price of bullion and guineas arose to 10 per cent. above the Mint price; and the exchange with London became as high as 18 per cent., the par being 8⅓. This unfavourable exchange was afterwards corrected, not by any reduction in the issues of the Bank of Ireland, but by the depreciation of the British currency in the year 1810, when the exchange between London and Dublin settled again at about par. (See Art. EXCHANGE.)

"The loss that Ireland has sustained by the failure of banks may be described in a few words. It appears by the Report of the Committee on Irish Exchanges in 1804, that there were, at that time, in Ireland fifty registered banks. Since that year a great many more have been established, but the whole have failed, one after the other, involving the country from time to time in immense distress, with the following exceptions:—*First*, a few that withdrew from business; *secondly*, four banks in Dublin; *thirdly*, three at Belfast; and, *lastly*, one at Mallow. These eight banks, with the new Provincial Bank and the Bank of Ireland, are the only banks now (1827) existing in Ireland.

"In 1821, in consequence of eleven banks having failed nearly at the same time, in the preceding year, in the south of Ireland, government succeeded in making an arrangement with the Bank of Ireland, by which joint-stock companies were allowed to be established at a distance of fifty miles (Irish) from Dublin, and the bank was permitted to increase its capital from 2½ to 3 millions sterling. The Act 1 & 2 Geo. 4. c. 72. was founded on this agreement. But ministers having omitted to repeal in this Act various restrictions on the trade of banking that had been imposed by 33 Geo. 2. c. 14. no new company was formed. In 1824, a party of merchants of Belfast, wishing to establish a joint-stock company, petitioned Parliament for the repeal of this Act of Geo. II.; and an Act was accordingly passed in that session, repealing some of its most objectionable restrictions. (5 Geo. 4. c. 73.)

"In consequence of this Act, the Northern Bank of Belfast was converted into a joint-stock company, with a (nominal) capital of 500,000*l.*, and commenced business on the 1st of January, 1825. But the restrictions of 33 Geo. 2., and certain provisions contained in the Acts 1 & 2 Geo. 3. and 5 Geo. 4., obstructed its progress, and they found it necessary to apply to government to remove them; and a bill was accordingly introduced, which would have repealed all the obnoxious clauses of the 33 Geo. 2., had it not been so altered in the committee as to leave several of them in force. In 1825 the Provincial Bank of Ireland commenced business with a (nominal) capital of 2,000,000*l.*; and the Bank of Ireland has of late established branches in all the principal towns." *

Since Sir Henry Parnell published the pamphlet from which we have taken the foregoing extract, several joint-stock banking companies have been founded in Ireland. The Provincial Bank, to which Sir Henry alludes, has a paid-up capital of 540,000*l.*, and has been well and profitably managed. But others have been less fortunate. The Agricultural and Commercial Bank of Ireland, established in 1834, with 2170 partners, a paid-up capital of 352,790*l.*, and many branches, stopped payment during the pressure in November, 1836, and by doing so involved many persons in great distress. It appears to have been extremely ill-managed. The auditors appointed to examine into its affairs reported that "Its book-keeping has been found to be so faulty, that we are convinced no accurate balance-sheet could at any time have been constructed." And they significantly added "the personal accounts at the head office require a diligent and searching revision."

The Tipperary Joint-Stock Bank, which was established in 1830, and stopped payments in 1855, appears to have been little, if at all, better than a mere swindling engine. Luckily it did not issue notes; and the sphere of its operations was not very extensive. But, so far as its influence went, nothing could be worse, being ruinous alike to the majority of its partners and the public.

The existing Irish joint-stock banks, amounting to seven, have been all established between 1824 and 1836. We borrow principally from Thom's *Irish Almanac*, the most valuable publication of its class, the following details with respect to the Irish banks in 1859:—

Account of the Banks existing in Ireland in 1859, their Branches, Capital, Fixed Issues, &c.

Banks.	Instituted.	Partners.	No. of Branches.	Nominal Capital.	Capital paid-up.	Fixed Issues.	Issues 15th Jan.
				£	£	£	£
Bank of Ireland	1783	- -	23	3,000,000	3,000,000	3,738,428	3,336,250
†Hibernian Joint-Stock Company, Dublin	1824	604	3	1,000,000	250,000		
Provincial Bank of Ireland	1825	945	40	2,000,000	540,000	927,667	1,027,762
Northern Banking Company, Belfast	1825	250	12	500,000	150,000	243,440	301,294
Belfast Banking Company	1827	216	22	500,000	125,000	281,611	449,54[illegible]
National Bank	1835	777	47	1,000,000	450,000	854,2[illegible]9	1,132,640
Ulster Banking Company, Belfast	1836	398	18	1,000,000	187,000	511,079	482,154
†Royal Bank, Dublin	1836	633	- -	1,044,250	209,175		

SECT. IX.—BANKS OF VENICE, AMSTERDAM, &c.

It would far exceed our limits to enter into any detailed statements with respect to the banks and banking systems of foreign countries; we shall therefore confine ourselves to a brief notice of such banks as have been most celebrated, or are at present of the greatest importance.

Bank of Venice.—The Bank of Venice was the most ancient bank in Europe. Historians inform us that the republic being hard pressed for money, was obliged, upon three different occasions, in 1156, 1460, and 1510, to levy forced contributions upon the citizens, giving them in return perpetual ‡ annuities at certain rates per cent. The annuities due under the forced loan of 1156, were, however, finally extinguished in the sixteenth century. And the offices for the payment of the annuities due under the other two loans having been consolidated, eventually became the Bank of Venice.§ This might be effected as follows: The interest on the loan to government being paid punctually, every claim registered in the books of the office would be considered as a productive capital; and these claims, or the right of receiving the annuity accruing thereon, must soon have been transferred, by demise or cession,

* *Observations on Paper-Money*, &c., by Sir Henry Parnell, p. 171.

† Thus marked do not issue their own notes.

‡ The annuities on the forced loan of 1480, were to be suspended during periods of war.

§ Cleirac, *Du Negoce, de la Banque*, &c.—(Bordeaux, 1656), pp. 112—117, a scarce and valuable volume.

from one person to another. This practice would naturally suggest to holders of stock the simple and easy method of discharging their mutual debts by transfers on the office books, and as soon as they became sensible of the advantages to be derived from this method of accounting, bank-money was invented.

The Bank of Venice was essentially a deposit bank. Though established without a capital, its bills bore at all times an agio or premium above the current money of the republic. The invasion of the French in 1797 occasioned the ruin of this establishment.

Bank of Amsterdam. — The Bank of Amsterdam was founded in 1609, on strictly commercial principles and views, and not to afford any assistance, or to commix with the finances of the State. Amsterdam was then the great entrepôt of the commerce of the world, and of course the coins of all Europe passed current in it. Many of them, however, were so worn and defaced as to reduce their general average value to about nine per cent. less than their Mint value; and, in consequence, the new coins were immediately melted down and exported. The currency of the city was thus exposed to great fluctuations; and it was chiefly to remedy this inconvenience, and to fix the value or par of the current money of the country, that the merchants of Amsterdam established a "bank," on the model of that of Venice. Its first capital was formed of Spanish ducats or ducatoons, a silver coin which Spain had struck in the war with Holland, and with which the tide of commerce had enriched the country it was formed to overthrow. The bank afterwards accepted the coins of all countries, worn or new, at their intrinsic value, and made its own bank-money payable in standard coin of the country, of full weight, deducting a "brassage" for the expense of coinage, and giving a credit on its books, or "bank-money," for the deposits.

The Bank of Amsterdam professed not to lend out any part of the specie entrusted to its keeping, but to retain in its coffers all that was inscribed on its books. In 1672, when Louis XIV. penetrated to Utrecht, almost every one who had an account with the bank demanded his deposit, and these were paid off so readily, that no suspicion could exist as to the fidelity of the administration. Many of the coins then brought forth bore marks of the conflagration which happened at the Hôtel de Ville, soon after the establishment of the bank. This good faith was maintained till about the middle of last century, when the managers secretly lent part of their bullion to the East India Company and Government. The usual "oaths of office" were taken by the magistracy of a religious community, that all was safe; and the good people of Holland believed, as an article of their creed, that every florin which circulated as bank-money, had its metallic constituent in the treasury of the bank, sealed up, and secured by oaths, honesty, and good policy. This blind confidence was dissipated in December, 1790, by a declaration that the bank would retain ten per cent. of all deposits, and would return none of a less amount than 2500 florins.

Even this was submitted to and forgiven. But, four years afterwards, on the invasion of the French, the bank was obliged to declare that it had advanced to the States of Holland and West Friesland, and the East India Company, more than 10,500,000 florins, which sum they were, of course, unable to make up to their depositors, to whom, however, they assigned their claims on the States and the company. Bank-money, which previously bore an agio of five per cent., immediately fell to sixteen per cent. below current money.

This epoch marked the fall of an institution which had long enjoyed an unlimited credit, and had rendered the greatest services. The amount of treasure in the vaults of the bank, in 1775, was estimated by Mr. Hope at 33,000,000 florins.*

Bank of Hamburgh.—The Bank of Hamburgh was established in 1619, on the model of that of Amsterdam. It is purely a deposit bank for the transfer of sums from the account of one individual to that of another. It receives no deposits in coin, but only in bullion of a certain degree of fineness. Down to 1845, it charged itself with the bullion at the rate of 442 schillings the mark, and issued it at the rate of 444 schillings, being a charge of four-ninths, or nearly one-half per cent., for its retention; but since that date, it receives and issues bullion at the same rate, charging one per mille for its expenses. It advances money on jewels to three-fourths of their value. The city is answerable for all pledges deposited with the bank: they may be sold by auction if they remain one year and six weeks without any interest being paid. If the value be not claimed within three years, it is forfeited to the poor. This Bank is universally admitted to be very well managed.

Sect. X.—The Bank of France,

Which is second only in magnitude and importance to the Bank of England, was originally founded in 1800, but was not placed on a solid and well defined basis till 1806. Her capital, which was originally fixed at 45,000,000 fr., was raised in the last mentioned year to 90,000,000 fr., divided into 90,000 shares, or *actions*, of 1000 fr. each. Of these shares, 67,900 have passed into the hands of the public; the remaining 22,100 having been purchased up by the bank, out of her surplus profits, were subsequently cancelled. Hence her capital amounted, down to 1848, to 67,900,000 fr. (2,716,000*l.*), with a reserve fund, first of 10,000,000 fr., and more recently of 12,980,750 fr. Since 1806 the bank has enjoyed the privilege of being the only institution in Paris entitled to issue notes payable on demand; and, as will be afterwards seen, she is now the only authorised issuer of such paper in France. Her charter and exclusive privileges have been prolonged and varied by laws passed at different periods; according to existing arrangements they are not terminable till 1897.

The bank has established, at different periods, between 1817 and 1856, offices or branches (*succursales*) in different parts of the country. They are managed nearly in the same way as the parent establishment; but their operations have been on a comparatively small scale. These are exclusive of the departmental banks, united, as will be immediately seen, to the bank in 1848.

Notwithstanding the skill and caution with which her affairs have generally been conducted, the Revolution of 1848 brought the bank into a situation of extreme danger. She had to make large advances to the provisional government and the city of Paris. And these circumstances, combined with the distrust that was universally prevalent, occasioned so severe a drain upon her for gold, that to prevent the total exhaustion of her coffers, she was authorised, by a decree of the 16th of March 1848, to suspend cash payments, her notes being at the same time made legal tender. But to prevent the

* Storch, *Cours d'Economie Politique*, tom. iv. p. 102.

abuse that might otherwise have taken place under the suspension, the maximum amount of her issues was fixed at 350 millions. She was then also authorised to reduce the value of her notes from 500 fr. to 200 and 100 fr.

Previously to 1848, joint-stock banks, on the model of that of Paris, and issuing notes, had been established in Lyons, Marseilles, Bordeaux, Rouen, and other large cities. And it was then determined that these banks should be incorporated with the Bank of France, and made branches of the latter. This was effected by decrees issued on the 27th April and 2nd May 1848, by which the shareholders of the banks referred to (nine in number) were allowed, for every 1000 fr. nominal value of their shares, a share of 1000 fr. nominal value of the stock of the Bank of France. And, in consequence of this measure, 23,351 new shares, representing a capital of 23,351,000 fr., were added to the stock of the Bank of France, making the latter consist of 91,250,000 fr., divided into 91,250 shares. In 1851, the bank resumed, and has since continued specie payments.

The suppression of the local issues of the departmental banks was, no doubt, a judicious measure, and was indispensable, indeed, to secure the equal value of the paper circulating in different parts of the country. This, however, might have been effected by the mere stoppage of the issues of the departmental banks, without consolidating them with the Bank of France. The latter measure is one of which the policy is very questionable; and there are, as already seen, good grounds for thinking that the banking business of the departments would have been more likely to be well conducted by local associations, than by branches of the Bank of France.

Owing to the peculiar circumstances of the last few years, occasioned partly by the war with Russia, but more by the rage for speculation and the drain for silver to the East, the Bank of France has been exposed to considerable difficulties. And in the view of strengthening her position, and also it may be presumed, of providing a loan for government, a law has been recently passed (9th June 1857), by which the capital of the bank has been doubled. Previously to this law, her capital amounted, as already seen, to 91,250 shares of 1000 fr. each; whereas it now consists of 182,500 shares of 1000 fr. each. The new shares were assigned to the existing proprietors at the rate of 1100 fr. per share, producing a total sum of 100,370,000 fr., of which 100 millions have been lent to government at 3 per cent. Hence the measure, though it has added to the credit and security of the bank, has not made any addition to the means directly at her disposal.

Down to the passing of this law, the bank could not raise the rate of interest on loans and discounts above six per cent. But this impolitic restriction is now removed, and the bank may charge any rate of interest which she reckons expedient, except upon advances to government, the maximum interest on which is limited to 3 per cent. The bank has been farther authorised to issue notes of the value of 50 fr., to make advances on railway shares, &c., and the charter has been extended to 1897.

The bank is obliged to open a *compte courant* for any one who requires it, and performs services, for those who have such accounts, similar to those performed for their customers by the banks in London. She does not charge any commission on current accounts, so that her only remuneration arises from the use of the money placed in her hands by the individuals whose payments she makes. It is probable, therefore, as has been alleged, that this part of her business is but little profitable. The bank also discounts bills with three signatures, at variable dates; but not having more than three months or ninety days to run. In 1855, the aggregate amount of these discounts in Paris and the departments, amounted to the very large sum of 3,262,000,000 frs., the interest being 5 per cent. till the 18th of October, and afterwards 6 per cent. Besides discounting bills, the bank makes advances on stocks and pledges of various kinds, and undertakes the care of valuable articles, such as plate, jewels, title-deeds, &c., at a charge of one-eighth per cent. on the value of the deposit, for every period of six months and under. Nothing can show more clearly the petty retail character of the trade of Paris, and generally of France, than the smallness of the value of the bills discounted by the bank. Thus, of 968,000 bills discounted in 1847, the average amount was only 55*l.* 4*s.*, and of these no fewer than 126,000 were for less than 200 frs. (8*l.*), and 470,000 for less than 1000 frs. (20*l.*), each! (Tooke and Newmarch, *On Prices*, vi. 51.)

The administration of the bank is vested in a council of twenty-one members, viz., a governor and two sub-governors, nominated by the Emperor; and fifteen directors and three censors, nominated by the shareholders. The bank has a large surplus capital or rest. In 1855 and 1856 she divided no less than 200 and 272 fr. profits on each share; but these have much exceeded the dividends in any previous year. In 1848 the dividends only amounted to 75 frs. per share. In July 1856, the 1000 fr. share of bank-stock was worth 4075 frs.,; in July 1857, it had sunk to 2880 frs. Her intimate connection with the government is decidedly the most objectionable feature in the constitution of the Bank of France.

Particulars in the Condition of the Bank of France, including its Branches and the Departmental Banks, from 1846 to 1856, both inclusive, viz.:—

Years.	Notes in Circulation.	Amount of Discounts.	Bullion in Coffers of Bank.			Dividend per Share.	Highest Price of Share.
			Gold.	Silver.	Total.		
	Francs.	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
1846	262,190,000	1,618,957,841	6,800,000	94,282,000	101,082,000	159	3,505
1847	241,120,000	1,808,246,438	4[illegible],000	169,000,000	169,[illegible],000	177	3,600
1848	409,120,000	1,643,728,634	4,700,000	248,600,000	253,300,000	75	3,250
1849	431,022,000	1,025,666,215	4,600,000	429,270,000	433,[illegible],000	106	2,500
1850	481,532,000	1,176,423,896	11,[illegible],000	446,840,000	458,[illegible],000	101	2,425
1851	583,060,000	1,241,412,880	82,260,000	486,460,000	568,720,000	105	2,650
1852	689,910,000	1,824,469,438	68,856,000	434,974,000	503,[illegible],000	118	3,108
1853	644,280,000	2,842,950,205	105,598,000	219,482,000	325,080,000	154	2,950
1854	636,970,000	2,944,643,591	193,957,000	198,723,000	392,660,000	194	3,000
1855	612,237,000	3,762,000,000	99,000,000	100,000,000	199,000,000	200	3,300
1856	612,332,000	4,674,000,000	81,000,000	109,900,000	190,[illegible],000	272	4,075 July.

Sect. XI. — Banking in the United States.

It has been the uniform practice of the different States of the Union to allow banks to be established for the issue of notes, payable in specie on demand. In cases where the liability of shareholders in banks was to be limited to the amount of their shares, they had, previously to 1838, to be established by Acts of the local legislatures. But, in general, these were easily obtained; and down to a comparatively late period, it may be said that banking was quite free; and that, practically, all individuals or associations might issue notes, provided they abided by the rules laid down for their guidance, and engaged to pay them when presented.

Under this system, the changes in the amount and value of the paper currency of the United States have been greater than in any other country; and it has produced an unprecedented amount of bankruptcy and ruin.

Between 1811 and 1820, about 195 banks, in different parts of the Union, became bankrupt; and it is said, in a report by the Secretary of the Treasury of the United States, dated 12th May 1830, that these failures, which mostly happened in 1814 and 1819, produced a state of distress so general and severe, that few examples of the like had then occurred.

But bad as this instance was, it was nothing to that which took place subsequently to 1834. The accounts of the aggregate issues of the banks differ a little; but the following statement is believed to be very nearly accurate, viz.:—

Years.	Notes.
1830	66,628,980 dolls.
1834	94,839,570 „
1835	103,692,495 „
1836	140,310,638 „
1837	149,185,890 „

Now observe, that this sudden and enormous increase took place under the obligation, which we are told is quite enough to prevent all abuse, of paying notes on demand. The result was, what most men of sense must have anticipated, viz., that a revulsion took place, and that every bank within the Union, without, it is believed, a single exception, stopped payment in 1837.

In 1838 such of the banks as had been best managed, and had the largest capitals, resumed payment in specie. But in 1839 and 1840, a farther crash took place. And the bank-notes afloat, which, as has been seen, amounted to 149,185,890 dolls. in 1837, sunk to 83,734,000 dolls. in 1842, and to 58,563,000 dolls. in 1843. It is supposed that in this latter crash nearly 180 banks, including the Bank of the United States, were totally destroyed. And the loss occasioned, by the depreciation which it caused in the value of stocks of all kinds, and of all sorts of property, was quite enormous! And yet, vast as that loss was, it was really trifling, as a writer in the American Almanac has stated, compared with "the injury resulting to society from the upheaving it occasioned of the elements of social order, and the utter demoralisation of men by the irresistible temptation to speculation which it afforded, ending in swindling to retain ill-gotten riches."

The evils of the American system have been aggravated by the lowness of the notes which most banks have issued. This brings them into the hands of retail traders, labourers, and others in the humbler walks of life, who always suffer severely by the failure of a bank.

Since 1838 and 1842, various measures have been taken in nearly all the States, but principally in New York, to restrain the free action of the banks, and to prevent a repetition of the calamities referred to.

In New York, for example, the banks have been divided into two great classes—the incorporated and the free banks. The former, which are incorporated by a State law, have to conform to certain regulations, and have to contribute a half per cent. annually upon their capital to a security fund, which is devoted to the payment of the notes of defaulting banks. But this is a most objectionable plan; for, in the first place, it does not prevent bankruptcies; and in the second place, it compels the well-managed banks to contribute to a fund which goes to pay the debts of those that are mismanaged. It has consequently declined in favour, and is now rarely acted upon.

In the other, or free banking system, all individuals or associations who choose to deposit securities (minimum amount 100,000 dolls.) for their payment, are allowed to issue an equal amount of notes. And this is certainly by far the more efficient as well as the most popular of the two plans. But it is objectionable, because, 1st, A longer or shorter, but always a considerable, period necessarily elapses after a bank stops before its notes can be retired; and, 2nd, Because the securities lodged for the notes are necessarily at all times of uncertain and fluctuating value; while, in periods of panic or general distrust, they become all but inconvertible. The Sub-secretary of the Treasury of the United States has animadverted as follows on this plan, in a letter dated 27th Nov. 1854:—

"The policy of many of the State governments has of late years consisted in encouraging the issue of small notes, by sanctioning the establishment of what are popularly called 'free banks,' with deposits of stocks and mortgages for the 'ultimate' security of their issues. This 'ultimate' security is, it may be admitted, better than no security at all. The mischief is, that it is least available when most wanted. The very causes which prevents the banks from redeeming their issues promptly, cause a fall in the value of the stocks and mortgages on 'the ultimate security' of which their notes have been issued. The 'ultimate security' may avail something to the broker who buys them at a discount, and can hold them for months or years; but the labouring man who has notes of these 'State security banks' in his possession, finds, when they stop payment, that 'the ultimate security' for their redemption does not prevent his losing twenty-five cents, fifty cents, or even seventy-five cents in the dollar.

"In a circulating medium we want something more than 'ultimate security.' We want also 'immediate' security; we want security that is good to-day, and will be good to-morrow, and the next day, and for ever thereafter. This security is found in gold and silver, and in these only." *

* The above statements are taken from a paper read by Lord Overstone to the late Committee on Banks.

It appears from the Report of the Superintendent of Banking for the State of New York for 1856, that the securities he then held in trust amounted to 39,359,071 dolls., which were almost wholly lodged by banking associations and individual bankers.

During the year the securities held in trust for the under-mentioned banks that had become insolvent in 1855 were disposed of. But the sums realised by their sale did not in any case suffice to pay the notes at par, while a period, varying from two to four years, would have to elapse before the affairs of the insolvent banks will be finally settled.

Names of Banks that failed.	Notes redeemed.	Rates of Redemption.	Time for Redemption will expire.
Eighth Avenue Bank	All	94 cents.	May 21, 1861
Farmers' Bank, Onondaga	All	85 cents.	Nov. 12, 1859
James' Bank	All	91 cents.	June 17, 1858
Merchants and Mechanics' Bank, Oswego	All	77 cents.	Sept. 28, 1860
New Rochelle, Bank of	Stock Notes	Par	June 17, 1858
New Rochelle, Bank of	Stock and Estate Notes	81 cents.	June 17, 1858

This statement sets the defective nature of the security system, as administered in New York, in the clearest point of view. It might, no doubt, be improved by increasing the proportion of securities to notes. But owing to the variety of securities that are taken (viz., all manner of bonds and mortgages, state, canal, and railway stocks, &c. &c.), and the uncertainty of their value, a great deal of risk is always incurred in accepting them, and they can never form a proper foundation on which to issue notes.

But, however desirable, it would, we fear, be visionary to expect that local issues should be suppressed in America, or that her paper currency should be placed on a really sound foundation. But it may, nevertheless, be easily and greatly improved. And, perhaps, this would be best effected by suppressing low notes, or those for less than twenty dollars, and increasing the proportion of securities to issues. The rules on which so much stress is laid, in most parts of America, for making the issues of banks depend on the magnitude of their capitals, or the amount of specie in their vaults, are really of no use whatever. They may be and have been eluded and defeated in a thousand ways, and serve only to make the public look for protection to what is altogether impotent and worthless for any good purpose.

The following table from Hunt's Commercial Magazine for March 1857, gives an account of the number and condition of the banks of the United States, as officially reported, in certain years from 1834 to 1856.

Table of the Secretary of the Treasury, showing the Number of Banks and Branches, with their Capitals, Discounts, Specie, Circulation, and Deposits, in the Union, in the following Years, from 1834 to 1836. The last line gives the position of the Banks near January 1, 1856:—

Years.	Banks.	Capital.	Discounts.	Specie.	Circulation.	Deposits.
		Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1834	506	200,005,944	324,119,499	26,641,753	94,839,570	75,666,986
1836	713	251,875,292	457,506,080	40,019,594	140,301,038	115,104,440
1837	788	270,772,091	525,115,702	37,915,340	149,185,890	127,397,185
1843	691	228,861,948	254,544,937	33,515,846	58,563,608	56,168,628
1848	751	204,833,175	344,476,582	46,369,765	128,500,091	103,226,177
1851	879	227,807,553	413,756,799	48,671,048	155,165,251	128,957,712
1854	1,208	301,376,071	557,597,779	59,410,253	204,689,207	188,188,744
1855	1,307	332,177,288	576,144,758	53,944,545	186,952,223	190,400,342
1856	1,398	343,874,272	634,183,280	59,314,065	195,747,950	212,705,662

Statement showing the Condition of the Banks of the United States in 1855, 1856, 1857, and 1858.

	1855.	1856.	1857.	1858.
Number of banks	1,163	1,255	1,283	1,284
Number of branches	144	143	133	138
Number of banks and branches	1,307	1,398	1,416	1,422
Capital paid in	$332,177,288	$343,874,272	$370,834,686	$394,622,799
Resources.				
Loans and discounts	$576,144,758	$634,183,280	$684,456,887	$583,165,242
Stocks	52,727,082	49,485,215	59,272,329	60,305,260
Real estate	24,073,801	20,865,867	26,124,522	28,755,834
Other investments	8,734,540	8,822,516	5,920,536	6,075,906
Due by other banks	55,738,735	62,639,725	65,849,205	58,052,802
Notes of other banks	23,429,528	24,779,049	28,124,606	22,447,456
Specie funds	21,935,738	19,937,710	25,081,641	15,380,441
Specie	53,941,646	59,314,065	58,349,858	74,412,832
Liabilities.				
Circulation	186,952,223	195,747,950	214,778,822	155,208,344
Deposits	190,400,342	212,705,662	230,351,352	185,952,049
Due to other banks	45,156,697	52,719,956	57,674,333	51,169,875
Other liabilities	15,599,625	12,227,867	19,816,850	14,166,713
Aggregate of immediate liabilities	422,509,262	461,173,568	502,304,507	398,510,981
Aggregate of immediate means	158,048,537	166,670,547	177,401,692	170,293,511
Gold and silver in the United States treasury depositories	27,468,889	22,706,451	20,066,114	10,229,229
Total specie in banks and treasury depositories	81,133,435	82,020,494	78,415,952	84,642,061

In 1857 another crash took place, and *all* the banks in the Union, from the Gulph of Mexico to the frontiers of Canada, again stopped payments!

This new crash affords, had that been necessary, a fresh and striking illustration of the truth of the principles we have endeavoured to establish in the course of this treatise; and it may be expected to awaken, if that be possible, the American people to a proper sense of the enormous abuses connected with their banking system; and the necessity of placing it on an entirely new foundation.

The above account shows that there had been a rapid increase of discounts since 1851, and that increase was especially great in 1856, and went on augmenting down to August last (1857). On the 8th of that month, the discounts and advances by the New York banks amounted to 122,077,252 dolls., the deposits in their possession being, at the same time, 94,436,417 dolls. This was the maximum of both. On the 24th of August, the Ohio Life and Trust Company, which carried on an extensive banking business in New York, stopped payments; and by so doing gave a severe shock to credit and confidence, which

the suspension of two or three more banks turned into a panic. Notes being in a certain degree secured, the run upon the banks was principally for deposits. And to meet it they so reduced their discounts and advances, that on the 17th October they amounted to only 97,245,826 dolls. This sudden and violent contraction necessarily occasioned the suspension of many of those mercantile houses that had depended on the banks for discounts. And it did this without stopping the drain for deposits, which had sunk on the 17th October to 52,894,623 dolls., being a decrease of 41,546,784 dolls., in about two months. The universal stoppage of the banks was a consequence of these proceedings.

There seems to be no doubt that improvident advances on the part of the banks, and overtrading, were the main causes of the crisis. And it is important to observe that it is stated in the Bankers' Magazine for November 1857 (p. 430), and other works of authority published in New York, that the improvidence referred to was, in part at least, occasioned by the too high interest allowed at New York on deposits on current accounts, or at call. This made the opulent bankers and capitalists in the Western States keep large balances at New York; and it tempted, and in some degree obliged, the bankers and money-dealers in the latter to make advances on questionable security, for the sake of the high interest payable on them. A system of this sort may be truly said to force capital into the hands of the least deserving, and to be a prolific source of wild speculation and overtrading. And whenever any serious check is given in any quarter of the Union to the process of inflation, the consequences are sure to be in the last degree disastrous: for, the greater number of the banks being very ill supplied with specie, they can resist no serious demand upon them either for payment of notes or deposits; and when one or a few stop, a panic is generated, which involves even the best managed banks in the common ruin.

A tendency to panics is, in fact, one of the peculiarities of the American system. Owing to the liability of the partners in banks being limited, the depositors in them, and the holders of notes not issued upon securities, having nothing to trust to, make all imaginable haste, when their suspicions are awakened, to save themselves by withdrawing their deposits, and cashing their notes. And hence the rapidity with which panics spread throughout the Union; and, we may add, that the slowness with which they are disseminated in this country, arises from the contrary circumstances, from the confidence placed by the public in the unlimited obligation of the partners to make good all demands.

In the city of New York, the action of the foreign exchanges compels the banks to have always on hand a very considerable amount of specie. But the reader will hardly believe with what a small stock of coin the banks in the country parts of that State, and generally throughout the Union, contrive to carry on their business. In illustration of this statement, we may mention, that in June last (1857), the fifty-six banks in the city of New York are reported in the official returns to have had 8,000,000 dolls. notes in circulation, with an aggregate amount of no less than 12,000,000 dolls. specie in their coffers. But at the same time that the city banks were in this situation, the circulation of the 255 country banks then existing in the State is returned at 24,000,000 dolls., and their specie at only 1,200,000 dolls., being only one-twentieth part of their notes afloat. And as these returns give only average results, it follows that, while some of the banks would have more, others would have proportionally less specie than this medium rate.

A notion, indeed, would appear to be gaining ground among the banks, in some parts of the States, that when they have given security for their issues, they have done quite enough, and that they may dispense with the troublesome obligation to pay them on demand. It appears, for example, that in the moral and religious state of Massachusetts, there were, on the 7th of July, 1856, no fewer than 135 banks (excluding those in Boston), which had 6,601,130 dolls. of deposits, and notes in circulation amounting to 13,106,068 dolls., while their specie on hand amounted to only 1,092,463 dolls., or about one-thirteenth part of the circulation. And in other parts of the Union the stock of bullion was still more scanty. Thus, in Illinois, on the 6th of July, 1857, the State Bank, with notes afloat to the amount of 725,000 dolls., had, to meet all demands, 61,000 dolls. in specie in her coffers; while the Grayville Bank, with a circulation of 471,556 dolls. was provided with a supply of 18,951 dolls. in specie, and the Raleigh Bank, with a circulation amounting to 248,000 dolls., had a specie fund of no less than 1000 dolls.! It may be supposed, perhaps, that this would be the minimum amount of specie, but no. For some banks (such as the Bank of the Commonwealth, with notes afloat to the extent of 84,915 dolls.) were honest enough to admit that they had a considerable circulation without being encumbered with a single dollar!

It is evident that a banking system of this sort has no better foundation than a house of cards. It is sure to fall to pieces at the first touch. The grand object of by far the greater number of the bankers is to get their notes into circulation; and as these are often issued for very small sums, cost nothing, and at the same time yield some 8, 10, or 12 per cent., or more, of interest, we need not wonder at the eagerness with which they pursue this object, or at their success, or the abuses to which it leads. The discount of bills at distant dates, and their renewal, make part of the system.

The security system followed in New York, even were it generally adopted, affords no guarantee against these evils. Instead of preventing, it really tends to encourage over-issue, and it is impotent to insure a proper supply of bullion. All that it contemplates is the ultimate payment of the notes; but it does not prevent the bankruptcy of those by whom they are issued, and we have seen that it does not even accomplish even that ultimate payment which it has exclusively in view. The whole system is rotten to the core; and unhappily, too, it is deeply injurious to all those with whom the Americans have any dealings, as well as to themselves.

We are glad to be able to corroborate our views of these matters by the high authority of the President of the United States. Mr. Buchanan, in his message to Congress, delivered on the 8th of December, 1857, makes the following conclusive statement:—"The first duty which banks owe to the public is to keep in their vaults a sufficient amount of gold and silver to insure the convertibility of their notes into coin at all times and under all circumstances. No bank ought ever to be chartered without such restrictions on its business as to secure this result. All other restrictions are comparatively vain. This is the only true touchstone — the only efficient regulator of a paper currency — the only one which can guard the public against over-issues and bank suspensions. As a collateral and eventual security it is doubtless wise, and in all cases ought to be required, that banks shall hold an amount of United States' or State securities equal to their notes in circulation, and pledged for their redemption. This, however, furnishes no adequate security against over-issues. On the contrary, it may be perverted to inflate the currency; indeed, it is possible by this means to convert all the debts of the United States and State governments into bank-notes, without reference to the specie required to redeem them. However valuable these securities may be in themselves, they cannot be converted into gold and silver at the moment of pressure, as our experience teaches, in sufficient time to prevent bank suspensions and the depreciation of bank-notes."

It is truly stated by Mr. Buchanan, in the Message now referred to, "that it is easy to account for our financial history for the last forty years. It has been a history of extravagant expansions in the business of the country, followed by ruinous contractions. At successive intervals the best and most enterprising men have been tempted to their ruin by excessive bank loans of mere paper credit, exciting them to extravagant importations of foreign goods, wild speculations, and ruinous and demoralising stock gambling. When the crisis arrives, as arrive it must, the banks can extend no relief to the people. In a vain struggle to redeem their liabilities in specie, they are compelled to contract their loans and their issues; and at last, in the hour of distress, when their assistance is most needed, they and their debtors together sink into insolvency."

We have already seen that the real value of our exports to the United States in 1856 amounted to 21,476,000*l.* But we have been too much in the habit of estimating our commercial prosperity by the magnitude of the exports, which is a most fallacious criterion. We have heard it stated by well-informed

parties, and we believe the statement to be true, that but for the extreme inflation of the banking and credit system of the United States, the imports from England during last year would not have exceeded 15 or 16 millions; and that those from France and other countries would have been reduced in something like the same proportion. And, had such been the case, production here would not have been unnaturally stimulated, and a fair profit would have been obtained from our exports, whereas they will now entail a large and most serious loss.

Besides the bankruptcy and ruin that periodically arise from such a system, it is at all times productive of the greatest inconvenience and trouble. Where there are so many separate and independent banks (about 1400), the sphere of the influence and circulation of each is necessarily circumscribed; and when notes get to any considerable distance from the place where they are issued, especially when they get into a different State, they circulate with difficulty, and generally at a discount. But this is not the only evil by which their circulation is attended. Banks are every now and then suspending payments, or getting into discredit. And lists are regularly published of such defaulting or suspected banks, and of the rates of discount at which their notes are current, without which no traveller can leave his house, and no shopkeeper can venture to transact any business. It is truly astonishing, seeing the extreme inconvenience resulting from such a state of things, that it should be tolerated even for a week. If the general government be not sufficiently strong to suppress local issues, and to substitute in their stead a national paper issued on deposits of bullion, the public may, if they choose, rid themselves of the evil, by refusing to accept payment otherwise than in coin. The banking interest is, however, so very powerful, and embraces so great a number of individuals, that we doubt whether, even with the co-operation of the general government, the time has yet arrived for anything effectual being done for the amendment of the system. But the longer it exists, the more intolerable will it become; and in the end, no doubt, it will be suppressed. It forms, at present, the most gigantic abuse by which an intelligent people ever permitted themselves to be disgraced and oppressed.

Sect. XII. — Banks for Savings,

Are banks established for the receipt of small sums deposited by the poorer class of persons, and for their accumulation at compound interest. They are managed by individuals who are supposed to derive no benefit from the deposits. All monies paid into any Savings Bank established according to the provisions of the acts 9 Geo. 4. c. 92., and 7 & 8 Vict. c. 83., are ordered to be paid into the Banks of England and Ireland, and vested in Bank annuities or Exchequer bills. The last mentioned statute reduced the interest payable to the trustees of banks to 3*l.* 5*s.*, and that payable to depositors to 3*l.* 0*s.* 10*d.* per cent. per annum; the difference of 4*s.* 2*d.* per cent. being intended to form a fund to defray the cost of management, &c. No depositor can contribute more than 30*l.*, exclusive of compound interest, to a Savings Bank in any one year; and the total deposits to be received from any individual are not to exceed 150*l.*; and whenever the deposits, and compound interest accruing upon them, standing in the name of any one individual, shall amount to 200*l.*, no interest shall be payable upon such deposit so long as it shall amount to 200*l.* The commissioners for the reduction of the national debt have the disposal of the sums vested in the public funds on account of Savings Banks.

This system began in 1817; and on the 20th of November, 1857, there was due to depositors, including interest accruing on deposits, 35,255,722*l.* It farther appears that from the 6th of August, 1817, down to the 20th of November, 1857, the public paid on account of interest and charges on the sums due to Savings Banks and Friendly Societies under the act referred to, 28,852,013*l.* 8*s.* 5*d.*, and that the dividends received during the same period on the stock and other public securities in which the commissioners for the reduction of the national debt invested the said sums, amounted to 26,077,961*l.* 19*s.* 2*d.*, leaving a balance of 2,774,051*l.* 9*s.* 3*d.*, which consequently may be said to be the sum which the system has cost the public. — (*Parl. Paper*, No. 441. Sess. 1858.) The reduction of the interest on deposits in 1844 from 2½*d.* to 2*d.* per cent. *per diem*, contributed in some degree to diminish the loss to the public. But it is mainly owing to the circumstance that the contributions to Savings Banks, and consequently the investments on their account, are greatest when the country is prosperous and the funds high; and that the deposits are principally drawn out under the opposite circumstances, or when confidence is shaken and the funds are low. But, after all, the loss to the public is not very considerable; and it does not seem too great a price to pay for the maintenance of so advantageous a system.

That this is a true statement may be easily shown. In the metropolis, and many other parts of England, public banks do not receive small deposits, and until recently they did not pay any interest on them. And even in Scotland, where the public banks allow interest upon deposits, they do not generally receive less than 5*l.* or 10*l.* But few poor persons are able to save even this much, except by a lengthened course of economy. The truth, therefore, is, that until Savings Banks were established, the poorer classes were everywhere without the means of securely and profitably investing those small sums they are not unfrequently in a condition to save; and were consequently led, from the difficulty of disposing of them, to neglect opportunities for making savings, or, if they did make them, were tempted, by the offer of high interest, to lend them to persons of doubtful characters and desperate fortunes, by whom they were for the most part squandered. Under such circumstances, it is plain that nothing could be more important, in the view of diffusing habits of forethought and economy amongst the labouring classes, than the establishment of Savings Banks, where the smallest sums are accumu-

lated at compound interest, and are paid, with their accumulations, the moment they are demanded by the depositors. The system has not yet received its full development. The want of perfect security operates as a serious drawback to its extension; but the magnitude of the deposits already received, sets its powerful and salutary operation in a very striking point of view.

We subjoin a copy of the rules of the St. Pancras Savings' Bank, which may be taken as a model for similar institutions, inasmuch as they have been drawn up with great care, and closely correspond with the provisions in the acts 9 Geo. 4. c. 92. and 7 & 8 Vict. c. 83.

1. *Management.*—This bank is under the management of a president, vice-presidents, trustees, and not less than 50 managers, none of whom are permitted to derive any benefit whatsoever, directly or indirectly, from the deposits received, or the produce thereof. One or more of the managers attend, when the Bank is open for business.

2. *Superintending Committee.*—A committee of not less than ten managers, three of whom form a quorum, is empowered to superintend, manage, and conduct the general business of this bank; to add to their number from among the managers; to fill up vacancies in their own body, and to appoint a treasurer or treasurers, agent or agents, auditors, an actuary and clerks, and other officers and servants, and to withdraw any such appointments, and to appoint others, should it be considered necessary so to do.—The proceedings of this committee are regularly laid before the general meetings of the Bank.

3. *Elections.*—The superintending committee is empowered to add to the number of managers, until they amount to 120, exclusively of the president, vice-presidents, and trustees. And any vacancies of president, vice-presidents, and trustees are to be filled up at a general meeting.

4. *General Meetings.*—A general meeting of the president, vice-presidents, trustees, and managers of this Bank shall be held once a year, in the month of February. The superintending committee shall lay before every such meeting a report of the transactions of the Bank, and state of the accounts. The superintending committee for the succeeding year shall be elected at such general meeting; and failing such election, the former committee shall be considered as reappointed.

5. *Special Meetings.*—The superintending committee are authorised to call special general meetings when they think proper; and also, on the requisition of any ten managers, delivered in writing to the actuary, or to the manager in attendance at the bank; and of such meeting seven days' notice shall be given.

6. *Liability of Trustees, Managers, Officers, &c.*—No trustee or manager shall be personally liable except for his own acts and deeds, nor for any thing done by him in virtue of his office, except where he shall be guilty of wilful neglect or default; but the treasurer or treasurers, the actuary, and every officer intrusted with the receipt or custody of any sum of money deposited for the purposes of this institution, and every officer, or other person, receiving salary or allowance for their services from the funds thereof, shall give good and sufficient security, by bond or bonds, to the clerk of the peace of the county of Middlesex, for the just and faithful execution of such office of trust.

7. *Investment and Limitation of Deposits.*—Deposits of not less than *one shilling*, and not exceeding *thirty pounds* in the whole, exclusive of compound interest, from any one depositor, or trustee of a depositor, during each and every year ending on the 20th of November, will be received and invested, pursuant to 9 Geo. 4. c. 92. s. 11., until the same shall amount to *one hundred and fifty pounds* in the whole; and when the principal and interest together shall amount to *two hundred pounds*, then no interest will be payable on such deposit, so long as it shall continue to amount to that sum. But depositors, whose accounts amounted to, or exceeded, *two hundred pounds*, at the passing of the said act, on the 28th of July, 1828, will continue to be entitled to interest and compound interest thereon.

8. *Interest to be allowed to Depositors.*—In conformity with the Act 7 & 8 Vict. c. 83., an interest at the rate of 2*d.* per cent. per day, being 3*l.* 0*s.* 10*d.* per cent. per annum (*the full amount authorised by the said act*), will be allowed to depositors, and placed to their accounts as a cash deposit, in the month of *November* in each year. Depositors demanding payment of the whole amount of their deposits in this Bank, will be allowed the interest due on such deposits up to the day on which notice of withdrawing shall be given, but no interest will be allowed, in any case, on the fractional parts of a pound sterling.

9. *Description and Declaration.*—Every person desirous of making any deposit in this Bank, shall, at the time of making their first deposit, and at such other times as they shall be required so to do, declare their residence, occupation, profession, or calling, and sign (either by themselves, or, in case of infants under the age of seven years, by some person or persons to be approved of by the trustees or managers, or their officer), a declaration that they are not directly or indirectly entitled to any deposit in, or benefit from, the funds of any other Savings Bank in England or Ireland, nor to any sum or sums standing in the name or names of any other person or persons in the books of this Bank. And in case any such declaration shall not be true, every such person (or the person on whose behalf such declaration may have been signed) shall forfeit and lose all right and title to such deposits, and the trustees and managers shall cause the sum or sums so forfeited to be paid to the commissioners for the reduction of the national debt; but no depositor shall be subject or liable to any such forfeiture, on account of being a trustee on behalf of others, or of being interested in the funds of any Friendly Society legally established.

10. *Trustees on behalf of others.*—Persons may act as trustees for depositors, whether such persons are themselves depositors in any Savings Bank or not, provided that such trustee or trustees shall make such declaration on behalf of such depositor or depositors, and be subject to the like conditions in every respect, as are required in the case of persons making deposits on their own account, and the receipt and receipts of such trustee or trustees, or the survivor of them, or the executors or administrators of any sole trustee, or surviving trustee with or without (as may be required by the managers) the receipt of the person on whose account such sum may have been deposited, shall be a good and valid discharge to the trustees and managers of the institution.

11. *Minors.*—Deposits are received from, or for the benefit of, minors, and are subject to the same regulations as the deposits of persons of 21 years of age and upwards.

12. *Friendly and Charitable Societies.*—Friendly Societies, legally established previous to the 28th of July, 1828, may deposit their funds through their treasurer, steward, or other officer or officers, without any limitation as to the amount. But Friendly Societies formed and enrolled after that date are not permitted to make deposits exceeding the sum of 300*l.*, principal and interest included; and no interest will be payable thereon, whenever the same shall amount to, or continue at, the said sum of 300*l.* or upwards.

Deposits are received from the trustees or treasurers of Charitable Societies, not exceeding 100*l.* per annum, provided the amount shall not at any time exceed the sum of 300*l.* exclusive of interest.

13. *Deposits of Persons unable to attend.*—Forms are given at the office, enabling persons to become depositors, who are unable to attend personally, and those who have previously made a deposit, may send additional sums, *together with their book*, by any other person.

14. *Depositors' Book.*—The deposits are entered in the books of the Bank at the time they are made, and the depositor receives a book with a corresponding entry therein; which book must be brought to the office every time that any further sum is deposited, also when notice is given for withdrawing money, and at the time the repayment is to be made, so that the transactions may be duly entered therein.

15. *Withdrawing Deposits.*—Depositors may receive the whole or any part of their deposits on any day appointed by the managers, not exceeding *fourteen* days after notice has been given for that purpose;

but such deposits can only be repaid to the depositor personally, or to the bearer of an order under the hand of the depositor, signed in the presence of either the minister or a churchwarden of the parish in which the depositor resides, of a justice of the peace, or of a manager of this Bank.

The Depositors' Book must always be produced when notice of withdrawing is given.

16. *Money withdrawn may be re-deposited.*—Depositors may withdraw any sum or sums of money, and re-deposit the same at any time or times within any one year, reckoning from the 20th day of November, provided such sum or sums of money re-deposited, and any previous deposit or deposits which may have been made by such depositor in the course of the year, taken together, shall not exceed, at any time in such year, the sum of 30*l.* additional principal money bearing interest.

17. *Return or Refusal of Deposits.*—This Bank is at liberty to return the amount of the deposits to all or any of the depositors, and may refuse to receive deposits in any case, where it shall be deemed expedient so to do.

18. *Deposits of a deceased Depositor exceeding Fifty Pounds.*— In case of the death of any depositor in this Bank, whose deposits, and the interest thereon, shall exceed in the whole the sum of *fifty pounds*, the same shall only be paid to the executor or executors, administrator or administrators, on the production of the probate of the will, or letters of administration.

19. *Deposits of a deceased Depositor not exceeding Fifty Pounds.* — In case a depositor in this Bank shall die, whose deposits, including interest thereon, shall not exceed the sum of fifty pounds, and that the trustees or managers shall be satisfied that no will was made and left, and that no letters of administration will be taken out, they shall be at liberty to pay the same to the relatives or friends of the deceased, or any or either of them, or according to the statute of distribution, or require the production of letters of administration, at their discretion. And the Bank shall be indemnified by any such payments from all and every claim in respect thereof by any person whatsoever.

20. *Certificate.*— In all cases wherein certificates shall be required of the amount of deposits in this Bank belonging to depositors therein, for the purpose of obtaining, free of stamp duties, a probate of will, or letters of administration, such certificate shall be signed by a manager, and countersigned by the actuary for the time being, as a true extract from the ledger of the institution.

21. *Arbitration of Differences.*—In case any dispute shall arise between the trustees or managers of this Bank, or any person or persons acting under them, and any individual depositor therein, or any trustee of a depositor, or any person claiming to be such executor, administrator, or next of kin, then, and in every such case, the matter so in dispute shall be referred to the barrister at law appointed by the commissioners for the reduction of the national debt, under the authority of the 9 Geo. 4. c. 92. s. 45.; and whatever award, order, or determination shall be made by the said barrister, shall be binding and conclusive upon all parties, and shall be final, to all intents and purposes, without any appeal.

Purchase of Government Annuities by Depositors in Savings Banks. — The act 2 & 3 Will. 4. c. 14. enables depositors in Savings Banks and others to purchase government annuities for life or for years, and either immediate or deferred. At present these annuities are limited to 30*l.* a year. The money advanced is returnable in case the contracting party does not live to the age at which the annuity is to become payable, or is unable to continue the monthly or annual instalments. That this measure was benevolently intended, and that it may be productive of advantage to many individuals, cannot be doubted; but we look upon all attempts, and particularly those made by government, to get individuals to exchange capital for annuities, as radically objectionable; and as being subversive of principles which ought to be strengthened rather than weakened.—(See FUNDS.) We subjoin

Account of the Number of Depositors in Savings Banks, and of the Amount of their Deposits, including Interest, on the 20th of Nov. 1857.

	Number of Depositors.	Amount of Deposits.		Number of Depositors.	Amount of Deposits.
Not exceeding £ 1	195,816	£ 57,994			
Ditto 5	266,399	671,611	Brought forward	1,270,123	22,943,122
Ditto 10	176,879	1,234,087	Not exceeding £125	27,988	3,100,254
Ditto 15	128,800	1,540,696	Ditto 150	16,351	2,229,748
Ditto 20	78,309	1,541,059	Ditto 200	25,820	4,589,337
Ditto 30	134,252	3,214,830	Exceeding 200	1,470	321,562
Ditto 40	106,509	3,549,375			
Ditto 50	52,955	2,347,551	Individual Depositors	1,341,752	32,984,023
Ditto 75	88,566	5,374,149	Charitable Institutions	14,791	704,514
Ditto 100	41,638	3,608,770	Friendly Societies	9,457	1,457,050
Carried forward	1,270,123	22,943,122	Total	1,366,000	35,145,587

State of Savings Banks in England, Scotland, and Ireland, on the 20th of Nov. 1858.

	No. of Banks.	No. of Depositors, Nov. 20, 1858.	Amount owing to Depositors, Nov. 20, 1858.
			£ s. d.
England and Wales	498	1,140,551	30,725,782 6 0¾
Scotland	46	119,281	1,956,495 10 8
Ireland	51	57,050	1,710,179 19 0
Islands in the British Seas	2	14,487	388,475 7 0
Total, United Kingdom	597	1,331,369	34,760,933 2 8¾

The comparatively small amount of the deposits in the Savings Banks in Scotland is wholly a consequence of the unusual facilities so long afforded in that part of the U. Kingdom for the investment of comparatively small sums at interest in public banks of undoubted solidity. We have previously noticed (Sect. on SCOTCH BANKS) the very large amount of these investments.

BANGKOK, the capital of the kingdom of Siam, situated about 20 miles direct distance, but about 30 by water, from the sea on both sides the river Menam, but chiefly on its left or eastern bank, in lat. 13° 40′ N., long. 101° 10′ E. The Menam opens in

the centre nearly of the bottom of the Gulph of Siam. There is a bar at its mouth, consisting, for the most part, of a mud flat 10 miles in depth. The outer edge of this flat, which is little more than 200 yards broad, is sandy and of harder materials than the inner part; which is so soft that when a ship grounds on it during the ebb, she often sinks 5 feet in the mud and clay, which supports her upright, so that she is but little inconvenienced. The highest water on the bar of the Menam, from February to September, is about 13½ feet; and in the remaining 4 months, somewhat more than 14 feet, —a difference probably produced by the accumulation of water at the head of the bay after the south-west monsoon, and by the heavy floods of the rainy season. On account of the deficiency of water on the bar, vessels sent to Bangkok had better, perhaps, not exceed 200 or 250 tons burden. In all other respects, the river is extremely safe and commodious. Its mouth is no sooner approached, than it deepens gradually; and at Paknam, two miles up, there are 6 and 7 fathoms water. This depth increases as you ascend, and at Bangkok is not less than 9 fathoms. The only danger is, or rather was, a sandbank off Paknam, bare at low water; but on this fort a battery has been erected within the last few years, affording at all times a distinct beacon. The channel of the river is so equal, that a ship may range from one side to another, approaching the banks so closely that her yards may literally overhang them. The navigation is said to be equally safe all the way up to the old capital, Yuthia, 80 miles from the mouth of the river.

The city of Bangkok extends along the banks of the Menam to the distance of about 2½ miles; but is of no great breadth, probably not exceeding 1½ mile. On the left bank there is a long street or row of floating houses; each house or shop, for they are in general both, consisting of a distinct vessel, which may be moored anywhere along the banks. Besides the principal river, which at the city is about a quarter of a mile broad, the country is intersected by a great number of tributary streams and canals, so that almost all intercourse at Bangkok is by water. The population has been variously computed at from 50,000 to 400,000; but, though probably in excess, the latter is no doubt the nearest to the mark. Half the population consists of Chinese settlers.

The common necessaries of life at Bangkok are exceedingly cheap. A cwt. of rice may always be had for 2*s.* and very often for 1*s.* Other necessaries, such as salt, palm-sugar, spices, vegetables, fish, and even flesh, are proportionally cheap. The price of good pork, for example, is 2½*d.* per lb. A duck may be had for 7*d.* and a fowl for 3*d.* The neighbourhood of Bangkok is one of the most productive places in the world for fine fruits; here are assembled, and to be had in the greatest perfection and abundance, the orange and lichi of China, the mangoe of Hindostan, and the mangostein, durian, and shaddock of the Malay countries.

The area of the kingdom of Siam has been estimated at about 200,000 square miles, and its population at from nearly 3,000,000 to 6,000,000; both estimates being by the highest authorities, viz., Mr. Crawfurd, one of the most intelligent Englishmen that has ever visited the country, and the other by M. Pallegoix, bishop of Siam. Sir John Bowring reckons the population at between 4,000,000 and 5,000,000; but it is evident that no dependance can be safely placed on any of these estimates. From a quarter to a third part of the population are supposed to be Chinese. Sir John Bowring says,— "There is no class of settlers who, under proper control, are so likely to be useful as the Chinese. That passion for acquiring wealth, which leads them to dare all danger and difficulty, is a most valuable recommendation. Their habits of subordination, their inbred respect for authority, their gregarious spirit, which drives them into associations of every sort, private and public, praiseworthy and pernicious, only requires a thorough knowledge of their character to be turned to the best account." (*i. 243.*) The Chinese are, in truth, by far the best and most valuable part of the population.

Trade.—Being near the mouth of a great navigable river, which runs through the whole extent of the country, Bangkok is well situated for commerce, and formerly she possessed a considerable trade. This, however, gradually fell off, in consequence of the monopolies and other injudicious measures of the government. Latterly, however, a more liberal spirit has prevailed; and since 1855, when the commercial treaty negociated by Sir John Bowring (see *post*), came into operation, trade has been largely extended; and the capacities of the country are so very great that, were they at all developed, Bangkok could not fail to become one of the principal emporiums of the East.

The trade which is centered at Bangkok is principally carried on with China, Cochin-China and the neighbouring countries, and with Singapore, Java, &c. But vessels direct from England and other European countries and the United States, occasionally arrive at the port. Pallegoix has given (tom. i. p. 327.) a list of the articles, with their quantities and prices, that are usually shipped from Siam; but we prefer laying before the reader the following account of the articles, &c., that were really exported from Bangkok in 1856.

Account of the Quantities and Values of the Articles Exported from the Port of Bangkok in 1856.

Articles.	Quantities. English Weights and Measures.	Value. English Money.	Articles.	Quantities. English Weights and Measures.	Value. English Money.
		£ s. d.			£ s. d.
Areca nut	cwts. 3,182	1,695 17 6	Mangrove bark	1,837	337 10 0
Beans	3,451	812 0 0	Peas	6,139	1,775 15 0
Beef, dried	1,379	579 0 0	Pepper, black	lbs. 3,634,666	43,520 4 2
Benzoin	207	1,812 11 10½	,, long	15,466	203 0 0
Birds' nests	lbs. 2,976	2,207 10 0	Rattans	cwts. 659	211 17 6
Cardamoms	40,076	5,157 10 0	Rice	330,070	48,281 9 4½
,, bastard	70,866	1,131 10 0	Rosewood	tons 1,139	1,091 17 6
Cocoa-nut oil	cwts. 3,464	2,930 7 6	Salt	cwts. 4,583	320 12 6
Copper, japan and old	218	776 5 0	Sapanwood	tons 4,401	16,030 10 5
Cotton	90	125 0 0	Silk, raw	lbs. 63,866	8,957 3 4
Fish	25,682	14,560 15 0	Stick lac	cwt. 8,836	8,100 0 5
Gambier	36	31 5 0	Sugar	190,637	128,140 0 0
Gamboge	121	412 7 6	Tallow	48	60 0 0
Hemp	62	111 10 0	Tea	lbs. 35,399	760 3 9
Horns, buffalo	2,251	1,807 0 10	Teak	tons. 38½	170 7 6
,, deer	99	75 0 0	Tilseed	cwts. 3,171	3,478 0 0
Hides, buffalo	5,671	3,596 5 10	Tin	1,407	4,953 5 0
Indigo	521	150 15 0	Sundries	-	2,024 13 9
Iron pans	pieces 47,086	7,562 10 0			
Ivory	cwts. 90	2,218 7 6		Total Value	£316,619 6 3
Lead	29	109 7 6			

Account of the British and Foreign Shipping cleared from the Port of Bangkok in 1856, specifying the Value of their Cargoes.

Flags.	Cleared. Vessels.	Cleared. Tons.	Invoice Value of Cargoes.	Flags.	Cleared. Vessels.	Cleared. Tons.	Invoice Value of Cargoes.
			£ s. d.				£ s. d.
British	40	12,318	128,295 5 5	Siamese	47	14,053	133,040 0 0
Danish	4	1,154	5,134 13 0	United States	7	5,879	35,695 19 2½
Dutch	4	1,430	6,324 8 7½				
French	1	269	5,113 0 6	Total	105	35,471	316,619 6 3
Hamburgh	2	368	3,018 0 0				

The total value of the imports during the same year amounted to 395,261*l.*, of which those of British produce were estimated to make 213,790*l.*—(*Consular Returns*, No. VI. p. 172.) A large part of the imports consist of English cotton stuffs and twist, copper, iron and nails, shipping stores, &c. The imports from China comprise coarse earthenware and porcelain, spelter, quicksilver, tea, lacksoy (vermicelli), dried fruits, raw silk, crapes, satins, and other silk fabrics, nankeens, shoes, fans, umbrellas, writing paper, sacrificial paper, incense rods, and many other minor articles. Not the least valuable part of the importations are immigrants. The tonnage engaged in the trade with China formerly consisted almost entirely of junks; but latterly these have been to a considerable extent superseded by the employment of square-rigged vessels built in Siam after European models.

The supplies of many of the above articles, especially of sugar, pepper, rice, &c., may be indefinitely increased. The principal sugar growing districts are situated in the immediate vicinity of the capital; and nothing is wanted but the application of skill and capital to the culture of the cane and the manufacture of the sugar to increase the produce of the latter to any amount. Pepper is mostly grown near, and is brought from Martaban, on the E. side of the gulph.

M. Pallegoix states that the main obstacles to the extension of trade at Bangkok consist — 1st, in the difficulty of disposing of goods within a limited period; 2nd, in the dilatoriness with which they are paid for; and, 3rd, in the delay which attends the getting on board of a return cargo: and to obviate these he suggests that foreigners trading with Siam should have agents and warehouses in the country, to whom they might consign their goods, to be sold according to the demand, and who might purchase and accumulate, as occasion served, articles of export. Those who act thus, he says, generally succeed. (*i.* 326.)

Port Dues and Duties.—Previously to 1855 British ships arriving at Bangkok were subject to certain port dues, but these were abolished by the treaty of that year. Duties on imports were at the same time fixed at 3 per cent. The duties on exports and trade regulations are specified in the tariffs, &c., annexed to the treaty. (See *post.*)

Opium has become an extensive article of consumption. It was formerly prohibited; but, to use the words of Sir John Bowring, "The influence of the Chinese, the wants of the treasury, the impotency of prohibitions and punishments to prevent its importation, have led to the legalisation of the drug, and the establishment of an opium farm, for which a large sum is annually paid by an opulent Chinese contractor." (*i.* 255.)

Monies, Weights, and Measures. — Gold and copper are not used as money in Siam, and the currency consists only of cowrie shells and silver. The denominations are as follow: — 200 bia or cowries make 1 p'hai-nung; 2 p'hai-nungs, 1 sing-p'hai; 2 sing-p'hais, 1 fuang; 2 fuangs, 1 salung; 4 salungs, 1 bat or tical; 80 ticals, 1 cattie; 100 catties, 1 picul.

The standard coin is the bat, which Europeans have called a *tical;* but there are also coins, though less frequently, of the lower denominations. These are of a rude and peculiar form. They are, in fact, nothing more than small bits of a silver bar bent, and the ends beaten together. They are impressed with two or three small stamps, not covering the whole surface of the coin. The cattie and picul are, of course, only used in speaking of large sums of money. Gold and silver are weighed by small weights, which have the same denominations as the coins. The p'hai-nung, the lowest of these, is in this case subdivided into 32 sagas, or red beans, the *Abrus precatorius* of botanists.

The bat, or tical, was assayed at the mint of Calcutta; it was found to weigh 236 grains; its standard, however, was uncertain, and the value of different specimens varied from 1 rupee 3 anas and 3 pice, to 1 rupee 3 anas and 7 pice. The value, therefore, in sterling money, is about 2*s.* 6*d.*, and it is so considered.

In respect to ordinary measures, the Siamese cattie is double the weight of the Chinese cattie, which, as is well known, is equal to 1⅓ lb. avoirdupois. The picul, however, is of the same weight, consisting in the one case of 50 catties only, and in the other of 100. In weighing rice and salt, a large measure is used, consisting, in respect to the first of 22 piculs, and of the last of 25 piculs. Rice is also measured by the basket, of which 100 go to the large measure above mentioned.

The long measures are as follow: — 12 finger breadths make 1 span; 2 spans, 1 cubit; 4 cubits, 1 fathom; 20 fathoms, 1 sen; and 100 sen, 1 yuta, or, as it is more commonly pronounced by the Siamese, yut. The fathom is the measure of most frequent use, and the Siamese have a pole of this length divided into its fractional parts. This, as nearly as can be ascertained, is equal to about 6 feet 6 inches. The sen appears to be also used in the admeasurement of land, and to be the name of a square measure of 20 fathoms to the side.

We subjoin the treaty referred to above.

* *Treaty of Friendship and Commerce between Her Majesty the Queen of the U. Kingdom and the Kings of Siam.*

Article 1. There shall henceforward be perpetual peace and friendship between Her Majesty and her successors, and Their Majesties the Kings of Siam, and their successors. All British subjects coming to Siam shall receive from the Siamese Government full protection and assistance to enable them to reside in Siam in all security, and trade with every facility, free from oppression or injury on the part of the Siamese; and all Siamese subjects going to an English country shall receive from the British Government the same complete protection and assistance that shall be granted to British subjects by the Government of Siam.

2. The interests of all British subjects coming to Siam shall be placed under the regulation and control of a Consul, who will be appointed to reside at Bangkok: he will himself conform to, and will enforce the observance by British subjects of, all the provisions of this treaty, and such of the former treaty negotiated by Captain Burney, in 1826, as shall still remain in operation. He shall also give effect to all rules or regulations that are now or may hereafter be enacted for the government of British subjects in Siam, the conduct of their trade, and for the prevention of violations of the laws of Siam. Any disputes arising between British and Siamese subjects shall be heard and determined by the Consul, in conjunction with the proper Siamese officers; and criminal offences will be punished, in the case of English offenders by the Consul, according to English laws, and in the case of Siamese offenders, by their own laws, through the Siamese authorities. But the Consul shall not interfere in any matters referring solely to Siamese, neither will the Siamese authorities interfere in questions which only concern the subjects of Her Britannic Majesty.

It is understood, however, that the arrival of the British Consul at Bangkok shall not take place before the ratification of this treaty, nor until 10 vessels owned by British subjects, sailing under British colours and with British papers, shall have entered the port of Bangkok for purposes of trade, subsequent to the signing of this treaty.

3. If Siamese in the employ of British subjects offend against the laws of their country, or if any Siamese having so offended, or desiring to desert, take refuge with a British subject in Siam, they shall be searched for, and, upon proof of their guilt or desertion, shall be delivered up by the Consul to the Siamese authorities. In like manner, any British offenders resident or trading in Siam, who may desert, escape to, or hide themselves in, Siamese territory, shall be apprehended and delivered over to the British Consul on his requisition. Chinese, not able to prove themselves to be British subjects, shall not be considered as such by the British Consul, nor be entitled to his protection.

4. British subjects are permitted to trade freely in all the seaports of Siam, but may reside permanently only at Bangkok, or within the limits assigned by this Treaty. British subjects coming to reside at Bangkok may rent land, and buy or build houses, but cannot purchase lands within a circuit of 200 *sen* (not more than four miles English) from the city walls, until they shall have lived in Siam for ten years, or shall obtain special authority from the Siamese Government to enable them to do so. But with the exception of this limitation, British residents in Siam may at any time buy or rent houses, lands or plantations, situated any where within a distance of twenty-four hours' journey from the city of Bangkok, to be computed by the rate at which boats of the country can travel. In order to obtain possession of such lands or houses, it will be necessary than the British subject shall, in the first place, make application through the Consul to the proper Siamese officer; and the Siamese officer and the Consul having satisfied themselves of the honest intentions of the applicant, will assist him in settling, upon equitable terms, the amount of the purchase money, will mark out and fix the boundaries of the property, and will convey the same to the British purchaser under sealed deeds. Whereupon he and his property shall be placed under the protection of the Governor of the district and that of the particular local authorities; he shall conform, in ordinary matters, to any just directions given him by them, and will be subject to the same taxation that is levied on Siamese subjects. But if through negligence, the want of capital, or other cause, a British subject should fail to commence the cultivation or improvement of the lands so acquired within a term of three years from the date of receiving possession thereof, the Siamese Government shall have the power of resuming the property, upon returning to the British subject the purchase money paid by him for the same.

5. All British subjects intending to reside in Siam shall be registered at the British Consulate. They shall not go out to sea, nor proceed beyond the limits assigned by this treaty for the residence of British subjects, without a passport from the Siamese authorities, to be applied for by the British Consul; nor shall they leave Siam, if the Siamese authorities show to the British Consul that legitimate objections exist to their quitting the country. But within the limits appointed under the preceding article, British subjects are at liberty to travel to and fro under the protection of a pass, to be furnished them by the British Consul, and counter-sealed by the proper Siamese officer, stating, in the Siamese character, their names, calling, and description. The Siamese officers at the Government stations in the interior may, at any time, call for the production of this pass, and immediately on its being exhibited, they must allow the parties to proceed; but it will be their duty to detain those persons who, by travelling without

a pass from the Consul, render themselves liable to the suspicion of their being deserters; and such detention shall be immediately reported to the Consul.

6. All British subjects visiting or residing in Siam shall be allowed the free exercise of the Christian religion, and liberty to build churches in such localities as shall be consented to by the Siamese authorities. The Siamese Government will place no restrictions upon the employment by the English of Siamese subjects as servants, or in any other capacity. But wherever a Siamese subject belongs or owes service to some particular master, the servant who engages himself to a British subject without the consent of his master may be reclaimed by him; and the Siamese Government will not enforce an agreement between a British subject and any Siamese in his employ, unless made with the knowledge and consent of the master, who has a right to dispose of the services of the person engaged.

7. British ships of war may enter the river, and anchor at Paknam, but they shall not proceed above Paknam, unless with the consent of the Siamese authorities, which shall be given where it is necessary that a ship shall go into dock for repairs. Any British ship of war conveying to Siam a public functionary accredited by Her Majesty's Government to the Court of Bangkok, shall be allowed to come up to Bangkok, but shall not pass the forts called Pong Phrachamit and Pit-patch-nuck, unless expressly permitted to do so by the Siamese Government; but in the absence of a British ship of war, the Siamese authorities engage to furnish the Consul with a force sufficient to enable him to give effect to his authority over British subjects, and to enforce discipline among British shipping.

8. The measurement duty hitherto paid by British vessels trading to Bangkok under the treaty of 1826 shall be abolished from the date of this treaty coming into operation, and British shipping and trade will thenceforth be only subject to the payment of import and export duties on the goods landed or shipped. On all articles of import the duties shall be 3 per cent., payable, at the option of the importer, either in kind or money, calculated upon the market value of the goods. Drawback of the full amount of duty shall be allowed upon goods found unsaleable and re-exported. Should the British merchant and the Custom-house officers disagree as to the value to be set upon imported articles, such disputes shall be referred to the Consul and proper Siamese officer, who shall each have the power to call in an equal number of merchants as assessors, not exceeding two on either side, to assist them in coming to an equitable decision.

Opium may be imported free of duty, but can only be sold to the opium farmer or his agents. In the event of no arrangement being effected with them for the sale of the opium, it shall be re-exported, and no impost or duty shall be levied thereon. Any infringement of this regulation shall subject the opium to seizure and confiscation.

Articles of export from the time of production to the date of shipment shall pay one impost only, whether this be levied under the name of inland tax, transit duty, or duty on exportation. The tax or duty to be paid on each article of Siamese produce previous to or upon exportation, is specified in the tariff attached to this treaty; and it is distinctly agreed that goods or produce which pay any description of tax in the interior shall be exempted from any further payment of duty on exportation.

English merchants are to be allowed to purchase directly from the producer the articles in which they trade, and in like manner to sell their goods directly to the parties wishing to purchase the same, without the interference, in either case, of any other person.

The rates of duty laid down in the tariff attached to this treaty are those that are now paid upon goods or produce shipped in Siamese or Chinese vessels or junks; and it is agreed that British shipping shall enjoy all the privileges now exercised by, or which hereafter may be granted to, Siamese or Chinese vessels or junks.

British subjects will be allowed to build ships in Siam, on obtaining permission to do so from the Siamese authorities.

Whenever a scarcity may be apprehended, of salt, rice, and fish, the Siamese Government reserve to themselves the right of prohibiting, by public proclamation, the exportation of these articles.

Bullion, or personal effects, may be imported or exported free of charge.

9. The code of regulations appended to this treaty shall be enforced by the Consul, with the cooperation of the Siamese authorities; and they, the said authorities and Consul, shall be enabled to introduce any further regulations which may be found necessary, in order to give effect to the objects of this treaty.

All fines and penalties inflicted for infraction of the provisions and regulations of this treaty shall be paid to the Siamese Government.

Until the British Consul shall arrive at Bangkok, and enter upon his functions, the consignees of British vessels shall be at liberty to settle with the Siamese authorities all questions relating to their trade.

10. The British Government and its subjects will be allowed free and equal participation in any privileges that may have been, or may hereafter be granted by the Siamese Government to the government or subjects of any other nation.

21. After the lapse of ten years from the date of the ratification of this treaty, upon the desire of either the British or Siamese Government, and on twelve months' notice given by either party, the present and such portions of the treaty of 1826 as remain unrevoked by this treaty, together with the Tariff and Regulations hereunto annexed, or those that may hereafter be introduced, shall be subject to revision by Commissioners appointed on both sides for this purpose, who will be empowered to decide on and insert therein such amendments as experience shall prove to be desirable.

The ratifications were exchanged at Bangkok on the 5th April 1856.

General Regulations under which British Trade is to be conducted in Siam.

1. The master of every English ship coming to Bangkok to trade, must, either before or after entering the river, as may be found convenient, report the arrival of his vessel at the custom-house at Paknam, together with the number of his crew and guns, and the port from whence he comes. Upon anchoring his vessel at Paknam, he will deliver into the custody of the custom-house officers all his guns and ammunition: and a custom-house officer will then be appointed to the vessel, and will proceed in her to Bangkok.

2. A vessel passing Paknam without discharging her guns and ammunition as directed in the foregoing regulation, will be sent back to Paknam to comply with its provisions, and will be fined 800 ticals for having so disobeyed. After delivery of her guns and ammunition she will be permitted to return to Bangkok to trade.

3. When a British vessel shall have cast anchor at Bangkok, the master, unless a Sunday should intervene, will, within four-and-twenty hours after arrival, proceed to the British Consulate, and deposit there his ship's papers, bills of lading, &c., together with a true manifest of his import cargo: and upon the Consul's reporting these particulars to the custom-house, permission to break bulk will at once be given by the latter.

For neglecting so to report his arrival, or for presenting a false manifest, the master will subject himself, in each instance, to a penalty of 400 ticals; but he will be allowed to correct, within twenty-four hours after delivery of it to the Consul, any mistake he may discover in his manifest, without incurring the above-mentioned penalty.

4. A British vessel breaking bulk, and commencing to discharge before due permission shall be obtained, or smuggling either when in the river or outside the bar, shall be subject to the penalty of 800 ticals, and confiscation of the goods so smuggled or discharged.

5. As soon as a British vessel shall have discharged her cargo, and completed her outward lading, paid all her duties, and delivered a true manifest of her outward cargo to the British Consul, a Siamese port-clearance shall be granted her on application from the Consul, who, in the absence of any legal impediment to her departure, will then return to the master his ship's papers, and allow the vessel to leave. A custom-house officer will accompany the vessel to Paknam; and on arriving there she will be inspected by the custom-house officers of that station, and will receive from them the guns and ammunition previously delivered into their charge.

Tariff of Export and Inland Duties to be levied on Articles of Trade.

I. The undermentioned Articles shall be entirely free from Inland or other taxes, on production or transit, and shall pay Export Duty as follows:

	Tical.	Salung.	Fuang.	Hun.	
1. Ivory	10	0	0	0	Per pecul.
2. Gamboge	6	0	0	0	,,
3. Rhinoceros horns	50	0	0	0	,,
4. Cardamoms, best	14	0	0	0	,,
5. Ditto, bastard	6	0	0	0	,,
6. Dried Mussels	1	0	0	0	,,
7. Pelican's quills	2	2	0	0	,,
8. Betel nut, dried	1	0	0	0	,,
9. Krachi wood	0	2	0	0	,,
10. Shark's fins, white	6	0	0	0	,,
11. Ditto, black	3	0	0	0	,,
12. Lukkrabau seed	0	2	0	0	,,
13. Peacock's tails	10	0	0	0	Pr100 tails.
14. Buffalo and cow bones	0	0	0	3	Per pecul.
15. Rhinoceros hides	0	2	0	0	,,
16. Hide cuttings	0	1	0	0	,,
17. Turtle shells	1	0	0	0	,,
18. Soft ditto	1	0	0	0	,,
19. Bêche de mer	3	0	0	0	,,
20. Fish maws	3	0	0	0	,,
21. Birds' nests, uncleaned	20 per cent.				
22. Kingfisher's feathers	6	0	0	0	Per 100.
23. Cutch	0	2	0	0	Per pecul.
24. Beyché seed (Nux Vomica)	0	2	0	0	,,
25. Pungtarai seed	0	2	0	0	,,
26. Gum Benjamin	4	0	0	0	,,
27. Angrai bark	0	2	0	0	,,
28. Agilla wood	2	0	0	0	,,
29. Ray skins	3	0	0	0	,,
30. Old deer's horns	0	1	0	0	,,
31. Soft, or young ditto	10 per cent.				
32. Deer hides, fine	8	0	0	0	Per100 hide
33. Ditto, common	3	0	0	0	,,
34. Deer sinews	4	0	0	0	Per pecul.
35. Buffalo and cow hides	1	0	0	0	,,
36. Elephant's bones	1	0	0	0	,,
37. Tigers' bones	5	0	0	0	Per pecul.
38. Buffalo horns	0	1	0	0	,,
39. Elephants' hides	0	1	0	0	,,
40. Tiger's skins	0	1	0	0	Per skin.
41. Armadillo skins	4	0	0	0	Per pecul.
42. Sticklac	1	1	0	0	,,
43. Hemp	1	2	0	0	,,
44. Dried fish, *Ptaleng*	1	2	0	0	,,
45. Ditto, *Plasalit*	1	0	0	0	,,
46. Sapan wood	0	2	1	0	,,
47. Salt meat	2	0	0	0	,,
48. Mangrove bark	0	1	0	0	,,
49. Rosewood	0	2	0	0	,,
50. Ebony	1	1	0	0	,,
51. Rice	4	0	0	0	Per koyan.

II. The undermentioned Articles being subject to the Inland or Transit Duties herein named, and which shall not be increased, shall be exempt from Export Duty.

	Tical.	Salung.	Fuang.	Hun.	
52. Sugar, white	0	2	0	0	Per pecul.
53. Ditto, red	0	1	0	0	,,
54. Cotton, clean and uncleaned	10 per cent.				
55. Pepper	1	0	0	0	Per pecul.
56. Salt-fish, *Platu*	1	0	0	0	Per 10,000 fish.
57. Beans and Peas	One-twelfth.				
58. Dried Prawns	One-twelfth.				
59. Tilseed	One-twelfth.				
60. Silk, raw	One-twelfth.				
61. Bees'-wax	One-fifteenth.				
62. Tallow	1	0	0	0	Per pecul.
63. Salt	6	2	0	0	Per koyan.
64. Tobacco	1	2	0	0	Per 1,000 bundles.

III. All goods or produce unenumerated in this Tariff shall be free of Export Duty, and shall only be subject to one Inland Tax or Transit Duty, not exceeding the rate now paid.

This article has been compiled from information procured on the spot, and communicated to us by our friend John Crawfurd, Esq.; from the *Description du Royaume Thai ou Siam*, 2 tomes, Paris, 1854, de M. Pallegoix; Sir John Bowring's Account of the Kingdom and People of Siam; and Parliamentary Papers.

BANKRUPT AND BANKRUPTCY. In the general sense of the term, bankrupt is equivalent to insolvent, and is applied to designate any individual unable to pay his debts. Formerly in the law of England bankrupts formed that particular class of insolvents who were engaged in trade, or who "sought their living by buying and selling," and who were declared, upon the oath of one or more of their creditors, to have committed what the law had defined to be an *act of bankruptcy*. But the distinction between traders and non-traders was in most respects abolished by the act of 1861, the 24 & 25 Vict. c. 134. At present, however, we shall merely lay before the reader a few observations with respect to the principles and leading provisions embraced in the law as to bankruptcy and insolvency; referring the reader to the article INSOLVENCY AND BANKRUPTCY for some farther observations on the subject.

All classes of individuals, even those who have least to do with industrious undertakings, are exposed to vicissitudes and misfortunes, the occurrence of which may render them incapable of making good the engagements into which they have entered, and render them bankrupt or insolvent. But though bankruptcy be most frequently, perhaps, produced by uncontrollable causes, it is frequently also produced by persons living beyond their means, and by their repugnance to make those retrenchments which the state of their affairs imperatively demands; and sometimes and, we regret to have to add, not unfrequently, bankruptcy originates in fraud, or bad faith. But, however it may be occasioned, whether by the misfortunes, the folly, or the fraud of the individual, it ought, *primâ facie*, to be viewed as a very grave moral offence. No man is justified in entering into engagements, or making promises, which he has not a reasonable prospect of being able to fulfil; nor is he justified in applying the money or loans that may have been made to him, or the property that may have come into his hands in the course of his business, to maintain an expenditure that decidedly exceeds his ordinary income or profits. Those who persevere in a system of this sort cannot, if they think at all, expect to arrive at any goal other than bankruptcy. They must know that they are carrying on a system of deception; that they are contracting debts which they can never pay; and that, in truth, they are as really swindlers as if they had offered fictitious bills or dock-warrants in payment of their bonds. And hence the difficulty of dealing with this subject. Misfortunes, when they really occur, or the failure of reasonable speculations, are easily dealt with; but all bankruptcies not at once accounted for in that way involve serious grounds of suspicion, and should be thoroughly sifted. Inasmuch, however, as the circumstances which end in bankruptcy are often of a very complicated character, and difficult to disentangle, it is not easy to lay down any general rules for dealing with them. And hence it is that the laws with respect to bankruptcy

have differed very widely in different countries and periods of society, and that it is not, perhaps, possible to suggest any system against which pretty plausible objections may not be made.

The execrable atrocity of the early Roman laws with respect to bankruptcy is well known. According to the usual interpretation of the law of the twelve tables, which Cicero has so much eulogised*, the creditors of an insolvent debtor might, after some preliminary formalities, cut his body to pieces, each of them taking a share proportioned to the amount of his debt; and those who did not choose to resort to this horrible extremity, were authorised to subject the debtor to chains, stripes, and hard labour; or to sell him, his wife, and children, to perpetual slavery *trans Tyberim!* This law, and the law giving fathers the power of inflicting capital punishments on their children, strikingly illustrate the ferocious and sanguinary character of the early Romans.

There is reason to think, from the silence of historians on the subject, that no unfortunate debtor ever actually felt the utmost severity of this barbarous regulation; but the history of the republic is full of accounts of popular commotions, some of which led to very important changes, that were occasioned by the exercise of the power given to creditors of enslaving their debtors, and subjecting them to corporal punishments. The law, however, continued in this state till the year of Rome 427, 120 years after the promulgation of the twelve tables, when it was repealed. It was then enacted, that the persons of debtors should cease to be at the disposal of their creditors, and that the latter should merely be authorised to seize upon the debtor's goods, and sell them by auction in satisfaction of their claims. In the subsequent stages of Roman jurisprudence, farther changes were made, which seem generally to have leaned to the side of the debtor; and it was ultimately ruled, that an individual who had become insolvent without having committed any fraud, should upon making a *cessio bonorum*, or a surrender of his entire property to his creditors, be entitled to an exemption from all personal penalties.—(*Terasson, Histoire de la Jurisprudence Romaine*, p. 117.)

The law of England distinguished, down to a late period (1861), between the insolvency of persons engaged in trade and that of others, the former being treated with comparative indulgence. But despite the elaborate reasonings of Blackstone in its favour (*Comment.*, book ii. cap. 31), there were no really good grounds for this preference. Vast numbers of traders found their way into the Gazette without being the victims either of accidental losses or unavoidable contingencies. All that was most revolting in the worst cases of insolvency was equalled or surpassed by many of the cases in bankruptcy. Recklessness, improvidence, and the obtaining of loans or advances under false pretences, are as common in one class of society as another; and though this were not the case, the classes excluded from the benefit of the bankrupt acts had to encounter as many risks as the others. There are few trades so hazardous as that of a farmer, and yet if he became insolvent, he was not entitled to the same privileges he would have enjoyed had he been the keeper of an inn, or a commission agent! The injustice of this distinction is obvious; but, without dwelling upon it, it is clear that discharges, which were not given to insolvents, should be granted indiscriminately to all honest debtors. Being relieved from all concern as to his previous incumbrances, an insolvent who has obtained a discharge is prompted to exert himself vigorously in future, at the same time that his friends are not deterred from coming forward to his assistance. But no one, however favourably disposed, could venture to aid an insolvent who continued liable to his previous debts with a loan; and he was discouraged, even if he had means, from attempting to earn anything more than a bare livelihood; so that, while creditors did not, in one case out of a hundred, gain the smallest sum by this constant liability of the insolvent, his energies and usefulness were for ever paralysed. We, therefore, are glad that the distinction between bankruptcy and insolvency has been practically abolished. Every case of a failure to meet one's engagements should be tried on its own merits. Improvidence, extravagance, and bad faith, are equally objectionable in the case of traders and non-traders, and should be dealt with in precisely the same way.

The law of Bankruptcy is administered by a Court which sits in London, and by district courts in Manchester, Birmingham, and other large towns. The County Court Judges have also the powers of Commissioners of Bankruptcy, and may act as such.

The acts which constitute what are called a bankruptcy, are specified in clauses 70–85 of the Act 25 & 26 Vic. cap. 134. They all involve either an inability or a disinclination to pay one's just debts. They consist principally of allowing oneself to be

* Eremant omnes, licet! dicam quod sentio; bibliothecas, mehercule, omnium philosophorum unus mihi videtur duodecim tabularum libellus; siquis legum fontes et capita viderit et authoritatis pondere et utilitatis ubertate superare.—*De Oratore*, lib. i.

imprisoned for debt, a trader for 14 days, and a non-trader for two months; going or escaping abroad with intent to defraud creditors; filing a declaration of inability to meet one's engagements; suffering execution to be levied by seizure and sale of goods; traders executing a conveyance of their property to trustees for the benefit of the creditors, &c.

An adjudication of bankruptcy takes place upon the debtor or a creditor to the extent of 50*l.* presenting a petition to the court, which, on proof of the statement, adjudges the debtor a bankrupt. An official assignee is then appointed by the court, to ascertain and take care of the debtor's property. The creditors also appoint an assignee, and the proceedings then take place which are specified in the Act, clauses 86–225, for realising and rateably dividing the property of the bankrupt among the creditors, or for otherwise winding up and terminating the bankruptcy.

Upon the bankrupt passing his last examination under the statute, the court appoints a meeting for considering whether a discharge should be granted to him, and the conditions under which it should be granted. Formerly, discharges or certificates were of three kinds, but these distinctions are now abolished. The court is authorised according to the estimate which it forms of the conduct of the bankrupt, to suspend his discharge, with or without protection from arrest, for such term as they may think fit, stating in the discharge the reasons for such suspension, and whether he has been imprisoned under the provisions of the Act. It is left to the creditors to determine whether any, and if any, what allowance shall be made to a bankrupt out of his estate.

And it is further enacted, that any bankrupt "who has carried on trade by means of fictitious capital, or who could not have had, at the time when any of his debts were contracted, any reasonable or probable ground of expectation of being able to pay the same, or that, if a trader, he has, with intent to conceal the true state of his affairs, wilfully omitted to keep proper books of account, or, whether trader or not, that his insolvency is attributable to rash and hazardous speculation, or unjustifiable extravagance in living, or that he has put any of his creditors to unnecessary expense by frivolous or vexatious defence to any action or suit to recover any debt or money due from him, the court may either refuse an order of discharge, or may suspend the same from taking effect for such time as the court may think fit, or may grant an order of discharge subject to any condition or conditions touching any salary, pay, emoluments, profits, wages, earnings or income, which may afterwards become due to the bankrupt, and touching after-acquired property of the bankrupt, or may sentence the bankrupt to be imprisoned for any period of time not exceeding one year from the date of such sentence."

But, despite these and other penalties embodied in the Act, we are strongly impressed with a conviction that bankruptcy is treated in this country with too much indulgence. The offences specified in the Act are mostly of a very grave character, and some of them deserve to be very severely treated. But it so happens that it is often very difficult to establish by the evidence of witnesses some of the least justifiable and most common causes of bankruptcy, such as extravagant living, which is its great source, improvident speculation, and so forth. And we doubt whether any such evidence should be required. Bankruptcy, or the failure of individuals to fulfil their engagements, is, and should be considered a very serious offence. But, like other offences, it is of various degrees of magnitude, and may arise from very different causes. There is a wide difference between bankrupts who pay their creditors 10*s.* 15*s.* or 18*s.* per pound, and those who pay them only 1*s.* or 2*s.* per ditto, and it is not reasonable that they should be treated in the same way. Innumerable accidents and disappointments may occur to hinder a man from meeting his engagements; but if he have lived within his income and properly proportioned his speculations to the extent of his capital, it is difficult to see how he should be unable to pay a dividend of less than 10*s.* or 12*s.* per pound on his debts. And supposing this to be a correct view, it might be safely enacted that all bankruptcies in which the estates realised less than 10*s.* per pound of dividend, should *ipso facto* be held to be fraudulent, or caused by improper proceedings on the part of the bankrupts; and that they should be dealt with accordingly, unless they succeeded in satisfactorily establishing the propriety of their conduct. In cases where the dividend exceeded 10*s.*, it might, as at present, be left to the creditors to arraign the proceedings of the bankrupts in opposing their discharge.

We do not well see how a system of this sort could be justly objected to. Those who make improvident speculations, or who pursue a line of conduct which involves them deeper and deeper in debt and difficulties, cannot fail to know that they must necessarily become bankrupts; and, if they only injured themselves, few would regret the hardships which they might suffer. But they are sure to injure others—the savings on which the industrious and frugal had to depend being often squandered by the most unworthy parties, and on the most unworthy objects. Bankruptcy, when not occasioned by uncontrollable or unlooked-for causes, is, in truth, a great crime. Individuals who systematically contract debts which they have no reasonable prospect of being able to pay—who, to obtain loans, misrepresent the true state of their affairs, and pervert them, when obtained, to spendthrift or dishonest purposes—are one of the worst varieties of

swindlers. And the vast extent to which bankruptcy is carried, the extravagance and bad faith of many bankrupts, and the frequent non-existence and inconsiderable amount of the dividends, show the extent and malignancy of the disease, and the propriety of taking measures for its abatement.

The following return sets these statements in the clearest point of view:—

Return for the Year ending 11th October, 1863, of Judicial and Financial Matters, transacted under (Parl. Paper No. 31, Sess. 1864) The Bankruptcy Act of 1861.

	London District Court.	Country District Courts.	County Courts.	Total.
Number of adjudications of bankruptcy	2,949	1,672	3,849	8,470
On petition of a creditor	246	345	83	674
On petition of the debtor	2,412	1,099	3,033	6,144
By registrars at the prisons	196	215	456	867
On petitions in formâ pauperis	490	13	277	780
On judgment debtor summons	5	—	—	5
Number of adjudications where the debts of the bankrupt exceeded 300*l.*	1,683	1,657	184	3,524
Number where the debts did not exceed 300*l.*	1,266		3,665	4,916
Discharges granted	2,317	1,329	3,115	6,791
,, suspended	148	98	142	388
,, refused	3	3	114	120
Total amount of gross produce realised from the several bankrupts' estates	£ s. d. 185,185 14 3	£ s. d. 458,421 17 5	£ s. d. 54,990 17 11½	£ s. d. 698,598 9 7¾
Total amount realised by creditors' assignees	121,085 3 3	287,695 8 2	11,360 12 5½	425,141 3 10½
Total amount realised by official assignees	61,100 11 0	170,726 9 3	43,630 5 6½	275,457 5 9½
Number of cases in which a dividend was made	116	541	339	996
,, in which there was no dividend	2,786	1,132	1,712	5,630
,, in which dividend was under 2*s.* 6*d.*	55	269	137	459
s. d. and under *s. d.*				
,, 2 6 and under 5 0	34	139	111	284
,, 5 0 ,, 7 6	14	81	41	136
,, 7 6 ,, 10 0	5	20	16	41
,, 10 0 ,, 15 0	7	17	19	43
,, 15 0 ,, 20 0	3	6	4	15
,, 20 0 - -		9	11	20

The policy of imprisoning for debt, when nothing unfair or improper is involved in its contraction, is not a little questionable. Notwithstanding the deference due to the authorities who have vindicated this practice, we confess we are unable to discover anything very cogent in the reasonings advanced in its favour. Provided a person in insolvent circumstances intimate his situation to his creditors, and offer to make a voluntary surrender of his property to them, he has, supposing he has acted honestly, done all that should be required of him, and ought not to undergo any imprisonment. If, indeed, he have deceived his creditors by false representations, or have grossly misconducted himself, or have endeavoured to convey away any part of his property, then, undoubtedly, he should be subjected to the pains and penalties attached to swindling: But when such practices are not alleged, or cannot be proved, sound policy, we apprehend, would dictate that creditors should have no power over the persons of their debtors, and that they should be entitled only to their effects. The maxim, *carcer non solvit*, is not more trite than true. It is said that the fear of imprisonment operates as a check to prevent persons from getting into debt, and so no doubt it does. But then it must, on the other hand, be borne in mind, that the power to imprison tempts individuals to trust to its influence to enforce payment of their claims, and makes them less cautious in their inquiries as to the condition and circumstances of those to whom they give credit. The carelessness of tradesmen, and their extreme earnestness to obtain custom, are, more than anything else, the great causes of insolvency, and the power of imprisoning merely tends to foster and encourage these habits. If a tradesman trust an individual with a loan of money or goods, which he is unable to pay, he has made a bad speculation. But why should he, because he has done so, be allowed to arrest the debtor's person? If he wished to have perfect security, he either should not have dealt with him at all, or dealt with him only for ready money. Such transactions are, on the part of tradesmen, perfectly voluntary; and if they place undue confidence in a debtor who has not misled them by erroneous representations of his affairs, they have themselves only to blame.

It is pretty evident, too, that the efficacy of imprisonment in deterring individuals from running into debt has been greatly overrated. Insolvents who are honest must have suffered from misfortune, or been disappointed in the hopes they entertained of being able, in one way or other, to discharge their debts. The fear of imprisonment did not greatly influence such persons; for when they contracted debts, they had no doubt of their ability to pay them. And though the imprisonment of *bonâ fide* insolvents be abolished, it could give no encouragement to the practices of those who endeavour to raise money by false representations; for these are to be regarded as swindlers, and ought as such to be subjected to adequate punishment. (See CREDIT.)

BARCALAO, or BACALAO, the Spanish name for cod.

BARCELONA, the capital of Catalonia, and the principal town of Spain, on the Mediterranean, lat. 41° 22′ 58″ N., long. 2° 8′ 11″ E. It is a strongly-fortified, well-built city. The population, which has rapidly increased, amounted, in 1857, to 252,015. Barcelona is eminently distinguished in the history of the middle ages for the zeal, skill, and success with which her citizens prosecuted commercial adventures at a very early period. She would seem also to be entitled to the honour of having compiled and promulgated the famous code of maritime law known by the name of the *Consolato del Mare*; and the earliest authentic notices of the practice of marine insurance and of the negotiation of bills of exchange are to be found in her annals.* Catalonia has continued, amidst

* For proofs of this, see the articles MARITIME LAW, INSURANCE, &c. in this Dictionary. The *Memorias Historicas sobre la Marina, Comercio, &c. de Barcelona*, by Capmany, in 4 vols. 4to., is one of the most valuable and authentic works that has been published on the commerce, arts, and commercial and maritime legislation of the middle ages. The first volume is the most interesting, at least to the general reader; the others consisting principally of extracts from the archives of the city. There is a brief but pretty good account of the early trade of Barcelona, drawn principally from Capmany, in the work of Depping, *Histoire du Commerce entre le Levant et l'Europe depuis les Croisades, &c.* tom. i. c. 5.

all the vicissitudes it has undergone, to be the most industrious of the Spanish provinces. Many very extensive manufactures, especially of silk and cotton, have been established in Barcelona, and within the last 10 or 12 years an extraordinary degree of enterprise has been infused into all classes of the population. In 1857 the town had no fewer than 3 banking companies, 6 maritime insurance companies, 6 railway companies, 4 steam navigation companies, 3 canal companies, and 3 gas companies. The Bank of Barcelona, which was founded in 1844, has a capital of 80 millions of reals, of which 20 millions have been paid up. It has been very well managed; and its success has led to the formation of other banking and discount companies. Another company recently formed deserves special mention, being for the establishment of an electric telegraph to connect Barcelona with France and Europe generally on the one side, and with Madrid through Tarragona on the other. It is true that some of the many companies formed of late years have been wound up; but others continue in a flourishing state. The railways which centre in the city, and are being extended into the interior, will be of infinite advantage to its industry and trade.

The Harbour, which is naturally bad, is formed by a mole or jetty, which has recently been a good deal enlarged, running out to a considerable distance in a southerly direction, and having a lighthouse and some batteries near its extremity. The depth of water within the mole is from 18 to 20 feet; but there is a bar between the mole and Montjuí, which has frequently not more than 10 feet water; and which would, it is believed, entirely shut up the harbour, were it not occasionally lowered by means of dredging machines. Vessels in the harbour moor at a short distance from the mole; where, though exposed to the southerly gales, they are so well protected that no accident of any consequence has taken place since the dreadful storm of 1821. Large ships must anchor outside the mole, and in winter are much incommoded by winds. Vessels entering the harbour are under no obligation to take a pilot on board; but they are always in attendance, and it is generally deemed safest to have their assistance in passing the bar.

The principal articles of import are raw cotton: sugar, coffee, cocoa, and other colonial products, principally from Cuba and Porto Rico; salted fish, hides, and horns; iron and hardware; machinery, coal, &c., have latterly been imported in large quantities, principally from England. Most species of manufactured goods are prohibited; but it is needless to add that they are notwithstanding largely introduced into this as into most other parts of Spain. The trade with the colonies, France, and the coasting trade is active and increasing. Catalonia being the grand seat of the Spanish cotton trade, the imports of raw cotton are very considerable. In proof of this, it may suffice to mention that in the year ending the 30th June, 1858, no fewer than 80,043 bales (36,805,962 lbs.), worth 4,516,244 dollars, were shipped from the U. States for Spain on the Mediterranean, that is, for Barcelona; at the same time that additional supplies were obtained from Brazil and other parts. From 50,000 to 100,000 persons, mostly in Catalonia, are said to be dependent on the manufacture. The raw cotton is principally imported in Spanish ships. The direct imports from England, ex. coal, are not very considerable, and the exports to her still less.

The principal exports are wrought silks, cotton stuffs, soap, fire-arms, paper, hats, laces, ribands, steel, &c. Upwards of 2,000 hands used formerly to be employed in the city in the manufacture of shoes for the colonies; but their export has now nearly ceased. The principal articles of native produce that Catalonia has to export are most conveniently shipped at Villanova, Tarragona, and Salou. They consist of wine, brandy, nuts, almonds, cork bark, wool, fruits, &c. A good deal of brandy is sent to Cadiz and Cette: most part of the former finds its way into the wine vaults of Xeres; and the latter, being conveyed by the canal of Languedoc to the Garonne, is used in the preparation of the wines of Bordeaux. From 25,000 to 30,000 bags of nuts are annually sent from Tarragona to England. Tarragona also exports about 12,000 bags of almonds.

Mr. Baker, the intelligent consul at Barcelona, states:

"The Spanish, or national trade of this port, and its dependent ports, has been of considerable importance during the past year, (1856,) being at Barcelona, as far as can be ascertained, 2,610 arrivals, of 270,025 tons, and 3,718,720*l.* value of cargoes; and at the other ports 2,167 vessels of 81,046 tons, and cargoes of the value of 663,000*l.*; the departures being, for Barcelona, 2,395 vessels of 277,046 tons, and cargoes of 3,216,770*l.* value, and for the other ports 2,143 vessels of 79,719 tons, with 629,708*l.* value in cargoes. From this it may be inferred that the trade of this consular district is for Spain one of the utmost importance in reference to the revenue, to the increase of shipping, which is said to have been doubled in the last 10 years, and to the training of seamen." We subjoin from the same authority

A Return of British Vessels trading with Barcelona, and the Ports of Tarragona, Villanueva, and Mataro, during the 5 years ending with 1856.

	Arrived.				Departed.			
Years.	Vessels.	Tons.	Crews.	Value of Cargoes.	Vessels.	Tons.	Crews.	Value of Cargoes.
1852	159	32,211	1,603	£73,838	157	38,671	1,589	£34,075
1853	171	37,612	1,625	182,174	166	36,248	1,570	15,425
1854	197	20,163	1,047	146,032	125	19,709	1,051	
1855	157	22,650	1,097	67,041	150	21,192	1,057	41,765
1856	256	45,578	2,050	161,103	224	30,140	1,853	55,845

Custom-house and Warehousing Regulations, same as at ALICANT; which see.

Port Charges.—The following are the various charges of a public nature that would be paid by a Spanish and a British ship, each of 500 tons burden, unloading and loading mixed cargoes in Barcelona:—

Spanish Vessels.	Reals.	British Vessels.	Reals.
Anchorage - -	75	Anchorage - -	75
New do. - -	15	Double do. - -	75
Cleaning of port -	10	New do. - -	15
Lantern - -	6	Cleaning of port -	10
Captain of the port -	8	Lantern - -	6
Light-house of Tarrifa	105	Captain of the port -	8
Loading (1 real per ton)	300	Light-house of Tarrifa	211
Extraordinary contribution - -	40	New mole (8 reals per ton)	2,400
New mole - -	16	Loading (1 real per ton)	300
		Extraordinary contribution - -	40
Total -	575		3,110
		Consular fees usually required - -	160
		Total	3,300

Taking the real at 4*d.*, this would be 9*l.* 11*s.* 2*d.* on the Spanish ship, and 55*l.* on the British do.

Commission is at the rate of 2½ per cent. on goods shipped, and 5 per cent. on those received on consignment. Goods are sometimes sold for ready money, and sometimes on credit for 3 or 4 months.

Tares.—At the Custom-house, real tares only are allowed; and the nett weights must be rigorously manifested. A surplus of 3 per cent. is, however, allowed to cover any inexactness in the proportion between foreign and Spanish weights: but if the weight of any parcel should turn out to be 3 per cent. greater than is marked in the manifest, the surplus is seized, at the same time that the importer loses the benefit of the 3 per cent. allowed by law, and becomes liable to the penalties of smuggling. The tares usually allowed by merchants are, on Havannah sugar 15 per cent.; on coffee 2 per cent., exclusive of the barrel, bag, &c. in which it is contained; on cocoa and pepper 2 per cent.; Pernambuco cotton 4 lbs. per bale; other cotton 1 lb. per cwt.

Money.—Accounts are kept in *libras* of 20 *sueldos*, 240 *dineros*, or 480 *mallas*. The libras is likewise divided into *reals de plata Catalan*, of 5 *sheldos* each; and into *reales arbites*, of 2 *sueldos* each. Hence, 6·7 of the former, or 10 of the latter, =1 *libra Catalan*.

The *libra Catalan* is=2*s.* 4*d.* sterling nearly.

The *peso duro*, or hard dollar, is valued at 37½ *sueldos Catalan*, eight such dollars making 15 *libras*.

Weights and Measures.—There are endless discrepancies amongst the weights and measures in the different Spanish provinces, and there is a very great discrepancy in the accounts of the authors who have written upon them. The following statements are taken from Nelkenbrecher:—

The quintal is divided into 4 *arrobas*, or 104 lbs. of 12 oz. to the pound. The pound = 6,174 English grains = 4 kilog. =8525·6 as of Holland. 100 lbs. of Barcelona=88·215 lbs. avoirdupois.

The yard, named *cana*, is divided into 8 *palmos*, of 4 *quartos*, and is=21 inches very nearly. Hence, 100 canas=55·499 metres=77·6 yards of Amsterdam=58·514 English yards.

The *quartera*, or measure for grain, is divided into 12 *cortunes* and 48 *picolins*. 100 quarteras=23·536, or 23¼ Winchester quarters.

The *carga*, or measure for liquids, is divided into 12 *cortanes* or *arrobas*, 24 *cortarinas*, and 72 *mitadellas*. It is=32·7 English wine gallons. 4 cargas=1 *pipe*. The pipe of Majorca oil contains 107 cortanes.

(We have derived these details from various sources; but principally from *Consular Returns* and from *Inglis's Spain in* 1830, vol. ii. pp. 384-387, and 362.)

BARILLA (Du. *Soda*; Fr. *Soude, Barille*; Ger. *Soda, Barilla*; It. *Barriglia*; Port. *Solda, Barrilha*; Rus. *Socianka*; Sp. *Barilla*; Arab. *Kali*), carbonate of soda — (see ALKALIES), is found native in Hungary, Egypt, and many other countries. It is largely used by bleachers, manufacturers of hard soaps, glass-makers, &c. The barilla of commerce consists of the ashes of several marine and other plants growing on the sea-shore. The best, or Alicant barilla, is prepared from the *Salsola soda*, which is very extensively cultivated for this purpose in the *huerta* of Murcia, and other places on the eastern shores of Spain. — (*Townsend's Travels in Spain*, vol. iii. p. 195) The plants are gathered in September, dried, and burned in furnaces heated so as to bring the ashes into a state of imperfect fusion, when they concrete into hard, dry, cellular masses of a greyish blue colour. Sicily and Teneriffe produce good barilla, but inferior to that of Alicant and Carthagena. Kelp, which is a less pure alkali, is formed by the incineration of the common sea-weed. — (See KELP.)

The Saracens established in Spain seem to have been the first who introduced the manufacture of barilla into Europe. They called the plants employed in its preparation *kali*; and this, with the Arabic article *al* prefixed, has given rise to the modern chemical term alkali. Prime quality in barilla is to be distinguished by its strong smell when wetted, and by its whitish colour. Particular attention should be paid to have as little small or dust as possible.

The manufacture of artificial soda (*soude factice*), now very extensively carried on, occasioned an extraordinary decline in the imports of barilla, the quantity entered for home consumption in 1834, amounting to 237,712 cwt., having been reduced in 1841 to 47,380 cwt. Considerable quantities are imported from Teneriffe, Alicant in Spain, Sicily, the U. States, and Russia. Thus, of 1449 tons imported in 1857, 819 came from the Canary Islands. 158 from Italy (Sicily), 122 from the U. States, and 103 from Russia. The duty on barilla, after being reduced in 1842 from 40*s.* to 5*s.* a ton, was wholly repealed in 1845. But this judicious measure has not had so much influence over the consumption of the article as was expected.

BARK, the outer rind of plants. There is an immense variety of barks known in commerce, as cinnamon, Peruvian bark, oak bark, quercitron, &c. The term "bark" is, however, generally employed to express either Peruvian bark, or oak bark; and it is these only that we shall notice in this place.

1. *Peruvian or Jesuits' Bark* (Fr. *Quinquina*; Ger. *Kron-china*; Du. *China-bast*; Sp. *Quina, Quinquina*; Lat. *Quinquina Cortex Peruvianus*). There are three principal species of this bark known in commerce, which have been elaborately described by Dr. A. T. Thomson, from whose account the following particulars are selected.

The first species is the *pale* bark of the shops. It is the produce of the *Cinchona lancifolia*, and is the original cinchona of Peru. It is now very scarce. It is imported in chests covered with skins, each containing about 200 lbs., well packed, but generally mixed with a quantity of dust and other heterogeneous matter. It consists of pieces 8 or 10 inches long, some of them being scarcely one tenth of an inch thick, singly and doubly quilled, or rolled inwards, the quills generally being in size from a swan's quill to an inch and a half. It is internally of a pallid fawn or cinnamon hue, but approximates, on being moistened, to the colour of a pale orange. When in substance it has scarcely any odour, but during decoction the odour is sensible, and agreeably aromatic. The taste is bitter, but not unpleasant, acidulous, and austere.

The second species, or red bark, is obtained from the *Cinchona oblongifolia*, growing on the Andes. It is imported in chests containing from 100 to 150 lbs. each. It con-

sists of variously sized pieces, most of them flat, but some partially quilled or rolled. The internal part is woody, and of a rust red colour: it has a weak peculiar odour, and its taste is much less bitter, but more austere and nauseous, than that of the other barks.

The third species, or yellow bark of the shops, is obtained from the *Cinchona cordifolia*, growing in Quito and Santa Fé. It is imported in chests containing from 90 to 100 lbs. each, consisting of pieces 8 or 10 inches long, some quilled, but the greater part flat. The interior is of a yellow colour, passing to orange. It has nearly the same odour in decoction as the pale; the taste is more bitter and less austere, and it excites no astringent feeling when chewed. The goodness decreases when the colour varies from orange yellow to pale yellow; when of a dark colour, between red and yellow, it should be rejected.

It is needless to add, that bark is one of the most valuable medical remedies. The Indians were unacquainted with its uses, which seem to have been first discovered by the Jesuits. It was introduced into Europe in 1632, but was not extensively used till the latter part of the seventeenth century. According to Humboldt, the Jesuits' bark annually exported from America amounts to from 12,000 to 14,000 quintals. Of these, 2,000 are furnished by Santa Fé, and 110 by Loxa; Peru furnishing the remainder, which is shipped at Callao, Guayaquil, &c.

2. *Oak Bark* (Fr. *Ecorce de la Chêne*; Ger. *Eichenrinde*; It. *Corteccia della Quercia*; Lat. *Quercûs cortex*). The bark of the common oak is a powerful astringent, and is preferred to all other substances for tanning leather. The bark of the larch is now, however, used for the same purpose. Though the importation of oak bark for tanning has somewhat declined of late years, it is still very considerable. It is impossible, however, to state its exact amount, inasmuch as a species of oak bark, called quercitron, the produce of the *Quercus tinctoria*, imported from abroad, and used to give a yellow dye to silk and wool, is mixed up in the custom-house returns with bark for tanning. The latter, which is by far the most important, is brought principally from Belgium and Holland, Germany, Italy and Spain, Norway and Australia. Quercitron comes principally from the United States. The quality of bark differs according to the age and size of the tree, the season when it is barked, &c., so much that its price varies from 5*l.* to 10*l.* a ton. The duty on bark for tanning and dyeing, which previously to 1842 was 8*d.* a cwt. after being then reduced to 3*d.*, was repealed in 1845.

In 1857, the imports and exports of Peruvian bark were respectively 21,251 and 9,625 cwts. During the same year we imported 381,243 cwt. bark for the use of tanners and dyers, of which none was re-exported. But in addition to the above we imported, in 1857, 3,153 tons divi divi, and 24,023 tons valonia, of which little or none was re-exported. Belgium, Holland, the U. States, Germany, Italy, and Norway furnish by far the largest portion of the imports of oak bark.

We are indebted for the discovery and application of the useful properties of quercitron to Dr. Bancroft. The doctor obtained a patent for his invention in 1775; but the American war breaking out soon after, deprived him of its advantages. In consideration of this circumstance, parliament passed, in 1785, an act (25 Geo. 3. c. 38.) securing to him the privileges conveyed by his patent for 14 years. At the expiration of the latter period the House of Commons agreed to extend the doctor's privilege for an additional 7 years, but the House of Lords rejected the bill. Like too many discoverers, Dr. Bancroft profited but little by his invention, though it has been of great use to the arts and manufactures of the country.—(See *Bancroft on Permanent Colours*, vol. ii. p. 112., and the *Report of the Committee of the House of Commons on Patents, Appendix*, p. 175.)

BARLEY (Fr. *Orge*; Ger. *Gerstengraupen*; Du. *Ryg*; It. *Orzo*; Sp. *Cebada*; Rus. *Fatschmea*; Lat. *Hordeum*; Arab. *Dhourra*; Hind. *Jow*), a species of bread-corn (*Hordeum* Lin.), of which there are several varieties. It is extensively cultivated in most European countries, and in most of the temperate districts of Asia and Africa. It may also be raised between the tropics; but not at a lower elevation than from 3,000 to 4,000 feet, and then it is not worth cultivating. Large quantities of barley have been, for a lengthened period, raised in Great Britain. Recently, however, its cultivation has been supposed, though probably on no good grounds, to be declining. In 1765, Mr. Charles Smith estimated the number of barley consumers in England and Wales at 739,000; and as a large proportion of the population of Wales, Westmoreland, and Cumberland continue to subsist chiefly on barley bread, we are inclined to think that this estimate may not, at present, be very wide of the mark. But the principal demand for barley in Great Britain is for conversion into malt, to be used in the manufacture of ale, porter, and British spirits; and though its consumption in this way has not certainly increased proportionally to the increase of wealth and population, still there does not seem to be any grounds for supposing that it has diminished. Barley is also extensively used in fattening black cattle, hogs, and poultry. It now generally follows turnips, and is a very important crop in the rotation best adapted to light soils. The principal barley counties of England are Norfolk, Suffolk, Cambridge, Bedford, Herts, Leicester, Nottingham, the upper parts of Hereford, Warwick, and Salop. The produce varies, according to soil, preparation, season, &c., from about 20 to 60 or 70 bushels an acre. The most usual crop is from 28 to 36 or 38 bushels. The Winchester bushel

of good English barley generally weighs about 50 lbs., but the best Norfolk barley sometimes weighs 53 or 54 lbs. Its produce in flour is about 12 lbs. to 14 lbs. grain. Barley is a tender plant, and easily hurt in any stage of its growth. It is more hazardous than wheat, and is, generally speaking, raised at a greater expense; so that its cultivation should not be attempted except when the soil and climate are favourable for its growth.— (For details as to the prices of barley, the quantities imported and exported, &c., see CORN LAWS AND CORN TRADE. And for further details as to its consumption and culture, see *Smith's Tracts on the Corn Trade*, 2d ed. p. 182.; *Brown on Rural Affairs*, vol. ii. p. 42.; *Loudon's Encyc. of Agriculture, &c.*)

BARRATRY, in navigation, is, in its most extensive sense, any fraudulent or unlawful act committed by the master or mariners of a ship, contrary to their duty to their owners, and to the prejudice of the latter. It appears to be derived from the Italian word *barratrare*, to cheat. It may be committed by running away with a ship, wilfully carrying her out of the course prescribed by the owners, delaying or defeating the voyage, deserting convoy without leave, sinking or deserting the ship, embezzling the cargo, smuggling, or any other offence whereby the ship or cargo may be subjected to arrest, detention, loss, or forfeiture.

It is the practice in most countries to insure against barratry. Most foreign jurists hold, that it comprehends every fault which the master and crew can commit, whether it arise from fraud, negligence, unskilfulness, or mere imprudence. But in this country is is ruled, that no act of the master or crew shall be deemed barratry, unless it proceed from a *criminal* or *fraudulent* motive.

"Barratry can only be committed by the master and mariners by some act contrary to their duty in the relation in which they stand to the owners of the ship. It is, therefore, an offence against them, and consequently an owner himself cannot commit barratry. He may, by his fraudulent conduct, make himself liable to the owner of the goods on board, but not for *barratry*. Neither can barratry be committed against the owner *with his consent*; for though he may be liable for any loss or damage occasioned by the misconduct of the master to which he consents, yet this is not barratry. Nothing is more clear than that a man can never set up as a crime an act done by his own direction or consent."—(*Marshall on Insurance*, book i. c. 12. § 6.)

When, therefore, the owner of a ship is also the master, no act of barratry can be committed; for no man can commit a fraud against himself.

It is a maxim in law, that fraud shall not be presumed, but must be clearly proved; and it is a rule in questions of insurance, that he who charges barratry must substantiate it by conclusive evidence.

It is not necessary, to render an act barratrous, that it should be committed with a criminal intent as respects the owners, in order to injure them, or to benefit the captain or crew. It may even be committed with a view to promote the owner's interests; for *an illegal act* done without the authority or privity of the owners, and which proves detrimental to them, is barratry, whatever be the motives in which it originated. Lord Ellenborough, in an able judgment, has laid it down as clear law, "that a breach of duty by the master in respect of his owners, with a fraudulent or criminal intent, or *ex maleficio*, is barratry; that it makes no difference whether this act of the master be induced by motives of advantage to himself, malice to the owner, or *a disregard of those laws which it was his duty to obey*; and that it is not for him to judge or suppose, in cases not intrusted to his discretion, that he is not breaking the trust reposed in him, when he endeavours to advance the interests of his owners by means which the law forbids, and which his owners also must be taken to have forbidden."

The circumstance of the owners of ships being permitted to insure against the barratry of the master and mariners can hardly fail, it may be not uncharitably presumed, of rendering them less scrupulous in their inquiries with respect to their character than they would otherwise be. Perhaps, therefore, it might be expedient to prohibit such insurances, or to lay some restrictions upon them. They were, indeed, expressly forbidden by the Ordinance of Rotterdam; and Lord Mansfield, whose authority on all points connected with the law of insurance is so deservedly high, seems to have thought that it would be well to exclude barratry entirely from policies, and to cease "making the underwriter become the insurer of the conduct of the captain whom he does not appoint, and cannot dismiss, to the owners who can do either." But though it were expedient to prevent the owners from making an insurance of this sort, nothing can be more reasonable than that third parties, who freight a ship, or put goods on board, should be allowed to insure against such a copious source of loss.—(For a further discussion of this subject, see the article MARINE INSURANCE; and *Marshall on Insurance*, book i. c. 12. § 6., and *Park on Insurance*, c. 5.)

Owners, masters, or seamen, who wilfully cast away, burn, or destroy ships, to the prejudice of freighters or insurers, incur the penalty of death.—(See SEAMEN.)

BARREL, a cask or vessel for holding liquids, particularly ale and beer. Formerly the barrel of beer in London contained only 32 ale gallons = 32½ Imperial gallons; but it was enacted by 43 Geo. c. 69. that 36 gallons of beer should be taken to be a barrel; and by the 6 Geo. 4. c. 58. it is enacted, that whenever any gallon measure is mentioned in any excise law, it shall always be deemed and taken to be a standard Imperial gallon. At present, therefore, the barrel contains 36 Imperial gallons. It may be worth while observing that the barrel or cask is an exclusive product of European ingenuity; and that no such article is known to any nation of Asia, Africa, or America, who have not derived it from Europeans.

BARWOOD, a red dye wood brought from Africa, particularly from Angola, and the river Gaboon. The dark red which is commonly seen upon British Bandana handkerchiefs is for the most part produced by the colouring matter of barwood, saddened by sulphate of iron.—(*Bancroft on Colours.*) The imports of barwood, in 1857, amounted to 4,180 tons. It is estimated, in the official accounts, as being worth about 6*l.* per ton.

BASKETS (Fr. *Corbeilles*; Ger. *Körbe*; It. *Paniere*; Sp. *Canastas, Canastos*; Rus. *Korsinü*) are made, as every one knows, principally of the interwoven twigs of willow, osier, birch, &c., but frequently also of rushes, splinters of wood, straw, and an immense number of other articles. They are used to hold all sorts of dry goods, and are constructed of every variety of quality and shape. Besides the vast quantities produced at home, some of the finer kinds were imported under an *ad valorem* duty, which, previously to 1854, was 10½ per cent. In the above year, the duty was reduced to 4*d.* per cubic foot; and in 1857, the total value of the baskets imported was estimated at 35,348*l.*, of which those from France amounted to 31,563*l.* Very large quantities of rods for making baskets are, also, imported.

BAST, for straw hats or bonnets. See HATS.

BATAVIA, a city of the island of Java, the capital of the Dutch possessions in the East Indies, and the principal trading port of the Oriental islands, lat. 6° 8′ S., long. 106° 50′ E., on the north-west coast of the island, on an extensive bay. The harbour, or rather road, lies between the main land and several small uninhabited islands, which, during the boisterous or north-western monsoon, afford sufficient shelter, and good anchorage. Ships of from 300 to 500 tons anchor at about 1½ mile from shore. A small river runs through the town, which is navigable for vessels of from 20 to 40 tons, a couple of miles inland; a number of canals branch off from it into different parts of the town, affording great conveniences for trade. Batavia was formerly so very insalubrious, that General Daendels was anxious to transfer the seat of government to Sourabaya; but being thwarted in this, he set about building a new town, a little further inland, on the heights of Weltevreden, whither the government offices were immediately removed. Most part of the principal merchants have now their residences in the new town, repairing only to the old city, when business requires it, during a portion of the day. In consequence, the old town is at present principally occupied by Chinese, and the descendants of the ancient colonists, several of its streets having been deserted and demolished. More recently, however, the Baron Capellen, whose enlightened administration will long be gratefully remembered in Java, sensible of the superior advantages of the old town as a place of trade, exerted himself to prevent its further decay, by removing the causes of its unhealthiness; to accomplish which, he widened several of the streets, filled up some of the canals, and cleaned others, demolished useless fortifications, &c.; and the effect of these judicious measures has been, that Batavia is now as healthy as any other town of the island. The population, according to an accurate census taken in 1832, consisted of 2,800 Europeans, 80,000 natives, 25,000 Chinese, 1,000 Arabs, and 9,500 slaves; in all 118,300 persons, exclusive of the garrison. As the population has increased since, it may at present be estimated at from 130,000 to 140,000, independently of the military, of which there are always a considerable number. Among the principal merchants are Dutch, English, Americans, French, and Germans. The island of Java forms the most important portion of the Dutch possessions in the East, and is, in fact, one of the finest colonies in the world. It contains, inc. Madura, an area of 52,000 square miles, with a population of between 10,000,000 and 11,000,000.

Official Account of the Quantities of the Principal Articles of Produce exported from Java and Madura in the following Years.

Years.	Coffee.	Pepper.	Indigo.	Hides.	Cloves.	Nutmegs.	Sugar.	Tin.	Rice.	Ratans.	Mace.	Arrack.
	Pic.	*Pic.*	*Lbs.*	*Pieces.*	*Pic.*	*Pic.*	*Pic.*	*Pic.*	*Cayans.*	*Pic.*	*Pic.*	*Legg.*
1830	288,740	6,061	22,063	30,249	803	1,304	108,640	21,426	15,521	5,096	177	1,927
1855	466,871	11,868	535,753	139,995	4,866	5,022	459,543	40,836	25,577	4,905	1,606	2,075
									Pic.			
1840	1,132,124	9,911	2,125,911	110,494	53	3,600	1,024,497	62,334	680,909	28,032	870	5,261
1845	906,190	11,527	1,653,869	105,751	2,234	5,405	1,155,423	73,557	447,047	51,260	850	4,578

Account of the Quantities and Values of the Principal Articles, the Produce of the Eastern Archipelago, Exported from Java and Madura, in 1850, 1851, 1852, 1853, and 1854.

Articles.	Quantities.					Value in Florins.				
	1850.	1851.	1852.	1853.	1854.	1850.	1851.	1852.	1853.	1854.
Earthenware	-	-	-	-	-	4,135	7,846	8,137	7,056	6,481
Kimmel, liqueur of aniseed	-	-	-	-	-	4,832	8,311	9,933	12,548	18,902
Arrack - leggers	6,225	6,862	5,820	5,548	7,183	254,272	298,257	289,656	204,610	291,743
Gum Benjamin piculs	309	111	216	220	261	15,164	5,249	13,432	13,332	28,319
Cochineal lbs.	133,841	134,076	130,415	140,963	117,613	495,825	413,634	397,501	290,051	268,199
Provisions	-	-	-	-	-	195,118	179,381	184,120	279,326	199,879
Gambier - piculs	372	504	498	564	966	7,181	11,760	11,858	14,755	26,149
Gamutcheuc ,,	1,748	6,879	9,287	15,195	26,718	19,110	148,116	211,551	455,928	985,996
Resin, &c. ,,	1,657	1,186	1,092	4,319	6,139	20,295	16,911	28,913	136,029	178,372
Wood, sapan ,,	5,606	8,039	8,496	5,430	7,290	33,187	56,621	54,035	29,417	44,064
Wooden wares	-	-	-	-	-	17,928	17,195	28,068	36,506	30,206
Hides, cow and buffalo - no.	189,953	257,054	158,142	128,127	166,795	320,278	425,633	314,643	260,409	435,992
Indigo - lbs.	1,256,821	774,305	690,505	1,325,002	1,077,818	4,193,482	2,879,791	2,347,569	5,072,065	3,822,675
Ivory - piculs	14	23	25	20	15	7,001	13,005	12,598	10,870	8,676
Cinnamon ,,	1,301	1,325	2,402	2,084	1,972	104,747	95,221	163,415	128,612	138,194
Cassia - ,,	4,344	7,794	3,013	2,557	3,033	66,074	118,855	45,630	28,701	40,576
Coffee - ,,	818,881	1,210,990	1,003,847	1,019,575	1,017,596	18,720,907	27,792,181	22,843,865	25,309,579	25,377,107
Copper wares	-	-	-	-	-	251,540	295,803	275,499	218,138	269,056
Mercery	-	-	-	-	-	45,545	45,394	37,029	33,525	28,720
Linen and cotton yarn	-	-	-	-	-	546,905	687,829	834,601	639,511	676,918
Matting	-	-	-	-	-	41,024	45,570	51,096	54,937	48,551
Medicines and drugs	-	-	-	-	-	46,691	89,777	27,814	56,092	12,623
Oil - piculs	6,123	4,801	6,683	7,101	5,927	76,874	95,994	124,047	91,972	92,305
Pepper - ,,	21,206	19,456	32,506	15,336	14,816	345,108	309,665	543,882	305,169	367,121
Rattans - ,,	43,038	47,516	47,684	47,721	62,283	274,191	324,855	330,66	326,098	405,890
Rice - ,,	506,733	714,351	588,557	665,879	576,512	2,652,610	3,782,882	2,525,691	2,915,810	3,100,043
Spices: mace ,,	2,704	794	1,284	1,846	658	366,520	136,593	145,518	251,894	81,020
,, cloves ,,	492	2,377	1,471	124	573	29,016	141,166	110,077	7,727	33,431
,, nutmegs ,,	7,063	4,577	3,190	4,414	5,872	1,055,167	841,805	465,238	621,452	921,371
Sugar, white ,,	1,381,444	1,899,112	1,171,940	1,768,233	1,773,468	17,021,742	23,050,672	14,751,488	20,966,746	21,115,838
,, brown ,,	2,863	25,210	44,173	19,394	20,042	23,954	206,252	309,288	132,955	131,575
Tobacco - ,,	10,516	39,544	25,776	35,739	39,355	390,608	1,167,795	1,136,621	971,869	1,069,953
Tea - - ,,	8,075	-	-	-	-	306,865	208,310	173,598	910,595	462,503
Tin - - ,,	57,481	77,611	64,803	64,356	66,158	4,997,750	3,880,584	3,239,194	3,217,726	3,301,499
Dyeing stuffs	-	-	-	-	-	17,252	20,950	23,100	49,965	9,107
Birds' nests (edible) piculs	131	157	202	31	38	327,268	280,906	363,377	84,859	77,810
Iron wares	-	-	-	-	-	13,846	13,864	15,031	10,252	12,410
Salt - koijang	4,196	5,454	4,086	4,994	4,763	250,233	342,766	265,590	305,524	321,528
Total value of the above and all other articles	-	-	-	-	-	54,251,265 £	68,664,277 £	52,997,007 £	64,685,342 £	64,775,497 £
Ditto	-	-	-	-	-	4,520,939	5,722,023	4,416,417	5,390,445	5,397,958

Statement showing the Rates of Duty charged, and the Amount of Duty received on the Articles imported into Java and Madura in each of the 5 Years ending with 1854.

Articles.	Rates of Duty.	Amount of Duty received.				
		1850.	1851.	1852.	1853.	1854.
	Per Cent.	*Florins.*	*Florins.*	*Florins.*	*Florins.*	*Florins.*
Manufactures, woollen:						
From Holland with certificate - -	12½	5,204	6,750	5,412	11,989	5,752
All other countries of Europe and America - - - -	25	73,050	81,397	56,624	55,803	57,915
Linen and cotton goods:						
From Holland with certificate - -	12½	467,921	629,055	791,490	912,307	931,828
All other countries of Europe and America - - -	25	1,523,597	2,329,868	1,992,499	1,451,953	1,888,539
Indian cotton and woollen: Archipelago -	12 & 24	11,192	12,881	8,761	7,967	7,061
Cotton and woollen:						
From countries eastward of the Cape of Good Hope - - - - -	25	28,894	36,386	37,845	25,198	29,570
Furniture - - - - -	12 & 24	30,285	24,522	17,899	34,660	31,443
Provisions from Europe and America - -	12 & 24	124,031	129,049	150,131	133,001	170,083
Gambier:						
From Dutch East Indies - - -	12 florins per picul.	694,755	704,227	655,200	724,649	704,117
Foreign - - - - -	18 florins per picul.	720	1,249	7,594	9,184	164
Various goods from Japan - - -	6 & 12 (Tariff)	6,808	7,879	7,245	4,649	8,001
Wine and other beverages - - -						
Copper, iron, steel, and wrought steel -	6, 12, & 24	997,455	1,110,145	1,070,575	919,485	1,172,901
Miscellaneous - - - - -	6, 10, 12, & 24					
Total - - -	Florins	3,964,212	5,073,418	4,781,135	4,270,845	5,007,374
	£	330,351	422,785	398,428	355,904	417,281

Foreign ships are admitted to the ports of Batavia, Samarang, and Sourabaya, on a principle of reciprocity. They are, however, prohibited from engaging in the coasting trade, which is reserved exclusively for Dutch and colonial ships.

A large portion of the import and export trade of Java, especially the latter, has been engrossed by the Netherlands Commercial Company, established in 1819. But of late years the private traders have been gaining on the Company; and were it not for the patronage that has been injudiciously accorded to the latter by government, its agents would most probably be driven from the field.

Trade of the U. Kingdom with Java.

Account of the Quantities and Computed Values of the Principal Articles Imported from Java into the U. Kingdom in 1854, 1855, 1856, and 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Canes:—Rattans, not ground - number	1,780,547	1,265,299	127,017	838,056	£2,151	£1,529	£154	£1,305
Hides, not tanned - - cwts.	2,000	2,551	939	1,491	5,600	8,631	4,053	7,729
Nutmegs - - lbs.	45,019	23,338	610	18,759	5,433	1,567	74	2,014
Pepper - - "	129,986	268,485	274,677	347,471	2,693	5,594	5,722	7,054
Rice, not in the husk - cwts.	32,553	22,914	20,606	85,067	23,601	19,502	13,999	52,283
Sugar, unrefined - "	132,424	73,961	8,682	32,130	139,070	114,882	13,351	57,528
Total value of the above and of all other articles - -	- -	- -	- -	- -	211,381	172,433	40,893	143,050

Account of the Quantities and Declared Values of the Principal Articles of British Produce and Manufacture exported to Java in 1854, 1855, 1856, and 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Apparel, slops, and haberdashery - - value	- -	- -	- -	- -	£5,370	£2,707	£4,877	£3,411
Beer and ale - - barrels	511	972	689	795	1,826	4,076	2,975	5,380
Coals, cinders, and culm - tons	5,024	5,187	1,127	8,012	2,712	3,806	704	4,981
Copper, wrought and unwrought - - cwts.	1,935	1,054	3,010	2,560	12,279	6,756	18,076	15,882
Cottons, entered by the yard - yards	32,499,077	26,877,745	39,429,498	30,742,018	459,716	367,251	536,707	467,396
" " at value - value	- -	- -	- -	- -	7,442	5,501	4,174	7,044
Cotton yarn - - lbs.	1,058,825	658,525	658,645	776,040	43,499	28,373	32,532	41,315
Earthenware and porcelain - value	- -	- -	- -	- -	12,090	16,695	22,229	29,060
Glass manufactures - "	- -	- -	- -	- -	2,215	3,236	5,228	6,459
Hardwares and cutlery - cwts.	1,886	3,222	4,650	5,996	11,214	17,228	31,903	26,850
Iron, wrought and unwrought tons.	360	1,921	2,604	4,192	3,975	18,426	25,904	40,418
Linens, entered by the yard - yards	251,024	116,556	112,035	127,168	8,031	3,401	3,576	5,199
Machinery:—Steam engines - value	- -	- -	- -	- -	9,082	2,825	3,560	4,254
" All other sorts - "	- -	- -	- -	- -	23,511	13,374	17,611	20,206
Soap " - cwts.	5,055	4,567	10,769	17,604	6,295	5,317	11,309	19,675
Tin plates - - value	- -	- -	- -	- -	664	423	1,032	3,398
Woollens, entered by the piece pieces	3,127	3,594	4,610	5,877	6,781	6,965	8,081	9,450
" " by the yard yards	10,987	40,995	50,337	48,715	589	1,389	1,970	2,506
Total value of the above and of all other articles - -	- -	- -	- -	- -	636,844	529,815	764,282	744,492

Bank of Batavia.—A bank, for the issue of notes and other banking business, was established at Batavia in 1827, with branches at Samarang and Sourabaya: the history of which is not uninstructive. The capital of the bank, consisting of 2,000,000 fl., divided into 4,000 shares, was subscribed with difficulty; and the most unfavourable anticipations were entertained of the success of the establishment. No sooner, however, had the bank been set on foot, than she began to enjoy a large share of prosperity. The rapid increase of cultivation and commerce in Java led to a corresponding demand for capital, and to the payment of a very high rate of interest on loans; and as the loans made by the bank consisted of bank notes, which cost next to nothing, the profits became quite enormous; so much so that they amounted in 1837 to 33 per cent., the price of the 500 fl. share of bank stock being then also 1,550 fl. But this prosperity was as brief as it was signal.—The offer of an exorbitant interest had tempted, in not a few cases, the bank to make advances on doubtful security; and in Java, as elsewhere, issues of paper payable on demand necessarily stop the moment the circulation has been fully saturated with notes; and this result having been attained in 1838, and the notes issued by the bank being henceforth returned on her for payment, she speedily became involved in the greatest difficulties; many of those who depended on her advances for support were no longer able to meet their engagements; and the whole island was subjected to a severe pecuniary and commercial crisis: in fact, but for the intervention of the government, in 1840, when bank notes were made *legal tender* for a limited period, she must have stopped payments! This intervention gave her time to recover from the difficulties into which she had been precipitated; and after sustaining a very heavy loss, she resumed specie payments. At present the maximum amount of notes which the bank may issue is fixed from time to time by the Governor-General. In 1846 she was prohibited from making any dividends till the losses her capital had sustained during the crisis were made good.

General Remarks on Java.—The previous statements show that the produce and trade of Java have increased during the last twenty years with a rapidity unknown in any other colony, Cuba, perhaps, excepted. And if the resources and capabilities of this noble island be fully developed, it is quite impossible to say how much farther her trade may be extended. It would far exceed our limits, and, even were this not the case, it would involve us in discussions nowise suitable for this work, were we to enter into any detailed examination of the means by which the extension of culture in Java has been brought about. We may, however, shortly mention that the produce for exportation is principally raised on account of government, partly by contributions in kind from the cultivators, these being, in fact, the rent of the land which the latter occupy, government being here, as in Hindostan, the only, or, at all events, the paramount proprietor; and partly by a system of *corvée* or compulsory labour established on one-fifth part of the lands applicable to the culture of rice, of which government has resumed the possession. And, provided these contributions and *corvées* be not carried to excess, we incline to think that they are at once the least onerous mode in which the natives can be made to pay their taxes, and the most profitable for the government. It is, we apprehend, idle to suppose that industry, if left to itself, will ever become flourishing in a country like Java, where the wants of the inhabitants are so few and so easily satisfied, and where the climate indisposes to exertion. No doubt

the system of compulsory labour may be easily abused and converted into an instrument of the most grinding oppression; but so long as it is managed with discretion and good sense, we are disposed to believe, from all we can learn, that it is preferable to every other system hitherto devised for developing the resources of tropical countries. (*Temminck, Possessions Neerlandaises dans l'Inde Archipelagique*, i. 237, &c.)

Very great public improvements have also been already effected, and are still in progress, in the island. Among others, an excellent high road has been constructed through its whole length, from Bantam on its W. to Sourabaya on its E. coast, whence cross roads lead to all the principal stations. A number of forts have also been constructed in commanding situations in the interior, the principal of which at Surackarta, near the centre of the island, is a regular and strong citadel. It is said to be intended to transfer the seat of government thither from Batavia. These forts have been erected principally to keep the natives in check, and to prevent those outbreaks that have done so much to retard the prosperity of the island. Several important establishments have also been recently founded along the S. coast, which had previously been all but neglected. (See *Argout sur Java, Singapore, &c.*)

Rice used to be the staple product of Java; but it is now far surpassed by coffee and sugar, the culture of both of which has been astonishingly increased. In proof of this we may mention that the exports of coffee, which in 1830 amounted to 288,740 piculs, had increased in 1854 to 1,017,596 do., or to 60,571 tons: while the exports of sugar, which in 1830 amounted to 108,640 piculs, had increased, in 1854, to 1,793,510 piculs or 106,756 tons. More than half the trade of the island centres in Batavia.

Indigo has also become an important product. The other principal articles of export are tin from Banca, tobacco, tea, and birds' nests.

The imports comprise cottons, woollens, and other manufactured goods; wines and spirits, with iron, hardware, and machinery; opium from the Levant and from Bengal; and a great variety of other articles.

Port Regulations.—The following is the substance of the port regulations of Batavia:—1st. The commander of a ship arriving in the roads, is not to land himself, or permit any of his crew or passengers to land, until his vessel be visited by a boat from the guard ship.—2nd. The master, on landing, is first to wait on the master attendant, and afterwards report himself at the police office.—3rd. A manifest of the whole cargo must be delivered at the Custom-house within 24 hours of the ship's arriving in the roads.—4th. The master of a vessel must lodge the ship's papers with the master attendant when he first lands, which are duly delivered up to him when he receives his port clearance from the same authority.—5th. No goods can be shipped or landed after sunset, under a penalty of 500 florins.—6th. No goods can be shipped on Sunday without a special permission from the warer fiscal, which, however, is never refused on application.—7th. No muskets or ammunition can be imported; but the prohibition does not extend to fowling pieces exceeding 100 florins value.

Tariff.—After a good deal of negotiation, it has been fixed that goods imported in English vessels shall pay an *ad valorem* duty of 25 per cent., and under the Netherlands flag of 12½ per cent.; that is, a duty upon the wholesale price at Batavia, not in bond. The export duty on coffee, if exported on a foreign bottom to a foreign country, is 5 florins per picul; if on a foreign bottom to a port in the Netherlands, 4 florins; and if on a Netherlands bottom to a Netherlands port, 2 florins. Sugar exported on a foreign bottom pays 2 florins per picul; but if exported on a Netherlands bottom, 1 florin. Rice, on whatever bottom exported, and to whatever country, pays a duty of 3 florins per coyang of 27 piculs. Tin, exported on a foreign ship to whatever port, 4 florins per picul; and by a Netherlands ship, 2 florins per picul. The trade in spices is monopolised by the Netherlands Trading Company.

Goods are received in *entrepôt* not only at Batavia, but at the ports of Samarang, Sourabaya, and Anjier in Java, and Rhio in the Straits of Malacca, on payment of a duty of 1 per cent. levied on the invoice value.

Money.—Accounts are kept, at Batavia, in the florin or guilder, divided into centimes, or 100 parts, represented by a copper coinage or doits. The florin is a new coin made expressly for India, but of the same value as the florin current in the Netherlands. It is usually estimated at the rate of 12 to the pound sterling, but the correct par is 11 florins 88 cent. per pound. Doubloons, and the coins of continental India, are receivable at the Custom-house at a fixed tariff; the Spanish dollar, for example, at the rate of 100 to 260 florins.

Weights.—The Chinese weights are invariably used in commercial transactions at Batavia, and throughout Java and the other Dutch possessions in India. These are the picul and the cattie, which is its hundredth part. The picul is commonly estimated at 125 Dutch, or 133⅓ lbs. avoirdupois, but at Batavia it has been long ascertained and considered to be equal to 136 lbs. avoirdupois.—(*Hogendorp, Coup d'Œil sur l'Ile de Java*, cap. 8. &c.; but by far the best work on Java, and generally on the Dutch possessions in the East, is that of Temminck, referred to above, in 3 tomes, Leide, 1846-49.

BATTEN, a name in common use for a scantling of wood 2½ inches thick and 7 wide. If above 7 inches wide it is called deal.

BAZAAR, a term used in the East to designate a market, or building in which various articles of merchandise are exposed for sale. Bazaars are now met with in most large cities of Europe. There are several in London, of which the one in Soho-square is the most considerable.

BDELLIUM (Arab. *Aflatoon*), a gum-resin, semi-pellucid, and of a yellowish brown or dark brown colour according to its age, unctuous to the touch, but brittle; soon, however, softening between the fingers; in appearance it is not unlike myrrh, of a bitterish taste, and moderately strong smell. Two kinds have been distinguished: the *apocalpasum* of the ancients, which is thick like wax; and the common dark sort. It is found in Persia and Arabia, but principally in the latter; all that is met with in India is of Arabic origin. The tree which produces it has not been clearly ascertained.—(*Ainslie's Materia Indica.*)

BEACONS, in commerce and navigation, public marks or signals to give warning of rocks, shoals, &c. No man is entitled to erect a light-house, beacon, &c., without being empowered by law. The Trinity House corporation are authorised to set up beacons in whatever places they shall think fit; and any person who shall wilfully remove or run down any buoy, beacon, &c. belonging to the Trinity House, or to any other corporation, individual or individuals, having authority to establish it, shall, besides being liable to the expense of replacing the same, forfeit a sum of not less than 10*l.* nor more than 50*l.* for every such offence.—(6 *Geo.* 4. c. 125. § 91.)—(See BUOYS.)

BEADS (Fr. *Rosaires*; Ger. *Rosenkränze*; Du. *Paternosters*; It. *Corone*; Sp. *Coronas*), small globules or balls used as necklaces, and made of different materials; as pearl, steel, amber, garnet, coral, diamonds, &c. But those of crystal or glass, generally called bugles, are by far the most extensively produced, and form, indeed, how inconsiderable soever they may appear, an important commercial article. Roman Catholics use them in rehearsing their Paternosters and Ave Marias; and besides their consumption for these and other purposes in Europe, they are largely exported to Africa, the West Indies, India, &c. They are produced to a greater or less extent in most parts of the Continent but principally in Venice, which is, and has long been, the

grand seat of their manufacture. In 1857, we imported the enormous quantity of 2,966,802 lbs. beads, of which no fewer than 2,387,402 lbs. were brought from Austrian Italy, that is, from Venice; the residue mostly came to us from Bohemia, through the Hanse Towns. We re-export them in very large quantities to the places referred to above. Beads are, also, made in China, and sent to India and elsewhere.

The non-manufacture of beads in this country used to be ascribed to the influence of the glass duties; but the repeal of the latter has had little or no effect on their production. The truth is, that the colours of the Venetian beads, and their finish, are decidedly superior to those of the beads produced here and in most other places. Beads have fallen greatly in price of late years. Those made in France are mostly of the finer and fanciful sorts, on which gilding and other decorations are expended. (*Private Information.*)

BEANS (Fr. *Fêves*; Ger. *Bohnen*; It. *Fave*; Rus. *Boobii*; Sp. *Habu*; Lat. *Fabæ*; a well-known vegetable of the pulse species, largely cultivated both in gardens and fields. Its cultivation is of much importance in rural economy, inasmuch as it has gone far to supersede fallows on strong loams and clays.

BEAVER. See SKINS.

BEECH (*Fagus sylvatica*), a forest tree to be met with everywhere in England. There is only one species, the difference in the wood proceeding from the difference of soil and situation. A considerable quantity of beech is grown in the southern parts of Bucks. It is not much used in building, as it soon rots in damp places; but it is used as piles in places where it is constantly wet. It is manufactured into a great variety of tools, for which its great hardness and uniform texture render it superior to all other sorts of wood; it is also extensively used in making furniture.

BEEF, as every one knows, is the flesh of kine. It is used either fresh or salted. Formerly it was usual for most families, at least in the country, to supply themselves with a stock of salt beef in October or November, which served for their consumption until the ensuing summer, but in consequence of the universal establishment of markets where fresh beef may be at all times obtained, the practice is now nearly relinquished, and the quantity of salted beef made use of as compared with fresh beef is quite inconsiderable. Large supplies of salted beef are, however, prepared at Cork, and other places, for exportation to the East and West Indies. During the war, large supplies were also required for victualling the navy. The vessels engaged in the coasting trade, and in short voyages, use only fresh provisions.

The English have at all times been great consumers of beef; and at this moment more beef is used in London, as compared with the population, than anywhere else.—Previously to 1842 the importation of fresh beef was prohibited; and salt beef from a foreign country was at the same time charged with a duty of 12*s.* a cwt. But in that year the duties on both sorts were reduced to 8*s.* 4½*d.* a cwt., and in 1846 they were wholly repealed. In 1857 the imports of salted beef amounted to 150,940 cwt., and those of fresh beef to only 234 cwt. See CATTLE and PROVISIONS.

BEER. See ALE and BEER.

BELL-METAL (Fr. *Metal de Fonte ou de cloches*; Ger. *Glockengut*; Du. *Klokspys*; Sp. *Campanil*; Rus. *Kolokluaja mjed*), a composition of tin and copper, usually consisting of 3 parts of copper and 1 of tin. Its colour is greyish white; it is very hard, sonorous, and elastic. Less tin is used for church bells than for clock bells; and in very small bells, a little zinc is added to the alloy.—(*Thomson's Chemistry.*)

BENZOIN. See BALSAM.

BERGEN, the first commercial city of Norway, situated at the bottom of a deep bay, in lat. 60° 24′ N., long. 5° 20′ E. Population 26,000. The bay is enclosed on all sides by rugged rocks and islands: the water is deep; but, owing to the number and intricacy of the passages, the access to the town is attended at all times with a good deal of difficulty, and should never be attempted without a pilot. Codfish, salted or dried, is the principal article of export: when dried, it is called stock-fish, and goes chiefly to Italy and Holland. The fishery is the principal employment; and considerable quantities of fish and other products are also brought hither for exportation from the more northerly parts of the kingdom. At an average, from 25,000,000, to 30,000,000 lbs. salted and dried fish are annually exported. Herrings, whale, oil, skins, bones, tar, lobsters, &c., are also largely exported. The exports of timber from Bergen are inconsiderable, and none has latterly gone to England. Norway timber is not so large as that brought from Prussian ports, nor so free from knots; but, being of slower growth, it is more compact, and less liable to rot. The planks are either red or white fir or pine: the red wood is produced from the Scotch fir; the white wood, which is inferior in price and estimation, is the produce of the spruce fir: each tree yields three pieces of timber of 11 or 12 feet in length; and is 70 or 80 years of age before it arrives at perfection. The planks or deals of Bergen are, however, a good deal inferior to those of Christiania.

The imports into Bergen principally consist of grain from the Baltic; and salt, hardware, coffee, sugar, &c. from England.

For Moneys, Weights, and *Measures,* see CHRISTIANIA; where there are further details as to the trade and navigation of Norway.

BERRIES (*Baccæ*), the fruits or seeds of many different species of plants. The berries quoted in London Price Currents are bay, juniper, Turkey, and Persian.

1. *Bay Berries* (Fr. *Baies de Laurier;* Ger. *Lorbeeren;* It. *Bacchi di Lauro;* Sp. *Bayas*), the fruit of the *Laurus nobilis.* This tree is a native of the south of Europe, but is cultivated in this country, and is not uncommon in our gardens. The berry is of an oval shape, fleshy, and of a dark purple colour, almost black; it has a sweet fragrant odour, and an aromatic astringent taste. Bay berries, and the oil obtained by boiling them in water, are imported from Italy and Spain.—(*Thomson's Dispensatory.*)

2. *Juniper Berries* (Fr. *Genièvrier;* Du. *Sevenboom;* It. *Ginepro;* Sp. *Embro*), the fruit of the common juniper (*Juniperus communis*). They are round, of a black purple colour, and require two years to ripen. They have a moderately strong, not disagreeable, but peculiar smell, and a warm pungent, sweetish taste, which, if they be long chewed, or previously well bruised, is followed by a considerable bitterness. They are found in this country; but most of those made use of here are imported from Holland, Germany, and Italy. They should be chosen fresh, not much shrivelled, and free from mouldiness, which they are apt to contract in keeping. On distillation with water, they yield a volatile essential oil, very subtle and pungent, and in smell greatly resembling the berries. The peculiar flavour and diuretic qualities of Geneva depend principally on the presence of this oil. English gin is said to be, for the most part, flavoured with oil of turpentine.—(*Lewis's Mat. Med.; Thomson's Dispensatory.*)

The duty on juniper berries, previously to 1832, was 11*s.* 1*d.* a cwt., being more than 100 *per cent. on the price in bond.* The oppressiveness of this duty seems to have been the principal reason why turpentine, which in point of flavour and all other respects is so inferior, was largely used in preference to juniper berries in the preparation of gin. This oppressive duty was reduced, in 1832, to 2*s.* again, in 1842, to 1*s.* 6*d.*, and was finally repealed in 1845. This wise and liberal measure has materially improved the beverage of a large proportion of the people. In 1852, 5,349 cwt. of juniper berries were retained for consumption.

3 *Turkey Yellow Berries,* the unripe fruit of the *Rhamnus infectorius* of Linnæus. They are used as a dye drug, in preparing a lively but very fugitive yellow, for topical application in calico-printing. Considerable quantities of them are exported from Salonica, to which they are brought from Thessaly and Albania. An inferior sort is produced in France.—(*Bancroft on Colours.*) The duty on Turkey berries was abolished in 1845. The imports in 1852 amounted to 5,246 cwts., and the exports to 1,573 do. Price in the London market, September, 1853, 34*s.* to 40*s.* per cwt.

4. *Persian Yellow Berries* are said by the merchants to be of the same species as the Turkey yellow berries. The colours which they yield are more lively and lasting. They are high priced, fetching from 80*s.* to 110*s.* a cwt.

BERYL, called by the jewellers *Aquamarine.* This stone was suspected by Pliny to be a variety of the emerald; a conjecture which modern mineralogists have completely confirmed. The term emerald is applied to that particular variety which presents its own peculiar colour, or *emerald green;* while that of beryl is given indiscriminately to all the other varieties; as the sea green, pale blue, golden yellow, and colourless. Pliny says that the beryl is found in India, and rarely elsewhere; but besides India, it is found in Peru and Brazil; at Nantes and Limoges, in France; in the Wicklow mountains, in Ireland; in the district of Cairngorm, in Scotland; and in various other places.—(*Plin. Hist. Nat.* lib. xxxvii. cap. 5.; *Ency. Brit.* new edit.)

"Those only which are of good colour and sufficient depth are manufactured; they have a pretty, lively effect, if in good proportion and well polished. Large stones, from one to three and four ounces, are not uncommon, but from their bulk are only in request as specimens for the cabinet; smaller stones suitable for necklaces may be bought at low prices, within the reach of every description of purchasers: ring stones may be had at a few shillings each; and larger, for brooches or seals, from 1*l.* to 5*l.* and often lower."—(*Mawe on Diamonds, &c.* 2d edit.)

BETEL-NUT, OR ARECA (Sans. and Hind. *Suapri;* Malay, *Pinang;* Javan. *Jambi*), the fruit of the *Areca catechu,* a slender and graceful palm, rising to the height of about 30 or 40 feet; it produces fruit at the age of five or six years, and continues bearing till its 25th or 30th year. The fruit, which is the only part of the palm that is made use of, is eaten both in its unripe and in its mature state. When ripe, it is of the size of a small egg, and of an orange colour; the exterior part consists of a soft, spongy, fibrous matter, inclosing a nucleus resembling a nutmeg in shape, internal structure, and colour, but usually larger, and always harder. A single tree produces, according to its situation, age, culture, &c., from 200 to 800 nuts. They are objects of great importance in the East, forming the principal ingredient of a compound in universal use as a masticatory in all Central and Tropical Asia. The other ingredients are the leaf of the Betel pepper—(which see), in which the areca nut is wrapped; a little CHUNAM—(which see); and generally, but not always, a little *catechu* or terra japonica—(see CATECHU). The whole compound is called *betel,* and is used to an extent of which it is difficult for a European to form a just idea. All individuals, without exception of age or sex, begin at an early period to accustom themselves to betel. They are unceasingly masticating it, and derive a gratification from its use that strangers can neither understand nor explain. It reddens the saliva, gives a bright hue to the lips, and, in course of time, renders the teeth quite black. It is said to dispel nausea, excite appetite, and strengthen the stomach. Besides being used as an article of luxury, it is a kind of ceremonial which regulates the intercourse of the more polished classes of the East. When any person of consideration visits another, after the first salutations,

betel is presented: to omit it on the one part would be considered neglect, and its rejection would be judged an affront on the other. No one of inferior rank addresses a dignified individual without the previous precaution of chewing betel; two people seldom meet without exchanging it; and it is always offered on the ceremonious interviews of public missionaries. The areca nut is, in consequence, an article of very extensive trade. The countries which yield it most largely for exportation are Malabar, Ceylon, and Sumatra. Of the extent of this trade some notion may be formed from the fact, that the imports of areca into Calcutta in 1841-42 amounted to 53,633 Ind. maunds, or 1,966 tons, and those into Canton, in 1837, by British ships only, amounted to 25,978 piculs, or 1,502 tons, notwithstanding Bengal and Southern China are countries in which areca is largely produced. — (See the article *Betel* in the new edition of the *Ency. Britannica*; *Bell's Review of the External Commerce of Bengal*; *Crawfurd's Indian Archipelago*, vol. i. p. 102., vol. iii. p. 414.; *Chinese Kalendar and Register*.)

BETEL-LEAF (Hind. *Pan*; Malay, *Sireh*; Javan. *Suro*), the leaf alluded to in the foregoing article. It is the produce of a species of pepper vine (*Piper Betle*), and somewhat resembles the ivy leaf. In their fresh state, betel leaves form an important article of Eastern traffic, being every where used in the preparation of betel. The *Piper Betle* is a scandent plant, and poles are placed in the ground, round which it twines itself. In consequence of the great consumption of its leaves, it is extensively cultivated throughout Tropical Asia. It grows in the greatest perfection in rich soils close to the equator; and is raised with more difficulty the further we recede from it. — (*Ency. Britannica*, new edition, article *Betel*; *Crawfurd's Indian Archipelago*, vol. i. p. 403.)

BEZOAR (Arab. *Faduj*; Hind. *Zeher-morah*; Pers. *Padzehr Kanie*), a concretion found in the stomach of an animal of the goat kind; it has a smooth glossy surface, and is of a dark green or olive colour: the word bezoar, however, has lately been extended to all the concretions found in animals;—such as the *hog bezoar*, found in the stomach of the wild boar in India; the *bovine bezoar*, found in the gall-bladder of the ox, common in *Nepaul*; and the *camel bezoar*, found in the gall-bladder of the camel: this last is much prized as a yellow paint by the Hindoos. The finest bezoar is brought to India from Borneo and the sea-ports of the Persian Gulf; the Persian article is particularly sought after, and is said to be procured from animals of the goat kind, *Capra Gazella*. Many extraordinary virtues were formerly ascribed to this substance, but without any sufficient reason. — (*Ainslie's Materia Indica*.)

BILBAO, or (as it is commonly, though incorrectly, written in this country) BILBOA, a sea-port town of Spain, in the province of Biscay, on the river Ybai Cabal, about 9 miles from Portugalete. Population 15,000.

Port.— The bay of Bilbao lies between *Punto Galea* on its east, and *Punto Luzuero* on its western side, distant about 3 miles. It stretches S. E. to within ½ of a mile of Portugalete, in lat. 43° 15′ 47″ N., long. 2° 45′ W., near the mouth of the river on which Bilbao is built. The water in the bay varies from 5 to 10 and 14 fathoms. There is a bar at the mouth of the river, between Santurce and Portugalete, on which there is not above 4 feet water at ebb tide. High water at full and change at 3 h. P.M. Spring tides rise about 13 feet; and large ships taking advantage of them sometimes ascend the river as far as Bilbao; but they usually load and unload by lighters, either at Portugalete, or at Olavaga, 4 miles below the town. Pilots are to be had at Santurce, without the bar. In winter, a heavy sea sometimes sets into the bay; but if the pilot cannot go off, he places himself on one of the batteries to the N. W. of Santurce, and makes signals with a red flag, so as to direct the ship to the best anchorage ground. —(See *Laurie's Chart of the Bay of Biscay*, with the *Sailing Directions* that accompany it.)

Trade.— Bilbao is favourably situated for commerce. The Biscayans are distinguished for the zeal and courage with which they have defended their peculiar privileges, and for their industry and activity. Bilbao and Santander are the principal ports through which the extensive province of Old Castile, and large portions of Leon and Navarre, most easily communicate with foreign countries. They have, in consequence, particularly the former, a pretty considerable foreign trade. Wool is one of the principal articles of export; but since the introduction of Merino sheep into Germany, and their extraordinary increase in that country, this branch of Spanish commerce, though still of a good deal of importance, has materially declined. Since the abolition, in 1820, of all restrictions on the exportation of corn, flour, &c., the shipments of wheat from Bilbao have been, in some years, very considerable. The supplies are principally brought from the provinces of Palencia, Valladolid, and Zamora, which yield immense quantities of wheat. The distance is from 130 to 140 English miles; and owing to the badness of the roads, and the deficient means of transport, the rate of carriage advances enormously when there is any extraordinary foreign demand. If the *Canal of Castile*, intended to unite the Douro with Reynosa, Bilbao, and Santander, were completed, it would make a considerable revolution in this trade. The *campos*, or plains, on the south side of the Douro, are amongst the finest wheat countries in the world; the crops being frequently so abundant, that the peasants decline reaping the fields at a distance from the villages! In 1831, 146,234 quarters of Spanish wheat, principally from Bilbao, were imported into Great Britain; but from that period down to 1839 the exports of corn to this country were quite inconsiderable. In 1840 they amounted to 46,939 quarters. The iron manufactures of Biscay are in a state of considerable activity, and some part of the produce is exported. The principal articles of importation are wove fabrics, cod-fish, cutlery, and jewellery; sugar, coffee, cacao, and other colonial products, spices, indigo, &c. — (See *Foreign Quarterly Review*, No. 9. art. *Spain*; and *private information*.)

Monies, Weights, and Measures, same as those of CADIZ; which see. We may mention, however, that the fanega, or measure for grain, is equivalent to 1·65 Winchester quarters.

BILL OF EXCHANGE. See EXCHANGE.

BILL OF HEALTH, a certificate or instrument signed by consuls or other proper authorities, delivered to the masters of ships at the time of their clearing out from all ports or places suspected of being particularly subject to infectious disorders, certifying

the state of health at the time that such ship sailed. A *clean* bill imports that at the time that the ship sailed no infectious disorder was known to exist. A *suspected* bill, commonly called a *touched* patent or bill, imports that there were rumours of an infectious disorder, but that it had not actually appeared. A *foul* bill, or the absence of clean bills, imports that the place was infected when the vessel sailed. — (See QUARANTINE.)

BILL OF LADING, is a *formal receipt* subscribed by the master of a ship in his capacity of carrier, acknowledging that he has received the goods specified in it on board his ship, and binding himself (under certain exceptions) to deliver them, in the like good order as received, at the place and to the individual named in the bill, or his assigns, on his or their paying him the stipulated freight, &c. When goods are sent by a ship hired by a charterparty, the bills of lading are delivered by the master to the merchant by whom the ship is chartered; but when they are sent by a *general ship*, — that is, by a ship not hired by charterparty, but employed as a general carrier, — each individual who sends goods on board, receives a bill of lading for the same. In all cases, therefore, the bill of lading is the evidence of and title to the goods shipped.

The liability of a carrier, at common law, to deliver the goods intrusted to his care, is cancelled only by "the act of God and the king's enemies." But to limit this responsibility, the following exception is now, invariably almost, introduced into the clause in bills of lading, binding the master to the delivery of the goods: — "*The act of God, the king's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, excepted.*"

Bills of lading are not, in general, immediately given by the master on receiving the goods. The usual practice is for the master or his deputy to give a common receipt for the goods, which is delivered up on receiving the bill of lading. The latter should always be required within 24 hours after the goods are received on board.

Three sets of all bills of lading are made out on stamped paper: one of these should he remitted by the first post to the person to whom the goods are consigned, a second being sent to him by the ship; the third is retained by the shipper of the goods. The master ought always to retain copies of the bills of lading for his government. A stamp duty of 3*s.* is charged on all bills of lading, whether for goods exported or carried coastwise.

The usual form of a bill of lading is as follows: —

W. B. No. 1. *a.* 10. } *N.B.* — SHIPPED, in good order and well conditioned, by *A. B.* merchant, in and upon the good ship called whereof *C. D.* is master, now in the river Thames, and bound for , the goods following, viz. [*here describe the goods,*] marked and numbered as *per* margin, to be delivered, in the like good order and condition, at aforesaid, (*the act of God, the king's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, excepted,*) unto the said *A. B.* or his assigns, he or they paying for the said goods at the rate of *per* piece freight, with primage and average accustomed. In witness whereof, I, the said master of the said ship, have affirmed to three bills of lading, of this tenour and date; any one of which bills being accomplished, the other two are to be void.

London, this day of , 1843. C. D., *Master.*

But in the case of ships homeward bound from the West Indies, which send their boats to fetch the cargo from the shore, the exception in the bill of lading is usually expressed as follows: — "The act of God, the king's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, *save risk of boats, so far as ships are liable thereto,* excepted." Other exceptions may be and are sometimes introduced; but the above is the general form.

Transfer of Bills of Lading. — Bills of lading are transferable either by blank or special indorsement, like bills of exchange. And whatever may be the character of the person to whom the goods are consigned, whether he be a buyer, or merely the factor, agent, or broker of the consignor, the *bonâ fide* holder of a bill of lading indorsed by the consignee is entitled to the goods, and may claim them from the master, if he can prove that he has purchased the bill for a *good consideration*; but unless he can do this, he is not entitled to the goods. — (*Holt, Law of Shipping,* 2d ed. p. 363.)

Formerly, a factor, though he might sell, could not *pledge* the goods of his principal. But the hardship and inconvenience arising from this rule were such, that it was set aside by the act 6 Geo. 4. c. 94. The second section of this act declares, that any person in possession of a bill of lading shall be deemed the true owner of the goods specified in it, so as to make a sale or pledge by him of such goods or bill of lading valid, unless the person to whom the goods are sold or pledged has notice that the seller or pledger is not the actual and *bonâ fide* owner of the goods. — (See FACTOR.)

Delivery under Bill of Lading. — It being usual to sign and deliver three bills of lading, it is possible that there may be conflicting demands upon the captain by the different holders. Nothing, however, is, in such a case, required of him, except that he act with good faith, and to the best of his judgment; and that he make delivery of the goods to the person who first demands them of him, upon presentment of the bill of lading, *provided the circumstances be not such as to justify a suspicion* of his having unfairly

got possession of it If he act differently, he is answerable, according to the peculiarities of the case, to the person injured by his negligence; the bill of lading being not only the instructions of the merchant to him, as his carrier or servant, but his own especial agreement to deliver according to its conditions.

Where several bills of lading of a different import have been signed, no regard is to be paid to the time when they were first signed by the master; but the person who first gets legal possession of one of them from the owner or shipper has a right to the consignment; and where such bills of lading, though different upon the face of them, are constructively the same, and the master has acted *bonâ fide*, a delivery according to such legal title will discharge him from all. — (*Holt*, p. 375. and 377.)

BILL OF SALE, a formal instrument by which an individual conveys away the right and interest he has in the goods or chattels named therein. The property of ships is transferred by bill of sale, of which there are two descriptions, viz., 1st, the *grand* bill of sale, which conveys the property of the ship from the builder to the owner, or first purchaser; and, 2nd, the *ordinary* bill of sale, by which any subsequent transfer is made. No stamp duty is payable on these documents, nor is it necessary that they should be under seal. — (See REGISTRY, and *Maude and Pollock on the Law of Shipping*, p. 13.)

BILL OF SIGHT. When a merchant is ignorant of the real quantities or qualities of any goods consigned to him, so that he is unable to make a perfect entry thereof, he or his agent must subscribe a declaration to that effect before the collector or comptroller, who is authorised, on receiving such declaration, to allow the importer to enter the goods by BILL OF SIGHT. — (See the form, p. 699.) They may then be provisionally landed; and perfect entry of the same must be made within 3 days, by indorsing on the bill of sight such particulars as are required in making perfect entry of goods, whether for payment of duty, warehousing, or delivery free of duty.—(16 & 17 Vict. c. 107. §§ 61, 62.)

Goods entered by bill of sight for delivery on payment of duty are not to be delivered till perfect entry thereof has been made, and the duty paid, unless the importer deposit a sum of money sufficient to cover the duty payable thereon.—§ 63.

In default of perfect entry within 3 days, goods entered by bill of sight are to be taken to the Queen's warehouse; and if the importer do not, within 1 month, make perfect entry, and pay the duties thereon, or on such parts as can be entered for home use, together with charges of moving and warehouse rent, such goods shall be sold for payment of the duties. — § 64. (See *post*, p. 699.)

BILL OF STORE, is a licence granted by the Custom-house, to re-import British goods into the U. K.

The act 16 & 17 Vict. c. 107. has the following clause in regard to the entry of goods by bill of store: —

All British goods re-imported into the U. K. shall be entered as foreign, and shall be liable to the same duties, rules, regulations, and restrictions as such goods, if foreign, would be liable to on the first importation thereof, unless the same shall be re-imported within 10 years after the exportation thereof, and it shall be proved to the satisfaction of the Commissioners of Customs that the property in such goods has continued and still remains in the person by whom or on whose account the same have been exported, in which case the same may be entered as British goods, by bill of store, containing such particulars and in such form and manner as the said Commissioners may direct: Provided always, that the following goods shall, on re-importation, be deemed and taken to be foreign goods, viz., corn, grain, meal, flour, and hops, and also all goods for which any drawback of excise shall have been received on exportation, unless by special permission of the Commissioners of Customs, and on re-payment of such drawback, and also all goods for which a bill of store cannot be issued in manner directed by the said Commissioners, except remnants of British goods, with permission of the Commissioners of Customs. — § 65.

BILL (VICTUALLING), or bill for the shipment of stores in over-sea voyages. The act 16 & 17 Vict. c. 107. has the following clause in relation to this bill: —

The master of every ship of the burden of 50 tons or upwards, departing from any port in the U. K., upon a voyage to parts beyond the seas, the duration of which out and home shall not be less than 40 days, shall, upon due application made by him, and upon such terms and conditions as the Commissioners of Customs may direct, receive from the searcher an order for the shipment of such stores as may be required and allowed by the collector or comptroller for the use of such ship, with reference to the number of the crew and passengers on board, and the probable duration of the voyage on which she is about to depart; and all demands for such stores shall be made in such form and manner as such collector or comptroller shall require, and shall be signed by the master or owner of the vessel; and after such stores are duly shipped, the master or his agent shall make out an account of the stores so shipped, together with any other stores then already on board, and the same, when presented to the searcher, signed by him, and countersigned by the collector or comptroller, shall be the victualling bill; and no stores shall be shipped for the use of any ship, nor any articles taken on board any ship be deemed to be stores, except such as shall be borne upon such victualling bill. — § 14.

BILLINGSGATE, a market for fish, contiguous to the Custom-house in London. It is held every lawful day, and was established in 1669 by stat. 10 & 11 Will. 3. c. 24. Every person buying fish in Billingsgate market may sell the same in any other market-place or places within the city of London or elsewhere, by retail, with this condition, that none but fishmongers be permitted to sell in fixed shops or houses. No

person or persons shall purchase at Billingsgate any quantity of fish, to be divided by lots or in shares amongst any fishmongers or other persons, in order to be afterwards put to sale by retail or otherwise; nor shall any fishmonger engross, or buy in the said market, any quantity of fish, but what shall be for his own sale or use, under the penalty of 20*l*. No person is to have in his possession, or expose to sale, any spawn of fish, or fish unsizeable, or out of season.—(36 *Geo.* c. 118.) The minimum size of the lobsters to be sold at Billingsgate is fixed by statute. —. (See LOBSTER.)

Previously to 1842 no fish of foreign taking or curing, or in foreign vessels, could be imported into the U. K., except turbots and lobsters, stock-fish, live eels, anchovies, sturgeon, botargo, and caviare. But the importation of all sorts of fish was then permitted on payment of duties, which were finally repealed in 1853. At present, therefore, the trade in fish is quite free.

For some further remarks with respect to this subject, see FISH.

BIRCH (Fr. *Bouleau*; Du. *Berke*; Ger. *Birke*; It. *Betulla*; Lat. *Betula*; Pol. *Brzoza*; Rus. *Bereza*; Sp. *Abedul, Betulla*), a forest tree met with everywhere in the north of Europe. It is applied to various purposes. In Lapland, Norway, and Sweden, the long twigs of the birch are woven into mats and twisted into ropes; the outer bark forms an almost incorruptible covering for houses; and the inner bark is used, in periods of scarcity, as a substitute for bread. Russia leather is prepared by means of the empyreumatic oil of the birch. It is an excellent wood for the turner, being light, compact, and easily worked. Its durability is not very great. It is sometimes used in the manufacture of herring barrels

BIRDLIME (Ger. *Vogelleim*; Fr. *Glu*; It. *Pania*; Sp. *Liga*; Rus. *Ptitschei Klei*) exudes spontaneously from certain plants, and is obtained artificially from the middle bark of the holly. Its colour is greenish, its flavour sour, and it is gluey, shining, and tenacious. The natural is more adhesive than the artificial birdlime. —(*Thomson's Chemistry.*)

BIRDS' NESTS (Ger. *Indianische Vogelnester*; Du. *Indiaansche Vogelnestjes*; Fr. *Nids de Tunkin*; It. *Nidi di Tunchino*; Sp. *Nidos de la China*; Javan. *Susu*; Malay, *Sarungburung*), the nests of a species of swallow peculiar to the Indian islands (*Hirundo esculenta*), very much esteemed in China. In shape this nest resembles that of other swallows; it is formed of a viscid substance; and in external appearance, as well as consistence, is not unlike fibrous, ill-concocted isinglass. Esculent nests are principally found in Java, in caverns that are most frequently, though not always, situated on the sea-coast. Many conflicting statements have been made as to the substance of nests; some contending that they are formed of sea-foam or other marine products, and others that they are elaborated from the food of the bird, &c. But these are points as to which nothing satisfactory is known.

We borrow from Mr. Crawfurd's valuable work on the *Eastern Archipelago* (vol. iii. pp. 432—437.) the following authentic and curious details as to the traffic in this singular production: — "The best nests are those obtained in deep damp caves, and such as are taken before the birds have laid their eggs. The coarsest are those obtained after the young are fledged. The finest nests are the whitest, that is those taken before the nest has been rendered impure by the food and *fæces* of the young birds. They are taken twice a-year, and, if regularly collected, and no unusual injury be offered to the caverns, will produce very equally, the quantity being very little, if at all, improved by the caves being left altogether unmolested for a year or two. Some of the caverns are extremely difficult of access, and the nests can only be collected by persons accustomed from their youth to the office. The most remarkable and productive caves in Java, of which I superintended a moiety of the collection for several years, are those of *Karang-bolang*, in the province of *Bagien*, on the south coast of the island. Here the caves are only to be approached by a perpendicular descent of many hundred feet, by ladders of bamboo and rattan, over a sea rolling violently against the rocks. When the mouth of the cavern is attained, the perilous office of taking the nests must often be performed by torch-light, by penetrating into recesses of the rock where the slightest trip would be instantly fatal to the adventurers, who see nothing below them but the turbulent surf making its way into the chasms of the rock.

"The only preparation which the birds' nests undergo is that of simple drying, without direct exposure to the sun, after which they are packed in small boxes, usually of half a picul. They are assorted for the Chinese market into three kinds, according to their qualities, distinguished into *first* or *best*, *second*, and *third* qualities. Caverns that are regularly managed, will afford, in 100 parts, 53·3 parts of those of the first quality, 35 parts of those of the second, 11·7 parts of those of the third.

"The common prices for birds' nests at Canton are, for the first sort, no less than 3,500 Spanish dollars the picul, or 5*l*. 18*s*. 1½*d*. per lb.; for the second, 2,800 Spanish dollars per picul; and for the third, 1,600 Spanish dollars. From these prices it is sufficiently evident, that the birds' nests are no more than an article of expensive luxury. They are consumed only by the great; and, indeed, the best part is sent to the capital for the consumption of the court. The sensual Chinese use them, under the imagination that they are powerfully stimulating and tonic; but it is probable that their most valuable quality is their being perfectly harmless. The people of Japan, who so much resemble the Chinese in many of their habits, have no taste for the edible nests; and how the latter acquired a taste for this foreign commodity is no less singular than their persevering in it. Among the western nations there is nothing parallel to it, unless we except the whimsical estimation in which the Romans held some articles of luxury, remarkable for their scarcity rather than for any qualities ascribed to them."

Mr. Crawfurd estimates the whole quantity of birds' nests exported from the Archipelago at 242,400 lbs. worth 284,290*l*. "The value," he observes, "of this immense property to the country which produces it, rests upon the capricious wants of a single people. It is claimed as the exclusive property of the sovereign, and every where forms a valuable branch of his income, or of the revenue of the state. This value, however, is of course not equal, and depends upon the situation and the circumstances connected with the caverns in which the nests are found. Being often in remote and sequestered situations, in a country so lawless, a property so valuable and exposed is subject to the perpetual depredation of freebooters, and it not unfrequently happens that an attack upon it is the principal object of the warfare committed by one

petty state against another. In such situations, the expense of affording them protection is so heavy, that they are necessarily of little value. In situations where the caverns are difficult of access to strangers, and where there reigns enough of order and tranquillity to secure them from internal depredation, and to admit of the nests being obtained without other expense than the simple labour of collecting them, the value of the property is very great. The caverns of *Karang-bolang*, in Java, are of this description. These annually afford 6,810 lbs. of nests, which are worth, at the Batavia prices of 3,000, 2,500, and 1,200 Spanish dollars the picul, for the respective kinds, nearly 139,060 Spanish dollars; and the whole expense of collecting, curing, and packing, amounts to no more than 11 per cent. on this amount. The price of birds' nests is of course a monopoly price, the quantity produced being by nature limited, and incapable of augmentation. The value of the labour expended in bringing birds' nests to market is but a trifling portion of their price, which consists of the highest sum that the luxurious Chinese will afford to pay for them, and which is a tax paid by that nation to the inhabitants of the Indian Islands. There is, perhaps, no production upon which human industry is exerted, of which the cost of production bears so small a proportion to the market price." — (See also the valuable work of *Count Hogendorp, Coup d'Œil sur l'Ile de Java*, p. 291.)

BISMUTH (Ger. *Wismuth*; Du. *Bismuth, Bergsteen*; Fr. *Bismuth*; It. *Bismutte*; Sp. *Bismuth, Piedra inga*; Rus. *Wismut*; Lat. *Bismuthum*), a metal of a reddish white colour, and almost destitute of taste and smell. It is softer than copper; its specific gravity is 9·822. When hammered cautiously, its density is considerably increased; it breaks, however, when struck smartly by a hammer, and, consequently, is not malleable, neither can it be drawn out into wire; it melts at the temperature of 476°. — (*Thomson's Chemistry.*)

"Bismuth is used in the composition of pewter, in the fabrication of printers' types, and in various other metallic mixtures. With an equal weight of lead, it forms a brilliant white alloy, much harder than lead, and more malleable than bismuth, though not ductile; and if the proportion of lead be increased, it is rendered still more malleable. Eight parts of bismuth, 5 of lead, and 3 of tin, constitute the fusible metal, sometimes called Newton's, from its discoverer, which melts at the heat of boiling water, and may be fused over a candle in a piece of stiff paper without burning the paper. Pewterers' solder is formed of one part of bismuth, with 5 of lead, and 3 of tin. It forms the basis of a sympathetic ink." — (*Ure.*)

BITUMEN (Ger. *Judenpech*; Du. *Jodenlym*; It. *Asfalto*; Sp. *Asfalto*; Port. *Asphalto*; Rus. *Asfalt*; Lat. *Asphaltum Bitumen Judaicum*). This term includes a considerable range of inflammable mineral substances, burning with the flame in the open air. They differ in consistency, from a thin fluid to a solid; but the solids are for the most part liquefiable at a moderate heat. They are, — 1. *Naphtha*; a fine, white, thin, fragrant, colourless oil, which issues out of white, yellow, or black clays in Persia and Media. This is highly inflammable. Near the village of Amiano, in the state of Parma, there exists a spring which yields this substance in sufficient quantity to illuminate the city of Genoa, for which purpose it is employed. With certain vegetable oils, naphtha is said to form a good varnish. — 2. *Petroleum* is much thicker than naphtha, resembling in consistence common tar. It has a strong disagreeable odour, and a blackish or reddish brown colour. During combustion, it emits a thick black smoke, and leaves a little residue in the form of black coal. It is more abundant than the first-mentioned variety, from which it does not seem to differ, except in being more inspissated. It is found in various countries, and is especially abundant in the Birman empire, where it is met with above Prome, within about 2 miles of the Irrawadi. The gross annual produce of the wells in this place has been estimated at about 80,000,000 lbs., worth on the spot about 1s. 8d. a cwt; and the supply might, if a market could be found, be indefinitely increased. It is used as a lamp oil, and, when mingled with earth or ashes, as fuel and in the paying of boats. (*Geographical Dictionary*, i. 377.) In the United States it is found abundantly in Kentucky, Ohio, and New York, where it is known by the name of *Seneca* or *Genesee* oil. It is also obtained from wells in the island of Zante. Herodotus tells us, that he had seen these wells — (lib. iv. c. 195.); and the description he has given of them, and of the mode of obtaining the petroleum, corresponds, in all respects, with the accounts of the best modern travellers. The average annual produce of the Zante springs is about 100 barrels. — (*Chandler's Travels in Greece*, 4to. ed. p. 301.; *Holland's Travels in Greece*, 4to. ed. p. 18.) Petroleum is particularly abundant in Persia. "When taken from the pit, it is a thick liquid resembling pitch. The bottoms of most vessels which navigate the Euphrates and Tigris are covered with it, and it is also used in lamps, instead of oil, by the natives. The most productive fountains are those of Kerkook, Mendali, and Badku. The wells in the neighbourhood of the latter seem to be quite inexhaustible, being no sooner emptied than they again begin to fill. Some of them have been found to yield from 1,000 to 1,500 lbs. a day!" — *Kinneir's Persian Empire*, p. 39. and 359.) — 3. *Maltha*, or *Sea-wax*, is a solid whitish substance, not unlike tallow. It melts when heated, and in cooling assumes the consistence of white cerate. This is, most probably, the *bitumen candidum* of Pliny (*Hist. Nat.* lib. xxxv. c. 15). It is not used as pitch; but it affords a better light than petroleum, and emits a less disagreeable smell. It is found on the surface of the Baikal Lake in Siberia, at the foot of the mountains of Buektiari in Persia, and in some other places. — 4. *Elastic Bitumen* yields easily to pressure; is flexible and elastic. It emits a strong bituminous odour, and is about the weight of water. On exposure to the air it hardens, and loses its elasticity. It takes up the traces of crayons in the same

manner as caoutchouc, or Indian rubber, whence it has obtained the name of *mineral caoutchouc*. It has hitherto been found only in the lead mines of Derbyshire.—5. *Compact Bitumen*, or *Asphaltum*, is of a shining black colour, solid, and brittle, with a conchoidal fracture. Its specific gravity varies from 1 to 1·6. Like the former varieties, it burns freely, and leaves but little residuum. It is found in India, on the shores of the Dead Sea, in France, in Switzerland, and in large deposits in sandstone in Albania; but nowhere so largely as in the island of Trinidad, where it forms a lake three miles in circumference, and of a thickness unknown. A gentle heat renders it ductile, and, when mixed with grease or common pitch, it is used for paying the bottoms of ships, and is said to protect them from the teredo of the West Indian seas. The ancients employed bitumen in the construction of their buildings. The bricks of which the walls of Babylon were built were, it is said (*Herodotus*, lib. i. § 179.), cemented with hot bitumen, which gave them unusual solidity.

BLACKING (Ger. *Schuhschwärze*, *Wichse*; Fr. *Noir* (*de cordonnier*;) It. *Nero da ugner le scarpe*; Sp. *Negro de zapatos*). A factitious article, prepared in various ways, used in the blacking of boots and shoes. The principal ingredients in its manufacture are oil, vinegar, and various sorts of blacking matter. It is in very extensive demand. Some of the establishments for its manufacture, especially those in the metropolis, are on a very large scale; and it is in such only that it can be cheaply and advantageously produced. One of the principal, or rather we may say the principal outlay in establishing a blacking business, consists in advertising. Indeed any individual or set of individuals, provided they supply a reasonably good article, may by continuous advertising and puffing attain to the highest eminence in the "blacking line." Exclusive of that used at home, blacking is a considerable article of export.

BLACK-LEAD, PLUMBAGO, OR WAD, (Du. *Potloot*; Fr. *Mine de plomb noir*, *Plomb de mine*, *Potelot*; Ger. *Pottloth*, *Reissbley*; It. *Miniera di piombo*, *Piombaggine*, *Corezolo*; Lat. *Plumbago*; Sp. *Piedra mineral de plomo*), a mineral of a dark steel grey colour, and a metallic lustre; it is soft, has a greasy feel, and leaves a dark coloured line when drawn along paper.

This mineral is found only in a state of purity in Borrowdale in Cumberland, the mines in which have been wrought since the days of Elizabeth. The lead is not found in veins but in detached pieces, or in what are called *sops* or *bellics*, so that the supply is very irregular, the miners being frequently employed for a lengthened period in seeking at random for the lead. Its quality also differs very widely. The best is that which is lightest, and the trace of which on paper is easily and completely removed by the application of India rubber. The mine used only to be opened at intervals, but for a considerable number of years past it has been constantly open. The supply, however, has been extremely scanty, and mostly also very inferior. The trade is supplied at sales held on the first Monday of each month, in *Essex Street*, *Strand*, London.

This lead is now almost wholly employed in making pencils: an inferior variety from Spain and Ceylon being used in the manufacture of crucibles, the polishing of cast iron utensils, the diminishing of friction, and other purposes to which genuine black lead was formerly applied.

BLACK LEAD PENCILS (Du. *Potlootpennen*; Fr. *Crayons noirs*; Ger. *Bleystifte*; It. *Lapis nero*; Port. *Lapis negro*; Rus. *Karanaschii*; Sp. *Lapiz negro*) are formed of black lead, encircled with cedar.

There is hardly, perhaps, any thing in which the temptation to substitute a spurious for a genuine article is greater, or in which, consequently the purchaser is more liable to be deceived, than black lead pencils. This is occasioned by the vast difference between the cost of genuine Cumberland lead, and of the other articles that are or may be substituted for it. Pencils are usually described as follows:—

First quality, or drawing pencils.
Second ditto, or prepared pencils.
Third ditto, or composition pencils.

I. Pencils of the first quality are, when genuine, made of pure Cumberland lead, which costs at present (1843) 30*s.* per lb. or 168*l.* per cwt. From 18 to 20 dozen such pencils are produced from a pound of this lead.

These pencils are usually made by sawing the lead into the pieces inserted in the cedar. Sometimes, however, the lead is in parts gritty and defective, so that a pencil of this kind may, in fact, be very inferior. To obviate this defect, some makers prepare the lead, to free it from the grit or earthy particles; and, provided no antimony or other alloy be mixed up with the prepared lead, the pencils produced from it are most to be depended on.

II. Pencils of the *second* quality are manufactured out of the sawings or dust of pure lead, with the dust of the small pieces picked up by poor people from the rubbish thrown out of the mine, mixed or alloyed with a greater or less quantity of antimony. The goodness of this pencil depends, of course, on the proportion in which the pure lead exceeds the antimony. But as the cost of the former may be taken at 100*l.* a cwt. and that of the latter at only 26*s.*, there is an all but irresistible temptation to increase the proportion of the latter beyond due bounds. This sort of composition produces about 15 or 16 dozen pencils to the pound; their price varying according to the purity of the lead.

III. The *third* quality of pencil is made by using Mexican or Spanish lead dust, costing 45*s.* or 50*s.* a cwt., with antimony costing about 26*s.* per cwt. It produces about 14 or 15 dozen pencils to the lb., which may be sold at from 2*s.* 6*d.* to 12*s.* per gross, according to the cost of the articles employed and the care taken in mixing them. This sort of pencil may take a firm point, and make a fine stroke, but its trace will not obliterate on being rubbed with Indian rubber. The easy and complete obliteration of the strokes is, in fact, the best and perhaps only test of a pencil being of pure Cumberland lead.—(*Private information.*)

BLUBBER (Ger. *Thran*, *Fischtran*; Du. *Thraan*; It. *Olio di pesce*; Sp. *Grassa*, *Aceite de pescado*; Rus. *Salo worwannoe*, *Worwan*; Lat. *Oleum piscinum*), the fat of whales and other large sea-animals, of which train oil is made. The blubber is the *adeps* of the animal: it lies under the skin, and over the muscular flesh: it is about 6

inches in thickness, but about the under lip it is 2 or 3 feet thick. The whole quantity yielded by one of these animals ordinarily amounts to 40 or 50, but sometimes to 80 or more cwt. Formerly train oil was manufactured from the blubber in the seas round Spitzbergen, and other places where whales were caught; but the practice is now to bring the blubber home in casks, and to prepare the oil afterwards.

It is enacted by the 6 Geo. 4. c. 107. § 44., that before any blubber, train oil, spermaceti oil, head matter, or whale fins, shall be entered as being entirely the produce of sea animals caught by the crews of ships fitted out in the United Kingdom, or the islands of Jersey, Guernsey, Sark, and Man, the master of the ship importing such goods shall make oath, and the importer also shall make oath, to the best of his knowledge and belief, that the same are the produce of fish or creatures living in the sea, taken and caught wholly by the crew of such ship, or by the crew of some other ship (naming it) fitted out in the United Kingdom, or in one of the islands of Guernsey, Jersey, Alderney, Sark, or Man (naming which).

Before blubber, train oil, &c. can be entered as from a British possession, a certificate must be obtained from the custom-house officer at such British possession, or in default of such officer being there, from two principal inhabitants, notifying that oath had been made before him or them that such blubber, &c., was the produce of fish or creatures living in the sea, and had been taken by British subjects usually residing in some part of his Majesty's dominions; and the importer is to make oath, to the best of his knowledge and belief, to the same effect.

The ganging of casks of oil and blubber is dispensed with since 1825. They are to be passed at the rate of 126 gallons the pipe, and 63 gallons the hogshead.

BOATS are open vessels, commonly wrought by oars, and of an endless variety of shapes, according to the purposes to which they are to be applied.

Boats of Vessels to bear Name of Vessel, Port, and Master.— The owner of every ship belonging wholly or in part to any of her Majesty's subjects shall paint or cause to be painted upon the outside of the stern of every boat belonging to such ship the name of such ship and the port or place to which she belongs, and the master's name withinside the transom, in white or yellow Roman letters, not less than 2 inches in length, on a black ground, on pain of the forfeiture of every such boat not so marked, wherever the same shall be found.—(16 & 17 Vict. c. 107. § 203.)

Boat not belonging to Ships to have Name of Owner and Port thereon. — The owner of every boat not belonging to any ship shall paint or cause to be painted upon the stern of such boat, in white or yellow Roman letters, of 2 inches in length, on a black ground, the name of the owner of the boat and the port or place to which she belongs, on the pain of the forfeiture of such boat not so marked, wherever the same shall be found.—(§ 204.)

BOLE, a friable earthy substance, a species of the soapstone family. Specific gravity 1·4 to 2. It is found in the island of Lemnos, whence it is sometimes called Lemnian earth; and in Armenia, Italy, France, Silesia, various parts of South America, &c. Armenian and French boles were at one time not uncommon in this country, being used in the materia medica; but they are now entirely, or almost entirely, discarded. In India, however, Armenian bole still continues to be in extensive demand. It is brought to Bombay from the Persian Gulph. It is soft, feels greasy to the touch, adheres strongly to the tongue, and is very frangible: it is generally of a yellowish brown colour; though sometimes it is seen of a fine flesh red, which is the variety held in the highest estimation. Some savage nations, such as the Ottomaques, described by M. Humboldt, are in the habit of allaying the pains of hunger by eating boles. The Javanese, when they wish to become thin, eat cakes, called *tunaampo*, made of bole.—(*Lewis, Mat. Medica; Thomson's Chemistry; Ainslie's Mat. Indica.*)

BOHEA, a species of tea. See TEA.

BOMBAY, a sea-port on the western coast of British India, being, after Calcutta, Canton, and perhaps Batavia, the greatest emporium in the East; lat. 18° 56′ N., long. 72° 57′ E. It stands on the south-eastern extremity of a small island of the same name, separated from the main land by an arm of the sea, forming, with the contiguous islands of Colabah, Salsette, Butcher's Island, and Caranjah, one of the best harbours in India. Bombay Island was ceded by the Portuguese to the English in 1661, as the dower of Queen Catherine, wife of Charles II., and was taken possession of in 1664; so that it has been in our occupation about 190 years, being by far the oldest of our possessions in the East. In 1668, it was transferred by the crown to the East India Company, by letters patent, in free and common soccage, on payment of an annual rent of 10*l*. But it has again, in the course of the present year (1859), been placed, with the rest of India, under the direct government of the crown. On its cession to England, in 1661, its population did not exceed 15,000; but at present it has upwards of 260,000 inhabitants. In 1849, the population of the islands of Bombay and Colabah was estimated at 566,119; of whom only 5,088 were Europeans. The fort stands on the south-east extremity of the island, on a narrow neck of land, immediately over the harbour. The fortifications are extensive, and on the sea side very strong.

Bombay Harbour is one of the safest and most commodious in India. It is bounded on the west and north by the island of Colabah, or *Old Woman's Island*, Bombay Island, and the island of Salsette. The first two are separated only by a narrow creek fordable at low water, and Bombay Island was joined to Salsette by a causeway constructed in 1805. On the east side of the harbour, between it and the main land, is Butcher's Island, distant about 4 miles from Bombay; and immediately behind Butcher's Island is the famous island of Elephanta. About 3 miles south from Butcher's Island is the island of Caranjah, on the western side of which, next the harbour, is an extensive shoal. S. W. from Caranjah, distant about 5 miles, is Tull Point; between which and Colabah, or Old Woman's Island, is the entrance to the harbour. There is a light-house on the southern extremity of Colabah Island, elevated about 150 feet above the level of the sea, which in clear weather may be seen at the distance of 7 leagues. The point on which the light-house stands is surrounded on all sides by an extensive reef of rocks divided into prongs: of these, the most dangerous is the prong stretching S. W. about

3 miles from the light-house, and forming the northern boundary of the entrance into the harbour. The reef stretching W. N. W. from Tull Point about 3½ miles, forms the southern boundary of the entrance; the breadth of the channel between them being about 3 miles, with a depth of from 7 to 8 fathoms. In going into the harbour, it is necessary to clear a sunken rock, lying almost due east from the light-house, at about 1¼ mile distant; and also a bank, called the middle ground, lying nearly opposite to and about 1¼ mile from the southern extremity of the town. — (See *Nicholson and Watson's Plan of Bombay Harbour.*)

Docks. — Bombay is the only port of consequence in British India in which the rise and fall of the tide are so considerable as to admit of the formation of extensive wet docks. At ordinary spring tides, the rise is about 14 feet, but occasionally as high as 17. The capacious docks constructed by the East India Company are their property, and are for the most part under the direction of Parsees, who, excepting the Chinese, are the most industrious and intelligent people of the East. Merchant vessels of the largest class, or from 1,300 to 1,400 tons burden, for the cotton trade to China, have been built in these docks. Frigates and line-of-battle ships have also been occasionally constructed in them, sometimes under the exclusive direction of Parsee artificers. The timber having to be brought from a great distance, ships built at Bombay are very costly; but being, contrary to the practice in other parts of India, entirely constructed of teak, they are the most durable vessels in the world, requiring little repair, and often running 50 or 60 years. Being for the most part built by natives, without any very strict application of the rules of art, they are commonly, though not always, heavy sailers.

Monies. — Accounts are kept in rupees; each rupee being divided into 4 quarters, and each quarter into 100 reas. The rupee is also divided into 16 annas, or 50 pice. An ardee is 2 reas; a doreea, 6 reas; a dooganey, or single pice, 4 reas; a fuddea, or double pice, 8 reas; a paunchea is 5 reas; and a gold mohur, 15 rupees. Of these, the annas and reas only are imaginary monies. The coins of Bombay are the mohur, or gold rupee, the silver or Company's rupee, and their divisions; also the double and single pice, the ardee, and doreea, which are copper coins with a mixture of tin or lead. The following is the assay and sterling value of the present gold and silver coinage of Bombay:—

	Gross Wt.	Pure Metal.	Sterling Value.
	grs.	grs.	s.
Gold mohur	180	165	29·2
Company's rupee (silver)	180	165	1·11 if silver be taken at 5s. 2d. an oz., and 2s. 0½d. if silver be taken at 5s. 6d. an oz.

The Company's rupee has only been coined *since the 1st of* September, 1835; but it is almost identical in respect of value with the rupees previously in circulation.

The charge of coinage in the Bombay Mint is 2½ per cent. for gold, and 3 per cent. for silver, including the charges for refining. The machinery for this mint was sent out from England a few years ago, and is complete, but very costly.

Weights and Measures. — The unit of weight in Bombay, as in other parts of India, is, by the law of 1833, the *tola* of 180 grains troy, the other weights being derived from it as follows:

8 Ruttees	= 1 Masha	= 15	Troy Grains.
12 Mashas	= 1 Tola	= 180	Troy Grains.
80 Tolas (or Sicca Weight)	= 1 Seer	= 2½	lb. Troy.
40 Seer	= 1 Mun (or Bazaar Maund)	= 100	lb. Troy.

The following table shows the commercial weights of the several Presidencies of India, Travancore, China, and England, compared with the new Indian maund introduced into Bengal in 1833, and adopted in the new tariff valuation under the Bombay Presidency since 1840.

	lbs.	Maunds.		Maunds. lbs.	Maunds.
The Bombay Maund of 40 Seers	=28	2·938775	The Bombay Candy of	20=560	6·805555
— 42 —	=29·400	2·796883	—	21=588	7·145833
The Surat Maund of 40 —	=51·333	2·204081	—	22=616	7·486111
— 41 —	=38·966	2·156323	The Surat Candy of	20=716·666	9·074074
— 42 —	=39·200	2·099125	—	21=784	9·527777
— 43½ —	=40·366	2·038436	—	22=821·333	9·981481
— 44 —	=11·066	2·003710	The Madras Candy of	20=500	6·076388
The Bengal Factory Maund	=74·666	1·402040	The Travancore Candy of	20=640	7·777777
Bazaar ditto	=82·133	1·001855	The China Picul	=133·333	1·620370
The Madras Maund	=25	5·291428	The English Cwt.	=112	1·361111
			The English Ton of 20 cwt.	=2240	27·222220

Of which the new Indian Maund of 82·2 lbs. av. or 82·285714 lb. av. contains

Which contain new Indian Maunds of 82·2 lbs. av. or 82·285714 lb. av.

Grain Measure.

		lbs.	oz.	dr.
2 Tipprees	= 1 Seer	= 0	11	5·2
4 Seers	= 1 Pally	= 2	12	12·8
7 Pailies	= 1 Parah	= 19	9	9·6
8 Parahs	= 1 Candy	= 156	12	12·8

Salt Measure.

		cubic inches.
10½ Adowlies	= 1 Parah	= 1,607·64
100 Parahs	= 1 Anna	= 160,761
16 Annas	= 1 Rash	= 2,572,176

The apna weighs 2½ tons, and the rash 40 tons.

Liquor Measure.

(Spirits and Country Arrack.)

The seer weighs 60 Bombay rupees, and equals 1 lb. 8 oz. 8½ dr.; and 50 seers make the maund.

Long Measure.

		English inches.
16 Tussoos	= 1 Hath	= 18
24 Tussoos	= 1 Guz	= 27

The English yard is now, however, in common use in Bombay.

Shipping. — In 1843, there belonged to Bombay, and mostly also to native merchants, 58 ships of the aggregate burden of 31,378 tons, of which 6 only were under 200 tons. These ships are partly employed in the China trade, and partly in the trade to England and other places. They are for the most part navigated by Indian seamen or Lascars, those of Bombay being accounted by far the best in India; the master and superior officers only, and not always, being Englishmen. Besides these large vessels, there is a numerous class of native craft, under various forms and names, amounting in all to about 50,000 tons, of from 2 to 175 tons each. These vessels, besides furnishing the town with firewood, hay, straw, &c. from the neighbouring continent, navigate coastways from Cape Comorin to the Gulf of Cutch, and sometimes cross the sea to Muscat and the Arabian Gulph. During the eight fair months, that is, from October to May, the largest sized vessels perform five or six trips to Damaun, Surat, Cambay, Broach, Jumbosier, and Cutch, bringing from these ports, where they sometimes winter, and where many of their owners reside, cotton, ghee, oil, pulse, wheat, cotton cloths, timber, firewood, putchok, mawah, &c.; and return to the northern ports laden with the produce of Europe, Bengal, and China. The capital employed in this trade, in the minor articles of commerce, exclusive of cotton, has been estimated at 1,500,000*l.* sterling.

Commerce, &c. — The small and sterile island of Bombay affords no produce for exportation; indeed, hardly yields a week's consumption of corn for its inhabitants. Nor does the whole presidency of Bombay, although comprising about 140,000 square miles, and 12,000,000 inhabitants, with a nett revenue in 1856–57 of 4,776,704*l.*, yield, with the exception of cotton, rice, and coffee, any of the great colonial staples, such as sugar and indigo; a circumstance which may, perhaps, be ascribed to the impolitic restraints upon the employment of British settlers and capital that were long imposed by law, and acted upon with peculiar rigour in this and the sister presidency of Madras, in contradistinction to the greater latitude afforded in Bengal. Bombay is also much less favourably situated, in respect of internal communications, than Calcutta. The Ganges and its tributary streams intersect the richest provinces of India, and give Calcutta a vast command of inland navigation; whereas all the inland trade of Bombay has hitherto had to be carried on by means of roads, that are seldom available for carriages, and which can be used only by pack-bullocks and camels. The transit duties, by which

the inland trade was grievously oppressed, have been abolished; and if this judicious measure be followed up, as there is now (1859) good reason to expect, by the construction of the projected lines of railway to the principal markets in the interior, a great increase in the trade of the town and improvement of the presidency may be expected.

The principal trade of Bombay is carried on with China, Great Britain, the countries on the Persian and Arabian gulphs, Calcutta, Cutch and Scinde, the Malabar coast, foreign Europe, &c. The imports from China consist principally of raw silk, sugar, and sugar-candy, silk piece goods, treasure, &c. The principal articles of export to China are, raw cotton, opium (36,000 chests), principally from Malwa, sharks' fins and fish maws, sandal-wood, pearls, &c. The exports to China being much greater than the imports, the returns for several years past have been made to a large extent in bills on London, and on the Indian governments, drawn by the merchants in China.

The trade with the United Kingdom has been regularly increasing since the abolition of the restrictive system. The chief articles of import from Great Britain are, cotton and woollen stuffs, cotton yarn, hardware, copper, iron and lead, glass, apparel, fur, stationery, wine, &c. The principal articles of export to Britain are raw cotton, raw silk, from China and Persia, ivory, pepper and spices, piece goods, coffee, and wool. The export of the last-mentioned article has increased with extraordinary rapidity, the quantity shipped for England in 1833-34 being only 69,944 lbs.; whereas the shipments for England in 1857-58 amounted to 16,892,920 lbs.! At present the principal supply of the article is drawn from Cutch and Scinde, and from Marwar, viâ Guzerat; but active measures have been taken by government for improving the flocks in the pastoral country of the Deccan, so that a further and very considerable increase of this new and important trade may be anticipated.

The trade between Bombay and the ports on the Persian Gulph has materially varied of late years. A large portion of the articles of British produce and manufacture that were formerly exported to Persia, by way of Bombay and Bushire, being now sent through Trebisond and ports in the Levant; and a considerable portion of the raw silk that used to be exported from Persia, viâ Bombay, being now also sent through the ports referred to. On the other hand, however, there is a considerable increase in the exports and imports of other articles; so that, on the whole, the amount of the trade has not materially varied.

The trade between Bombay and Calcutta is not so great now as it was formerly; the abolition of the restrictive system in 1813 having given Bombay the means of bringing various articles direct from foreign ports which she was previously obliged to import at second-hand from Calcutta, and of exporting directly.

Banks.—These consist of the Bank of Bombay, incorporated in 1840, the Commercial Bank of India, the Mercantile Bank of India, and branches of the Oriental Bank of London, the Agra Bank of Agra, &c. Of these the first and most important has a capital of 522,000*l.*, divided into shares of 100*l.* each. It issues notes, and transacts all sorts of banking business, charging no commission for its trouble, and allowing no interest on deposits. We borrow from the *Bombay Almanac* the following notices respecting this bank, which also apply with little alteration to the others.

RULES OBSERVED AT THE BANK OF BOMBAY.

In Accounts Current.

1. No deposit account opened for a less sum than 200 rupees.
2. No cash credit account opened for a less sum than 500 rupees.
3. The bank furnishes blank cheques and pass books.
4. No money received or paid after 4 p.m.
5. The bank charges no commission, and allows no interest on deposits.
6. No cheques, upon which any alteration or erasure has been made, will be paid.
7. No cheques for sums under ten (10) rupees will be paid, except in cases where the bank shall have to pay itself.
8. The bank does not allow any account to be overdrawn.
9. The bank collects bills, cheques, &c., payable in Bombay, taking the notarial step in case of non-acceptance or non-payment.
10. The bank requires that bills, notes, &c., (not being demands at sight) intended for realisation by the bank, be sent in at least one day before the due date.
11. The bank realises for constituents, interest on Government securities and dividends on Bank Stock, payable in Bombay.
12. The bank does not correspond on matters relating to current accounts or deposits. Parties are therefore requested to transact their business with the bank in person or by their agents.

In Cash Credit Accounts and Loans on Security of Deposit.

1. No credit or loan on deposit of Government paper or goods granted for a less sum than 500 rupees.
2. No credit or loan granted for a longer period than three months.
3. Credits and loans exceeding three lakhs of rupees are subjects of special agreement.
4. Credits for any sum not exceeding three lakhs of rupees, are granted on the following terms, viz.:—If, at the expiration of three months, it appears that the average daily debit balance is not equal to one-half the credit granted, interest will be charged on one-half the extent of the credit; but if the average daily debit balance is greater than one-half the credit, then interest will be charged on the balance in the usual manner.
5. No credit for sums exceeding 50,000 rupees, except upon the above terms.
6. Credits for sums under 50,000 rupees, granted without any stipulation as to the average balance, are charged interest at 1 per cent. per annum above the current rate.
7. In instances of accounts being required to be closed before maturity, one day's previous notice to be given to the bank officers.
8. Applications for loans of credits should be made before 3 p.m.
9. Goods deposited in the bank godowns for advances, are subject to godown rent.

N.B.—The bank rules in current deposit accounts (except Nos. 1 and 5.) are applicable to cash credit accounts, and must be strictly attended to.

Post Bills.

Granted upon written applications, free of charge, payable at 7 days' *sight*, and 30 *days' sight*.

Post bills required in duplicate, are issued on the day following that of the receipt of the application.

Bills of Exchange.

Granted upon a written application, at the rate of exchange of the day, and payable at Calcutta, Madras, and Agra.

Rates of Discount and Interest.—Discount.

On Government Bills - - -	per cent.	according to circumstances
On Private Bills at or within 3 months	ditto.	
Interest.		
On Fixed Loans on Government Notes	ditto.	
On Cash Credits and Loans on do. -	ditto.	
On Loans on deposit of Goods, &c. -	ditto.	

Parties discounting bills may take them up at any period, prior to their maturity, and the bank will refund the discount for the unexpired portion of the time such bills may have to run.

The rates of advance in cash credit accounts and loans on deposit of 5 per cent. Government notes are usually 95 per cent., on 4 per cent. Government notes it is 80 per cent., and on goods three fourths the approved value.

Insurance.—Companies for the Insurance of lives, shipping, and against fire, have been established in Bombay; and several of the London and Calcutta Insurance Companies have agents here.

Account of the Quantities of the Principal Articles of Indian Produce exported from Bombay during each of the 3 Years ending with 1858.

Articles.	1855-56.	1856-57.	1857-58.
Coffee, lbs.	4,046,086	4,791,954	1,745,481
Cotton, lbs.	217,016,915	278,373,346	239,194,143
Opium, chests	25,668	29,944	26,359
Pepper, lbs.	5,136,009	2,021,955	2,734,493
Saltpetre, lbs.	5,574,816	5,061,280	6,427,680
Silk, lbs.	137,557	293,056	60,707
Wool, lbs.	16,039,728	18,473,100	18,529,563

Value of the Articles Imported into and of those Exported from Bombay in 1857-58.

Imports, 1857-58.	*rupees.*
Apparel	8,27,183
Coffee	4,64,785
Cotton: twist and yarn	15,60,707
„ piece goods	1,63,23,526
Coal	8,35,932
Drugs, medicines, &c.	4,14,566
Dyes	6,40,737
Fruits and dates	8,92,048
Grain	7,87,197
Horses	12,85,300
Ivory	12,91,188
Machinery	14,30,547
Metals	60,87,191
„ manufactured	13,51,071
Railway materials	47,81,078
Silk: raw	37,09,751
„ manufactured	6,30,076
Sugar, and sugar candy	24,04,810
Tea	4,90,557
Wool	5,16,493
Woollen goods	11,06,080
Sundries	1,36,67,514
Total imports	6,14,78,337

Exports (including re-exports), 1857-58.	*rupees.*
Cotton: raw	4,01,09,965
„ twist and yarn	3,26,972
„ piece goods	56,38,767
Coffee	5,57,649
Grain: rice	3,05,925
„ wheat	6,05,286
Indigo	6,10,245
Opium	4,36,07,055
Pepper	3,47,763
Seeds	67,14,683
Saltpetre	3,07,957
Silk: raw	1,78,398
„ piece goods	3,38,430
Shawls	21,55,160
Sugar	9,42,988
Tea	1,90,955
Wool	38,55,607
Sundries	85,53,015
Total exports	11,52,56,827

Of Bullion, the Imports amounted—

Years.	*rupees.*
In 1857-58	7,46,19,610
1856-57	6,84,76,374
Excess in 1857-58	61,43,236

Statement of the Value of all Exports from Bombay for the 6 Years ending 1858.

Years.	*rupees.*
1852-53	7,60,44,644
1853-54	7,19,88,168
1854-55	6,72,45,249
1855-56	8,15,69,590
1856-57	10,09,44,803
1857-58	11,52,56,827

Of the entire value of the imports into Bombay, amounting in 1857-58 to 6,147,834*l.*, those from the U. Kingdom amounted to 4,216,300*l.* Of the entire value of the exports in the same year, amounting to 11,525,683*l.*, those to the U. Kingdom were 4,436,000*l.*, of which cotton only made 3,133,600*l.*; those to China were 4,769,417*l.*

For an account of the customs duties at Bombay, see CALCUTTA.

Arrivals at and Departures from the Ports in Bombay from and to Foreign or External Ports in 1857-58.

	Arrivals.		Departures.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
Square-rigged vessels	657	512,189	513	377,449
Native craft	400	36,924	339	32,171
Total	1,057	549,113	852	409,620

PORT CHARGES.

Buoy and Anchorage Dues.—All ships and vessels or boats not receiving pilots—

From 10 to 20 tons	Rps. 3 0 0	per Ann.
Above 20 to under 50 tons	— 6 0 0	do.
From 50 to 50 tons	— 10 0 0	do.
Above 50 to 100 —	— 20 0 0	do.
— 100 to 150 —	— 25 0 0	do.
— 150 to 200 —	— 30 0 0	do.
— 200 to 250 —	— 35 0 0	do.

Charges for Pilotage.—A ship	Fair Season.	Monsoon.
of the line of 50 guns	Rps. 100	140
A frigate or sloop of war	— 75	100

Foreign ships of war are to pay, in addition to the above rates, rupees 40.

N.B. There are no port charges of any sort at Bombay other than the above.

Square-rigged vessels of all descriptions:

	Fair Season.	Monsoon.
Above 50 to 300 tons.	Rps. 50 0 0	75 0 0
— 300 to 400 —	— 55 0 0	80 0 0
— 400 to 500 —	— 60 0 0	85 0 0
— 500 to 600 —	— 65 0 0	90 0 0
— 600 to 700 —	— 70 0 0	95 0 0
— 700 to 800 —	— 75 0 0	100 0 0
— 800 to 900 —	— 80 0 0	105 0 0
— 900 to 1000 —	— 85 0 0	110 0 0
— 1000 to 1100 —	— 90 0 0	115 0 0
— 1100 to 1200 —	— 95 0 0	120 0 0
1200 and upwards	— 100 0 0	125 0 0

Light-house Dues.—All ships and vessels down to 20 tons, at rupees 15 per 100 tons per annum.

All vessels under 20 tons burden, at 2 rupees per annum.

General Rates of Commission in Bombay.—On the sale or purchase of goods of all denominations (except as under) - - -

Collecting house rent	2½
Taking up interest bills from the Company (exclusive of 1 per cent. on remitting)	½
Sale or purchase of public or private bills of exchange	1
Exchanging Company's securities of all descriptions, or investing money therein, and on transferring government paper from one constituent to another	½
Surrendering, or depositing in the treasury, Company's security of all descriptions	½
Procuring money on respondentia or on loan	2
Recovery of bonds or bills for absentees, over due at the period of their being placed in the possession of the agent	2
Debts, when a process at law or by arbitration is necessary, 2½ per cent.; and if recovered by such means	5
Managing the affairs of an estate for an executor or administrator	5
Guaranteeing bills, bonds, or debts in general, by endorsement or otherwise	½
Attending the delivery of contract goods to the Company or individuals	1
Goods consigned, and afterwards withdrawn, on invoice cost	2½
Bills of exchange returned noted or protested, &c. Per cent.	1
Receipt of payment (at the option of the agent) of all monies not arising from proceeds of goods on which commission has been previously charged	1
All cases where the debtor side of the account exceeds the credit side, including the balance of interest, commission chargeable on the debtor side, at the rate of	1
Granting letters of credit	2½
Becoming security to government, or public bodies, in any case	2½
Goods consigned, which are disposed of by outcry or sent to a shop, on net proceeds	2½
Depositing government paper as security for constituents	1

Memorandum. — Sales of European goods, when made at an advance on invoice cost, the amount to be converted into Bombay currency at the exchange of two shillings per rupee.

Dock Regulations. — At daylight the wickets of the gates are opened, and at 7 o'clock the sentry gate. Half an hour after sunset the gates are shut, the wicket of the centre gate being left open till the evening gun be fired. No boats, saving those belonging to the Company's marine department, or her Majesty's navy, are permitted to come to the dock-yard stairs; but must use the piers expressly constructed for their accommodation. No meat, stores, or baggage for the merchant shipping, of any description, are to be passed through the dock-yards. After the firing of the evening gun, nobody belonging to the ships in the harbour, below the rank of a commissioned officer, is to be allowed to land or enter the dock-yard, without the express permission of the master attendant, or other constituted authorities.

Boats' crews are not to be permitted to quit their boat at the stairs, after the hours of shutting the gates. Small craft are not to deliver firewood or any other lading within the limits of the yard, without the superintendent's sanction. The ships and vessels in dock are not to land any lumber whatever on the pier. No cargo of any description is to be landed in or passed through the yard, from or to any ship in dock without the superintendent's permission in writing. No fire or light is allowed on board any ship or vessel in dock, without the authority of the superintendent, to whom the purposes for which either may be required, must be stated in writing.

(*See Milburn's Oriental Commerce; Bombay Calendar and Register for 1857*; and private information.)

BOMBAZINE, a kind of silk stuff, originally manufactured at Milan, and thence sent into France and other countries. Now, however, it is nowhere manufactured better, or in larger quantities, than in this kingdom.

BONES of cattle and other animals are extensively used in the arts, in forming handles for knives, and various other purposes; but of late years they have been of most importance in agriculture. When employed in the latter they are, in most instances, ground or reduced to powder, and are commonly used as manure for turnips, being in general drilled in with the seed, though sometimes, also, they are sown broadcast, and with other crops. The quantity used varies from about 25 bushels of *dust* to about 40 bushels *large* an acre. Their effect is said to be considerably increased when they have undergone the process of fermentation. They were first used, in this country, on a large scale, as a manure in Lincolnshire; and there can be no doubt that their extensive employment in that county has been one of the chief causes of its rapid improvement, and of the high state of cultivation to which it has attained. Bone-dust is now, however, very largely used, not only in Lincolnshire, York, and the adjacent counties, but in most other parts of England, and almost everywhere in Scotland; and its influence in increasing the crops of corn and turnips, and consequently, also, the supplies of butcher's meat and farm manure, has been quite extraordinary. In fact, it is to the employment of this manure and guano, combined with the extension of furrow drainage, and the introduction of steam navigation, that the wonderful improvements that have been made in agriculture since 1820, and the vast increase of agricultural produce, are principally to be ascribed.

In 1827, Mr. Huskisson estimated the real value of the bones annually imported for manure at about 100,000*l.*; but at present (1859) it probably amounts to about quadruple that sum. The *ad valorem* duty of 1 per cent. on bones produced, in 1841, 2,933*l.* 5*s.* 3*d.* nett, showing that the value of the imports must then have exceeded 293,000*l.*, of which it is abundantly certain that but a comparatively small portion was employed otherwise than in agriculture. They are principally brought from the Netherlands, Germany, and South America. It is a curious fact, that while the duty on bones imported into Scotland, in 1841, amounted to 749*l.* 4*s.* 4*d.*, the duty on those imported into Ireland, amounted to only 2*l.* 10*s.* 1*d.* After being reduced in 1842 to 6*d.* a ton, the duty on bones was finally repealed in 1845. In 1858 the imports of bones amounted to 85,293 tons, worth about 6*l.* per ton.

BOOK-KEEPING, the art of keeping the accounts and books of a merchant. Book-keeping by double entry means that mode or system in which every entry is double, that is, has both a debtor and a creditor. It is also called the Italian method, because it was first practised in Venice, Genoa, and other towns in Italy, where trade was conducted on an extensive scale at a much earlier date than in England, France, or other parts of Europe. This method, however familiar to merchants and book-keepers, seems intricate to almost all who have not practised it; nor is the dryness and difficulty of the task much lessened by the printed works on the subject, which having been compiled more by teachers than by practical merchants, contain a number of obsolete rules and unnecessary details. The most effectual mode of giving clearness and interest to our remarks will be, first, to state a few mercantile transactions, and then to explain the nature of the accounts and entries which result from them.

The Journal of a mercantile house ought to open, at the beginning of each year, with an enumeration of their assets and debts, as follows: —

Folio of Ledger.	SUNDRIES Dr. to STOCK. For the followings, being the assets of the house.	£	s.	d.
1	CASH; amount at the bankers' this day (1st Jan.)	2,550	0	0
1	EXCHEQUER BILLS; amount in hand	5,310	0	0
7	BILLS RECEIVABLE; in hand, as per bill book	7,300	15	0
1	THREE AND A HALF PER-CENT. STOCK, 6000*l.*, valued at 90*l.* per 100*l.* stock	5,400	0	0
8	DEBENTURE ACCOUNT; drawbacks receivable at the Custom-house	513	0	0
6	SHIP AMELIA; our three eighths of that vessel	3,000	0	0
7	ADVENTURE IN IRISH LINEN; amount in hand, computed at cost price	2,467	0	0
7	JAMES BAILEY & Co. Liverpool; due by them	1,350	10	0
7	THOMAS WATSON & Co. Dublin; do.	2,530	12	0
7	WILLIAM SPENCE & Co., Plymouth; do.	970	9	10
		£ 32,391	17	10

Folio of Ledger.	STOCK Dr. to SUNDRIES. For the debts of the house, as follows: —	£	s.	d.
6	To BILLS PAYABLE; amount of acceptances at this date	2,550	10	0
3	To INSURANCE; amount of premiums due to underwriters	1,880	15	0
9	To MORRIS PITTMAN, Trinidad; balance due to him	1,370	5	0
4	To JAMES FORBES, Demerara; do.	720	5	0
7	To SIMON FRAZER, London; do.	960	15	0
2	To JAMES ALLAN & Co., Kingston, Jamaica; do.	1,150	10	0
8	To GEORGE and WILLIAM FOX, Falmouth; do.	320	15	0
		8,753	15	0
	Balance, being the present capital of the house	23,638	2	10
		£ 32,391	17	10

Let the transaction to be first explained be an order for goods from a correspondent abroad. A house in Jamaica sends instructions to the house at home to buy and ship a quantity of manufactured articles, suited to the Jamaica market, as follows: —

Order from JAMES ALLAN & Co., of Kingston, Jamaica, to HENRY BARCLAY & Co., of London.

J. A. & Co.

Linen; Lint Strelitz Osnaburgs, 14 bales, about 6*d.* per yard.
Best tow Strelitz do., 9 bales, 4*d.* or 4½*d.*
Best white Platillas, 1 case.
Linen tick assorted, 3-4ths width, 9*d.*, 1*s.*, 1*s.* 3*d.*; 10 pieces each, cut up in 22-yard lengths.
Woollens; 5 bales Penistones, 3-4ths wide, best indigo blue, 1*s.* a yard.
Cottons; 50 pieces stout calico, 28 yards each, 3-4ths wide, 4*d.* a yard.
50 do. do. do. 7-8ths, superior, 5*d.* a yard.
100 do. stout calico shirting, 7-8ths wide, superior, 6*d.* a yard
Hats; 4 dozen gentlemen's superfine black, 20*s.* each.
2 do. do. drab, 20*s.* each.
1 do. youths' do. black, 15*s.* each.
20 do. felt hats, for negroes, 22*s.* per dozen.
Shoes; 10 dozen prime calf-skin shoes, full size, 65*s.* per dozen.
10 do. youths' do. 52*s.* per dozen.
5 do. gentlemen's dress do. 72*s.* per dozen.

This order the London merchant divides among six, seven, or more wholesale dealers, according to their respective lines of business. Each dealer, or tradesman, as he is commonly called, provides his portion of the order in the course of the fortnight, three weeks, or month, allowed him by the merchant; and when the goods are packed and ready to ship, he sends in his account, or bill of parcels, thus: —

London, 20*th February*, 1843.

Messrs. HENRY BARCLAY & Co.

Bought of SIMON FRAZER.

J. A. & Co. No. 8.		£	s.	d.
	10 pieces best tow Strelitz Osnaburgs, 146 yards each, at 4*d.* per yard	24	6	8
	Inside wrapper, 16 yards, at 3*d.*	0	4	0
	Cord, bale, and press packing	0	10	0
		25	0	8
	Then follow, stated in like manner, the particulars of 8 bales, No. 9. to 16. both inclusive, amounting to	212	4	2
		£ 237	4	10

London, 20*th February*, 1843.

Messrs. HENRY BARCLAY & Co.

Bought of J. BORRADAILE & Co.

J. A. & Co.		£	s.	d.	£	s.	d.
39.	Case, 1 dozen and 2 youths' hats and bands, at 15*s.* each	10	10	0			
	Case (small)	0	4	0			
					10	14	0
40.	Case, 9 dozen felt hats for negroes, at 22*s.* per dozen	9	18	0			
	Case (large)	0	16	0			
					10	14	0
41.	Do. the same				10	14	0
					£ 32	2	0

The merchant, having received the whole of the bills of parcels, fixed on a vessel, and agreed for the freight, proceeds to make an entry at the Custom-house, and to ship the goods. That done, the next step is to prepare the Invoice, or general account of the shipment, as follows: —

INVOICE of Goods shipped by HENRY BARCLAY & Co., in the *Rawlins*, J. Thomson, from London to Kingston in Jamaica, on account and risk of Messrs. JAMES ALLAN & Co. of Kingston.

J. A. & Co.		£ s. d.	£ s. d.
No. 1.	Puncheon strong calf-skin shoes, per J. Johnson's bill of parcels	93 7 0	
2.	Do. do. per do.	94 16 4	
3.	French calf-skin shoes, per do.	23 9 0	
4, 5, 6.	3 trunks do. per do.	67 3 7	
			278 15 11
7.	Case linen tick assorted, per J. Wilson's bill of parcels		42 0 0
8. to 16.	9 bales best tow Osnaburgs, 10 pieces each, per Simon Frazer's bill of parcels		236 5 0
17.	1 case white Platillas, per Molling and Co.'s bill of parcels		41 0 8
18. to 24.	7 cases the same, per do.		287 4 8
25. to 38.	14 bales lint Osnaburgs, per J. Mackenzie's bill of parcels		367 10 0
39.	1 case youths' hats and bands, per J. Borradaile and Co.'s bill of parcels		10 14 0
40, 4, 1.	2 cases felt hats, do. per do.		21 8 0
			1,284 18 3
		£ s. d.	
	Entry; duty on part at ½ per cent.; bond and debenture	4 8 0	
	Carriage, wharfage, and shipping charges	7 9 6	
	Freight and primage 38l. 7s.; bills of lading 3s. 6d.	38 10 6	
	Insurance on 1,500l. at 40s. per 100l. £30 0 0		
	Policy duty 3 18 9		
		33 18 9	
	Commission, 5 per cent. on 1,335l.	66 15 0	
	Do. ½ per cent. on 1,500l. insured	7 10 0	
			158 11 9
			£1,443 10 0

At 6 months' credit; due 6th of September. Errors excepted.
London, 6th of March, 1843. HENRY BARCLAY & Co.

This invoice, being sent out by the vessel to Messrs. Allan & Co., conveys to them a number of particulars in a short space; viz. the mark, the numbers, the value, and the contents of each package. In former times it was the practice to make an invoice very long, inserting in it a literal copy of each bill of parcels, but it has now become usual to make each tradesman deliver a duplicate of his account, to be sent abroad with the goods; in which case the invoice may be, like the above, little more than a summary of the bills of parcels. This method has two advantages: it saves time at the counting-house of the exporter; and it affords to his correspondent an assurance that no more is charged to him than has been actually paid for the articles.

An invoice ought to be made out with the utmost care, for it is a document of great importance in several respects: first, between the exporting merchant and his correspondent abroad; and next, when in the hands of the latter, it may and generally does form a voucher for calculating the import duty, as well as for the sales effected to retailers or other dealers.

The sum insured by the exporting merchant generally exceeds the amount of the invoice by 2 per cent., because the recovery of a loss from insurers involves a charge of fully that amount. It is thus necessary to cover not only the price of the goods, and the charges of shipping, insurance, and freight, but such further sum as may enable the shipper, in case of loss, to carry to the credit of his correspondent the amount of the invoice, clear of any deduction.

JOURNAL ENTRIES resulting from the foregoing Invoice.

Folio of Ledger.	JAMES ALLAN & Co. DRS. to SUNDRIES. For goods shipped to them in the *Rawlins*, Thomson, for Jamaica.	£ s. d.
1	To JAMES JOHNSON; amount of shoes, per his bills of parcels	278 15 11
1	To JOHN WILSON; linen tick per do.	42 0 0
1	To SIMON FRAZER; tow Osnaburgs per do.	236 5 0
1	To JOHN MACKENZIE; lint Osnaburgs per do.	367 10 0
2	To JAMES BORRADAILE & Co.; hats per do.	32 2 0
2	To MOLLING & Co.; for Platillas per do.	328 5 4
3	To FREIGHT ACCOUNT; freight, primage, and bills of lading	38 10 6
3	To INSURANCE; premium, and policy	33 18 9
3	To CHARGES; entry outward, duty, and shipping charges	11 17 6
3	To PROFIT AND LOSS; for commission	74 5 0
		£1,443 10 0

The preceding invoice, being for account of a mercantile house, who sell again to dealers, comprises a variety of articles: as a further specimen, we subjoin two short invoices, for account of sugar planters, and confined to articles consumed on their estates.

INVOICE of Plantation Stores, shipped by HENRY BARCLAY & Co. in the *Adventure*, J. Williamson, Master, for Kingston, Jamaica, by order of Mr. JAMES THOMSON, Planter, and for his account and risk.

J. T.		£ s. d.	£ s. d.
1. to 6.	6 bales lint Osnaburgs, per bill of parcels from James Anderson	£210 0 0	
	Then follow, in like manner, the mark, number, and contents of various other packages of plantation stores (hats, shoes, nails, &c.), composing the shipment; amounting in all to		2,352 10 0
	CHARGES.	£ s. d.	
	Custom-house entry, and shipping charges	2 12 6	
	Freight, primage, and bills of lading	18 7 6	
	Commission on 2,374l. at 2½ per cent.	59 7 0	
			80 7 0
	Insurance on 2,550l. at 2l. per cent.	51 0 0	
	Policy duty	6 10 0	
	Commission, ½ per cent.	12 15 0	
			70 5 0
			£2,503 2 0

Errors excepted.
London, 2d of October, 1842. HENRY BARCLAY & Co.

INVOICE of 60 Barrels of Herrings, shipped by HENRY BARCLAY & Co. of London, in the *Barclay*, James Ferrier, bound to Barbadoes, by order and for account and risk of JOHN HENDERSON, Esq., Planter, and consigned to him at Bridgetown, Barbadoes.

London, 18th of Feb. 1843.

J.H. | 60 barrels prime white herrings, deliverable at Bridgetown, Barbadoes, free of charges, at 21*s.* per barrel - - - - - - - - - - - - £63 0 0

This invoice is very short, the agreement having been, that the herrings should be delivered at a fixed price, all charges included.

ACCOUNT OF SALES. — We come now to a transaction of a different kind; to the sale of goods imported from abroad. A merchant in England receives from a correspondent, whether in India, the West Indies, or North America, notice of a shipment of sugar, coffee, rice, or other produce, about to be made to England, with instructions to effect insurance on the computed value. This is the first step in the transaction; on the arrival of the vessel the goods are entered, landed, and warehoused; and a broker is instructed to report on the state and prospects of the market. On a sale taking place, an account is made out and forwarded to the correspondent abroad, as follows:—

ACCOUNT SALE of 7 Hhds. Sugar, by the *Ceres*, from Trinidad, for Account of MORRIS PITTMAN, Esq., of Trinidad.

	£	s.	d.			cwt. qrs. lbs.	£	s.	d.
Insurance on 175*l.* at 60*s.* per 100*l.* £5 5 0				M. P.	7 hhds. weighing	- 87 3 21			
Policy - - - 0 10 6				1. to 7.	Deduct draft -	- 0 0 14			
	5	15	6			87 3 7			
Freight of 79 cwt. 25 lbs. at 6*s.* per cwt. -	23	15	4		Deduct tare -	- 9 3 7			
Primage, pierage, and trade -	0	9	7						
Duty on 79 cwt. 25 lbs. at 27*s.* per cwt. -	106	19	0			Nett 78 0 0			
Entry - - - - -	0	6	0			at 60*s.* per cwt.	234	0	0
Dock dues - - - -	2	12	10						
Landwaiters and entry - -	0	16	0						
Warehouse rent, 19 weeks - -	1	15	2						
Sampling - - - -	0	3	6						
Insurance from fire - -	0	6	0						
Interest on freight and duty - -	1	12	3						
Brokerage, 1 per cent. - - -	2	6	9						
Commission, 2 per cent. - - -	4	13	4						
½ per cent. on 175*l.* insured - -	0	17	6						
	152	8	9						
Nett proceeds, due 2d of May, 1842 -	81	11	3						
	£234	0	0				£234	0	0

London, 2d of April, 1843. Errors excepted. HENRY BARCLAY & Co.

We have here, on one side of the account, the quantity and value of the goods sold; on the other, the various charges attending the bringing home, the warehousing, and the sale of the articles.

The quantity of goods accounted for in an account sale must be the same as in the invoice; if it be less, whether through damage at sea, through waste, or any other cause, the extent of the deficiency should be explicitly stated. By the "overtaker" in the following sale is meant the additional barrel or package required for the coffee taken out of such of the tierces as have been opened on account of breakage or other damage.

Allowances of Weight. — The tare is the weight of the cask, and differs, of course, in almost every package: but trett (see the following sale) is a fixed allowance of *5* lbs. per tierce in the case of coffee, intended, like draft in the case of sugar, to insure good weight to the buyer, and to enable him to do the same to those who purchase again from him.

ACCOUNT SALE of 20 Tierces Coffee, per *Victoria*, from Demerara, for Account of JAMES FORBES, Esq., Demerara.

CHARGES.	£	s.	d.			Gross Weight. Cwt. qrs. lbs.	Tare. Cwt. qrs. lbs.	£	s.	d.
Insurance on 20 tierces at 35*l.* a tierce, 700*l.* at 5*s.*; policy, 36*s.* 9*d.* -	19	6	9	J. F.	5 tierces	30 1 7	3 2 15			
Freight on 114 cwt. at 7*s.* 6*d.* per cwt. - £42 15 0				No.	5 do.	32 2 5	4 0 5			
Primage, pierage, and trade 1 7 6				1. to 20.	4 do.	24 2 4	2 3 16			
	44	2	6			87 1 16	10 2 8			
Dock dues - - -	10	9	1				Trett 0 2 14			
Landwaiters, entry, and part of bond -	1	2	6				11 0 22			
Insurance from fire - - -	0	19	6		Deduct	11 0 22				
Public sale charges - - -	1	7	6		Nett	76 0 22 at 121*s.* 6*d.* per cwt.		462	17	2
Brokerage, 1 per cent. - -	6	16	7			Gross Weight. Cwt. qrs. lbs.	Tare. Cwt. qrs. lbs.			
Commission, 2½ per cent. on 676*l.* -	16	18	0		5 tierces	17 1 1	2 0 9			
Commission, ½ per cent. on 700*l.* insured	3	10	0		3 do.	19 3 15	2 1 15			
	104	12	5			37 0 16	4 1 24			
Nett proceeds, due 3d of May, 1831	571	13	1				Trett 0 1 1			
	£676	5	6				4 2 25			
					Deduct	4 2 25				
					Nett	32 1 19 at 120*s.* per cwt.		194	9	4
						Gross Weight. Cwt. qrs. lbs.	Tare. Cwt. qrs. lbs.			
					Overtaker	5 1 9	0 3 9			
							Trett 0 0 11			
							0 3 20			
					Deduct	0 3 20				
					Nett	4 1 17 at 117*s.* per cwt.		25	15	0
								683	2	1
							Discount, 1 per cent.	6	16	7
							Gross proceeds	£676	5	6

London, 3d of April, 1843. Errors excepted. HENRY BARCLAY & Co.

Freight is charged on the weight of the produce only; not of the produce and packages together. This allowance is of old standing, and is to be traced less to the reason of the case, than to the competition prevailing among shipmasters.

JOURNAL ENTRIES resulting from the preceding Accounts of Sale.

Folio of Ledger.	June 1843.	£	s.	d.
	THOMAS KEMBLE & Co. DRS. to SUNDRIES.			
4				
2	To SUGAR per *Ceres*.			
	Proceeds of 7 hhds., M. P. 1. to 7., sold by them at one month's credit, from 2d of April	234	0	0
4	To COFFEE per *Victoria*.			
	Proceeds of 20 tierces, J. P. 1. to 20., sold at one month's credit, from 3d of April	676	5	6
		910	5	6
2	SUGAR per CERES Dr. to SUNDRIES.			
3	To INSURANCE ACCOUNT; for premium and policy	5	15	6
3	To FREIGHT ACCOUNT; for freight, primage, and pierage	24	4	11
4	To CUSTOMS INWARD; duty and entry	107	5	0
4	CHARGES; dock dues, 52s. 10d.; warehouse rent, 35s. 2d.; landwaiters, 16s.; sampling, 3s. 6d.; and fire insurance, 6s.	5	13	6
4	To THOMAS KEMBLE & Co.; brokerage, 1 per cent.	2	6	9
3	To PROFIT AND LOSS; for commissions £5 10 10			
	Interest on freight and duty 1 12 3	7	3	1
4	To MORRIS PITTMAN; proceeds due 2d of May, 1843	81	11	3
		234	0	0
4	COFFEE per VITTORIA Dr. to SUNDRIES.			
3	To INSURANCE; for premium and policy	19	6	9
3	To FREIGHT ACCOUNT; freight, primage, and pierage	44	2	6
3	To CHARGES; dock dues, landwaiters, insurance from fire, and public sale charges	13	18	7
4	To THOMAS KEMBLE & Co.; brokerage	6	16	7
3	To PROFIT AND LOSS; for commissions	20	8	1
4	To JAMES FORBES; nett proceeds due 3d of June, 1842.	571	13	1
		£676	5	7

We have thus given an example of the transactions which form a great part of the business of our merchants; the export of manufactured goods, and the import and sale of produce received in return. Our next illustration shall be of a merchant's Cash-book. The following is an example of the entries for a month:—

Dr.	CASH	£	s.	d.		PAID.	£	s.	d.	Cr.
1842.					1842.					
Mar. 1	To balance at the bankers	2,550	0	0	Mar. 2.	By bills payable, paid No. 261. to James Harding	145	10	0	
3	To ship *Amelia*, received of James Jacobs, for freight	175	3	0	4	By George and William Fox, paid their balance of account	320	15	0	
6	To bills receivable, received payment of No. 271. on J. Henderson	200	0	0	6	By John Smith and Sons, paid J. Jackson for their account	98	0	0	
9	To James Bailey & Co., received payment of their draft at sight on J. Bainbridge	152	10	0	7	By bills payable, paid No. 269. to J. Stewart	300	0	0	
15	To William Spence & Co., received balance of their account	970	0	10	13	By interest paid, discount on Harrison & Co., 2 months	6	1	10	
—	To debenture account, received drawback on tobacco shipped by the *Plower*	15	8	0		By J. Johnson, paid his bill of parcels	278	15	11	
18	To bills receivable, discounted at the bankers, Harrison & Co., due 15—18 March	730	10	0		By John Wilson do.	42	0	0	
—	To profit and loss, received 5 per cent. discount, on paying with ready money the accounts per contra, not due till 6 months hence, from					By Simon Frazer do.	236	5	0	
	James Johnson £13 19 0					By John Mackenzie do.	367	10	0	
	John Wilson 2 2 0					By James Borradaile & Co. do.	32	2	0	
	Simon Frazer 11 16 0					By Molling & Co. do.	328	5	4	
	John Mackenzie 18 7 6				31	By charges paid, postage, and petty disbursements this month, per petty cash book	15	2	6	
	James Borradaile & Co. 0 16 0				—	By balance, carried to next month	2,686	13	0	
	Molling & Co. 16 8 3									
		63	8	9						
		£4,857	0	7			£4,857	0	7	

These transactions, when put into the Journal form, stand thus:—

Folio of Ledger.	MARCH, 1842. CASH Dr. to SUNDRIES. Received this month.	£	s.	d.
6	To SHIP AMELIA.			
	3d. Freight from James Jacobs	175	3	0
6	To BILLS RECEIVABLE.			
	6th. Received payment of J. Anderson, due this day £200 0 0			
	18th. Discounted Harrison & Co., due 9th of May 730 10 0	930	10	0
7	To JAMES BAILEY & Co.			
	9th. Received their draft on Bainbridge, due	152	10	0
7	To WILLIAM SPENCE & Co.			
	15th. Received balance of their account	970	0	10
8	To DEBENTURE ACCOUNT.			
	15th. Drawback on tobacco by the *Plower*	15	8	0
3	To PROFIT AND LOSS.			
	18th. Received discount on sundry accounts, per cash book	63	8	9
		£2,307	0	7

Folio of Ledger.	SUNDRIES Drs. to CASH. Paid this month as follows:	£	s.	d.
6	BILLS PAYABLE.			
	2d. Paid No. 261. - - - - -	£145	10	0
	7th. Do. 269. - - - - -	192	15	0
4	CUSTOMS INWARD.	338	5	0
	23d. Paid duty on sugar, per *Ceres*, 79 cwt. 25 lbs. at 27*s.* per cwt., -	106	19	0
	Entry - - - - - -	0	6	0
		107	5	0
8	SIMON FRAZER.			
	18th. Paid his bill of parcels - - - -	236	5	0
1	26th. Paid J. Jackson for his account - - - -	98	0	0
		334	5	0
8	INTEREST ACCOUNT.			
	18th. Paid discount on Harrison & Co. - - - -		6	1 10
1	JAMES JOHNSON.			
	18th. Paid his bill of parcels - - - - -		278	15 11
1	JOHN WILSON.			
	18th. Paid his bill of parcels - - - - -		42	0 0
1	JOHN MACKENZIE.			
	18th. Paid his bill of parcels - - - - -		367	10 0
2	JAMES BORRADAILE & Co.			
	18th. Paid their bill of parcels - - - - -		32	2 0
2	MOLLINS & Co.			
	18th. Paid their balance of account - - - - -		323	5 4
8	GEORGE AND WILLIAM FOX.			
	24th. Paid their balance of account - - - - -		320	15 0
5	CHARGES.			
	31st. Paid postage, and petty disbursements this month - - -		15	2 6
		£2,170	7	7

The above shows, that for all sums received, the account of cash is made debtor, and the parties paying the same are made creditors; while for all sums paid, the cash is credited, and the parties receiving them are made debtors.

We are next to state the mode of entering bill transactions.

BILLS RECEIVABLE.—We have seen by the Balance sheet that several correspondents are indebted to the house. The debts of correspondents abroad may be reduced by remitting either bills, specie, or merchandise for sale: from correspondents in England, bills are almost the only mode of remitting. When bills come to hand, the rule is to enter each in the bill book, with a minute statement of the date, term, sum, and other particulars, thus:—

No.	*Received*	*From whom.*	*Drawn by*	*Date.*	*Term.*	*Drawn on*	*To ord.r of*	*Due.*	*Sum*	*How disp. of.*
									£	
630	8 Mar.	Bailey & Co.	W. Adams	Belfast, 1 Mar.	2 mths.	T. Jones, Dublin	A. Williams	1—4 May	350	Rainier & Co.
631	10 do.	Watson & Co.	J. Jacobs	Cork, 3 do.	1 do.	J. Adams, London	G. Wilson	3—6 April	135	Smith & Co.
632	12 do.	Spence & Co.	T. Johnson	Falmo. 5 do.	2 do.	T. Allan, Liverpool	D. Jones	5—8 May	260	Overend & Co.

The Journal Entries for these bills are as follows:—

Folio of Ledger.	BILLS RECEIVABLE Dr. to SUNDRIES. For the following remitted this month.	£	s.	d.
7	To JAMES BAILEY & Co.			
	No. 630. on T. Jones, Dublin, due 4th of May - - - -	350	0	0
7	To T. WATSON & Co.			
	No. 631. on J. Adams, London, due 6th of April - - - -	135	0	0
7	To WILLIAM SPENCE & Co.			
	No. 632. on T. Allan, Liverpool, due 8th of May - - - -	260	0	0
		£745	0	0

BILLS PAYABLE.—The entries under this head are, of course, wholly different from the preceding, being for acceptances of the house given on account of sums owing by it to correspondents. Each acceptance is entered in the book of bills payable, thus:—

No.	*Drawn by*	*Place and Date.*	*To Order of*	*On Account of*	*Term.*	*When accepted.*	*Due.*	*Sum.*
151	J. Allan & Co.	Jamaica, 15 Jan.	J. Jones	J. Allan & Co.	90 days' sight	12 March	10—15 June	£175 10 0
152	G. & W. Fox	Falmouth, 7 Mar.	J. Thomson	G. & W. Fox	15 days' date	14 do.	22—25 Mar.	73 15 0
153	J. Clark	Hull, 5 Mar.	G. Barclay	J. Smith & Sons	1 month's date	16 do.	5—8 ditto.	132 10 0

The Journal entries for these bills are as follows:—

Folio of Ledger.	SUNDRIES Drs. to BILLS PAYABLE. For the following bills accepted.	£	s.	d.
2	JAMES ALLAN & Co. No. 151. their draft, due 13th of June - - -	175	10	0
8	G. & W. FOX. No. 152. their draft, due 25th of March - - -	73	15	0
1	SIMON FRAZER. J. Clark's draft on his account, due 8th of March - - -	132	10	0
		£381	15	0
	MAY, 1842.			
	CASH Dr. to THOMAS KEMBLE & CO.			
1	27th. Received from them proceeds of sugar per *Ceres* - - - 234 0 0			
	Less their brokerage - - - - 2 6 9	231	13	3
4	30th. Received coffee per *Victoria* - - - - 676 5 6			
	Less brokerage - - - - 6 16 7	669	8	11
		£901	2	2

The preceding entries, few as they are compared to the monthly transactions of a house of business, are sufficient to show the nature of a Journal as well as of the sub-

sidiary books, (for cash, bills, invoices, and account sales,) from which it is composed. The Journal, being a complete record of the business of the house, is very varied and comprehensive in its nature, and may be termed an index to every book of consequence in the counting-house. But while in the cash book every payment or receipt is entered on the day it takes place, and in the bill books every bill is registered on the day it comes to hand, or is accepted, the Journal entries, being completed only at the end of the month, admit of being combined to a considerable extent, so as to exhibit a number of transactions in collective sums. Thus all the acceptances of the house paid in the course of the month appear in the Journal entry of Bills Payable Dr. to Cash: they are arranged in this entry as they fall due, after which the whole are added into one sum, which sum alone needs be carried to the Ledger. In like manner, all bills receivable, whether discounted, or kept by the house till they fall due, are collected under the head of Bills Receivable Dr. to Cash, summed up together, and carried to the Ledger in one line; a point of great importance, as we shall see presently, in facilitating the balance of the Ledger.

We proceed to give a specimen of the Ledger: the whole of the Journal entries in the preceding pages, when posted into the Ledger, will stand thus:—

Dr. STOCK. Cr.

1842.	Fo.		£	s.	d.	1851.	Fo.		£	s.	d.
Jan. 1	1	To sundries	8,753	15	0	Jan. 1	1	By sundries	32,591	17	10

Dr. CASH. Cr.

Jan. 1	1	To stock	2,550	0	0	Mar. 31		By sundries	2,170	7	7
Mar. 1	4	To sundries	2,307	0	7						
May 30	15	To T. Kemble & Co.	901	2	2						

Dr. EXCHEQUER BILLS. Cr.

Jan. 1	1	To stock	5,310	0	0						

Dr. THREE AND A HALF PER CENT. STOCK. Cr.

Jan. 1	1	To stock	5,400	0	0						

Dr. JAMES JOHNSON, London. Cr.

Mar. 1	4	To cash	278	15	11	Mar. 6	9	By J. Allan & Co.	278	15	11

Dr. JOHN WILSON, London. Cr

Mar. 1	4	To cash	42	0	0	Mar. 6	9	By J. Allan & Co.	42	0	0

Dr. SIMON FRAZER, London. Cr.

Mar. 26	4	To cash	334	5	0	Jan. 1	2	By stock	960	15	0
31	5	To bills payable	132	10	0	Jan. 6	9	By J. Allan & Co.	236	5	0

Dr. JOHN MACKENZIE, London. Cr.

Mar. 8	4	To cash	367	10	0	Mar. 6	9	By J. Allan & Co	367	10	0

Drs. JAMES BORRADAILE & Co., London. Crs.

Mar. 1	4	To cash	32	2	0	Mar. 6	9	By J. Allan & Co.	32	2	0

Drs. MOLLING & Co., London. Crs.

Mar. 1	4	To cash	328	5	4	Mar. 6	9	By J. Allan & Co.	328	5	4

Drs. J. ALLAN & Co., Kingston, Jamaica. Crs.

Mar. 6	9	To sundries	1,443	10	0	Jan. 1	2	By stock	1,150	10	0
31	11	To bills payable	175	10	0						

Dr. SUGAR BY THE *CERES*. Cr.

April 2	11	To sundries	234	0	0	April 2	11	By T. Kemble & Co.	234	0	0

Dr. FREIGHT ACCOUNT. Cr.

						Mar. 6	9	By J. Allan & Co.	38	10	6
						April 2	11	By sugar per *Ceres*	24	11	11
						May 3	13	By coffee per *Victoria*	44	2	6

Dr. INSURANCE ACCOUNT. Cr.

						Jan. 1	2	By stock	1,880	15	0
						Mar. 6	9	By J. Allan & Co.	33	18	9
						April 2	11	By sugar per *Ceres*	5	16	6
						May 3	13	By coffee per *Victoria*	19	6	9

Dr. CHARGES. Cr.

			£ s. d.				£ s. d.
Mar. 3	4	To cash	15 2 6	Mar. 6	9	By J. Allan & Co.	11 17 6
				April 2	11	By sugar per *Ceres*	5 15 6
				May 3	13	By coffee per *Vittoria*	13 18 7

Dr. PROFIT AND LOSS. Cr.

				Mar. 6	9	By J. Allan & Co.	74 5 0
				Mar. 8	4	By cash	63 8 9
				April 2	11	By sugar per *Ceres*	7 3 1
				May 3	13	By coffee per *Vittoria*	20 8 1

Dr. CUSTOMS INWARD. Cr.

April 2	4	To cash	107 5 0	April 2	11	By sugar per *Ceres*	107 5 0

Dr. COFFEE PER VITTORIA. Cr.

April 3	13	To sundries	676 5 6	April 3	11	By T. Kemble & Co.	676 5 6

Dr. MORRIS PITTMAN, Trinidad. Cr.

				Jan. 1	2	By stock	1,370 5 0
				April 2	11	By sugar per *Ceres*	81 11 3

Dr. JAMES FORBES, Demerara. Cr.

				Jan. 1	2	By stock	720 5 0
				May 3	13	By coffee per *Vittoria*	571 13 1

Drs. THOMAS KEMBLE & Co., London. Crs.

April 3	11	To sundries	910 5 6	April 7	11	By sugar per *Ceres*	2 6 9
				30	13	By coffee per *Vittoria*	6 16 7
				May 30	15	By cash	901 2 2
							910 5 6

Dr. BILLS RECEIVABLE. Cr.

Jan. 1	1	To stock	7,300 15 0	Mar. 1	4	By cash	930 10 0
Mar. 3	5	To sundries	745 0 0				

Dr. BILLS PAYABLE. Cr.

Mar. 7	4	To cash	338 5 0	Jan. 1	2	By stock	2,359 10 0
				Mar. 3	5	By sundries	581 15 0

Dr. SHIP AMELIA. Cr.

Jan. 1	1	To stock	3,000 0 0	Mar. 1	4	By cash	175 3 0

Dr. ADVENTURE IN IRISH LINEN. Cr.

Jan. 1	1	To stock	2,467 0 0				

Drs. JAMES BAILEY & Co., Liverpool. Crs.

Jan. 1	1	To stock	1,350 10 0	Mar. 3	4	By cash	152 10 0
				Mar. 9	5	By bills receivable	350 0 0

Drs. THOMAS WATSON & Co., Dublin. Crs.

Jan. 1	1	To stock	3,530 12 0	Mar. 3	5	By bills receivable	135 0 0

Drs. WILLIAM SPENCE & Co., Plymouth. Crs.

Jan. 1	1	To stock	970 0 10	Mar. 3	4	By cash	970 0 10
				Mar. 5	5	By bills receivable	260 0 0

Drs. GEORGE AND WILLIAM FOX, Falmouth. Crs.

Mar. 4	4	To cash	320 15 0	Jan. 1	2	By stock	320 15 0
Mar. 6		To bills payable	73 15 0				

Dr. *DEBENTURE* ACCOUNT. Cr.

Jan. 1	1	To stock	513 0 0	Mar. 5	4	By cash	15 8 0

Dr. INTEREST ACCOUNT. Cr.

Mar. 8	4	To cash	6 1 10				

The Ledger is thus a register of all the entries in the Journal; and a register so arranged as to exhibit on one side all the sums at Debtor; on the other all those at Creditor. It is kept in the most concise form, the insertions in it hardly ever exceeding a line each, or containing more than the title of the entry in the Journal. On opening a page in the Ledger, a person unacquainted with book-keeping is apt to consider this brevity unsatisfactory; and it was formerly the practice to add in each line a few explanatory words. Thus the entries in the account of Simon Frazer, which in our preceding page are briefly

		£	s.	d.
March 26.	To cash - - - - - - - -	334	5	0
31.	To bills payable - - - - - -	132	10	0

would, at an earlier date in the practice of book-keeping, have been expanded to

		£	s.	d.
March 18.	To cash paid for goods per Rawlins - - - -	236	5	0
26.	To ditto paid J. Jackson for his account - - -	98	0	0
31.	To bills payable, paid J. Clark's draft for his account - -	132	10	0

This method is still followed in some counting-houses, and such explanatory additions are certainly conducive to clearness; but they are practicable only in a house of limited business: wherever the transactions are numerous and varied, they should be left out of the Ledger, for two reasons; they increase greatly the labour of the book-keeper, and they never can be so full or circumstantial as to supersede the account current book.

The same Ledger may continue in use from one to five years, according to the size of the book, or the extent of the transactions of the house. On opening a new Ledger, it is proper to place in succession accounts of the same class or character: thus, — Stock account ought to be followed by that of the three per cent. consols, Exchequer bills, or other property belonging to the house; and if the business be with the West Indies, it is fit that accounts with Jamaica should be placed near those with Demerara, Trinidad, and other sugar colonies.

Balancing the Ledger. — This important operation is performed by adding up the Debtor and Creditor side of every account in the Ledger, ascertaining the difference or balance in each, and carrying such balance, as the case may be, to the Debtor or Creditor column in the balance sheet. On closing, for example, a few of the preceding Ledger accounts, we find them to stand thus: —

Debtors.				Creditors.			
	£	s.	d.		£	s.	d.
Cash - - - - -	3,587	15	2	Simon Frazer - - -	730	5	0
James Allan & Co. - - -	468	10	0	Freight account - - -	107	4	11

And so on with every account except Stock, which, having no entries in the current year, is put in the balance sheet exactly as it was in the beginning of the year. Including Stock, the total at the Debtor side of the balance sheet ought to agree exactly with the total at the Creditor side; and if it do not, it is a rule in all well-regulated counting-houses to follow up the examination perseveringly, until they are made to agree. The apparent difference may not exceed a few shillings, or a few pence; still the search is continued, because the smallest discrepancy shows the existence of error, and to an extent perhaps greatly beyond the fraction in question. It often happens, indeed, that, as the examination proceeds, the difference undergoes a change from a smaller to a larger amount, and without increasing the difficulty of discovering the error, which is as likely to have occurred in the case of a large as of a small sum. Differences, when in round sums, such as 10*l.* 100*l.* or 1000*l.*, generally lie in the addition; fractional sums frequently in the posting. All this, however, is uncertain; for the error or errors may be in any month in the year, and in any one of the thousand entries and upwards which have been made in the course of it. Hence the necessity of examining the whole; and young book-keepers are often obliged to pass week after week in the tedious labour of revising, adding, and subtracting. On the other hand, there are sometimes examples of the balance being found on the first trial; but such cases are rare, and occur only to careful and experienced book-keepers. The only effectual means of lessening the labour and perplexity of balancing the Ledger, is to exercise great care in every stage of the book-keeping process; as well in making the additions in the Journal, as in posting from the Journal into the Ledger, and casting up the Ledger accounts; and, lastly, in adding up the balance sheet, which is generally of formidable length.

Accuracy in addition is one of the main requisites in a clerk, and particularly in a book-keeper. Of the extent to which it may be attained by continued practice, those only can judge who have experienced it themselves, or have marked the ease and correctness with which clerks in banking-houses perform such operations. They are in the habit of striking a daily balance which comes within small compass; but a merchant's balance, comprising the transactions of a year, extends commonly over a number of folio pages. It is advisable, therefore, to divide each page into portions of ten lines each, adding such portions separately. This lessens the risk of error, as it is evidently easier to add five or six such portions in succession, than to do at once a whole folio containing fifty or sixty sums.

Another important point towards agreeing a balance, is to limit carefully the number of Ledger entries; in other words, to comprise as much as possible in those aggregate sums in the Journal which are posted in the Ledger. Thus, in the case of the monthly entries for bills, whether receivable or payable, while the inner column of the Journal contains the amount of each specific bill, the final column — that which is carried to the Ledger—should, and generally does, comprise a number of bills in one sum. Entries

in the cash book, which generally form so large a proportion of the transactions of the month, are carried by some book-keepers directly from the cash book into the Ledger, without an intermediate arrangement in the Journal form. In some lines of business this plan may answer; but as a general rule it is better to take the trouble of journalising the cash, thereby comprising in 30 or 40 Ledger entries the transactions of the month, which, when posted separately, would exceed 100. The time required for re-writing or rather re-casting them, will, in most cases, be amply made good, by exhibiting the cash in a proper form, and by facilitating the balance of the Ledger at the close of the year.

We have said the close of the year, because, in nine mercantile houses out of ten, that is the period for striking a balance. In some branches of trade, however, the case is otherwise. Thus, among West India merchants, the 30th of April is the time of balancing, because at that season the sales of the preceding crop are, in general, completed, and those of the current year not yet begun.

Arrears in book-keeping ought to be most carefully avoided — calculated as they are to engender mistakes, and to produce loss from delay in adjusting accounts. The practice of balancing the ledger every six months, and of transmitting as often accounts current to the correspondents and connections of merchants, will, it is to be hoped, become general. It is, however, hardly practicable in cases where, as too often happens in the lesser mercantile establishments, the book-keeper is charged with a share of the active management. Exemption from interruption, and removal from the bustle of current business, are main requisites to accuracy and despatch in accounts. In examining, or, as it is called, collating the books, the book-keeper requires not only a retired apartment, but the assistance of a clerk for the purpose of calling them over. A similar arrangement for another purpose—we mean for composing the Journal, the book-keeper dictating from the subsidiary books to a clerk whose writing forms the draught or rough copy of the Journal, has as yet been seldom adopted; although, when properly applied, it is highly conducive both to accuracy and expedition.

A Ledger must, of course, have an index; but it is very brief, containing merely the titles of the accounts and a reference to the page, as follows: —

	Folio.		Folio.
Allan & Co., James	2	Bailey & Co., James	7
Amelia, ship	6	Bills payable	6

The Subsidiary Books. — In former times, when business in this country was conducted by most persons on a very limited scale, the accounts of a number of merchants, or rather of those dealers whom we should now think it a compliment to call merchants, were often kept on a plan somewhat like that at present followed by our shopkeepers. The merchant or his chief clerk kept a daily record of transactions, whether sales, purchases, receipts, or payments, in a diary, which was called a Waste-book, from the rude manner in which the entries or rather notices in it were written, being inserted, one by one, soon after the transactions in question took place. From this diary the Journal and Ledger were posted; and book-keeping by double entry being in those days understood by few, one person frequently kept the books of several merchants, passing one or two days in the week at the house of each, and reducing these rough materials into the form of regular entries. In process of time, as transactions multiplied and mercantile business took a wider range, separate books were more generally required for particular departments, such as a bill book for all bills of exchange, and a cash book for all ready money transactions. This had long been the case in the large mercantile towns of Italy and Holland; and above a century ago it became a general practice in London and Bristol, which were then the only places of extensive business in England. But in English, as in foreign counting-houses, the bill book and even the cash book were long considered as little more than memoranda of details; not as books of authority, or as fit documents for Journal entries: for that purpose the diary only was used. In time, however, the mode of keeping these subsidiary books improved, and merchants became aware that, when cash or bill transactions were properly entered in them, the Journal might be posted from them as well as from the diary.

Similar observations are applicable to the other subsidiary books, viz. an invoice book for goods shipped, and an account of sales book for goods received and sold. When from the gradual improvement in the management of counting-houses these books were kept in a manner to supply all that was wanted for Journal entries, the use of the diary was dispensed with for such entries also. And at last it was found, that in all well-regulated counting-houses the books kept for separate departments of the business were sufficient for the composition of the Journal, with the exception of a few transactions out or the regular course, which might be easily noticed in a supplementary book called a Petty Journal, or a book for occasional entries. The consequence was, that the diary or waste book, formerly the groundwork of the Journal and Ledger, became excluded from every well-regulated counting-house. This has long been the case, and the name

of waste book would have been forgotten, were it not found in the printed treatises on book-keeping which have appeared from time to time, and have been generally composed by teachers in schools or academies, who, unacquainted with the actual practice of merchants, were content to copy and reprint what they found laid down in old systems of book-keeping.

The subsidiary books required in a counting-house are, the Cash book;

Book of Acceptances of the house, or Bills Payable;

Book of Bills receivable, or bills on other merchants which are or have been in possession of the house;

Bought book, or book for bills of parcels;

Invoice book, or register of goods sold or exported;

Account of Sales book;

Insurance Policy book; containing copies of all policies of insurance;

Petty Journal, or book for such occasional entries as do not belong to any of the preceding.

Such are the authorities from which it is now customary, in every well-regulated house, to compose the Journal. Their number indicates a repartition or subdivision, to a considerable extent, of counting-house work, and nowhere is such repartition productive of greater advantage. How much better is it to enter all bills receivable in one book, all bills payable in another, and all cash transactions in a third, than in any way to blend these very distinct entries. The effect of this subdivision is to simplify the Journal entries in a manner highly conducive to accuracy and despatch; and to present such means of checking or examining them, that many transactions may be stated, and an account extended over a number of folios, without a single error.

The use of most of the subsidiary books is sufficiently pointed out by their names; but it may be well to add a few remarks on the "Bought Book," or receptacle for the accounts of goods purchased. A bill of parcels is the name given to the account of goods supplied by a manufacturer, tradesman, or dealer, to a merchant. Such accounts soon become numerous, and it is evidently of consequence to adopt the best method of keeping them. In former times it was the practice to fold them up in a uniform size, and after writing on the back the names of the respective furnishers, to put them away in bundles. But wherever the purchases of a merchant are extensive, and the bills of parcels numerous, the better mode, after arranging them alphabetically, is to paste them in a large book, generally a folio, made of blue or sugar-loaf paper: this book to have its pages numbered, and to have an alphabetical index. Any single bill of parcels may thus be referred to with the same ease as we turn to an account in a ledger; and one of these folios may be made to hold a very great quantity of bills of parcels; as many as would form a number of large bundles when tied up on the plan of former times.

Book of Bills Payable. — The notice, or, as it is termed, advice of bills payable after sight, generally comes to hand before the bills themselves. As the time of the arrival of the latter is uncertain, the better plan is not to enter them from the advice among the other bills payable, but to appropriate a space of 10 or 12 pages at the beginning or end of the book of bills payable, and to insert there the substance of the advice received.

There are a few books in every counting-house which do not form part of the vouchers or materials for the Journal; viz. the Account Current book, containing duplicates of the accounts furnished by the house to their different correspondents and connections;

The Letter-book, containing copies of all letters written to the correspondents or connections of the house;

The Petty Cash book, or account of petty disbursements, the sum of which is entered once a month in the cash book;

The Order book, containing copies of all orders received;

The Debenture book, or register of drawbacks payable by the Custom-house.

It was formerly a practice in some houses for the book-keeper to go over the letter book at the end of each month, that he might take note of any entries not supplied by the subsidiary books. This, however, is now unnecessary; these books, when carefully kept, containing, in one shape or other, every transaction of the house.

The Principle of Double Entry. — From these explanations of the practice of book-keeping, we must call the attention of our readers to a topic of more intricacy — the origin of the present system, and the manner in which it was adopted. To record the transactions of a merchant in a Journal or day book was an obvious arrangement, and to keep a Ledger or systematic register of the contents of the Journal was a natural result of his business, particularly when conducted on credit. Such, in a rude form, are the books of our shopkeepers, who enter their sales and purchases in a day book, and in their Ledger carry the former to the Dr. of their customers, the latter to the Cr. of the wholesale dealers who supply them with goods. By making at the end of the year a list of the sums due to him by his customers, and of those due by him to wholesale

dealers, a shopkeeper may, after adding to the former the value of his stock on hand, make out an approximate statement of his debts and assets. Now, that which in this manner is done indirectly and imperfectly, it is the object of double entry to do with method and certainty. The shopkeeper makes out a list of debtors on one side and of creditors on the other, but he cannot make them balance, because his entries have been single; that is, they have had no counterpart. On making a purchase of cottons from Messrs. M'Connell of Manchester, or of woollens from Messrs. Gott of Leeds, he merely enters the amount to their credit, but he makes no one Dr. to them, because the goods are not sold; and to introduce an imaginary account would be too great a refinement for a plain practical man. But a person accustomed to double entry would, without any effort of thought, make "Printed Calicoes" Dr. to Messrs. M'Connell, and "Kerseymeres" Dr. to Messrs. Gott, for the respective amounts; after which, as the sales proceeded, he would make the buyers Drs. to these accounts for the amount of their purchases.

We thus perceive that the intricacy in the application of double entry was not with the personal so much as with the nominal accounts. Let us refer to the country where book-keeping was first studied, and take as an example the case of Doria, a merchant in Genoa, shipping, in a former age, silk, of the value of 200*l.*, bought from Flori, in Piedmont, to Henderson and Co., silk manufacturers, in England, on the terms of charging, not an additional price, but a commission of 5 per cent. with interest until reimbursed his advance. In entering the transaction, Doria's book-keeper would, as a matter of course, make Hendersons debtors to Flori 200*l.* for the cost of the silk; but he might not so readily find a creditor for the 10*l.* commission, or the 7*l.* interest eventually due on the advance. The custom in this primitive æra of book-keeping probably was, to introduce the firm of the house into their books, making Hendersons debtors to Doria for the 10*l.* and 7*l.*; but as the practice of book-keeping improved, it was found preferable to avoid inserting, on any occasion, the firm of the house, and to substitute nominal accounts, such as, commission, interest, bills payable, bills receivable. These, attention and practice rendered in time familiar to the book-keeper, who learned to open his Journal at the beginning of a year by making the parties who owed balances to the house debtors, not to the firm by name, but to *Stock*; and those to whom the house was indebted, creditors by *Stock*. As the transactions of the year proceeded, he made those to whom money was paid debtors, not to the firm of the house, but to *Cash*; and those for whose account bills were accepted debtors to Bills payable; so that book-keeping by double entry assumed its present form gradually and almost imperceptibly.

What are the advantages of this method compared to that of single entry? First, it supplies a test of accuracy, inasmuch as, the entries on the debtor side of the Ledger being equal to those on the creditor side, their respective totals ought, as a matter of course, to balance. After going through this proof, personal accounts, of whatever length, may be settled with confidence; while in a general account, such as kerseymeres or printed calicoes, the value sold and the value remaining on hand may be ascertained by merely balancing the account in the Ledger, without the repeated references to the sales book that would otherwise be required. Without double entry, a dealer could hardly estimate his property unless he took stock; but with it an extraction of the Ledger balances fulfils that object, and stock-taking, however proper as a test of the honesty of servants, becomes quite unnecessary as a means of calculation. In short, in regard to any person in trade, whether merchant, dealer, or manufacturer, double entry forms the connecting link of his accounts, and affords a ready solution of any inquiry as to the appropriation, increase, or diminution of his capital.

This advantage may fortunately be obtained without any great sacrifice of time or labour. Of the books of dealers, manufacturers, and retailers, nine parts in ten may continue to be kept by single entry; for the addition of a few pages of double entry in the form of a summary, at the end of the month or quarter, will be sufficient to exhibit the result of a great extent of transactions.

Nominal Accounts. — Of these our limits permit us to notice only two; Profit and Loss, and Merchandise. The former contains on the creditor side all the entries of commissions earned, and gains obtained on particular adventures; while the debtor side exhibits the losses incurred, whether by bad debts or by unsuccessful purchases. Every house keeping regular books must have a profit and loss account, but a merchandise account is altogether optional. Those who have such a head in their Ledger are accustomed to make it Dr. to the dealers or furnishers from whom they make purchases, and to credit it in return by the correspondents or connections to whom they make sales. In many houses, however, there is no such intermediate account; the parties to whom the goods are sent being made Drs. at once to the furnishers of the goods, as in the case of the shipment to Jamaica stated in our preceding pages.

A merchant, before estimating his profits, ought to charge interest on each head of

investment. His clear profit cannot be ascertained without it; and the practice of charging it is a lesson to him to hold no property that does not afford, at least, interest on his advances.

Mercantile books and accounts must be kept in the money of the country in which the partners reside. A house in Rotterdam composed of English partners necessarily keep their accounts in Dutch money, although their transactions may be chiefly with England. Further, books, it is obvious, can be kept in only one kind of money; and when a merchant in England receives from a distant country, accounts which cannot at the time be entered in sterling for want of a fixed exchange, these accounts should be noted in a separate book, until, the exchange being ascertained, they can be entered in the Journal in sterling.

A book-keeper will do well to avoid all such puzzling distinctions as "J. Johnson, my account with him;" and "J. Johnson, his account proper;" on the plain ground that every account in the Ledger ought to be the general account of the person whose name it bears.

Errors excepted.—This expression is merely a proviso, that if any mistakes be discovered in the account in question, they shall be open to correction.

Accounts Current.—An account current generally contains all the transactions of the house with one of its correspondents during a given time, generally 6 or 12 months. The following is an example:—

Messrs. JAMES ALLAN & Co., Jamaica, in Account Current with HENRY BARCLAY & Co. London.

1842.	Drs.	£	s.	d.	Days to 31 Dec.	Interest.	1842.	Crs.	£	s.	d.	Days to 31 Dec.	Interest.
June 30	To balance of last account	867	10	0	184	1,595	Aug. 10	By proceeds of 20 tierces coffee, per *Louisa*, due Sept. 10.	410	0	0	112	459
July 2	To your draft to J. Smith, due Aug. 13.	128	0	0	140	179		By your remittance on J. Austin, due Oct. 10.	350	0	0	82	287
July 9	To invoice of goods per Amelia, due Oct. 9.	752	0	0	85	624	Sept. 15	By proceeds of 17 hhds. sugar, per *Hercules*, due Oct. 15.	238	0	0	77	173
Oct. 10	To cash paid J. Harvey on your account	75	10	0	82	62	Sept. 20	By cash received from J. Johnson on your account	260	0	0	102	265
	To insurance on produce shipped by you in the *Ann*, Nokes, £1,400, at 2 guineas per cent. £29 8 0 Policy 3 10 0	32	18	0			Dec. 31	Balance of interest carried to Dr.	-	-	-	-	1,276
Dec. 31	Postage and petty charges during the half year	1	15	8				Balance of account carried to your Dr. in new account	621	8	7		
	To commission, ½ per cent. on £203 paid, Do. on £260 received on your account	4	6	0									
	To balance of interest this half year, 1,276 divided by 73, is	17	9	7									
		£1,879	8	7		2,460			£1,879	8	7		2,460

Errors excepted.

London, 31st of December, 1842. HENRY BARCLAY & Co.

We have here on the Dr. side all the payments made or responsibilities incurred for the correspondents in question, and on the Cr. side the different receipts on their account. The interest for the half year, the commission on receipts and payments, the postage and petty charges, being then added, the account may be closed and the balance carried to next year. Copies of accounts current ought to be sent off as soon as possible after the day to which they are brought down; and with that view they ought to be written out from the Ledger before the close of the year or half year, particularly as the entries for interest and commission can be made only after they are written out. The whole ought then to be copied into the account current book.

But in some counting-houses the account current book, instead of being copied from the Ledger and Journal, is posted, like the latter, from the *bill* book, the cash book, the invoice book, and the account of sales book. It is then considered a check on the Journal and Ledger; and from the comparative ease with which it is posted, may be completed and made use of before the latter are fully brought up. This is certainly an advantage in houses where, from pressure on the book-keeper, the Journal and Ledger are in arrear, but such ought never to be the case for any length of time; while as to the former point—that of forming a check on the Journal and Ledger—the fact is, that these books, from the mode in which they are kept, are much more likely to be correct than the account current book.

Printed Works on Book-keeping.—To the publications of old date by teachers have succeeded, in the present age, several treatises on book-keeping by accountants. Some of these are of very limited use, being directed more to recommend a favourite practice of the author in some particular branch of book-keeping, than to convey a comprehensive view of the system. The only works on the subject entitled to that character are two: one by the late Benjamin Booth, published above thirty years ago; the other by Mr. Jones, an accountant in London, printed in 1831. Booth was a man of ability,

who had experience both as a merchant and a book-keeper, having passed one part of his life in London, the other in New York. The reader of his work finds a great deal of information in short compass, without being perplexed either by superfluous detail or by fanciful theory.*

The form of Mr. Booth's Journal and Ledger is similar to what we have given in the preceding pages, and to the practice of our merchants for more than a century: it was by much the best work on book-keeping, until Mr. Jones devised several improvements calculated to lessen the risk of error in both Journal and Ledger. One of these improvements is the use of two columns for figures in each page of the Journal, one for the Drs., the other for the Crs.; by inserting each sum twice, the book-keeper obtains the means of proving the Journal additions page by page. The posting from the Journal to the Ledger is also simplified and rendered less subject to error by the use of these columns. In regard to the great task of balancing the Ledger, Mr. Jones's plan is to do it quarter by quarter, making use of a separate book, called a balance book, in which are inserted the totals on each side of the Ledger accounts at the end of 3 months. By these means, the agreement of the general balance is made a matter of certainty after completing the additions. Other parts of Mr. Jones's book, viz. his *formulæ* for books on the single entry plan, and for the accounts of bankers, contain suggestions of evident utility. His volume consists of two parts: the printed part (120 pp.) containing the treatise, with directions; and the lithographed part (140 pp.) giving copious examples in two sets of books, one kept by single, the other by double entry. If, on a reimpression, the author were to divide the work, and to sell the single entry part separately from the double entry, the price of each might be moderate, and a great service would be rendered to the mercantile public.

BOOKS (Ger. *Bücher*; Du. *Boeken*; Da. *Böger*; Sw. *Böcker*; Fr. *Livres*; It. *Libri*; Sp. *Libros*; Port. *Livros*; Rus. *Knigi*; Pol. *Ksiaski, Ksiegi*; Lat. *Libri*), written or printed treatises on any branch of science, art, or literature, composed in the view of instructing, amusing, or persuading the reader.

Copyright is the right which the authors of books or treatises claim to the exclusive privilege of printing, publishing, and selling them.

Books are sometimes blank, as account books; but these enjoy no peculiar privileges, and do not come within the scope of our inquiries.

Books are divided into *classes*, according to the mode in which the sheets of the paper on which they are printed or written are folded: viz. *folio*, when the sheet is folded into two leaves; *quarto*, when folded into *four*; *octavo*, when folded into *eight*; *duodecimo*, when the sheet is folded into *twelve*, &c. In making these classifications, no attention is paid to the *size* of the sheet.

I. *Progress and present State of the Law as to the Copyright of Books.* — It has been doubted whether, in antiquity, an author had any exclusive right to a work, or whether, having once published it, he could restrain others from copying it, and selling copies. We incline to think that he could. The public sale of copies of works is often referred to in the classics; and in such a way as warrants the inference that they were productive to the author, which could not have been the case had every one been permitted to copy them at pleasure. Terence, in one of his plays (*Prol. in Eunuch.* l. 20.), says, *Fabulam, quam nunc acturi sumus, postquam ædiles emerunt*; but why should the magistrates have bought it, had it been free to every one to copy it? Martial, in one of his epigrams, says —

Sunt quidam, qui me dicunt non esse poëtam:
Sed qui me vendit, bibliopola, putat. Mart. lib. xiv. Ep. 194.

This evidently conveys the idea that he had assigned the right to sell his book to a single person who profited by it. Passages to the same effect may be found in Horace (*De Arte Poetica*, line 345.), Juvenal (*Sat.* 7. line 83.), &c.

It would have been singular, indeed, had it been otherwise. Of all the species of property a man can possess, the fruits of his mental labours seem to be most peculiarly his own. And though it may, we think, be shown, that many serious inconveniences would result from giving the same absolute and interminable property over ideas that is given over material objects, these inconveniences could hardly have been perceived in antiquity.

It will also be observed, that in antiquity a copyright was of much less value than in modern times. Books could then only be multiplied by copying them with the pen; and if any one chose privately to copy a work, or to buy it of another, it must have been very difficult to hinder him: but when printing had been introduced, the greater cheapness of books not only extended the demand for them in far greater proportion, and consequently rendered copyrights more valuable, but it also afforded the means of pre-

* The title of the book is "A Complete System of Book-keeping, by Benjamin Booth." London, 1799, thin 4to. Printed for Grosvenor and Chater, and for the late J. Johnson, St. Paul's Churchyard. Mr. Jones's book is entitled "The Science of Book-keeping exemplified." 4to. London, 1831. 4*l.* 4*s.*

venting their piracy. Printing is not a device by which a few copies of a book can be obtained at a cheap rate. It is productive of cheapness only when it is employed upon a large scale, or when a considerable impression is to be thrown off. And hence, after its invention, piracy could hardly be committed in secret: the pirated book had to be brought to market; the fraud was thus sure to be detected, and the offending party might be prosecuted and punished.

For a considerable time after the invention of printing, no questions seem to have occurred with respect to copyrights. This was occasioned by the early adoption of the licensing system. Governments soon perceived the vast importance of the powerful engine that had been brought into the field; and they endeavoured to avail themselves of its energies by interdicting the publication of all works not previously licensed by authority. During the continuation of this system, piracy was effectually prevented. The licensing act (13 & 14 Chas. 2. c. 2.) and the previous acts and proclamations to the same effect, prohibited the printing of any book without consent of the owner, as well as without a licence. In 1694, the licensing act finally expired, and the press then became really free. Instead, however, of the summary methods for obtaining redress for any invasion of their property enjoyed by them under the licensing acts, authors were now left to defend their rights at *common law*; and as no author or bookseller could procure any redress for a piracy at common law, except in so far as he could *prove damage*, property in books was virtually annihilated; it being in most cases impossible to prove the sale of one printed copy out of a hundred. Under these circumstances, applications were made to parliament for an act to protect literary property, by granting some speedy and effectual method of preventing the sale of spurious copies. In consequence, the statute 8 Anne, c. 19. was passed, securing to authors and their assignees the exclusive right of printing their books for 14 years certain, from the day of publication, with a contingent 14 years, provided the author were alive at the expiration of the first term. Persons printing books protected by this act, without the consent of the authors or their assignees, were to forfeit the pirated copies, and 1*d.* for every sheet of the same. Such books as were not entered at Stationers' Hall were excluded from the benefit of this act.

It had been customary, for some time previous to this period, for the libraries of the Universities of Oxford and Cambridge, &c. to get a copy of most books entered at Stationers' Hall; and the act of Anne made it imperative that single copies of all works entitled to its protection should be delivered to the following libraries: viz. the Royal Library, now transferred to the British Museum; the Libraries of Oxford and Cambridge; the Libraries of the four Scotch Universities; the Library of Sion College, London, and that of the Faculty of Advocates in Edinburgh; — in all, *nine* copies.

The act of Anne did not put to rest the questions as to copyright. The authors contended that it did not affect their natural ownership; and that they or their assignees were entitled to proceed at *common law* against those who pirated their works after the period mentioned in the statute had expired. The publishers of spurious editions resisted these pretensions, and contended that there was either no right of property at common law in the productions of the mind; or that, supposing such right to have existed, it was superseded by the statute of Anne. There was some difference of opinion in the courts as to these points; but Lord Mansfield, Mr. Justice Blackstone, and the most eminent Judges, were favourable to the claims of the authors. However, it was finally decided, upon an appeal to the House of Lords in 1774, that an action could not be maintained for piracy after the term specified in the statute. — (*Godson on the Law of Patents and Copyrights*, p. 205.)

The act of Queen Anne referred only to Great Britain; but in 1801, its provisions were extended to Ireland; the penalty, exclusive of forfeiture, on printing or importing books without consent of the proprietor, was also increased from 1*d.* to 3*d.* a sheet. In return for this concession, two additional copies of all works entered at Stationers' Hall were to be delivered; one to Trinity College, Dublin, and one to the King's Inns, Dublin.

Every one must be satisfied that 14 years' exclusive possession is far too short a period to indemnify the author of a work, the composition of which has required any considerable amount of labour and research; though 28 years is perhaps, all things considered, not a very improper period. But the grand defect of the statute of Anne consisted in its making the right to the exclusive possession for 28 years contingent on the fact of a person having lived a day more or less than 14 years after the publication of his work. This was making the enjoyment of an important right dependent on a mere accidental circumstance over which man has no control. Could any thing be more oppressive and unjust than to hinder an author from bequeathing that property to his widow and children, that would have belonged to himself had he been alive? Nothing, indeed, as it appears to us, can be more obvious than the justice of extending all copyrights to the same period, whether the authors be dead or not.

But though the extreme hardship, not to say injustice, of the act of Queen Anne had been repeatedly pointed out, its provisions were continued down to 1814, when the copyright act, *54* Geo. 3. c. *156.*, was passed. This act extended the duration of all copyrights, whether the authors were dead or alive, to 28 years certain; with the further provision, that if the author should be alive at the end of that period, he should enjoy the copyright during the residue of his life.

But though the act of 1814 conferred a most important advantage on authors and publishers, it did not satisfy their pretensions, and repeated attempts were subsequently made to have copyrights declared perpetual, or, at all events, to have their term considerably extended. In consequence, after a great deal of discussion, the existing copyright act, *5* & 6 Vict. cap. *45.*, was passed in 1842. This statute extends the duration of all copyrights, whether the authors be dead or alive, to *forty-two* years certain; providing, further, that if the author be alive at the expiration of this period of 42 years from the publication of his work, he shall enjoy the copyright to his death, and that his heirs or assignees shall enjoy it for 7 years after that event. We subjoin an abstract of this statute.

Clause 1. repeals former acts, viz. 8 Anne, c. 19., 41 G. 3. 107., and 54 G. 3. c. 156.

Clause 2. refers to the interpretation of this act.

Endurance of Term of Copyright in any Book hereafter to be published. — The copyright in every book which shall hereafter be published in the lifetime of its author shall endure for the natural life of such author, and for the further term of 7 years, from the time of his death, and shall be the property of such author and his assignees: provided always, that if the said term of 7 years shall expire before the end of 42 years from the first publication of such book, the copyright shall in that case endure for such period of 42 years; and that the copyright in every book which shall be published after the death of its author shall endure for the term of 42 years from the first publication thereof, and shall be the property of the proprietor of the author's manuscript from which such book shall be first published, and his assigns.—§ 3.

In Cases of subsisting Copyright the Term to be extended. — The copyright which at the time of passing this act shall subsist in any published book (except as herein-after mentioned) shall be extended and endure for the full term provided by this act in cases of books thereafter published, and shall be the property of the person who at the time of passing of this act shall be the proprietor of such copyright: provided, that in all cases in which such copyright shall belong in whole or in part to a publisher or other person who shall have acquired it for other consideration than that of natural love and affection, such copyright shall not be extended by this act, but shall endure for the term which shall subsist therein at the time of passing this act, and no longer, unless the author of such book, if he be living, or the personal representative of such author, if he be dead, and the proprietor of such copyright shall, before the expiration of such term, consent and agree to accept the benefits of this act in respect of such book, in the form given in the schedule annexed to the act to be entered in the book of registry herein-after directed to be kept, in which case such copyright shall endure for the full term of the books to be published after the passing of this act, and shall be the property of such person or persons as in such minute shall be expressed. —§ 4.

Clause 5. gives the judicial committee of the privy council power to license the republication of such books as the proprietor refuses to republish after death of the author.

Clauses 6. and 7. specify the terms within which copies of books published after the passing of this act, and of subsequent editions, shall be delivered at the British Museum.

Clause 8. directs that (besides the copy for the British Museum) a copy of every book be delivered within a month after demand to the officer of the Stationers' Company for the following libraries; viz. the Bodleian at Oxford, the Public Library at Cambridge, the Faculty of Advocates at Edinburgh, and that of Trinity College, Dublin.

Clauses. 9. and 10. authorise publishers to deliver copies to the libraries, instead of at the Stationers' Company, and impose penalties for default in delivering copies for the use of the said libraries.

Book of Registry to be kept at Stationers' Hall. — A book of registry, wherein may be registered the proprietorship in the copyright of books, and assignments thereof, and in dramatic and musical pieces, whether in manuscript or otherwise, and licences affecting such copyright shall be kept at the hall of the Stationers' Company, and shall be open to the inspection of any person, on payment of one shilling for every entry searched for or inspected in the said book; and the officer in charge of such book shall, whenever required, give a copy of an entry in such book, certified under his hand, and impressed with the stamp provided by said company for that purpose, to any person requiring the same, on payment of the sum of five shillings; and such copies so certified and impressed shall be received in evidence in all courts, and in all summary proceedings, and shall be *prima facie* proof of the proprietorship or assignment of copyright or licence as therein expressed, and in the case of dramatic or musical pieces shall be *prima facie* proof of the right of representation or performance. —§ 11.

Clause 12. enacts that making a false entry in the book of registry shall be a misdemeanour.

Clause 13. enacts that entries of copyright may be made in the book of registry.

Clause 14. enacts that persons aggrieved by any entry in the book of registry may apply to a court of law in term, or judge in vacation, who may order such entry to be varied or expunged.

Remedy for the Piracy of Books by Action on the Case. — If any person shall, in any part of the British dominions, after the passing of this act, print or cause to be printed, for sale or exportation, any book in which there shall be a subsisting copyright, without the consent in writing of the proprietor, or shall import for sale or hire any such book unlawfully printed from parts beyond the sea, or, knowing such book to have been so unlawfully printed or imported, shall sell, publish, or expose to sale or hire, or shall have in his possession, for sale or hire, any such book without consent as aforesaid, such offender shall be liable to a special action on the case at the suit of the proprietor of such copyright, to be brought in any court of record in that part of the British dominions in which the offence shall be committed: provided always, that in Scotland such offender shall be liable to an action in the court of session in Scotland, to be brought and prosecuted in the same manner as any other action of damages to the like amount may be brought and prosecuted there. —§ 15.

Clause 16. enacts that in actions for piracy the defendant shall give notice of the objections to the plaintiff's title on which he means to rely.

Clause 17. enacts that no person, except the proprietor, &c. shall import into the British dominions for sale or hire, any book first composed, &c. within the United Kingdom, wherein there shall be copyright, and reprinted elsewhere, under penalty of forfeiture thereof, and also of 10*l.* and double the value. Books may be seized by officers of customs or excise.

Clause 18. relates to and defines the copyright in encyclopædias, periodicals, and works published in a series, reviews, or magazines.

Clause 19. enacts that proprietors of encyclopædias, periodicals, and works published in series, may enter at once at Stationers' Hall, and thereon have the benefit of the registration of the whole.

Clause 20. enacts that the provisions of 3 & 4 Will. 4. c. 15. shall be extended to musical compositions, and the term of copyright, as provided by this act, applied to the liberty of representing dramatic pieces and musical compositions.

Clause 23. enacts that pirated books shall become the property of the proprietor of the copyright, and may be recovered by action.

Clause 25. makes copyright personal property.

It was farther enacted by the statute 5 & 6 Vict. c. 47. that the importation of all books, of which there is an existing copyright, into the United Kingdom, should be absolutely prohibited from the 1st of April, 1843.

The great practical difficulty in interpreting the copyright acts, is in distinguishing between an original work and a copy made, *animo furandi*, from one already in existence. The following is a summary of Mr. Godson's remarks on this subject: —

"The identity of a literary work consists entirely in the *sentiments* and *language*. The same conceptions, clothed in the same words, must necessarily be the same composition; and whatever method is taken of exhibiting that composition to the ear or the eye, by *recital*, or by *writing*, or by *printing*, in any number of copies, or at any period of time, the property of another person has been violated; for the new book is still the identical work of the real author.

"Thus, therefore, a transcript of nearly all the sentiments and language of a book is a glaring piracy. To copy part of a book, either by taking a few pages *verbatim*, when the sentiments are not new, or by imitation of the principal ideas, although the treatises in other respects are different, is also considered to be illegal.

"Although it was held by Ellenborough C. J. that a variance in *form* and *manner* is a variance in *substance*, and that any material alteration which is a *melioration* cannot be considered as a piracy; yet a piracy is committed, whether the author attempt an original work, or call his book an abridgment, if the principal parts of a book are servilely copied or unfairly varied.

"But if the main design be not copied, the circumstance that part of the composition of one author is found in another is not of itself piracy sufficient to support an action. A man may fairly adopt part of the work of another; he may so make use of another's labours for the promotion of science, and the benefit of the public: but having done so, the question will be, Was the matter so taken used fairly with that view, and without what may be termed the *animus furandi*?

"In judging of a quotation, whether it is fair and candid, or whether the person who quotes has been swayed by the *animus furandi*, the quantity taken, and the *manner* in which it is adopted, of course must be considered.

"If the work complained of be *in substance* a copy, then it is not necessary to show the intention to pirate; for the greater part of the matter of the book having been purloined, the intention is apparent, and other proof is superfluous. A piracy has undoubtedly been committed.

"But if only a *small portion* of the work is quoted, then it becomes necessary to show that it was done *animo furandi*, with the intention of depriving the author of his just reward, by giving his work to the public in a cheaper form. And then the *mode* of doing it becomes a subject of inquiry; for it is not sufficient to constitute a piracy, that part of one author's book is found in that of another, unless it be nearly the whole, or so much as will show (being a question of fact for the jury) that it was done with a bad intent, and that the matter which accompanies it has been *colourably* introduced."—(pp. 215—217.)

"If a work be of such a libellous or mischievous nature as to affect the *public morals*, and that the author cannot maintain an action at law upon it, a court of equity will not interpose with an injunction to protect that which cannot be called property. Even if there be a doubt as to its evil tendency, the Lord Chancellor will not interfere."—(*Godson*, p. 212.)

II. *Expediency of limiting Copyrights to a reasonable Term.* — It is argued by many that copyrights should be made perpetual; that, were this done, men of talent and learning would devote themselves much more readily than at present to the composition of works requiring great labour; inasmuch as the copyright of such works, were it perpetual, would be an adequate provision for a family. But we doubt much whether these anticipations would be realised. Most books or manuscripts are purchased by the booksellers, or published upon the presumption that there will immediately be a considerable demand for them; and we apprehend that when copyrights are secured for 42 years certain, very little more would be given for them were they made perpetual. When an annuity, or the rent or profit arising out of any fixed and tangible property, with respect to which there can be no risk, is sold, if the number of years for which it is to continue be considerable, the price which it is worth, and which it fetches, does not differ materially from what it would bring were it perpetual. But the copyright of an unpublished work is, of all descriptions of property in which to speculate, the most hazardous, and the chances of reaping contingent advantages from it, at the distance of 42 years, would be worth very little indeed.

Those who write books, and those who publish them, calculate on their obtaining a ready and extensive sale, and on their being indemnified in a few years. Very few authors, and still fewer booksellers, are disposed to look forward to so distant a period even as 28 years for remuneration. They are, with very few exceptions, sanguine enough to suppose that a much shorter term will enable them to reap a full harvest of fame and profit from the publication; and we doubt much whether there be one case in a hundred, in which an author would obtain a larger sum for a perpetual copyright, than for one that is to continue for the period stipulated in the late act.

But while the making of copyrights perpetual would not, as it appears to us, be of any material advantage to the authors, there are good grounds for thinking that it would be disadvantageous to the public. Suppose an individual computes a table of logarithms to five or seven places; if his computations be correct, no improvement can be made upon them, to the extent at least to which they go. But is he or his assignees to be entitled, in all time to come, to prevent other individuals from publishing similar tables, on the ground of an invasion of private property? Such a pretension could not be

admitted without leading to the most mischievous consequences; and yet there is no real ground (though the courts have attempted to make one) on which the claim in question and others of the same description could be resisted, were copyrights made perpetual, and placed in all respects on the same footing as other property. We, therefore, are clearly of opinion that good policy suggests the limitation of the exclusive right of printing and publishing literary works to some such reasonable period as may secure to authors the greater part of the profit to be derived from their works; and that this period being expired, they should become public property.

Perhaps the period of 28 years has been advantageously extended to 42; but we are satisfied that more injury than benefit would result to literature by extending it beyond this term. In France, copyrights continue for 20 years after the death of the author. In most of the German states they are perpetual; this, however, until very recently, hardly indemnified the authors for the ease with which spurious copies might be obtained from other states. But by a late resolution of the Diet, a copyright secured in one state is good in all.

III. *International Copyrights.*—The establishment of an international copyright system, that should enable the authors of one country to secure the copyright of their works in other countries, has, of late, excited a good deal of attention. We doubt, however, whether the advantages that would result from such a system, were it established, would be so great as many seem to suppose. No doubt it would be advantageous for the authors of popular works in Great Britain and the United States, for example, to be able to secure a copyright in both countries; but the real question is, would the interests of literature and of the public be promoted by such arrangement? Now we incline to think that this question must be answered in the negative. The single market of either Great Britain or the United States is quite large enough to secure a sale for really good works sufficient to afford ample encouragement to their authors; and such being the case, it is difficult to see on what ground the republication at a cheap rate in the one country of books originally published in the other should be prevented. Indeed, such prevention would appear, by obstructing the circulation of knowledge and of amusement, to be injurious to both. It has, it is true, been alleged, that if we had a copyright system in common with America, English and American books might be published at a less price, inasmuch as the extension of the market would secure them a larger sale. But though this result *might*, we doubt much whether it really *would*, happen. We apprehend that then, as now, authors and publishers would impose such prices on their works as they supposed would realise the largest amount of profit, and that if they thought a high price more likely to do this than a low one, it would be preferred. The extensive reprinting of cheap editions of French works that has for a lengthened period been carried on at Brussels has certainly been disadvantageous to the literati of France. Still, however, the market of that kingdom seems to be sufficiently extensive to insure the unlimited production of works displaying the greatest talent, research, and industry; and it is plain that if the production of valuable works be not checked in France by their being reprinted abroad, the injury done to French men of letters redounds to the advantage of every foreigner who has occasion to look into or consult their works. Every effort should be made to prevent copyrights being invaded by pirates at home, and by the clandestine importation of books printed abroad; but farther than this we should not go. We are well convinced that it is for the advantage of the public and of literature that nations should have full liberty to republish each other's works in such forms and at such times and prices as they may think fit.

The real evil with which our literature has to contend originates in the barefaced piracy carried on at home, and not in the proceedings of foreigners. The latter may, perhaps, interfere a little with the sale of native works, by supplying the public with foreign instead of home editions; but the proceedings of the indigenous pirates are ten times more mischievous. They consist for the most part of knaves and drudges, without talent or learning of any sort, save only that of transmuting and adulterating the labours of others, and disguising their own rascality. Such persons fasten like leeches on any new work of talent, research, and industry; they forthwith announce some system, compilation, or abridgment of the same sort, every idea and statement in which is stolen; and then publish their spurious rubbish at a low price, advertise it as being decidedly the best work on the subject, and find numbers of newspaper writers ready to puff off and eulogise their disinterested and meritorious labours! It is difficult, we admit, to deal with such a nuisance, and it cannot, perhaps, be abated by legislation. But while we regret the fact, there cannot, we believe, be a question that courts and juries have for a lengthened period inclined too much to a lenient interpretation of the law as to piracy; and that literary plunderers, whose robberies are but little disguised, too often escape with impunity.

IV. *Taxes on Literature.*—These taxes, if carried beyond their proper limits, become impolitic, oppressive, and unjust; impolitic, because they tend to obstruct the

growth and diffusion of knowledge; oppressive, because they sometimes swallow up the entire reward of the labours of the most deserving persons; and unjust, because they are not proportioned to the value of the article on which they are laid, and have not unfrequently to be paid out of capital.

This, however, is not the character of these taxes in Great Britain. Here they consist of the duty on paper, and of 5 copies of all works given to certain public libraries. When the former edition of this work was published, the paper duty was heavy and injurious. In the interval, however, it has been reduced a half, while the duty on advertisements has been wholly repealed, so that the duties referred to are now comparatively moderate. But the principle on which they are imposed still necessarily renders them productive of some degree of hardship and injustice.

The following statements show the mode in which the duties operate: they are also interesting as throwing some light on the expense of publishing books, and the precarious and limited nature of the profit to be derived from them: they refer to an octavo volume of 500 pages, the paper such as this, with the ordinary quantity of matter on the pages, and sold by retail at 12*s.* a copy.

Estimate of the Cost of such a Volume when 500, 750, and 1,000 Copies are printed, showing what Portion of the Cost consists of Duty, and the Profits of the Author and Publisher on each Edition, when the Whole is sold off: a similar Estimate is subjoined for a Pamphlet of 80 Pages.

	£ s. d.	£ s. d.	£ s. d.	£ s. d.
			Total Cost.	Whereof Duty.
Five Hundred Copies.				
Printing and corrections			79 16 2	0 0 0
Paper			22 13 2	4 18 5
Boarding in cloth			16 0 0	0 18 4
Advertising			25 0 0	0 0 0
			143 9 4	5 16 9
5 copies to public libraries. 20 copies to author, Reviews, &c.				
475 copies for sale at 8*s.* 6*d.* 25 as 24		193 16 0		
Deduct cost		143 9 4		
For profit to author and publisher, commission, and interest on capital, *when all are sold*		50 6 8		
Seven Hundred and Fifty Copies.				
Printing and corrections			87 5 10	0 0 0
Paper			34 1 6	7 1 0
Boarding in cloth			24 0 0	1 7 7
Advertising			30 0 0	0 0 0
			175 7 4	8 8 7
5 copies to public libraries. 20 copies to author, Reviews, &c.				
725 copies for sale at 8*s.* 6*d.* 25 as 24		295 16 0		
Deduct cost		175 7 4		
For profit to author and publisher, commission, and interest on capital, *when all are sold*		120 8 8		
One Thousand Copies.				
Printing and corrections			91 12 8	0 0 0
Paper			45 6 3	9 7 6
Boarding			22 0 0	1 16 8
Advertising			35 0 0	0 0 0
			203 18 11	11 4 2
5 copies to public libraries. 20 copies to author, Reviews, &c.				
975 copies for sale at 8*s.* 6*d.* 25 as 24		397 16 0		
Deduct cost		203 18 11		
For profit to author and publisher, commission, and interest on capital, *when all are sold*		193 17 1		
Pamphlet of 5 sheets, 500 printed.				
Printing			10 5 0	0 0 0
Corrections and alterations			2 10 0	0 0 0
Paper			3 12 6	0 15 0
Stitching			0 12 6	0 0 0
Advertising (say)			10 0 0	0 0 0
			27 0 0	0 15 0
25 copies for author and public libraries.				
475 copies for sale, at 25 for 2*l.* 8*s.*		45 12 0		
Deduct cost		27 0 0		
For profit to author and publisher, interest, &c. *when all are sold*		18 12 0		

These statements show that, notwithstanding their reduction, the duties form a considerable charge on the publication of works for which the demand is limited.

It is essential, however, to bear in mind that the previous statements show only how the duties affect books when the entire impression is sold off at the full publication price; but this seldom happens. And it may be truly affirmed, that, at an average, the original impression of half the books (ex pamphlets) printed is hardly ever sold off, except at a serious reduction of price. The above statement, also, assumes that the whole impression is done up in boards. But this is never the case except with books of which the sale is certain and speedy. And hence to show the practical working of the present system of publishing, the following statement assumes that those books only which are sold are boarded, and that the rest of the impression is kept in sheets.

Now, if we suppose, in the above example of an edition of 750 copies, that only

625 instead of 725 were sold, the result would be that 83*l.* 4*s.* 0*d.* would remain as profit to the author and publisher, and as compensation for interest, the risk of bad debts, &c. Were only 500 copies sold, the profit would be reduced to 35*l.* 8*s.* 0*d.*; and were only 400 copies sold, government would receive 7*l.* 17*s.* 6*d.* of duty from a speculation by which the author lost his labour, and the publisher 2*l.* 8*s.* 0*d.* of his capital.

Although, therefore, the magnitude of the paper duty cannot be justly objected to, its influence on authors and publishers is rather unfair. If tea, wine or anything else, be imported, the importer is not called upon to pay any duty unless he sell it for consumption; and if it become unsaleable, or be damaged and have to be destroyed, it contributes nothing to the revenue. But the unlucky author of an unsaleable book pays the duty on paper in advance; and cannot claim its restitution even after his anticipations of fame and fortune are found to be wholly visionary; and his work, instead of finding its way into libraries and drawing-rooms, is packed off to the trunkmaker's and the butterman's! The *furor scribendi* is such, however, that this treatment, though it may add somewhat to the cost of successful books, has no influence in checking publication. The confidence of authors in their success is sufficiently strong to make them overlook or disregard the duty as well as the chances of failure.

Neither would the abolition of the duty make any difference in the price of books, newspapers, and other periodical publications. The duty on a copy of the double sheet of the "Times" is about ¼*d.*; on a number of the "Edinburgh" or "Quarterly Review," which sells at 6*s.*, it is only 2*d.*; on Macaulay's "History of England," which sells at 32*s.*, the duty does not exceed 6*d.*; and on this "Dictionary," it is only about 7*d.* It is idle, therefore, to pretend that the existing duty on paper is any obstacle to the circulation of literature, or that books would be cheaper were it abolished. It is customary, indeed, in the cant of the day, to call it a "tax on knowledge." But the larger portion by far of the coarser descriptions of paper, on which the tax is heaviest, is not used either for letters or books, but is employed in the humbler though not less necessary functions of wrapping and packing up parcels. And with reference to the paper used in printing, the duty presses on all publications alike, on the bad as well as on the good; and is quite as often a tax upon nonsense as upon sense.—(See *Treatise on Taxation*, by the author of this work, 2nd. ed. p. 249.)

It is, therefore, clear that the high price of new publications in this country, and their generally limited circulation, are but in a very slight, if any, degree to be ascribed to the duty on paper. In the few instances in which books are written by popular authors, the copyright charged by the latter may form an important part of their cost. But, in the vast majority of instances, either nothing is set down for copyright, or the sum is too trifling to deserve notice; and in these cases the high price of books originates, as we apprehend, in an erroneous system of publishing, that is, in printing comparatively few copies of a book, and burdening them with a proportionally high price. If 500 copies of a book be printed, and if it cannot be retailed without loss for less than 12*s.*, it might be sold for less than half that price if 1000 copies were printed.* And, except in the case of books upon subjects which have no general attraction, it may fairly be presumed that whatever may be the demand for them at 10*s.* or 12*s.* a volume, it would be more than doubled were their price reduced to 5*s.* or 6*s.* This is invariably the case with other articles; and we see no reason for supposing that books should, in this respect, differ from everything else.

Nothing, at all events, can be worse than the present system. Notwithstanding their high price little more than half the books that are published pay their expenses; and while hardly one in six or eight is reprinted, there is, perhaps, not one in fifty that deserves to be so distinguished.

Formerly 11 copies of all new works had to be given to different public libraries. Happily, however, this tax, which not unfrequently prevented the publication of expensive works that had only a limited demand, has been reduced to 5 copies. We incline to think that it is expedient to secure the preservation of books and to facilitate their consultation, that copies of all works should be deposited in the British Museum, and in libraries in Edinburgh and Dublin. Perhaps it would be right that the public, for whose advantage they are preserved, should pay for such copies; we should not, however, object to the authors doing this, but they should not be required to do more. To call upon them to provide copies for the libraries of rich foundations, like the Universities of Oxford and Cambridge, is a proceeding at variance with every fair principle.

The law of other countries is, in this respect, preferable to ours. In America, Prussia, Saxony, and Bavaria, only *one* copy of any work is required from the author; in France and Austria *two* copies are required; and in the Netherlands, *three*.

* The cost of setting up the types and of advertising 50 and 5,000 copies is the same—the only extra expense for the larger impression being press-work and paper.

V. *Book Trade of Great Britain.* — London is the great centre of the British book trade; the number of new publications that issue from its presses being far greater than all that appear in the rest of the empire. Within the course of the last fifty years, however, many very important works have been published in Edinburgh; but the latter, as well as those that appear in Oxford, Cambridge, Glasgow, &c., are principally disposed of by the London trade. The booksellers of Edinburgh, and all the provincial towns, have agents in London, to whom they consign a certain number of copies of every work they publish; and to whom, also, they address their orders for copies of such new or old works as they have occasion for. The London booksellers, who act as agents for those in the country, are in the habit of regularly despatching parcels to their correspondents on the last day of each month, with the magazines and other monthly publications; but if any new work of interest appears in the interim, or orders be received from the country that cannot be conveniently deferred to the end of the month, a parcel is immediately forwarded by coach. The booksellers of Edinburgh and Dublin act as agents for those of London, and supply the Scotch and Irish country trade with the metropolitan publications.

The publishers sell the books which they publish to the retailers at certain prices. But, instead of allowing the latter to dispose of these books at prices varying according to the conditions and circumstances under which they might be sold, they endeavoured to compel them to be sold at or near uniform prices fixed by themselves. Thus, if the publishers sold a book to the trade at 9*s.*, they fixed the price at which the latter should sell it to the public at 12*s.*, or thereby; and they proclaimed that if any retail dealer sold it for less than 10 per cent. under this price, the publishers, who had combined for the purpose, would not supply him with another book! But we are glad to have to state that this audacious attempt to keep up the prices of books at an artificial elevation, has completely broken down. And retail dealers who purchase books from publishers may now sell them at any price they please, without any risk of having their supplies cut off. The credit given by the publishers to the retailers varies from seven to twelve months; a discount being allowed for prompt payment at the rate of 5 per cent. per annum.

From inquiries we have had made with much care and labour, founded on *Low's British Catalogue*, we find that at an average of the 4 years ending with 1852, 3,279 volumes of new works, and 1,101 volumes of new editions and reprints (exclusive of pamphlets and periodical publications), were annually published in Great Britain; and we have farther ascertained that the publication price of the former was 7*s.* 7*d.*, and of the latter 6*s.* 9*d.* a volume. Hence, if we suppose the average impression of each work to have been 750 copies, it will be seen that the total value of the new works annually produced, if they were sold at their publication price, would be 932,465*l.* 12*s.* 6*d.*, and that of the new editions and reprints, 278,960*l.* 12*s.* 6*d.*, making together 1,211,156*l.* 5*s.* We believe, however, that if we estimate the price at which the entire impressions of both descriptions of works actually sell at 3*s.* 6*d.* a volume, we shall not be far from the mark; and if so, the real value of the books annually produced will be 574,875*l.* a year. Subjoined is a summary of these results.

Years.	New Works.			Reprints, and New Editions.		
	No. of Books.	No. of Vols.	Value of a single Copy of each at Publication Price.	No. of Books.	No. of Vols.	Value of a single Copy of each at Publication Price.
1849	2,757	3,281	£1,278 17 6	894	1,062	£379 10 3
1850	2,709	3,025	1,231 9 0	918	1,186	388 16 6
1851	2,813	3,154	1,187 8 11	883	1,016	331 9 10
1852	2,902	3,259	1,278 17 6	919	1,140	387 3 1
Totals	11,186	13,119	4,976 12 11	3,614	4,404	1,486 19 8
Average of the four years	2,796	3,279	1,244 3 3	903	1,101	371 14 11
Average price of each volume	-	-	0 7 7	-	-	6 9

750 copies of 3,279 vols. at 7*s.* 7*d.* - - £932,465 12 6
of 1,101 — 6*s.* 9*d.* - - 278,690 12 6 } £1,211,156 5 0.

of 4,380 — 3*s.* 6*d.* - - 574,875 0 0

We subjoin a similar statement for the 4 years ending with 1842.

Years.	New Works.		Reprints, and New Editions.	
	No. of Vols.	Value at Publication Price.	No. of Vols.	Value at Publication Price.
1839	2,302	£966 11 2	773	£296 7 8
1840	2,091	943 3 5	821	327 16 10
1841	2,011	902 5 9	741	314 12 7
1842	2,193	968 2 6	684	295 9 6
Totals	8,597	3,780 2 10	3,019	1,234 6 7
Average of the four years	2,149	945 0 8½	755	308 11 7½
Average price of each volume	-	0 8 9½	-	0 8 2

It is seen from these statements that the price of books declined materially between the 4 years ending with 1842 and the 4 years ending with 1852; and this decline has, no doubt, been the principal cause of the great increase in the number of publications in the last as compared with the former quadrennial period. During the 4 years ending with 1842 the average selling price of the books annually published amounted to about 4*s*. a volume; and at this rate their total value would be (2149 + 755, or 2904 × 750 at 4*s*.) 435,600*l*.

It is still more difficult to obtain any exact information in regard to the publication of tracts or pamphlets. But the following statement has been carefully compiled, and comes, we believe, pretty near the mark. It does not include periodical literature, or newspapers.

Years.	No. of Pamphlets.	Value of one Copy of each at Publication Price.	Average Price of each.	Value of 750 Copies.
1850 - -	1,198*	£58 10	11½*d*.	£43,875
1851 - -	940	40 12	10¼	30,450
1852 - -	908	38 12	10	28,950
Totals -	3,046	137 14	31¾	103,275
Average of 3 years	1,015	45 18	10¾	34,425

Produce of sale of 3,046 pamphlets, 750 copies each, supposing them to realise at an average 6*d*. each, 57,112*l*. 10*s*.

It would be, in many points of view, desirable, were the librarians of the British Museum directed to keep and annually publish an account, classified according to the subject and the size of the works, of all the new British books, pamphlets, and periodical publications that come into their hands, specifying the average publication price of each class. Such a return might be made up with the greatest facility, and would afford authentic information not otherwise attainable.

The old book trade carried on in Great Britain is very extensive, and employs many dealers. The price of old books depends very much on their condition; but, independently of this circumstance, it is very fluctuating and capricious; equally good copies of the same works being frequently to be had in some shops for the half of what they can be bought for in others.

VI. *Regulations as to Importation of Foreign Works.* — To prevent foreign books and maps, the property of individuals, from being charged with duty more than once, the proprietor shall, on each importation subsequent to the original one, declare that the duties were paid when they were first imported, or that he purchased them in this country in a fair way of trade; that they are the identical books or maps he exported from this kingdom, and that they are now brought back for his private use, and not for sale. — (*Treasury Order*, 3d, and *Customs Order*, 8th of Oct. 1818.)

Individuals coming from foreign parts might, down to the 1st of April, 1843, import as baggage single copies of English works of which the copyright had not expired; but, in consequence of the facilities for smuggling that grew out of this indulgence, it has been withdrawn, and the importation of all English works printed in foreign countries, of which there is an existing copyright, is absolutely prohibited. — (5 & 6 Vict. c. 47. § 24.)

The duty on foreign works produced, in 1852, 7,118*l*. 19*s*. 3*d*. The duty was, however, reduced in 1853. See TARIFF.

VII. *Book Trade of France.* — The activity of the French press has been very greatly increased since the downfall of Napoleon. Count Daru, in his *Notions Statistiques sur la Librairie*, published in 1827, estimated the number of printed sheets, exclusive of newspapers, produced by the French press in 1816, at 66,852,883; and it appears (art. *Librairie, Dict. du Commerce*) that in 1836 the number of printed sheets (ex. newspapers) had increased to 118,857,000; so that it may now (1853) be fairly estimated at from 125 to 130 millions of sheets! The quality of many of the works that have recently issued from the French press is also very superior; and it may be doubted whether such works as the *Biographie Universelle*, the new and enlarged edition of the *Art de vérifier les Dates*, in 42 vols. octavo, and the two octavo editions of *Bayle's Dictionary*, could have been published in any other country. The greater number of new French works of merit, or which it is supposed will command a considerable sale, are immediately reprinted in the Netherlands or Switzerland, but principally in the former. To such an extent is this practice carried, that a single bookseller in Brussels has reprinted as many as 150,000 volumes of new French works in the course of a single year!

All the French booksellers are *brevetés*, that is, licensed, and sworn to abide by certain prescribed rules. This regulation is complained of by the publishers, as tending to lessen the number of retail booksellers in the country, and to prevent that competition which is so advantageous.

The discount allowed by the French publishers to the retail dealers is not regulated, as in England, by the size of the volumes, but by the subjects. The discount on the sale of books of history, criticism, and general literature, is usually about 25 per cent., in the case of mathematical and strictly scientific works, it is seldom more than 10 or 15 per cent.; while upon romances, tales, &c. it is often as high as 50 or 60 per cent.

VIII. *German Book Trade.* — This trade is very much facilitated by the book fairs at Leipsic; the Easter fair being frequented by all the booksellers of Germany, and by those of some of the neighbouring countries, as of France, Switzerland, Denmark, Livonia, &c., in order to settle their mutual accounts, and to form new connections. The German publisher sends his publications to the keeper of assortments *à condition*, that is, on commission, for a certain time, after which the latter pays for what have been sold, and may return the remainder. This is not so favourable for the publisher as the custom in the French and English book trades, where the keepers of assortments take the quantity they want at a fixed rate. In the German book trade it is the custom for almost every house, either in the country or abroad, which publishes or sells German books, to have its agent at Leipsic, who receives and distributes its publications. A., of Riga, who publishes a book calculated for the German trade, has his agent B. in Leipsic, to whom he sends, free of expense, a number of copies of his publication, that he may distribute the new work to all the booksellers with whom he is connected, from Vienna to Hamburgh, and from Strasburgh to Königsberg, each of whom has his agent in Leipsic. Instructions are also given as to the number of copies to be sent to each. B. delivers those copies in Leipsic, to the agents, who send them every week, or more or less frequently, by the post or by carriers, at the expense of the receiver. C., of Strasburgh, who finds that he has not received copies enough, writes for an additional number of copies to his agent D., of Leipsic: D. gives this order to B., who delivers the number wanted to D., to be transmitted to C. This arrangement is advantageous to the German book trade, as well as to Leipsic. The

* About 200 pamphlets were published this year on the question of Papal encroachment.

dealer receives every thing from Leipsic; and as a great number of packets, with books from all parts of Germany, arrive there for him every week, he can have them packed together and sent at once. The carriage is thus much less than if the packets were sent to him separately from the different places, and the whole business is simplified. The booksellers are also enabled to agree with ease on a certain discount per cent. No such intimate connection of the booksellers has yet been formed in any other country. The German booksellers rarely unite, as is the practice in England, in undertaking the publication of extensive works."—(*German Conversations-Lexicon*, American edition.)

The literary deluge which commenced in Germany in 1814 still continues to increase. For the 2,000 works which were then about the annual complement, we have now from 5,000 to 7,500. Magazines and Encyclopædias have increased in the same proportion, and the public has shown as great a desire to read as the learned have to write. Private libraries are diminishing, while the public ones are daily increasing.

BOOTS AND SHOES, the external covering for the legs and feet, too well known to require any description.—(For an account of the value of the boots and shoes annually produced in Great Britain, see LEATHER, and for the duties on those imported see TARIFF.)

BORAX, OR TINCAL (Arab. *Burak*; Pers. *Tunkar*), one of the salts of soda. It is white, transparent, rather greasy in its fracture; its taste is styptic, and it converts syrup of violets to a green. It readily dissolves in hot water, and swells and bubbles in the fire. It is of great use as a flux for metals.—(*Thomson's Chemistry.*)

This salt is found in a crystallised state at the bottom of certain lakes in Thibet, and in various localities in Persia, China, South America, and Europe. Formerly, however, the demand of Europe was almost wholly supplied from the East, and especially by importations from Thibet, where the salt is comparatively abundant. Crude borax, when imported, is called *tincal*, being enveloped in a fatty matter, from which it has to be separated by a process that was long known only to the Venetians and Dutch.

We import by far the greater part of our supplies of borax from the East. But large quantities are supplied to other countries from the famous lagoons near Monte Cerbole, in Tuscany. These lagoons, which occupy a large extent of surface, consist of an infinite number of low volcanoes, and springs in a furious state of ebullition; the ground, which shakes and burns beneath the feet, is covered with crystallisations of sulphur and other minerals; the whole scene presenting a striking picture of the most tremendous energy and sterility. The vapours that are constantly bursting forth from the boiling lagoons being found to contain boracic acid, it occurred to a most ingenious person, a M. Larderel, to construct pans through which the vapours being made to pass impregnate the water in them with the acid. The pans are kept boiling by the heat of the lagoons; and the water being evaporated, the acid is deposited in crystals. In consequence of this discovery, the lagoons from being altogether worthless have become most valuable. From 10,000 to 12,000 lbs. (12 oz. each) of acid were, a few years ago, daily produced; and this vast supply, and the facility with which borax may be obtained from the acid, has occasioned a great reduction in its price, and enabled it to be much more extensively employed than before.—(See *Dr. Bowring's Report on Tuscany.*)

The duties on borax imported into the U. K. were repealed in 1845.

In 1852 the imports and exports of refined borax were respectively 1,758 and 228 *cwts.*, and those of crude borax or tincal 5,716 and 316 *do.* During the same year we imported 18,804 *cwt.* boracic acid, principally from Tuscany.—(*Parl. Papers*, Nos. 504 and 928. Sess. 1853.)

BORDEAUX, a large and opulent commercial city of France, on the Garonne, about 75 miles from its mouth, lat. 44° 50′ 26″ N., long. 0° 34′ W. Population, in 1851, 130,927. The commerce of Bordeaux is very extensive. The Garonne is a noble river, with depth of water sufficient to enable large ships to come up to the city, laying open, in conjunction with the Dordogne and their tributary streams, a large extent of country. The commerce of Bordeaux is greatly promoted by the famous canal of Languedoc, which communicates with the Mediterranean. By its means Bordeaux is enabled to furnish the south of France with colonial products at nearly as cheap a rate as Marseilles. Wines, brandies, and fruits are the staple articles of export; but the merchants apply themselves more particularly to the wine trade. Most part of their other business is confined to dealing on commission; but this they conduct almost invariably on their own account. The reason they assign for this is, that the difficulties attending the purchase, racking, fining, and proper care of wines, so as to render them fit for exportation, are so very great, as to make it almost impossible to conduct the business on any thing like the ordinary terms so as to satisfy their employers. Colonial products, cotton, dye stuffs, pepper, hides, tobacco, rice, form the principal articles of importation.

Money is the same at Bordeaux as in other parts of France. All accounts are kept in francs, the par of exchange being 25 fr. 20 cent. the pound sterling.—(See EXCHANGE.)

Weights and Measures.—With the exception of wines and brandies, the new or decimal system is of general application in Bordeaux, both in wholesale and retail operations.—(See WEIGHTS AND MEASURES.)

Wine is still sold by the tun of 4 hogsheads. The hogshead contains 50 veltes.

Brandy by the 50 veltes.

Spirits of wine by the velte.

The *velte* is an old measure of which 50 = to 5·8 hectolitres.

Oil is sold by weight (per 50 kilog.) 50 = 81¾ imperial gallons.

Entrance to the River.—This lies between Point de la Coubre on the north, and Point de Grave on the south, bearing from each other nearly S. E. and N. W., distant about 4 leagues. There are lights on both these points, but neither of them is elevated to any great height above the level of the sea. The middle part of the entrance to the river is encumbered with extensive sand banks and rocks. On one of the latter, in lat. 45° 35 1-3′ N., long. 1° 10′ W. stands the Tour de Cordouan, one of the most celebrated light-houses in Europe. It was erected in 1610; but has been materially improved since. It is 206 feet high. The light, which is revolving, exhibits in succession a brilliant light, a feeble light, and an eclipse, the changes following each other every half minute. It may be distinguished at the distance of 8 or 9 leagues. The Point de la Coubre is 2½ leagues N. ½ W., and the Point de Grave 1½ league S. E. by E. ½ E., from the Tour de Cordouan. There are two main channels for entering the river,—the Passe du Nord, and the Passe de Grave. The former lie, between the north side of the river and the banks in the middle, about 1½ mile south from the Point de la Coubre; the waters, where shallowest, being about 4½ fathoms. The course hence is nearly S. E. ½ E. The other principal passage lies between the Tour de Cordouan and the Point de Grave, nearly in a N. N. E. and S. S. W. direction. In some places it has not more than 23 feet water; and is in all respects very inferior to the other passage, which is always to be preferred, especially with a large ship. The tides, both ebb and flood, set through the channels with great rapidity, so that a good deal of caution is required on making the river; but having once entered, there is no further danger. Spring tides rise from 14 to 15 feet, and neaps from 7 to 8; but they depend a good deal on the direction of the wind. All vessels, except French coasters under 80 tuns burden, and small craft from the north of Spain, entering the Garonne, are obliged to take a pilot on board as soon as one offers himself. In summer, pilots are not unfrequently met with 30 or 40 miles west of the Tour de Cordouan; but in winter they seldom venture far beyond the banks, and sometimes cannot proceed even thus far.—(See *Laurie's Plan of the Bay of Biscay*, with the *Sailing Directions*, &c.)

Shipping.—In 1837, the customs duties in Bordeaux produced 9,844,864 fr. In 1852 they amounted to 14,216,000 fr. During the same year there belonged to Bordeaux 378 ships, of the burden of 73,577 tons.

Port Charges.—Account of Port Charges, Brokerage, and other public Disbursements payable in Bordeaux on account of a French or English Vessel of 300 Tons Burden, from a Port of England to Bordeaux, or from Bordeaux to a Port of England, or from or to any other British Possession in Europe.

Nature of Charges.	On a Fr. or Brit. Vessel.		On a foreign Vessel.	
	In French Money.	In Sterling Money.	In French Money.	In Sterling Money.
	Fr. c.	£ s. d.	Fr. c.	£ s. d.
Report and pilotage from sea to Bordeaux for a vessel drawing 14 French feet water (15 ft. 3·9 in British)	218 93	8 15 2	247 50	9 18 0
Lazaretto dues	61 0	2 18 10	61 0	2 18 10
Moving vessel up and mooring her	10 0	0 8 0	10 0	0 8 0
Entering vessel at Custom-house, and brokerage inwards	100 0	4 0 0	100 0	4 0 0
Advertisement for freight and passengers, 6 fr. (4s. 10d.) to each newspaper.				
Tonnage money and navigation dues on 300 tons	495 0	19 16 0	1,239 0	49 11 2
Visiting officers, clearances, harbour-master, &c.	14 75	0 11 10	14 75	0 11 10
Manifest and freight list	15 0	0 12 0	15 0	0 12 0
Ballast taken in or out, 1 fr. 25 c. per ton (1s.)				
Consul's bill. Usual fees (English vessels), 17 fr. 25 c. (15s.)				
Pilotage from Bordeaux to sea	220 0	8 16 0	245 34	9 16 3
Broker's commission outwards, care and attendance for expediting the vessel—				
In ballast, 50 c. per ton (5d.), say 120 fr. at most 4l. 16s. Loaded per charter or on owner's account, 1 fr. (10d.) per ton Loaded in freight, 1 fr. 50 c. (1s. 3d.) per ton } average.	300 0	12 0 0	300 0	12 0 0
	1,434 66	57 7 10	2,232 59	89 6 1

N.B.—No regard paid to the nature of the cargo, as all goods are imported either for consumption or exportation, which does not expose vessels to pay more or less charges.

British vessels are on a perfect equality with French vessels when they come from British ports in Europe, otherwise they pay pilotage and tonnage dues like all other foreign vessels, as stated in the foreign column.

Wine. — The culture of the vine is by far the most important branch of industry carried on in the dep. of the Gironde. The annual produce of its wines, the red growths of which are known in Britain by the general name of *claret*, amounts to about 2,500,000 hectolitres, or about 55,000,000 imp. galls. The vineyards are the property of about 12,000 families, and the expenses of their cultivation are estimated to amount to 45 or 46 millions francs a year. The best growths are from the confines of the "Landes," behind Bordeaux; the secondary growths are chiefly the produce of the country between the Garonne and Dordogne, and the *Palus*, a district of a strong rich soil bordering the banks of those rivers.

The first growths of the red wines are denominated *Lafitte*, *Latour*, *Château-Margaux*, and *Haut Brion*. The first three are the produce of the district of *Haut Medoc*, N.W. of Bordeaux, and the last of the district called *des Graves*. These wines are all of the highest excellence; their produce is very limited, and in favourable years sells at from 3,000 to 4,000 fr. the tun, which contains 210 imp. gallons; but when they have been kept in the cellar for six years the price is doubled, so that even in Bordeaux a bottle of the best wine cannot be had for less than 6 or 7 fr. The *Lafitte* is the most choice and delicate, and is characterised by its silky softness on the palate, and its charming perfume, which partakes of the nature of the violet and the raspberry. The *Latour* has a fuller body, and, at the same time, a considerable aroma, but wants the softness of the *Lafitte*. The *Château-Margaux*, on the other hand, is lighter, and possesses all the delicate qualities of the Lafitte, except that it has not quite so high a flavour. The *Haut Brion*, again, has more spirit and body than any of the preceding, but is rough when new, and requires to be kept 6 or 7 years in wood; while the others become fit for bottling in much less time. —(*Henderson on Wines*, p. 184.)

Among the secondary red wines, those of *Rozan*, *Gorce*, *Leoville* and *Larose*, *Bran-Mouton*, *Pichon-Longueville*, and *Calon*, are reckoned the best. The third-rate wines comprise those called *Pauillac*, *Margoux*, *St. Jullien*, *St. Estèphe*, *St. Epilion*, &c. It is but seldom that any of these growths are exported in a state of purity. The taste of the English, for example, has been so much modified by the long-continued use of port, that the lighter wines of the Gironde would seem to us to want body. Hence, it is usual for the merchants of Bordeaux to mix and prepare wines according to the markets to which they are to be sent. Thus the strong rough growths of the *Palus* and other districts are frequently bought up for the purpose of strengthening the ordinary wines of Medoc; and there is even a particular manufacture, called *travail à l'Anglaise*, which consists in adding to each hogshead of Bordeaux wine three or four gallons of Alicant or Benicarlo, (large quantities of which are imported into Bordeaux by way of Cette and the canal of Languedoc,) half a gallon stum wine, a bottle of alcohol, and sometimes a small quantity of hermitage. This mixture undergoes a slight degree of fermentation; and when the whole is sufficiently "fretted in," it is exported under the name of claret. This mixture chiefly consists of secondary wines, the first-rate growths falling far short of the demand for them.—(*Henderson*, p. 184; see also *Jullien*, *Topographie des Vignolles*, p. 203.) But even the first-class wines are most frequently intermixed with the best secondary growths; and it is customary to employ the wines of a superior to mix with and bring up those of an inferior vintage. Hence we need not wonder at the statement of a gentleman who, after living twenty years in the best society in Bordeaux, doubted whether he had tasted, more than *three times*, any pure wine of the first quality!

The *white* wines of the Gironde are of two kinds; those called *Graves*, which have a dry, flinty taste, and an aroma somewhat resembling cloves; of these, the principal are, *Sauterne*, *Barsac*, *Preignac*, and *Langon*. These are said by Jullien to be *très-moelleux, ou, pour mieux dire, semi-liquoreux et assez spiritueux*. The white wines of the Gironde have for several years past been advancing in estimation and value; and may be said, speaking generally, to come to us in a less adulterated state than the red wines.

About half the wines of the Gironde are sent to other parts of France: 1-5th part is consumed in the dep.; 1-5th is exported, the finest growths to England, but the larger quantity to the N. of Europe and Holland; and about 1-5th part is supposed to be converted into brandy.

A person accustomed to good society in London, and, indeed, in most other parts of the country, would be apt to conclude that French wines were consumed in England to the almost total exclusion of other wines. But any such inference would be in the last degree erroneous. The fact is, that French wines are rarely drunk, except by the upper classes, and their consumption is inconsiderable, compared with that of the middle and lower classes. So much is this the case, that while, in 1852, 2,489,350 gall. port, and 2,696,857 gall. sherry, were entered for home consumption, the entries of *all* descriptions of

French wines (including champagne, claret, Sauterne, and every thing else) amounted to only 475,948 gallons! (See *post*, art. WINE.)

The purchase of wines, whether from the grower or merchant, is always effected through brokers, some of whom have acquired a reputation for accuracy in dissecting the different flavours, and in tracing the results of the wines by certain measures of training or treatment.

England takes off nearly half the highest priced wines, and very little of any other quality. Except in Bordeaux itself, there is but a very moderate portion of the superior Medoc consumed in France. The capital takes off only second, third, and fourth-rate wines.

The Dutch, who are large consumers of Bordeaux wine, go most economically to work. They send vessels to the river in the wine season, with skilful supercargoes, who go amongst the growers, and purchase the wines themselves cheaper even than a broker would do. They live on board ship, take their own time to select, and wait often for months before the cargo is completed; but they attain their object, getting a supply of good sound wine, and at as low a rate, with all charges of shipping included, as the wine merchants can deliver it into their stores in Bordeaux. They never purchase old wine; they take only that newly made, which, being without the support of stronger bodied wines, must be consumed in the course of 2 or 3 years. They follow the same system at Bayonne, where 2 or 3 ships go annually for the white wines of Jurançon, &c.

The cargo wines, which are the lowest class, are so manufactured that it is hardly possible to know of what they are composed. They are put free on board for 2*l.* per hogshead and upwards, according as they are demanded. They will not bear exposure in a glass when shipping; the tasters have a small flat silver cup expressly for them. These wines are principally shipped to America and India, and some at a higher price to the north of Europe.

Brandies, and Spirits of Wine.—The quantity distilled in the neighbourhood of Bordeaux is estimated at about 18,000 pieces, of 50 veltes each; ditto, in the Armagnac, 20,000 ditto; ditto, in the Marmanduis, 8,000 ditto; making in all 46,000 pieces, ordinary proof. Of this quantity, France takes off about 23,000 pieces for consumption; England, 2,500; U. States, 10,000; India, 2,500; north of Europe, 5,000; in all, 43,000 pieces. Languedoc produces annually about 40,000 pieces, of 80 veltes each, the greater part of which comes to Bordeaux to be forwarded to the different ports of the north of France, or to foreign countries. France consumes about two thirds of the above quantity; the remaining one third goes to the north of Europe. The prices of brandy are from 130 fr. to 150 fr. per 50 veltes, ordinary proof; spirits of wine, from 4 fr. to 5 fr. per velte.

The greatest shipments of brandy take place to England from the port of Formay, on the Charente. Cognac, from which the brandy takes its name, and where there are large distilleries, is a few leagues up the river. The quantity exported is far greater than what is made at Cognac; the two leading distillers there (Martel and Henessey) buying great quantities from the small cultivators. The greater part of the wines made about Angoulême, and thence down toward the sea, are of inferior quality, and fit only for making brandy; and so little do the prices vary, that the proprietors look upon it nearly in the same light as gold. When they augment their capital by savings or profits, it is employed in keeping a larger stock of brandy, which has the further advantage of paying the interest of their capital by its improved value from age. England is said to receive upwards of 6,000 pieces annually from Charente.

At Bordeaux, as at Paris and Marseilles, there is a constant gambling business in time bargains of spirits of wine. It is in the form of spirits of wine that nearly all the brandy consumed in France is expedited, as in this form there is a great saving in carriage.—(For an official account of the exports of wine and brandy from France, see WINE.)

The fruits exported consist almost entirely of prunes and almonds. The latter come principally from Languedoc.

Bordeaux possesses some iron founderies, cotton factories, sugar refineries, glass works, &c., but labour and living are too high to admit of its becoming a considerable manufacturing city.

Banking Establishments.—The "Bordeaux Bank," which had a capital of 3,000,000 fr., in shares of 1,000 fr. each, was incorporated, in 1848, with the Bank of France, of which it is now a branch. Its affairs have been well managed. (See BANKS, FOREIGN.)

Brokers.—No one is allowed to act as a mercantile broker in France who is not 25 years of age, and who has not served 4 years in a commercial house, or with a broker, or a notary public. They are nominated by the government, after their qualifications have been ascertained by the Chamber of Commerce. All brokers must deposit the sum of 8,000 fr. in the treasury as a guarantee for their conduct, for which they are allowed interest at the rate of 4 per cent.

All foreigners are obliged to employ ship brokers to transact their business at the Custom-house; and although masters and owners of French vessels might sometimes dispense with their services, they never do so, finding it to be, in all cases, most advantageous to use their intervention. All duties outward on vessels and cargoes are paid by the ship brokers, who invariably clear out all vessels, French as well as foreign.

Rates of Commission.—1. Ship brokers:—Vessel in ballast, 50 cents (5*d.*) per ton; vessel loaded per charter or on owner's account, 1 fr. (10*d.*) per ton. 2. Merchandise brokers:—½ per cent. on colonial produce, and other goods. 3. Wine and spirit brokers:—2 per cent. on wine, &c. 4. Insurance brokers:—½ per cent. 5. *Money brokers*:—¼ per cent. on Paris and foreign paper; ¼ per cent. on Bordeaux do. 6. *Merchants*:—2 per cent. on all sorts of operations between natives; 2½ per cent. on all sorts of operations between strangers; 5 per cent. on litigious affairs; 1 per cent. on goods *in transitu*, when the constituent is present; ½ per cent. on banking affairs.

Insurance of ships, houses, and lives is effected at Bordeaux. The first is carried on partly by individuals, and partly by companies; the last two by companies only. The partners in these associations are generally liable only to the amount of the shares they respectively hold.

For statements as to the *Warehousing System, Smuggling, &c.* the reader is referred to the article HAVRE.

Quarantine is performed at Trompeloup, where a spacious lazaretto has been constructed. Bordeaux is a favourable place for repairing and careening ships, and for obtaining supplies of all sorts of stores.

The *exchange* or *money brokers* of Bordeaux follow a kind of business pretty similar to the London private bankers. They receive, negotiate, and pay bills and orders of such houses as have accounts open with them, charging and allowing an interest on balances, which varies from 3½ to 4½ per cent., according to circumstances. They charge ½ per cent. for negotiating bills, and ½ per cent. on all the payments they make.

There are, besides, numerous capitalists who employ their spare funds in discounting bills. They prefer bills at long dates, and take from 3 to 6 per cent. discount, according to the confidence they have in the paper presented.

There are not wanting individuals who guarantee, with their names, every sort of paper presented, taking from 5 to 60 per cent. for the risk.

Customary Mode of Payment, and Length of Credit.—Colonial produce, spices, dye stuffs, and metals are usually sold for cash, with 3 per cent. discount. Corn flour, brandy, and several other articles, are sold for nett cash, without discount.

Wines are generally bought of the cultivators at 12 and 15 months' credit, or 6 per cent. discount. When they change hands amongst the merchants, the practice is to sell for cash, allowing 3 or 5 per cent. discount.

The usage is generally established in Bordeaux, to consider all paper having less than 30 days to run *as cash*; and with such all payments are made, where there is not an express stipulation to be paid in coin.

Operation of the French Commercial System on the Trade of Bordeaux, &c.—The trade of this great city has suffered severely from the short-sighted, anti-social policy of the

French government. This policy was first broadly laid down, and systematically acted upon, by Napoleon; and we believe it would not be difficult to show that the privations it entailed on the people of the Continent powerfully contributed to accelerate his downfall. But those by whom he has been succeeded have not hitherto seen the expediency of returning to a sounder system; on the contrary, they have carried, in some respects at least, the "continental system" to an extent not contemplated by Napoleon. Notwithstanding the vast importance to a country like France, of supplies of iron and hardware at a cheap rate, that which is produced by foreigners is excluded, though it might be obtained for a third part of the price of that which is manufactured at home. A similar line of policy has been followed as to cotton yarn, earthenware, &c. And in order to force the manufacture of sugar from the beet-root, oppressive duties have been laid, not only on foreign sugar, but even on that imported from the French colonies. The operation of this system on the commerce and industry of the country has been most mischievous. By forcing France to raise, at home, articles for the production of which she has no natural or acquired capabilities, the exportation, and consequently the growth, of those articles in the production of which she is superior to every other country, has been very greatly narrowed. All commerce being bottomed on a fair principle of reciprocity, a country that refuses to import must cease to export. By excluding foreign produce — by refusing to admit the sugar of Brazil, the cottons and hardware of England, the iron of Sweden, the linens of Germany, and the cattle of Switzerland and Wirtemberg — France has done all that was in her power to drive the merchants of those countries from her markets. They are not less anxious than formerly to obtain her wines, brandies, and silks; inasmuch, however, as commerce is merely an exchange of products, and as France will accept very few products belonging to others, they cannot, how anxious soever, maintain that extensive and mutually beneficial intercourse with her they would otherwise carry on: they sell little to her, and their purchases are, of course, proportionally diminished.

This, indeed, is in all cases the necessary and inevitable effect of the prohibitive system. It never fails to lessen exportation to the same extent that it lessens importation; so that, when least injurious, it merely substitutes one sort of industry for another — the production of the article that had been obtained from the foreigner, for the production of that which had been sent to him as an equivalent. — (See COMMERCE.)

France is not only extremely well situated for carrying on an extensive intercourse with foreign countries, but she is largely supplied with several productions, which, were she to adopt a liberal commercial system, would meet with a ready and advantageous sale abroad, and enable her to furnish equivalents for the largest amount of imports. The superiority enjoyed by Amboyna in the production of cloves is not more decided than that enjoyed by France in the production of wine. Her claret, burgundy, champagne, and brandy are unrivalled; and furnish, of themselves, the materials of a vast commerce. Indeed, the production of wine is, next to the ordinary business of agriculture, by far the most extensive and valuable branch of industry in France. It is stated by the landholders and merchants of the department of the Gironde, in the admirable *Pétition et Mémoire à l'Appui*, presented by them to the Chamber of Deputies in 1828, that the quantity of wine annually produced in France amounts, at an average, to about 40,000,000 hectolitres, or 1,060,000,000 gallons; that its value is not less than from 800,000,000 to 1,000,000,000 francs, or from 32,000,000*l.* to 40,000,000*l.* sterling; and that upwards of *three millions* of individuals are employed in its production. In some of the southern departments, it is of paramount importance. The population of the Gironde, exclusive of Bordeaux, amounts to about 450,000 individuals, of whom no fewer than 230,000 are supposed to be directly engaged in the cultivation of the vine.

Here, then, is a branch of industry in which France has no competitor, which even now affords employment for about a tenth part of her population, and which is susceptible of indefinite extension. She has, in this single article, the means of carrying on the most extensive and lucrative commerce. "Le gouvernement Français," says M. Chaptal, in his work *Sur l'Industrie Française*, "doit les plus grands encouragements à la culture des vignes, soit qu'il considére ses produits relativement à la consommation intérieure, soit, qu'il les envisage sous le rapport de notre commerce avec l'étranger, *dont il est en effet la base essentielle.*"

But instead of labouring to extend this great branch of industry, government has consented to sacrifice it to the interests of the iron-founders, the cotton and linen manufacturers, and the planters of Martinique and Guadaloupe! We do not, indeed, imagine that they were at all aware that such would be the effect of their policy. Theirs is only one instance, among myriads that may be specified, to prove that ignorance in a ministry is quite as pernicious as bad intentions. The consideration, apparently not a very recondite one, that, notwithstanding the bounty of nature, wine was not gratuitously produced in France, and could not, therefore, be exported except for an equivalent, would seem never to have occurred to the ministers of Louis XVIII. and Charles X.

But those whose interests were at stake, did not fail to apprise them of the hollowness of their system of policy. In 1822, when the project for raising the duties on sugar, iron, linens, &c. was under discussion, the merchants of Bordeaux, Nantes, Marseilles, and other great commercial cities, the silk manufacturers of Lyons, and the wine-growers of the Gironde, and some other departments, presented petitions to the Chambers, in which they truly stated, that it was a contradiction and an absurdity to attempt selling to the foreigner, without, at the same time, buying from him; and expressed their conviction, that the imposition of the proposed duties would be fatal to the commerce of France, and would consequently inflict a very serious injury on the wine-growers and silk manufacturers. These representations did not, however, meet with a very courteous reception. They were stigmatised as the work of ignorant and interested persons. The Chambers approved the policy of ministers; and in their ardour to extend and perfect it, did not hesitate deeply to injure branches of industry on which several millions of persons are dependent, in order that a few businesses, nowise suited to France, and the support of which costs her several millions a year, might be bolstered up and protected!

It is plain, had there not been some powerful counteracting cause in operation, that the exports of wine from France should have been very greatly augmented since the peace of 1815. The United States, Russia, England, Prussia, and all those countries that have at all times been the great importers of French wines, have made prodigious advances in wealth and population since 1789; and, had the commerce with them not been subjected to injurious restrictions, there is every reason to think that their imports of French wine would have been much greater now than at any former period. So far, however, from this being the case, they have declined in a most extraordinary degree. This is proved beyond all question by the following extract from a report made to the Council General of the Gironde in 1841, and published by its orders and with its sanction.

"Previously to 1790, the wine trade at Bordeaux had an immense development. The books of our most ancient houses, transmitted down religiously from father to son, and the registries of our lands, prove that in the years preceding 1787 our exports had reached more than 100,000 tuns of wine, 10,000 casks of brandy, and 5,000 of vinegar. They also show that from 1,200 to 1,400 vessels from the north took large quantities of wine, in return for their national produce, which they easily disposed of amongst us. It was a most lucrative commerce, for we then sent 15,000 tuns to Prussia, 18,000 to England and Ireland, 6,000 to Dantzic, 40,000 to Hamburg, Lubeck, and Bremen, 15,000 to Holland, 7,000 to Sweden, 5,000 to Denmark and Norway, and 12,000 to Russia. But at that period we had not closed our frontiers to the produce of all these nations—we received at moderate duties their woollens, linens, hemp, iron, wood, cattle, and other articles, the consumption of which was less expensive, and the quality better, than similar articles made at home, and forced on us by customs duties. At present, notwithstanding the rapid increase of commercial affairs, notwithstanding the new nations of America, the advantages of a more expeditious, certain, and economical navigation, the demands of nations increased in number and industry, and consequently more disposed to purchase for consumption, our commerce is declining in a most alarming manner. Authentic documents prove that, in 1839, our exports only reached 1,339 tuns to England, 2,499 to Russia, 147 to Sweden, 342 to Norway, 2,964 to Prussia, 612 to Denmark, 8,188 to the Hans Towns, and 7,621 to the Netherlands. Since then our exports have not increased, so that instead of 100,000 tuns at least taken by the north of Europe from the department of the Gironde previously to 1790, not more than 25,000 tuns are taken at present. Yet, the taste for wine and the necessity to use it, have not been weakened amongst the various nations; but the exaggerated duties with which its introduction has been loaded, only allow it to be consumed by the wealthy classes, who are everywhere the least numerous. These duties are established in retaliation of those which France lays on foreign productions. If the exportation of wine has diminished in so great a proportion, the cause must be sought in the protective system. When the variations in the exports of wine are attentively examined, and their decrease looked to since 1822, when this system attained its height, to 1840, it is impossible not to be struck with the fact that these variations are intimately connected with the system itself. The decrease in the exports of wine has followed the increased development of the protective system, and, therefore, we are forced to draw this conclusion, that *it is this system which destroys our export trade.* Yet foreign consumption is the most certain and most profitable for Bordeaux wines, and it is particularly in the markets of the north of Europe and of England that the wines of the finest quality which our department produces find purchasers. Let us, then, insist on the necessity of re-opening these markets, which have been closed by the enormous amount of duties imposed by foreigners in reprisal of those laid by us on their products."

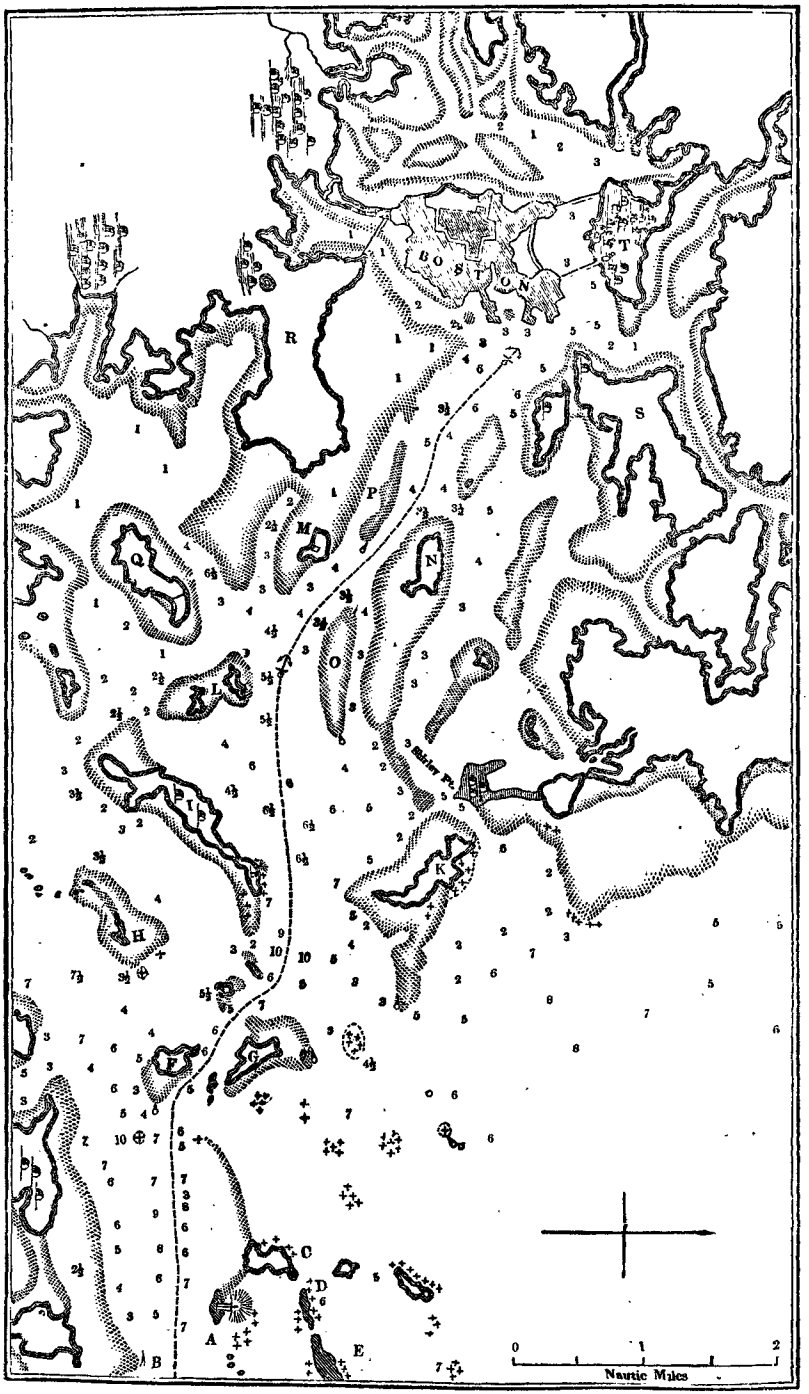
Besides the injury inflicted on the wine trade by the prohibitive system of commercial

policy adopted in France, and the retaliatory measures it has provoked in other countries, it has suffered severely from the octrois and other duties on internal consumption. But the depression, though felt everywhere, is greatest in the Gironde, which is especially dependent on its export trade. This is strikingly evinced by the large stocks of wine that remain in the hands of the growers and merchants, and by the fall in its price. This has, of course, reacted on the vineyards, many of which have become all but unsaleable; and a stop has been put to every sort of improvement. Nor have matters been in the least amended during the current year: on the contrary, they seem to be gradually getting worse. Such is the poverty of the proprietors, that wine is now frequently seized and sold by the revenue officers in payment of arrears of taxes; and such is at present the extent of the evil, that, in the course of this year, 1843, the committee of wine growers have applied to government for a loan of 2,000,000 francs to be applied to the payment of taxes due by the wine growers.

Such are the effects of the restrictive system of policy on the wine trade of France,—on a branch of industry which, as already seen, employs *three millions* of people. It is satisfactory, however, to observe, that the landowners and merchants are fully aware of the source of the misery in which they have been involved. They know that they are not suffering so much from hostile or vindictive measures on the part of foreigners, as from the blind and senseless policy of their own government; that they are victims of an attempt to counteract the most obvious principles—to make France produce articles directly at home, which she might obtain from the foreigner in exchange for wine, brandy, &c. at a third or a fourth part of the expense they now cost. *They cannot export, because they are not allowed to import.* Hence they do not ask for bounties and prohibitions; on the contrary, they disclaim all such quack nostrums; and demand what can alone be useful to them, and beneficial to the country,—a free commercial system. And notwithstanding the powerful interests involved in the support of the prohibitive policy, we cannot doubt but that, in the end, they will be compelled to give way; and that France, by opening her ports to a freer importation of foreign products, will insure the proportional extension of her exports of wines, brandies, silks, and other products, which she can furnish more cheaply and of a better quality than any other country. It is reasonable to suppose, that the experience that has been afforded of the ruinous effects of the prohibitive system, and the more general diffusion of correct ideas with respect to the real sources of wealth, will at no distant period occasion the adoption of such changes in the commercial legislation of France, as may render it more conducive to her interest, and more in accordance with the spirit of the age. Indeed we incline to think that but for the unfortunate misunderstanding about the Turkish question, and the irritation thence arising, a commercial treaty on a comparatively liberal footing would have been already entered into between France and this country; and it is much to be wished that some such arrangement should speedily be completed. If, indeed, we were hostile to France, we should wish her to continue her present system, for it must effectually prevent her making any considerable progress either in manufactures or commerce; but we disclaim being actuated by any such feelings. We are truly anxious for her prosperity, for her sake and our own; for unless she be surrounded by Bishop Berkeley's wall of brass, whatever contributes to her well-being must, in some degree, redound to the advantage of her neighbours.

"Were such narrow and malignant polities to meet with success," said Mr. Hume, writing in the middle of the last century, and when the prosperity of others was generally regarded with an evil eye, "we should reduce all our neighbouring nations to the same state of sloth and ignorance that prevails in Morocco and the coast of Barbary. But what would be the consequence? They could send us no commodities; they could take none from us: our domestic commerce itself would languish for want of emulation, example, and instruction; and we ourselves should soon fall into the same abject condition to which we had reduced them. I shall, therefore, venture to acknowledge, that not only as a man, but as a British subject, I pray for the flourishing commerce of Germany, Spain, Italy, and even France itself. I am, at least, certain that Great Britain, and all those nations, would flourish more, did their sovereign and ministers adopt such enlarged and benevolent sentiments towards each other."—(*Essay on the Jealousy of Trade.*)

BOSTON, a commercial city of the United States, the capital of Massachusetts, and the largest town of New England, lat. 42° 23′ N., long. 71° 4′ W. Population, in 1850, 136,871. The city is situated on a peninsula near the bottom of a large and deep bay, being surrounded on all sides by water, except on the south, where it is joined to the main land by the narrow isthmus, called Boston Neck. But it communicates, by means of extensive wooden bridges, with Charlestown on the north side of the bay, and with Dorchester on the south. Boston Bay is of great extent, and is studded with many islands. The plan, on the opposite side, will give a better idea of it than could be derived from any description.


BOSTON
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References to Plan. — A, outer lighthouse, 65 feet high, having a revolving light, alternately brilliant 40 and obscured 20 seconds. B, buoy on the outward edge of the shoal, off Allerton Point. C, D, E, Great, Middle, and Outward Brewster's Islands. F, George's Island. The passage for ships, lying between this island and the rocks on the opposite side of Lovell's island (G), being very narrow, it is, in effect, the key of the harbour; and large sums have recently been expended on its fortification. To the south of George's Island, and Hospital Island (H), is Nantasket road, where there is good anchorage. The outer harbour lies to the west of Lovell's (G) and George's (F) Islands, being separated from the inner harbour by Castle Island (M), and Governor's Island (N). On the north end of Long Island (I), is a harbour fixed light, 27 feet high. K, Deer Island. L, Spectacle Island. O, Middle Ground, dry at ¾ ebb. P, Upper and Middle Ground having, at ebb, only 5 feet water. Q, Thomson's Island. R, Dorchester peninsula. S, Noodle Island. T, Charleston. Governor's Island (N.), Castle Island (M), and Noodle's Island (S), are all fortified. The course that a ship ought to steer is marked by the dotted line, leading between the light-house and Allerton Point, and between George's Island (F), and Lovell's Island (G). The soundings are laid down in fathoms at low water.

Shipping.—With the exception of New York, Boston has a larger mercantile marine than any other port in the U. States. According to the accounts laid before Congress, 1st January, 1858, the registered, enrolled, and licensed tonnage belonging to Boston on the 30th June, 1857, amounted to 447,996 tons, of which 42,179 tons were employed in the coasting trade. In 1856, 48 ships of the burden of 50,394 tons, were launched in Boston and her immediate vicinity.

Shipping Charges.—For an account of these, see NEW YORK.

How to enter the Port. — In coming from the Atlantic, a ship should bring the lighthouse to bear W. by N. to W. N. W., and run direct for it. The largest ships may pass it at within less than a cable's length. If there be no pilot on board, or the master be unacquainted with the harbour, or the wind be north-westerly, which is the most unfavourable for entering, she had better steer W. by S. for Nantasket roads, where she may anchor, and get a pilot.

Mooring, &c. — Generally speaking, there is sufficient depth of water to enable the largest ships to come up to town at all times of the tide. They usually moor alongside quays or wharfs, where they lie in perfect safety. There are in all about 60 wharfs; which, for the most part, are built on piles, with a superstructure of stone and earth. The two principal are "Long Wharf," 550 yards in length; and "Central Wharf," 415 yards long by 50 in breadth, having a range of lofty brick stores and warehouses along its whole length.

Pilotage. — No particular place is specified at which vessels must heave to for a pilot. But all vessels, with the exception of coasters under 200 tons, and American vessels laden with plaster of Paris from British America, if hailed by a pilot within about 1½ mile of the outer light, must take him on board, under a penalty of 50 dollars. If they have got within this distance before being hailed, the obligation to take a pilot on board ceases. This regulation has obviously been dictated by a wish to have the pilots constantly on the alert; it being supposed that masters not well acquainted with the bay will heave to to take one on board, though they have got within the free limits.

Table of the Rates of Pilotage on Outward and Inward bound Vessels in the Port of Boston.

Outward.								Inward.							
From Nov. 1. to May 1.				From May 1. to Nov. 1.				From Nov. 1. to May 1.				From May 1. to Nov. 1.			
Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.	Ships drwg. Water.	Dol. per Foot.
7 ft.	0·90	17 ft.	1·10	7 ft.	0·75	17 ft.	1·00	7 ft.	1·45	17 ft.	1·87	7 ft.	1·10	17 ft.	1·35
8	0·90	18	1·20	8	0·75	18	1·00	8	1·45	18	2·50	8	1·10	18	1·88
9	0·90	19	1·30	9	0·75	19	1·25	9	1·45	19	2·75	9	1·10	19	1·88
10	0·95	20	1·50	10	0·80	20	1·50	10	1·56	20	3·00	10	1·20	20	1·88
11	1·00	21	2·00	11	0·85	21	1·75	11	1·72	21	4·00	11	1·25	21	2·80
12	1·05	22	2·50	12	0·90	22	2·00	12	1·77	22	4·00	12	1·30	22	3·00
13	1·10	23	2·75	13	0·95	23	2·25	13	1·77	23	4·00	13	1·35	23	3·00
14	1·10	24	2·75	14	0·95	24	2·25	14	1·87	24	4·00	14	1·35	24	3·00
15	1·10	25	2·75	15	0·95	25	2·25	15	1·87	25	4·00	15	1·35	25	3·00
16	1·10			16	0·95			16	1·87			16	1·36		

Careening, Stores, &c.— Boston is a very favourable place for careening and repairing ships. All kinds of supplies may be had of the best quality and at moderate prices.

Immigration.—The number of immigrants arriving at Boston is not great, seldom exceeding 1,600 or 1,800 in a year. A city ordinance directs that the masters of vessels bringing immigrants shall enter into a bond with sureties to the amount of 200 dollars for each immigrant, that he shall not become a charge upon the state for 5 years, or pay a commutation of 5 dollars on account of each individual. But this regulation does not apply to immigrants having a reasonable amount of property; the declaration of the foreign consuls as to this point is commonly acted upon.

Trade of Boston, &c. — Boston has a very extensive trade with the southern states and with foreign countries, and is also one of the principal seats of the American fisheries. She is largely indebted to her southern neighbours, and principally to New York, Maryland, and Pennsylvania, for supplies of flour and wheat, and for great quantities of barley, maize, oatmeal, oats, &c., as well as for cotton, tobacco, &c. Of these, the imports of flour amount, at an average, to about 1,000,000 barrels a-year; all sorts of grain, to about 3,500,000 bushels; cotton, 320,000 bales; sugar 80,000,000 lbs., coffee 16,000,000 lbs., &c. Her returns are made, partly in native raw produce, as beef, pork, lard, &c.; partly and principally in the produce of her manufacturing industry, in which Massachusetts is decidedly superior to every other state in the Union; and partly in the produce of her fisheries and foreign trade. At an average, Boston annually sends to the southern parts of the Union about 70,000 barrels of beef and pork; 200,000 barrels mackerel, herrings, alewives, &c.; large quantities of dried and smoked fish; 5,000,000 pairs of boots and shoes; besides a very large amount of cotton and woollen manufactured goods, paper, nails, ice, furniture, cordage, &c.; so as to leave a large balance in her favour. Her exports of native produce to foreign countries consist principally of the same articles she sends to the southern States; but she also exports a large amount of the foreign produce she had previously imported. The imports from abroad consist principally of cotton and woollen goods; linens and canvas; hardware, silks, sugar, tea, coffee, wines and brandy, spices, hides, indigo, dyewoods, &c. The total imports from foreign countries into the state of Massachusetts in the year ending 30th of June, 1857, amounted to 47,265,341 dollars; while the exports of native produce, during the same year, amounted to only 26,572,659 dollars, and of native and foreign produce together, to 30,146,012 dollars; the balance against Massachusetts being paid off by bills upon the southern States, to which she exports much more than she imports. New York alone is, in fact, supposed to be at all times indebted to Boston about 5,000,000 dollars. We subjoin some statements illustrative of the trade of Boston.

I.—Account of the Exports to Foreign Countries from Boston, and of the Imports into the latter from such Countries in the undermentioned Years, ending 30th June.

Years ending 30th June.	Declared Value of Exports. Produce of U. States.	Value of Bullion in previous Column.	Produce of Foreign States.	Declared Value of Imports.	Years ending 30th June.	Declared Value of Exports. Produce of U. States.	Value of Bullion in previous Column.	Produce of Foreign States.	Declared Value of Imports.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*		*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1846	6,669,595	56,574	2,298,436	22,615,117	1852	11,110,010	3,970,025	2,278,502	31,958,192
1847	7,872,992	30,018	1,843,999	35,523,938	1853	15,205,203	3,736,039	2,891,480	39,300,912
1848	8,149,935	191,100	1,054,879	27,182,508	1854	16,408,341	4,950,187	3,513,575	45,988,545
1849	6,714,590	33,597	1,977,483	23,341,115	1855	22,970,460	12,022,598	3,62[illegible]201	43,256,279
1850	6,955,528	170,847	2,188,124	28,659,733	1856	24,673,577	11,860,362	3,312,076	41,661,088
1851	8,269,645	805,925	2,228,503	30,508,417					

II.—Statement exhibiting the Number and Tonnage of American and Foreign Vessels which entered into and cleared from the District of Boston during the following Years, ending June 30.

Date ending June 30.	American. Entered. Vessels.	Entered. Tons.	Cleared. Vessels.	Cleared. Tons.	Foreign. Entered. Vessels.	Entered. Tons.	Cleared. Vessels.	Cleared. Tons.
1848	1156	269,297	1012	229,851	1826	163,375	1898	164,019
1849	975	248,095	882	214,145	2062	205,096	2034	195,185
1850	1028	260,540	904	215,801	1908	218,295	2199	208,776
1851	944	256,939	881	207,914	2042	275,317	2015	286,828
1852	908	257,344	848	221,784	1899	260,558	1896	285,845
1853	996	287,969	1246	265,543	2089	294,521	2112	314,682
1854	991	320,638	990	281,550	2085	353,249	2064	329,038
1855	1073	373,926	1033	333,587	2071	334,298	1911	334,258
1856	1055	354,528	1036	337,133	2033	327,853	2039	310,164

III.—Statement exhibiting the Number and Tonnage of Vessels in the Coasting Trade which entered into and cleared from the District of Boston during the Years ending June 30, 1848-56.

Years.	Vessels.	Tonnage entered.	Vessels.	Tonnage cleared.	Years.	Vessels.	Tonnage entered.	Vessels.	Tonnage cleared.
1848	1628	545,888	3110	554,750	1853*	2340	620,232	2918	629,489
1849	1122	344,134	2980	580,078	1854*	2003	585,989	3047	610,947
1850	1423	526,837	3171	602,506	1855	1675	491,459	2911	663,193
1851	1623	514,979	2845	518,408	1856	1504	385,551	2773	402,521
1852*	3670	727,171	2818	571,577					

IV.—Imports of Cotton into Boston in the following Years:—

Years.	Total Bales.
1856	324,991
1855	285,612
1854	274,059
1853	268,437
1852	280,662
1851	203,652
1850	196,432
1849	269,812
1848	240,569
1847	190,658

V.—Receipts of Grain into Boston in the following Years:—

Years.	Corn.	Oats.	Rye.	Shorts.
1856	2,604,360 *Bush.*	857,017 *Bush.*	40,320 *Bush.*	309,252 *Bush.*
1855	2,097,530	550,714	43,940	343,196
1854	1,951,573	692,294	30,542	361,523
1853	2,408,634	669,543	26,847	430,756
1852	2,075,528	727,700	12,758	180,160
1851	2,162,258	500,264	24,073	111,751
1850	2,178,158	286,159	38,815	47,456
1849	3,002,393	508,879	51,294	61,026
1848	3,715,475	464,603	84,753	38,141
1847	2,601,424	520,218	20,571	85,629
1846	2,574,454	414,407	17,160	96,711
1845	2,571,406	518,383	24,184	65,530

Ice. — Boston was the original and still continues to be the principal seat of the American ice trade. This novel branch of industry began here in 1806, and has since vastly increased. For a while, the exportation was confined to the southern ports of the Union, the Havannah, and other ports of the West Indies; but now it extends to all parts of S. America, to India and China, and to many parts of Europe. At present (1858), the exports amount to about 160,000 tons, whereof about 12,000 are sent to the East Indies. The cost of the ice free on board exceeds 300,000 dollars a-year, and it affords a profitable article of freight to a vast amount of shipping. It was formerly sold in New Orleans and the Havannah at 6 cents per lb., but it is now sold for 1 cent per ditto, and a similar reduction has taken place in its price in other emporiums. The ice is principally brought by railway from Fresh Pond, Wenham, and other lakes, about 18 miles from Boston. It is sawn into square blocks, not less than 12 inches thick, and is remarkably pure and solid.

British Royal Mail Packets.—The mail packets between England and America (nine in number) sail from Liverpool every Saturday, alternately, for Boston and New York. The arrivals and departures noticed above, are exclusive of the packets in question. The latter, however, convey large quantities of the more valuable descriptions of goods; and they also convey large numbers of the more opulent class of passengers.

Insurance Companies. — Insurance, both fire and marine, is carried on to a great extent by joint-stock companies, and to some extent also by individuals. There is a great deal of risk in the business, which is more, indeed, like a lottery than a regular trade; and the dividends, consequently, vary from next to nothing to 10, and sometimes even to 20 per cent. or upwards.

Banks.—There were, in November, *1858*, in Boston, 37 Banking Companies, having an aggregate capital of $33,217,100. Their dividends vary from 5½ to 7 per cent.

Credit. — Foreign goods are frequently sold for ready money, but more usually at a credit of from 3 to 12 months: average length of credit, 6 months; but on iron and some other articles 12 months credit is given. Discount for ready money at the rate of 6 per cent. per annum.

Commission.—The rates of commission are arbitrary, varying from 2 to 5, and sometimes (*del credere* included) to 7½ per cent. On small accounts, and West India goods, 5 per cent. is usually charged. The ordinary rate may be taken at 2½ per cent.; but competition is so great that commission merchants

* In these years the number of vessels arriving and departing, but which did not enter and clear, are included in the statement. In the other years only such as entered and cleared are given.

may be found who will transact business on almost any terms. Sometimes whole cargoes are sold by brokers on an agreement to receive a specific sum in lieu of commission and brokerage.

Money.—In Massachusetts, and throughout New England, the dollar passes at 6*s.*; so that the pound sterling = 1*l.* 6*s.* 8*d.* Boston currency.—(For further particulars as to *Money, Weights, Measures*, &c. see New York.)

We have derived these details partly from official, partly from private information, and partly from tables and statements in Hunt's valuable Commercial Magazine.

BOTARGO, called in Provence *Bouargues*, a sausage made on the shores of the Mediterranean and the Black Sea, of the roe of the mullet. The best come from Tunis and Alexandria.

BOTTLES (Fr. *Bouteilles*; Ger. *Bouteillen*; It. *Bottiglie, Fiaschi*; Rus. *Bulülki*; Sp. *Botellas*), glass vessels for holding liquids, too well known to require any description. They are exported in considerable quantities. The duty of 8*s.* a cwt. on bottle glass, like the duties on other descriptions of glass, was both oppressive in amount, and was imposed and collected in the most vexatious manner. Happily, however, it has been repealed.—(For further details, see Glass.)

BOTTOMRY and RESPONDENTIA.—Bottomry, in commercial navigation, is a mortgage of the ship. The owner or captain of a ship is, under certain circumstances, authorised to borrow money, either to fit her out so as to enable her to proceed on her voyage, or to purchase a cargo for the voyage, pledging the keel, or bottom of the ship (a part for the whole), in security for payment. In bottomry contracts it is stipulated, that if the ship be lost in the course of the voyage, the lender shall lose his whole money; but if the ship arrive in safety at her destination, the lender is then entitled to get back his principal, and the interest agreed upon, however much that interest may exceed the legal rate.—(*Black. Com.* book ii. c. 30.) The extraordinary hazard run by the lenders of money on bottomry, who, in fact, become adventurers in the voyage, has been held, in all countries, as justifying them in stipulating for the highest rate of interest.

When the loan is not on the ship, but on the goods laden on board, which, from their nature, must be sold or exchanged in the course of the voyage, the borrower's personal responsibility is then the principal security for the performance of the contract, which is therefore called *respondentia*. In this consists the principal difference between bottomry and respondentia. The one is a loan upon the ship, the other upon the goods. The money is to be repaid to the lender, with the *marine interest*, upon the safe arrival of the ship, in the one case, and of the goods in the other. In all other respects, these contracts are nearly the same, and are governed by the same principles. In the former, the ship and tackle, being hypothecated, are liable, as well as the person of the borrower; in the latter, the lender has, in general, only the personal security of the borrower.

This contract, which *must always be in writing*, is sometimes made in the form of a deed poll, called a bill of bottomry, executed by the borrower; sometimes in the form of a bond or obligation, with a penalty. But whatever may be its form, it must contain the names of the lender and the borrower, those of the ship and the master; the sum lent, with the stipulated marine interest; the voyage proposed, with the commencement and duration of the risk which the lender is to run. It must show whether the money is lent upon the ship, or upon goods on board, or on both; and every other stipulation and agreement which the parties may think proper to introduce into the contract.—(See the *Forms* at the end of this article.)

"It is obvious," says Lord Tenterden, "that a loan of money upon bottomry, while it relieves the owner from many of the perils of a maritime adventure, deprives him also of a great part of the profits of a successful voyage; and, therefore, *in the place of the owners' residence*, where they may exercise their own judgment upon the propriety of borrowing money in this manner, the master of the ship is, by the maritime law of all states, precluded from doing it, so as to bind the interest of his owners, without their consent. With regard to a *foreign country*, the rule appears to be, that if the master of a vessel has occasion for money to repair or victual his ship, or for any other purpose necessary to enable him to complete the enterprise in which she is engaged; whether the occasion arises from any extraordinary peril or misfortune, or from the ordinary course of the adventure; he may, if he cannot otherwise obtain it, borrow money on bottomry at marine interest, and pledge the ship, and the freight to be earned in the voyage, for repayment at the termination of the voyage. When this is done, the owners are never personally responsible. The remedy of the lender is against the master of the ship."—(*Law of Shipping*, part ii. c. 3.)

In bottomry and respondentia bonds, the lender receives the whole of his principal and interest, or nothing; *he is not answerable for general or particular average**; nor will any loss by capture, if subsequently recaptured, affect his claim. In this respect our law differs from that of France (*Code de Commerce*, art. 330.) and most other countries: the lenders on bottomry bonds being there subject to average, as our underwriters upon policies of insurance. No loss can void a bottomry contract, unless a total loss, proceeding from a peril of the sea, during the voyage, and within the time specified by the contract. If the loss happen through any default or act of the owners or master, to which the lender was not privy, he may still recover.

There is no restriction by the law of England as to the persons to whom money may be lent on bottomry or at *respondentia*, except in the single case of loans on the ships of foreigners trading to the East Indies, which are forbidden by the 7 Geo. 1. stat. 1. c. 21. § 2.

It does not, however, appear to be necessary, in order to enable the master of a ship in a foreign port to obtain money for her repair, outfit, &c., that the contract pledging the vessel in security of the debt should be in the nature of a bottomry bond. Provided the person who advances the money do not choose to take upon himself the risk of the ship's return, and *do not stipulate for maritime interest*, "there seems," says Lord Tenterden, "to be no reason why the master should not pledge both the ship and the personal credit of the owner." And in the case of money advanced in this way to refit a ship in distress at Jamaica, which was captured on the voyage home, the lender recovered.—(*Law of Shipping*, part. ii. c. 3.)

Bottomry contracts were well known to the ancients. At Athens, the rate of interest was not fixed by law; but the customary rate seems to have been about 12 per cent. But when money was lent for a voyage, upon the security of the ship and cargo, the interest, on account of the superior risk encountered by the lender, was in most cases much higher. In voyages to the Taurica Chersonesus and Sicily, it was sometimes as high as 30 per cent.—(*Anacharsis's Travels*, vol. iv. p. 369. Eng. trans.) By the

* Mr. Serjeant Marshall doubts this; but it was so decided by the Court of King's Bench in *Joyce* v. *Williamson*, B. R. Mich. 23 Geo. 3.

Rhodian law, the exaction of such high interest as is usual in bottomry was declared to be illegal, unless the principal was really exposed to the dangers of the sea.—(*Boeckh's Public Economy of Athens*, vol. i. p. 177. Eng. trans.) This principle was adopted by the Romans, who gave to bottomry interest the name of *nauticum fœnus*; and has been transferred from the Roman law into all modern codes.

"Formerly," says Mr. Serjeant Marshall, "the practice of borrowing money on bottomry and respondentia was more general in this country than it is at present. The immense capitals now engaged in every branch of commerce render such loans unnecessary; and money is now seldom borrowed in this manner, but by the masters of foreign ships who put into our ports in need of pecuniary assistance to refit, to pay their men, to purchase provisions, &c. Sometimes officers and others belonging to ships engaged in long voyages, who have the liberty of trading to a certain extent, with the prospect of great profit, but without capitals of their own to employ in such trade, take up money on respondentia to make their investments; but even this, as I am informed, is now not very frequently done in this country."

The term bottomry has sometimes been incorrectly applied to designate a contract, by the terms of which the ship is not pledged as a security, but the repayment of money, with a high premium for the risk, is made to depend upon the success of the voyage. This, however, is plainly a loan upon a particular adventure, to be made by a particular ship, and not a loan upon the ship, and, of course, the lender has only the personal security of the borrower for the due performance of the contract. And it seems that loans have sometimes been made in this manner, and probably also with a pledge of the ship itself, to an amount exceeding the value of the borrower's interest in the ship; and such a contract is still legal in this country in all cases, except the case of ships belonging to British subjects bound to or from the East Indies; as to which it is enacted (19 Geo. 2. c. 37. § 5.),

"That all sums of money lent on bottomry or at respondentia upon any ship or ships belonging to his Majesty's subjects, bound to or from the East Indies, shall be lent only on the ship, or on the merchandise or effects laden, or to be laden, on board of such ship, and shall be so expressed in the condition of the bond, and the benefit of salvage shall be allowed to the lender, his agents or assigns, who alone shall have a right to make assurance on the money so lent; and no borrower of money on bottomry or at respondentia as aforesaid, shall recover more on any assurance than the value of his interest on the ship, or in the merchandises and effects laden on board of such ship, exclusive of the money so borrowed; and in case it shall appear that the value of his share in the ship, or in the merchandises and effects laden on board, doth not amount to the full sum or sums he hath borrowed as aforesaid, such borrower shall be responsible to the lender for so much of the money borrowed as he hath not laid out on the ship, or merchandises laden thereon, in the proportion the money not laid out shall bear to the whole money lent, notwithstanding the ship and merchandises be totally lost."

Lord Tenterden says that this statute was introduced for the protection of the trade of the East India Company; and its rules must be complied with in the case of bottomry by the *masters* of ships trading to the East Indies.

For a further discussion of this subject, see *Abbott on the Law of Shipping*, part ii. c. 3.; *Marshall on Insurance*, book ii.; and *Park on Insurance*, c. 21.

I. *Form of a Bottomry Bond.*

KNOW ALL MEN by these presents, That I, *A. B.*, commander and two-thirds owner of the ship *Exeter*, for myself and *C. D.*, remaining third-owner of the said ship, am held and firmly bound unto *E. F.* in the penal sum of *two thousand pounds* sterling, for the payment of which well and truly to be made unto the said *E. F.*, his heirs, executors, administrators, or assigns, I hereby bind myself, my heirs, executors, and administrators, firmly by these presents. *In witness* whereof I have hereunto set my hand and seal, this 14th day of *December*, in the year of our Lord 1796.

WHEREAS the above bound *A. B.* hath taken up and received of the said *E. F.* the full and just sum of *one thousand pounds* sterling, which sum is to run at respondentia on the block and freight of the ship *Exeter*, whereof the said *A. B.* is now master, from the port or road of *Bombay* on a voyage to the port of *London*, having permission to touch, stay at, and proceed to all ports and places within the limits of the voyage, at the rate or premium of *twenty-five per cent.* (25 per cent.) for the voyage. In consideration whereof usual risks of the seas, rivers, enemies, fires, pirates, &c. are to be on account of the said *E. F.* And for the further security of the said *E. F.* the said *A. B.* doth by these presents mortgage and assign over to the said *E. F.*, his heirs, executors, administrators, and assigns, the said ship *Exeter*, and her freight, together with all her tackle, apparel, &c. And it is hereby declared, that the said ship *Exeter* and her freight is thus assigned over for the security of the respondentia taken up by the said *A. B.*, and shall be delivered to no other use or purpose whatever until payment of this bond is first made, with the premium that may become due thereon.

NOW THE CONDITION of this obligation is such, that if the above bound *A. B.*, his heirs, executors, or administrators, shall and do well and truly pay, or cause to be paid, unto the said *E. F.* or his attorneys in *London* legally authorised to receive the same, their executors, administrators, or assigns, the full and just sum of 1,000*l.* sterling, being the principal of this bond, together with the premium which shall become due thereon, at or before the expiration of *ninety* days after the safe arrival of the said ship *Exeter* at her moorings in the river *Thames*, or in case of the loss of the said ship *Exeter*, such an average as by custom shall have become due on the salvage, then this obligation to be void and of no effect, otherwise to remain in full force and virtue. Having signed to three bonds of the same tenor and date the one of which being accomplished, the other two to be void and of no effect.

A. B. for self and *C. D.** (L. S.)

Signed, sealed, and delivered, where no stamped paper is to be had, in the presence of *G. H.* *I. K.*

* In this bond the occasion of borrowing the money is not expressed, but the money was in reality borrowed to refit the ship, which, being on a voyage from *Bengal* to *London*, was obliged to put back to *Bombay* to repair. See *The* EXETER, *Whitford*, 1 Rob. A. R. 176. The occasion therefore of borrowing the money gave the lender the security of the entire interest of the ship. But this bond, although expressed to be executed by the master for himself and the other part-owner, would not bind the other part-owner personally, *unless he had by a previous deed authorised the master to execute such a bond for him.*—(*Abbott on the Law of Shipping*, part iii. c. 1. § 2.)

II. *Form of a Bottomry Bill.*

TO ALL MEN TO WHOM THESE PRESENTS SHALL COME. I, *A. B.*, of *Bengal*, mariner, part-owner and master of the ship called the *Exeter*, of the burden of five hundred tons and upwards, now riding at anchor in *Table Bay*, at the *Cape of Good Hope*, send greeting:

WHEREAS I, the said *A. B.*, part-owner and master of the aforesaid ship, called the *Exeter*, now in prosecution of a voyage from *Bengal* to the port of *London*, having put into *Table Bay* for the purpose of procuring provision and other supplies necessary for the continuation and performance of the voyage aforesaid, am at this time necessitated to take up upon the adventure of the said ship, called the *Exeter*, the sum of *one thousand pounds* sterling monies of *Great Britain*, for setting the said ship to sea, and furnishing her with provisions and necessaries for the said voyage, which sum *C. D.* of the *Cape of Good Hope*, master attendant, hath at my request lent unto me, and supplied me with, at the rate of *twelve hundred and twenty pounds* sterling for the said *one thousand pounds*, being at the rate of *one hundred and twenty-two pounds* for every *hundred pounds* advanced as aforesaid, during the voyage of the said ship from *Table Bay* to *London*. NOW KNOW YE, that I, the said *A. B.*, by these presents, do, for me,

my executors and administrators, covenant and grant to and with the said *C. D.* that the said ship shall, with the first convoy which shall offer for *England* after the date of these presents, sail and depart for the port of *London*, there to finish the voyage aforesaid. And I, the said *A. B.*, in consideration of the sum of *one thousand pounds* sterling to me in hand paid by the said *C. D.* at and before the sealing and delivery of these presents, do hereby bind myself, my heirs, executors, and administrators, my goods and chattels, and particularly the said ship, the tackle and apparel of the same, and also the freight of the said ship, which is or shall become due for the aforesaid voyage from *Bengal* to the port of *London*, to pay unto the said *C. D.*, his executors, administrators, or assigns, the sum of *twelve hundred and twenty pounds* of lawful British money, within thirty days next after the safe arrival of the said ship at the port of *London* from the same intended voyage.

And I, the said *A. B.*, do, for me, my executors and administrators, covenant and grant to and with the said *C. D.*, his executors and administrators, by these presents, that I, the said *A. B.*, at the time of sealing and delivering of these presents, am a true and lawful part-owner and master of the said ship, and have power and authority to charge and engage the said ship with her freight as aforesaid, and that the said ship, with her freight, shall, at all times after the said voyage, be liable and chargeable for the payment of the said *twelve hundred and twenty pounds*, according to the true intent and meaning of these presents.

And lastly, it is hereby declared and agreed by and between the said parties to these presents, that in case the said ship shall be lost, miscarry, or be cast away before her arrival at the said port of *London* from the said intended voyage, that then the payment of the said *twelve hundred and twenty pounds* shall not be demanded, or be recoverable by the said *C. D.*, his executors, administrators, or assigns, but shall cease and determine, and the loss thereby be wholly borne and sustained by the said *C. D.*, his executors and administrators, and that then and from thenceforth every act, matter, and thing herein mentioned on the part and behalf of the said *A. B.* shall be void; any thing herein contained to the contrary notwithstanding.

In witness whereof the parties have interchangeably set their hands and seals to four bonds of this tenor and date, one of which being paid, the others to be null and void.

At the *Cape of Good Hope*, this 15th day of *November*, in the year of our Lord one thousand eight hundred and thirty.

Witness, { *E. F.* / *G. H.* / *I. K.* } *A. B.* (L. S.)

BOUNTY, a term used in commerce and the arts, to signify a premium paid by government to the producers, exporters, or importers of certain articles, or to those who employ ships in certain trades.

1. *Bounties on production* are most commonly given in the view of encouraging the establishment of some new branch of industry; or they are intended to foster and extend a branch that is believed to be of paramount importance. In neither case, however, is their utility very obvious. In all old settled and wealthy countries, numbers of individuals are always ready to embark in every new undertaking, if it promise to be really advantageous, without any stimulus from government: and if a branch of industry, already established, be really important and suitable for the country, it will assuredly be prosecuted to the necessary extent, without any encouragement other than the natural demand for its produce.

2. *Bounties on Exportation and Importation.* — It is enacted by the 3 & 4 Will. 4. c. 52., that a merchant or exporter claiming a bounty or drawback on goods exported must make oath that they have been actually exported, and have not been re-landed, and are not intended to be re-landed, in any part of the United Kingdom, or in the Isle of Man (unless entered for the Isle of Man), or in the islands of Faro or Ferro; and it is further enacted, that if any goods cleared to be exported for a bounty or drawback shall not be duly exported to parts beyond the seas, or shall be re-landed in any part of the United Kingdom, or in the islands of Faro or Ferro, or shall be carried to the islands of Guernsey, Jersey, Alderney, Sark, or Man (not having been duly entered, cleared, and shipped for exportation to such islands), such goods shall be forfeited, together with the ship or ships employed in re-landing or carrying them; and any person by whom or by whose orders or means such goods shall have been cleared, re-landed, or carried, shall forfeit a sum equal to treble the value of such goods. — §§ 87—95.

3. *Policy of Bounties.* — It was formerly customary to grant bounties on the exportation of various articles; but the impolicy of such practice is now very generally admitted. It is universally allowed that bounties, if they be given at all, should be given only to the exporters of such commodities as could not be exported without them. But it is plain that, by granting a bounty in such cases, we really tax the public, in order to supply the foreigner with commodities at less than they cost. A. has a parcel of goods which he cannot dispose of abroad for less than 110*l.*; but they will fetch only 100*l.* in the foreign market; and he claims and gets a bounty of 10*l.* to enable him to export them. Such is the mode in which bounties on exportation uniformly operate; and to suppose that they can be a means of enriching the *public*, is equivalent to supposing that a shopkeeper may be enriched by selling his goods for less than they cost!

But however injurious to the state, it has been pretty generally supposed that bounties on exportation are advantageous to those who produce and export the articles on which they are paid. But the fact is not so. A trade that cannot be carried on without the aid of a bounty, must be a naturally disadvantageous one. Hence, by granting it, individuals are tempted to engage or continue in businesses which are necessarily very insecure, and are rarely capable of being rendered lucrative; at the same time that they are prevented, by trusting to the bounty, from making those exertions they naturally would have made, had they been obliged to depend entirely on superior skill and industry for the sale of their produce. The history of all businesses carried on in this country by the aid of bounties, proves that they are hardly less disadvantageous to those engaged in them than to the public.

The truth of these remarks has been acknowledged by government. The bounty on the exportation of corn was repealed in 1815; and the bounties on the exportation of linen and several other articles ceased in 1830.

4. *Bounties on Shipping* have principally been paid to the owners of vessels engaged in the fishery, and their influence will be treated of under the articles HERRING FISHERY and WHALE FISHERY.

For an account of the bounties that still exist, see the article TARIFF.

BOX-WOOD (Ger. *Buchsbaum*; Du. *Palmhout*; Fr. *Buis*; It. *Busso, Bosso, Bossolo*), the wood of the box tree (*Buxus sempervirens*), growing wild in several places in Great Britain. This tree was greatly admired by the ancient Romans, and has been much cultivated in modern times, on account of the facility with which it is fashioned into different forms. Box is a very valuable wood. It is of a yellowish colour, close-grained, very hard, and heavy; it cuts better than any other wood, is susceptible of a very fine polish, and is very durable. In consequence, it is much used by turners, and mathematical and musical instrument makers. It is too heavy for furniture. It is the *only* wood used by the engravers of wood-cuts for books; and provided due care be exercised, the number of impressions that may be taken from a box-wood cut is very great. In France, box-wood is extensively used for combs, knife-handles, and button moulds; and sometimes, it has been said, as a substitute for hops in the manufacture of beer. The value of the box-wood sent from Spain to Paris is reported to amount to about 10,000 fr. a year. In 1815, the box trees cut down on Box-hill, near Dorking in Surrey, produced upwards of 10,000*l*. They are now, however, become very scarce in England. Previously to 1837 the duty on box-wood was quite oppressive, being 5*l*. a ton if brought from a foreign country, and 1*l*. a ton if from a British possession; but it was then reduced to 10*s*. a ton without reference to origin. In 1841 this duty produced 554*l*., showing that 1108 tons had been entered for consumption. In 1842 the duty on box-wood from a British poss, was reduced to 2*s*. 6*d*. a ton, and in 1845 it was repealed. Turkey box-wood sells in the London market for from 4*l*. 10*s*. to 8*l*. 15*s*. a ton.

BRAN, the thin skins or husks of corn, particularly wheat, ground, and separated from the corn by a sieve or boulter.

BRANDY (Ger. *Brantewein*; Du. *Brandewyn*; Fr. *Eau de vie, Brandevin*; It. *Aquarzente*; Sp. *Aguardiente*; Port. *Aguardente*; Rus. *Wino*; Lat. *Vinum adustum*), a spirituous and inflammable liquor, obtained by distillation from wine and the husks of grapes. It is prepared in most of the wine countries of Europe; but the superiority of French Brandy is universally admitted. The latter is principally distilled at Bordeaux, Rochelle, Cognac, the Isle de Rhé, Orleans, Nantes, and in Poitou, Touraine, and Anjou. That of Cognac is in the highest estimation.

Wines of all descriptions, but chiefly those that are strong and harsh (*poussés*), are used in the manufacture of brandy. The superior vintages, and those that have most flavour, are said to make the worst brandy. It is naturally clear and colourless. The different shades of colour which it has in commerce, arise partly from the casks in which it is kept, but chiefly from the burnt sugar, saunders wood, and other colouring matter intentionally added to it by the dealers. It is said that the burnt sugar gives mellowness to the flavour of the liquor, and renders it more palatable.

The art of distillation is believed to have been first discovered by the Arabians. From a passage in the *Testamentum Novissimum* of the famous Raymond Lully, who flourished in the thirteenth century, it would appear that the production of brandy and alcohol from wine was familiar to his contemporaries.—(p. 2. edit. *Argent.* 1571.) But the practice does not appear to have been introduced into France till 1313.—(*Le Grand d'Aussi Vie privé de François*, t. iii. p. 64.) When first introduced, brandy or burnt wine (*vinum adustum*) appears to have been used principally as an antiseptic and restorative medicine; and the most extravagant panegyrics were bestowed on its virtues. It was described as a sovereign remedy in almost all the disorders of the human frame; it was commended for its efficacy in comforting the memory, and strengthening the reasoning powers; it was extolled, in short, as the elixir of life, and an infallible preservative of youth and beauty!—(*Henderson's Hist. of Wine*, p. 24.) Dr. Henderson says that the experience of later times has shown how little this eulogy was merited; but in this he is contradicted by Burke, who maintains, with equal eloquence and ingenuity, that "the *alembic* has been a vast benefit and blessing."—(*Thoughts and Details on Scarcity*, p. 41.)

Brandy formed, for a lengthened period, a prominent article in the exports of France; few ships sailing from Bordeaux, Rochelle, or Nantes, without taking a certain quantity of it on board; but of late years there has been an extraordinary falling off in the exports of brandy as well as of wine. During the 3 or 4 years ending with 1858, this

has been especially the case, from the scarcity and high price of brandy resulting from the vine disease.

Duties on Brandy.—In a former edition of this work we remarked on this subject as follows, viz., "In nothing, perhaps, has the injurious operation of oppressive duties been so strikingly exemplified as in the case of brandy. At the latter end of the 17th century, when the duty on brandy did not exceed 9*l.* a tun, the imports into England amounted to about 6,000 tuns, or 1,512,000 gallons.—(*Historical and Political Remarks on the Tariff of the late Treaty*, 1786, p. 113.); whereas at present, notwithstanding our vast increase in wealth and population since the period referred to, we do not import so much brandy as we did then! Nor is this extraordinary circumstance to be ascribed to any preference on the part of the public to other beverages, but is wholly owing to the exorbitant duties with which brandy is loaded. The price of brandy in bond varies, at this moment, according to quality, from 4*s.* to 6*s.* a gallon (Imperial measure), while the duty is no less than 22*s.* 10*d.* Had the imposition of such a duty taken away the taste for brandy, it would have been comparatively innocuous. But it has done no such thing. Its only effect has been to convert a trade, that might otherwise have been productive of the most advantageous results, into a most prolific source of crime and demoralisation. The temptation to smuggle, occasioned by the exorbitancy of the duty, is too overpowering to be counteracted by the utmost penalties of the law. All along the coasts of Kent and Sussex, and the districts most favourably situated for *running spirits*, almost the whole of the labouring population are every now and then withdrawn from their ordinary employments, to engage in smuggling adventures. The efforts of the revenue officers to seize foreign brandy and geneva have in innumerable instances been repelled by force. Bloody and desperate contests have in consequence taken place. Many individuals who, but for this fiscal scourge, would have been industrious and virtuous, have become idle, predatory, and ferocious; they have learned to despise the law, to execute summary vengeance on its officers; and are influenced by a spirit that has been, and may be, turned to the most dangerous purposes.

"Neither can it be truly said that this miserable system is upheld for the sake of revenue. On the contrary, it is easy to show that, besides the other mischievous effects it entails on the public, it occasions the loss of at least 1,000,000*l.* a year. In 1786, Mr. Pitt, by a wise and politic measure, took 50 per cent. from the duty on brandy and geneva; (the duty on the latter has been for a lengthened period the same as that on brandy;) and instead of being diminished, the revenue was increased. In 1790, when the duty on brandy and geneva was 5*s.* the wine gallon, the quantity retained for home consumption was 2,225,590 gallons. During the 3 years ending with 1803, when the duty was 9*s.* 2*d.*, the quantities of brandy and geneva retained for home consumption amounted, at an average, to about 2,700,000 gallons; but during the 3 years ending with 1818, when the duty had been increased to 18*s.* 10*d.* the wine gallon, the quantities retained did not exceed 850,000 gallons, while the quantities actually entered for home consumption were considerably less! The consumption increased considerably between 1818 and 1822; but since the latter epoch it has remained nearly stationary; and, notwithstanding the great increase of wealth and population in the interval, is not nearly so great now (1843) as it was half a century ago! Nothing, therefore, can be more palpably erroneous than to contend that the revenue is improved by the present system. Have we not seen the revenue derived from coffee trebled, by reducing the duty from 1*s.* 7*d.* to 6*d.*? Have we not seen the revenue derived from British spirits greatly increased, by reducing the duty from 5*s.* 6*d.* to 2*s.* the wine gallon? And where is the ground for supposing that the result would be different, were the duties on brandy equally reduced? But the experience afforded by Mr. Pitt's measure, in 1786, is decisive as to this point. He quadrupled the consumption and increased the revenue, by taking a half from the duty when it was a good deal less oppressive than now? Were a similar reduction made at present, does any one doubt that a similar result would follow? Smuggling and adulteration would immediately cease; our trade with France would be very greatly extended; and the revenue would gain, not merely by a direct increase of duty, but indirectly by a very great diminution of the expense of collection.

"But the effect of the increase of the duties on brandy in Ireland has been still more extraordinary. At an average of the 3 years ending with 1802, when the duty was 7*s.* 3¾*d.* the wine gallon, the average annual consumption of brandy in Ireland amounted to 208,064 gallons, producing a nett revenue of 77,714*l.* Now, mark the consequence of *trebling* the duties. The consumption during the 3 years ending with 1842, notwithstanding the population is more than doubled, only amounted, at an average, to 15,399 gallons, producing about 17,560*l.* a year revenue! Dr. Swift has shrewdly remarked, that in the arithmetic of the customs two and two do not always make four, but sometimes only one. But here we have threefold duties, with less than ¼th part of the revenue, and less than 1/14th part of the consumption!

"It is surely impossible that a system like this, evincing in every part a degree of ignorant rapacity, to be paralleled only by that of the savages, who to get at the fruit cut down the tree, should be permitted for a much longer period to disgrace our fiscal code. Those only who are anxious for the continuance of smuggling, with all its consequent crime and misery, can be hostile to a reduction of the duty on brandy. By fixing it at 10*s.* a gallon, neither the consumption of British spirits nor that of rum would be sensibly affected. The middle classes would, however, be able to use brandy on occasions when, perhaps, at present, they use nothing; its clandestine importation would be prevented; those engaged in smuggling would be obliged to have recourse to industrious pursuits; and the manufacture of the abominable compounds, that are now so frequently substituted in its stead, would be put an end to."

At length, in 1846, the duties on brandy were reduced by Sir Robert Peel from 22*s.* 10*d.* to 15*s.* a gallon. But though considerable this was not equal to some of the reductions effected by the same great minister in cases in which, perhaps, they were less necessary. It was, nevertheless, of much importance; and the subjoined account shows that the increased consumption which it occasioned has prevented any diminution of revenue; for the falling off in the consumption and duties in 1857 and 1858, was wholly a consequence of the scarcity and high price of brandy, occasioned, as already stated, by the vine disease. No doubt, however, the beneficial influence of the diminution of the duty would have been greater had it been carried still further, or had it been reduced to 10*s.* or 12*s.* a gallon.

An Account of the Number of Gallons (Imperial Measure) of Foreign Brandy retained for Home Consumption in Great Britain and Ireland, the Rates of Duty affecting the same, and the entire nett Produce of the Duty, each Year since 1814 (obtained from the Custom-house).

Yrs.	Quantities entered for Home Consumption.			Nett Produce of Duty.			Rates of Duty per Imperial Gallon.	
	Gt. Britain.	Ireland.	United Kingdom.	Gt. Britain.	Ireland.	U. Kingdom.	Great Britain.	Ireland.
	Imp. gal.	*Imp. gal.*	*Imp. gal.*	£	£	£	£ s. d.	£ s. d.
1814	580,592	7,169	587,761	581,036	6,618	587,674	1 2 6½	0 17 3½
1815	656,535	5,180	661,715	740,747	4,702	745,449	—	—
1816	657,062	5,475	662,537	742,504	4,184	746,429	—	—
1817	634,017	3,875	637,892	716,734	3,248	719,982	—	—
1818	531,583	6,232	537,815	599,586	5,287	604,873	—	—
1819	787,422	7,080	794,502	890,068	6,090	896,159	1 2 7½	—
1820	842,864	6,025	848,889	956,275	5,219	961,495	—	—
1821	914,630	6,001	920,631	1,034,327	5,173	1,039,501	—	—
1822	1,001,607	7,308	1,008,915	1,132,416	6,414	1,138,830	—	—
1823	1,083,104	17,118	1,100,222	1,225,481	14,330	1,239,812	—	1 2 8
1824	1,226,715	984	1,227,699	1,387,204	1,297	1,388,411	—	—
1825	1,321,327	3,550	1,324,877	1,489,768	4,177	1,493,945	—	—
1826	1,475,243	7,371	1,480,614	1,636,499	8,597	1,464,897	1 2 6	1 2 6
1827	1,313,217	7,271	1,320,488	1,471,501	8,232	1,479,733	—	—
1828	1,327,929	7,556	1,335,485	1,490,793	8,629	1,499,423	—	—
1829	1,301,450	8,529	1,309,979	1,469,764	9,686	1,479,451	—	—
1830	-	-	1,285,967	-	-	1,443,018	—	—
1831	1,226,280	8,821	1,235,101	1,378,244	9,923	1,388,167	—	—
1832	1,570,075	31,577	1,601,652	1,765,889	35,511	1,801,400	—	—
1833	1,357,544	19,667	1,377,211	1,504,118	22,127	1,526,545	—	—
1834	1,265,279	25,360	1,290,639	1,532,910	28,517	1,561,427	—	—
1835	1,295,180	19,763	1,314,943	1,451,280	22,251	1,476,511	—	—
1836	1,239,819	18,034	1,257,853	1,393,487	20,287	1,413,774	—	—
1837	1,191,769	16,877	1,208,646	1,340,628	18,987	1,359,615	—	—
1838	1,186,582	16,853	1,203,435	1,334,654	18,960	1,353,614	—	—
1839	1,152,177	15,579	1,167,756	1,291,574	17,526	1,309,100	—	—
1840	1,095,503	13,075	1,108,578	1,214,662	14,865	1,229,527	before 16th May 1 2 6	after 16th May 1 2 10
1841	1,148,011	16,495	1,164,506	1,310,249	18,834	1,329,083	—	—
1842	1,066,294	16,625	1,082,919	1,216,864	18,982	1,235,846	1 2 10	1 2 10
1843	1,023,219	15,128	1,038,347	1,168,206	17,272	1,185,478	—	—
1844	1,007,526	15,547	1,023,073	1,150,067	17,750	1,167,817	—	—
1845	1,040,402	17,872	1,058,274	1,187,761	20,400	1,208,161	—	—
1846	1,488,877	25,588	1,514,465	1,145,501	19,742	1,165,046	until 18th Mar. 1 2 10 / from 18th Mar. 0 15 0	1 2 10
1847	1,506,363	50,875	1,557,238	1,129,604	23,154	1,152,758	—	0 15 0
1848	1,573,628	35,376	1,609,004	1,180,211	26,554	1,206,745	—	—
1849	2,117,057	70,301	2,187,358	1,586,747	52,726	1,639,473	—	—
1850	1,816,668	44,141	1,860,809	1,362,005	33,107	1,395,110	—	—
1851	1,817,598	41,675	1,859,273	1,362,634	31,228	1,393,862	—	—
1852	1,880,222	44,173	1,924,395	1,409,604	33,079	1,442,683	—	—
1853	1,821,992	47,351	1,869,343	1,366,580	35,508	1,402,088	—	—
1854	1,810,851	51,338	1,862,189	1,357,644	38,551	1,396,175	—	—
1855	1,480,225	45,353	1,525,578	1,109,368	33,997	1,143,365	—	—
1856	1,481,557	52,225	1,533,782	1,110,933	39,155	1,150,088	—	—
1857	1,241,647	47,998	1,289,645	931,894	35,989	967,883	—	—
1858	1,065,769	35,538	1,101,298	797,245	32,654	829,899	—	—

Notwithstanding the improvement in the vintage of 1858, the price of brandy is still (1859) very high. And hence the substitution of British brandy, and of other more objectionable compounds, for the genuine article.

Regulations as to Importation, &c.—Brandy, geneva, and other foreign spirits, must be imported, if in casks, in casks containing not less than 20 gallons, under penalty of forfeiture. They must also be imported in ships of 50 tons burden or upwards, and are not to be exported from a bonded warehouse except in a vessel of like tonnage under pain of forfeiture.

BRASS (Ger. *Messing*; Du. *Messing, Missing, Geelkoper*; Fr. *Cuivre jaune, Laiton*; It. *Ottone*; Sp. *Laton, Azofar*; Rus. *Selenoi mjed*; Lat. *Orichalcum, Aurichalcum*) is a factitious metal, made of copper and zinc in certain proportions. It is of a beautiful yellow colour, more fusible than copper, and not so apt to tarnish. It is malleable, so ductile that it may be drawn out into wire, and is much tougher than copper. Its density is greater than the mean density of the two metals. By calculation it ought to be 7·63 nearly, whereas it is actually 8·39; so that its density is increased by about one tenth. The ancients do not seem to have known accurately the difference between copper, brass, and bronze. They considered brass as only a more valuable kind of copper, and therefore used the word *æs* to denote either. They called copper *æs cyprium*, afterwards *cyprium*; and this in process of time was converted into *cuprum*. Dr. Watson has proved that it was to brass they gave the name of *orichalcum*. Brass is malleable when cold, unless the proportion of zinc be excessive; but when heated it becomes brittle. It may be readily turned upon the lathe; and, indeed, works more kindly than any other metal.

There is a vast variety in the proportions of the different species of brass used in commerce; nor is it easy to determine whether the perfection of this alloy depends on any certain proportions of the two metals. In general, the extremes of the highest and lowest proportions of zinc are from 12 to 25 parts in the 100. In some of the British manufactories, the brass made contains one third its weight of zinc. In Germany and Sweden the proportion of zinc varies from one fifth to one fourth of the copper. The ductility of brass is not injured when the proportion of zinc is highest. This metal is much used in the escapement wheels and other nicer parts of watch-making: and bars of brass, very carefully made, fetch for this purpose a high price.

The use of brass is of very considerable antiquity. Most of the ancient genuine relics are composed of various mixtures of brass with tin and other metals, and are rather to be denominated bronzes. The best proportion for brass guns is said to be 1,000 lbs. of copper, 990 lbs. of tin, and 600 lbs. of brass, in 11 or 12 cwt. of metal. The best brass guns are made of malleable metal, not of pure copper and zinc alone; but worse metals are used to make it run closer and sounder, as lead and pot-metal. — (*Thomson's Chemistry, Encyc. Britannica, &c.*)

BRAZILETTO, an inferior species of Brazil wood brought from Jamaica. It is one of the cheapest and least esteemed of the red dyewoods.

BRAZIL NUTS, or *Chesnuts of Brazil*, the fruit of the Juvia (*Bertholletia excelsa*), a majestic tree growing to the height of 100 or 120 feet, abounding on the banks of the Orinoco, and in the northern parts of Brazil. The nuts are triangular, having a cuneiform appearance, with sutures at each of the angles; the shell is rough and hard, and of a brownish ash colour. The kernel resembles that of an almond, but is larger, and tastes more like a common hazel nut; it contains a great deal of oil, that may be obtained by expression or otherwise. These nuts do not grow separately, or in clusters, but are contained, to the number of from 15 to 50 or more*, in great ligneous pericarps or outer shells, generally of the size of a child's head. This outer shell is very hard and strong, so that it is rather difficult to get at the nuts, which are closely packed in cells inside. The natives are particularly fond of this fruit, and celebrate the harvest of the juvia with rejoicings; it is also very much esteemed in Europe. The nuts brought to this country and the Continent are chiefly exported from Para, and form an article of considerable commercial importance. — (*Humboldt's Pers. Nar.* vol. v. p. 538. Eng. trans.)

BRAZIL WOOD (Fr. *Bois de Brésil*; Ger. *Brasilienholz*; Du. *Brasilienhout*; It. *Legno del Brasile, Verzino*; Sp. *Madera del Bresil*; Port. *Pao Brasil*). It has been commonly supposed that this wood derived its name from the country in which it is principally produced. But Dr. Bancroft has conclusively shown that woods yielding a *red dye* were called Brazil woods long previously to the discovery of America; and that the early voyagers gave the name of Brazil to that part of that continent to which it is still applied, from their having ascertained that it abounded in such woods. — (See the learned and excellent work, *Philosophy of Colours*, vol. ii. pp. 316—321.)

It is found in the greatest abundance, and is of the best quality, in the province of Pernambuco, where it is called *Pao da rainha*, or Queen's wood; but it is also found in many other parts of the Western Hemisphere. The tree is large, crooked, and knotty; the leaves are of a beautiful red, and exhale an agreeable odour. Its botanical name is *Cæsalpinia Brasiletto*, but it is called by the natives *ibiripitanga*. Notwithstanding its apparent bulk, the bark is so thick, that a tree as large as a man's body with the bark will not be so thick as the leg when peeled. When cut into chips, it loses the pale colour it before had, and becomes red, and when chewed has a sweet taste. It is used for various purposes by cabinet-makers, and admits of a beautiful varnish, but its principal use is in dyeing red; and though the colour is liable to decay, yet, by mixing with it alum and tartar, it is easily made permanent. There is also made of it, by means of acids, a sort of liquid lake or carmine for painting in miniature.

Brazil wood has been for many years past a royal monopoly; its exportation, except on account of

* Humboldt says he had most frequently found from 15 to 22 nuts in each pericarp; but De Laet, who gave the first and most accurate description of this fruit, says that the pericarp is divided into six compartments, each of which incloses from 8 to 12 nuts. — (See *Humboldt in loc. cit.*)

government, being prohibited under the severest penalties. Owing to the improvident manner in which it has been cut down by the government agents, it is now rarely found within several leagues of the coast. Indeed, we are assured that many of the planters have privately cut down the trees on their estates, and used the timber as fire-wood, that they might not expose themselve to annoyance from the arbitrary and vexatious proceedings of these functionaries. The quantity of Brazil wood imported into this country is but inconsiderable. Its price in the London market, exclusive of the duty (2*s.* per ton), varies for the first quality from 60*l.* to 80*l.* per ton. — (*Dr. Bancroft in loc. cit. Encyc. Metrop. Modern Traveller*, vol. xxix. p. 87.; *Malte Brun*, vol. v. p. 525. Eng. ed. *&c.*)

BREAD, the principal article in the food of most civilised nations, consists of a paste or dough formed of the flour or meal of different sorts of grain mixed with water, and baked. When stale dough or yeast is added to the fresh dough, to make it swell, it is said to be *leavened*; when nothing of this sort is added, it is said to *unleavened*.

1. *Historical Sketch of Bread.* — The President de Goguet has endeavoured, with his usual sagacity and learning, to trace the successive steps by which it is probable men were led to discover the art of making bread — (*Origin of Laws, &c.* vol. i. pp. *95—105.* Eng. trans.); but nothing positive is known on the subject. It is certain, however, from the statements in the sacred writings, that the use of unleavened bread was common in the days of Abraham — (*Gen.* xviii. 8.); and that leavened bread was used in the time of Moses, for he prohibits eating the Paschal lamb with such bread. — (*Exod.* xii. *15.*) The Greeks affirmed that Pan had instructed them in the art of making bread; but they, no doubt, were indebted for this art, as well as for their knowledge of agriculture, to the Egyptians and Phœnicians, who had early settled in their country. The method of grinding corn by hand mills was practised in Egypt and Greece from a very remote epoch; but for a lengthened period the Romans had no other method of making flour, than by beating roasted corn in mortars. The Macedonian war helped to make the Romans acquainted with the arts and refinements of Greece; and Pliny mentions, that public bakers were then, for the first time, established in Rome — (*Hist. Nat.* lib. xviii. c. 11.) The conquests of the Romans diffused, amongst many other useful discoveries, a knowledge of the art of preparing bread, as practised in Rome, through the whole south of Europe.

The use of yeast in the raising of bread seems, however, from a passage of Pliny (lib. xviii. c. 7.), to have been practised by the Germans and Gauls before it was practised by the Romans; the latter, like the Greeks, having leavened their bread by intermixing the fresh dough with that which had become stale. The Roman practice seems to have superseded that which was previously in use in France and Spain; for the art of raising bread by an admixture of yeast was not practised in France in modern times, till towards the end of the seventeenth century. It deserves to be mentioned, that though the bread made in this way was decidedly superior to that previously in use, it was declared, by the faculty of medicine in Paris, to be prejudicial to health; and the use of yeast was prohibited under the severest penalties! Luckily, however, the taste of the public concurring with the interest of the bakers, proved too powerful for these absurd regulations, which fell gradually into disuse; and yeast has long been, almost every where, used in preference to anything else in the manufacture of bread, to the wholesomeness and excellence of which it has not a little contributed.

The species of bread in common use in a country depends partly on the taste of the inhabitants, but more on the sort of grain suitable for its soil. But the superiority of wheat to all other farinaceous plants in the manufacture of bread is so very great, that wherever it is easily and successfully cultivated, wheaten bread is used, to the nearly total exclusion of most others. Where, however, the soil or climate is less favourable to its growth, rye, oats, &c. are used in its stead. A very great change for the better has, in this respect, taken place in Great Britain within the last century. It is mentioned by Harrison, in his description of England (p. *168.*), that in the reign of Henry VIII. the gentry had wheat sufficient for their own tables, but that their *household* and poor neighbours were usually obliged to content themselves with rye, barley, and oats. It appears from the household book of Sir Edward Coke, that, in *1596*, rye bread and oatmeal formed a considerable part of the diet of servants, even in great families, in the southern counties. Barley bread is stated in the grant of a monopoly by Charles I., in *1626*, to be the usual food of the ordinary sort of people. — (*Sir F. M. Eden on the Poor*, vol. i. p. *561.*) At the Revolution, the wheat produced in England and Wales was estimated by Mr. King and Dr. Davenant to amount to 1,750,000 quarters. — (*Davenant's Works*, vol. ii. p. 217.) Mr. Charles Smith, the very well informed author of the Tracts on the Corn Trade, originally published in 1758, states, that in his time wheat had become much more generally the food of the common people than it had been in *1689*; but he adds (2d ed. p. 182. Lond. 1766), that notwithstanding this increase, some very intelligent inquirers were of opinion that even then not more that *half* the people of England fed on wheat. Mr. Smith's own estimate, which is very carefully drawn up, is a little higher; for, taking the population of England and Wales, in 1760, at 6,000,000, he supposed that 3,750,000 were consumers of wheat; 739,000, of barley; 888,000, of rye; and 623,000, of oats. Mr. Smith further supposed that they individually con-

sumed, the first class, 1 quarter of wheat; the second, 1 quarter and 3 bushels of barley; the third, 1 quarter and 1 bushel of rye; and the fourth, 2 quarters and 7 bushels of oats.

About the middle of last century, hardly any wheat was used in the northern counties of England. In Cumberland, the principal families used only a small quantity about Christmas. The crust of the goose pie, with which almost every table in the county is then supplied, was, at the period referred to, almost uniformly made of barley meal. — (*Eden on the Poor*, vol. i. p. 564.)

Every one knows how inapplicable these statements are to the condition of the people of England at the present time. Wheaten bread is now universally made use of in towns and villages, and almost every where in the country. Barley is no longer used, except in the distilleries, and in brewing; oats are employed only in the feeding of horses; and the consumption of rye bread is comparatively inconsiderable. The produce of the wheat crops has been, at the very least, *quadrupled* since 1760. And if to this immense increase in the supply of wheat, we add the still more extraordinary increase in the supply of butcher's meat—(see art. CATTLE), the fact of a very signal improvement having taken place in the condition of the population, in respect of food, will be obvious.

But great as has been the improvement in the condition of the people of England since 1760, it is but trifling compared to the improvement that has taken place, since the same period, in the condition of the people of Scotland. At the middle of last century, Scotch agriculture was in the most depressed state; the tenants were destitute alike of capital and skill; green crops were almost wholly unknown; and the quantity of wheat that was raised was quite inconsiderable. A field of 8 acres sown with this grain, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity that it excited the attention of the whole neighbourhood! — (*Robertson's Rural Recollections*, p. 267.) But even so late as the American war, the wheat raised in the Lothians and Berwickshire did not exceed a third part of what is now grown in them; and taking the whole country at an average, it will be a moderate estimate, to say that the cultivation of wheat has increased in a *tenfold* proportion since 1780. At that period no wheaten bread was to be met with in the country places and villages of Scotland; *oat cakes and barley bannocks* being universally made use of. But at present the case is widely different. The upper and also the middle and lower classes in towns and villages use only wheaten bread, and even in farmhouses it is very extensively consumed. There is, at this moment, hardly a village to be met with, however limited its extent, that has not a public baker.

In many parts of England it is the custom for private families to bake their own bread. This is particularly the case in Kent, and in some parts of Lancashire. In 1804, there was not a single public baker in Manchester; and their number is still very limited.

2. *Regulations as to the Manufacture of Bread.* — Owing to the vast importance of bread, its manufacture has been subjected in most countries to various regulations, some of which have had a beneficial and others an injurious operation.

a. Assize of Bread. — From the year 1266, in the reign of Henry III., down to our own days, it has been customary to regulate the price at which bread should be sold according to the price of wheat or flour at the time. An interference of this sort was supposed to be necessary, to prevent that monopoly on the part of the bakers which it was feared might otherwise take place. But it is needless, perhaps, to say that this apprehension was of the most futile description. The trade of a baker is one that may be easily learned, and it requires no considerable capital to carry it on; so that were those engaged in the business in any particular town to attempt to force up prices to an artificial elevation, the combination would be immediately defeated by the competition of others; and even though this were not the case, the facility with which bread may be baked at home would of itself serve to nullify the efforts of any combination. But the assize regulations were not merely useless; they were in many respects exceedingly injurious: they rendered the price of flour a matter of comparative indifference to the baker; and they obliged the baker who used the finest flour, and made the best bread, to sell at the same rate as those who used inferior flour, and whose bread was decidedly of a worse quality. But these considerations, how obvious soever they may now appear, were for a long time entirely overlooked. According, however, as the use of wheaten bread was extended, it was found to be impracticable to set assizes in small towns and villages; and, notwithstanding the fewness of the bakers in such places gave them greater facilities for combining together, the price of bread was almost uniformly lower in them than in places where assizes were set. In consequence, partly of this circumstance, but still more of the increase of intelligence as to such matters, the practice of setting an assize was gradually relinquished in most places; and in 1815 it was expressly abolished, by an act of the legislature (55 Geo. 3. c. 99.), in London and its environs. In other places, though the power to set an assize still subsists, it is seldom acted upon, and has fallen into comparative disuse.

b. Regulations as to the Weight, and Ingredients to be used in making Bread. — According to the assize acts, a sack of flour weighing 280 lbs. is supposed capable of being baked into 80 quartern loaves; one fifth of the loaf being supposed to consist of water and salt, and four fifths of flour. But the number of loaves that may be made from a sack of flour depends entirely on its goodness. Good flour requires more water than bad flour, and old flour than new flour. Sometimes 82, 83, and even 86 loaves have been made from a sack of flour, and sometimes hardly 80.

Under the assize acts, bakers were restricted to bake only three kinds of bread, viz. wheaten, standard wheaten, and household; the first being made of the finest flour, the second of the whole flour mixed, and the third of the coarser flour. The loaves were divided into peck, half-peck, and quartern loaves; the legal weight of each, when baked, being, the peck loaf 17 lbs. 6 oz., the half peck, 8 lbs. 11 oz., and the quartern 4 lbs. 5½ oz. avoirdupois.

Now, however, it is enacted, that within the city of London, and in those places in the country where an assize is not set, it shall be lawful for the bakers to make and sell bread made of wheat, barley, rye, oats, buckwheat, Indian corn, peas, beans, rice, or potatoes, or any of them, along with common salt, pure water, eggs, milk, barm, leaven, potato, or other yeast, and *mixed in such proportions as they shall think fit*. — (3 *Geo.* 4. c. 106. § 2., and 1 & 2 *Geo.* 4. c. 50. § 2.)

It is also enacted by the same statutes, that bakers in London, and in the country, that is, in all places 10 miles from the Royal Exchange where an assize is not set, *may make and sell bread of such weight and size as they think fit*, any law or assize to the contrary notwithstanding. But it is at the same time enacted, that such bread shall always be sold by avoirdupois weight of 16 ounces to the pound, and in no other manner, under a penalty for every offence of not more than

40s., except, however, French or fancy bread, or rolls, which may be sold without previously weighing the same.

Bakers or sellers of bread are bound to have fixed, in some conspicuous part of their shop, a beam and scales, with proper weights for weighing bread; and a person purchasing bread may require it to be weighed in his presence. Bakers, and others sending out bread in carts, are to supply them with beams, scales, &c., and to weigh the bread if required, under a penalty of not more than 5l. — (3 Geo. 4. c. 106. § 8.)

Bakers, either journeymen or masters, using alum or any other unwholesome ingredient, and convicted on their own confession, or on the oath of one or more witnesses, to forfeit not exceeding 20l. and not less than 5l. if beyond the environs of London, and not exceeding 10l. nor less than 5l. if within London or its environs. Justices are allowed to publish the names of offenders. The adulteration of meal or flour is punishable by a like penalty. Loaves made of any other grain than wheat without the city and its liberties, or beyond 10 miles of the Royal Exchange, to be marked with a large Roman M.; and every person exposing such loaves without such mark shall forfeit not more than 40s. nor less than 10s. for every loaf so exposed.—(1 & 2 Geo. 4. c. 50. § 6.)

Any ingredient or mixture found within the house, mill, stall, shop, &c. of any miller, meslman, or baker, which, after due examination, shall be adjudged to have been placed there for the purpose of adulteration, shall be forfeited, and the person within whose premises it is found punished, if within the city of London and its environs, by a penalty not exceeding 10l. nor less than 40s. for the first offence, 5l. for the second offence, and 10l. for every subsequent offence. — (3 Geo. 4. c. 106. § 14.) And if without London and its environs, the party in whose house or premises ingredients for adulteration shall be found shall forfeit for every such offence not less than 5l. and not more than 20l. — (1 & 2 Geo. 4. c. 5. § 8.)

Bakers in London and its environs are not to sell, or expose to sale, any bread, rolls, or cakes, nor bake or deliver any meat, pudding, pie, tart, or victuals of any sort, on Sundays, except between the hours of *nine* in the morning and *one* in the afternoon, under penalty of 10s. for the first offence, 20s. for the second offence, and 40s. for every subsequent offence. — (3 Geo. 4. c. 106. § 15.)

Bakers in the country are prohibited from selling, &c., any bread, &c., or baking or delivering any meat, &c. on Sundays any time after half past 1 o'clock of the afternoon of that day, or during the time of divine service, under penalty of 5s. for the first offence, 10s. for the second, and 20s. for the third and every subsequent offence. — (59 Geo. 3. c. 36. § 12.)

There are several regulations in the acts now in force with respect to the sale, &c. of bread where an assize is set; but as the practice of setting an assize is nearly relinquished, it seems unnecessary to recapitulate them. The weight of the assize bread has already been mentioned, and the principle on which its price is fixed.

Notwithstanding the prohibition against the use of alum, it is believed to be very generally employed, particularly by the bakers of London. "In the metropolis," says Dr. Thomson (*Suppl. to Encyc. Brit.*, art. *Baking*), "where the goodness of bread is estimated entirely by its whiteness, it is usual with those bakers who employ flour of an inferior quality to add as much alum as common salt to the dough; or, in other words, the quantity of salt added is diminished a half, and the deficiency supplied by an equal weight of alum. This improves the look of the bread, rendering it much whiter and firmer."

There are believed to be about 2,000 master bakers in London, Westminster, &c. The trade which they carry on is in general but limited, and it is not reckoned a very advantageous line of business.

BREMEN, one of the free Hanseatic cities, on the Weser, about 50 miles from its mouth, lat. 53° 4¾′ N., long. 8° 48′ 3″ E. Population in 1855, 60,087. Its situation renders Bremen the principal emporium of Hanover, Brunswick, Hesse, and other countries traversed by the Weser.

Entrance to Bremen.—The entrance to the Weser lies between the Mellum and other sands on the south-western, and the Tegler Plaat, &c. on the north-eastern side. Its course from Bremerlehe to its mouth is nearly S.E. and N.W. It is buoyed throughout. The buoys on the right or starboard side when entering being black and marked with letters, white those on the left or larboard are white and numbered. The first or outer black buoy has a gilt key upon it, and is, therefore, called the *schlussel* or key buoy; it lies in 11½ fathoms, bearing N.E. 5 miles from *Wrangeroog* light. This is an intermitting light, having replaced, in 1850, the old coal-fire beacon on the island of *Wrangeroog*, opposite to the southern extremity of East Friesland. It is, according to the most authentic statements, in lat. 53° 47½′ N., long. 7° 51′ 55″ E.; is elevated 63½ feet above high water-mark, being alternately visible and invisible for the space of a minute. A light-vessel is moored in the fair-way of the Weser, between the black buoys E and F, and the white buoys 2 and 3. She has two masts; during day, a red flag, with a white cross upon it, is kept flying at the main-mast; and at night she exhibits 7 lantern lights, 28 feet above deck. This vessel is on no account to leave her station, unless compelled by the ice. A 2nd light-vessel has more recently been moored in the river. Large vessels do not now generally ascend further than Bremerlehe, on the east side of the river, about 38 miles below Bremen, where a new and spacious harbour, called "Bremer Haven," has been constructed. But vessels not drawing more than 7 feet water come up to the town; and those drawing from 15 to 14 feet may come up to *Vegesack*, about 13 miles from Bremen. The latter had in 1855 a pop. of 3,793, and Bremer Haven of 5,196. (See the *Sailing Directions for the North Sea*, published by Mr. Norrie.)

Besides her communications by water, Bremen is now, also, connected by railways with Hanover, Leipsic, and the whole of western and central Germany. And hence the rapidly increasing magnitude of her commerce, which has more than doubled within the last 8 or 10 years. Though inferior as a navigable river to the Elbe, the Weser has the important advantage on its side of being free from those tolls and burdens which obstruct the navigation of the former. The toll at Elsfleth, below Bremen, was suspended or abolished early in this century; and the tolls on the Upper Weser have been abolished since 1815. And we may be permitted to observe that the advantages which have resulted from the free navigation of the Weser, have powerfully contributed to awaken attention to the mischievous influence of the tolls at Stade and elsewhere on the Elbe.

The charges on the buying, selling, and shipping of goods at Bremen are very moderate. The principal German exports are woollen goods, linens, grain, oak bark, glass, smalts, hams, hides, rapeseed, beef and pork, rags, wool, wine, wooden toys and clocks, oil-cake, &c. The wheat and barley shipped here are mostly inferior; but the oats are useful common feed; beans are good. The linens are mostly the same as those from Hamburg. The imports consist of tobacco (of which large quantities are re-exported), coffee, sugar, and other colonial products; whale oil, iron, rice, hides, wines, raw cotton, cotton stuffs and yarn, earthenware, coal, brandy, tar, tea, dyewoods, timber, hemp, &c.

The oversea trade of Bremen with the U. States is of more importance than that with any other country. The U. States is the promised land of the emigrants, of which, after Liverpool, the greater number is shipped at this port. She also sends to the U. States a great variety of German products, and brings back large quantities of cotton, tobacco, rice, and other American produce. The annexed account shows the superior magnitude of the trade with the U. States. And it appears from the official accounts published by order of Congress, that in the year ended the 30th of June, 1858, the value of the exports of the domestic produce of the Union to Bremen was estimated at 8,617,457 dollars, and that of the imports into the Union from Bremen in the same year at 10,452,106 dollars. A regular intercourse, by means of steam packets, is now established between Bremen and New York.

Account of the Quantities of the Principal Articles imported, and mostly re-exported, at the Port of Bremen in each of the 6 Years ending with 1855.

Articles.		1850.	1851.	1852.	1853.	1854.	1855.
Ashes	pfund	2,202,950	1,597,254	2,092,515	792,452	1,242,303	1,702,192
Cotton, raw	,,	4,969,200	9,811,162	8,625,196	11,527,555	20,990,751	23,695,983
Coffee	,,	11,956,530	13,512,559	12,180,816	16,335,458	10,701,839	20,561,099
Rice	,,	5,752,130	13,097,999	22,664,459	11,890,772	16,606,641	39,841,491
Sugar, raw	,,	12,187,998	18,397,883	18,397,311	19,072,089	26,265,241	18,520,813
refined	,,	1,116,955	544,249	415,249	699,274	1,068,219	2,666,505
Tea	,,	118,650	200,057	324,379	263,993	318,670	281,674
Pepper	,,	607,960	189,047	757,296	416,116	320,529	716,144
Pimento	,,	466,000	86,427	531,591	708,551	850,917	772,510
Raisins	,,	908,190	1,260,569	1,024,759	766,249	633,747	738,137
Herrings	tonnen	5,187	6,266	5,020	7,319	6,309	8,326
Wine	oxhofts	27,302	24,523	24,292	32,696	21,350	10,716
	bottles	-	107,727	107,919	135,605	147,793	138,051
Tobacco, raw	pfund	38,118,670	33,079,313	59,764,145	46,856,295	55,898,016	35,912,392
stalks	,,	8,997,900	8,434,220	9,115,227	12,128,045	11,900,835	8,073,999
Dye woods	,,	12,990,361	13,611,526	2,651,083	6,620,260	11,176,440	14,933,895
Hides, salted	,,	909,299	593,486	1,027,744	406,017	691,658	696,867
dried	,,	1,724,035	2,120,441	1,877,768	729,265	1,662,655	1,190,814
Train oil	tonnen	22,230	27,533	13,592	14,592	15,042	19,542
Coals	lasts	1,608	1,953	1,943	4,932	6,455	6,182
Iron bars	pfund	6,737,740	7,924,703	8,404,092	9,979,765	7,478,712	5,221,617
Rye	lasts	-	10,900	11,141	11,535	11,573	9,484
Wheat	,,	-	3,565	4,705	4,132	5,427	4,234
Flour	pfund	-	5,095,976	5,914,532	4,481,929	5,330,769	6,943,410
Butter	,,	-	2,186,145	3,208,671	2,914,122	2,955,574	3,012,035
Rum	oxhofts	-	4,754	5,074	4,030	5,709	5,546
Indigo	pfund	-	178,726	235,626	239,589	221,555	237,165
Yarn, cotton and twist	,,	-	1,108,663	662,777	579,625	1,300,855	2,164,114
Linen	,,	-	77,158	76,068	35,172	135,181	165,759
Woollen	,,	-	105,135	117,102	99,576	75,769	113,220
Iron, cast and wrought	,,	-	3,018,190	9,082,159	12,513,319	8,153,770	4,089,068
Iron wares of various kinds	colli	-	6,345	6,015	7,658	7,963	8,628
Hard and fancy wares	,,	-	7,890	8,957	8,447	8,107	6,957
Glass mirrors	kisten	-	2,703	2,705	3,971	3,966	2,926

Bremen has long been, and continues to be, the most important *entrepôt* on the Continent for the sale of tobacco. In 1851 about 5,000 hands were engaged in the manufacture of cigars, of which the export was estimated at 235,000 boxes of 1,000 each. But an increase of the duty on cigars imported into the German Customs Union subsequently gave the trade a check, so that the hands employed in making cigars are not now supposed to exceed 1,000.

Account of the Values of the Imports and Exports at Bremen in 1857.

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
	Thalers.	*Thalers.*		*Thalers.*	*Thalers.*
Great Britain and Ireland	5,383,392	658,654	United States of America	18,205,688	15,510,946
France	229,697	145,347	Mexico	555,432	216,381
Belgium	107,346	174,322	Hayti	918,753	113,443
Holland	481,713	776,857	Venezuela	680,232	274,863
Sumatra, Java	978,782	33,185	New Granada	2,185,384	144,579
Denmark and colonies	7,456	709,803	Brazil	3,629,852	180,940
Prussia	6,411,315	9,585,629	Argentine Confederation	138,054	25,209
Austria	987,606	3,050,699	Chili, Uruguay	-	4,332
Other German States	22,606,338	25,283,752	Central America, Peru	116,011	59,462
Russia and Poland	1,547,490	1,901,049	Jamaica	471,749	28,329
Sweden and Norway	223,704	1,256,026	Other English colonies	4,801	60,920
Spain	171,563	29,899	British East Indies	3,059,863	6,762
Cuba	3,330,072	572,431	West and East Coasts of Africa	-	40,797
Porto-Rico	782,802	206,529	China and South Australia	200,110	93,329
Manilla, Canary Islands	109,125	58,916	Sandwich Islands	100,978	76,036
Italy	127,334	65,783	Fisheries	36,543	-
Portugal and colonies	22,105	28,686	Equipment of the Fleet	-	777,168
Switzerland	3,900	496,147			
Turkey in Europe	51,766	6,292	Total	74,004,780	62,609,472
Levant	85,124	800			

Arrivals and Departures of Shipping at Bremen in 1857.

Countries.	Arrivals.			Departures.		
	Ships.	Burden in Lasts.	Crews.	Ships.	Burden in Lasts.	Crews.
Europe	2,518	131,963	11,614	2,678	112,349	12,228
America	404	121,224	7,436	334	122,960	7,594
Asia	59	21,246	1,050	21	8,240	412
Africa	3	310	20	10	1,647	100
Australia	1	362	20	10	2,725	215
Total	2,985	275,105	20,140	3,053	277,921	20,479
Of which, loaded	2,422	245,936	17,671	2,317	189,380	14,146
In ballast	563	29,169	2,469	736	88,541	6,333

The mercantile marine in 1857 consisted of 279 ships of the agg. burden of 83,183½ lasts or 124,775 tons. Several ships are now built in building yards on the Weser.

The value of the imports of English goods in 1856 was estimated at 729,083*l.*, and in 1857 at 887,554*l.* The value of the exports to England is comparatively inconsiderable.

A Discount and Deposit Bank has been established with a capital of 20 millions thalers (400,000*l.*). It is empowered to issue notes of the value of 5 thalers and upwards, payable on demand, to the amount of 1-3rd part of the bullion in its coffers; and is said to have been of considerable use, by its judicious conduct, during the crisis of 1857. It has since been authorised to add 2½ millions thalers to its capital.

Duties.—An export duty of ½ per cent., *ad valorem*, is charged on all merchandise shipped from Bremen; and an import duty of ¾ per cent., *ad valorem*, on all foreign articles entered for sale.

Goods passing through Bremen *in transitu* are divided into *four* classes; those subjected to the highest duty paying about ½*d.* per cwt. gross, while those subjected to the lowest duty pay only about 1-6*d.* per ditto. Nothing can be objected

to this duty save its existence; but, as it can yield only a mere trifle, surely it had better be repealed.

The value of the *imports* is calculated according to the invoice price, adding thereto the freight and the rate of insurance current in Bremen; the value of the *exports* is estimated from the invoice price only. Should there be no invoice of imports, it is the duty of the importer to make a correct estimate of the value upon his oath as a citizen.

Emigration.—Bremen has become the most considerable port on the Continent for the shipment of emigrants. In proof of this we subjoin an

Account of the Numbers of the Emigrants sailed from Bremen during each of the 12 Years ending with 1857.

Years.	Emigrants.	Years.	Emigrants.
1846	*32,372*	1852	58,551
1847	*33,632*	1853	58,111
1848	*29,947*	1854	75,424
1849	*28,629*	1855	31,555
1850	*25,833*	1856	36,511
1851	*37,493*	1857	44,410

Nine-tenths and more of the emigrants are destined for the U. States, and are justly regarded as among the best of the recruits sent them from Europe.

Ship-brokers are licensed officers, and give security to the amount of 2,000 rix-dollars, for the faithful discharge of their duties. These are, to engage freights, to sell vessels by auction, to enter vessels, and collect freights. They are not permitted to have partners, to transact any commercial business on their own account, to accept commissions or consignments, to sell or purchase bills of exchange, or to engage in any mercantile concerns.

None but appointed brokers of this class can undertake any of the duties assigned to them. Any person employing a non-appointed broker, is deprived of legal redress against the unauthorised agent by whose conduct he may sustain injury.

Ship-brokers are obliged to keep a register of all vessels coming in or going out, of the names of the captains who employed them, to procure manifests of cargoes, and to attend to the payment of duties and other dues chargeable on vessel or cargo.

The fees allowed to them are, for chartering a vessel in bulk, 18 grotes per grain last; of this the owner pays 12 grotes, and the freighter 6 grotes.

For outward-bound vessels, taking merchandise as it may be offered, 2 per cent. on the freight.

For entering a vessel from sea measuring 50 lasts, 5 rix-dollars; measuring 100 ditto, 7½ rix dollars; and if she measure above 100 lasts, 10 rix-dollars.

Entry dues are to be paid by the consignees of foreign vessels out of the commission they may charge.

For the collection of freight money, the broker is entitled to receive 1 per cent., but the consignee of a *foreign* vessel is to pay this sum.

Regulations of the Harbour of Bremen Haven.—All vessels entering the harbour are subject to the superintendence of the harbour-masters, whose directions are to be obeyed by the captains and crews.

No ballast or rubbish is to be thrown overboard, under a penalty of 10 rix-dollars for the first offence, which is increased in case of repetition: the offender, too, is obliged to remove the articles he may have so cast into the harbour.

It is not permitted to keep gunpowder on board, and any which may be in the vessel must be delivered up within 2 hours after she has reached her berth: non-compliance with this subjects the party to a fine of from 10 to 50 rix-dollars; nor is it permitted to discharge any fire-arms in port.

The use of all fire on board, from sunset to sunrise, is prohibited; the captain, however, may have a light, in a closed lantern, in his cabin.

The crews are not allowed to carry on shore any fire-arms, dirks, or other weapons.

Pilotage and Light-house Dues, on Bremen ships and those having reciprocity treaties with Bremen, ¾ groschen per 300 lbs. cargo per voyage. Ships in ballast are exempted from this duty.

Money.—Accounts are kept in thalers, or rix-dollars, of 72 grotes or grotes; the grote being divided into 5 swares. The Bremen rix-dollar current is worth 3*s.* 2*d.* sterling; and the par of exchange is 1*l.* sterling=6 rix-dollars 22 grotes 4 swares.

Weights and Measures.—The commercial pound = 2 marks =16 ounces=32 loths=7,690 English grains. Hence, 100 lbs. of Bremen = 109·8 avoirdupois, or 49·825 kilog. A load of pfundschwer = 300 lbs., but carriers reckon it at 308 lbs. A centner = 116 lbs.; a shippound = 2½ centners, or 209 lbs.; a waage of iron = 120 lbs.; a stone of flax = 20 lbs.; a stone of wool = 10 lbs. A ton of butter great measure = 300 lbs.; and a ton of do. small measure = 220 lbs.

The dry measures are, 4 spints = 1 viertel; 4 viertels = 1 scheffel; 10 scheffels = 1 quart; 4 quarts = 1 last; the last = 80·70 bushels Winchester measure, or 10·087 quarters; that is, 10 quarters and 0·7 bushel. A barrel of salt = 3½ scheffels. A last of coals = 2 chaldrons Newcastle measure.

The liquid measures are, 8·8 quarts = 1 viertel; 5 viertels = 1 anker; 4 ankers = 1 tierce; 1½ tierce = oxhoft; the oxhoft = 58 English wine gallons. Wine is sometimes sold by the ahm of 4 ankers = 37½ Eng. wine gallons. A barrel of whale oil = 6 steckan, or 216 lbs. nett = 31½ Eng. wine gallons. A ship last of herrings, salt, and coals = 12 barrels.

The Bremen foot = 11·38 Eng. inches: hence, 100 Bremen feet = 94·8 Eng. ditto. The Bremen ell is 2 feet; and 100 ells of Bremen = 63·2 Eng. yards.

Tares.—The usual tares are, on sugar in casks and Brazil chests, 17 per cent.; on Havannah boxes, 70 lbs.; Maryland tobacco, 90 lb. per hogshead: ditto Virginia and Kentucky, 110 lbs. per hogshead; cotton, round bales, 4 per cent.; square ditto, 6 per cent.; tea (green), 20 lbs. per quarter chest; ditto (black), 22 lbs. per quarter chest. Most other articles, such as East India indigo, rice, coffee, spices, &c., real tare.—Drawn up from the communications of Bremen merchants and a valuable Consular Report by Mr. Pearkes.

BRIBE. Any person giving or offering a bribe, recompence, or reward, to any officer of the customs, to induce him to neglect his duty, to forfeit 200*l.* — (3 & 4 *Will.* 4. c. 53. § 38.)

BRICKS AND TILES well known articles used in the building and covering of houses. They are made of baked clay and sand.

Until 1833, an excise duty was charged both on bricks and tiles (the latter being then exempted from the duty), so that their manufacture was placed under surveillance. It was ordered by 17 Geo. 3. c. 42. that bricks made for sale should be 8¼ inches long, 2¼ inches thick, and 4 wide; on pain of forfeiting, for bricks of less dimensions when burnt, 20*s.* for every 1,000, and proportionally for a greater or less number. It was also provided, that the size of the sieves or screens for sifting or screening sea-coal ashes to be mixed with brick earth in making bricks, should not exceed ¼ of an inch between the meshes.

Bricks being the principal material used in London and in most parts of England in the building of houses, immense quantities are annually produced in that part of the United Kingdom. And notwithstanding the influence of the duty, their consumption in England nearly doubled during the 20 years ending with 1840; the number that paid duty in 1821 having been 899,178,510, whereas in 1840 it amounted to 1,677,811,134, and in 1847 to 2,193,829,491; but they subsequently fell off, the quantity brought to the charge in 1849, the last year of the duty, being only 1,469,767,154. In Scotland, where stone is mostly employed in building, their manufacture is comparatively unimportant. The duty, which produced, in 1849, a nett revenue (inc. Scotland) of 436,452*l.*, had long been felt to be excessively partial, seriously affecting some parts of the country, while it did not touch others. Its defects were set in a still more striking light by the rapidly extending use of tiles, after they had been relieved from the duty, in drainage and otherwise. Influenced by these and other considerations, government proposed and carried the repeal of the duty on bricks in 1850. Perhaps, however, the better plan would have been to have commuted it for an equivalent house-tax.

BRIMSTONE. See SULPHUR.

BRISTLES (Fr. *Soies*; Ger. *Borsten*; Du. *Borstels*; It. *Setole*; Sp. *Cerdas, Setas*; Pol. *Szezeciny*; Rus. *Schtschetina*; Lat. *Setæ*), the strong glossy hairs growing on the back of the hog and the wild boar.

These are very extensively used by brushmakers, shoemakers, saddlers, &c., and form a considerable article of import. Russia is the great mart for bristles; those of the Ukraine being held in the highest estimation. Of the total quantity imported in 1849, amounting to 2,504,676 lbs., Russia furnished 2,141,505 lbs., Prussia (Königsberg) 39,466 lbs., and Germany 224,959 do. At an average of the 3 years ending with 1842, the entries for home consumption amounted to 1,772,196 lbs. a year. The duty, which varied from 2*s.* 6*d.* on rough to 3*s.* per cwt. on sorted bristles, was repealed in 1845.

BROKERS, persons employed as middlemen to transact business or negotiate bargains between different merchants or individuals. They are sometimes licensed by public authority, and sometimes not.

Brokers are divided into different classes; as bill or exchange brokers, stockbrokers, ship and insurance brokers, pawnbrokers, and brokers simply so called, or those who sell or appraise household furniture distrained for rent. Exclusive, too, of the classes now mentioned, the brokers who negotiate sales of produce between different merchants usually confine themselves to some one department or line of business; and by attending to it exclusively, they acquire a more intimate knowledge of its various details, and of the credit of those engaged in it, than could be looked for on the part of a general merchant; and are consequently able, for the most part, to buy on cheaper and to sell on dearer terms than those less familiar with the business. It is to these circumstances—to a sense of the advantages to be derived from using their intervention in the transaction of business—that the extensive employment of brokers in London and all other large commercial cities is wholly to be ascribed.

The number of brokers in London is unlimited; but by the statute 8 & 9 Will. 3. c. 20. they are to be licensed by the lord mayor and aldermen, under such restrictions and limitations as they may think fit to enact. By the 57 Geo. 3. c. 60., brokers acting without being duly admitted are made liable in a penalty of 100*l.* The fee on admission is fixed by the same act at 5*l.*; and there is, besides, an annual payment also of 5*l.*

The following are some of the regulations established by the mayor and aldermen pursuant to the act of Will. 3.:—That every person shall, upon his admission, take an oath duly and faithfully to execute and perform the office of broker between party and party, in all things pertaining to the duty of the said office, without fraud or collusion, to the best and utmost of his skill and knowledge; that he shall in all cases reveal the name of his principal; and neither deal in goods on his own account, nor barter and sell again, nor make any gain in goods beyond the usual brokerage; and that he shall regularly register all the contracts, &c. into which he enters.

Brokers grant a bond under a penalty of 500*l.* for the faithful performance of the duties sworn to in the oath of admission.

A medal is delivered to the broker, with his name engraved thereon, which he may produce, if required, as evidence of his qualification.

Twelve persons professing the Jewish religion are permitted to act as brokers within the city, under the same regulations, and receive the silver medal accordingly. This medal is transferable, and is sold generally at from 800*l.* to 1,500*l.*, exclusive of the expense of transfer, which is uncertain. Upon the decease of any of the holders of the medal without its having been transferred, the appointment falls to the lord mayor for the time being; and for it the sum of 1,500*l.* has not unfrequently been given.—(*Montefiore's Com. Dict.* art. *Brokers.*)

If goods in the city of London be sold by a broker, to be paid for by a bill of exchange, the vendor has a right, *within a reasonable time*, if he be not satisfied with the sufficiency of the purchaser, to annul the contract, provided he intimate his dissent as soon as he has an opportunity of inquiring into the solvency of the purchaser. In a case of this sort (*Hodgson* v. *Davies*, 2 Camp. N. P. C. 536.), Lord Ellenborough was, at first, rather inclined to think that the contract concluded by a broker must be absolute, unless his authority were limited by writing, of which the purchaser had notice. But the special jury said, that "unless the name of the purchaser has been previously communicated to the seller, if the payment is to be by bill, the seller is always understood to reserve to himself the power of disapproving of the sufficiency of the purchaser, and annulling the contract." Lord Ellenborough allowed that this usage was reasonable and valid. But he clearly thought that the rejection must be intimated as soon as the seller has had time to inquire into the solvency of the purchaser. The jury found, in the case in question, that *five* days was not too long a period for making the necessary inquiries.

Brokers, Bill,—propose and conclude bargains between merchants and others in matters of bills and exchange. They make it their business to know the state of the exchange, and the circumstances likely to elevate or depress it. They sell bills for those *drawing* on foreign countries, and buy bills for those *remitting* to them; and from their knowledge of the mutual wants of the one class as compared with those of the other, a few of the principal brokers are able to fix the rate of exchange at a fair average, which it would not be possible to do if the merchants directly transacted with each other. Their charge, as brokerage, is 2*s.* per cent.

"Those," says Mr. Windham Beawes, "who exercise the function of bill brokers, ought to be men of honour and capable of their business; and the more so, as both the credit and fortune of those who employ them may, in some measure, be said to be in their hands; and, therefore, they should avoid babbling, and be prudent in their office, which consists in one sole point, that is, *to hear all and say nothing*; so that they ought never to speak of the negotiations transacted by means of their intervention, or refate any ill report which they may have heard against a drawer, nor offer his bills to those who have spread it."

Brokers, Stock,—are employed to buy and sell stock in the public funds, or in the funds of joint stock companies. Their business is regulated by certain acts of parliament, by which, among other things, it is enacted, that contracts in the nature of wagers, or contracts apparently framed for the sale or purchase of stock, but really intended only to enable the parties to speculate on contingent fluctuations of the market, without any stock being actually sold, shall be void, and those engaging in them subjected to a penalty of 500*l.*—(7 Geo. 2. c. 8. made perpetual by 10 Geo. 2. c. 8.) And by the same act, any one contracting to sell stock of which he is not actually possessed, or to which he is not entitled, forfeits 500*l.* Brokers not keeping a book in which all contracts are regularly inserted, are liable in a penalty of 50*l.* for each omission; half to the king, and half to those who sue for it. The charge for brokerage on all public funds, except Exchequer bills and India bonds, is 2*s.* 6*d.* per cent.; on these, it is 1*s.* per cent. No transaction with respect to the purchase and sale of stock in the public funds can be concluded except by the intervention of a licensed broker, unless by the parties themselves.

Brokers, Ship and Insurance.—The chief employment of this class of brokers is in the buying and selling of ships, in procuring cargoes on freight, and adjusting the terms of charter-parties, settling with the master for his salary and disbursements, &c. Their charge as ship brokers is about 2 per cent. on the gross receipts. When they act as insurance brokers, they charge 5 per cent. on the premium, exclusive of a discount allowed them on settling with the underwriter. The merchant looks to the broker for the regularity of the contract, and a proper selection of underwriters. To him also the underwriters look for a fair and candid disclosure of all material circumstances affecting the risk, and for payment of their premiums. From the importance of their employment, ship and insurance brokers ought to be, and indeed generally are, persons of respectability and honour, in whom full confidence may be reposed. A ship broker is not within the various acts for the regulation and admission of brokers.—(*Gibbons* v *Rule*, C. P. 27th of June, 1827.)

Brokers, Custom-house.—It is enacted by the Customs Consolidation act of 1853 §§ 15—17, that no person shall be authorised to act as an agent for transacting business at the Custom-house in the port of London, relative to the entrance or clearance of any ship, &c., unless authorised by licence of the Commissioners of Customs, who are to require bond with one surety for 1,000*l.*, for the faithful conduct of such person and his clerks. This regulation does not, however, apply to the clerk or servant of any person or persons transacting business at the Custom-house on his or their account.

Brokers, Pawn. See PAWNBROKERS.

Brokers, simply so called, in their character of appraisers and sellers of goods, distrained for rent, are regulated by 57 Geo. 3. c. 93., which enacts, that no *such person* making any distress for rent, where the sum due does not exceed 20*l.* shall take more than the following sums: viz.

	£. s. d.
For levying	0 3 0
For men keeping possession, per day	0 2 0
Advertisements, if any	0 10 0
Catalogues, sale, commission, &c. in the pound on the nett produce	0 1 0
Stamp duty, lawful amount.	

Appraisements, whether by one broker or more, 6*d.* per pound on the value of the goods, under a penalty of treble the amount of the money unlawfully taken, with costs, to be recovered summarily before a justice of the peace.

In France, the brokers who deal in money, exchange, merchandise, insurance, and stock, are called *agents de change*, and their number, at Paris, is limited to *sixty*. The company of *agents de change* is directed by a chamber of syndics (*chambre syndicale*) chosen annually by the company. They are severally obliged to give bonds to the amount of 125,000 fr. for the prevention of abuses. They are also obliged to keep books; are restricted to a charge of from ¼ to ½ per cent.; and are interdicted from carrying on, or having any interest in, any commercial or banking operations.—(See *Code de Commerce*, § 74, &c.; and art. BORDEAUX in this Dictionary.)

In the United States, brokers are not licensed, nor do they give bonds.

BROKERAGE, the commission, or percentage, paid to brokers on the sale or purchase of bills, funds, goods, &c.—(See FACTORAGE.)

BRONZE (Ger. *Stückgut, Stükmetall*; Du. *Stückgoed*; It. *Bronzo*; Sp. *Metal de Canones*; Lat. *Metallum tormentorum*), "a mixed metal, consisting chiefly of copper, with a small proportion of tin, and sometimes other metals. It is used for casting statues, cannon, bells, and other articles, in all of which the proportions of the ingredients vary."—(*Ure.*)

BROOMS (Ger. *Besen*; Fr. *Balais*; It. *Scope, Granate*; Sp. *Escobas*; Rus. *Metlii*) are principally made of birch or heath. Vast quantities are manufactured in Southwark, for the supply of the London market.

BRUSHES (Ger. *Bürsten*; Fr. *Brosses*; It. *Setole, Spazzole*; Sp. *Brozas, Cepillos, Escobillas*; Rus. *Schtschetki*), well-known implements, made of bristles, and manufactured of various forms.

BUBBLES, a familiar name applied generally to fraudulent or unsubstantial commercial projects, which hold out hopes of rapid gain, for the purpose of enriching the projectors at the expense of sanguine and ignorant adventurers; and particularly used to designate those projects, the funds for which are raised by the sale of shares or subscription to a transferable stock.

In consequence of the mischief produced by the gambling in transferable shares of bubble companies at the time of the South Sea project, 1719 and 1720, the stat. 6 Geo. 1. c. 18., reciting that several undertakings or projects had been contrived and practised, which "manifestly tended to the common grievance, prejudice, and inconvenience of great numbers of his Majesty's subjects in their trade and commerce," and describing, among other practices of the time, the ordinary mode of raising money by shares and subscriptions to a pretended transferable stock, enacted, that the undertakings and attempts so described, and public subscriptions, assignments, and transfers for furthering them, and particularly the raising or pretending to raise transferable stocks without authority of charter or act of parliament, should be deemed illegal and void, and prohibited them under severe penalties. Some decisions limited the operation of, and finally the stat. 6 Geo. 4. c. 91. altogether repealed, these enactments and prohibitions. The projectors of bubbles, therefore, are now punishable only when they can be deemed guilty of frauds or conspiracies at common law; and there is no other check on the adventurers than the loss and troublesome liabilities under the law of partnership, in which participation in these projects often involves them.

BUCKWHEAT (Fr. *Blé Sarrasin, Blé noir*; Ger. *Buchweizen, Heidekorn*; It. *Grano Saraceno, Faggina, Fraina*; Sp. *Trigo Saraceno, Trigo negro*; Pol. *Tatarca, Gryka, Pohanca*; Rus. *Gretscha*; Lat. *Fagopyrum*) is principally cultivated, in order that it may be cut when young and green, and employed as fodder for cattle; when allowed to ripen, the grain is usually employed to feed pigeons and poultry.

When ripe it is of a deep yellow colour, the seeds bearing a great resemblance to beech-mast: it will grow on the poorest soils. Buckwheat has been cultivated in this country from the latter part of the sixteenth century. Its native country is unknown, but supposed to be Asia. Beckmann has a very learned dissertation on its introduction and early culture in Europe. — (See *Hist. of Invent.* vol. i. art. *Buckwheat.*) The imports of buckwheat are comparatively inconsiderable. The duty on it and on buckwheat meal is the same as on other sorts of corn or meal. — (See CORN LAWS.)

BUENOS AYRES, *a city of South America*, on the south side of the La Plata, about 200 miles from its junction with the sea, lat. 34° 36′ 29″ S., long. 58° 23′ 34″ W. Population very differently estimated; but said by Sir W. Parish to amount, in 1852, to about 120,000, of whom from 20,000 to 30,000 are foreigners, principally English and French.

The Plata is one of the largest rivers of the world, traversing a vast extent of country, of which it is the great outlet. Unluckily, however, its estuary, though broad, is in most parts shallow, being, also, encumbered with sand banks, and infested with sudden gusts of wind called *pamperos*. Its navigation is consequently attended with a good deal of difficulty, and ships bound for Buenos Ayres generally take pilots on board. There is no harbour, and vessels drawing 16 or 17 ft. water, anchor in the outer roads, called the *Amarradero*, 7 or 8 miles from shore, loading and unloading by means of lighters. This, too, is an operation by no means free from danger, boats being sometimes swamped in crossing the bar between the outer and inner roads. From the want of a pier, and the shallowness of the water on the beach, even the boats are not able to come close to the shore, but are met at a little distance from it by a rude sort of ox-carts, into which they deposit their goods, at no little risk, and sometimes much loss. These unfavourable circumstances, which might, however, be materially improved by a little exertion and outlay on the part of the government, operate as a heavy drawback on the trade of the city, and tend proportionally to augment that of Montevideo, which is more easily accessible. But notwithstanding the competition of the latter, Buenos Ayres is still the principal outlet for the produce of the vast countries traversed by the La Plata, and especially for the provinces situated on its right bank.

Previously to 1828 no wool was exported from B. Ayres. But in that year merino and Saxon sheep were introduced; and notwithstanding the constant recurrence of disturbances, they have succeeded remarkably well, as is obvious from the following

Account of the Exports of Wool from Buenos Ayres during the 6 Years ending with 1858.

Years.	England.	France.	U. States.	Italy.	Belg. & Holl.	Sundries.	Total.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
1853	4,396,550	2,236,980	5,013,290	972,262	1,529,523	26,673	14,175,278
1854	1,968,500	2,592,000	5,668,000	94,000	1,527,678	46,322	11,696,500
1855	2,534,000	5,923,500	2,739,000	1,245,500	3,660,000	142,000	14,244,000
1856	2,173,200	4,657,200	4,837,200	405,200	7,417,200	32,400	19,520,400
1857	3,551,000	3,057,000	3,179,100	836,400	8,420,400	54,800	19,062,000
1858	3,768,000	6,552,600	5,311,400	466,200	6,720,000	5,400	20,855,600

Corn, which for a considerable period was not produced in sufficient quantity for home consumption, has latterly become an occasional article of export. Most part of the jerked beef, and numbers of mules, are exported to the Havannah and Brazil. Hides, tallow, skins, bones, and horns, especially the first, are leading articles of export. Sir W. Parish estimated the total amount of the imports into the La Plata at about 2,110,000*l.*, of which about a half may be for B. Ayres; but the trade is now much greater. The value of our exports to the latter, in 1857, amounted to 1,287,006*l.*, cottons being by much the most important article, and next to it woollens, iron, &c. (see *post.*) France supplies silks, wines (of which the imports have largely increased), jewellery, perfumery, &c. The imports from the United States consist chiefly of unbleached cloths, spirits, soap, sperm candles, dried and salted provisions, tobacco, furniture, and deals. Germany sends woollen and linen cloths, and Rhenish cottons; the Netherlands, fire-arms, swords, &c.; Holland, butter, cheese, Westphalia hams, &c. The Baltic furnishes iron, cordage, canvas, pitch, deals, &c. The Mediterranean trade is principally in Sicilian and Spanish produce, particularly cheap wines, brandies, olive oil, maccaroni, dried fruits, and pepper. Spanish goods are in little demand, though some serges, handkerchiefs, and ribbands, sewing silk, and salt, are imported. The annual importation of Spanish and Sicilian wines is from 10,000 to 12,000 pipes, besides about 1,000 pipes of brandy. The *yerba maté*, or Paraguay tea, formerly an import article of some consequence, has been nearly superseded, even in Buenos Ayres, by genuine tea. The trade with Chili and Peru is insignificant. The markets are well supplied with butcher's meat and fish. Poultry, vegetables, and fruit, are

generally dear. All the butter used is imported. (We have derived these details principally from the excellent work of Sir Woodbine Parish on Buenos Ayres, 2nd ed. pp. 349—369.)

Account of the Quantities and Values of the Principal Articles imported into the U. K. from Buenos Ayres during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Bones of animals and fish (except whalefins) - - - tons	8,395	8,091	9,936	10,414	£44,074	£50,973	£50,922	£64,567
Grease - - - cwts.	55,086	20,567	26,502	40,195	134,272	41,134	49,691	75,366
Hair, horse - - - ,,	14,381	7,776	6,867	8,791	75,822	48,989	42,661	49,250
Hides, not tanned - - ,,	175,963	142,445	115,614	160,659	433,566	399,196	434,546	665,517
Skins and furs, undressed: viz.,								
lamb - - - no.	72,012	113,261	104,917	168,404	3,601	5,018	3,934	4,210
nutrea - - - ,,	163,654	205,481	150,243	314,928	6,137	10,274	7,512	17,387
sheep - - - ,,	330,822	140,115	243,893	497,110	15,852	7,298	28,454	55,407
Tallow - - - cwts	131,929	93,352	81,665	82,438	415,577	242,715	202,120	227,796
Tobacco, unmanufactured - lbs.	335,569	3,097,493	984,709	4,432,117	10,487	90,345	25,613	169,257
Wool, sheep and lambs' - ,,	2,710,270	3,366,894	2,192,086	3,418,229	107,281	137,822	114,171	219,573
Total value of the above and of all other articles - -	- -	- -	- -	- -	1,285,186	1,052,033	981,193	1,573,558

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported from the U. K. to Buenos Ayres in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Apparel, slops, and haberdashery value	- -	- -	- -	- -	£55,711	£26,090	£32,665	£54,807
Beer and ale - - - barls.	4,101	1,945	1,705	3,678	15,854	8,459	7,074	14,675
Coals, cinders, and culm - tons	8,059	5,259	6,491	15,891	5,562	3,385	4,145	9,165
Copper, wrought and unwrought - cwts.	461	132	595	439	3,070	822	3,621	2,567
Cottons: entered by the yard - yards	35,707,368	16,700,598	27,547,401	33,476,929	509,958	227,115	384,984	533,059
at value - value	- -	- -	- -	- -	36,866	30,510	28,033	35,672
Earthenware and porcelain - ,,	- -	- -	- -	- -	23,418	9,322	11,109	12,589
Glass manufactures - - ,,	- -	- -	- -	- -	10,262	4,495	6,465	7,751
Gunpowder - - - lbs.	59,600	58,125	171,111	118,950	2,559	1,583	5,150	4,775
Hardwares and cutlery - - cwts.	24,053	24,502	22,591	23,199	86,342	72,013	70,408	71,066
Iron, wrought and unwrought - tons	3,865	4,852	7,395	7,048	50,362	53,666	82,902	79,088
Leather: wrought and unwrought lbs.	29,092	25,152	17,272	20,111	5,492	4,435	3,186	4,150
saddlery and harness - value	- -	- -	- -	- -	11,173	6,855	6,138	6,786
Linens, entered by the yard - yards	845,723	651,944	1,833,241	1,051,015	31,901	18,821	49,656	34,064
Oil, linseed - - - galls.	29,761	10,624	10,578	34,812	4,149	1,980	1,666	6,446
Painters' colours, &c. - - value	- -	- -	- -	- -	8,857	5,230	8,687	6,631
Silk manufactures - - ,,	- -	- -	- -	- -	20,171	10,682	21,513	25,705
Spelter, wrought and unwrought cwts.	3,028	1,658	2,019	1,996	4,488	2,517	3,076	3,589
Stationery - - - value	- -	- -	- -	- -	1,754	2,586	3,373	4,029
Tin plates - - - ,,	- -	- -	- -	- -	6,273	3,808	5,200	8,477
Woollens: entered by the piece - pieces	65,526	36,172	35,399	53,438	218,880	128,284	116,818	159,668
by the yard - yards	1,426,247	616,409	799,282	1,636,588	92,094	36,937	46,702	82,158
at value - value	- -	- -	- -	- -	10,283	13,318	17,498	21,458
Total value of the above and of all other articles - -	- -	- -	- -	- -	1,267,125	742,442	998,529	1,287,006

Pilotage.—Vessels drawing 10 ft. *Burgos*, pay 40 Sp. dolls.; 11 ft. $50; 12, $60; 13, $70; 14, $90; 15, $110; 16, $130; 17, $150; 18, $180; 19, $210; 20, $240; and 21 ft. 260 Sp. dollars. N.B. 100 ft. English=109 ft. Burgos; 100 ft. French =115 ft. Burgos; 100 ft. Norwegian=112 ft. Burgos; and 100 ft. Swedish=106 ft. Burgos. Un palmo (a palm)=$9\frac{2}{5}$ Spanish inches.

All vessels, excepting packets, if requiring a pilot to enter the inner roads, pay 200 dolls. currency. When leaving, whether taking a pilot or not, they are bound to pay the fee, 200 dolls. currency. Any vessel that may enter the inner roads without a pilot, and wishing to be moored or to change anchorage, must pay 100 dollars.

Port Charges.—The Argentine government has notified that—

1. From the 1st of January, 1847, national vessels sailing for ports beyond sea shall pay 3 dollars per ton.

2. Foreign vessels shall pay 4 dollars per ton, except those which, in virtue of existing treaties, are assimilated to national vessels.

3. Foreign vessels shall pay, for the visit of the health officer, 25 dollars, and the same amount for the bill of health.

4. Foreign vessels belonging to nations having no consul, and whose roll is made out by the captain of the 40 dollars for it.

5. The duties fixed by the preceding articles shall be paid one half on the entrance of the vessel, and the other half on her departure.

6. National and foreign vessels, which do not leave nor receive cargoes, shall pay one-half of the duties here established.

7. Let this decree be communicated, and published in the official register.

BUFF (Ger. *Büffel, Büffelhäute*; Fr. *Buffle, Peau de buffles, et Peaux passées en buffles*; It. *Bufalo, Cuojo di bufalo*), a sort of leather prepared from the skin of the buffalo, dressed with oil, after the manner of chamois. The skin of elks, oxen, and other like animals, when prepared after the same manner as that of the buffalo, is likewise called *buff*. It is used in making sword-belts and other articles, where great thickness and firmness are required.

BUGLES, small glass beads of different colours. They are in considerable demand in Africa, to which they are mostly exported.

BULLION, uncoined gold and silver in the mass. See Gold and Silver.

BUOYS, pieces of wood, cork, or hollow metallic substance, moored and floating on the water. Those of wood are sometimes solid, and sometimes hollow, like a cask, and strongly hooped; they are made of various shapes and sizes; and are either private or public.

Private Buoys are so called from their belonging to private individuals. They are principally employed to mark the place of the ship's anchor, being fastened to it by a rope or chain, so that the men who go in the boat to weigh it may readily find out where it is.

By the 1 & 2 Geo. 4. c. 75. § 11. it is enacted, that if any person or persons shall wilfully cut away, cast adrift, remove, alter, deface, sink, or destroy, or in any way injure or conceal, any buoy, buoy-rope, or mark, belonging to any ship or vessel, or which may be attached to any anchor or cable belonging to any ship or vessel, whether in distress or otherwise, such person or persons so offending shall upon conviction be adjudged guilty of felony, and shall be liable to be transported for any term not exceeding 7 years, or to be imprisoned for any number of years, at the discretion of the court.

Public Buoys, being intended for the public service, cannot be placed, altered, or removed, except by competent authority. They are generally of a pretty large size; and are firmly moored by chains or cables to rocks, large stones, anchors, &c. By floating on the surface of the water, they serve at once to mark the channels through which it is safe to steer, and to point out dangers to be avoided, such as sunken rocks, shoals, wrecks of vessels, &c. The places in, and the purposes for, which buoys are exhibited, are always

specified in good charts: and as the leading buoys are generally of a peculiar figure or colour, which is also indicated in the chart, the navigator, as soon as he recognises them, shapes his course accordingly. Hence the great importance of having buoys properly placed, and of their being carefully marked in charts.

The 6 Geo. 4. c. 125. § 91. enacts, that every person who shall ride by, make fast to, remove, or wilfully run down or run foul of any vessel placed to exhibit lights, or any buoy or beacon belonging to the corporation of the Trinity House of Deptford Strond, or to any other corporation having authority to place such vessel, buoy, or beacon, shall, besides making good all damage occasioned thereby, forfeit for every such offence, any sum not exceeding 50*l.* nor less than 10*l.* Subjoined is an

Account specifying the Buoys and Beacons under the Control of the Trinity House, Deptford Strond, with the Rates of Charges on account of the same on British and Foreign Ships, and the Produce of the Rates, in each of the Three Years ending with 1852. — (Furnished by Mr. Herbert, Secretary to the Trinity House.)

	Rates of Charges.			Amount collected.		
	Coasters.	British and Foreign privileged Vessels Oversea, per Ton.	Foreign Vessels not privileged Oversea, per Ton.	1850.	1851.	1852.
				£ s. d.	£ s. d.	£ s. d.
For the buoys and beacons in the channels leading to the river Thames and port of London, including loadsmanage and primage, also including the dues formerly returned under the head of Trinity House duties from strangers' ships.	In the port of London the following rates are payable for the inward passage only: viz. — The rates vary from ½ penny to 1 farthing per ton, according to the description of the vessels' cargoes, and the places from whence they arrive.	1 penny	2 pence	13,362 16 11½	14,424 19 0½	14,442 10 11½
Sheerness	¼d. per ton	½ penny	1 penny.			
	The London rates of duty are also received at Gravesend, Rochester, Faversham, Leigh, Maldon, Colchester, Ipswich, Woodbridge, Harwich, and Aldborough, at which they are payable for the inward passage only. The rate on foreign vessels not privileged is 2 pence per ton.					
Buoys off Yarmouth	½ farthing per ton	½ farthing	½ farthing.	3,226 13 1	3,184 9 9½	3,333 6 1½
Buoys and Beacons in the river Tees: —						
Coasters, British and foreign, privileged	4d. per vessel under 40 tons. 6d. — on all others.			998 4 0	959 19 8	1,009 4 6
Foreign vessels, not privileged	1s. per vessel.					
Exeter buoys: —						
Coasters (not stone boats)	¼d. per ton per voyage.			148 18 11	144 6 9	145 8 6
Stone boats	2s. per vessel per annum.					
British and foreign, privileged	¼d. per ton per voyage.					
Foreign, not privileged	1d. —					
Conway buoys	3 farthings per ton, each and every time of passing.			22 9 7½	24 2 9½	28 16 7½
Carmarthen buoys	3 farthings per ton, each time of passing.			147 16 4½	152 11 6	138 10 7
Aberdovey buoys	½ halfpenny per ton.	½ penny	½ penny	30 15 9	26 4 0	26 19 2
Woodbridge beacon, &c.: —						
On all vessels entering the port of Woodbridge						
Under 50 tons	1s. per vessel.			39 12 0	31 19 0	30 16 0
50 and under 100 tons	2s. —					
100 tons and upwards	3s. —					
			Total £	17,997 6 8	18,948 12 7	19,153 12 5½

BURDEN of a ship. See TONNAGE.

BURGUNDY. See WINE.

BURGUNDY PITCH, a resin, the produce of the *Pinus Abies*, or spruce fir. It is obtained by making incisions in the bark down to the wood, whence it flows thickly and languidly, immediately concreting into flakes that adhere firmly to the tree. These being taken off are melted in boiling water, and strained through coarse cloths. It is of a close consistence, rather soft, has a reddish brown colour, and a not unpleasant smell; it is very adhesive. The greatest quantity is collected in the neighbourhood of Neufchatel, whence it is brought to us packed in casks. A fictitious sort is made in England, and found in the shops under the title of *common* Burgundy pitch; it may be distinguished by its friability, want of viscidity and of the odour which characterises the genuine sort.

A species of Burgundy pitch exudes spontaneously from the Norway spruce fir. This, which undergoes no preparation, is the *resin* or *thus* of the old London Pharmacopœias. It is imported in the form of tears or small masses, packed in casks, each containing from 1 to 2 cwt. It fetches about half the price as that which is strained.—(*Gray's Supplement to the Pharmacopœias, Thomson's Dispensatory.*)

BUSHEL, a measure of capacity for dry goods, as grain, fruit, dry pulse, &c., containing 4 pecks, or 8 gallons, or ¼ of a quarter.

The Winchester bushel contains 2150·42 cubic inches, while the Imperial bushel contains 2218·192. Hence, to convert Winchester bushels into Imperial, multiply by the fraction $\frac{2150{\cdot}42}{2218{\cdot}192}$ or ·969447, or approximately deduct $\frac{1}{30}$th, and $\frac{1}{200}$th; and if great accuracy be required, $\frac{1}{1000}$, and $\frac{1}{2000}$ more. To convert prices per Winchester bushel into prices per Imperial bushel, multiply by the fraction $\frac{2218{\cdot}192}{2150{\cdot}42}$, or 1·03151 57.

By the *5* Geo. 4. c. 74. § 7. the bushel shall be the standard measure of capacity for *coals, culm, lime, fish, potatoes*, or *fruit*, and all other goods and things commonly sold by heaped measure. The bushel shall contain 80 lbs. avoirdupois of distilled water, being made round, with a plain and even bottom, and being 19½ inches from outside to outside. Sections 7. and 8. direct the mode in which the bushel shall be used for heaped measure. — (See WEIGHTS AND MEASURES.)

The standard measure of capacity, by this act, as well for liquids as for dry goods not measured by heaped measure, shall be the *gallon*, containing 10 lbs. avoirdupois weight of distilled water weighed in air at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and such measure shall be the Imperial standard gallon (containing 277·274 cubic inches); and all measures shall be taken in parts or multiples, or certain proportions, of the said Imperial standard gallon; and the quart shall be the fourth part, and the pint shall be an eighth of such standard gallon; and 2 such gallons shall be a peck, and 8 such gallons shall be a bushel, and 8 such bushels a quarter of corn or other dry goods not measured by heaped measure.

BUSHIRE, OR ABUSHIRE, a sea-port town of Persia, in the province of Fars, on the north-east coast of the Persian Gulph, lat. 29° N., long. 50° 50′ E. Population uncertain, but estimated by Major Wilson at from 15,000 to 20,000. Bushire is situated at the northern extremity of a sandy peninsula, to the north and east of which is the bay. There is a convenient anchorage for large ships due west from the town, 3 or 4 miles distant, in from 25 to 28 feet water; but ships of 300 tons burden or thereby lie in the inner roads, to the north, about 6 miles from shore; the anchorage is pretty good; but during violent north-westerly gales, they are sometimes obliged to cut their cables, and bear up for Karak, a small island about 15 leagues W. N. W. of Bushire. The water immediately to the east of the town is deep, but the passage to it is obstructed by a bar, which cannot be passed by vessels drawing more than 8 or 9 feet water, except at spring tides, when there is a rise of from 8 to 10 feet. The variation in 1811 was 4° 43′ W.—(*Chart of the Persian Gulph*, by *Captain Ritchie*, &c.) The climate here, as in all the other ports of the Persian Gulph, is extremely hot, particularly June, July, and August. The unhealthy season is in the fall of the year.

Trade, &c.—Bushire has a good deal of trade, particularly with Calcutta, Bombay, and Madras. Its merchants supply almost all Persia with Indian commodities; as, also, with a good many of those brought from Europe. Of the imports from India, indigo, sugar, sugar candy, and spices are the most important; the steel of India is preferred in Persia to every other, and is made into excellent sabres: tin is brought from Banca; and coffee is principally supplied by Mocha and other ports on the Arabian Gulph. English cotton goods, notwithstanding the admitted inferiority of our red dyes,—a colour in great esteem in Persia,—have already gone far to supersede those that were formerly brought from Hindostan; and the demand for them is rapidly extending, and is susceptible of an almost indefinite increase. Besides those imported at Bushire, a good many are introduced through Bussorah, and some through Turkey and Russia; the latter by way of the Black Sea, the former of Smyrna and Constantinople. Hitherto, indeed, a considerable part of the cottons imported through the last mentioned channels have been supplied by Switzerland and Germany,—their fabrics having been, in some respects, better fitted than ours for the Turkish and Persian markets; but they seem to have lost this advantage, as our exports of cottons to Turkey are now rapidly increasing. Woollen goods, cutlery, watches, &c., sent to India from England, are thence exported to Bushire. Imitation shawls, of the proper size and pattern, are said to meet with a fair sale. The exports principally consist of raw silk, Kerman wool, Kerman and Cashmere shawls, carpets, horses, silk goods, dried fruits, wine, grain, copper, turquoises, asafœtida, gall-nuts, pearls, and other articles of minor importance. Turkey annually supplies Persia with a very considerable amount of bullion, most part of which is sent to India.

Of the Persian exports, raw silk is the most important. It is produced to some extent in every province; but Gheelan and Mazunderan are those which are most celebrated for its growth. In the former, about 900,000 lbs. are annually raised. Russia is a large customer of this article. Dried fruits and dates are sent in considerable quantities to India. Horses are largely exported to India both by sea and land; they serve for mounting our Indian cavalry, and for supplying the large private demand that always obtains in Hindostan for this noble animal. Though neither so swift nor so beautiful as those of Arabia, the Persian horses are large, more powerful, and, all things considered, better for cavalry. They are capable of supporting an extraordinary degree of fatigue. Wine of Shiraz enjoys a degree of celebrity to which, judging from the few samples we have seen, it seems but ill entitled. Mr. Fraser says that it is made in so careless a manner, that, in choosing it, not more than 1 bottle in 4 or 5 can be made use of. Persian tobacco and yellow dye berries are highly esteemed: the former enters to a considerable extent into the trade to Turkey as well as to India; the berries bring a very high price in our markets, but the imports hitherto have been inconsiderable. Turquoises, asafœtida, and various sorts of drugs, rose water, with other minor articles, form part of the exports. Sheep's and goats' wool is also exported. The best is that of Kerman. The down furnished by the goats of this province is almost as fine as that of the Thibet or shawl goats. Cotton is extensively produced in Persia; the Russians carry away some, but the greater part is used in the country. Grain is sent to Muscat, but not in large quantities. The pearl trade is now principally centred at Muscat. The copper exported from Bushire is principally the produce of the Persian mines, mixed, however, with some Russian copper from Georgia. Of manufactured articles, the principal are carpets of the most beautiful fabric; shawls, partly native, and partly brought from Cashmere; velvets, silk goods, gold and silver brocades, and a few other articles. The trade between Persia and Russia by the Caspian Sea is not very considerable. Most part of the paper used in the former is supplied by the latter. The furs of Russia find a ready market in Persia. The Russian provinces on the Caspian derive their supplies of indigo from Persia by way of Bushire.

The entire trade between British India and the Persian Gulph, amounts to about 1,500,000*l.* a year. This, however, includes the trade to Muscat and Bussorah, as well as to Bushire, and we have no means of discriminating the separate amount of each.

Water at Bushire is excessively bad and dear; but excellent water, and in great abundance, may be had at Karak. The anchorage at this island is safe at all times; and ships may lie close to the beach. Sir John Malcolm suggested, that the permanent possession of Karak would be an object of considerable importance; and we are rather inclined to agree with him. It is of no value to the Persians, and there seems little doubt that they would be glad to cede it for a trifling consideration. Its possession would not only enable us to command the navigation of the Persian Gulph; but it would form a depôt where goods destined for Bushire, Bussorah, &c. might be kept in perfect safety, and in a situation the most convenient, being readily accessible to all sorts of Arabian vessels. A taste for British cottons and woollens is now forming in all the vast countries watered by the Euphrates and the Tigris, or which derive their supplies from the emporia erected on their banks; and it is of the greatest consequence that nothing be omitted that may serve to facilitate the diffusion of this taste, and the means of gratifying it.

Money.—Accounts are kept in tomans of 50 abasses, or 100 mamoodis. The toman is a Persian gold coin, containing, according to the report of the Bombay mint, from 71·5 to 67 gr. pure metal, being consequently equal to from 12*s.* 7½*d.* to 11*s.* 11*d.* sterling. The toman of Bussorah is worth about 36*s.*; and that of Gombroon about 24*s.* These, with Persian and foreign silver coins of all denominations, are found at Bushire; but the rates of the foreign coins are perpetually varying, and the weight of the native coins is also subject to frequent changes.

Weights and Measures.—Gold and silver are weighed by the miscal of 2 dwt. 23 7-12 gr. or 3 dwt. very nearly.

The commercial weights vary according to the commodities sold, and the places where they are used. The maund tabree weighs 6¾ lbs. avoirdupois at the Custom-house, but only 6½ lbs. at the bazaar. This weight is used by dealers in sugar, coffee, copper, and all sorts of drugs. The maund copra is 7¾ lbs. at the Custom-house, and from 7½ to 7¾ lbs. at the bazaar. Dealers in rice and other articles of provision use this weight. The maund shaw is double the maund tabree, or 15½ lbs.

Pearls are weighed by the abbas = 2·25 gr. Troy.

There are various sorts of guz's or cubits. One called the royal guz = 37½ Eng. inches; the common guz is two thirds of the former, or 25 inches.

The Persian league or parasang is 1-20th of a degree of the equator, and should, therefore, be equal to 3 miles 3 furlongs and 25 poles English.

The ardaby, or principal corn measure, is equivalent to about 2 Winch. quarters.

For further particulars, see *Niebuhr, Voyage en Arabie*, tome ii. p. 75.; *Kinneir's Memoir of the Persian Empire*, p. 70.; *Fraser's Travels on the Shores of the Caspian*, Appen. pp. 353.—381.; *Parl. Paper* No. 736. 2d Sess. 1832. pp. 602—634.; *Kelly's Oriental Metrology*; *Thornton's E. Indian Calculator*, &c.

BUSS, a small sea-vessel, used by us and the Dutch in the herring fishery, commonly from 50 to 60 tons burden, and sometimes more. A buss has two small sheds or cabins; one at the prow, and the other at the stern: that at the prow serves for a kitchen.—(See FISHERY.)

BUSSORAH, or BASRAH, a city of Arabia, on the western bank of the Shat-el-Arab (the name given to the river formed by the junction of the Tigris and the Euphrates), above 70 miles from its mouth, lat 30° 30′ N., long. 47° 32′ E. Population about 60,000, consisting of Arabs, Turks, Persians, Armenians, Jews, &c. The houses and streets are mean and filthy. There is a vast area within the walls, occupied principally by gardens and plantations of date trees, and intersected by canals, on which are numerous small craft.

The bar at the mouth of the Shat-el-Arab has only about 12 feet water, but the channel within is deep, so that ships of 500 tons burden, provided they cross the bar at the springs, may without difficulty ascend the river as far as the city; and both its grand branches may be navigated to a great distance by smaller vessels. Bussorah is the principal inlet on the east, through which Indian and other Eastern products find their way into the Turkish Empire. Its commerce is, therefore, even at present, pretty considerable; and were the rich and extensive countries traversed by the Tigris and the Euphrates occupied by a civilised and industrious people, it would be very great. Its imports from India and Europe are similar to those at BUSHIRE—(which see); from Persia it imports shawls, pearls from Bahrein, &c., and coffee from Mocha. At an average, 6 or 8 British ships arrive in the course of the year from India; but the principal part of the trade is carried on in Arabian bottoms, the merchants of Muscat being the owners of some of the finest ships that are to be met with in the Indian seas. Its exports are principally bullion, pearls, dates, copper, raw silk, horses, gall nuts, and drugs. Captain Hamilton mentions, that in the early part of last century, the exports of dates from Bussorah exceeded 10,000 tons a year.—(*New Account of the East Indies*, vol. i. p. 78.) The commerce with the interior is conducted by means of caravans to Aleppo and Bagdad; but it might be carried on to much more advantage by means of steam-boats. It was at one time proposed to forward mails from India by steam by the Shat-el-Arab and the Euphrates to Bir, thence by land to Scanderoon, and again by steam to Gibraltar and England; but this project was very wisely given up in favour of the route by the Red Sea.

Money.—All sorts of coins circulate here, but their values are constantly fluctuating. Accounts are kept in *mamoodis* of 100 *danims*, or 100 *fluss*; 100 *mamoodis* make a *toman*, which may be valued at about 15 sicca rupees, or 36*s.* sterling.

Weights and Measures.—Gold and silver are weighed by the *chekí* of 100 *miscals*, or 7,200 Eng. *grains*.

The commercial weights are the *maund atteree*, the *maund sofy* or *seese*, and the *oke of Bagdad*. 1 *vakia* = 19 oz. avoirdupois; 2½ vakias = 1 oke of Bagdad = 47½ oz. avoir.; 1 maund atteree = 28 lbs. 8 oz. avoir.; 1 maund sofy = 90 lbs. 4 oz. avoir.; 1 *cutra* of indigo = 138 lbs. 15 oz. avoir.

These are the weights used by the Europeans settled at Bussorah; those used by the Arabians differ a little from the above, and frequently also among themselves—a circumstance to which the merchant must pay particular attention.

The long measures are the Aleppo yard for silks and woollens = 2 feet 2·4 inches; the Hadded do. for cottons and linens = 2 feet 10·2 inches; the Bagdad do. for all purposes = 2 feet 7·6 inches.

For further details as to the commerce of Bussorah, see *Kinneir's Memoir on the Persian Empire*, p. 285.; the art. BUSHIRE in this Dictionary; *Kelly's Oriental Metrology*; *Thornton's East Indian Calculator*, p. 424. Niebuhr has given a plan of Bussorah, *Voyage en Arabie*, tome ii. p. 170.

BUTLERAGE. See PRISAGE.

BUTT, a vessel or measure for wine, containing 2 hogsheads, or 126 wine gallons.

BUTTER (Da. *Smör*; Du. *Boter*; Fr. *Beurre*; Ger. *Butter*; It. *Burro, Butiro*; Lat. *Butyrum*; Pol. *Masło*; Port. *Manteiga*; Rus. *Masslo Korowe*; Sp. *Manteca*; Sw. *Smör*), as every one knows, is a fat, unctuous, and, in temperate climates, a pretty firm substance, obtained from milk, or rather from cream, by the process of churning.

The various circumstances attending the introduction and use of butter in antiquity have been investigated by Beckmann with great learning and industry. The conclusion at which he arrives is, "that butter was not used either by the Greeks or Romans in cooking or the preparation of food, nor was it brought upon their tables by way of dessert, as is every where customary at present. We never find it mentioned by Galen and others as a food, though they have spoken of it as applicable to other purposes. No notice is taken of it by Apicius; nor is there any thing said of it in that respect by the authors who treat of agriculture, though they have given us very particular information with respect to milk, cheese, and oil. This, as has been remarked by others, may be easily accounted for, by the ancients having accustomed themselves to the use of good

oil; and in the like manner butter is very little employed at present in Italy, Spain, Portugal, and the southern parts of France."—(*Hist. of Inventions*, vol. ii. p. 413. Eng. ed.)

Beckmann has further shown that the little butter that was used by the ancients was in an oily or liquid state. And such is its usual state in all hot countries. It is rather singular that Beckmann does not allude to the consumption of butter by the Arabs, by whom it has been very extensively used from a remote period.

"Arab cookery is extremely *friant*, more so than even the Italian; but no oil is used for culinary purposes, except in frying fish. Butter is their universal sauce, and of it the consumption is immense; their vegetable dishes float in butter; with it they work their *adjoue* (paste made of dates) into a proper consistency; dried corn, or bread crumbs, boiled in butter, is a common breakfast with all classes; and in the desert, the *kemmayes* are prepared for use in the same manner. In short, butter forms an indispensable part of the diet of the Arab; and, besides the various forms in which it is taken with other articles, it is a common practice with both Bedouins and townspeople to swallow a coffee-cup-full of butter every morning; the former, and the lower orders of the latter, adding another half cup, which—to the disgust of strangers—they snuff up their nostrils! Arab butter is made from the milk of sheep and goats, that of camel's not being used for that purpose. The home supply is not nearly sufficient for the consumption, and butter consequently forms an important article of importation."—(*Geographical Dictionary* art. ARABIA.)

Butter is very extensively used in this and most other northern countries; that of England and Holland is reckoned the best. In London, the butter of Epping and Cambridge is in the highest repute; the cows which produce the former feed during summer in the shrubby pastures of Epping Forest; and the leaves of the trees, and numerous wild plants which there abound, are supposed to improve the flavour of the butter. It is brought to market in rolls from one to two feet long, weighing a pound each. The Cambridgeshire butter is produced from cows that feed one part of the year on chalky uplands, and the other on rich meadows or fens: it is made up into long rolls like the Epping butter, and generally salted or cured before being brought to market; the London dealers, having washed it, and wrought the salt out of it, frequently sell it for Epping butter.

The butter of Suffolk and Yorkshire is often sold for that of Cambridgeshire, to which it is little inferior. The butter of Somersetshire is thought to equal that of Epping: it is brought to market in dishes containing half a pound each: out of which it is taken, washed, and put into different forms, by the dealers of Bath and Bristol. The butter of Gloucestershire and Oxfordshire is very good; it is made up in half-pound packs or prints, packed up in square baskets, and sent to the London market by waggon. The butter of the mountains of Wales and Scotland, and the moors, commons, and heaths of England, is of excellent quality when it is properly managed: and though not equal in quantity, it often is confessedly superior to that produced by the richest meadows.—(*Loudon's Encyc. of Agriculture.*)

Considerable quantities of butter are made in Ireland, and it forms a prominent article in the exports of that country: generally, it is very inferior to that of Britain; but this is a consequence rather of the want of cleanliness and attention, than of any inferiority in the milk. Some of the best Irish butter brought to London, after being washed and re-packed, is sold as Dorsetshire and Cambridge butter.

The salt butter of Holland is superior to that of every other country; large quantities of it are annually exported. It forms from two-thirds to three-fourths of all the foreign butter we import, the rest being brought from Germany, Belgium, &c.

The production and consumption of butter in Great Britain is very great. The consumption in the metropolis may, it is believed, be averaged at about 8 lbs. a year for each individual; and supposing this estimate to be nearly accurate, and the population to amount to 2,300,000, the total annual consumption would, on this hypothesis, be 18,400,000 lbs., or 8,214 tons; but to this may be added 3,000 tons for the butter required for the victualling of ships and other purposes; making the total consumption, in round numbers, 11,200 tons, or 25,088,000 lbs., which at 10*d.* per lb. would be worth 1,045,333*l.*

The average produce per cow of the butter dairies is estimated by Mr. Marshall at 168 lbs. a year, but owing to the improvements that have been made in the interval, the yield per cow may now be safely estimated at 180 lbs.; so that, supposing we are nearly right in the above estimates, about 140,000 cows will be required to produce an adequate supply of butter for the London market.

In 1852 the entries of butter for consumption amounted to 287,266 cwts., producing a nett revenue of 143,341*l.* The duty of 10*s.* a cwt. on butter from a foreign country was reduced in 1853 to 5*s.* a cwt.; that on butter from a British possession was continued at 2*s.* 6*d.* per cwt. We subjoin an

Account of the Quantities of Butter imported and entered for Consumption in 1857, specifying the Countries whence it was brought, and the Quantities brought from each.

Countries.	Imported.	Entered for Consumption.	Countries.	Imported.	Entered for Consumption.
Denmark - -	3,809 *cwts.*	5,979 *cwts.*	Brought forward	381,993 *cwts.*	386,531 *cwts.*
Hanover - -	4,235	4,762	France - -	26,290	24,828
Hanse Towns -	55,789	58,014	Channel Islands -	28,465	28,448
Holland - -	255,872	255,367	British North America	1,430	918
Belgium - -	62,288	62,409	Other parts - -	3,428	2,287
Carried forward -	381,993	386,531	Total - -	441,606	443,012

The average contract prices of the butter furnished to Greenwich Hospital from 1730 to 1848, have been as follows:—

Years.	Prices per lb.	Years.	Prices per lb.	Years.	Prices per lb.	Years.	Prices per lb.	Years.	Prices per lb.
	s. d.		*s. d.*		*s. d.*		*s. d.*		*s. d.*
1730	0 5	1770	0 6½	1800	0 11½	1820	0 9½	1835	0 7¼
1740	0 5	1780	0 6½	1810	1 1½	1825	0 10½	1840	0 10
1750	0 5½	1790	0 6½	1815	1 2	1830	0 6½	1849	0 10
1760	0 5½								

In order to obviate the practice of fraud in the weighing and packing of butter, different statutes have been passed, particularly the 56 G. 3. c. 86., and 58 Geo. 3. c. 75., the principal regulations of which are subjoined. It is very doubtful, however, whether they have been productive of any good effect. It might be proper, perhaps, to order the weight of the butter, exclusive of the vessel, and the dairyman's or seller's name, to be branded on the inside and outside of each vessel; but most of the other regulations, especially those as to the thickness of the staves, and the weight of the vessels, seem to be at once vexatious and useless.

Every cooper or other person who shall make any vessel for the packing of butter, shall make the same of good well-seasoned timber, tight and not leaky, and shall groove in the heads and bottoms thereof; and every vessel made for the packing of butter shall be a tub, firkin, or half-firkin, and no other.

Every tub shall weigh of itself, including the top and bottom

not less than 11 lbs. nor more than 15 lbs. avoirdupois; and neither the top nor the *bottom* of any such tub shall exceed in any part five *eighths* of an inch in thickness.

Every firkin shall weigh at least 7 lbs. including the top and the bottom, which shall not exceed four eighths of an inch thick in any part.

Half-firkins to weigh not less than 4 lbs. nor more than 6 lbs. including the top and the bottom, which shall not exceed the thickness of three eighths of an inch in any part; upon pain that the cooper or every other person making any such vessel, in any respect contrary to the preceding directions, shall forfeit every such vessel and 10*s.*

Every cooper, &c. shall brand every cask or vessel before going out of his possession, on the outside, with his name, in legible and permanent letters, under penalty of 10*s.*, together with the exact weight or tare thereof.

Every dairyman, farmer, or seller of butter, or other person packing the same for sale, shall pack it in vessels made and marked as aforesaid, and in no other, and shall properly soak and season every such vessel; and on the inside, and on the top on the outside, shall brand his name at length, in permanent and legible letters; and shall also, with an iron, brand on the top on the *outside*, and on the bouge or body of every such cask, the true weight or tare of every such vessel, when it shall have been soaked and seasoned; and also shall brand his name at length, on the bouge or body of every such vessel, across two different staves at least, and shall distinctly, and at length, imprint his Christian and surname upon the top of the butter in such vessel when filled, on pain of forfeiting 5*l.* for every default thereof.

Every tub of butter shall contain, exclusive of the tare of good and merchantable butter, 84 lbs.; every firkin 56 lbs.; every half-firkin 28 lbs.; and no old or corrupt butter shall be mixed, or packed in any vessel whatever, with any butter that is new and sound; nor shall any butter made of whey be packed or mixed with butter made of cream, but the respective sorts shall be packed separately, and the whole vessel shall, throughout, be of one sort and goodness; and no butter shall be salted with any great salt, but all butter shall be salted with small salt; nor shall more salt be intermixed with the butter than is needful for its preservation, under penalty of 5*l.* for offending against any of these regulations.

No change, alteration, fraud, or deceit shall be practised by any dealers or packers of butter, either with respect to the vessel or the butter so packed, whether in respect to quantity or otherwise, under a penalty of 30*l.* to be imposed on every person engaged in the offence.

Every cheesemonger, dealer in butter, or other person, who shall sell any tubs, firkins, or half-firkins of butter, shall deliver, in every such cask or vessel respectively, the full quantity appointed by this act, or, in default thereof, shall be liable to make satisfaction to the person who shall buy the same for what shall be wanting, according to the price for which it was sold, and shall be liable to an action for recovery of the same, with full costs of suit.

No cheesemonger, dealer in butter, &c. shall repack for sale any butter, under penalty of 5*l.* for every tub, firkin, or half-firkin, so repacked.

Nothing in this act shall extend to make any cheesemonger, dealer in butter, or other person, liable to any penalties for using any of the tubs, firkins, or half-firkins, after the British butter used in such vessels shall have been taken thereout, for the repacking for sale of any foreign butter, who shall, before he so repack such foreign butter, entirely cut or efface the several names of the original dairyman, farmer, or seller of butter, from every such vessel, leaving the name and tare of the cooper, and the tare of the original dairyman, farmer, or seller thereon; and, after the names are so effaced, shall, with an iron, brand his Christian and surname, and the words *foreign butter*, upon the bouge of every such vessel, across two staves at least, to denote that such butter is foreign butter.

Persons counterfeiting or forging any such names or marks, shall for every such offence forfeit 40*l.*

Penalties not exceeding 5*l.* to be determined by one justice, upon the evidence of one witness, and the whole shall go to the informer.

Penalties above 5*l.* to be recovered by action of debt, or information, in the courts at Westminster, and the whole to the informer.

Nothing to extend to the packing of butter in any pot or vessel which shall not be capable of containing more than 14 lbs.

Previously to 1826, no butter could be sold in any public market in Ireland, or exported from it, without being previously examined and branded by a public inspector; but compliance with this regulation is no longer compulsory, but is left to the discretion of the parties.

It is enacted by statute 4 Will. 3. c. 7., that every warehouse-keeper, weigher, searcher, or shipper of butter and cheese, shall receive all butter and cheese that shall be brought to him for the London cheesemongers, and ship the same without undue preference; and shall have for his pains 2*s.* 6*d.* for every load; and if he shall make default, he shall, on conviction before one justice, on oath of one witness, or confession, forfeit for every firkin of butter 10*s.*, and for every weigh of cheese 3*s.*; half for the use of the poor, and half to the informer.

And every such person shall keep a book of entry of receiving and shipping the goods, on pain of 2*s.* 6*d.* for every firkin of butter and weigh of cheese.

The master of a ship refusing to take in butter or cheese before he is full laden (except it be a cheesemonger's own ship sent for his own goods) shall forfeit for every firkin of butter refused 5*s.*, and for every weigh of cheese 2*s.* 6*d.*

This act does not extend to any warehouse in Cheshire or Lancashire.

Butter made in hot countries is generally liquid. In India it is denominated *ghee*, and is mostly prepared from the milk of buffaloes; it is usually conveyed in duppers, or bottles made of hide, each of which contains from 10 to 40 gallons. Ghee is an article of considerable commercial importance in many parts of India.

The Arabs are the greatest consumers of butter in the world. Burckhardt tells us, that it is a common practice among all classes to drink every morning a coffee cup full of melted butter or ghee! and they use it in an infinite variety of other ways. The taste for it is universal; and the poorest individuals will expend half their daily income that they may have butter for dinner, and butter in the morning. Large quantities are annually shipped from Cosseir, Souakin, and Massouah, on the west coast of the Red Sea, for Djidda and other Arabian ports.—(*Burckhardt's Travels in Nubia*, p. 440.; *Travels in Arabia*, vol. i. p. 52.)

BUTTONS (Du. *Knoopen*; Fr. *Bouton*; Ger. *Knöpfe*; It. *Bottoni*; Rus. *Pogowizü*; Sp. *Botones*) are well known articles, serving to fasten clothes, &c. They are manufactured of an endless variety of materials and forms.

It might have been supposed, that the manufacture of such an article as this would have been left to be carried on according to the views and interests of those concerned, individuals being allowed to select any sort of button they pleased. Such, however, has not been the case; and various statutes have been passed, pointing out the kind of buttons to be worn, and the way in which they are to be made! Most of these regulations have luckily fallen into disuse, but they still occupy a place in the statute book, and might, we presume, be enforced.

C.

CABLES are strong ropes or chains, principally used in the anchoring or mooring of ships.

1. *Rope Cables* are, in Europe, principally manufactured of hemp; but in the East they are very frequently made of *coir*, or the fibrous part of the cocoa nut, and in some places, particularly on the Red Sea, of the coating of the branches of the date tree. Hemp cables are for the most part formed of three principal strands, every strand of three ropes, and every rope of three twists; the latter having more or fewer threads according to the greater or less thickness of the cable. But very large cables, or those used by the largest ships, are usually formed by a combination of smaller ropes twisted round their common axis.* Cables of this sort are stronger than the others, harder, and more compact, so that they are frequently constructed in this way even when their thickness is not very great. The reduction of length by twisting may be taken at about ⅓ the length of the yarn. Large vessels have ready for service three cables, which are usually designated the *sheet* cable, the *best bower* cable, and the *small bower* cable; but besides these, most ships have some spare cables. The ordinary length of a cable is from 100 to 120 fathoms.

2. *Iron Cables.*—The application of strong iron chains or cables to the purposes of navigation is a late and important discovery, for which we are indebted to Captain Samuel Brown, R.N. It is singular, indeed, that this application should not have been made at a much earlier period. On rocky bottoms or where coral is abundant, a hempen cable speedily chafes, and is often quite destroyed in a few months, or perhaps days. A striking instance of this occurred in the voyage of discovery under the orders of M. Bougainville, who lost *six* anchors in the space of nine days, and narrowly escaped shipwreck; a result, says that able seaman, which would not have happened, "*si nous eussions été munis des quelques chaines de fer. C'eût une précaution que ne doivent jamais oublier tous les navigateurs destinés à de pareils voyages.*" (*Voyage autour du Monde*, p. 207. 4to. ed.) The work from which this extract is taken was published in 1771; and yet it was not till nearly *forty* years after, that any attempt was made practically to profit by so judicious a suggestion. The difficulties in the way of importing hemp from 1808 to 1814, and its consequent high price, gave the first great stimulus to the manufacture of iron cables.

Iron cables are constructed in different ways—(see *Encyc. Metrop.*). Their great weight contributes to their strength, inasmuch as the impulse of the ship is checked before the cable is brought nearly to a straight line, or that the strain approaches to a maximum. Bolts and shackles are provided at every fathom or two fathoms, by striking out which the ship may, if necessary, be detached from her anchors with less difficulty than a hempen cable can be cut.

If properly made, iron cables are a great deal stronger than those of hemp; and as to durability, no sort of comparison can be made. No wonder, therefore, that they should be rapidly superseding the latter; which are now almost wholly laid aside in the navy, and, to a great extent, also, in the merchant service.

Testing of Iron Cables.—In addition to iron cables, iron chains are now frequently used in the rigging of ships. And there can be no doubt that both the one and the other are great improvements, provided they are properly made, and of the proper degree of strength. The latter, however, is a *sine quâ non*, without which ships, their cargoes, and crews, are exposed to the greatest danger. And hence we are clearly of opinion that all chain cables, chain ropes, and anchors, should not be left, as is now the case, to be tested by the makers; but that before being offered for sale they should be carefully tested in public proof houses. We regret to have to state that there can be no possible doubt that cables, anchors, and iron chains of a very worthless description are at present sent in large quantities into the market, and that a great deal of property and many valuable lives are consequently lost. A shameless abuse of this sort ought to be put down at all hazards. It is injurious alike to the public and the honest manufacturer, and is a disgrace to the government by whom it is tolerated. And do what you will it cannot be suppressed except by prohibiting the sale of all cables, chains, and anchors, not subjected to a public test, and marked as approved by the examiners. We might refer, were it necessary, in proof of the statements now made, to a paper recently put forth by the operative chain makers. The abuses which it discloses are of the most discreditable character, and call imperatively for redress.

CADIZ, a large commercial city and sea-port of Spain, on its south-western coast, on the rocky and elevated extremity of a narrow, low peninsula, or tongue of land, projecting from the Isla de Leon, N.N.W. about 4½ nautical miles. It is surrounded on all sides, except the south, where it joins the land, by the sea, and is very strongly fortified. Population in 1857, 71,914. It is well built, and has, at a distance, a very striking appearance. The tower or lighthouse of St. Sebastian stands on the western side of the city, being, according to Tofiño, in lat. 36° 31′ 7″ N., long. 6° 18′ 52″ W. It is a most conspicuous object to vessels approaching from the Atlantic. The light, which is 172 feet high, is of great brilliancy, revolves once a minute, and in fair weather may be seen more than 6 leagues off.

Bay of Cadiz.—The entrance to this noble basin lies between the city and the town and promontory of Rota, bearing N.W. by N., distant about 1⅞ league. The bay is of very great extent, affording, in most places, good anchorage. The port is on the eastern side of the city, where a mole of considerable dimensions has been constructed; but the water is not sufficiently deep to allow large vessels to approach nearer than within about ⅔ of a mile, where they anchor in from 5 to 7 fathoms. The rocks called the Cochinos, the Puercas, and the Diamante, lie to the north of the city in the entrance to the bay; the first two at about 3-5ths of a mile distant, and the Diamante at rather more than 1¼ mile from the city. Vessels may enter between the Puercas and the Diamante; but none, except those not drawing more than 15 feet water, and well acquainted with the channel, ought to attempt entering between the Cochinos and Puercas and the city. The town of St. Mary's, on the opposite side of the bay, is famous for being the depôt of the wines of Xeres. The outer bay, or that of Cadiz properly so called, is separated from the inner bay by the promontory having at its extremity the castle of Matagorda, which approaches within about ⅔ of a mile of the Puntales castle on the Isla de Leon. Within the inner bay is the famous arsenal of the Caraccas, the town of San Carlos, the canal of Trocadero, &c. At spring tides the water in the bay rises 10 or 11 feet, but at neaps the rise does not exceed 6 feet.—(For further particulars see the excellent *Chart of the Bay of Cadiz, by Tofiño*; *Malham's Naval Gazetteer*; and *Purdy's Sailing Directions for the Bay of Biscay, &c.*)

History, Trade, &c.—Cadiz is a very ancient city, having been founded by the Phœnicians about 1,200 years before the Christian æra. The temple which they erected in it in honour of Hercules was one of the most celebrated in antiquity.—(*Sainte Croix, des Anciennes Colonies*, p. 14.; *Pomp. Mela*, lib. iii. cap. 6.) Its excellent port, and its situation, favourable alike for commerce and security, have made it, whether possessed by Carthaginians, Romans, Moors, or Christians, and under every vicissitude, a place of considerable commercial and political importance. It has long been one of the principal stations of the Spanish naval force. In 1720, the commerce with Spanish America, which had previously been exclusively carried on from Seville, was transferred to Cadiz. It enjoyed this valuable monopoly till 1765, when it was partially relaxed by the trade to Cuba, St. Domingo, Porto Rico, and the other islands, being opened to all the greater ports of Spain. The benefits resulting from this relaxation were so very great, that in 1778 the trade to all parts of America was opened to ships from every considerable Spanish port, except those of Biscay, which, not being subject to the general laws of the kingdom, were not allowed to participate in this privilege. In consequence, however, of her situation, the great capital of her merchants, and their established connections, Cadiz continued, notwithstanding the abolition of the monopoly, to preserve by far the largest share of the American trade. But since the colonies achieved their independence, her commerce has been contracted within comparatively narrow limits; and though considerably increased of late years, it will not attain to anything like the extent to which it might arrive without a total change of policy on the part of the Spanish government. Barcelona is at present the principal seat of Spanish commerce.—(*Robertson's America*, b. viii. passim; *Townsend's Travels in Spain*, vol. ii. pp. 395—401. 2d. edit.)

The white wines of Xeres in its vicinity form by far the principal article of export from Cadiz. The quantity exported may amount to about 30,000 pipes a year. The prices vary from 12*l.* to 65*l.* per pipe; but, as the lower qualities predominate, the price may be taken, at a medium, at about 25*l.*, making the total value of the exports 750,000*l.* More than ⅘ths of the whole comes to England. The other articles of export are quicksilver, brandy, oranges and other fruits, oil, provisions, flour, salt, wool, &c. The imports consist principally of sugar and coffee from the Havannah and Porto Rico, cocoa, hemp, flax, linens, dried fish, hides, cotton wool and cotton manufactures, coal and iron, rice, spices, indigo, staves and timber, &c.

Navigation of Cadiz in 1856.—In that year 356 British vessels entered the port of Cadiz of the aggregate burden of 66,297 tons and having crews of 3,579 men.

184 arrived from England, with cargoes of the value of 87,778*l.* 73 arrived from England in ballast. 47 from other countries, with cargoes of the value of 74,456*l.* 55 from other countries in ballast. 187 British vessels sailed from Cadiz for England, with cargoes of the value of 934,630*l.* 33 sailed in ballast for England. 74 with cargoes for other countries, of the value of 59,266*l.* 34 in ballast for other countries.

28,430 tons of coals were imported from England in British and foreign vessels.

The exports consisted chiefly of sherry wine and salt.

54,616 butts of the former were shipped during the year, and 93,168 tons of salt.

846 Spanish vessels arrived from oversea voyages, of the aggregate burden of 110,507 tons, importing chiefly sugar, coffee, tobacco, mahogany, and spices, from Cuba, Porto Rico, and Manilla; iron hoops, yarn, linen, woollen and manufactured goods, and drugs from England.

90 Spanish steam-vessels were principally employed in the conveyance of passengers and merchandise from Cadiz to Marseilles, touching at all the intermediate ports.

56 American vessels imported stores and tobacco, and exported salt, wine, cork, and liquorice.

The Dutch, Belgian, Swedish, Norwegian, Danish, and Prussian vessels imported chiefly coals from England, and exported salt, wine, cork, and liquorice.

The Russian, Hanoverian, and Hanse Town vessels imported chiefly timber and deals, and exported salt, wine, and dry fruit.—(*Consular Report.*)

Trade of Spain with U. Kingdom.

Account of the Quantities and Values of the Principal Articles imported from Spain into the U. Kingdom during each of the 3 Years ending with 1857.

Principal Articles.		Quantities.			Computed Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Animals, oxen and bulls	no.	2,897	3,062	3,561	49,249	55,585	66,769
Copper: ore	tons	3,173	5,686	13,030	31,129	52,594	130,300
,, unwrought and part wrought	,,	405	317	87	48,165	34,934	9,360
Cork	lbs.	306	334	272	10,710	11,690	9,520
Corks, ready made	lbs.	35,153	32,512	27,241	3,074	2,844	2,387
Corn: wheat	qrs.	201,716	49,719	3,745	716,608	164,073	11,009
,, wheatmeal and flour	cwts.	847,558	460,823	17,003	1,038,259	552,987	17,859
Eggs	c. ft.	21,909	24,905	19,190	10,074	11,830	9,595
Fruit: almonds, not bitter	cwts.	5,125	5,405	3,847	23,477	26,148	23,024
,, figs	,,	3,452	7,447	8,008	2,906	8,750	9,409
,, nuts, chesnuts	bushls.	38,581	43,544	54,218	18,005	19,958	27,109
,, ,, small nuts	,,	219,557	194,003	186,468	120,757	149,513	158,498
,, oranges and lemons	,,	72,928	69,544	116,927	41,326	38,249	66,259
,, raisins	cwts.	198,137	204,036	251,854	326,927	486,286	517,553
Lead, pig and sheet	tons	6,996	9,407	11,345	156,215	217,772	256,580
Liquorice, juice and paste	cwts.	1,657	1,782	438	4,899	5,035	1,208
Madder	,,	4,023	11,778	28,031	9,052	29,740	75,684
Oil, olive	tuns	9,874	2,301	4,927	531,057	118,502	260,558
Quicksilver	lbs.	2,809,752	1536,371	42,334	257,560	46,374	4,410
Wine	galls.	3,861,992	4,048,409	4,628,790	1,243,182	1,504,448	1,759,143
Wool, sheep and lambs'	lbs.	68,750	55,090	397,238	6,016	5,050	40,945
Total value of the above and of all other articles	£	-	-	-	4,799,728	3,645,083	3,684,787

Account of the Quantities and Values of the Principal Articles of British and Irish Produce exported from the U. Kingdom to Spain in each of the 3 Years ending with 1857.

Principal Articles.		Quantities.			Declared Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
Apothecary wares, &c.	value	-	-	-	£5,676	£8,028	£8,385
Apparel, slops and haberdashery	,,	-	-	-	2,775	4,451	6,328
Carriages, of all sorts	no.	17	108	184	1,165	12,519	20,253
Coals, cinders, and culm	tons	204,799	280,165	316,292	122,587	159,602	177,995
Copper, wrought and unwrought	cwts.	1,470	1,880	1,763	9,290	11,243	11,235
Cottons: entered by the yard	yards	2,716,565	2,947,911	3,870,573	86,664	97,449	126,012
,, ,, at value	value	-	-	-	5,715	4,569	6,038
Cotton yarn	lbs.	147,480	74,803	136,501	7,888	6,706	13,585
Earthenware and porcelain	value	-	-	-	1,205	4,591	2,592
Fish, cod and ling	cwts.	15,087	9,073	15,982	13,320	8,287	13,991
Hardwares and cutlery	,,	7,331	12,409	15,032	42,362	64,323	74,454
Iron, of all sorts, inc. steel	tons	17,498	50,309	50,218	151,597	281,115	371,609
Linens, entered by the yard	yards	1,121,582	1,294,594	1,500,171	67,788	65,463	69,578
Linen yarn	lbs.	6,857,902	5,029,983	7,472,751	517,724	376,908	388,182
Machinery: steam engines	value	-	-	-	70,199	132,459	116,578
,, all other sorts	,,	-	-	-	81,566	141,115	126,207
Oil, linseed	galls.	11,716	23,449	24,376	1,832	3,263	3,925
Painters' colours	value	-	-	-	2,649	4,015	5,779
Silk manufactures	,,	-	-	-	10,222	14,725	19,857
Tin: unwrought	cwts.	1,675	1,509	2,419	9,658	9,649	15,698
,, plates	value	-	-	-	24,106	25,246	34,530
Woollens: entered by the piece	pieces	27,210	35,042	38,821	47,976	59,785	66,406
,, ,, by the yard	yards	302,795	768,331	1,691,960	16,720	46,472	66,476
,, ,, at value	value	-	-	-	2,643	3,026	3,640
Woollen yarn	lbs.	368,704	37,744	37,072	24,263	5,398	5,465
Total value of the above and of all other articles	£	-	-	-	1,158,800	1,734,483	2,012,528

In 1857 we also sent to Spain foreign and colonial produce of the value of 532,760*l.*

Bank of Cadiz.—A joint-stock bank was established here in 1847, with a capital of about 50 *millions reals*. It discounts commercial paper, and transacts all the usual descriptions of banking business. There are here, also, an insurance company, and a company for steam navigation.

Money.—The monies, weights, and measures, used at Cadiz, are those of Castile. Accounts are kept by the *real* (of old plate), of which there are 10½ in the *peso duro*, or hard dollar: and as the dollar = 4*s.* 5½*d.* the real = 4½*d.* A real is divided into 16 *quintos*, or 34 *maravedis*. The *ducado de plata*, or ducat of plate, is worth 11 reals.

Weights and Measures.—The ordinary quintal is divided into 4 *arrobas*, or 100 lbs. of 2 marcs each; 100 lbs. Castile = 101·1 lbs. avoirdupois. The yard, or *vara* = 2·7 English yard, or 100 varas = 92½ English yards. The *cahiz*, or measure for corn, is divided into 12 *fanegas*, or 144 *cuartinas*, or 576 *quartillas*; 100 cahizes = 19·7 Winch. quarters, and 5 fanegas = 1 quarter. The *cantaro*, or *arroba*, the measure for liquids, is divided into 8 *azumbres*, and 32 *quartillos*. There are two sorts of arrobas, the greater and the lesser; they are to each other as 32 to 25; the former being equal to 4¼ English wine gallons, the latter to 3¼ do. A *moyo* of wine = 16 arrobas. The *botta* = 30 arrobas of wine, or 38½ of oil. A pipe = 27 arrobas of wine, or 34½ of oil. Hence the botta = 127½ English wine gallons, and the pipe 114¾ do.

Port and other Charges at Cadiz.—The ships of all the nations which concede an equal benefit in their respective territories to the vessels of the Spanish marine, shall be put on an equality in the Peninsula and adjacent islands with Spanish vessels, for the exaction of navigation and port dues; i. e. of lighthouses, anchorage, and loading and unloading, established in the law of April 11, 1849, and in the royal decree of the 16th of December last.

Given at the Palace, the 3rd of January, 1852.

Customs Regulations.—Art. 1. Shippers of merchandise in foreign countries shall present to the Spanish consul a statement in duplicate, and without corrections or erasures, of the goods they embark, expressing the name and nature of the vessel, and of the master, port of destination, description of the bales, boxes, packages, &c. &c., to be shipped, their marks and numbers, class, quality, and quantity of the merchandise contained in each, in Spanish weight or measure, the consignees thereof, of what nation the produce and manufacture; if of the country whence shipped; and if not, of what other nation or fabric may be their origin, concluding the statement or note with a declaration that it details the true contents of the packages, and that they contain nothing else. There must be separate notes from each shipper and for each consignee.

Art. 3. From all these notes the consul is to form a general summary, with a copy of which, and one of each of the notes of the shippers, he is to form a true register of the cargo, to be delivered to the master in a sealed despatch (with wax and wafer), addressed to the administrador of the custom-house at the port of destination. No merchandise can go on board after delivery of the register to the master, without subjecting all to seizure on arrival in Spain.

Art. 8. The master, who in the act of receiving pratique, shall not deliver to the administrador the sealed despatch or register handed to him by the Spanish consul, shall pay a fine of 400 doll., the cargo discharged and stored, until the consul shall remit a certified copy of the original notes presented by the shippers, and for which the administrador shall apply.

Art. 10. On examination by the administrador, in presence of the master, of these sealed despatches or register, if they manifest marks or evidences of having been previously opened, the master shall be fined 100 doll. for this alone, and

Art. 11. In case amendments and alterations are observed in the notes, the master shall answer before the tribunal of finance for the crime of forgery, which he may be guilty of.

Art. 12. Where no consul resides, shippers must send their notes to the one nearest resident, and the master shall receive

from him these registers, with the understanding that merchandise from a foreign country shall not be admitted to entry which shall not come with the requisites detailed.

Art. 14. The exceptions to the above are cargoes of lumber, staves, *codfish*, hides, coals, which it shall be evident come to the order of the master in search of a market; but in such cases a document of origin must be presented from the place of loading, specifying the quantity aboard of the vessel.

Art. 25. Within twenty-four hours after anchoring (being visited), the master shall present to the administrador of the custom-house a manifest of the cargo, &c.

Art. 27. Fine of 100 doll, if the manifest be not presented within twenty-four hours.

Art. 38. Fine of 100 doll. for every package in excess, and 50 doll. every one manifested less than what is expressed in the register made up by the Spanish consul.

Art. 39. If the manifest does not specify minutely the contents of the packages of prohibited merchandise manifested in the transitu, they shall be landed and examined.

Art. 42. All goods must be manifested to specified consignees, in no case to "order." The general term "merchandise" is not recognised nor admitted, in which case the goods shall be landed and examined in the presence of the master or his agent, and if they shall be found to be illicit goods, they shall be forfeited, and the master fined twenty-five per cent. if they be worth more than 2,000 doll., and if less, 500 doll. If the goods be of *licit* traffic, half the *sums*.

Art. 181. Transhipments prohibited.

Art. 182. Merchandise cannot be manifested in transitu for the port from which the vessel originally sailed, nor those touched at in the voyage.

TREASURY DEPARTMENT — ORDER IN COUNCIL.

"Your Excellency will please to notify to H.M. consuls abroad that under no pretence they give course to the declarations or notes of shippers, unless exactly in conformity with the customs regulations, nor despatch registers including articles of prohibited traffic, under the understanding that for the confiscations and fines which shall be imposed for defects in consular documentation, the consuls themselves shall be responsible, notifying them also that all the documents which they give course to, must, without exception, be made in the Spanish language."

Madrid, September 26, 1850.

Spanish Commercial Policy.—It is the peculiar misfortune of Spain that every part of her political system has been alike vicious and objectionable. Had her commercial policy been liberal, it would, in some degree, have compensated for the defects in the distribution of property and political power, and would, no doubt, have given a powerful stimulus to industry. But, unluckily, it has been in perfect harmony with her other institutions, and was, in all respects, worthy of the favourite seat and stronghold of the Inquisition. From the reign of Ferdinand and Isabella down almost to yesterday, the grand object of the Spanish government, next to the extirpation of heresy, has been to exclude foreign manufactures from the Peninsula, and to preserve a monopoly of its markets, as well as of those of the colonies, to the home manufacturers. It is, however, almost needless to say, that their efforts to bring about this result have been signally unsuccessful. Oppressive taxes, with the multiplication of fasts and holydays, the government monopolies, and the badness of the roads and other means of communication, made it impossible for the Spanish manufacturers, even if they had evinced greater enterprise and industry than they have done, to produce manufactured articles as cheap as the English, French, and others less unfavourably situated. And such being the case, it is plain that the prohibition of certain descriptions of commodities, and the oppressive duties laid on others, could have no effect except to suppress the legitimate commerce of the country, and to throw it wholly, or almost wholly, into the hands of smugglers. Any one who takes up a map of Spain must be satisfied at a glance that it would be impossible for an army of customs officers to prevent her being deluged with smuggled products, provided they were materially cheaper than her native products; for, besides her extensive sea frontier, they may be introduced by way of France and Portugal, and also through the Basque Provinces, which have distinct laws, and enjoy an exemption from the commercial code inflicted on the rest of the kingdom. We need not, therefore, be surprised that every effort to prevent the clandestine introduction of foreign products completely failed. The severities occasionally inflicted on the smugglers, instead of abating, seem really to have increased, the evil. The contraband trade has long been a favourite occupation, and has been eagerly followed by the adventurous, the necessitous, and the desperate. It is believed that for nearly three centuries from 100,000 to 150,000 individuals have been pretty constantly engaged in this occupation; that is, they have been engaged in trampling on the laws, obstructing their officers, and committing acts of violence and blood. A few years ago about 3,000 actions were annually instituted against *contrabandistas* and others engaged in illicit trade, which terminated in the ruin of a vast number of families; at the same time that the courts of law were filled with perjury, and the country with bloody conflicts. And yet these atrocities secured no one object government had in view.

Notwithstanding their being absolutely prohibited, English and French cotton goods might, in 1848, be bought in every shop in Madrid, and generally throughout Spain; the former at from 20 to 30 per cent. above their price in Gibraltar, where they are about as cheap as in Manchester; and the latter at from 20 to 30 per cent. above their price in Bayonne, which is nearly identical with their price in Rouen! While Cadiz was a free port, about 6,000 persons are said to have been employed in it twisting cigars, which, as soon as finished, were forthwith smuggled into the interior. Three fourths, in fact, of the foreign trade of Spain were then in the hands of the *contrabandistas*, who carried it on in defiance of the law. And when such was the case, need we wonder at the low state of industry, or at the prevalence of those predatory and ferocious habits that uniformly mark the character of the smuggler?

And, strange to say, notwithstanding the ruinous influence of this wretched system it was long since exposed by Ulloa, Campomanes, and other distinguished Spaniards, and by Mr. Townsend and other foreigners, who had visited the country, and notwithstanding all the vicissitudes Spain has undergone during the last half century, it continued to maintain its ascendancy down to 1849. But the leading Spanish statesmen having been, at length, satisfied of the disastrous influence of the old system, a vigorous effort was made, in the year now mentioned, to introduce a more rational tariff; and notwithstanding the selfish and short-sighted opposition of the Catalans and others, the new tariff was happily passed into a law. It is true that it leaves much to be desired; but it is, at the same time, a vast improvement on the system by which it was preceded; and it is especially valuable as being the first step in the introduction of a new and more liberal and rational policy. In a few cases the duties on importation were increased, but in the great majority of instances they were reduced, and the greater number of the articles that were formerly prohibited are now admitted on payment of duties. The following are the bases of the new tariff, viz.:—

"Machines and instruments necessary for agricultural, manufacturing, and mining operations, to pay a duty of from 1 to 14 per cent. *ad valorem*.

"Raw material not abundantly produced by Spain, and used in the operations of the national industry, whatever be the form or the increase of value that it may acquire, to pay from 1 to 14 per cent.

"Raw material similar to that abundantly produced by Spain, productive agents in the same case, such as coal and coke, and articles of merchandise of foreign manufacture which may compete with those of the same kind and quality manufactured in Spain, to pay from 25 to 50 per cent."

N.B.—Cottons and silks come under this class. The duties on the former are generally about 35 per cent. *ad valorem*.

"Foreign produce and manufacture required for consumption, and not supplied by the national industry, to pay a *maximum* of 15 per cent., and at the utmost 20 per cent. in every exceptional case.

"The duties hitherto levied on the colonial produce of foreign countries to be suitably increased.

"A discriminating duty of 20 per cent. to be charged on articles imported in foreign bottoms; and on those articles which contribute most to the support of the national navigation the discriminating duty may be raised to 50 per cent."

The prohibited imports are arms, projectiles, and munitions of war, including all kinds of gunpowder, quicksilver, charts, published by the Admiralty, and reprinted abroad; maps and plans by Spaniards, during copyright; cinnabar; vessels constructed of wood of less burden than 300 tons, of 20 quintals each; grain, flour, biscuit, bread, and maccaroni, &c., for soup, not admitted by the corn laws; books and prints in Spanish, by Spanish authors, if not imported by those individuals during copyright: missals, breviaries, and other books of liturgy (dictionaries, vocabularies, insignias, devices, and military ornaments are not included in this prohibition); pictures, &c., offensive to morality, or ridiculing the Catholic religion; common salt, tobacco, shoes, and ready-made clothing, except for the private use of travellers; chemical preparations forbidden by the sanitary laws.

Moderate export duties to be levied on antimony or galena, not argentiferous; black copper, roughly melted; litharge containing less than an ounce of silver per quintal; pig lead, raw silk.

Prohibited exports.—Cork in the bark of the province of Gerona; litharge containing an ounce and upwards of silver per quintal; argentiferous galena; lead containing 24 drachms and upwards of silver per quintal; cotton, hempen, and woollen rags, and worn-out articles of those materials.

The high discriminating duty on goods imported on foreign bottoms is the most objectionable feature in this tariff; though we can hardly be surprised at the Spaniards continuing to act on a principle that was acted upon down to a very recent period by the English and the Americans. We believe, however, that it will be far more injurious to themselves than to any one else; and that its effect will be to lessen and embarrass their trade without really providing employment for Spanish merchantmen.

To the other facilities for smuggling in Spain must be added the venality and corruption of the customs officers. Notwithstanding his *espanolism*, Mr. Ford bears testimony to its universality. He says, "Every lock in Spain is to be picked with a silver key, and every difficulty smoothed by a properly administered bribe. The customs *empleados* have been defined to be gentlemen, who, under the pretence of searching portmanteaus, take money on the highway without incurring the disgrace of begging or the danger of robbing; and practically they worry honest travellers who won't pay them, as much as they facilitate those who will." But, in truth, this venality is not confined to the revenue officers, but pervades and debases all classes, from the highest to the lowest.

We incline to think that, allowing for smuggling, the import and export trade of Spain might each be estimated, previously to the late change in the tariff, at about 4,000,000*l.* sterling, or, perhaps, a little more. And the good effects of that change are already obvious, both importation and exportation having greatly increased, and a corresponding stimulus having been given to industry. This has been farther increased by the opening of railways, the formation of companies for steam-navigation, banking, &c. In 1856 the duties on imports and exports amounted to 352,936,000 reals. The trade of Spain by sea during that year employed in the out and home voyages, 9,660 Spanish vessels of the agg. burden of 500,870 tons, and 9,357 foreign ships of the agg. burden of 1,217,488 tons, showing that the foreign vessels employed were more than double the size of the Spanish.

The great articles of export from Spain consist (exclusive of silk manufactures) of raw products. Of these, wine, olive oil, wool, fruits of various kinds, lead, quicksilver, brandy, cork-wood, salt, raw silk, wheat, &c. are the most important, and are almost all susceptible of an indefinite increase.

The great articles of import are colonial products, obtained principally from Cuba, Porto Rico, &c.; cottons, and cotton wool; linens, linen yarn, woollens, with, of late years, large quantities of iron and machinery, coal, &c., from England; salted fish, hardware, glass, and earthenware; timber, rice, hides, butter and cheese, &c. Subjoined is

An Account of the Principal Articles of Domestic Produce exported from Spain in 1850, and showing also the proportional Value of each Article, supposing the whole Exports to be 100.

Articles.	Reals.	Per Cent. of Total Value.	Articles.	Reals.	Per Cent. of Total Value.
Wine: common	21,885,177		Shoes, of all kinds	2,879,361	0·61
,, of Xeres and Port St. Mary	105,808,230	26·78	Oranges and lemons	2,720,666	0·58
,, Malaga	2,857,804		Salt and pickled fish	2,578,899	0·54
Wool, washed and unwashed	45,429,491	9·28	Dried vegetables and seeds	2,573,883	0·54
Lead, in bars	43,388,370	9·14	Garbanzos (chick peas)	2,547,076	0·47
Flour	32,666,381	6·70	Indian corn	2,178,692	0·46
Raisins	24,421,026	5·02	Woollen goods	2,161,953	0·44
Corks	18,651,265	3·84	Kid and lamb skins, &c.	2,119,027	0·41
Cochineal	15,698,470	3·24	Wheat	2,108,403	0·40
Olive oil	14,302,894	2·95	Skins, dyed and varnished	1,887,937	0·39
Silk	12,400,198	2·56	Macaroni, &c.	1,872,235	0·36
Silver bullion	8,889,015	1·84	Madder	1,791,541	0·34
Nuts	8,881,290	1·84	Sausages	1,640,782	0·33
Salt	7,724,687	1·60	Linen goods	1,584,937	0·31
Brandy	7,541,181	1·56	Cattle	1,545,788	0·27
Soap	6,628,510	1·38	Green vegetables	1,437,334	0·27
Silk goods	6,632,253	1·36	Dried fruits	1,321,740	0·26
Coin	5,985,916	1·24	Fresh fruits	1,236,090	0·26
Silk for sewing	4,447,835	0·93	Aniseed	1,207,396	0·26
Iron in bars, &c.	4,407,418	0·91	Hams and bacon	1,169,652	0·25
Paper	4,156,458	0·87	Barrilla	1,138,930	0·25
Liquorice	4,089,991	0·84	Cotton goods	1,119,419	0·25
Rice	4,083,009	0·84	Hempen thread	1,024,896	0·23
Quicksilver	3,841,875	0·81	Olives	1,001,062	0·22
Gold and silver embroidery	3,804,385	0·79	Alcohol	1,000,820	0·22
Saffron	3,227,620	0·69	Other articles	13,675,421	2·91
Hooks	3,059,040	0·64			
Almonds	2,955,157	0·62	Total	488,666,662	100
Sedge mattings (*Esparto labrado*)	2,898,486	0·61			

The exports have since very materially increased, especially in 1855 and 1856, when we imported from Spain large quantities of wheat and flour. But the above account is interesting as showing the leading articles of exportation and their ratio to each other.

Account of the Imports and Exports of Spain in each of the 6 Years ending with 1856.

Years.	Imports.		Exports.	
	Reals.	£	Reals.	£
1851	688,249,289	6,882,493	497,506,652	4,975,066
1852	753,167,145	7,531,671	566,120,562	5,661,201
1853	734,434,910	7,344,349	835,822,745	8,358,227
1854	813,485,244	8,134,852	993,502,783	9,935,028
1855	1,023,761,523	10,237,613	1,259,363,492	12,593,635
1856	1,304,168,076	13,041,680	1,065,617,110	10,656,171

The importance of the trade that Spain formerly carried on with her vast possessions in the New World, was, at all times, much exaggerated; and she, in truth, was little better than an agent in the business, the greater part of the goods sent on Spanish bottoms to the colonies being, in reality, the property of foreign merchants. Spain, notwithstanding the emancipation of Mexico and South America,

has still some very valuable colonies; and, if nothing else can, the astonishing progress made by Cuba and Porto Rico, since the abolition of the prohibitive system, should satisfy her of its ruinous tendency.

Wool used to be a leading article of import into this country from Spain; but now, though our imports of wool have vastly increased, they are principally supplied by our possessions in Australia, Africa, India, &c. The quantities brought from Spain have, indeed, become quite inconsiderable; so much so, that while in 1857 she supplied us with only 397,238 lbs., our total imports amounted to the immense quantity of 127,390,885 lbs.! Wine, raisins, olive oil, nuts, lead, copper ore, cattle, and quicksilver, are at present the principal articles imported into the U. K. from Spain in ordinary years. Sometimes, however, she supplies us with large quantities of wheat and flour. And, in the event of the completion of the projected railway from Santander to Leon and Estremadura, two of the finest wheat-growing provinces of Europe, it is next to certain that the Peninsula will become one of the principal sources whence we may at all times draw large supplies of these indispensable articles. Previously to the alteration of the tariff in 1849, the declared value of the direct exports from the U. K. to Spain varied from 500,000*l.* to 800,000*l.* a year; whereas they amounted, at an average of 1857 and 1858, to 2,041,800*l.* a year. This is a great increase; but it may, notwithstanding, be safely affirmed that our trade with Spain does not yet amount to 1-3rd part of what it would be were she to adopt a really free commercial system.

Some portion, though far less now than formerly, of the exports to Portugal, Gibraltar, and Malta, find their way, by the intervention of the smuggler, into Spain.

Owing to the badness of the roads, and their unfitness for carriages, the principal carriers of merchandise are the *arrieros*, or muleteers, who traverse the country in all directions along beaten tracks, many of which are accessible only to them. They form a large portion of the provincial population, and, on the whole, have a good character for honesty to their employers, though they are nearly all, more or less, engaged in smuggling transactions. The extent of this traffic may be estimated from the fact, that about three fourths of the entire inland traffic in corn is carried on by their means. Recently, however, waggons have begun to be introduced on all the practicable roads, and should the latter be improved, the business of the *arrieros* will proportionally fall off.

There can be no reasonable doubt that, but for the system of misrule to which Spain has been subjected, her commerce would have been very extensive. Her natural advantages, superior to most, and not inferior to those enjoyed by any other kingdom; her wines, brandies, fruits, &c.; her wheat, of which she might produce the largest supplies; her wool; her iron, which is of the best quality; her lead and quicksilver mines, respectively the most productive in the world; the number and excellence of her harbours; the enterprising and adventurous character of her inhabitants, and her favourable situation, would, were she permitted to avail herself of them, raise her to a very high rank among commercial nations. Let the government follow up what it has so well begun, by ceasing to counteract the intentions of nature; let moderate duties take the place of prohibitions, and freedom of regulation, and all sorts of industrious pursuits will revive from the deadly lethargy in which they have been so long sunk.

CAGLIARI, the capital of Sardinia, on the north-east shore of a spacious bay on the south coast of the island, lat. 39° 12′ 13″ N., long. 9° 7′ 44″ E. Population, in 1850, 30,000? The city stands on a rising ground, and has an imposing effect from the sea. The public buildings and churches are numerous, and some of them splendid; but the streets are, for the most part, narrow, steep, and filthy.

The Gulph of Cagliari extends from Pula on the west to Cape Carbonara on the east, a distance of about 24 miles across, and about 12 in depth, with good anchorage every where after getting into soundings. A mole projects from the Pratique office, and ships usually lie about 1 mile S. W. by S. from it, in 6 or 8 fathoms water, on an excellent bottom of mud. There is a very convenient pier harbour at the south angle of the tower wall, capable of containing 14 or 16 vessels of a tolerable size, besides small craft. Altogether, Cagliari is one of the best and safest ports in the Mediterranean.

Imports and Exports.—Almost all the trade of Sardinia is carried on by strangers; and even the fish on its coast and in its harbours is caught by Sicilians, Neapolitans, Tuscans, and Genoese. Corn is the principal article of export. In good years, the exports from the whole island may amount to 400,000 starelli, or about 500,000 bushels, of wheat, 200,000 starelli of barley, 6,000 ditto of maize, 100,000 ditto of beans, 200,000 ditto of peas, 1,000 ditto of lentils. The culture of vines is gradually becoming of more importance; and about 3,500 Catalan pipes are exported, principally from Alghero and Ogliastro. Cheese is an important object in the rural economy of Sardinia, and considerable quantities are exported. Salt is a royal monopoly, and affords a considerable revenue. Until recently, Sweden drew almost all her supplies of this important necessary from Sardinia, and it continues to be exported in considerable quantities. Flax, linseed, hides, oil, saffron, rags, alquifoux, &c. are among the articles of export. The tunny and coral fisheries employ a good many hands; but, as already observed, they are almost wholly managed by foreigners.

Almost every article of dress, whether for the gentry or the peasantry, is imported. Soap, stationery, glass, earthenware, and furniture, as well as sugar, coffee, drugs, spices, &c., are also supplied by foreigners; and, notwithstanding the Sards possess many rich mines, several of which were successfully wrought in antiquity, they import all their iron and steel. The only manufactures carried on in the island are those of gunpowder, salt, tobacco, and woollen caps.

Account of the Quantities of the principal Articles exported from the Island of Sardinia to foreign Countries in 1849, 1850, and 1851.

Articles.		Quantities.			Articles.		Quantities.		
		1849.	1850.	1851.			1849.	1850.	1851.
Barilla - -	cwts.	862	427	2	Goats, sheep, and lambs	No.	232	594	237
Bones - -	—	3,636	9,253	5,853	Grain - -	cwts.	1,723	567	2,494
Bullocks - -	No.	2,753	1,430	211	Lead ore - -	—	8,701	4,296	16,497
Calves - -	—	70	93	19	Olive oil - -	imp. gal.	5,390	49	
Cheese - -	cwts.	29,880	25,606	24,986	Skins - -	cwts.	17,664	41,097	1,550
Cork-wood - -	—	2,158	6,782	3,819	Timber, oak -	val. lire	10,220	668	67,712
Cows, steers, and bulls	No.	674	456	394	Tunny fish -	cwts.	2,339	2,547	2,839
Firewood - -	cwts.	3,788	1,508	577	Wine - -	imp. gal.	47,764	269,402	19,745
Fruit, fresh - -	—	732	858	79					

But salt, of which the export may be estimated at 14,000 or 15,000 tons a year, is excluded from this table, on which, indeed, but little reliance can be placed.

By far the largest portion of the exports from the island are forwarded to the continental states of the

kingdom. The quantity of these exports are said to have amounted, at an average of the 10 years ending with 1849, to

Almonds in the shell	-	cwts.	872	Hides, &c., duty or sa tax	-	cwts.	65,112
not in the shell	-	—	1,127	Linseed	-	—	6,792
Barilla	-	-	6,306	Olive oil	-	imp. gal.	194,871
Bullocks, bulls, cows, and steers	-	No.	2,927	Pigs	-	No.	1,971
Cheese	-	cwts.	32,449	Skins, goat, sheep, kid, &c.	-	cwts.	41,047
Cork-wood	-	—	7,556	Wheat	-	imp. qrs.	39,402
Hides, &c., raw	-	—	5,591	Wine	-	imp. gal.	856,413

The export of wheat in this table, owing to the occurrence of bad crops, is below the average, which may be taken at from 50,000 to 60,000 qrs. In 1850 no fewer than 117,063 qrs. were exported.

In 1850, 497 vessels entered the port of Cagliari, of which 50, of the burden of 8,209 tons, were British

Money, Weights, and Measures.—Accounts are kept in lire, reali, and soldi. 5 soldi = 1 reale = 4½*d.*; 4 reali = 1 lira = 1*s.* 6*d.*; 10 reali = 1 scudo = 3*s.* 9*d.* The paper money consists of notes for 5, 10, and 20 scudi.

Farm produce and the coarser metals are weighed by the *pesi di ferro*: 12 Sard. oz. = 1 lb. = 14 oz. 5 dr. avoirdupois; 26 lbs. = 1 rubbo; 4 rubbi = 1 cantaro = 93 lbs. 0 oz. 8 dr. avoirdupois.

The starello, or corn measure, is equivalent to 1 bush. 1¼ peck Eng. The palm = 10½ Eng. inches.

Causes of the depressed State of Sardinia.—The above statements sufficiently show that the commerce of Sardinia is very far from being what might naturally be expected from her extent, fertility, admirable situation, and the excellence of her many harbours. She contains an area of about 9,500 square miles, being, in point of size, but little inferior to Sicily; and in antiquity was reckoned, along with the latter, a principal granary of Rome. "*Siciliam et Sardiniam benignissimas urbis nostræ nutrices.*"—(*Val. Max.* lib. vi. cap. 6.)

> Utraque frugiferis est insula nobilis arvis:
> Nec plus Hesperiam longinquis messibus ullæ,
> Nec Romana magis complerunt horrea terræ.—*Lucan*, iii. lin. 65.

But the establishment of the feudal system in its worst form, and the unfavourable political and municipal regulations under which the island has latterly been placed, have gone far to neutralise the advantages it owes to nature. The agriculturists of Sardinia principally consist of two great classes—those who cultivate small farms on the *métayer* principle, and those who work on the estates of others, getting, in most instances, a patch of land for their support, and cultivating it at such times as they are not employed on the lord's lands. Both classes are excessively poor. The agreements under which the former class hold are seldom for more than a year; the landlord furnishing the seed as well as the land, and receiving half the produce. Those who occupy land for which they are obliged to pay a rent in corvees, or other feudal services, are, if possible, still worse off; having usually to borrow the seed either from the landlord or from the *Monti Frumentarii* established for that purpose, and having also to defray the tithe and a host of other burdens. Another disadvantage under which all classes labour, is the want of houses on their farms: the peasants live together in villages, and have frequently to perform a journey of several miles in going to and coming from their farms.

Lands belonging to a canton or commune are frequently cultivated on a kind of partnership system, being divided into three portions: one of these, called *vidazzone*, comprises all the lands that are in cultivation, and which are distributed by lot among certain individuals, while the other two portions are occupied in common as pasture. But, as a new distribution takes place every year, it is plain that no individual can take any interest in the improvement of the soil; and this sort of tenure becomes, in fact, the most effectual that can be devised for the extinction of industry. Latterly, however, the government has been making efforts to promote the formation of inclosures and the division of the lands; which, though opposed by the prejudices of the people, have made some progress.—(*Marmora, Voyage en Sardaigne*, lib. v. cap. I.)

Even these, however, are not perhaps the greatest discouragements to agriculture. As if to annihilate the possibility of the peasantry emerging from their depressed condition, and to oblige them to confine their industry to the supply of their indispensable wants, it has been enacted that no corn shall be exported if its price exceed 30 reals the *starello*; and a heavy duty is laid on all that is exported, as a substitute for a general land-tax. Most other articles of export have been loaded with similar duties; and it would really seem that every device that ignorance and short-sighted rapacity could suggest had been practised to reduce this "benignant nurse" of imperial Rome to a state of poverty and destitution.

Happily, however, as already seen, the bounty of nature has proved an overmatch for the perverse ingenuity of man; and such is the fertility of this fine island, that, notwithstanding the influence of the duty now referred to, and the wretched system of agriculture, it exports in good years considerable quantities of corn. The culture of the vine is gradually increasing in importance, and about 3,500 Catalan pipes are exported, chiefly from Alghero and Ogliastro. Olive oil, owing to the little care taken in its preparation, and its consequent bad quality, has hitherto been but little exported; but it is susceptible of an indefinite increase, and might be made an important article. Tobacco is a royal monopoly, and brings about 7 million livres a year into the public treasury. Flax, linseed, saffron, hemp, and barilla are grown to some extent; silk is

produced only in limited quantities, but its produce might, no doubt, be vastly increased; some cotton is produced, and also small quantities of madder, which last grows wild in the island. The mountains are clothed with forests of oak, beech, chesnut, and other timber; but, from the want of roads, these are nearly useless. The agricultural implements and processes are excessively rude. The Sardinian plough, the counterpart of that described by Virgil, does little more than scratch the ground. It is without a coulter, and is very frequently wholly constructed of wood. Oxen only are used in ploughing and other field labour. The corn is left in the fields till it be thrashed, an operation effected by the primitive practice of treading with horses and oxen.

We are glad, however, to have to state, that within the last few years some very important changes for the better have been introduced into the island, and that some of the worst of the abuses previously noticed have been obviated. In 1836, in pursuance of inquiries previously commenced, feudal jurisdictions were completely abolished; and since then the feudal system has been wholly subverted. And if, as is to be hoped, government follow up the enlightened course of policy on which it has entered, by giving freedom to commerce, the probability is, that the island will, at no very remote period, recover a large share of its ancient prosperity. According to a law passed in 1839, all lands were declared to be the property of individuals, communes, or the crown; the latter becoming the possessor of all waste lands, or those to which neither private parties nor communes could show any title. Lands which had been cultivated or applied to use, whether inclosed or not, were assigned in perpetuity to the occupiers, undisturbed possession being held to confer a sufficient right to the property in the absence of any other title: those whose interests were at all affected by the new changes received compensation in money or lands, or by an assignment of public funded property. The king substituted himself in the place of the barons: he took all the feudal rents into his own hands: and their value being estimated at 20 years' purchase, public securities to the amount, bearing five per cent. interest, were made over to the nobles in exchange for the privileges of which they had been deprived. All kinds of vassalage were, at the same time, made redeemable; and courts of law placed under the direct control of the state were substituted in the place of the feudal jurisdictions where the barons were at once suitors and judges! It is impossible to overrate the importance of these changes; and there cannot be a doubt that they will have the greatest and most beneficial influence.—(*Von Raumer, Italy, &c.* i. 295—301.) We may, also, mention, in proof of the recent improvement of the island, that the population, which, in 1816, amounted to only 352,000, had increased, in 1838, to 524,633. A good road has been constructed, uniting Cagliari and Sassari, and cross roads have been carried from it to some of the more considerable places in the island. Stringent measures have recently, also, been adopted for the suppression of the banditti, with which the island has long been infested. And should these measures of improvement be properly carried out, the administration of justice simplified and freed from the abuses and venality by which it has long been disgraced, and all restraints on exportation abolished, it may be confidently predicted that Sardinia will gradually become more and more prosperous; that the revenues of the crown will be increased in a tenfold proportion; and that the population will cease to be conspicuous only for ferocity, idleness, and contempt of innovation.—(See *Geographical Dictionary*, art. SARDINIA, and the authorities therein referred to.)

CAJEPUT OIL, the volatile oil obtained from the leaves of the cajeput tree. (*Melaleuca Leucadendron* Lin.) The name is a corruption of the native term *cayu-puti*, that is, white-wood oil; because the bark of the tree which yields it has a whitish appearance, like our birch. This tree is common in Amboyna and other Eastern islands. The oil is obtained by distillation from the dried leaves of the smaller of two varieties. It is prepared in great quantities in Banda, and sent to Holland in copper flasks. As it comes to us it is of a green colour, very limpid, lighter than water, of a strong smell resembling camphor, and a strong pungent taste. It burns entirely away without leaving any residuum. It is often adulterated with other essential oils, coloured with resin of milfoil. In the genuine oil, the green colour depends on the presence of copper; for, when rectified, it is colourless.—(*Thomson's Dispensatory.*)

Cajeput oil not being used except in the *materia medica*, only small quantities are imported. In July, 1831, it sold in bond at about 7*d.* an ounce; but an idea having then got abroad that it was one of the most efficient remedies in cases of cholera, its price rose in November, 1831, to no less than 11*s.* an ounce! But it soon after fell into discredit with the faculty, and additional supplies having been obtained from Holland, its price declined almost as fast as it had risen. It is not at present (1843) worth more, in bond, than from 4*d.* to 9*d.* an ounce.

CALABAR SKIN (Fr. *Petit-gris*; Ger. *Grauwerk*; It. *Vaor, Vajo*; Rus. *Bjelka*; Sp. *Gris pequeno*), the Siberian squirrel skin, of various colours, used in making muffs, tippets, and trimmings for clothes.

CALAMANDER WOOD, a beautiful species of timber brought from Ceylon.

It is so hard that common edge-tools cannot work it, so that it must be rasped and almost ground into

shape. It is singularly remarkable for the variety and admixture of colours. The most prevailing is a fine chocolate, now deepening almost into absolute black, now fading into a medium between fawn and cream colours. It arrests the eye from the rich beauty of the intermingled tints, not from any undue showiness. It takes a very high polish; and is wrought into chairs, and particularly into tables. Sir Robert Brownrigg, late governor of Ceylon, had the doors of the dining-room of his seat in Monmouthshire made of calamander. It is scarce in Ceylon, and is not regularly imported; all that is in Great Britain has been imported by private gentlemen, returning from the colony, for their own use. It is by far the most beautiful of all the fancy woods. The nearer it is taken from the root of the tree, the finer it is.—(*Milburn's Orient. Com.*; *Lib. of Entertaining Knowledge*, Vegetable Substances, p. 179.)

CALCUTTA, the principal city of the province of Bengal, the capital of the British dominions in India, and, with the exception perhaps of Canton, the greatest emporium to the eastward of the Cape of Good Hope. Its citadel is in lat. 22° 34′ 49″ N., long. 88° 27′ 16″ E. It is about 100 miles from the sea, being situated on the eastern bank of the western branch of the Ganges, denominated by Europeans the Hooghly River, which is the only arm of the Ganges navigable to any considerable distance by large ships. At high water the river opposite to the town is about a mile in breadth; but during the ebb the side opposite to Calcutta exposes a long range of dry sand banks. Owing to the length and intricacy of the navigation from the sea, it cannot be undertaken without a pilot; so that, even if it did not exceed our limits, it would be useless to attempt any description of it in this place.—(See the reduced *Plan of the Mouths of the Hooghly River*, in the *Mercator's Chart* in this work.)

In 1717 Calcutta was only a petty village; but it subsequently increased very rapidly, and was supposed towards the close of last century to have 600,000 or 700,000 inhabitants. This, however, was a gross exaggeration; and it appears, from a census taken in 1837, that the population of what is properly called the town amounted to only 229,700, composed as follows:—

	Males.	Females.
English	1,185	
Eurasians	2,950	1,796
Portuguese	1,715	1,475
French	101	59
Armenians	465	171
Jews	185	122
Moguls	514	195
Parsees	32	8
Arabs	272	79
Thugs	450	233
Chinese	243	119
Madrassies	30	25
Native Christians	30	19
Hindoos	85,145	52,506
Mohammedans	38,934	19,810
Low Castes	12,074	7,010
Totals	144,893	84,812
General Total	229,705	

A great part, however, of what may be fairly considered the population of Calcutta, consisting of labourers, mechanics, and persons engaged in trade, reside at night in the suburbs, or neighbouring villages; coming into town early in the morning to their respective employments. These were estimated, in 1837, on tolerably good data, at 177,000. The small number of English resident in Calcutta (where, however, they are far more numerous than in any other part of India,) may well excite surprise. It was supposed that the cessation of the Company's monopoly, and of the prohibition of European resort to India, would occasion an influx of British settlers and capital. But this anticipation has not been realised. Scarcely a single English agriculturist, with capital sufficient to cultivate 100 acres of land, has established himself in India, and there has been no immigration of artisans. And this, after all, is only what might have been expected; the country being too fully occupied, the burdens on the land too heavy, and the wages of labour far too low, to admit of anything like an extensive immigration. The Eurasians, the progeny of white fathers and native mothers, are mostly employed as clerks in the government offices and mercantile establishments; and are said to be an industrious and useful class.—(*Bengal and Agra Gazetteer*, vol. i. part iii. p. 10, &c.) The town, excluding suburbs, extends about 4½ miles along the bank of the river, with an average breadth inland of about 1½ mile. Fort William, the citadel, lies on the same side of the river, a little lower down. It is a strong regular fortification; but so extensive that it would require a garrison of 10,000 men for its effectual defence. Calcutta possesses great natural advantages for inland navigation; all sorts of foreign produce being transported with great facility on the Ganges and its subsidiary streams to the north-western quarters of Hindostan, over a distance of at least 1,000 miles, while the productions of the interior are received by the same easy channels.

The principal merchants and traders consist of British and other Europeans, Portuguese born in India, Armenians, Jews, Persians from the coast of the Persian Gulph, commonly called Parsees, Moguls, Mohammedans of Hindostan, and Hindoos; the latter usually either of the Brahminical or mercantile castes, and natives of Bengal. The native Portuguese and Armenian merchants have of late greatly declined in wealth and importance. On the other hand, the Persian merchants have increased in numbers and wealth, several of them being worth 250,000*l.* sterling. The large fortunes of the Hindoo merchants have been much broken down of late years by litigation in the courts, and naturally through the law of equal coparcenary among brothers. To counterbalance this, there has been, since the opening of the free trade in 1814, a vast augmentation of the number of inferior merchants, worth from 20,000*l.* to 50,000*l.* sterling. There are but few Hindoo merchants at present whose wealth exceeds 200,000*l.* sterling.

The principal foreign business is conducted by English merchants; but other parties also, either in partnership with the English, or on their own account, speculate largely to Europe, America, and especially to China. The brokers known under the name of Sircars and Baboos are all Hindoos. The general rates of agency commission are as follow:—

Rates of commission and mercantile agency, revised by a general meeting of the Bengal Chamber of Commerce. (*Calcutta Direct.* 1858.)

	Per cent.
1. On the sale, purchase, or shipment of bullion, gold dust, coin, jewellery, pearls, and precious stones	1
2. On the purchase (when in funds) or sale of indigo, silk, and opium	2½
3. On purchasing do. when funds are provided by the agent.	5
4. On all sales or purchases of other goods	5
5. On the sale or purchase of ships, factories, houses, lands, and all property of a like description	2½
6. On returns for consignments, if made in produce	2½
7. On do. if in bills, bullion, or treasure	1
8. On goods and treasure consigned, and all other property of any description referred to agency for sale, which shall be afterwards withdrawn; and on goods consigned for conditional delivery to others, and so delivered; on invoice amount at the exchange of 2*s.* per rupee	half com.
9. On making advances, or procuring loans of money for commercial purposes, when the aggregate commission does not exceed 5 per cent.	2½
10. On ordering goods or superintending the fulfilment of contracts, or on the shipment of goods where no commission except that of account is derived	2½
11. On guaranteeing bills, bonds, or other engagements, and on becoming security for administration of estates, for contracts and agreements, &c.; and to government, for the disbursements of public money, where the funds of the individuals are insufficient to cover risk	2½
12. On del credere, or guaranteeing the due realization of sales	2½
13. On executorship, or administration to estates of deceased persons	5
14. On the management of estates for executors or administrators	2½
15. On chartering ships or engaging tonnage	¾
16. On advertising as the agents of owners or comman-	

	Per cent.
ders of ships for passengers, on the amount of passage money, whether the same shall pass through the agents' hands or not	2½
17. On procuring freight, or advertising as the agent of the owners or commanders; the commission to be calculated on the gross amount of the entire freight	5
18. On effecting insurances, or writing orders for the same, whether on lives or property	½
19. On settling insurance losses and averages, and on procuring returns of premium	2
20. On purchasing, selling, or negotiating bills of exchange	1
21. On debts or other claims when a process at law or arbitration is incurred in claiming them	2½
If recovered by such means	5
22. On bills of exchange returned dishonoured	1
23. On collecting house rent	2½
24. On ships' disbursements	2½
25. On negotiating loans on respondentia	2
26. On granting letters of credit	1
27. On sale or purchase of government securities and bank shares, and on every exchange or transfer, not by purchase from one class to another	½
28. On delivering up government securities and bank shares, or depositing them in the treasury	½
29. On the amount debited or credited (at the option of the agent) within the year, less the balance brought forward, and all items on which a commission of 5 per cent. has been charged	1
30. On all advances not punctually liquidated, a second commission may be charged, as on a new advance, provided it do not occur within the same year.	

*** Brokerage, when actually paid, is considered a separate charge.

Revised Table of Rent (per Month) of Goods lodged in the Bonded Warehouse, chargeable from 1st February, 1857.

	Co.'s rs.	as.	ps.
Whole pipe, butt, or puncheon	0	12	0
Half pipe or hogshead	0	6	0
Quarter pipe	0	3	0
Large cask, containing glass or earthenware	1	0	0
Tierce, containing glass or earthenware or provisions	0	12	0
Large crate, containing 12 doz. bottles	0	6	0
Smaller, containing crate 8 or 6 doz. or more or less	0	4	0
Chest above 12 doz. size	0	8	0
Chest of 12 doz. size or above 6 doz.	0	6	0
Chest of 6 doz. size, or above 3 doz.	0	3	0
Quarter chest, or 3 doz.	0	2	0
All boxes under 3 doz. and above 1 doz. size, each	0	1	0
One doz. box	0	0	9
Spirits, per pipe	1	4	0
Ditto, per hhd.	0	12	0
British piece goods, per case above 12 doz. size	0	8	0
Do. per case of 12 doz. size, or above 6 doz.	0	6	0
Do. per case of 6 doz. size, or above 3 doz.	0	3	0
Do. per case of 3 doz. size, or less	0	2	0
Do. per bale of size of large bale of twist	0	6	0
Do. per bale of smaller size	0	4	0
Mule twist per bale of 400 or 500 lbs.	0	6	0
Do. per bale of smaller size, but above 200 lbs.	0	4	0
Do. per bale of 200 lbs. or less	0	3	0
Turkey red twist, per bale	0	6	0
Canvas, per bale	0	3	0
Silk, per bale	0	6	0
Indigo, per chest	0	6	0
Opium, per chest	0	6	0
Cotton, per screwed bale	0	4	0
Sugar, rice, linseed, and mustard seed, per 100 Baz. mds.	2	8	0
Cutch, per 100 Baz. mds.	2	0	0
Shell lac and lac dye, per chest	0	4	0
Vermilion, per box	0	2	0
Arsenic, per box	0	3	0
Brass leaf, per box	0	2	0
China paper, per case	0	3	0
China cases of nankin, cassia, camphor, silk, anniseed, &c., per case	0	3	0
Safflower, per Baz. md.	0	0	6
Ginger and turmeric, per 100 Baz. mds.	3	0	0
Betel nut, per Baz. md.	0	0	6
Cloves, per Baz. md.	0	1	0
Coffee, pepper, cardamum, cummin seed, anniseed, in bags or bales, per Baz. md.	0	1	0
Sugar, spices, and any other similar articles in hogsheads, per hhd.	0	8	0
Ditto in tierces, per tierce	0	4	0
Tea, per whole chest	0	2	0
Ditto, per smaller box	0	1	0
Sugar candy, per tub	0	0	6
Paint, per keg 56 lbs.	0	0	6
Salmon, herrings, or other fish, per keg	0	0	6
Turpentine, linseed, and other vegetable oils, per jar	0	2	0
All cordage, per cwt.	0	1	0
Resin and dammer, per Baz. md.	0	1	0
Rattans, per 100 bundles	0	2	0
Gunnies, per large bale	0	3	0
Ditto, per smaller bale	0	6	0
Cow hides, per large bale	0	12	0
Ditto, per smaller bale	0	8	0
Goat skins, per bale	0	3	0
Tobacco, unmanufactured, per Baz. md.	0	2	0
Quicksilver, per Baz. md.	0	2	0
Metals, per Baz. md.	0	0	6

All goods in packages not enumerated nor comprehended in the above list will be charged per agreement.

Rent will not be charged for a shorter period than half of a month, and after half of a month, the shortest broken period for which it will be charged is a quarter of a month.

Money.—Accounts are kept here in rupees, with their subdivisions, annas and pice: 12 pice make 1 anna; 16 annas 1 rupee; and 15 rupees 1 gold mohur. To this currency must all the real specie be converted, before any sum can be regularly entered in a merchant's books. The coins current are gold mohurs, with their subdivisions—halves and quarters; rupees, halves and quarters; annas, pice, and half pice. The two last are of copper. There are two mints under the Bengal presidency: that at Calcutta; and that of Ferruckabad, in the north-western provinces. The first is probably the most splendid establishment of the kind in the world; the original cost of the machinery, supplied by Messrs. Boulton and Watt of Birmingham, having exceeded 300,000*l.* Gold money is coined at Calcutta only; but silver, which is now, and has always been, the standard of India, equally at both mints. The following statement shows the weight, fineness, and sterling value of the coins formerly coined, reckoning the value of gold at 3*l.* 17*s.* 10½*d.* per standard ounce, and silver at 5*s.* 2*d.*

Coins.	Grains pure.	Grains Alloy.	Grains Gross Weight.	Value. £	s.	d.
Gold mohur	187·651	17·059	204·710	1	15	½
Sicca rupee	175.923	15·993	191·916	0	2	0¼ 6·25
Ferruckabad rupee	165·215	15·019	180·234	0	1	11½ 8·25

The charge for coining silver at the Calcutta mint is 2 per cent. if the bullion be the standard fineness; but where it differs, a proportional charge of from ¼ to ½ per cent. is made for refining.

Company's Rupee.—The variety of rupees of different weights and values, circulating in different parts of India, was long found to be productive of considerable inconvenience. But this is now nearly obviated, it having been enacted that, from the 1st of September, 1835, the coinage of former rupees should cease at all the mints throughout India, and that in future there should be coined a rupee (with doubles, halves, and quarters), to be called "The Company's rupee," which contains 165 grains (11·12ths) pure silver, and 15 grains (1·12th) alloy. This new rupee, which is made legal tender in all payments, is nearly equal to the former Bombay, Madras, and Ferruckabad standard rupees, and is receivable as an equivalent for them and for the Sonat rupee, and for 15·16ths of the Calcutta sicca rupee. It is worth, reckoning silver at 5*s.* 2*d.* and 5*s.* 6*d.* an ounce, 1*s.* 11*d.* and 2*s.* 0½*d.* sterling, its current value being 2*s.* The new, or Company's rupee, bears on the one side the head of the reigning sovereign of Great Britain, and on the obverse the words "East India Company," and the designation of the coin in English and Persian.

Mohur.—It has also been enacted, that from the 1st of September, 1835, no gold coins shall be coined at any mint in India, except gold mohurs or 15 rupee pieces (with the subdivisions), containing each 165 grains (11·12ths) pure gold, and 15 grains (1·12th) alloy. Such mohurs are consequently worth 29*s.* 2*d* each. These coins are marked in the same way as the new rupees, but they are not legal tender.

Other sorts of rupees are met with in Bengal, differing in fineness and weight, though their denominations be the same. From this, and from the natives frequently punching holes in the rupees, and filling them up with base metal, and their fraudulently diminishing the weight of the coin after coming from the mint, the currencies of the different provinces are of different values. This defect has introduced the custom of employing *shroffs*, or money changers, whose business is to set a value upon the different currencies, according to every circumstance, either in their favour or their prejudice. When a sum of rupees is brought to one of these shroffs, he examines them piece by piece, and arranges them according to their fineness; then, by their weight; he then allows for the different legal battas (premiums) upon siccas and sonnats; and this done, he values in gross, by the Company's rupees, what the whole are worth.

A lac, means 100,000 rupees; and a crore 100 lacs, or 10,000,000. The following are the monies of account, premising that the lowest denomination is represented by a small smooth shell, a species of cypræa, chiefly imported as an article of trade from the Laccadive and Maldive islands, and current as long as they continue entire:—

4 Cowries	= 1 Gunda.
20 Gundas	= 1 Puna.
5 Punns, or 12 pice	= 1 Anna.
15 Company's rupees	= 1 Gold mohur.

Weights.—The unit of British Indian weights is the *tola* of 180 grains English Troy weight; and from it are derived the greater weights of chittacks, seers, and muns or maunds; and also the smaller weights of massas, rutties, and dhans. Thus,

5 Tolas	= 1 Chittack.
16 Chittacks	= 1 Seer.
40 Seers	= 1 Mun or Maund = 100 lbs. Troy = 82 2-7ths lbs. av.

This maund corresponds very closely with, and is legally equivalent to, the bazaar maund of 82 lbs. 2 oz. 2·133 drs. avoirdupois. The factory maund is 10 per cent. less, being 74 lbs. 10 ozs. 10·666 drs. avoirdupois.

To convert Indian maunds into cwts. avoirdupois, multiply by 36 and divide by 49.

80 Tolas	= a Calcutta bazaar seer.
60 Ditto	= a Serampore seer.
82 Ditto	= a Hooghly seer.
84 Ditto	= a Benares Mirzapore seer.
96 Ditto	= an Allahabad and Lucknow seer.

A Calcutta factory seer is equal to 72 tolas, 11 annas, 2 punns, 10 gundas, 3·63 cowries.

Gold and Silver.

4 Punkhos	= 1 Dhan, or grain.
4 Dhans	= 1 Rutty.
6¼ Rutties	= 1 Anna.
8 Rutties	= 1 Massa.
96 Rutties	= 1 Tola.
12 Massas	= 1 Tola.

Liquid Measure.

5 Tolas	= 1 Chittack.
4 Chittacks	= 1 Pouah, or pice.
4 Pouahs	= 1 Seer.
40 Seers	= 1 Maund.
5 Seers	= 1 Pussaree, or measure.
8 Measures	= 1 Bazaar maund.

Grain Measure.

4 Khaonks	= 1 Raik.
4 Raiks	= 1 Pallie=9·08 lbs. avoird.
20 Pallies	= 1 Soallie.
16 Soallies	= 1 Khahoon=30 bz. mds.

Square Measure.

5 Cubits, or hauts, in length × 4 in breadth	= 1 Chittack, or 45 feet (Eng. square).
16 Chittacks	= 1 Cottah.
20 Cottahs	= 1 Biggah=14,440 sq. ft
3⅓ Biggahs	= 1 English statute acre.

Long Measure.

3 Barleycorns, or jows (barley)	= 1 Finger.
4 Fingers	= 1 Hand.
3 Hands	= 1 Span.
2 Spans	= 1 Cubit, or arm=18 inches.
4 Cubits	= 1 Fathom.
1,000 Fathoms	= 1 Coss=1 mile 1 furlong 3 poles 3½ yards.

Cloth Measure.

3 Jorbes	= 1 Angulla.
3 Angullas	= 1 Gheriah.
8 Gheriahs	= 1 Haut or cubit=18 inches.
2 Hauts	= 1 Guz=1 yard.

For Goods reckoned by Tale.

5 Particulars	= 1 Gunda.
4 Gundas, or 20 particulars	= 1 Koorje, or 1 corge.

Commercial Weights and Measures of India, with their Equivalents in English Avoirdupois, Bengal Factory, Madras, and Bombay Weights.

Commercial Measures, &c.	Avoirdupois.	Bengal Factory.	Madras.	Bombay.
	Lbs. oz. dr.	*Mds. S. Ch.*	*Mds. Vis. Pol.*	*Mds. S. Pice.*
Acheen bahar of 200 catties	423 6 13	5 26 13	16 7 19	15 4 27
——— guncha of 10 nelly	220 0 0	2 37 13·7	8 6 16	7 34 8·6
Anjengo candy of 20 maunds	560 0 0	7 20 0	22 3 8	20 0 0
Batavia pecul of 100 catties	135 10 0	1 32 10	5 5 16	4 35 22·4
Bencoolen bahar	560 0 0	7 20 0	22 3 8	20 0 0
Bengal factory maund	74 10 10·7	1 0 0	2 7 35·7	2 26 20
——— bazaar maund	82 2 2·1	1 4 0	3 2 11·3	2 37 10
Bombay candy of 20 maunds	560 0 0	7 20 0	22 3 8	20 0 0
Bussorah maund of 76 yakias	90 4 0	1 8 5·6	3 4 35·2	3 8 27·9
——— 24 ditto	28 8 0	0 15 4·3	1 1 4·8	1 0 21·4
Calicut maund of 100 pools	30 0 0	0 16 1·1	1 1 24	1 2 25·7
China pecul of 100 catties	133 5 5·3	1 31 6	5 2 26	4 30 14·3
Cochin candy of 20 maunds	543 8 0	7 11 2·6	21 5 36·8	19 16 12·9
Gombroon bazaar candy	7 8 0	0 4 0	0 2 16	0 10 21·4
Goa candy of 20 maunds	495 0 0	6 25 2·9	19 6 16	17 27 4·3
Jonk ceylon bahar of 8 capins	485 5 5·3	6 29 0	19 3 12	17 15 10
Madras candy of 20 maunds	500 0 0	6 28 0	20 0 0	17 34 8·6
Malacca bahar of 3 peculs	405 0 0	5 16 15	16 1 24	14 18 17·1
Mocha bahar of 15 frazils	450 0 0	6 0 ½	18 0 0	16 2 25·7
Muscat Custom-house maund	8 12 0	0 4 11	0 2 32	0 12 15
Mysore candy of 7 morahs	560 0 0	7 20 0	22 3 8	20 0 0
Pegu candy of 150 vis	500 0 0	6 28 0	20 0 0	17 34 8·6
Penang pecul of 100 catties	133 5 5·3	1 31 6	5 2 26	4 30 14·3
Surat maund of 40 seers	37 5 5·3	0 20 0	1 3 37·9	1 15 10
——— Pucca maund	74 10 10·7	1 0 0	2 7 35·7	2 26 20
Tellicherry candy of 20 maunds	600 0 0	8 0 2	24 0 0	21 17 4·3

Banks, Banking.—The paper currency of Calcutta is supplied as follows:—

The Bank of Bengal was founded in 1806, and was chartered in 1809. Its capital has been increased to 1,070,000*l.* sterling, divided into shares of 4,000 rupees each, and quarter shares, of which the East India Company hold a considerable number. The shares are now (*1859*) at a high premium; selling for 6,150 rup. ex dividend. It is managed by nine directors; three appointed by government, and six elected by the proprietors: time of service, for the latter, three years. The secretary to government in the financial department, the accountant-general, and the sub-treasurer, are the *ex officio* government directors. The bank secretary and treasurer is also a civil servant. This bank possesses peculiar advantages, its notes being received at all the public offices, in payment of revenue, by the collectors in all the districts below Benares; and, consequently, its circulation extends over a very large and the wealthiest portion of our Indian territory. The government being such considerable shareholders, too, it is generally supposed by the natives that the Bengal Bank is part and parcel thereof; and it enjoys, therefore, the same credit. The charter of 1809 limits the responsibility of the shareholders to the amount of their shares.

The act of 1839 establishing the Bank of Bengal on its present footing, and the resolutions of the directors, provide—

1. That the bank shall discount no negotiable security that has a longer period than 3 months to run, or lend any money for a longer period than 3 months.

2. That the directors shall make no loan or advance unless the cash in possession of the bank, and immediately available, be equal to one fourth part of all the outstanding claims against the bank payable on demand.

3. That the bank shall not be at any time in advance to government more than 7½ lacs rupees.

4. No account can be overdrawn.

5. The bank may issue promissory notes payable on demand or at 30 days after sight, provided the total amount of such notes does not exceed 2 crores rupees, and that none of them be for a less sum than 10 rupees.

6. The bank makes advances on goods not of a perishable nature; and it makes no charge for transacting the business of its customers, and allows no interest for the money in its hands.

The rates of discount, &c. vary, from time to time, with the state of the money market. We subjoin a statement of the terms on which the bank transacted business and of its liabilities, &c. on the 5th of January, 1859, as follows:—

DISCOUNT, &c.

	Per Cent.
On private bills and notes at or within 3 months	8
On promissory notes, protected by security of Company's paper, at or within 90 days	6
On Government acceptances	5
On mint certificates	4
Interest charged.—On loans, not exceeding 90 days, on deposit of Company's paper	7
On ditto on deposit of goods	8
On cash credits, not exceeding 45 days, on deposit of Company's paper	7
On ditto on deposit of goods	8
Rates of Advance.—On 4 per cent. Company's paper, Co.'s rs.	80
On 4 ditto ditto, Co.'s rs. 100 Co.'s rs.	86
On 5 ditto ditto, ,, 100 ,,	88

LIABILITIES.			
Proprietors' capital	1,07,00,000	0	0
Reserve fund	2,40,537	11	9
Current accounts	1,05,33,787	7	2
Deposition account	3,61,450	9	4
Cash credits, undrawn	4,38,907	2	4
Other claims	6,51,705	4	4
Bank notes	1,62,25,272	0	0
Post bills	1,86,398	8	4
Co.'s rs.	3,93,15,958	11	3

ASSETS.			
Government securities	23,92,000	0	0
Dues from government	17,984	14	10
Cash	1,29,50,994	3	1
Loans on deposit of securities	1,29,91,600	0	0
Discount loans on ditto	83,01,100	0	0
Accounts of credit on ditto	9,55,200	0	0
Government bills discounted	1,67,358	11	7
Mint certificates, ditto	2,01,723	12	9
Mercantile bills ditto	10,56,316	1	9
Dead stock	1,83,370	7	3
Interest account	1,18,200	5	0
Co.'s rs.	3,93,15,958	11	3

The Agra Bank, established in 1833, has a branch in Calcutta.

Pilotage.—The navigation of the River Hooghly, from the Sand Heads to Calcutta, a distance of about 130 miles, is naturally dangerous and intricate; but rendered comparatively safe by a skilful and excellent, though costly, pilot establishment.

Table of Rates of full and broken Pilotage, chargeable to Ships and Vessels, inward and outward of the River Hooghly.

Draught of Water.	Full Pilotage Inward.	Additional Pilotage outward.	Inward Proportion.	Outward Proportion.
Feet.	£	£	From Sea.	From Calcutta.
9 to 10	10		To Saugor . . 4 12ths	To Moyapore or Fulta . 2 12ths
10 11	12		To Kedgeree . . 6 12ths	To Fulta harbour . 3 12ths
11 12	14	1	To Culpee . . 8 12ths	To Culpee . . 4 12ths
12 13	16		To Culpee harbour . 9 12ths	To Kedgeree . . 6 12ths
13 14	18		To Fulta, or Moyapore . 10 12ths	To Saugor . . 8 12ths
14 15	21	2	To Calcutta, full pilotage.	To Sea, full pilotage.
15 16	25			
16 17	30			
17 18	35	4		
18 19	40			
19 20	45			
20 21	50			
21 22	55	6		
22 23	60			

Note.—All foreign vessels pay the same pilotage as those under British colours. By broken pilotage is meant the proportion of full pilotage between the different stages or places of anchorage. All ships, the property of foreigners, as well Asiatic as European, are subject to the charge termed "lead money;" it being indispensably necessary that the pilot should have with him a leadsman in whom he can confide.

Detention money, at the rate of 4*s.* per diem, from British and foreign vessels, is charged by persons of the pilot service kept on board ships at anchor by desire of the commander or owner.

In the river before Calcutta, and in other parts, there are chain moorings, of which the charges are as follows:—

Burden of Ships.	April to October, 7 months.				November to March, 5 months.			
		£	s.	d.		£	s.	d.
500 tons and upwards	Per diem	0	16	0	Per diem	0	12	0
Under 500 tons	Ditto	0	14	0	Ditto	0	10	0

Hire of the chain moorings at Diamond Harbour, 1*l.* per diem. The lowest charge to a ship requiring the accommodation of the chain moorings at either of the places above mentioned, is for 10 days; and using them longer a farther charge is made at the established rate per diem for every day exceeding 10. The charge for transporting a ship from her moorings into any of the docks at Kidderpore, Howrah, or Sulkea, or from any of the docks to her moorings, is fixed at 50 rupees; and no higher charge for such service is authorised. Besides pilotage, every ship is chargeable with the hire of a row-boat to accompany her; viz. for a boat of the first class, 24*s.*; of the second class 18*s.*; and of the third class, 14*s.* Of late years a light-house has been erected at Kedgeree, for which the charge on British or American flags is at the rate of 3*d.* per ton per annum. Ships proceeding to Calcutta must land their gunpowder at the powder magazine at Moyapore: the charge is at the rate of 1½*d.* per ton for each voyage. The whole pilot establishment and the care of the navigation of the Hooghly is under the management of government, and is directed by a marine board, with a master attendant and harbour-master.

The Marine Board at Calcutta have issued the following regulations with respect to pilotage, &c.

1. Commanders are requested, prior to quitting their vessels, on arrival off Calcutta, to fill up and certify, or cause to be filled up and certified, a form of certificate, showing the actual registered tonnage, the draught of water, and whether the vessel has or has not been tugged by a steamer any part of the way, or has or has not had the use of a row-boat; which form will be furnished to the pilot, in order to the bills of the vessels being correctly made out.

2. Commanders are further requested, as early after their arrival as possible, to notify in writing, to the master attendant, the name and residence of the reference for the payment of his vessel's bills.

On the receipt by the master attendant of the above certificate, and written reference for payment, a single bill will be prepared, including inward pilotage, lighthouse duty, Moyapore magazine duty, and row-boat hire (if any), which, together with the certificate, will be forwarded to the marine paymaster, for collection within 15 days of the arrival of the vessel, and having on it the name and residence of the party referred to for payment, which commanders are requested to furnish to the master attendant, in writing, as early after their arrival as practicable, that that officer will more readily be enabled to present it. By this arrangement, all the charges connected with the vessel, up to her arrival off Calcutta, will be embodied in one bill, instead of, as hitherto, being made up in separate bills.

4. In the event of vessels docking, or being transported at the desire of the commander, it is requested that a certificate may be given by the commanding officer of the operation having been performed, in order to its accompanying the bill when presented for payment to the referee.

5. The practice of charging for hauling to the chain-moorings, for their monthly hire, and for hauling from the moorings, in separate bills, is discontinued, and henceforward one bill will be prepared, including the charge for hauling to the moorings, that for occupying them, and that for hauling from them; and commanders are requested to give, or cause their commanding officers to give, to the master attendant, or the harbour-master, certificate of the date of hauling to and from the moorings, which certificate, as before, will accompany the bill when presented for payment. The hire of the moorings will be charged for the day on which the vessel is hauled thereto, without reference to the period of the day; and in like manner, no charge will be made for the day on which she hauls from her moorings, however late in the day she may quit them. The charges connected with the chain-moorings will thus be embodied in one bill, and be discharged in one payment, instead of three or more, according to the number of months the vessel occupied the moorings.

6. The system of charging outward pilotage on an estimated draught of water, with an addition of 10 per cent., subject to adjustment after the vessel has sailed, and of charging a certain number of days for a row-boat, subject to a like adjustment, is established; and in future the outward pilotage and charge for row-boat hire on outward-bound vessels will be as follows:—

When the vessel is finally laden, the commander is to give notice thereof to the master attendant, when the draught of water is to be ascertained and certified by the commander or commanding officer on the part of the vessel, and by the harbour-master on the part of government; subject, in case of dispute, to the decision of the master attendant. On receipt of the certificate, the master attendant will cause a bill to be made out for the regular amount of pilotage, and for the row-boat hire, according to an average rate, with reference to the size of the vessels and the season of the year, fixed by a marine committee which lately sat at the Bankshall, the majority of which was composed of members of houses of agency and commanders of ships. The bill and certificate will be presented in due course for payment.

7. As, however, it frequently happens that vessels are taking in cargo or filling their water up to the last day of their departure, or that from other causes the bills for the chain-moorings and outward pilotage cannot be made out till the eve of departure, owners, agents, and commanders are in such cases particularly requested, with a view to despatch, to cause an individual to attend at the Bankshall, and expedite the transmission of the bill and certificate to the board for registry, and to the Pay Office for collection; at each of which offices they may in such cases depend upon the most ready and special attention.

8. In the event of a vessel being tugged any part of the way down by steam, or not having the use of a row-boat, commanders are to obtain from the pilot of Kedgeree a certificate to that effect, which they should forward by Dák to their agents. On receipt thereof, agents are requested to make out a bill against the honourable Company for the quarter deduction from the pilotage allowed if tugged by steam, or for the row-boat hire paid, as the case may be; and to forward it, together with the certificate, to the marine board for audit and payment.

9. In cases where a vessel leaves Calcutta avowedly intended to fill up cargo at some place below, the pilotage will be charged at the draught at which she leaves Calcutta, in like manner, though at the reduced amount, as if she had proceeded to sea; and, with respect to the subsequent pilotage charge, from the place at which the vessel takes in the additional cargo to sea, owners or agents of vessels will be required to furnish a special guarantee to pay the amount chargeable according to a certificate of the draught of water, to be signed by the commander, or commanding officer and pilot.

10. Six sets of moorings at Diamond Harbour having been fitted specially to enable vessels arriving in distress from loss of anchors and cables to be readily moored, the charge will be Co's Rs. 50 for mooring and unmooring, and the daily hire the same as for the moorings at Calcutta. The moorings will, of course, be available to vessels not in distress from loss of anchors and cables; but the harbour-master will be instructed at all times to keep two sets vacant during the S.W. monsoon, to meet casualties.

There are several dry docks at Calcutta, in which vessels of any size may be built or repaired. Ships built at Calcutta are of inferior durability to those constructed at Bombay, in consequence of the framework being always of the inferior woods of the country; and the planks, sheathing, upper works, and decks, alone of teak; which last is furnished almost entirely from Pegu.

In 1848, the number of registered ships belonging to the port of Calcutta was 154, of the burden of 43,569 tons; being at an average of about 330 tons for each. The largest class of vessels carry nearly 750 tons; but ships drawing so much water are unfit for the navigation of the Hooghly. Not being able to load at Calcutta, they are obliged to receive part of their cargo at Diamond Harbour, about 34 miles farther down the river. The most convenient-sized ship for trade between Calcutta, and Europe, and America, is from 400 to 500 tons.

Tariff of Customs Duties in India.—The deficiency that has long existed in the revenue compared with the expenditure of India, coupled with the extraordinary outlay occasioned by the suppression of the late insurrection, have rendered it necessary to make large additions to the customs duties. This has been done by the subjoined tariff, which has doubled the former duties on a great variety of articles when imported, and has, also, imposed duties on indigo and many other articles when exported.

On the whole, however, we do not think that any good objection can be made to the new tariff. Additional revenue was indispensable; and it is not easy to see that any less exceptionable means of raising it could be devised. It is no doubt true that, except under peculiar circumstances, the policy of laying duties on exports is of a very questionable character. But there are occasions on which they may be imposed with the greatest advantage, and we need not travel beyond India for an illustration of this statement—the duty on the exportation of opium being altogether unexceptionable. It is seldom, indeed, that an article can be found in all respects so well fitted as the opium of India to bear a duty on exportation. But neither are articles that might be charged with more or less advantage with *reasonable* export duties so very rare as most persons seem to imagine. And we incline to think that such duties might be advantageously imposed by the Chinese on tea, by the French on wine, and by the English on coal, &c., when exported. But without entering further into this discussion it is sufficient to state that there are no grounds for thinking that the duties on exports in the following tariff will have any injurious operation over the trade of India.

Act of 1859 to alter the Duties of Customs on Goods imported or exported by Sea.

Portions of Schedules annexed to certain Acts repealed.—I. From and after the passing of this Act so much of Schedules A and B annexed to Act XIV. of 1836, so much of Schedules A and B annexed to Act VI. of 1844, so much of the Schedule annexed to Act IX. of 1845, so much of Schedules A and B annexed to Act I. of 1852, and so much of Sections II., III., and IV., Act XXX. of 1854, as prescribe the rates of duty to be charged on goods imported into or exported from any port in India by sea—are repealed.

Provisions of said Acts to have reference to Schedules annexed to this Act.—II. From and after the passing of this Act all the provisions now in force of the above-mentioned Acts which have reference to the duties of Customs now charged and leviable on goods imported into or exported from any port in India by sea, shall be taken to have reference to the duties of Customs prescribed in the Schedules annexed to this Act; provided that nothing in this Act shall authorise the levy of duties of sea customs at any free port, or be deemed to affect the provisions of Acts VI. and VII. of 1848.

Exceptions.—III. Nothing in this Act shall apply to the articles of salt or opium, or to teak timber exported from the Arracan, Pegu, Martaban, and Tenasserim Provinces.

This Act how to affect Contracts or Agreements already made.—IV. And whereas contracts or agreements may have been made for the sale or delivery of goods on which increased or additional duties are imposed by this Act, and which contracts or agreements may have been made without reference to such increased duties, and thereby the several contractors may be materially affected; it is therefore further enacted that if any person shall, by virtue of any contract entered into before the passing of this Act, be bound to deliver, at any time after the passing of this Act, goods hereby made liable to an increased or additional rate of duty, and shall, upon the importation or exportation of any goods which he may deliver on performance of such contract, pay a rate of duty higher than that which was imposed by law on such goods at the time when the contract was entered into, every such person is hereby authorised and empowered to add to the price of such goods a sum equal to the difference of the duty paid under this Act and the duty which would have been payable under the laws in force when the contract was entered into, and shall have the same remedy for the recovery of such sum as if the same had been part of the price agreed upon.

Operation of Act.—V. This Act shall take effect on and after the 12th day of March, 1859.

Schedule A.—Rates of duty to be charged on the following goods imported by sea into any port of India not being a free port:—

1. Bullion and coin	Free.	7. Cotton wool	Free.
2. Precious stones and pearls	"	8. Books	—
3. Grain and pulse	—	9. Machinery for the improvement of the communications and for development of the resources of the country	—
4. Horses and other living animals	—		
5. Ice	—		
6. Coal, coke, brick, chalk, and stones (marbles and wrought stones excepted)	—		

And the collector of customs, subject to the orders of the local Executive Government, shall decide what articles of machinery come within the above definition, and such decision shall be final in law.

10. Cotton, thread, twist, and yarn	5 per cent.	17. Provisions, hams, and cheeses	20 per cent.
11. Tea	20 ,,	18. Perfumery	20 ,,
12. Coffee	20 ,,	19. Jewellery, plate, and plated ware	20 ,,
13. Tobacco and all preparations thereof	20 ,,	20. Porter, ale, beer, cider, and other similar fermented liquors, 4 annas the imperial gallon.	
14. Spices, including cassia, cinnamon, pepper, cloves, nutmegs, and mace	20 ,,	21. Wines and liquors, 2 rupees the imperial gallon.	
15. Haberdashery, millinery, and hosiery	20 ,,	22. Spirits, 3 rupees the imperial gallon.	
16. Grocery, confectionery, and oilman's stores	20 ,,		

And the duty on spirits shall be rateably increased as the strength exceeds London proof; and when imported in bottles, six quart bottles shall be deemed equal to the imperial gallon.

23. All articles not included in the above enumeration 10 per cent.

Schedule B.—Rates of duty to be charged upon goods exported by sea from any port in India not being a free port.

1. Bullion and coin	Free.	9. Raw silk	Free.
2. Precious stones and pearls	—	10. Grain and pulse of all sorts, 4 annas the bag not exceeding 2 Indian maunds, or if exported otherwise than in bags	2 annas the maund.
3. Books, maps, and drawings printed in India	—	11. Indigo	3 rs. the maund.
4. Horses and other living animals	—	12. Lac dye and shellac	4 per cent.
5. Cotton wool	—	13. All country articles not enumerated or named above	3 per cent.
6. Sugar and rum	—		
7. Spirits	—		
8. Tobacco and all preparations thereof	—		

Trade of Calcutta.—During the last half century the trade of Calcutta has experienced some very striking vicissitudes. Previously to the opening of the trade in 1814–15, cotton piece goods formed the principal article of export from India; the value of those exported from Calcutta, at an average of the 5 years from 1814–15 to 1818–19, being (at 2s. per sicca rupee) 1,260,736*l.* a year. The extreme cheapness of labour in India, and the excellence to which the natives had long attained in several departments of the manufacture, would, it might have been supposed, have sufficed to place this important department beyond the reach of foreign competition. But the wonderful genius of our mechanics, the admirable skill of our workmen, and our immense capital, have far more than countervailed the apparently insuperable drawback of high wages, and the expense of bringing the raw material of the manufacture from America, and even India itself; and have enabled our manufacturers to bear down all opposition, and to triumph over the cheaper labour, contiguous material, and traditional art of the Hindoos. The imports of British cottons and twist into India have increased since 1814–15, with a rapidity unexampled in the annals of commerce; and the native manufacture has sustained a shock from which it is not very likely it will ever recover. The influence of these circumstances on the trade in piece goods has been very striking. During the year 1857–58, the value of those exported from Bengal was no more than 73,231*l.*, being only about $\frac{1}{18}$th part of what it amounted to 36 or 37 years previously!

The importation of bullion into Calcutta has fluctuated in an extreme degree since the opening of the trade in 1814. Bullion had from the earliest period been one of the most advantageous articles of export to the East; and it continued to be largely imported into Calcutta down to 1827-28. But from that period the imports declined, and were comparatively inconsiderable down to 1837–38; indeed, in 1831–32, and 1832–33, the exports of bullion exceeded the imports; but since 1837–38 its importation has again become greater than ever.—(See on this subject the arts. East Indies and Precious Metals.)

It does not, however, appear to be very difficult to account for these variations. Formerly the export of bullion to India, though influenced by other causes, was mainly occasioned by the difficulty under which we were then placed of providing articles of merchandise suitable for the Indian markets sufficient to balance our imports. The astonishing increase of our exports of cotton goods and yarn to India has, however, gone far to obviate this difficulty; in truth, the fair presumption seems to be, that in future the circumstances of the case will be reversed, and that the difficulty of procuring return cargoes of produce suitable for our markets will, in ordinary years, be found to be the principal obstacle to the extension of our trade with Hindostan as well as with China. There seems to be no limit other than the necessity of furnishing equivalents in their stead, to the indefinite sale of our products in the East. And, in so far, at least, as India is concerned, the facilities for furnishing such equivalents will, most likely, be gradually increased. The soil and climate of Bengal seem to be peculiarly well suited to the production of grain, sugar, indigo, opium, silk, cotton, saltpetre, and a host of other articles. And as the inhabitants are not deficient in industry, nor in the desire to improve their condition, it would seem that there wants only a reduction of the land-tax, which is so heavy as to paralyse all their energies, to enable them to increase their articles of export to an indefinite extent, and to render their country comparatively flourishing and prosperous.

Imports.—The great articles of import into Calcutta are British cotton manufactures and cotton twist; bullion; copper with spelter, tin, lead, iron, and other metals; machinery; woollens; wines and spirits; ale and beer; haberdashery, millinery, &c.; coffee; hardware and cutlery; spices; coal; coral, glass and bottles; salt; plate, jewellery, watches, &c.; books and stationery; tea, &c.

We subjoin

An Account of the Quantity and Value of the Principal Articles of Merchandise and of the Treasure imported into Calcutta during 1856-57 and 1857-58.

Merchandise.		1856-57.		1857-58.	
		Quantity.	Value.	Quantity.	Value.
			Rupees.		*Rupees.*
Alum	Indian mds.	33,257	65,596	21,008	52,492
Beads and false pearl	"		3,90,759		4,71,744
Betle nuts	"	1,31,254	3,93,371	130,607	3,91,915
Books and pamphlets	"		4,04,894		3,28,967
Camphor	"	4,503	1,15,205	1,315	32,894
Chanks	"	18,49,409	78,146	1,624,213	77,700
Cloves	"	7,255	1,14,873	5,465	89,415
Coals	"	8,50,671	4,10,335	1,013,014	5,06,507
Coir and coir rope	"	51,308	1,54,918	24,808	1,23,957
Coral	Sa. wt.	3,35,559	1,38,037	346,613	1,12,999
Earthenware	Indian mds.		1,53,241		1,04,189
Ghee	"	7,083	1,09,329	2,457	43,153
Glass ware	"		3,15,202		2,59,494
Guns and pistols	"		1,72,895		3,60,059
Haberdashery, millinery, & apprl.	lbs.		19,74,304		19,84,709
Hardware and cutlery	"		9,63,567		9,26,584
Hides and skins (raw)	"		5,15,559		6,50,476
Lametta	Corges	83,284	1,88,161	91,985	2,07,266
Medicines	"		2,42,269		2,34,976
Metals. Copper tile and slab	Indian mds.	21,850	7,86,476	11,904	4,20,578
Metals. " (shut and nail)	"	28,941	11,00,429	28,667	9,26,000
Metals. " (old)	"	2,449	78,048	6,756	1,79,901
Metals. Spelter	"	47,641	3,96,583	32,898	2,96,983
Metals. Tin block	"	7,373	2,32,080	15,462	4,65,581
Metals. Tin plates	boxes	4,043	57,289	11,491	1,49,456
Metals. Patent metals	Indian mds.	11,138	3,53,490	11,087	3,63,362
Metals. Lead	"	17,211	1,41,703	23,872	2,18,081
Metals. Lead shot	bags	7,457	25,007	10,917	29,709
Metals. Iron	Indian mds.	4,79,267	15,43,246	491,703	15,62,976
Metals. Steel	"	13,887	1,19,897	14,351	1,11,561
Metals. Quicksilver	"	2,828	2,22,066	2,758	2,20,986
Metals. Ironmongery, machinery, and anchors			1,02,10,260		76,78,011
Paint and turpentine	"		2,52,000		2,69,976
Pepper (black)	"	79,950	7,44,001	60,883	6,24,876
Piece Goods. White and grey cotton	pieces	97,38,419		8,189,202	
Piece Goods. White and grey cotton	yards	7,11,966	2,65,33,145	1,813,892	2,17,25,652
Piece Goods. White and grey cotton	dozen	14,520		13,487	
Piece Goods. Coloured cotton	pieces	14,71,272		1,934,258	
Piece Goods. Coloured cotton	yards	51,013	58,89,035	271,374	68,89,633
Piece Goods. Coloured cotton	dozens	32,580		29,645	
Piece Goods. Silk and mixed	pieces	19,789		82,219	
Piece Goods. Silk and mixed	metres	2,47,579	5,34,635	72,519	3,43,715
Perfumery and soap			1,79,984		1,53,563
Plate, jewellery, and watches			5,10,338		5,45,842
Salt	Indian mds.	38,31,269	29,17,044	5,861,097	25,34,118
Brandy			7,24,165		9,11,968
Stationery and cards			7,55,427		5,85,010
Ale and porter			7,89,381		9,20,150
Tea			1,75,804		4,09,572
Twist and yarn	lbs.	1,50,84,009	80,52,757	12,202,772	61,15,605
Port			1,82,712		3,85,414
Sherry			2,51,310		3,27,684
Claret			1,87,340		1,90,867
Champaign			1,77,975		1,59,147
Teak timber			3,83,228		2,96,672
Woollens			9,48,063		13,31,597
Value of the above and of all other merchandise			8,02,41,782		7,40,74,244
Treasure			6,67,60,533		7,80,70,887
Grand total: Co.'s Rs.			14,70,02,315		15,21,45,131
" "	£		14,700,232		15,214,513

Statement of the Quantities and Values of the Rice shipped from Calcutta in the Years 1856-57 and 1857-58.

	1856-57.		1857-58.	
	Quantity.	Value.	Quantity.	Value.
	Indian Mds.	*Rupees.*	*Indian Mds.*	*Rupees.*
To G. Britain	2,083,674	48,15,314	1,475,464	37,51,618
France	292,836	6,30,240	162,932	6,12,780
Mauritius	1,069,023	16,52,975	1,434,366	28,17,449
Bourbon	993,519	14,13,584	582,617	11,28,035
Malabar Coast	270,190	5,04,774	270,860	6,64,788
Gulfs	544,870	9,36,558	592,285	11,56,817
Ceylon	126,274	2,11,775	112,232	2,20,657
Maldives and Laccadives	40,654	70,913	20,211	40,406
China	1,533,662	24,46,527	2,623,275	51,38,264
Singapore	151,290	2,63,233	155,957	3,25,610
Penang	49,536	82,839	40,256	79,548
New Holland	267,416	6,85,187	155,459	4,16,651
Cape and St. Helena	106,357	1,99,721	134,564	3,26,041
Demerara	347,006	6,25,085	236,765	5,17,627
Hamburgh	15,216	26,239	16,710	34,468
Trinidad	64,631	1,12,577	20,632	44,255
Madras	146,856	2,54,033	115,148	2,26,657
N. America	75,921	27,958	90,318	2,45,764
Other places	21,715	54,734	6,282	15,667
	8,198,646	15,15,094 or £1,514,509	8,246,331	17,643,102 or £1,764,310
Being cwts.	6,023,495		cwt. 6,058,529	
— tons	301,175		tons 302,926	

Exports.—At present (1853) the great articles of export from Calcutta are opium, indigo, rice, sugar, raw silk and silk piece goods, saltpetre, lac dye, linseed, wheat, &c., hides, cotton and cotton piece goods, gunny bags and gunny cloth, rum, &c.

An Account of the Quantity and Value of the Merchandise (ex Treasure and Articles reexported) exported from Calcutta during 1856–57 and 1857–58.

Merchandise.		1856–57.		1857–58.	
		Quantity.	Value.	Quantity.	Value.
			Rupees.		*Rupees.*
Cotton-piece goods	pieces	71,201	97,132	86,017	61 782
Mixed piece goods	—	2,41,230	4,98,472	4,76,740	6,70,537
Silk piece goods	—	6,06,019	31,74,249	3,56,766	20,25,799
Country woollens	—	21,744	9,44,678	19,284	1,35,397
Indigo	Indian mds.	93,0683	1,47,61,103	83,611	1,33,71,065
Opium	chests	42,566	3,82,38,039	38,874	4,74,60,828
Saltpetre	Indian mds.	9,46,801½	54,78,212	5,89,108½	33,86,519
Sugar	—	17,30,672½	1,66,24,997	10,31,732½	1,05,33,295
Raw cotton	—	2,11,670½	21,15,624	9,782½	1,04,342
Raw silk	—	17,275½	68,94,594	19,369	77,59,848
Rice	—	81,98,616½	1,51,15,094	82,46,331½	1,76,43,104
Wheat	—	7,33,985½	12,54,353	3,70,980	10,32,171
Gram	—	2,50,366	3,23,312	2,31,963½	4,51,612
Dholl and peas	—	1,37,280	1,95,365	1,50,178½	2,64,442
Oats	—	1,10,660½	1,26,599	1,07,572	1,79,459
Paddy	—	18,749	15,474	4,861½	53,377
Bran	—	7,052½	4,412	9,591½	6,174
Arrowroot	—	504½	6,015	512½	11,583
Borax and tincal	—	29,711	4,58,860	11,908	1,78,652
Caoutchouc	—	421½	5,906	842½	11,801
Canvas	bolts	1,192	9,625	1,591	14,220
Castor oil	Indian mds.	60,108	4,82,272	37,998	3,04,630
Elephants' teeth	—	191½	25,046	1,725½	1,92,880
Ghee	—	12,513½	1,78,035	27,748½	1,92,880
Ginger	—	32,606½	1,30,882	47,918½	1,92,556
Gunny bags	no.	1,73,50,816	28,99,417	1,57,63,825	29,57,623
Gunny cloth	pieces	8,12,987	26,25,975	3,50,751	11,29,494
Hemp	Indian mds.	43,177	1,51,660	31,621½	1,05,758
Hemp twine	—	14,006½	1,28,276	18,156	1,54,154
Hides of sorts	no.	61,91,180	49,48,185	55,10,261	44,16,336
Horn tips	Indian mds.	6,635	36,572	5,949½	32,702
Jute	—	9,96,533½	27,49,044	10,68,160	29,39,830
Lac dye	—	21,206	6,36,679	20,462	6,15,505
shell	—	46,035	4,17,347	49,738	4,17,698
seed	—	350	708	468½	1,874
Linseed	—	21,09 298½	42,21,583	19,85,916½	39,71,932
Molasses	—	24,650½	24,651	11,604½	21,852
Munjeet	—	2,858	7,974	3,403½	10,310
Mustard seed	—	5,97,168	11,94,269	1,65,171½	3,30,343
Mustard oil	—	5,114½	37,059	3,693½	25,112
Poppy seed	—	1,25,079	2,50,238	37,099½	74,199
Provisions and lard	—		2,87,740		2,93,997
Putchuck	—	2,025½	14,209	3,153½	13,715
Rum (Bengal)	gallons	5,61,960	1,70,039	1,95,056	59,923
Safflower	—	15,106½	2,99,915	11,578½	2,35,009
Segars	—		17,954		41,518
Soap	—	3,376	21,029	3,509½	22,640
Tallow	—	17,925½	1,74,237	8,545	89,156
Teel seed	—	18,923½	37,854	1,892½	5,785
Teel seed oil	—	1,172	7,463	300½	1,802
Tobacco leaf	—	48,606½	2,00,983	46,266½	3,00,054
Tobacco prepared	—	1,696	11,867	3,560	45,255
Turmeric	—	33,084½	49,629	64,745	96,744
All other exports	—		22,63,959		27,53,478
Total exports, Co.'s Rs., of the above and other artic es			13,10,59,089		12,71,95,883
			£13,105,909		£12,719,588

Remarks on Exports.— The reader will elsewhere find (articles CANTON and OPIUM) pretty ample information in relation to the trade in opium. It is sufficient here to state that it has rapidly grown in magnitude and importance. At an average of the years 1830–31 and 1831–32 the exports from Calcutta were 7,273 chests, worth 1,121,560*l.*; whereas during the year 1857–58 the exports had increased to 38,874 chests, worth 4,746,083*l.* China is not the principal merely, but almost the only market for opium, so that the trade between Calcutta and her is now second only to that between Calcutta and England. It is true that large quantities of opium are shipped for Singapore and other intermediate ports, but China is its ultimate destination. Subjoined is a

Statement of the Quantity and Value of the Opium shipped from Calcutta in 1856–57 and 1857–58.

		1856–57.		1857–58.	
		Quantity.	Value.	Quantity.	Value.
			Rupees.		*Rupees.*
To China	chests	36,584	3,28,17,507	32,127	3,91,80,638
Singapore	»	4,750	42,98,083	5,661	69,30,145
Penang	»	1,017	9,28,109	1,019	12,84,405
Other places	»	215	1,94,340	67	65,340
		566	3,82,38,039 or £3,825,804	38,874	4,74,60,828 or £4,746,083

Previously to the close of the American war, the exports of indigo from Calcutta were comparatively trifling. But about that period Europeans began to engage in the business; and the culture of the plant was, in consequence, so much extended, and the preparation of the drug so much improved, that it has been for a lengthened period an article of primary commercial importance. Of late years, however, the growth of indigo appears to have increased but slowly; the shipments in 1830–31 and 1831–32 being 2,856 tons, and those in 1857–58 only 3,071 tons. This stationary state of the trade has been ascribed partly to the influence of importations from Java, where indigo is now very extensively raised, and partly to the alleged decrease in the use of blue cloth. France is, next to England, the great market for indigo.

Statement of the Quantities and Value in Rupees of the Indigo shipped from Calcutta in the Years 1856–57 and 1857–58.

	1856–57.		1857–58.	
	Quantity.	Value.	Quantity.	Value.
	Indian Mds.	*Rupees.*	*Indian Mds.*	*Rupees.*
To Great Britain	58,017	91,75,309	61,238	98,31,882
France	24,376	38,81,917	14,043	22,61,149
North America	6,449	10,40,866	3,253	5,24,490
Bombay	1,371	2,00,262	3,116	4,28,565
Arabian and Persian Gulphs	1,858	3,11,062	1,852	3,08,412
Hamburgh	753	1,20,470	98	15,702
Other places	244	38,217	11	1,765
	93,068	1,47,61,103 or £1,476,410	83,611	1,33,71,965 or £1,337,197
Being in cwts.	68,376		cwt. 61,428	
— tons	5,419		tons 3,071	

We had occasion to remark, in a former edition of this work, that of the various articles brought from India, sugar seemed to be the one in which an increase of importation would most likely take place. In 1835, the duty on East India sugar, which had previously been comparatively high, was reduced to the same amount as that on West India sugar; and that circumstance, and the continued high price of sugar in this country, did not fail to give a powerful stimulus to its culture in and exportation from India. But the great increase in the exports of sugar from 1830 down to 1840, has not been continued. And now that the sugar trade is placed on a proper footing, by the abolition of the discriminating duties on foreign sugars, the importations from India will, perhaps, be but slowly increased.

Subjoined is a

Statement of the Quantities and Values of the Sugar shipped from Calcutta in the Years 1856–57 and 1857–58.

		1856–57.		1857–58.	
		Quantity.	Value.	Quantity.	Value.
			Rupees.		*Rupees.*
To Great Britain	Indian mds.	1,089,135	1,06,58,255	582,555	57,64,479
Bombay	—	296,655	26,10,564	306,293	35,12,589
Gulfs	—	10,810	1,01,033	20,651	2,21,098
Gibraltar	—	12,915	1,29,150		
Ceylon	—	4,213	40,750	5,531	65,722
Pegu	—	21,491	1,96,776	14,254	1,42,456
New Holland	—	89,237	8,44,194	22,697	2,28,173
Cape and St. Helena	—	3,145	31,145	408	8,085
North America	—	74,081	7,36,547	45,357	4,55,329
France	—	54,957	5,37,592	14,016	1,40,165
Genoa	—	19,020	1,90,201		
Hamburgh	—	45,765	4,06,541	16,866	1,66,996
Trieste	—	6,157	61,575	300	3,000
South America	—	2,734	25,500		
Other places	—	1,258	74,654	2,424	25,234
		1,730,673	1,66,24,997 or £1,662,500	1,031,552	1,05,33,295 or £1,053,330
Being in cwts.		1,271,515		cwt. 757,713	
— tons		63,576		tons 37,886	

Abstract View of the External Commerce of Bengal.—Imports.

From what Countries or States.	1856–57.			1857–58.		
	Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.
	Rupees.	*Rupees.*	*Rupees.*	*Rupees.*	*Rupees.*	*Rupees.*
Great Britain	6,69,54,474	4,04,51,225	10,73,95,699	6,01,97,662	4,09,96,651	10,11,94,313
France	15,86,691	70,06,188	86,01,809	16,98,629	67,11,141	84,09,770
North America	7,70,113	48,000	8,18,113	7,39,548	20,250	7,59,798
Madras coast	20,05,631	19,27,345	39,32,976	16,65,251	49,81,732	66,46,983
Ceylon	1,09,200	2,05,130	3,14,330	1,17,748	9,54,445	10,71,893
Maldives and Laccadives	51,022		51,022	1,46,196		1,46,196
Malabar coast	24,81,850	20,765	25,02,615	23,66,487	59,99,230	83,65,717
Arabian and Persian Gulphs	4,27,509	1,98,025	6,25,534	5,68,145	4,31,908	10,00,053
Singapore	8,55,743	33,50,194	42,05,937	13,20,749	13,98,644	27,19,393
Penang and Malacca	8,58,841	41,791	9,00,635	9,06,671	24,745	9,33,416
China	17,27,547	77,58,957	94,86,504	14,49,297	1,16,62,138	1,31,11,435
New Holland	4,12,022	28,57,111	32,69,133	7,62,806	10,77,814	18,40,620
Pegu	12,48,590	13,34,071	25,82,661	11,75,810	8,35,654	20,11,464
Mauritius	21,363	4,86,530	5,07,893	48,101	11,50,547	11,98,648
Bourbon	34,720	8,57,766	8,92,486	5,936	11,06,528	11,12,464
Cape and St. Helena	23,538	230	23,868	4,80,380	4,200	4,84,580
Hamburgh	1,55,083		1,55,083	1,58,047		1,58,047
Cadiz	13,472		13,472	31,516		31,516
Cape Verd Islands	35,578		35,578	5,844		5,844
Antwerp	2,60,327		2,60,527	76,182		76,182
Malta	1,29,362	80,600	2,10,462	87,329	2,69,750	3,57,079
Manilla	17,706		17,706	20,609		20,609
Alexandria		1,26,602	1,26,602	262	4,31,900	4,32,162
Java and Sumatra				13,270	13,500	26,770
Austria				600		600
Genoa	36,508		36,508	18,688		18,688
Amsterdam	8,031		8,031			
Smyrna	16,910		16,910			
Trieste	9,671		9,671	2,500	410	2,910
Belgium	150		150	7,981		7,981
Total Co.'s Rs.	8,02,41,782	6,67,60,533	14,70,02,315	7,40,74,244	7,80,70,887	15,21,45,131

Abstract View of the External Commerce of Bengal.—Exports.

To what Countries or States.	1856-57.			1857-58.		
	Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.
	Rupees.	*Rupees.*	*Rupees.*	*Rupees.*	*Rupees.*	*Rupees.*
Great Britain	4,66,65,639	8,600	4,66,74,239	3,89,58,661	12,940	3,89,71,601
France	84,47,311	1,05,500	85,52,811	51,20,034	89,550	52,09,584
North America	1,37,20,666	. .	1,37,20,666	78,32,816	. .	78,32,816
Madras coast	17,23,991	3,61,909	20,85,900	21,31,155	12,06,780	33,37,935
Ceylon	4,21,882	17,26,500	21,48,382	4,79,285	4,79,710	9,58,995
Maldives and Laccadives	80,780	. .	80,780	68,811	. .	68,814
Malabar coast	58,58,884	1,100	58,59,984	81,05,535	2,59,737	83,63,372
Arabian and Persian Gulphs	15,04,281	. .	15,04,281	19,93,224	. .	19,93,224
Singapore	51,08,333	2,11,618	53,19,951	78,73,027	1,37,102	80,10,129
Penang and Malacca	11,47,722	1,46,337	12,94,059	15,05,887	1,01,970	16,05,857
China	3,73,95,384	14,84,994	3,88,80,378	4,51,21,399	6,98,906	4,58,20,305
New Holland	19,61,041	. .	19,61,041	10,87,857	. .	10,87,857
Pegu	52,55,810	50,42,973	1,02,98,783	59,08,212	55,57,173	1,14,65,415
Mauritius	24,26,745	9,00,000	33,26,745	40,92,307	500	40,92,807
Bourbon	17,91,882	. .	17,91,882	15,50,922	52,550	16,03,472
Cape and St. Helena	2,85,910	. .	2,85,910	4,39,358	. .	4,39,358
Demerara	7,13,515	. .	7,13,515	6,83,857	. .	6,83,857
Hamburgh	9,61,082	. .	9,61,082	4,76,394	. .	4,76,394
Malta	33,280	. .	33,280	30,013	. .	30,013
Trinidad	1,16,342	. .	1,16,342	50,145	. .	50,145
Antwerp	8,842	. .	8,842			
Trieste	1,43,002	. .	1,43,002	48,291	. .	48,291
Genoa	2,73,292	. .	2,73,292	560	. .	560
Amsterdam	25,965	. .	25,965			
Java and Sumatra	2,52,155	. .	2,52,155	2,16,937	. .	2,16,937
Gibraltar	2,43,146	. .	2,43,146	59,675	. .	59,675
Constantinople	81,036	. .	81,036			
Total Co.'s Rs.	13,66,47,918	99,89,531	14,66,37,449	13,38,10,495	85,96,918	14,24,07,413

Statement exhibiting the Proportion of the External Commerce of Bengal enjoyed by each Country or State during the Years 1856-57 and 1857-58.

Countries.	Import Trade.				Export Trade.			
	1856-57.		1857-58.		1856-57.		1857-58.	
	Value.	Per Centage.	Value.	Per Centage.	Value.	Per Centage.	Value.	Per Centage.
Europe.	*Rupees.*		*Rupees.*		*Rupees.*		*Rupees.*	
United Kingdom	10,73,95,699	73·1	10,11,94,315	66·5	4,66,74,239	31·8	3,89,71,601	27·4
France	86,02,809	5·9	84,09,770	5·5	85,52,811	5·8	52,09,584	3·6
Hamburgh	1,55,083	0·1	1,58,047	0·1	9,61,082	0·6	4,76,394	0·4
Belgium	150		7,981					
Trieste	9,671		2,910		1,43,002	0·1	48,291	
Cadiz	13,472		31,516					
Amsterdam	8,057				25,965	0·1		
St. Ubes	9,061							
Antwerp	2,60,327	0·2	76,182		8,842			
Genoa	38,508		18,688		2,73,292	0·2	560	
Malta	2,10,462	0·2	3,57,079	0·2	33,280	0·1	30,013	
Gibraltar					2,43,146	0·2	59,675	0·1
Constantinople					81,036	0·1		
Austria			600					
	11,67,03,273	79·5	11,02,57,086	72·3	5,69,96,695	39·0	4,47,96,118	31·5
Asia.								
Coromandel coast	39,32,976	2·7	66,46,983	4·4	20,85,900	1·4	33,37,935	2·3
Ceylon	3,14,330	0·2	10,71,893	0·7	21,48,382	1 4	9,58,995	0·6
Malabar coast	25,02,615	1·7	83,65,717	5·5	58,59,984	4·0	83,63,372	5·9
Maldives and Laccadives	51,022		1,46,196	0·1	80,780	0·1	68,814	0·1
Arabian and Persian Gulphs	6,25,534	0·4	10,00,053	0·6	15,04,281	1·0	19,93,224	1·4
China	94,86,304	6·5	1,31,11,435	8·6	3,88,80,378	26·5	4,58,20,305	32·2
Singapore	42,05,937	2·9	27,19,393	1·8	53,19,951	3·6	80,10,129	5·6
Penang and Malacca	9,00,635	0·6	9,33,416	0·6	12,94,059	0·9	16,05,857	1·1
Java and Sumatra			26,770		2,52,155	0·2	2,16,937	0·2
New Holland	32,69,133	2·2	18,40,620	1·2	19,61,041	1·3	10,87,857	0·8
Pegu	25,82,661	1·7	20,11,464	1·6	1,02,98,783	7·0	1,14,65,415	8·0
Manilla	17,706		20,609					
Smyrna	16,910							
	2,79,05,763	18·9	3,78,94,549	25·1	6,96,85,694	47·4	8,29,28,840	58·2
Africa.								
Mauritius	5,07,893	0·3	11,98,648	0·8	33,26,745	2·3	40,92,807	2·9
Bourbon	8,92,486	0·6	11,12,464	0·7	17,91,882	1·2	15,83,472	1·1
Cape and St. Helena	23,368		4,84,580	0·3	2,85,910	0·2	4,39,358	0·3
Cape Verd Islands	26,317		5,844					
Alexandria	1,26,602	0·1	4,32,162	0·3				
	15,77,166	1·0	32,33,698	2·1	54,04,537	3·7	61,15,637	4·3
America.								
North America	8,18,115	0·6	7,59,798	0·5	1,38,37,008	9·4	78,82,961	5·5
South America					7,13,515	0·5	6,83,857	0·5
	8,18,115	0·6	7,59,798	0·5	1,45,50,523	9·9	85,66,818	6·0
Total	14,70,02,315	100	15,21,45,131	100	14,66,37,449	100	14,24,07,413	100

The exports of cotton from Calcutta continue stationary; the expectations that it would be improved in its quantity by greater attention being given to its culture and preparation have not been realised.

The exports of saltpetre from India have not, as many anticipated, been affected by the competition of nitrate of soda from South America. In 1830-31 the exports from Calcutta were 424,729 fact. maunds; whereas, in 1856-57, they amounted to 946,801 fact. maunds.

The exports of rice from Bengal fluctuate very greatly. This is not caused so much by variations in

Account of the Number of Ships and their Tonnage which entered Calcutta in 1857–58.

Countries.	1857–58.		Countries.	1857–58.	
	Vessels.	Tonnage.		Vessels.	Tonnage.
United Kingdom (*viâ* Cape and Madras)	252	2,11,601	Foreign Europe	63	27,473
Bombay and Malabar coast	53	39,165	North America, (United States)	70	51,682
Madras and Coromandel coast	42	25,578	China and Singapore	6	3,101
Suez and Madras	23	24,475	Bourbon	30	12,567
Rangoon, Akyab and Moulmein	56	21,703	Cape	3	1,858
China and Singapore	36	18,008	Muscat, Juddah, and Alleppee	10	5,652
Singapore, Penang, and Malacca	17	5,101	Singapore, Penang, and Malacca	6	3,403
Mauritius	45	30,097	Mauritius	14	6,225
Muscat, Juddah, and Alleppee	21	12,935	Bombay and Malabar coast	12	7,653
Cape	16	10,468	United Kingdom	63	56,755
Dhoonies, from Maldives and Laccadives	17	1,964	Australia	11	6,519
Australia	44	31,334	Rangoon, Akyab, and Moulmein	3	1,141
Dhoonies, from coast	70	7,959	Madras and Coromandel coast	6	3,481
Dhoonies, from Moulmein and Arracan	4	815	Ceylon and Point de Galle	1	498
Dhoonies, from Penang	1	233	South America	1	280
Ceylon and Point de Galle	8	4,139	Sumatra and Java	1	241
Foreign Europe	1	313	Total Foreign Imports	300	1,88,433
Total British Imports	706	4,46,191	Total British and Foreign Imports.	1,006	6,34,624

the crops of the country, as by variations in those of other countries; for, when a scarcity occurs in most parts of continental Asia or in any of its islands, recourse is almost invariably had to Bengal to supply the deficiency; and the demands thence arising have been sometimes enormous. In 1831–32, for example, the exports of rice from Calcutta to the coast of Coromandel amounted to only 16,545 maunds, whereas in 1833–34, they amounted to 1,252,056 maunds.—(*Bell's Comparative View of* 1832–33 and 1833–34, p. 41.) It is worthy of remark, that while Bengal is shipping immense supplies of rice and other grain to distant parts, a large part of her own population is frequently in a state of great want and suffering. Ireland is not, therefore, the only country in which the most abject poverty and wretchedness on the part of the inhabitants are found combined with great fertility of soil, and a large exportation of food.

Besides the articles of native Indian produce exported from Calcutta, she re-exports pretty considerable quantities of various articles brought from other parts. The value of the British cotton goods re-exported amounts to about 200,000*l.* a year. They are principally bartered with the Burmese for silver. The conveyance of the latter out of the Burmese dominions is strictly prohibited; but in Burma, as in England and elsewhere, the ingenuity of the smuggler is too much for the vigilance of the government, and the trade is carried on without much difficulty.

Internal Transit Duties.—A very great improvement has been effected, since the publication of the first edition of this work, in the domestic economy of our Indian empire, by the abolition of the duties on the transit of goods from one part of the country to another.* These duties had existed in India from a very remote period; and, by obstructing the intercourse between its different districts, were singularly pernicious. After the East India Company began to acquire a footing in India, they availed themselves of a favourable opportunity to procure an exemption from the transit-duties in favour of their own trade; "the goods which they imported being allowed to pass into the interior, and those which they purchased for exportation in the interior being allowed to pass to the sea, without either stoppage or duties."—(*Mill's India*, 8vo. ed., vol. iii. p. 289.) They were not, however, long permitted to monopolise this privilege. Immediately after the victories of Clive had raised the company to the situation of a great territorial power, their servants engaged largely in the inland trade, and endeavoured, partly by fraud and partly by force, to extend to their own goods the exemption from transit duties established in favour of those belonging to the company. Every reader of Indian history is aware of the multiplied abuses and disturbances that grew out of this attempt of the company's servants to release themselves from duties and charges that pressed with grinding severity on the natives, and, by consequence, to engross (for such was their object) the whole internal trade of the country. The company endeavoured to obviate the evil by strictly forbidding their servants from engaging in internal traffic. But its orders to this effect were long either totally disregarded, or but very imperfectly obeyed. At length, in 1788, Lord Cornwallis adopted the decisive and judicious measure of abolishing the duties. They were, however, again renewed in 1801. The exclusion of Englishmen from all participation in the interior traffic of the country having been gradually carried into complete effect for a lengthened period, they were less alive than they would otherwise have been to the injurious influence of the duties, so that their re-establishment met with comparatively little opposition. In 1810 a new tariff was introduced, by which the duties "were frightfully augmented;" and they continued from that epoch down to their recent abolition seriously to obstruct all sorts of internal traffic, and to oppose the most formidable obstacle to the improvement of the country.

Had the inland transit duties been productive of a large amount of revenue, that would have been some set-off against the enormous evils of which they have been productive. But such has not been the case. The expenses of collection, and the interruption of communication, were so very great, that the nett produce of the inland transit duties was quite insignificant; so much so that, according to Trevelyan, it did not exceed, in the extensive province of Bengal, the miserable pittance of 27,500*l.* a year.—(*Report*, p. 143.) We see no reason to doubt the accuracy of this statement; and, assuming it to be correct, we are warranted in affirming that there is not another instance to be found, in the history of taxation, of a tax so fruitful of mischievous results, and so barren of revenue.

Town Duties.—These were charged on the principal articles of consumption in 23 of the chief towns of Bengal. They were in many respects similar to the *octrois* in France; and, though not nearly so injurious as the internal transit duties, were productive of much inconvenience. We are glad, however, to have to state that they, as well as the transit duties, have recently been abolished; and that the internal trade of Bengal is now as free, in so far, as least, as statutory regulations can make it, as the internal trade of England.

This article has been compiled from various authorities, including—*Milburn's Oriental Com-*

* This important measure was preceded, and, we believe, principally brought about, by the publication of an elaborate and valuable report on the inland customs of Bengal, by Mr. Trevelyan (now Sir Charles, K.C.B.), then one of the Secretaries to the Indian Government, and now Governor of Madras.

merce; Bonnaud's excellent View of the External Commerce of Bengal in 1856–57 and 1857–58; *Parliamentary Papers relating to the Finances of India and the Trade of India and China; and private communications.*

CALICO (Ger. *Kattun*; Du. *Katoen*; Dan. *Kattun*; Sw. *Cattun*; Fr. *Coton, Toile de Coton*; It. *Tela Bambagina, Tela dipinta*; Sp. *Tela de Algodon*; Port. *Pano de Algodao*; Rus. *Wiibvika*; Pol. *Bawelnika*), cloth made of cotton; so called from Calicut, on the Malabar coast, whence it was first imported. In England, all white or unprinted cotton cloths are denominated calicoes; but in the United States this term is applied to those only that are printed.

Historical Notice of the Art of Calico Printing. — This art, though apparently one of the most difficult, has been practised from a very remote æra. Herodotus mentions (lib. 1. § 202.), that a nation on the shores of the Caspian were in the habit of painting the figures of animals on their clothes, with a colour formed from the leaves of trees bruised and soaked in water; and he adds, that this colour was not effaceable, and was as durable as the clothes themselves. It is difficult to imagine that the colours could have been so permanent, had not those using them been acquainted with the use of mordants. There is, however, a passage in Pliny (*Hist. Nat.* lib. xxxv. § 11.), which, though in some respects obscure, shows that the ancient Egyptians were fully acquainted with the principle of calico printing. "They paint," says he, "the clothes, not with colours, but with drugs (*sorbentibus medicamentis*) that have no colour. This being done, they immerse them in a vat full of boiling dye, and leave them there for a little: when they take them out, they are painted of various colours. It is extraordinary, seeing that there is only one colour in the vat (*unus in cortina color*), that a variety of colours should be produced by the operation of the drugs." Pliny further states, that the colours were so adhesive they could not be washed out; and that clothes were the stronger for being dyed. A similar process is known to have been followed in India from the earliest times. The chemical and mechanical inventions of modern ages have been the cause of vast improvements in this ingenious and beautiful art; but the passage now quoted shows distinctly that we have, in this instance, been only perfecting and improving processes practised in the remotest antiquity.

Calico Printing in this Country. Duties on Calicoes. — In Great Britain the printing of cottons has formed, for a considerable period, a very important and valuable business, which may be truly said to have grown up amongst us in despite of repeated efforts for its suppression. To prevent the use of calicoes from interfering with the demand for linen and woollen stuffs, a statute was passed in 1721, imposing a penalty of 5*l.* upon the weaver, and of 20*l.* upon the seller, of a piece of calico! Fifteen years after this extraordinary statute was so far modified, that calicoes manufactured in Great Britain were allowed to be worn, "provided the warp thereof was entirely of linen yarn." This was the law with respect to calicoes till after the invention of Sir Richard Arkwright introduced a new æra into the history of the cotton manufacture, when its impolicy became obvious to every one. In 1774, a statute was passed, allowing printed goods, wholly made of cotton, to be used, after paying a duty of 3*d.* a yard (raised to 3½*d.* in 1806); and enacting some regulations as to the marks to be affixed to the ends of the pieces, the stripes, &c.

This act continued in force down to 1831; but, though an improvement upon the old law, it was much, and justly, complained of. Its injustice and injurious operation were very forcibly pointed out by Mr. Poulett Thompson (afterwards Lord Sydenham), in his excellent speech on taxation, on the 26th March, 1830. "It is a matter of surprise to me," said the Right Hon. gent., "that this most impolitic impost should have been allowed to continue, especially when it was declared by the committee of 1818 to be '*partial and oppressive*,' and that its repeal was most desirable:' who, indeed, can examine it, and not feel the truth of this observation? Is it credible, that, in order to raise a nett revenue of 599,669*l.*, a gross tax should be imposed of 2,019,737*l.*? and yet this was the return, according to the paper on your table, for 1828. And these figures are still far from showing the real cost of the collection of this tax;—that must be taken upon the gross produce; and supposing the rate of the collection for the excise to be 5 per cent., which is less than it really is, you have a cost of 20 per cent. on the nett produce of this tax, for charges. In addition to this, from all the inquiry I have been able to make, the increased cost to the manufacturer is fully 5 per cent. upon the whole quantity made; so that you have thus two sums, each of 100,000*l.*, levied on the public, for the sake of exacting a duty of 600,000*l.* But the revenue is again, in this case, far from being the measure of the injury you inflict. The inequality of the tax constitutes its chief objection. The duty is levied upon the square yard, at 3½*d.* per yard. Thus, the piece of calico which sells for 6*d.*, duty paid, contributes equally with that which is worth 5*s.* a yard. You levy an onerous and oppressive tax of 100 or 150 per cent. upon the poor, who are the purchasers of inferior cottons; whilst the rich, who buy only the finest kinds, pay but 10 or 15 per cent."

It is due to Mr. Thompson to state, that, not satisfied with giving this forcible exposition of the inequality and injurious operation of the duty on printed goods, one of his first measures, on coming into office, was to propose its repeal.

In consequence, partly of the abolition of the tax, but principally, no doubt, of the extraordinary increase of the cotton manufacture, the business of calico printing, has increased prodigiously since 1830. In proof of this we may mention, that in 1829, about twelve months previously to the abolition of the duty, 89,862,433 yards of all descriptions of printed goods were exported to foreign parts; whereas, in 1841, there were exported, of printed cottons only, the enormous quantity of 329,240,892 yards, of the declared value of 7,772,735*l.*! (See *Board of Trade Papers* for 1841, p. 123.)

By the 34 Geo. 3. c. 23. it is enacted, that the inventor, designer, or printer of any new and original pattern for printing linens, cottons, calicoes, or muslins, shall have the sole right of printing and reprinting the same for 3 months, to commence from the day of first publishing.

CAMBRIC, or CAMBRICK (Ger. *Kammertuch*; Du. *Kameryksdoek*; Fr. *Cambray Batiste*; It. *Cambraja*; Sp. *Cambrai*; Port. *Cambraia*; Rus. *Kamertug*), a species of very fine white linen, first made at Cambray, in French Flanders, whence it derives its appellation. It is now produced, of an equally good quality, in Great Britain.

CAMEL (Fr. *Chameau*; It. and Sp. *Camelo*; Ger. *Kameel*; Arab. *Djimel*; Lat. *Camelus*; Greek, Καμηλος) is indigenous to Arabia, and we only mention it in this place on account of its extreme importance in the commerce of the East.

The camel is one of the most useful of the animals over which the inhabitants of Asia and Africa have acquired dominion. These continents are intersected by vast tracts of burning sand, the seats of desolation and drought, so as, apparently, to exclude the possibility of any intercourse taking place between the countries that they separate. "But as the ocean, which appears at first view to be placed as an insuperable barrier between different regions of the earth, has been rendered, by navigation, subservient to their mutual intercourse; so, by means of the camel, which the Arabians emphatically call *the Ship of the Desert*, the most dreary wastes are traversed, and the nations which they disjoin are enabled to trade with one another. Those painful journeys, impracticable by any other animal, the camel performs with astonishing despatch. Under heavy burdens of 600, 700, and 800 lbs. weight, they can continue their march during a long period of time, with little food or rest, and sometimes without tasting water for 8 or 9 days. By the wise economy of Providence, the camel seems formed of purpose to be the beast of burden in those regions where he is placed, and where his service is most wanted. In all the districts of Asia and Africa, where deserts are most frequent and extensive, the camel abounds. This is his proper station, and beyond this the sphere of his activity does not extend far. He dreads alike the excesses of heat and cold, and does not agree even with the mild climate of our temperate zone."—(*Robertson's Disquisition on Ancient India*, Note 53.)

The first trade in Indian commodities of which we have any account (Genesis xxxvii. 25.) was carried on by camels; and they still continue to be the instruments employed in the conveyance of merchants and merchandise throughout Turkey, Persia, Arabia, Egypt, Barbary, and many contiguous countries. The merchants assemble in considerable numbers, forming themselves into an association or *caravan*—(see Caravan), for their mutual protection against the attacks of robbers, and the dangers incident to a journey through such rude and inhospitable countries. These caravans are often very large, and usually consist of more camels than men. The capacity of the camel to endure fatigue, and the small supply of provisions that he requires, is almost incredible. "His ordinary burden," says Volney, "is 750 lbs.; his food, whatever is given him—straw, thistles, the stones of dates, beans, barley, &c. With a pound of food a day, and as much water, he will travel for weeks. In the journey from Cairo to Suez, which is 40 or 46 hours, they neither eat nor drink; but these long fasts, if often repeated, wear them out. Their usual rate of travelling is very slow, hardly above 2 miles an hour: it is in vain to push them; they will not quicken their pace; but, if allowed some short rest, they will travel 15 or 18 hours a day."—(*Voyage en Syrie*, tom. ii. p. 383.)

The Arabians regard the camel as a sacred animal, the gift of Heaven, without whose aid they could neither subsist, nor trade, nor travel. Its milk is their ordinary food; they also eat its flesh, especially that of the young camel, which they reckon excellent; its hair, which is renewed every year, is partly manufactured into stuffs for their clothes and furniture, and partly sent abroad as a valuable article of merchandise; and even its fæces serve them for fuel. Blest with their camels, the Arabs want nothing, and fear nothing. In a single day they can traverse 40 or 50 miles of the desert, and interpose its trackless sands as an impenetrable rampart between them and their foes.—(See the admirable description of the camel, in Buffon.)

But, however useful to the inhabitants of parched, sandy deserts, it may be worth while, perhaps, to observe, that the camel is of very little service elsewhere. He cannot walk 100 yards on wet or slippery ground without stumbling. He is totally unknown in all hilly or woody countries; and, with few exceptions, may be said to be as great a stranger in the Eastern Islands, Japan, the southern parts of China, the whole country lying between China and India, and all the southern parts of the latter, including Bengal, as he is in Europe. In all those vast countries the ox is the most useful of the lower animals. It is used for draught (for which the camel is totally unfit), in the cart and plough, in the carrying of burdens, in treading corn, in the oil-press, &c., and finally as food.

CAMEL'S HAIR (Ger. *Kameelhaar*; Fr. *Poil de chameau, Laine de chevron*; It. *Pelo di camello*; Sp. *Pelo ó lana de cámello*). The hair of the camel imported into this country is principally used in the manufacture of fine pencils for drawing and painting. In the East, however, it is an important article of commerce, and is exten-

sively used in the arts. It serves for the fabrication of the tents and carpets of the Arabs, and for their wearing apparel. Cloth is also manufactured of it in Persia and other places. The most esteemed hair comes from Persia. It is divided into three qualities; black, red, and grey. The black is the dearest, and the grey is only worth half the red. Considerable quantities of camels' hair are exported from Smyrna, Constantinople, and Alexandria. It is used in the manufacture of hats, particularly by the French. —(*Rees's Cyclopædia*, art. *Camelus.*)

CAMLET, OR CAMBLET (Ger. and Du. *Kamelot*; Fr. *Camelot*; It. *Ciambellotto*; Sp. *Camelote*; Rus. *Kamlot*), a plain stuff, manufactured on a loom, with 2 treadles, as linens are. There are camlets of various colours and sorts; some wholly of goats' hair; others, in which the warp is of hair, and the woof half hair and half silk; others, again, in which both the warp and the woof are of wool; and, lastly, some, of which the warp is of wool and the woof of thread: some are striped, some watered, and some figured.

CAMOMILE (Fr. *Camomille*; It. *Camomilla*; Sp. *Manzanilla*; Lat. *Chamomilla*), a well-known plant, whose flowers are used for medicinal purposes. Most of what is brought to the London market is grown about Mitcham, in Surrey. The imports, however, are not inconsiderable, having amounted in 1852 to 82,262 lbs.; the exports, during the same year, were only 1,000 lbs. A duty of 1*d.* per lb. formerly laid on this article, was repealed in 1845.

CAMPHOR, OR CAMPHIRE (Ger. *Kampfer*; Du. *Kamfer*; Fr. *Camphre*; It. *Canfora*; Sp. *Alcanfor*; Rus. *Kamfora*; Lat. *Camphora*; Arab. and Pers. *Kāfoor*; Mal. *Kaafur*). There are two descriptions of this valuable article, which must not be confounded.

1. *Camphor of Commerce*, or that met with in Europe, is obtained by boiling the timber of a species of laurel (*Laurus Camphora*), a tree found in the forests of Fokien, in China, near the city of Chinchew, and in certain localities in Japan. Most of the camphor imported into Europe comes from China; but a small quantity, considered of superior quality, comes from Japan by way of Batavia. The exports from Canton may be estimated at about 3,000 piculs, or 400,000 lbs.; and if to this we add the exports from Batavia of Japan camphor, amounting to about 500 piculs, the total annual exports will be about 466,000 lbs. It is brought to this country in chests, drums, and casks; and is in small, granular, friable masses, of a dirty white or greyish colour, very much resembling half-refined sugar. When pure, the camphor of commerce has a strong, peculiar, fragrant, penetrating odour, and a bitter, pungent, aromatic taste. It is in reality a concrete essential oil. Camphor, when refined, is in thin hollow cakes of a beautiful virgin whiteness, and, if exposed to the air, totally evaporates. Great care is therefore requisite in packing camphor, to prevent serious loss. The imports and exports of camphor, in 1852, were respectively 256¾ cwt. and 90 do.

2. *Camphor Malay*, commonly called, to distinguish it from the last, camphor of Barus, from the port of Sumatra, where it is mostly shipped. It is a product of the *Dryobalanops Camphora*, a forest tree, confined to Sumatra, Borneo, and the Malay peninsula. It is found in concrete masses in the fissures of the wood: there are, however, but very few trees that afford it; and those that do, only in small quantities. This species of camphor is more fragrant and less biting and pungent than that yielded by the laurel, and is in high repute among the Chinese, by whom it is almost wholly consumed. There is an immense disparity in the prices of the two species in China; the finest Chinese camphor being sometimes quoted at 30 dollars per picul, while the Malay camphor is quoted at 30 dollars per catty, making the price of the latter 100 times greater than that of the former! Malay camphor is wholly unknown in Europe as an article of trade.—(*Private information.*)

CAMPHOR OIL (Malay, *Minyak*), a fragrant essential oil, obtained in large quantities by heating the wood of the *Dryobalanops Camphora*. It is nearly as cheap as spirits of turpentine, but is not held in any esteem by the Chinese. It might, perhaps, be profitably imported into England as a substitute for spirits of turpentine in the arts, and for medicinal purposes. We may add, that the timber of the *Dryobalanops Camphora* is not inferior to any produced in the countries where it grows, for the purposes of house and ship building.—(*Private information*, and *Crawfurd's Indian Archipelago*, vol. i. p. 516.)

CAMWOOD, a red dyewood, first brought to Europe from Africa by the Portuguese. It is principally obtained from the vicinity of Sierra Leone, where it is called *kambi*; whence its name of cam or kam wood has obviously been derived. The colouring matter which it affords differs but little from that of ordinary Nicaragua wood, either in quality or quantity; and it may be employed with similar mordants.—(*Bancroft on Colours.* See also *Dampier*, vol. ii. part ii. p. 58.) The imports of this valuable article amounted, in 1852, to 539 tons, while the exports amounted to only 21½ do. (*Parl. Paper*, No. 504. Sess. 1853.)

CANAL, CANALS. A canal is an artificial channel, filled with water kept at the desired level by means of locks or sluices, forming a communication between two or more places.

(1.) *Historical Sketch of Canals. Ancient Canals.* The comparative cheapness and facility with which goods may be conveyed by sea, or by means of navigable rivers, seem to have suggested, at a very early period, the formation of canals. The best authenticated accounts of ancient Egypt represent that country as intersected by canals conveying the waters of the Nile to the more distant parts of the country, partly for the purpose of irrigation, and partly for that of internal navigation. The efforts made by the old Egyptian monarchs, and by the Ptolemies, to construct a canal between the

Red Sea and the Nile, are well known; and evince the high sense which they entertained of the importance of this species of communication. — (*Ameilhon, Commerce des Egyptiens*, p. 76.)

Greece was too small a territory, too much intersected by arms of the sea, and subdivided into too many independent states, to afford much scope for inland navigation. Attempts were, however, made to cut a canal across the Isthmus of Corinth; but they did not succeed.

The Romans did not distinguish themselves in canal navigation. Their aqueducts, the stupendous ruins of which attest the wealth and power of their founders, were intended to furnish supplies of water to some adjoining city, and not for the conveyance of vessels or produce.

(2.) *Chinese Canals.*—In China, canals, partly for irrigation and partly for navigation, have existed from a very early period. The most celebrated amongst them is the Imperial or Grand Canal, commencing at Hang-tchou, near the mouth of the Tching-tang-chiang river in about lat. 30° 22′ N., long. 119° 45′ E.; it then stretches north, and crossing the great rivers Yang-tse-Kiang and Hoang-ho, terminates at Lin-ting, on the Eu-ho river, in about lat. 37° N., long. 116° E. The direct distance between the extreme limits of the canal is about 512 miles, but, including its bounds, it is above 650 miles in length; and as the Eu-ho, which is a navigable river, unites with the Pei-ho, also navigable, an internal water-communication is thus established between Hang-tchou and Pekin across 10° of lat. But apart from its magnitude and utility, the Grand Canal does not rank high as a work of art. A vast amount of labour has, however, been expended upon it; for though it mostly passes through a flat country, and winds about to preserve its level, its bed is in parts cut down to a great depth, while in other parts it is carried over extensive hollows, and even lakes and morasses, on vast mounds of earth and stone. The sluices, which preserve its waters at the necessary level, are all of very simple construction, being merely intended to elevate or depress the height of the water by a few inches; as, excepting these, there is not a single lock or interruption to the navigation throughout the whole length of the canal. It is seldom more than 5 or 6 feet in depth, and in dry seasons is sometimes considerably less. The vessels by which it is navigated are sometimes rowed, and sometimes dragged by men, so that the navigation is for the most part slow. The canal is frequently faced with stone. The construction of this great work is usually ascribed to the Tartars, but the Chinese allege that it was merely repaired and renovated by the latter, and that it had been completed in the remotest period of their history. — (*Barrow's China*, p. 335, &c.; *La Lande, Canaux de Navigation*, p. 529, &c.)

(3.) *Italian Canals.* — The Italians were the first people in modern Europe that attempted to plan and execute canals. They were principally, however, undertaken for the purpose of irrigation; and the works of this sort executed in the Milanese and other parts of Lombardy, in the eleventh, twelfth, and thirteenth centuries, are still regarded as models, and excite the warm admiration of every one capable of appreciating them. In 1271, the Navilio Grande, or canal leading from Milan to Abbiate Grasso and the Tesino, was rendered navigable. — (*Young's Travels in France, &c.* vol. ii. p. 170.)

(4.) *Dutch Canals.* — No country in Europe contains, in proportion to its size, so many navigable canals as the kingdom of the Netherlands, and particularly the province of Holland. The construction of these canals commenced as early as the twelfth century, when, owing to its central and convenient situation, Flanders began to be the *entrepôt* of the commerce between the north and south of Europe. Their number has since been astonishingly increased. "Holland," says Mr. Phillips, in his *History of Inland Navigation*, "is intersected with innumerable canals. They may be compared in number and size to our public roads and highways; and as the latter with us are continually full of coaches, chaises, waggons, carts, and horsemen going from and to the different cities, towns, and villages; so, on the former, the Hollanders in their boats and pleasure barges, their treckschuyts, and vessels of burden, are continually journeying and conveying commodities for consumption or exportation from the interior of the country to the great cities and rivers. An inhabitant of Rotterdam may, by means of these canals, breakfast at Delft or the Hague, dine at Leyden, and sup at Amsterdam, or return home again before night. By them, also, a most prodigious inland trade is carried on between Holland and every part of France, Flanders, and Germany. When the canals are frozen over, they travel on them with skaits, and perform long journeys in a very short time; while heavy burdens are conveyed in carts and sledges, which are then as much used on the canals as on our streets.

"The yearly profits produced by these canals are almost beyond belief; but it is certain, and has been proved, that they amount to more than 250,000*l.* for about 400 miles of inland navigation, which is 625*l.* per mile, the square surface of which mile does not exceed two acres of ground; a profit so amazing, that it is no wonder other nations should imitate what has been found so advantageous.

"The canals of Holland are generally 60 feet wide and 6 deep, and are carefully kept clean; the mud, as manure, is very profitable. The canals are generally levels; of course, locks are not wanted. From Rotterdam to Delft, the Hague, and Leyden, the canal is quite level, but is sometimes affected by strong winds. For the most part, the canals are elevated above the fields or the country, to enable them to carry off the water, which in winter inundates the land. To drain the water from Delftland, a province not more than 60 miles long, they employ 200 windmills in spring-time to raise it into the canals. All the canals of Holland are bordered with dams or banks of immense thickness, and on these depends the security of the country from inundation; of course it is of great moment to keep them in the best repair; to effect which there is a kind of militia, and in every village is a magazine of proper stores and men, whose business it is to convey stones and rubbish in carts to any damaged place. When a certain bell rings, or the waters are at a fixed height, every man repairs to his post. To every house or family there is assigned a certain part of the bank, in the repair of which they are to assist. When a breach is apprehended, they cover the banks all over with cloth and stones."

(5.) *Canal from Amsterdam to Niewdiep, near the Helder.* — The object of this canal, which is the greatest work of its kind in Holland, and probably in the world, is to afford a safe and easy passage for large vessels from Amsterdam to the German Ocean. This city has 40 feet of water in the road in front of its port, but the pampus or bar at the junction of the Y with the Zuyder Zee, 7 miles below, has only a depth of 10 feet; and hence all ships of any considerable burden entering or leaving the port must unload and load part of their cargoes without the bar. As the Zuyder Zee is everywhere full of shallows, all ordinary means of improving the access to Amsterdam were necessarily ineffectual; and the resolution was, therefore, at length adopted, of cutting a canal from the city to the Helder, the most northern point of the province of Holland. The distance between these extreme points is 41 English miles, but the length of the canal is about 50½. The breadth at the surface of the water is 124⅓ English feet (120 Rhinland feet); the breadth at bottom 36; the depth 20 feet 9 inches. Like the Dutch canals generally, its level is that of the highest tides, and it receives its supply of water from the sea. The only locks it requires are, of course, two tide-locks at the extremities; but there are, besides, two sluices, with floodgates in the intermediate space. It is crossed by about 18 drawbridges. The locks and sluices are double, — that is, there are two in the breadth of the canal; and their construction and workmanship are said to be excellent. They are built of brick, for economy; but bands of limestone are interposed at intervals, and these project about an inch beyond the brick, to protect it from abrasion by the sides of vessels. There is a broad towing-path on each side, and the canal is wide enough to admit of two frigates passing. — (For the expense of towing, see AMSTERDAM.)

The line which the canal follows may be easily traced on a map of Holland. From the Y at Amsterdam it proceeds north to Purmerend; thence west to Alkmaar Lake; again north by Alkmaar to a point within 2 miles of the coast, near Petten; whence it runs nearly parallel to the coast till it joins the sea a little to the east of the Helder, at the fine harbour of Niewdiep, formed within the least 30 years. At the latter place there is a powerful steam-engine for supplying the canal with water during neap-tides, and other purposes. The time spent in towing vessels from Niewdiep to Amsterdam is 18 hours. The Helder is the only spot on the shores of Holland that has deep water; and it owes this advantage to its being opposite to the Texel, which, by contracting the communication between the German Ocean and the Zuyder Zee to a breadth of about a mile, produces a current which scours and deepens the channel. Immediately opposite the Helder there are 100 feet water at high tides, and at the shallowest part of the bar to the westward there are 27 feet. In the same way, the artificial mound which runs into the Y opposite Amsterdam, by contracting the water-way to about 1000 feet, keeps a depth of 40 feet in the port (at high water), while above and below there is only 10 or 12.

The canal was begun in 1819, and finished in 1825. The cost was estimated at 10,000,000 or 12,000,000 florins, or about 1,000,000*l.* sterling. If we compute the magnitude of this canal by the cubic contents of its bed, it is the greatest, we believe, in the world, unless some of the Chinese canals be exceptions. The volume of water which it contains, or the *prisme de remplissage*, is twice as great as that of the New York Canal, or the Canal of Languedoc, and two and a half times as great as that of the artificial part of the Caledonian canal. In consequence, however, of the facility with which the Dutch canal was dug, and of the evenness of the ground through which it passes, the difficulties with which the engineer had to contend in making it were trifling compared to those which had to be overcome in constructing the canals now mentioned. We have not learned what returns this canal yields; most probably it is not, at least in a direct point of view, a profitable concern. Even in Holland, notwithstanding the

lowness of interest, it would require tolls to the amount of 40,000*l.* a year to cover interest and expenses; and so large a sum can hardly, we should think, be raised by the very moderate tolls laid on the ships passing through it. — (See AMSTERDAM.) This, however, is not the only consideration to be attended to in estimating the value of a work of this sort. Its influence in promoting the trade of Amsterdam, and, indeed, of Holland, may far more than compensate for its cost. It is evident, too, that the imposition of oppressive tolls would have effectually counteracted this advantage; that is, they would have defeated the very object for which the canal was constructed. — (We have derived these details, partly from an able article in the *Scotsman*, and partly from *private information.*)

(6.) *Danish Canals.* — The Holstein Canal, in Denmark, is of very considerable importance. It joins the river Eyder with Kiel Bay on the north-east coast of Holstein, forming a navigable communication between the North Sea, a little to the north of Heligoland, and the Baltic; enabling vessels to pass from the one to the other by a short cut of about 100 miles, instead of the lengthened and difficult voyage round Jutland, and through the Cattegat and the Sound. The Eyder is navigable for vessels not drawing more than 9 feet water, from Tonningen, near its mouth, to Rendsburg, where it is joined by the canal, which communicates with the Baltic at Holtenau, about 8 miles north of Kiel. The canal is about 26 English miles in length, including about 6 miles of what is principally river navigation. The excavated portion is 95 feet wide at top, 51 feet 6 inches at bottom, and 9 feet 6 inches deep (Eng. measure). Its highest elevation above the level of the sea is 24 feet 4 inches; to which height vessels are raised and let down by 6 locks or sluices. It is navigable by vessels of 120 tons burden, or more, provided they are constructed in that view. The total cost of the canal was about 500,000*l.* It was opened in 1785, and has so far realised the views of its projectors, as to enable coasting vessels from the Danish islands in the Baltic and the east coast of Holstein, Jutland, &c., to proceed to Hamburgh, Holland, England, &c. in less time, and with much less risk, than, in the ordinary course of navigation, they could have cleared the point of the Skaw; and conversely with ships from the west. The smaller class of foreign vessels, particularly those under the Dutch and Hanseatic flags, navigating the Baltic and North Seas, have largely availed themselves of the facilities afforded by this canal. About 3000 vessels pass annually through the canal. This is a sufficient evidence of its utility. It would, however, be much more frequented, were it not for the difficult navigation of the Eyder from the sea to Rendsburg. The dues are moderate. — (*Coxe's Travels in the North of Europe*, 5th ed. vol. v. p. 239., where there is a plan of the canal; *Catteau, Tableau des Etats Danois*, tom. ii. pp. 300 — 304.; and *private information.*)

(7.) *Swedish Canals.* — The formation of an internal navigation connecting the Cattegat and the Baltic has long engaged the attention, and occupied the efforts, of the people and government of Sweden. Various motives conspired to make them embark in this arduous undertaking. The Sound and other channels to the Baltic being commanded by the Danes, they were able, when at war with the Swedes, greatly to annoy the latter, by cutting off all communication by sea between the eastern and western provinces of the kingdom. And hence, in the view, partly of obviating this annoyance and partly of facilitating the conveyance of iron, timber, and other bulky products, from the interior to the coast, it was determined to attempt forming an internal navigation, by means of the river Gotha, and the lakes Wener, Wetter, &c., from Gottenburgh to Soderkœping on the Baltic. The first and most difficult part of this enterprise was the perfecting of the communication from Gottenburgh to the lake Wener. The Gotha, which flows from the latter to the former, is navigable, through by far the greater part of its course, for vessels of considerable burden; but, besides others less difficult to overcome, the navigation at the point called Tröllhætta is interrupted by a series of cataracts about 112 feet in height. Owing to the rapidity of the river, and the stubborn red granite rocks over which it flows, and by perpendicular banks of which it is bounded, the attempt to cut a lateral canal, and still more to render it directly navigable, presented the most formidable obstacles. But, undismayed by these, on which it is, indeed, most probable he had not sufficiently reflected, Polhem, a native engineer, undertook, about the middle of last century, the Herculean task of constructing locks in the channel of the river, and rendering it navigable! Whether, however, it were owing to the all but insuperable obstacles opposed to such a plan, to the defective execution, or deficient strength of the works, they were wholly swept away, after being considerably advanced, and after vast sums had been expended upon them. From this period, down to 1793, the undertaking was abandoned; but in that year the plan was proposed, which should have been adopted at first, of cutting a lateral canal through the solid rock, about 1½ mile from the river. This new enterprise was begun under the auspices of a company incorporated for the purpose in 1794, and was successfully completed in 1800. The

canal is about 3 miles in length, and has about 6½ feet water.* It has 8 sluices, and admits vessels of above 100 tons. In one part it is cut through the solid rock to the depth of 72 feet. The expense was a good deal less than might have been expected, being only about 80,000*l.* The Lake Wener, the navigation of which was thus opened with Gottenburgh, is very large, deep, and encircled by some of the richest of the Swedish provinces, which now possess the inestimable advantage of a convenient and ready outlet for their products.

As soon as the Tröllhætta canal had been completed, there could be no room for doubt as to the practicability of extending the navigation to Soderkœping. In furtherance of this object, the lake Wener was joined to the lake Wetter by the Gotha Canal, which admits vessels of the same size as that of Tröllhætta; and the prolongation of the navigation to the Baltic from the Wetter, partly by 2 canals of equal magnitude with the above, and partly by lakes, has since been completed. The entire undertaking is called the Gotha Navigation, and deservedly ranks among the very first of the kind in Europe.

Besides the above, the canal of Arboga unites the lake Hielmar to the lake Maelar; and, since 1819, a canal has been constructed from the latter to the Baltic at Södertelge. The canal of Strœmsholm, so called from its passing near the castle of that name, has effected a navigable communication between the province of Dalecarlia and the lake Maelar, &c.—(For further details, see, besides the authorities already referred to, *Coxe's Travels in the North of Europe*, 5th ed. vol. iv. pp. 253—266., and vol. v. pp. 58—66.; *Thomson's Travels in Sweden*, p. 35, &c.)

(8.) *French Canals.* — The first canal executed in France was that of Briare, 34½ English miles in length, intended to form a communication between the Seine and Loire. It was commenced in 1605, in the reign of Henry IV., and was completed in 1642, under his successor, Louis XIII. The canal of Orleans, which joins the above, was commenced in 1675. But the most stupendous undertaking of this sort that has been executed in France, or indeed on the Continent, is the canal of Languedoc. It was projected under Francis I.; but was begun and completed in the reign of Louis XIV. It reaches from Narbonne to Toulouse; and was intended to form a safe and speedy means of communication between the Atlantic Ocean and the Mediterranean. It is 64 French leagues in length, and 6 feet deep; and has, in all, 114 locks and sluices. In its highest part it is 600 feet above the level of the sea. In some places it is conveyed, by bridges of great length and strength, over large rivers. It cost upwards of 1,300,000*l.*; and reflects infinite credit on the engineer, Riquet, by whom it was planned and executed.

Besides this great work, France possesses several magnificent canals, such as that of The Centre, connecting the Loire with the Saone; of St. Quentin, joining the Scheldt and the Somme; of Besançon, joining the Saone, and consequently the Rhone, to the Rhine; of Burgundy, joining the Rhone to the Seine, &c. Some of these are of very considerable magnitude. The canal of the Centre is about 72 English miles in length. It was completed in 1791, at an expense of about 11,000,000 francs. Its summit level is about 240 feet above the level of the Loire at Digoin; the breadth at the water's edge is about 48 feet, and at bottom 30 feet; depth of water 5½ feet; number of locks 81. The canal of St. Quentin, 28 English miles in length, was completed in 1810. The canal joining the Rhone to the Rhine is the most extensive of any. It stretches from the Saone, a little above St. Jean de Losne, by Dole, Besançon, and Mulhouse, to Strasburg, where it joins the Rhine, — a distance of about 200 English miles. From Dole to Vogeaucourt, near Montbéliard, the canal is principally excavated in the bed of the Doubs. It is not quite finished. The canal of Burgundy will, when completed, be about 242 kilom., or 150 English miles, in length; but at present it is only navigable to the distance of about 95 kilom. In addition to these, a great many other canals have been finished, while several are in progress, and others projected. There is an excellent account of the French canals, in the *Histoire de la Navigation Intérieure de la France*, by M. Dutens, in 2 vols. 4to, and to it we beg to refer the reader for further details. He will find, at the end of the second volume, a very beautiful map of the rivers and canals of France.

The railroads now in the course of being constructed in France have, however, checked the progress of canals. We may observe, too, that the state of the law in France is very unfavourable to the undertaking and success of all great public works; and we are inclined to attribute the comparative fewness of canals in France, and the recent period at which most of them have been constructed, to its influence. In that country, canals, docks, and such like works, are mostly carried on at the expense and for behoof of government, under the control of its agents. No scope has been given to the enterprise of individuals or associations. Before either a road or a canal

* This is the statement of Catteau, *Tableau de la Mer Baltique*, tome ii. p. 77.; Oddy, in his *European Commerce*, p. 306., and Balbi, *Abrégé de la Géographie*, p. 385., say that the depth of water is 10 feet.

can be constructed, plans and estimates must be made out and laid before the Minister of the Interior, by whom they are referred to the prefect of the department, and then to the *Bureau des Ponts et des Chaussés*; and supposing the project to be approved by these, and the other functionaries consulted with respect to it, the work must after all be carried on under the superintendence of some public officer. In consequence of this preposterous system, very few works of this description have been undertaken as private speculations. And while not a few of those begun by government remain unfinished and comparatively useless, those that are completed have, as was to be expected, rarely proved profitable. There are some good remarks on this subject in the useful work of M. Dupin, on the *Forces Commerciales* of Great Britain.

(9.) *Prussian Canals.* — The Prussian states are traversed by the great navigable rivers the Elbe, the Oder, and the Vistula; the first having its embouchure in the North Sea, and the others in the Baltic. The formation of an internal navigation, that should join these great *water-ways*, excited the attention of government at a distant period; and this object has been successfully accomplished, partly by the aid of the secondary rivers falling into the above, and partly by canals. In 1662, the canal of Muhlrose was undertaken, uniting the Oder and the Spree; the latter being a navigable river falling into the Havel, also a navigable river joining the Elbe near Havelburg. But the navigation from the Oder to the Elbe by this channel was difficult and liable to frequent interruption; and to obviate these defects, Frederick the Great constructed, towards the middle of last century, the Finnow Canal, stretching from the Oder at Oderburg, to the Havel, near Liebenwalde; the communication is thence continued by the latter and a chain of lakes to Plauen; from which point a canal has been opened, joining the Elbe near Magdeburg.

The Elbe being in this way connected with the Oder by a comparatively easy navigation, the latter has been united to the Vistula, partly by the river Netze, and partly by a canal joining that river to the Brahe, which falls into the Vistula near Bromberg. A vast inland navigation has thus been completed, barks passing freely through the whole extent of country from Hamburgh to Dantzic; affording the means of shipping the products of the interior, and of importing those of foreign countries, either by the North Sea or the Baltic, as may be found most advantageous. — (*Catteau, Tableau de la Mer Baltique*, tome ii. p. 11—18.)

(10.) *Russian Canals.* — The inland navigation of Russia is of vast extent, and very considerable importance. The reader will find some details with respect to it under the article PETERSBURG.

(11.) *Bavarian Canals.*—A grand canal which was for a lengthened period in progress in Bavaria was completed in 1846, and promises to become of great public utility. It extends from Dietfurth on the Altmühl, a navigable affluent of the Danube, to Bamberg on the Mayn, a distance of 23½ German, or about 112 English miles. It is on a large scale, and has cost above 1,000,000*l*. This magnificent undertaking, which carries an inland navigation through the centre of Europe, and realises the project of Charlemagne for uniting the Black Sea with the German Ocean, is conducted by a joint-stock company, with the assistance of the Bavarian government. But the navigation of the Mayn and the Danube requires to be considerably improved before this grand channel of communication acquires all the importance which, most probably, it is destined to obtain.

(12.) *Austrian Canals.* — The Austrian Empire is traversed in its whole extent by the Danube; but the advantages that might result to the foreign trade of the empire from so great a command of river navigation, have been materially abridged by the jealousy of the Turks, who command the embouchure of the river, and by the difficulties that are in some places incident to its navigation. Two pretty extensive canals have been constructed in Hungary. That called the Bega Canal is 73 English miles in length: it stretches from Fascet through the Bannat by Temeswar to Becskerek, whence vessels pass by the Bega into the Theiss, a little above its junction with the Danube. The other Hungarian canal is called after the Emperor Francis. It stretches from the Danube by Zambor to the Theiss, which it joins near Foldvar, being 62 English miles in length; its elevation, where highest, does not exceed 27 feet. Besides the above, the canal of Vienna establishes a communication between that city and Neustadt. It is said to be the intention to continue this canal to Trieste; but however desirable, we doubt much whether this be practicable. A railroad has been made from Munchausen on the Danube to Budweiss on the Moldau, a navigable river that falls into the Elbe, which promises to be a highly useful communication.—(*Bright's Travels in Hungary*, p. 246.; *Balbi, Abrégé de la Géographie*, p. 216.)

(13.) *Spanish Canals.* — Nowhere are canals more necessary, both for the purposes of navigation and irrigation, than in Spain; but the nature of the soil, and the poverty and ignorance of the government as well as of the people, oppose formidable obstacles to their construction. During the reign of Charles II., a company of Dutch contractors offered to render the Mançanares navigable from Madrid to where it falls into

the Tagus, and the latter from that point to Lisbon, provided they were allowed to levy a duty for a certain number of years on the goods conveyed by this channel. The Council of Castile took this proposal into their serious consideration, and after maturely weighing it pronounced the singular decision — "That if it had pleased God that these two rivers should have been navigable, he would not have wanted human assistance to have made them such; but that, as he has not done it, it is plain he did not think it proper that it should be done. To attempt it, therefore, would be to violate the decrees of his providence, and to mend the imperfections which he designedly left in his works!" — (*Clarke's Letters on the Spanish Nation*, p. 284.) But such undertakings are no longer looked upon as sinful; and many have been projected since the accession of the Bourbon dynasty, though few have been perfected. The canal of the Ebro, begun under the Emperor Charles V., is the most important of the Spanish canals; but it is only partially completed, and during dry seasons it suffers from want of water. It runs parallel to the right bank of the Ebro, from Tuedela in Navarre to below Saragossa; the intention being to carry it to Sastago, where it is to unite with the Ebro. The canal of Castile is intended to lay open the country between the Douro and Reynosa, and to facilitate the conveyance of grain from the interior to Santander and Bilbao. It passes by Valladolid, Palencia, and Aguilar del Campos; a small part has been executed, and is now in operation. A company has also undertaken, what the Dutch contractors formerly offered, to render the Tagus navigable from Aranjuez to Lisbon; the free navigation of the river having been stipulated at the Congress of Vienna. A project for deepening the Guadalquivir, and some others, are also on foot. — (*Geographical Dictionary*, ii. 710.)

(14.) *British Canals.* — Owing partly to the late rise of extensive manufactures and commerce in Great Britain, but more, perhaps, to the insular situation of the country, no part of which is very distant from the sea, or from a navigable river, no attempt was made, in England, to construct canals till a comparatively recent period. The efforts of those who first began to improve the means of internal navigation, were limited to attempts to deepen the beds of rivers, and to render them better fitted for the conveyance of vessels. So early as 1635, a Mr. Sandys, of Flatbury, Worcestershire, formed a project for rendering the Avon navigable from the Severn, near Tewkesbury, through the counties of Warwick, Worcester, and Gloucester, "that the towns and country might be better supplied with wood, iron, pit-coal, and other commodities." This scheme was approved by the principal nobility and landowners in the adjoining counties: but the civil war having broken out soon after, the project was abandoned, and does not seem to have been revived. After the restoration and during the earlier part of last century, various acts were at different times obtained for cheapening and improving river navigation. For the most part, however, these attempts were not very successful. The current of the rivers gradually changed the form of their channels; the dykes and other artificial constructions were apt to be destroyed by inundations; alluvial sand banks were formed below the weirs; in summer, the channels were frequently too dry to admit of being navigated, while at other periods the current was so strong as to render it quite impossible to ascend the river, which at all times, indeed, was a laborious and expensive undertaking. These difficulties in the way of river navigation seem to have suggested the expediency of abandoning the channels of most rivers, and of digging parallel to them artificial channels, in which the water might be kept at the proper level by means of locks. The act passed by the legislature in 1755, for improving the navigation of Sankey Brook on the Mersey, gave rise to a lateral canal of this description, about 11¼ miles in length, which deserves to be mentioned as the earliest effort of the sort in England.

But before this canal had been completed, the celebrated Duke of Bridgewater*, and his equally celebrated engineer, the self-instructed James Brindley, had conceived a plan of inland navigation independent altogether of natural channels, and intended to afford the greatest facilities to commerce, by carrying canals across rivers and through mountains, wherever it was practicable to construct them. †

The Duke was proprietor of a large estate at Worsley, 7 miles from Manchester, in which were some very rich coal-mines, that had hitherto been in great measure useless, owing to the cost of carrying coal to market. Being desirous of turning his mines to some account, it occurred to his Grace that his purpose would be best accomplished by cutting a canal from Worsley to Manchester. Mr. Brindley, having been consulted,

* This truly noble person expended a princely fortune in the prosecution of his great designs; and, to increase his resources, is said to have restricted his own personal expenses to 400*l.* a year! But his projects were productive of great wealth to himself and his successors; and have promoted, in no ordinary degree, the wealth and prosperity of his country. He died in 1823.

† There is a good account of Brindley in *Aikin's Biographical Dictionary*. His intense application, and the anxiety of mind inseparable from the great enterprises in which he was engaged, terminated his valuable life at the early age of 56.

MAP EXHIBITING THE

NAVIGABLE RIVERS,

THE COMPLETED & PROPOSED

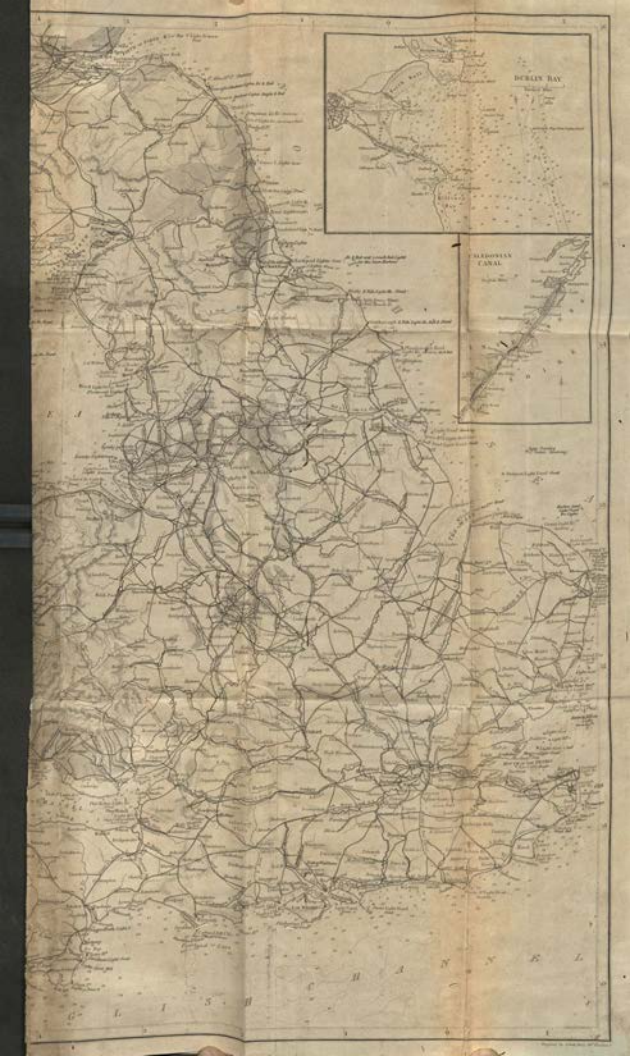
CANALS & RAIL-ROADS

OF

GREAT BRITAIN & IRELAND,

WITH THE

COAL FIELDS, LIGHT HOUSES &c.


DUBLIN BAY
GRAND CANAL

declared that the scheme was practicable; and an act having been obtained, the work was immediately commenced. "The principle," says Mr. Phillips, "laid down at the commencement of this business, reflects as much honour on the noble undertaker as it does upon his engineer. It was resolved that the canal should be perfect in its kind; and that, in order to preserve the level of the water, it should be free from the usual obstruction of locks. But in accomplishing this end many difficulties were deemed insurmountable. It was necessary that the canal should be carried over rivers, and many large and deep valleys, where it was evident that such stupendous mounds of earth must be raised, as would scarcely, it was thought by numbers, be completed by the labour of ages; and, above all, it was not known from what source so large a supply of water could be drawn, even on this improved plan, as would supply the navigation. But Mr. Brindley, with a strength of mind peculiar to himself, and being possessed of the confidence of his great patron, contrived such admirable machines, and took such methods to facilitate the progress of the work, that the world soon began to wonder how it could be thought so difficult.

"When the canal was completed as far as Barton, where the Irwell is navigable for large vessels, Mr. Brindley proposed to carry it over that river by an aqueduct 39 feet above the surface of the water in the river. This, however, being considered as a wild and extravagant project, he desired, in order to justify his conduct towards his noble employer, that the opinion of another engineer might be taken, believing that he could easily convince an intelligent person of the practicability of the design. A gentleman of eminence was accordingly called, who, being conducted to the place where it was intended that the aqueduct should be made, ridiculed the attempt; and, when the height and dimensions were communicated to him, he exclaimed — 'I have often heard of castles in the air, but never was shown before where any of them were to be erected.' This unfavourable verdict did not deter the Duke from following the opinion of his own engineer. The aqueduct was immediately begun; and it was carried on with such rapidity and success as astonished those who, but a little before, thought it impossible."

Before the canal from Worsley to Manchester had been completed, it occurred to the Duke and his engineer, that it might be practicable to extend it by a branch, which, running through Chester parallel to the river Mersey, should at length terminate in that river, below the limits of its artificial navigation; and thus afford a new, safer, and cheaper means of communication between Manchester and its vicinity and Liverpool. The execution of this plan was authorised by an act passed in 1761. This canal, which is above 29 miles in length, was finished in about 5 years. It was constructed in the best manner, and has proved equally advantageous to its noble proprietor and the public.

"When the Duke of Bridgewater," says Dr. Aikin, "undertook this great design, the price of carriage on the river navigation was 12*s.* the ton from Manchester to Liverpool, while that of land carriage was 40*s.* the ton. The Duke's charge on his canal was limited by statute to 6 shillings; and together with this vast superiority in cheapness, it had all the speed and regularity of land carriage. The articles conveyed by it were, likewise, much more numerous than those by the river navigation; besides manufactured goods and their raw materials, coals from the Duke's own pits were deposited in yards at various parts of the canal, for the supply of Cheshire; lime, manure, and building materials were carried from place to place; and the markets of Manchester obtained a supply of provisions from districts too remote for the ordinary land conveyances. A branch of useful and profitable carriage, hitherto scarcely known in England, was also undertaken, which was that of passengers. Boats, on the model of the Dutch treckschuyts, but more agreeable and capacious, were set up, which, at very reasonable rates and with great convenience, carried numbers of persons daily to and from Manchester, along the line of the canal."—(*Aikin's Description of the Country round Manchester*, p. 116.)

The success that attended the Duke of Bridgewater's canals stimulated public-spirited individuals in other districts to undertake similar works. Mr. Brindley had early formed the magnificent scheme of joining the great ports of London, Liverpool, Bristol, and Hull, by a system of internal navigation: and though he died in 1772, at the early age of 56, he had the satisfaction to see his grand project in a fair way of being realised. The Trent and Mersey, or as it has been more commonly termed, the Grand Trunk Canal, 96 miles in length, was begun in 1766 and completed in 1777. It stretches from near Runcorn on the Mersey, where it communicates with the Duke of Bridgewater's Canal, to Newcastle-under-Line; thence southwards to near Titchfield; and then north-westerly, till it joins the Trent at Wilden Ferry, at the north-western extremity of Leicestershire. A water communication between Hull and Liverpool was thus com-

pleted; and by means of the Staffordshire and Worcestershire Canal, which joins the Grand Trunk near Haywood in the former, and the Severn near Stourport in the latter, the same means of communication was extended to Bristol. During the time that the Grand Trunk Canal was being made, a canal was undertaken from Liverpool to Leeds, 130 miles in length; another from Birmingham to the Staffordshire and Worcestershire Canal, joining it near Wolverhampton; and one from Birmingham to Fazeley and thence to Coventry. By canals subsequently undertaken, a communication was formed between the Grand Trunk Canal and Oxford, and consequently with London, completing Brindley's magnificent scheme. In 1792, the Grand Junction Canal was begun, which runs in a pretty straight line from Brentford, on the Thames, a little above the metropolis, to Braunston, in Northamptonshire, where it unites with the Oxford and other central canals. It is about 90 miles in length. There is also a direct water communication, by means of the river Lea navigation, the Cambridge Junction Canal, &c., between London and the Wash. In addition to these, an immense number of other canals, some of them of great magnitude and importance, have been constructed in different parts of the country; so that a command of internal navigation has been obtained, unparallelled in any European country, with the exception of Holland.

In Scotland, the great canal to join the Forth and Clyde was begun in 1768, but it was suspended in 1777, and was not resumed till after the close of the American war. It was finally completed in 1790. Its total length, including the collateral cuts to Glasgow and the Monkland Canal, is 38¾ miles. Where highest it is 150 feet above the level of the sea. It is on a larger scale than any of the English canals. Its medium width at the surface is 56, and at the bottom 27 feet. Originally it was about 8 feet 6 inches deep; but within these few years its banks have been raised, so that the depth of water is now about 10 feet. It has, in all, 39 locks. In completing this canal many serious difficulties had to be encountered. These, however, were all successfully overcome; and though unprofitable for a while, it has for many years past yielded a handsome return to its proprietors, the dividend having latterly been about 20 per cent. on the original stock. Swift boats on the plan of those subsequently described were established on this canal in 1832. — (See *Cleland's Statistics of Glasgow*, p. 170, &c.)

The Union Canal joins the Forth and Clyde Canal near Falkirk, and stretches thence to Edinburgh, being 31½ miles in length. It is 40 feet wide at the top, 20 at bottom, and 5 deep. It was completed in 1822. But it appears to have been an extremely ill-advised undertaking; so much so that its proprietors have sold it at a heavy loss to the Edinburgh and Glasgow Railway Company, who employ it in the conveyance of coal and other heavy goods.

A canal intended to form a communication between Glasgow, Paisley, and Ardrossan, was commenced in 1807; but only that portion connecting Glasgow with Paisley and the village of Johnstoun has hitherto been finished. This part is about 12 miles long; the canal being 30 feet broad at top, 18 at bottom, and 4½ deep. It was here that the experiments were originally made on quick travelling by canals, which are said to have demonstrated that it was practicable to impel a properly constructed boat, carrying passengers and goods, along a canal at the rate of 9 or 10 miles an hour, without injury to the banks! — (See *post.*)

The Crinan Canal across the peninsula of Kintyre, admitting vessels of 160 tons burden, is 9 miles in length, and 12 feet in depth.

The Caledonian Canal is the greatest undertaking of the sort attempted in the empire. It stretches S. W. and N. E. across the island from a point near Inverness to another near Fort William. It is chiefly formed by Loch Ness, Loch Oich, and Loch Lochy. The total length of the canal, including the lakes, is 60½ miles; but the excavated part is only about 23 miles. At the summit it is 96½ feet above the level of the Western Ocean. It is mostly constructed upon a very grand scale, being intended to be 20 feet deep, 50 feet wide at bottom, and 122 at top; the locks are 20 feet deep, 172 long, and 40 broad; and had it been wholly executed as was originally intended, frigates of 32 guns and merchant ships of 1,000 tons burden might have passed through it. It was opened in 1822, being executed entirely at the expense of government, from the designs and under the superintendence of Thomas Telford, Esq. The entire cost amounted, exclusive of interest, on the 1st of May, 1853, to 1,347,780*l.* It would appear, however, to have been projected without due consideration, and has been a most unprofitable speculation. The revenue of the canal amounted in 1852–53 to only 5,889*l.*, whereas the expenditure during the same year, exc. any allowance for wear and tear, and inc. only 900*l.* for repairs, amounted to 7,429*l.*! But this is not all. Owing to a wish to lessen the expense and to hasten the opening of the canal, parts of it were not excavated to their proper depth, while others were executed in a hurried and insufficient manner. Hence the canal does not really admit vessels of above 250 or 300

tons burden, and previously to steam tugs being provided on the lakes, they were frequently delayed in making their passage across for a lengthened period. During 1837 and 1838, the works sustained considerable damage; and the reader needs not be surprised to hear that it was gravely debated whether it would not be better entirely to break up and abandon the canal!

There was naturally, however, an extreme disinclination to destroy a work, which, how inexpedient soever originally, has been executed at an enormous expense; and various schemes have been suggested for relieving the public from the expense of keeping it up without involving its destruction. Among others it has been proposed, to assign it to a joint stock company, on their agreeing to complete the works and keep them in repair; and an act authorising such transfer was passed in 1840. But hitherto it has not been found possible to dispose of the canal in this way; and parliament has since voted large sums for the partial repair of the works, which, though a good deal improved, will every now and then require fresh outlays.

Some other canals have been projected and completed in different parts of Scotland. Of these the Monkland Canal, for the supply of Glasgow with coal, has been the most successful.

(15.) *Irish Canals.* — Various canals have been undertaken in Ireland, of which the Grand Canal and the Royal Canal are the principal. The Grand Canal was begun in 1765, by a body of subscribers; but they could not have completed the work without very large advances from government. The canal commences at Dublin, and stretches in a westerly direction, inclining a little to the south, to the Shannon, with which it unites near Banagher, a distance of 85 statute miles, and thence on the west side of the river to Ballinasloe, 14 miles. But, exclusive of the main trunk, there is a branch to Athy, where it joins the Barrow, a distance of about 27 miles; and there are branches to Portarlington, Mount Mellick, and some other places. The total length of the canal, with its various branches, is about 164 Eng. miles. Its summit elevation is 200 feet above the level of the sea at Dublin. It is 40 feet wide at the surface, from 24 to 20 feet at bottom, has 6 feet water, and cost, in all, above 2,000,000*l.*

Two capital errors seem to have been committed in the formation of this canal, — it was framed on too large a scale, and was carried too far north. Had it been 4 or 4½ instead of 6 feet deep, its utility would have been but little impaired, while its expense would have been very materially diminished. But the great error was in its direction. Instead of joining the Shannon about 15 miles above Lough Derg, it should have joined it below Limerick. By this means, barges and other vessels passing from Dublin to Limerick, and conversely, would have avoided the difficult and dangerous navigation of the Upper Shannon; and the canal would have passed through a comparatively fertile country; and it would not have been necessary to carry it across the bog of Allen, in which, says Mr. Wakefield, "the company have buried more money than would have cut a spacious canal from Dublin to Limerick." — (*Account of Ireland*, vol. i. p. 642.)

The Royal Canal was undertaken in 1789. It stretches westward from Dublin to the Shannon, which it joins near Tormanbury. Its entire length is about 92 miles, exclusive of a branch of 5 miles from Kilashee to Longford; its highest elevation is 322 feet above the level of the sea. At bottom it is 24 feet wide, having 6 feet depth of water. It had cost, exclusive of interest on stock, loans, &c. advanced by government, in February, 1823, 1,421,954*l.*; and its total cost, interest included, must now (1853) exceed 3,500,000*l.*

This canal seems to have been planned in the most injudicious manner. It has the same defect as the Grand Canal, of being extravagantly large; and throughout its whole course it is nearly parallel to, and not very distant from, the latter. There are consequently two immense canals, where there ought, perhaps, to be none. At all events, it is abundantly certain that one canal of comparatively moderate dimensions would have been quite enough for all the business of the district, though it were much greater than it is at this moment, or than it is ever likely to become.

It appears from the accounts given in *Thom's Almanac*, that in 1851 the produce conveyed by these canals amounted to only 335,061 tons, and their gross revenue from tolls, &c., to 32,946*l.* And deducting from this sum the expense attending the working of the canals and allowing for their ordinary wear and tear, it is extremely doubtful whether these great public works, which have cost between 5,000,000*l.* and 6,000,000*l.*, produce a sixpence of clear revenue.

Besides the above, there are some other canals, as well as various river excavations, in Ireland; but hardly one of them yields a reasonable return for the capital expended upon it. They have almost all been liberally assisted by grants of public money: and their history, and that of the two great canals now adverted to, strikingly corroborates the caustic remark of Arthur Young, that "*a history of public works in Ireland would be a history of jobs.*" — (*Tour in Ireland*, part ii. p. 66. 4to ed.) Those who wish to make themselves fully acquainted with the history and state of the canals of Ireland, may consult the *Report by Messrs. Henry, Mullins, and M'Mahon, in the Appendix to the Report of the Select Committee of* 1830 *on the State of Ireland*, and the valuable Report on Railways.)

(16.) *American Canals.*—The United States are pre-eminently distinguished by the spirit with which they have undertaken, and the perseverance they have displayed in executing, the most magnificent plans for improving and extending internal navigation. Besides many others of great, though inferior, magnitude, a canal has been formed connecting the Hudson with Lake Erie. This immense work is 363 miles in length, the rise and fall along the entire line being 692 feet. It was originally 40 feet wide at the surface, 28 feet at bottom, and 4 feet deep. But these dimensions being found, from the rapidly increasing traffic and importance of the canal, to be far too limited, an act was passed in 1835, providing for its enlargement. Under this act the canal has been increased, so as to be 70 feet wide on the surface, 42 feet at the bottom, and 7 feet in depth, the locks being of corresponding dimensions. The original cost of the canal was 9,027,456 dollars; and the cost of the enlargement has been about 25 million dollars, or nearly three times its first cost. The Erie canal is the property of the state of New York, and is one of the greatest and most important works of its kind in the world. Notwithstanding the contracted scale on which it was originally constructed, it has completely verified the predictions of its projector, De Witt Clinton, having been at once extremely profitable as a mercantile speculation, and of singular advantage in a public point of view to the state of New York and the Union generally.

The *Chesapeake and Ohio* Canal would, had it been completed, have been a great and useful work. It begins at the tide water of the Potomac River above Georgetown in the district of Columbia, and is intended to terminate at Pittsburgh, in Pennsylvania, a distance of 341½ miles. Its dimensions are nearly identical with those of the new Erie Canal; its breadth at the surface being from 60 to 80 feet, ditto at bottom 50 feet, with a depth of water varying from 6 to 7 feet. Several tunnels occur in the line which crosses the Alleghany ridge. The cost of this work was estimated at 22,275,000 dollars, which were to be subscribed partly by individuals, and partly by the United States and the States of Maryland and Pennsylvania. Owing, however, to the inability, or rather disinclination, of the two last mentioned states to make good their engagements, the works on the canal have been suspended, after about 10 millions of dollars have been expended upon them. But the probability is that they will be resumed and completed at some future period; their completion being the only means by which the capital already expended upon them can be made to yield any thing.

A great many other canals have been completed, and are in progress in different parts of the Union. Of the former, the Ohio Canal, uniting the Ohio with Lake Erie, is by far the most important, and is, if at all, only less advantageous than the Erie Canal. Cleveland, where the canal unites with Lake Erie, has become one of the greatest emporiums on the lakes.

(17.) *Canadian Canals.*—The British government has expended a very large sum upon the Rideau River and Canal, stretching from Kingston, on Lake Ontario, to Bytown, on the Ottawa, or Grand River, an affluent of the St. Lawrence. But this work was undertaken as much in the view of improving the military defences of Canada, as of protecting its commerce, though in the latter respect it has been of considerable utility. The British government has, also, constructed the Welland Canal, uniting Lakes Erie and Ontario, the navigation between which by the river is interrupted by the falls of Niagara. This canal has become a well-frequented commercial channel, and is every day rising in importance.

(18.) *Utility of Canals.*—The utility of canals, when judiciously contrived, and opening an easy communication between places capable of maintaining an extensive intercourse with each other, has never been better set forth than in a work published in 1765, entitled "A View of the Advantages of Inland Navigation," &c. But the following extract from *Macpherson's Annals of Commerce* (anno 1760) contains a brief, and at the same time eloquent, summary of the principal advantages resulting from their construction.—"They give fresh life to established manufactures, and they encourage the establishment of new ones, by the ease of transporting the materials of manufacture and provisions; and thence we see new villages start up upon the borders of canals in places formerly condemned to sterility and solitude They invigorate, and in many places create, internal trade, which, for its extent and value, is an object of still more importance than foreign commerce, and is exempted from the many hardships and dangers of a maritime life and changes of climate. And they greatly promote foreign trade; and consequently enrich the merchants of the ports where they, or the navigable rivers they are connected with, terminate, by facilitating the exportation of produce from, and the introduction of foreign merchandise into, the interior parts of the country, which are thus placed nearly on a level with the maritime parts; or, in other words, the interior parts become coasts, and enjoy the accommodations of shipping. The price of provisions is nearly equalised through the whole country; the blessings of Providence are more uniformly distributed; and the monopolist is disappointed in his schemes of iniquity and oppression, by the ease wherewith provisions are transported from a considerable distance. The advantages to agriculture, which provides a great part of the materials, and almost the whole of the subsistence, required in carrying on manufactures and commerce, are pre-eminently great. Manure, marl, lime, and all other bulky articles, which could not possibly bear the great expense of cartage, and also corn and other produce, can be carried at a very light expense on canals; whereby poor lands are enriched, and barren lands are brought into cultivation, to the great emolument of the farmer and landholder, and the general advantage of the community, in an augmented supply of the necessaries of life and materials of manufactures; coals (the importance of which to a manufacturing country, few people, not actually concerned in manufactures, are capable of duly appreciating), stone, lime, iron ore, and minerals in general, as well as many other articles of great bulk in proportion to their value, which had hitherto lain useless to their proprietors by reason of the expense, and, in many cases, impossibility, of carriage, are called into life, and rendered a fund of wealth, by the vicinity of a canal; which thus gives birth to a trade, whereby, in return, it is maintained. The cheap, certain, and pleasant conveyance of travellers by the treckschuyts in Holland, has been admired by all who have been in that country; and it must be owing to the universal desire in this country of flying over the ground with the greatest possible rapidity that a mode of travelling so exceedingly easy to the purse and the person is so little used here. Neither ought we entirely to forget, among the advantages of canals, the pleasure afforded to the eye and the mind by a beautiful moving landscape of boats, men, horses, &c. busied in procuring subsistence to themselves, and in diffusing opulence and convenience through the country. And, in a word, we have now the experience of about 40 years to establish as a certain truth, what was long ago said by Dr. Adam Smith, that '*navigable canals are among the greatest of all improvements.*'"

(19.) *Increased Speed of Travelling by Canals.*—Great, however, as have been the advantages derived from the formation of canals, their progress has been to a considerable degree checked by the formation of RAILROADS (which see). We believe, however, that canals will always be preferred for the conveyance of coal and other bulky and heavy products; and even passengers are now conveyed along them with a rapidity that would previously have been supposed impossible. This new system was introduced on the Paisley and Glasgow Canal, by Mr. Houston, in June, 1831. The results are described in the following statements, to which it is unnecessary to call the reader's attention.

Mr. Thomas Grahame, civil engineer, in his "Letter to Canal Proprietors and Traders," says, "The experiments of great velocity have been tried and proved *on the narrowest, shallowest, and most curved canal in Scotland*, viz. the Ardrossan or Paisley Canal, connecting the city of Glasgow with the town of Paisley and village of Johnstoun,—a distance of 12 miles." The result has disproved every previous theory as to difficulty and expense of attaining great velocity on canals; and as to the danger or damage to their banks by great velocity in moving vessels along them.

"The *ordinary speed* for the conveyance of passengers on the Ardrossan Canal has, for nearly 2 years, been *from nine to ten miles an hour;* and, *although there are fourteen journeys along the canal per day, at this rapid speed, its banks have sustained no injury.* The boats are 70 feet in length, about 5 feet 6 inches broad, and, but for the extreme narrowness of the canal, might be made broader. They carry easily from 70 to 80 passengers; and, when required, can and have carried upwards of 110 passengers. The entire cost of a boat and fittings up is about 125*l.* The hulls are formed of light iron plates and ribs, and the covering is of wood and light oiled cloth. They are more airy, light, and comfortable than any coach. They permit the passengers to move about from the outer to the inner cabin, and the fares per mile are *one penny* in the *first*, and *three farthings* in the *second cabin*. The passengers are all carried under cover; having the privilege also of an uncovered space. These boats are drawn by 2 horses (the prices of which may be from 50*l.* to 60*l.* per pair), in stages of 4 miles in length, which are done in from 22 to 25 minutes, including stoppages to let out and take in passengers, each set of horses doing 3 or 4 stages alternately each day. In fact, the boats are drawn through this narrow and shallow canal at a velocity which many celebrated engineers *had demonstrated, and which the public believed, to be impossible.*

"The entire amount of the whole expenses of attendants and horses, and of running one of these boats 4 trips of 12 miles each (the length of the canal) or 48 miles daily, including interest on the capital, and

20 per cent. laid aside annually for replacement of the boats, or loss on the capital therein vested, and a considerable sum laid aside for accidents and replacement of the horses, is 700*l.* some odd shillings; or, taking the number of working days to be 312 annually, something under 2*l.* 2*s.* 4*d.* per day, or about 11*d.* per mile. The actual cost of carrying from 80 to 100 persons a distance of 30 miles (the length of the Liverpool railway), at a velocity of nearly 10 miles an hour, on the Paisley Canal, one of the most curved, narrow, and shallow in Britain, is therefore just 1*l.* 7*s.* 6*d* sterling. Such are the facts, and, incredible as they may appear, they are facts which no one who inquires can possibly doubt."

Boats on this principle have since been established on a great many British canals, and on the Grand and Royal Canals in Ireland.

(20.) *Profits of Canals.* — It is a well-known fact, that canals, at an average, and allowing for the length of time that must elapse from the first outlay of capital before they yield any return, are not very productive. When, indeed, they connect places that have an extensive intercourse, and when no very extraordinary difficulties have to be surmounted in their construction, they most commonly yield very large profits: but, generally speaking, this does not appear to be the case; and, on the whole, they seem to have been more beneficial to the public than to their projectors.

It is customary to insert clauses in the acts authorising canals to be cut, limiting the charge which the proprietors shall be entitled to impose upon the goods conveyed by them. But we think that the dividend ought also to be limited; and that it should be stipulated that whatever a moderate toll yielded over and above defraying this dividend, and providing for the repair of the canal, should be accumulated as a fund in order to buy up the stock of the canal, so that the toll may ultimately be reduced to such a sum as may suffice merely to meet the necessary repairs. We are not aware that any good objection could be made to a plan of this sort; and had it been adopted in this country, there are several instances in which it would have been very advantageous for the public. When the canal of Languedoc was completed, the most likely method, it was found, of keeping it in constant repair, was to make a present of the tolls to Riquet the engineer. "These tolls constitute," says Dr. Smith, "a very large estate to the different branches of the family of that gentleman; who have, therefore, a great interest to keep the work in constant repair. But had these tolls been put under the management of commissioners, who had no such interest, they might, perhaps, have been dissipated in ornamental and unnecessary expenses, while the most essential parts of the work were allowed to go to ruin." Dr. Smith ought, however, to have mentioned that Riquet advanced *a fourth* part of the entire sum laid out upon the canal (*Dutens, Navigation Intérieure de la France*, tom. i. p. 119, &c.); and that officers were appointed by the crown to see that the tolls were not rendered oppressive, and the canal kept in good order. At the Revolution, most part of the property of the canal was confiscated; but at the restoration of the Bourbons in 1814, such parts of the confiscated property as had not been sold were restored to the successors of M. Riquet, who have at this moment the principal management of the canal.

*** The accompanying map of the canals, railroads, &c. of Great Britain and Ireland, has been executed with great care and attention; and will, we hope, be found to be a valuable acquisition. Those who wish to see them laid down on a larger scale, are referred to the magnificent six-sheet map, published by J. Walker, Esq. of Wakefield, and to other maps of the same kind. "An Historical Account of the Navigable Rivers and Canals, &c. of Great Britain," in 4to., attached to Mr. Walker's map by way of Index, is an accurate and useful publication.

CANARY SEED. See SEED.

CANDLE (Ger. *Lichter, Kerzen;* Du. *Kaarzen;* Fr. *Chandelle;* It. *Candelle;* Sp. and Port. *Velas;* Rus. *Swjetschi;* Lat. *Candela*), a taper of tallow, wax, or spermaceti, the wick of which is commonly of several threads of cotton spun and twisted together.

Dr. Ure gives the following table, as containing the result of certain experiments he had made, in order to determine the relative intensity of the light, and the duration of different sorts of tallow candles.

Number in a Pound.	Duration of a Candle.	Weight in Grains.	Consumption per Hour, in Grains.	Proportion of Light.	Economy of Light.	Candles equal one Argand.
10 mould	5 h. 9 m.	682	132	12¾	68	5·7
10 dipped	4 36	672	150	13	65½	5·25
8 mould	6 31	856	132	10¾	59⅝	6·6
6 do.	7 21	1,160	163	14¾	66	5·0
4 do.	9 36	1,787	186	20¼	80	3·5
Argand oil flame	- -	- -	512	69·4	100	

"A Scotch mutchkin," says Dr. Ure, "or ⅛ of a gallon of good seal oil, weighs 6,010 gr., or 13 1/10 oz. avoirdupois, and lasts in a bright Argand lamp 11 hours 44 minutes. The weight of oil it consumes per hour is equal to 4 times the weight of tallow in candles 8 to the pound, and 3¼ times the weight of tallow in candles 6 to the pound. But its light being equal to that of 5 of the latter candles, it appears from the above table, that 2 lbs. weight of oil, value 9*d.* in an Argand, are equivalent in illumin-

ating power to 3 lbs. of tallow candles, which cost about 2*s*. The larger the flame in the above candles, the greater the economy of light."

Until 1831, when it was repealed, candles were, for a lengthened period, subject to an excise duty; and their consumption was, in consequence, pretty exactly ascertained.

An Account of the Rates of Duty separately charged on Tallow, Wax, and Spermaceti Candles, the Number of Pounds' Weight of each Sort produced, and the Total annual Nett Revenue derived from Candles, in Great Britain, in each Year since 1820.—(*Parl. Paper* No. 468. Sess. 1830.)

Years.	Tallow.	Rate of Duty per lb.	Wax.	Rate of Duty per lb.	Spermaceti.	Rate of Duty per lb.	Nett Revenue.
	lbs.	*d.*	*lbs.*	*d.*	*lbs.*	*d.*	£ *s.* *d.*
1820	88,352,461	1	692,705	3½	193,463	3½	373,455 14 5
1821	93,816,346	—	697,196	—	165,647	—	395,911 8 7
1822	98,311,801	—	682,241	—	179,208	—	415,609 15 3
1823	102,461,879	—	694,194	—	180,401	—	433,537 15 8
1824	109,810,900	—	759,751	—	179,454	—	466,012 16 1
1825	114,187,550	—	851,370	—	208,377	—	485,014 8 9
1826	110,102,643	—	705,615	—	201,790	—	467,069 12 1
1827	114,939,578	—	713,655	—	226,277	—	487,318 3 4
1828	117,342,157	—	748,293	—	670,263	—	497,770 2 9
1829	115,156,808	—	746,052	—	303,683	—	489,059 1 9

CANDLE, *Sale or Auction by Inch of*, is when a small piece of candle being lighted, the bystanders are allowed to bid for the merchandise that is selling: but the moment the candle is out, the commodity is adjudged to the last bidder.

CANELLA ALBA (Fr. *Canelle blanche*; Ger. *Weisser Zimmet*; It. *Canella bianca*; Sp. *Canella blanca*; Lat. *Canella alba*), the inner bark of the *Canella alba*, a tree growing in the West Indies. It is brought to this country packed in casks and cases, in long pieces, some rolled in quills and others flat; the quilled sort is considerably thicker than cinnamon, and the flat nearly ¼ of an inch in thickness. The quilled pieces are yellow on both sides; the flat pieces are yellow on the outside and pale brown within. The odour of both kinds, when fresh broken, is aromatic, something like a mixture of cloves and cinnamon; and the taste slightly bitter, and extremely warm and pungent.

CANES. See BAMBOO, RATTANS.

CANNON, CANNONS (Du. *Kanonen*; Fr. *Canons*; Ger. *Kanonen*; It. *Cannoni*; Pol. *Dziala*; Por. *Canhoes*; Rus. *Puschki*; Sp. *Canones*; Sw. *Kanon*), a kind of long hollow engines for throwing iron, lead, or stone balls by the force of gunpowder. They are commonly made of iron, but frequently also of a mixture of copper, tin, and brass. They are either cast hollow, or solid and then bored; those made in the latter way being very superior. Brass cannons, or cannons made of mixed metal, are said not to be so well calculated for hard service, or quick and continued firing, as those made of iron. The proportions of the ingredients used in making the former do not differ materially in different countries, though they rarely coincide. To 240 lbs. of metal fit for casting, we commonly put 68 lbs. of copper, 52 lbs. of brass, and 12 lbs. of tin. To 4,200 lbs. of metal fit for casting, the Germans put 3,687$\frac{3}{11}$ lbs. of copper, 204$\frac{11}{11}$ lbs. of brass, and 307$\frac{36}{11}$ lbs. of tin. Others, again, use 100 lbs. of copper, 6 lbs. of brass, and 9 lbs. of tin; and others, 100 lbs. of copper, 10 pounds of brass, and 15 lbs. of tin.

It seems to be the general opinion that cannon were first made use of in 1336 or 1338; but Don Antonio de Capmany has produced some statements, which render it almost certain that some sort of artillery was used by the Moors in Spain so early as 1312.—(*Questiones Criticas*, p. 181, &c.) Cannons were certainly used by the English in 1347 at the siege of Calais, and by the Venetians at Chioggia in 1366, and in their wars with the Genoese in 1379 and 1380. The Turks employed them at the sieges of Constantinople, in 1394 and 1453. When first introduced, they were for the most part very heavy and unwieldy, and threw balls of an enormous size: they were, however, owing to their frequently bursting, about as dangerous to those using them as to their opponents. There is a valuable article on the construction and history of cannons in *Rees's Cyclopædia*; but it was published previously to the appearance of Capmany's work referred to above.

CANTHARIDES, OR SPANISH FLY (Fr. *Cantharides, Mouches d'Espagne*; Ger. *Spanische Fliegen*; It. *Cantarelle*; Lat. *Cantharis*; Rus. *Hischpanskie muchi*; Sp. *Cantaridas*). This insect is found on a variety of shrubs in Spain, Italy, France, &c. Those used in this country are imported partly from Sicily, but principally from Astracan, packed in casks and small chests. The best are of a lively fresh colour, a small size, and not mouldy. They are frequently adulterated with the *Melolontha vitis*; but this is distinguishable by its form, which is squarer than the cantharis, and by its black feet. If they be properly dried and protected from the air, they may be kept for a very long period.—(*Thomson's Dispensatory.*)

CANTON, one of the greatest emporiums in the East, ranking, as a port of trade, either before, or immediately after, Calcutta, in the province of Quantong, in China; being, previously to 1843, the only place in that empire open by authority to European traders: lat. 23° 7′ 10″ N., lon. 113° 14′ E.

Canton stands on the eastern bank of the Pekiang River, which flows from the interior in a navigable stream of 300 miles to this city, where it is rather broader than the Thames at London Bridge; falling, after an additional course of 80 miles, into the southern sea of China. Near its junction with the sea, it is called by foreigners Bocca Tigris. The town is surrounded by a thick wall, partly of stone and partly of brick, and is divided into 2 parts by another wall running east and west. The northern division is called the Old, and the southern the New City. In the old city is the Mantchou or Tartar general, with a garrison of Mantchou troops under his command. The lieutenant-governor or Fooyuen's office is also in the old city, but the governor and Hoppo (principal customs officer) reside in the new city, not far from the river.

All foreign commerce is conducted in the south-west suburb, where the foreign factories are situated; and which, with the other suburbs, is probably not less populous than the city itself. The residence of Europeans is confined to a very small space, on the banks of the river; which might, however, be as pleasant as a crowded mercantile place can well be, were it not for the great number of small *dwelling boats*, which cover the face of the river. The people who occupy the larger portion of these boats are said to have come originally from the south; and being a foreign and despised race, were not, at first, allowed to dwell on shore; but most of the distinctions between them and the rest of the people have been abolished.

Although Canton is situated nearly in the same parallel of latitude as Calcutta, there is a considerable difference in their temperature; the former being much the coolest, and requiring fires during the winter months. The streets are very narrow, paved with little round stones, and flagged close to the sides of the houses. The front of every house is a shop, and these of particular streets are laid out for the supply of strangers. China-street is appropriated to Europeans; and here the productions of almost every part of the globe are to be found. One of the shopkeepers is always to be found sitting on the counter, writing with a camel's hair brush, or calculating with his swanpan, on which instrument a Chinese will perform operations in numbers with as much celerity as the most expert European arithmetician. This part of Canton being much frequented by the seamen, every artifice is used by the Chinese retailers to attract their attention; each of them having an English name for himself painted on the outside of his shop, besides a number of advertisements composed for them by the sailors in their own peculiar idiom. The latter, it may be supposed, are often duped by their Chinese friends, who have, in general, picked up a few sea phrases, by which the seamen are induced to enter their shops: but they suit each other extremely well; as the Chinese dealers possess an imperturbable command of temper, laugh heartily at their jokes without understanding them, and humour the seamen in all their sallies.

Ships only ascend the river as far as Whampoa, about 15 miles below Canton; loading and unloading by means of native boats.

The Chinese, considered as traders, are eminently active, persevering, and intelligent. They are, in fact, a highly commercial people; and the notion that was once very generally entertained, of their being peculiarly characterised by a contempt of commerce and of strangers, is as utterly unfounded as any notion can possibly be. Business is transacted at Canton with great despatch; and nowhere in the world may cargoes be sold and bought, loaded and unloaded, with more business-like speed and activity.

Provisions and refreshments of all sorts are abundant in Canton, and, in general, of an excellent quality; nor is the price exorbitant. Every description of them, dead and alive, is sold by weight. It is a curious fact, that the Chinese make no use of milk, either in its liquid state, or in the shape of curds, butter, or cheese. Among the delicacies of a Chinese market are to be seen horse flesh, dogs, cats, hawks, and owls. The country is well supplied with fish from the numerous canals and rivers by which it is intersected.

Foreign Factories. — These extend for a considerable way along the banks of the river, at the distance of about 100 yards. They are named, by the Chinese, hongs, and resemble long courts, or closes, without a thoroughfare, which generally contain 4 or 5 separate houses. They are built on a broad quay, and have a parade in front. This promenade is railed in, and is generally called Respondentia Walk; and here the European merchants, commanders, and officers of the ships meet after dinner and enjoy the cool of the evening. The English hong, or factory, far surpasses the others in elegance and extent. This, with the American and Dutch hongs, are the only ones that keep their national flags flying. The neighbourhood of the factories is occupied with warehouses for the reception of European goods, or of Chinese productions, until they are shipped. In 1822, during a dreadful conflagration that took place at Canton, the British factories and above 10,000 other houses were destroyed; on which occasion the East India Company's loss was estimated at 500,000*l.* sterling, three fifths in woollens.

For the space of 4 or 5 miles opposite to Canton, the river resembles an extensive floating city, consisting of boats and vessels ranged parallel to each other, leaving a narrow passage for others to pass and repass. In these the owners reside with their families; the latter rarely visiting the shore.

All the business at Canton with Europeans is transacted in a jargon of the English language. The sounds of such letters as B, D, R, and X, are unknown in China. Instead of these they substitute some other letter, such as L for R, which occasions a Chinese dealer in rice to offer for sale in English a rather unmarketable commodity. The name mandarin is unknown among the Chinese; the word used by them to denote a person in authority being *quan*. Mandarin is a Portuguese word derived from the verb *mandar*, to command.—(*Hamilton's East India Gazetteer; Milburn's Orient. Commerce; Companion to Anglo-Chinese Calendar, &c.*)

Trade with China. Treaty of 1842.—The principal difficulty in trading with China originates in the pride and jealousy of the government, and in the general corruption of its officers. The former affects to treat all foreigners with contempt; while the latter endeavour to multiply and enforce vexatious regulations and demands, that they may profit by the douceurs given for their evasion. We submitted, with exemplary forbearance, for a lengthened period, to such petty indignities as the Chinese government chose to inflict; but the proceedings connected with the seizure and destruction, in 1839, of the opium belonging to British subjects—(see OPIUM), led to hostilities between this country and China; and these, as every one knows, were productive of events that have had a powerful influence over the intercourse of Englishmen, and of foreigners generally, with the Chinese. It is due to the latter to state, that though they were uniformly defeated, how superior soever in respect of numbers, they evinced no want of courage; and there can be no doubt that their ill-success proceeded principally from their ignorance of military affairs, and the extreme inferiority of their fire arms and artillery.

The following are the principal provisions in the treaty signed by Sir Henry Pottinger and the Chinese commissioners on the 29th of August, 1842:

"China to pay 21,000,000 dollars in the course of the present and three succeeding years.

"The ports of Canton, Amoy, Foo-chow-foo, Ningpo, and Shanghai to be thrown open to British merchants; consular officers to be appointed to reside in them; and regular and just tariffs of import and export (as well as inland transit) duties to be established and published.

"The island of Hong Kong to be ceded in perpetuity to her Britannic Majesty, her heirs and successors.

"All subjects of her Britannic Majesty (whether natives of Europe or India) who may be confined in any part of the Chinese empire to be unconditionally released.

"An act of full and entire amnesty to be published by the Emperor, under his imperial sign manual and seal to all Chinese subjects, on account of their having held service or intercourse with, or resided under, the British Government or its officers.

"Correspondence to be conducted on terms of perfect equality amongst the officers of both governments.

"On the Emperor's assent being received to this treaty, and the payment of the first instalment, 6,000,000 dollars, her Britannic Majesty's forces to retire from Nanking and the Grand Canal, and the military posts at Chinhai to be also withdrawn; but the islands of Chusan and Kolangsoo are to be held until the money payments and the arrangements for opening the ports be completed."

In the course of the present year (1843), a proclamation was issued, prohibiting, conformably to the stipulations in the above treaty, British subjects from resorting, for the purposes of trade and commerce, to any other ports in the dominions of the Emperor of China, than those of Canton, Amoy, Foo-chow-foo, Ningpo, and Shanghai, or than may be in the occupation of her Majesty's forces. Any persons committing a breach or violation of this direction are, upon conviction in any of her Majesty's courts of record or Vice-Admiralty, liable to a penalty, not exceeding 100*l.*, or to imprisonment for a term not exceeding 3 months, at the discretion of the court.

The principal stipulations in this treaty were pretty fully carried into effect. The tariff of import and export duties, framed in compliance with the clause to that effect in the treaty, appears to have been bottomed on fair and liberal principles; and the superintendent pledged himself that, in as far as the British government was concerned, it should be honestly acted upon.

War of 1856.—But the treaty of 1842 did not prove to be so lasting as many supposed it would be. It was, in truth, in many respects vague and indefinite, and disputes, of one sort and another, could hardly fail to arise out of its provisions. But that which led to, or was a pretext for, the war of 1856, was about as worthless as could well be imagined. On the 8th of October of that year, a species of vessel called a lorcha, registered at Hong Kong, and said, though that has been stoutly denied, to have had the British flag flying, was boarded near Canton by a party of Chinese, who seized a portion of her crew (natives), and hauled down the alleged British flag. The consul and the governor of Hong Kong took, or pretended to take, fire at this real or imaginary insult to the majesty of the British nation. And the Chinese governor having refused to humour their prejudices by making an apology, they proceeded forthwith to bombard Canton, and to destroy the war junks in the river. When the intelligence of these violent proceedings arrived in England, they gave rise to much diversity of opinion. They were disapproved of by the House of Commons; but on its being dissolved, and an appeal made to the country, the bellicose propensities

of the latter were fully developed, and a House was returned pledged to inflict signal vengeance on the Chinese for their insult to our flag and dignity! An expedition was, in consequence, fitted out to accomplish this and other objects. Happily it was accompanied by an able diplomatist, the Earl of Elgin, who was authorised to negotiate a treaty with the Chinese. It would be useless, and it would, also, be foreign to the object of this work, to enter into any details in regard to the proceedings of Lord Elgin's expedition. It is enough to say that they were completely successful; and a portion of the English forces, accompanied by a small French squadron, having proceeded up the Peiho to Tien-tsin, within 80 miles of Pekin, a treaty of peace was agreed to on the 26th June, 1858, between the British (by whom it was in fact dictated) and Imperial commissioners; and similar treaties were subsequently agreed to with the plenipotentiaries of France, Russia, and the U. States.

The ratifications of the treaty with the U. Kingdom not having as yet been exchanged, we are unable to lay its exact text before the reader, but the following abstract contains all that is of any importance in the treaty:

Summary of the Treaty between Her Majesty and the Emperor of China, signed at Tien-tsin, 26 June, 1858.

Art. I. Confirms the treaty of Nankin of 1842, and abrogates the supplementary treaty and general regulations of trade.

II. Provides for the appointment of ambassadors, ministers, or other diplomatic agents on the part of either country at the courts of Pekin and St. James'.

III. Contains provisions for the permanent establishment of a British minister, his family and suite at Pekin, and the forms to be observed in his communications with the imperial government.

IV. Makes arrangements for the travelling and the transmission of the correspondence of the minister and the employment by him of special couriers.

V. The Emperor of China consents to nominate one of the secretaries of state, or some high officer to transact business with the British minister either personally or in writing, on a footing of perfect equality.

VI. The same privileges are to be granted to the Chinese minister in London.

VII. Consuls may be appointed in China, and may reside in any of the open ports, and their official rank and position as regards the Chinese local authorities is determined.

VIII. The Christian religion, as professed by Protestants or Roman Catholics to be tolerated, and its professors protected.

IX. British subjects to travel for pleasure or trade into all parts of the interior, with passports from their consuls, countersigned by the local authorities. The regulations as regards these passports are determined. The provisions of the article not to be applied to ships' crews, for the due restraint of whom regulations are to be drawn up by the consul and the local authorities. No pass to be given to Nankin, or cities in the hands of the rebels.

X. British merchant ships are to be allowed to trade up the great river (Yang-tsz), but in the present disturbed state of the upper and lower valley, no port is to be opened for trade with the exception of Chin Kiang, which is to be opened in a year from the signature of the treaty. When peace is restored, British vessels are to be admitted to trade at such ports, as far as Hankow, not exceeding three in number, as the British minister, after consulting with the Chinese secretary of state shall determine.

XI. In addition to the present ports, New Chwang, Tang Chow, Tai Wan (Formosa), Chow Chow (Swatow), and Kiung Chow (Hainan), are to be opened, and the right of residence, and holding landed property is conceded.

XII. British subjects are to make agreements for landed property at the rates prevailing among the people.

XIII. No restrictions to be placed on the employment by British subjects of Chinese subjects in any lawful capacity.

XIV. The hire of boats for transport of goods or passengers to be settled between the parties themselves, without the interference of the Chinese government. The number of the boats not to be limited, and no monopoly allowed. If any smuggling takes place the offender to be punished according to law.

XV. All questions in regard to rights of property or person between British subjects to be subject to the jurisdiction of the British authorities.

XVI. Chinese subjects guilty of any criminal act towards British subjects to be arrested and punished by the Chinese authorities according to the law of China; British subjects committing any crime in China to be tried and punished by the consul or other public functionary according to the laws of Great Britain.

XVII. Determines the mode of procedure in the matter of complaints on the side either of British or Chinese subjects.

XVIII. Provides for the protection of the persons and property of British subjects.

XIX. If any British merchant vessel in Chinese waters is plundered by robbers or pirates, the Chinese authorities are to use every endeavour to capture and punish the offenders, and to recover the stolen property.

XX. Wrecked or stranded vessels, or vessels under stress of weather, are to be afforded relief and security in any Chinese port; and the crews are to be furnished by the Chinese, if necessary, with the means of conveyance to the nearest consular station.

XXI. Chinese criminals taking refuge in Hong Kong, or on board of British ships, shall, upon the requisition of the Chinese authorities, be given up, the same also if taking refuge in the houses, or on board the vessels of British subjects at the open ports.

XXII. The Chinese authorities to do their utmost to arrest Chinese subjects failing to discharge their debts to British subjects or fraudulently absconding, and to enforce recovery of the debts. The British authorities to do likewise as regards British subjects indebted to Chinese.

XXIII. Debts incurred by Chinese at Hong Kong must be recovered in the courts of justice on the spot. If the debtor should abscond, and should possess real or personal property in the Chinese territory, the Chinese authorities, in concert with the British consul, are to see justice done between the parties.

XXIV. British subjects shall pay on all merchandise imported or exported the duties prescribed by the tariff, but in no case shall they pay other or higher duties than the subjects of other foreign nations pay.

XXV. Import duties to be considered payable on the landing of the goods, and duties of export on the shipment of the same.

XXVI. The tariff fixed by article X. of the treaty of Nankin to be revised by a commission of British and Chinese officers to meet at Shanghai, so that the revised tariff may come into operation immediately after the ratification of the treaty.

XXVII. Either contracting party may demand a further revision of the tariff and of the commercial articles of the treaty at the end of ten years; but six months' notice must be given, or the tariff is to remain in force for ten years more, and so at the end of each successive ten years.

XXVIII. It is agreed that within four months of the signature of the treaty, the Chinese collector of duties at ports already opened and hereafter to be opened to British trade, shall be obliged, on application of the consul, to declare the amount of duties leviable on produce between the place of production and the port of shipment, and upon imports between the consular port in question and the inland markets named by the consul: and a notification thereof shall be published in English and Chinese. British subjects may, however, clear their goods of all transit duties by payment of a single charge; the amount of the charge to be calculated as near as possible at the rate of 2½ per cent. *ad valorem* duty, and it is to be fixed for each article at the conference to be held at Shanghai.

The payment of transit dues by commutation is in no way to affect the tariff duties on imports or exports, which will continue to be levied separately and in full.

XXIX. Regulates the amount of tonnage dues. British merchant vessels of more than 150 tons burden to pay at the rate of 4 mace per ton; if of 150 tons and under, at the rate of 1 mace per ton.

Vessels engaged in the coasting trade, or clearing for Hong Kong from any of the open ports shall be entitled to a special certificate exempting them from all further payment of tonnage dues in any open port of China for a period of 4 months from the date of her port clearance.

XXX. The master of any British merchant vessel may within 48 hours after his arrival, but not later, depart without breaking bulk; in which case he will not be subject to pay tonnage dues. No other fees or charges upon entry or departure shall be levied.

XXXI. No tonnage dues to be paid on passenger boats, or boats conveying baggage, letters, articles of provision, or other articles not subject to duty. All cargo boats, however, conveying merchandise subject to duty, shall pay tonnage dues once in 6 months, at the rate of 4 mace per register ton.

XXXII. The consuls and superintendents of customs to consult together respecting the erection of buoys and light ships, as occasion may demand.

XXXIII. Duties to be paid to the authorised Chinese bankers, either in syce or in foreign money, according to the assay made at Canton, July 13, 1843.

XXXIV. Sets of standard weights and measures to be delivered by the superintendent of customs to the consul at each port, to secure uniformity.

XXXV. British merchant-vessels to be at liberty to engage pilots to take them into any of the open ports, and to convey them out, after they have discharged all legal dues and duties.

XXXVI. The superintendent of customs shall depute one or more customs officers to guard a British merchant ship on arriving off one of the open ports. They shall stay either in a boat of their own or on board ship; their food and expenses shall be supplied from the custom house, and they shall be entitled to no fees from the master or consignee.

XXXVII. Ships' papers, bills of lading, &c., to be lodged in the hands of the consul twenty-four hours after arrival, and full particulars of the vessel to be reported to the superintendent of customs within a further period of twenty-four hours: omission to comply with this rule within forty-eight hours punishable by a fine of fifty taels for each day's delay. The total amount of penalty not to exceed two hundred taels. The master responsible for the correctness of the manifest: a false manifest subjects the master to a fine of five hundred taels, but he will be allowed to correct any mistake within twenty-four hours, without incurring the penalty.

XXXVIII. If the master shall begin to discharge any goods without the permit from the superintendent of customs he shall be fined five hundred taels, and the goods discharged shall be confiscated wholly.

XXXIX. British merchants must apply to the superintendent of customs for a special permit to land or ship cargo. Cargo landed or shipped without such permit will be liable to confiscation.

XL. No transhipment from one vessel to another can be made without special permission, under pain of confiscation of the goods transhipped.

XLI. The superintendent of customs shall give a port clearance when all dues and duties have been paid, and the consul shall then return the ship's papers.

XLII. If the British merchant cannot agree with the Chinese officer in fixing a value on goods subject to an *ad valorem* duty, each party shall call in two or three merchants, and the highest price at which any of the merchants would purchase them shall be assumed to be the value of the goods.

XLIII. Provides that duties shall be charged upon the nett weight of each article, making a deduction for the tare weight of congee, &c., and regulates the manner in which the tare on any article such as tea shall be fixed. The British merchant may appeal to his consul within twenty-four hours.

XLIV. Upon all damaged goods a fair reduction of duty shall be allowed, proportionate to their deterioration. If any disputes arise, they shall be settled in the manner pointed out in the clause of this treaty having reference to articles which pay duty *ad valorem*.

XLV. British merchants who have imported merchandise into an open port and paid duty may reimport their goods under certain regulations, without payment of any additional duty.

British merchants desiring to re-export duty-paid imports to a foreign country to be entitled, under similar regulations, to a drawback certificate, which is to be a valid tender in payment of customs duties.

Foreign grain brought into a Chinese port in a British ship, if no part has been landed, may be re-exported without hindrance.

XLVI. The Chinese authorities at the ports to adopt the means they may judge most proper to prevent the revenue suffering from fraud or smuggling.

XLVII. British merchant-vessels not to resort to other than the ports declared open; not unlawfully to enter ports, or to carry on clandestine trade along the coasts. Vessels violating this provision to be, with their cargoes, subject to confiscation by the Chinese government.

XLVIII. If a British merchant-vessel be concerned in smuggling, the goods to be subject to confiscation by the Chinese authorities, and the ship may be prohibited from trading further, and sent away as soon as her accounts shall have been adjusted.

XLIX. All penalties or confiscations under the treaty to belong and be appropriated to the public service of the Chinese government.

L. All official communications addressed by British diplomatic or consular agents to the Chinese authorities are, henceforth, to be written in English. For the present, they will be accompanied by a Chinese version, but it is understood that in case of there being any difference of meaning between the English and Chinese text, the English government will hold the sense expressed in the English text to be the correct sense. This provision is to apply to the present treaty, the Chinese text of which has been carefully corrected by the English original.

LI. The character "I" (barbarian) not to be applied to the British government or to British subjects in any Chinese official document issued by the Chinese authorities.

LII. British ships of war coming for no hostile purpose, or being engaged in the pursuit of pirates, to be at liberty to visit all the Chinese ports, and to receive every facility for procuring necessaries, or, if required, for making repairs. The commanders of such ships to hold intercourse with the Chinese authorities on terms of equality and courtesy.

LIII. The contracting parties agree to concert measures for the suppression of piracy.

LIV. Confirms all advantages secured to the British government by previous treaties, and stipulates that the British government shall participate in any advantages which may be granted by the Emperor of China to any other nation.

LV. The conditions affecting indemnity for expenses incurred, and loss sustained, in the matter of the Canton question, to be included in a separate article, which shall be in every respect of equal validity with the other articles of the treaty.

LVI. Ratifications to be exchanged within a year after the day of signature.

Separate article provides that a sum of two millions of taels, on account of the losses sustained by British subjects through the misconduct of the Chinese authorities at Canton; and a further sum of two millions of taels on account of the expenses of the war, shall be paid to the British representative in China by the authorities of the Kwang Tung province.

The arrangements for effecting these payments to be determined by the British representative in concert with the Chinese authorities at Kwang Tung.

The British forces are not to be withdrawn from Canton until the above amounts are discharged in full.

We also annex an abstract of the trade regulations annexed to the treaty.

New Trade Regulations in China. Abstract of the New Trade Regulations, Appended to the Treaties of Tien-tsin. (Translated from the Chinese.) — I. In the present newly arranged tariff all articles which are only mentioned amongst the imports and not amongst the exports, and which may be however hereafter exported, shall pay duties according to the import half of the tariff; and all articles which are only mentioned amongst the exports and not amongst the imports, and which may be however hereafter imported, shall pay duties according to the export half of the tariff.

All unenumerated articles in the import and export tariffs, and which may not be classed amongst the articles under the head of "duty free," shall pay an *ad valorem* duty of 5 per cent.

II. Foreign gold and silver bullion, and foreign gold and silver coins, foreign grain, flour, rice, biscuits, preserved meats, preserved fruit, cheese, butter, preserves, clothes, gold and silver ornaments, silver-plated ware, scents, soap, coals, firewood, candles, tobacco, tobacco-leaves, wines, spirits, malt liquors, household articles, articles or stores required for ships, bedding, paper, pens, ink, carpets, knives, physic for use of foreigners, glass, glass ware, shall be exempted from paying duties on entering in or going out of port.

With the exception of gold and silver bullion, foreign money, clothes and bedding which vessels may have on board only, vessels bringing any of the other above-mentioned articles will be compelled to pay tonnage dues.

III. The import and export of gunpowder, iron shot, guns (cannon), small arms, and other military weapons, and native salt, are strictly prohibited.

IV. It is now fixed that the following weights and measures are to be employed in the carrying out of this tariff: —

One Chinese picul is equal to 100 Chinese catties, or 133 1-3rd lbs. English;
One Chinese chang, or 10 Chinese feet, is equal to 141 inches;
One Chinese foot is equal to 14 1-10th English inches;
Twelve English inches are equal to 1 foot English;
Three English feet are equal to 1 yard; and 4 yards less 3 inches are equal to 1 Chinese chang.

V. Hitherto it was prohibited to trade in opium (foreign medicine), copper cash, rice, peas, beans, saltpetre, brimstone, and lead; it is now, however, stipulated that hereafter these articles may be bought and sold under certain restrictions.

Opium shall be permitted to be imported on paying a duty of 30 taels per picul. Foreign merchants are, however, only permitted to sell it at the treaty-ports, and will not be permitted to take it to other places for sale, at which it will be viewed in the light of property belonging to Chinese. Chinese merchants are alone permitted to take opium into the interior of the country; and foreign merchants cannot take charge of it for the purpose of conveying it into the interior of the country. Hence the tenor of the 9th article of the Tien-tsin treaty permitting British subjects to proceed into the interior to trade under a passport system, and the tenour of the 28th article of the same treaty respecting the transit duties, have no bearing upon trading in opium. With respect to the transit duty on opium, such will be left to the arrangement of the Chinese government.

With regard to copper cash it is prohibited to export it to foreign countries, but foreigners may export it from treaty-ports to treaty-ports, where it will be dealt with according to the present established regulations, viz., by the merchants concerned giving bonds to the custom houses. Should they not fulfil these bonds, the copper cash, on being seized, will be confiscated. On the copper cash reaching the treaty-port to which it shall be the intention to send it, no duty will be charged on it. Vessels which transport copper cash, be it a small or a large quantity, will have to pay tonnage dues.

Rice of China, or foreign rice, if once imported, cannot be exported to a foreign country; but Chinese rice and foreign rice may be exported to other treaty-ports under the same conditions as copper cash.

British merchant-vessels are prohibited exporting peas, beans, pea and bean cakes, from Newchang and Tangchow. At the other treaty-ports there are no such restrictions, and they may export these articles even to foreign countries.

Saltpetre, brimstone, and spelter, can only be imported, when purchased by the Chinese authorities, or by Chinese merchants holding licences permitting them to do so. British merchants are only permitted to sell these articles at the treaty *sea* ports, and are prohibited importing them up the Yangtsze. If British merchants violate this stipulation, then the saltpetre, brimstone, and spelter, will, on seizure, be confiscated.

VI. British vessels shall act in accordance with the 30th and 37th articles of the Tien-tsin treaty on coming to the treaty-ports.

VII. The transit duties are now fixed at one half of the duties which are to be levied at the treaty-ports, being in accordance with the tenour of the 28th article of the Tien-tsin treaty.

Those commodities, which, according to the 3rd article of this regulation, are exempted from paying duties at the treaty-ports, shall, on going into the interior of the country, pay transit duties at the rate of 2½ per cent. *ad valorem*.

On foreign merchants taking merchandise into the interior, they must report such at the custom houses at the treaty-ports, and pay the transit duties; when they will receive receipts to be produced *en route*, and which will prevent them paying any further transit duties.

On British merchants purchasing goods in the interior, they will report the same at the first inland custom house, where they will receive a certificate, and on their arrival at the treaty-port, they will produce the certificate and pay the inland duties. Should they violate this regulation and *en route* secretly sell the goods, on their seizure, they will be confiscated.

VIII. In the 9th article of the Tien-tsin treaty it is stipulated that British subjects, provided with passports, will be allowed to proceed into the interior of the country; it is now, however, stipulated that British subjects cannot proceed to Pekin to trade.

IX. British merchants will not hereafter be called upon to pay the shroff fee of 1 tael 2 mace on the payment of duties to the custom house.

X. Regarding the collection of the foreign duties certain Chinese high officers will be appointed for

the collecting them, who will either themselves or some of their special subordinate Chinese officers, or some British subjects engaged by them for that purpose, superintend such collection.

Regarding the anchoring of the vessels, the placing of buoys, erecting of lighthouses, &c., the Chinese government will arrange such and bear the necessary expense from the tonnage dues.

This most likely will be a case in which good will be educed out of evil. It would not be easy to point out a more flagrant instance than is supplied by this chapter of Chinese history of the abuse of power, of the determination of the strong to trample upon and dictate to the weak. But we have little doubt that in the end the violent proceedings we have thus shortly noticed will be advantageous to the Chinese. By extending their trade, and bringing them into closer connection with more civilised races, it can hardly fail to add to their moral as well as their physical well-being.

Hong Kong.—The island of this name, ceded to us by the treaty of 1842, is situated on the N. side of the entrance from the sea to the æstuary of the Canton River, being separated from the mainland by a narrow channel having 14 fathoms water. It stretches about 8 miles from east to west, and is of a very irregular figure, having several promontories, and being deeply indented with bays. It consists principally of a series of high hills, the highest having an elevation of about 1,200 feet. Victoria, the principal British settlement on the north side of the island, in lat. 22° 16′ 27″ N., long. 114° 10′ 48″ E., has the advantage of an excellent roadstead with from 3 to 7 fathoms water and good holding ground. There are also numerous well-sheltered roads and bays with deep water on the south side of the island; which, indeed, appears, from its position and other advantages, extremely well fitted for a naval station. Doubts were at one time entertained whether it was healthy; but these appear to have been unfounded, and it has become an important *entrepôt*, not merely for the trade with the Canton River, but with China generally.—(See the *Plan of the Canton River* in the *Mercator's Chart* prefixed to the title-page of this work.)

Monies.—Accounts are kept at Canton in tales, mace, candarines, and cash; the tael being divided into 10 mace, 100 candarines, or 1,000 cash. There is but one kind of money made in China, called cash, which is not coined but cast, and which is only used for small payments: it is composed of 6 parts of copper and 4 of lead; it is round, marked on one side, and rather raised at the edges, with a square hole in the middle. These pieces are commonly carried, like beads, on a string of wire. A tael of fine silver should be worth 1,000 cash: but, on account of their convenience for common use, their price is sometimes so much raised that only 750 cash are given for the tael.

Foreign coins, however, circulate here, particularly Spanish dollars; and for small change they are cut into very exact proportions, but afterwards weighed; for which purpose merchants generally carry scales, called dotchin, made somewhat after the plan of the English steelyards.

The tael used to be reckoned at 6*s.* 8*d.* sterling in the books of the East India Company; but its value varies, and is generally computed according to the price paid per ounce for Spanish dollars in London. The tables given for this proportional value may be calculated in pence sterling, by the multiplier 1·208. Thus, if the price of the Spanish dollar be 60*d.* per ounce, the value of the tael will be 60 x 1·208=72·48*d.*; if at 66*d.*, the value of the tael will be 79·728*d.*; and for any other price in the same proportion.

Fineness of Gold and Silver.—The fineness of gold and silver is expressed by dividing the weight into 100 parts, called toques or touch; similar to the modern practices of France. Thus, if an ingot be 93 touch, it is understood to contain 7 parts of alloy and 93 of pure metal, making in the whole 100.

The fineness of the precious metals, expressed in these decimal proportions, may be converted into English proportions by the following analogies:—Suppose gold is 91·66 touch, say, as 100 : 91·66 :: 12 : 11, the standard, and *vice versâ*: and to convert standard silver into touch, say, as 240 : 222 :: 100 : 92·5, the touch of sterling silver. Pure gold and silver without alloy is called by the Chinese sycee; and sometimes, when of less purity, the metal is accepted as sycee.

Silver Ingots are used as money, and weigh from ½ a tael to 100 taels, their value being determined by their weight. These ingots are of the best sort of silver; that is, about 94 touch.

Gold Ingots.—Gold is not considered as money, but as merchandise: it is sold in regular ingots of a determined weight, which the English call shoes of gold; the largest of these weigh 10 taels each; and the gold is reckoned 94 touch, though it may be only 92 or 93.

Banking.—Though it be not generally known in Europe, it is nevertheless true that banking establishments are quite common in China. They are licensed by government, but have no charters, nor peculiar privileges of any kind. They receive money from merchants and others, and the receivers of the revenue generally pay it into the banks. When the money in their custody may be drawn for at pleasure they allow no interest; but when some 10 or 12 days' notice have to be given before it can be drawn for, it is usual to allow 12 per cent. interest. "Paper money was formerly issued by the government, but it is not now known; its place is supplied at Fuhchau by the notes of local banks, which pass freely in the city and most parts of the prefecture. Their value rises from 200 cash up to $50 and more. Promissory notes circulate with nearly the same facility as in Europe. Many of the Canton banks confine their transactions to this and the adjoining province of Kwangsi. Some have correspondents in one or two other provinces; and a few only have agents in all the provinces. The bank that possesses most credit in Canton, is one named Anshing, the correspondence of which is principally with Pekin and Nankin; with these places its intercourse is as regular, and perhaps more so, than that of the government.—There are in some places banks of loan, which advance money for short periods, at a daily interest of about ½ per cent., for periods of at least 5 days.

"*Pawnbrokers.*—Nearly allied to these are the establishments of pawnbrokers, which are very numerous in China. The licensed ones are of three classes. Those which possess large capital and are licensed to grant loans to any amount, are placed under considerable restrictions; they allow three years to redeem, with a grace of three months. These have to pay largely for their licences, and are also subject to an annual tax. They must give three years' notice of retiring. Inferior pawnbrokers are licensed to allow only two years to redeem. And others again, of a still lower description, may sell off the pawned articles after one year; but freemen are not permitted to open such establishments. Unlicensed pawnbrokers are liable to severe punishment. The length of time which they are compelled to allow for the redemption of pledges is very injurious to them, as the articles must often lose their entire value. If a pawnbroker suffer from theft or from fire originating in his own premises, he is not exonerated from the responsibility of repaying to the pawnee the value of the articles which he had in pawn. When fire is communicated to the pawnbroker's house from a neighbour's, he is required only to make good half the amount of loss. The highest legal rate of interest is 3 per cent. per month. In the winter months, it may not exceed 2 per cent. on raiment, so that the poor may be enabled more easily to redeem. The pawnbrokers issue tickets for the articles they take, which again have a certain value, and are hawked in the streets. These shops offer great temptations to thieves, who can immediately place their plunder on the shelves, and by hiding or destroying the tickets, prevent the right owners recovering their property. The statement which has been sometimes made respecting interest among the Chinese, that it is usually paid during only ten months of the year, appears to have originated in error. One or two months' freedom from paying interest is sometimes allowed, as a matter of favour, but we cannot learn that any rule exists on the subject."—*Chinese Commercial Guide*, p. 295, published at Canton in 1856.

Weights.—Gold and silver are weighed by the catty of 16 taels; the tael is divided into 10 mace, 100 candarines, or 1,000 cash. 100 taels are reckoned to weigh 120 oz. 16 dwts. Troy, which makes the tael equal to 579·8 English grains, or 37·566 grammes.

The principal weights for merchandise are the picul, the catty, and the tael; the picul being divided into 100 catties, or 1,600 taels.

	lbs.	oz.	dwts.
1 Tael weighs, avoirdupois -	0	1	5·333 = 1⅓ oz.
16 Taels, or 1 catty - -	1	5	5·333 = 1⅓ lb.
100 Catties, or 1 picul - -	133	5	5·333 = 133⅓ lbs.

Hence the picul weighs 60·472 kilogrammes, or 162 lbs. 0 oz. 8 dwts. 13 grs. Troy.

The above weights are sometimes otherwise denominated, especially by the natives: thus, the catty is called gin; the tael, lyang; the mace, tchen; the candarine, fivan; and the cash, lis.

There are no commercial measures in China, as all dry goods and liquids are sold by weight. In delivering a cargo, English weights are used, and afterwards turned into Chinese piculs and catties.

Long Measure.—That used in China is the covid or cobre; it is divided into 10 punts, and is equal to 0·3713 metres, or 14·625 English inches.

The Chinese have 4 different measures answering to the foot, viz.

	Metres.	Eng. inch.
The foot of the mathematical tribunal	= 0·355	= 13·125
The builders' foot, called cengpu -	= 0·3298	= 12·7
The tailors' and tradesmen's foot -	= 0·3383	= 13·33
The foot used by engineers -	= 0·3211	= 12·65

The li contains 180 fathoms, each 10 feet of the last mentioned length; therefore the li = 1,897½ English feet; and 192½ lis measure a mean degree of the meridian nearly; but European missionaries in China have divided the degree into 200 lis, each li making 1,826 English feet; which gives the degree 69·166 English miles, or 11·131 French myriametres.

Equivalents of Chinese Weights, &c., in English, ditto.

Table for converting Chinese Money Weight into English Troy Weight.

Taels.	*Oz.*	*dwts.*	*grs.*	*dec.*	*Mace.*	*Oz.*	*dwts.*	*grs.*	*dec.*
100	120	16	0		8	0	19	7·872	
50	60	8	0		7	0	16	21·888	
25	30	4	0		6	0	14	11·904	
24	28	19	20·16		5	0	12	1·920	
23	27	15	16·32		4	0	9	15·936	
22	26	11	12·48		3	0	7	5·952	
21	25	7	8·64		2	0	4	19·968	
20	24	3	4·80		1 or 10				
19	22	19	0·96		*Candar.*	0	2	9·984	
18	21	14	21·12		9	0	2	4·1856	
17	20	10	17·28		8	0	1	22·3872	
16	19	6	13·44		7	0	1	16·5888	
15	18	2	9·60		6	0	1	10·7904	
14	16	18	5·76		5	0	1	4·9920	
13	15	14	1·92		4	0	0	23·1936	
12	14	9	22·08		3	0	0	17·3952	
11	13	5	18·24		2	0	0	11·5968	
10	12	1	14·40		1	0	0	5·7984	
9	10	17	10·56		*Cash.*				
8	9	13	6·72		9	0	0	5·21856	
7	8	9	2·88		8	0	0	4·63872	
6	7	4	23·04		7	0	0	4·05888	
5	6	0	19·20		6	0	0	3·47904	
4	4	16	15·36		5	0	0	2·89920	
3	3	12	11·52		4	0	0	2·31936	
2	2	8	7·68		3	0	0	1·73952	
1	1	4	3·84		2	0	0	1·15968	
Mace.					1	0	0	0·57984	
9	1	1	17·856						

Formulæ for reducing Chinese, English, and Indian Weights.

One pound troy is equal to taels 9 $\frac{933}{1000}$ nearly.

One pound avoirdupois is equal to 3·4ths of a catty, or 12 tls.

One hundred weight is equal to 84 catties.

Ninety catties sola at Macao are equal to 1 picul balance.

One ton is equal to 16 piculs 80 catties.

One ton is equal to 27·222 Indian maunds, or nearly 27½ maunds.

One Indian maund is 82 $\frac{2}{7}$ lbs. avoirdupois exactly.

One maund or 100 lbs. troy is equal to 993·446 taels.

One tola is equal to 3·221 taels.

One Bengal factory maund is equal to 56 catties.

One Bengal bazar maund is equal to 61·6 catties.

To convert taels into pounds troy.—Divide by 10, and to the quotient add 2 3rds of 1 per cent.

To convert piculs into pounds avoirdupois.—Add a third to the number of catties.

To convert pounds avoirdupois into piculs.—Subtract a quarter, and divide by 100.

To convert hundred weights into piculs.—Multiply by 84 catties, and divide by 100.

To convert Bengal factory maunds into piculs.—Multiply by 56, and divide by 100.

To convert piculs into hundred weights.—Multiply by 100, and divide by 84; or if minute exactness is not required, add 1-5th, and from the result deduct 8 per mil.

To convert piculs into Bengal factory maunds.—Multiply by 100, and divide by 56; or if minute accuracy is not required, add ⅔, and 2 per cent. upon the result.

To convert Bengal bazar maunds into piculs.—Multiply by 616, and divide by 1,000.

To convert piculs into Bengal bazar maunds.—Multiply by 1,000 and divide by 616; or if minute accuracy is not required, add 62½ per cent.

To convert Indian weights into avoirdupois weights.—1. Multiply the weight in seers by 12, and divide by 35; the result will be the weight in pounds avoir. Or 2, multiply the weight in maunds by 36, and divide by 49; the result will be the weight in pounds avoir.

To convert avoirdupois weight into Indian weights.—1. Multiply the weight in pounds avoir. by 35, and divide by 72; the result will be the weight in seers. Or 2, multiply the weight in cwts. by 49, and divide by 36; the result will be the weight in maunds.

The following table shows to the nearest farthing the charge upon each lb. at the different rates of freight, allowing, as a fair average, 7 bales of 103 lbs. each to 1 ton of 50 cubic feet; and from this table the cost may be computed for any rate of freight.

At 5*l.* per ton of 50 feet	-	-	1*d.* per lb.
„ 5*l.* or 4*l.* 10*s.* „	-	-	1¼*d.* „
„ 4*l.* 10*s.* „	-	-	1½*d.* „
„ 5*l.* or 5*l.* 10*s.* „	-	-	1¾*d.* „
„ 6*l.* „	-	-	2*d.* „
„ 6*l.* 10*s.* or 7*l.* „	-	-	2½*d.* „
„ 7*l.* 10*s.* „	-	-	2¾*d.* „
„ 8*l.* „	-	-	3*d.* „

Pro forma Invoice of 10 bales of Raw Silk, shipped from Shanghai for London.

ADC 1 @ 10	10 bales Tsatlee, weighing nett 8 piculs, at 380 dollars per picul - -			*Dolls.* 3040	*Cts.* 00
	Charges.	*Dolls.*	*Cts.*		
	Go-down rent, boat, and coolie-hire -	5	0		
	Mats, matting, and marking	2	65		
	Inspecting, 1 per cent. -	30	40		
	Fire insurance, ½ per cent. -	3	80	41	85
				3081	85
	Commission, 2½ per cent. on $3081·85 -			77	46
		Dollars		3159	31

Pro forma Account Sale of the same.

ADC 1 @ 10	10 bales Tsatlee, weighing 1035 lb., at 18*s.* per lb. - -			*£* 931	*s.* 10	*d.* 0
	Charges.	*£*	*s.*	*d.*		
	Insurance on 900*l.* at 60*s.* 0/0, policy 1*l.* 7*s.*	28	7	0		
	Freight on 75 ft. 6 in. at 7*l.* 10*s.* per 50 ft.	11	0	6		
	Dock charges, including warehouse rent	5	18	6		
	Sale expenses, at 3*d.* per bale, 2*s.* 6*d.*, Customs entry 2*s.* 6*d.*	0	5	0		
	Fire insurance on 931*l.* 10*s.* at ½ per ct.	2	6	7		
	Brokerage on 931*l.* 10*s.* at ½ per cent. -	4	13	2		
	Commission on 931*l.* 10*s.* at 2½ per cent. - -	23	5	9	75	16	6
				Nett Produce -	855	13	6
	Giving an exchange at 5*s.* 5*d.*						
	1066⅔ lb.						
	1035 lb.						
	31⅔ lb. less in weight = 3 per cent.						

From the *Chinese Commercial Guide*, a useful and valuable publication.

European Trade at Canton.—As soon as a vessel arrives among the islands which front the entrance to the Canton river, she is generally boarded by a pilot, who conducts her into Macao or Hong Kong roads. The entrance is, however, so safe, that ships push on without waiting for the pilot, who, if the weather be bad, is sometimes long in coming on board. The pilots' names are registered at the Keun-min-foo's office, near Macao; and for a licence to act, the sum of 600 dollars is paid. The person who takes out the licence sometimes knows nothing about at ips or the river; but employs fishermen to do the duty. On the vessel's arrival in the roads, the pilot goes on shore to report her at the office of the Keun-min-foo, who, when he has received answers to his inquiries, gives a permit for her to pass through the Bogue, and orders a river pilot on board. This pilot seldom repairs on board the vessel before 24 hours have elapsed. When advised, the vessel proceeds through the Bogue, and up the Canton river, to Whampoa.

Every ship that enters the port requires the service of a linguist, and comprador, before she can commence unloading. The master used to be required to give a written declaration, in duplicate, solemnly affirming that the ship has brought no opium.

All the trade with foreigners used to be confined to the hong or security merchants; but this restriction has recently been abolished; and foreigners may now deal with any merchant or other party they think fit to employ. The linguists are government interpreters, who procure permits for delivering and taking in cargo, transact all the custom-house business, and keep accounts of the duties. All the *minor* charges of the government, also, are paid by them; in consideration of which they receive a fee of about 173 dollars, previously to the vessel's departure.

When a vessel wishes to discharge or receive cargo, the linguist is informed, a day or two previously, what kind of goods are to be received or discharged, and in what quantities. He then applies for a permit, which being issued, the lighters or chop-boats proceed to Whampoa, where they usually arrive on the evening of the second or morning of the third day. For a single boat the linguist used to receive a fee of 2·5 dolls.; but if a permit be obtained for from 2 to 6 boats at a time, the fee for each boat was only 11 taels 2 mace 6 cand., or about 15¼ dolls.

When the goods are ready to be landed from or sent to the ship, the hoppo (principal custom-house officer) sends a de-

Chinese, Indian, and English large Weights compared.

A picul is equal to	A cwt. is equal to				*Lbs.*	*Dec.*
5·333	4·480	Madras maunds of	8	viz. or	25·000	
4·761	4·000	Bombay maunds of	40	Bombay seers, or	28·000	
4·535	3·809	do.	42	do.	29·400	
5·371	3·000	Surat maunds of seers, or	40	Surat	37·352	
5·484	2·926	do.*	41	do.	38·266	
5·401	2·857	do.†	42	do.	39·199	
5·303	2·774	do.	43½	do.	40·567	
5·246	2·727	do.	44	do.	41·068	
		Bengal factory maunds of 40 seers, or			74·666	
1·785	1·500	Bengal bazar	do.	do.	82·133	

			Lbs.	*Cwt.*	*Qrs.*	*Lbs.*
A Madras candy of 20 maunds is			500	4·464	3	7
A Bombay candy of 20			560	5·000	4	20
do.	21	maunds,	588	5·250	4	41
do.	22	each	616	5·500	4	62
A Surat candy of	20	maund	746⅔	6·666	5	60
do.‡	21	40 seers, is	784	7·000	5	83
do.	22		821⅓	7·333	6	16

* By this weight China sugar is sold at Bombay.

† By this weight Malwa opium is sold at Damaun and in the interior of India.

‡ By this weight cotton is sold at Bombay.

mestic, a writer, and a police runner; the hong merchant who has secured the ship sends a domestic, called a court going man (one who attends at the public offices, on ordinary occasions, in behalf of his master); and the linguist sends an accountant and interpreter, to attend at the examination of the goods. The hong merchants used to be held responsible by government for all duties, whether on imports or exports in foreign vessels; and therefore, when goods were purchased, it was customary for the parties, before fixing the price, to arrange between themselves who was actually to pay the duties.

Of an import cargo, each chop-boat, according to rule, which, however, is not rigidly enforced, should contain,—of woollens, camlets, and long-ells, 140 bales; tin, 500 bars; lead, 600 pigs; Bombay cotton, 55 bales; Bengal cotton, 80 bales; betel nut, pepper, &c., 300 piculs.

Of export goods, a chop-boat should take,—of tea, 600 chests; of other sorts of goods, 500 piculs. If more than this, the hong merchant gives to the chop-boat, for each additional picul, 6½ dollars.

In calculating the duties on export goods, 90 catties are considered 100. The woollens, long-ells, and camlets are measured by the chang of 10 covids, without any deduction; and single articles are numbered.

If, after entering the port, any persons tranship goods, it is considered that the one ship sold them to the other; and, in that case, the same duty has to be paid as if the goods were brought up to Canton. Provisions are not included in this regulation.

Ships' boats are not allowed to carry up or down anything chargeable with duty.

Gold, silver, copper, and iron are prohibited to be exported; a few culinary utensils are the only exception. When it is desired to export treasure, the hong merchant must make an estimate of the value of the import and export cargoes; and whatever balance there may be in favour of the ship, may then be shipped off as treasure.

If more cargo be sent to a ship than she can take on board, and she wishes it to be shipped on board another, it must be done within 5 days after announcing the goods at the custom-house, and a hong merchant must state it to government; if granted, a hong merchant and linguist are ordered to go to Whampoa and take an account of such goods; all which, with the expense of boats, runners, &c. at Whampoa, costs 40 or 50 dollars.—(*Companion to Anglo-Chinese Calendar*, pp. 99—101.)

Hong Merchants.—Previously to the commencement of the new system, it had, as stated above, been the invariable practice, enforced by law, that all foreign vessels arriving in the port should employ, as broker or agent, a hong or security merchant, who became, by doing so, responsible to the government for the duties. These merchants, who were but few in number, were the only individuals in the empire legally authorised to trade with foreigners, a privilege for which they had to pay very largely. But, after an arrangement had been made with any particular hong merchant for securing a ship, her captain or supercargo might deal with any other hong merchant, or even with any outside merchant (or merchant not belonging to the hong) he pleased. The peculiar duty of the hong merchant was to pay the duties on both the inward and outward cargoes; and hence arose the practice of foreigners buying all goods for export duty paid, and selling all the goods brought with them free of duty, the duties being, in both cases, paid by the hong merchants who had secured the ship; and hence, also, the ignorance of most foreigners as to the amount of the duties. But since the privilege of the hong merchants has been abolished, the duties have to be paid to the Chinese authorities by the parties importing and exporting, in the same way as in this country.

Foreign Merchants.—These consist of British, American, French, Dutch, Danish, Swedish, Spanish, and Portuguese, with Parsee and Indian Mahommedan British subjects. The Americans, French, and Dutch have each consular agents recognised by the Imperial government. The same privileges have been, or are to be, conceded to all foreigners that have been granted to the English.

Rates of Commission in China, agreed upon in November, 1831, and revised by the Chamber of Commerce, March, 1838.

1. On all sales of opium, cotton, cochineal, camphor baroos, birds' nests, diamonds, and other precious stones, pearls, ships, and houses	3 per cent.
2. On sales of all other goods	5 ditto.
3. On returns, if in goods	2½ ditto.
4. On returns, if in treasure, bullion, or bills	1 ditto.
5. On purchases, not being returns for goods sold:	
1st. Of raw silk	3 ditto.
2nd. Of manufactured silk	5 ditto.
3rd. Of all other goods	5 ditto.
6. On inspecting teas, whether for returns or otherwise, an additional charge of	½ ditto.
7. On sale, purchase, or shipment of bullion	1 ditto.
8. On drawing sale, or negotiation of bills when not involving responsibility as drawer or indorser	1 ditto.
9. On drawing, sale, or negotiating of bills when guaranteed by the agent as drawer or endorser, and not covered by adequate security	2½ ditto.
10. On purchasing bills, or effecting remittance by bills, of the agent or otherwise	1 ditto.
11. On negotiating loans or respondentia	2 ditto.
12. On guaranteeing bills, bonds, or other engagements	2½ ditto.
13. On guaranteeing sales when especially required without including responsibility for remittances	2½ ditto.
14. On guaranteeing both sales and remittance of proceeds	4 ditto.
15. On bills of exchange, returned noted, or protested	1 ditto.
16. On letters of credit for mercantile purposes	2½ ditto.
17. On all advances of money for purposes of trade, whether the goods are consigned to the agent or not, and where a commission of 5 per cent. is not charged	2½ ditto.
18. On ordering goods or superintending the fulfilment of contracts, where no other commission is derived	2½ ditto.
19. On all goods, treasure, &c. consigned, and afterwards withdrawn or sent to auction, and for goods consigned for additional delivery to others	½ commission.
20. On procuring freight, or advertising as agents or owners or commanders, on the amount of freight, whether the same passes through the hands of the agent or not	5 per cent.
21. On receiving inward freight	1 ditto.
22. On ships' disbursements	2½ ditto.
23. On chartering ships for other parties	2½ ditto.
24. On effecting insurance, or writing orders for insurance	½ ditto.
25. Settling insurance losses, total or partial, and on procuring return of premium	1 ditto.
26. Debts, where a process at law or arbitration is necessary, 2½ per cent.; and if recovered	5 ditto.
27. Collecting house rent	2½ ditto.
28. Acting for the estates of persons deceased, as executors or administrators	5 ditto.
29. The management of the estates of others, on the amount received	2½ ditto.
30. All cash receipts, not serving for the purchase of goods, and not otherwise specified above	1 ditto.
31. Shroffing	2 per mil.
32. Transhipping goods	1 per cent.
33. All advances not punctually liquidated, the agent to have the option of charging a second commission, as upon a fresh advance, provided the charge does not occur twice in the same year	1 ditto
34. At the option of the agent, on the amount debited or credited within the years, including interest, and excepting only items on which a commission of 5 per cent. has been charged	1 ditto.
N.B.—This charge not to be applied to paying over a balance due on an account made up to a particular period, unless where such balance is withdrawn without reasonable notice.	

Port Charges are fixed under the new treaty at 4 mace per ton for vessels of more than 150 tons burden; and at 1 mace per ton on vessels of less than 150 tons.

Trade between England and China.—Down to 1834, the trade between the United Kingdom and China was monopolised by the East India Company, but in the above year this monopoly was happily abolished, and the trade with China thrown open to all classes under the conditions specified in the act 3 & 4 W. 4. c. 93. Tea has always been by far the principal article of import from China; and it is mainly owing to the diffusion of the taste for it, and its consumption by all ranks and orders of the people, that the trade with China has attained its present importance. Latterly, however, the exports

of silk have increased very rapidly, and it has now become an article of first-rate importance.

The great articles of export from this country to China consist of cotton stuffs and yarn, woollen goods, linen, &c., iron and steel, beer and ale, coal, &c. Bullion used to be largely exported to China; and though for a few years this was not the case, it has of late years been more largely exported than ever. And we have elsewhere shown (see art. PRECIOUS METALS) that the exportation must necessarily continue till our imports of Chinese produce be diminished, or the exports of British produce to China be greatly increased. The following tables give full details with respect to our trade with China generally, and with Canton in particular.

The act 6 & 7 Victoria, cap. 80., authorises the superintendent of the trade of her Majesty's subjects in China, being at the same time governor of Hong Kong, to issue, with the advice of the legislative council of the island, laws and ordinances for the government of British subjects in China, or within 100 miles of the same. Laws and ordinances so issued are to be laid before parliament.

Trade of the U. K. with China.

Account of the Quantities and Values of the Principal Articles imported into the U. K. from China, inc. Hong Kong, in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Camphor, unrefined - cwts.	-	998	868	130	-	£4,577	£3,196	£471
Cassia lignea - lbs.	6,328	148,433	413,595	171,747	£325	8,184	19,747	5,425
China or porcelain ware and earthenware - cwts.	696	482	326	157	7,043	4,838	3,318	1,611
Cotton piece goods - pieces	14,950	35,578	15,622	67,290	2,168	3,977	1,766	10,695
Ginger, preserved - lbs.	65,374	138,151	105,434	103,923	2,179	4,605	4,393	4,330
Japanned and lacquered ware - - - cwts.	-	-	-	-	2,452	2,496	925	790
Mats and matting - value	-	-	-	-	5,675	7,358	6,065	1,088
Oil: chemical, essential, and perfumed: cassia not particularly enumerated - - lbs.	2,622	1,025	1,630	1,828	1,147	589	1,182	2,224
Rhubarb - - —	10	7,858	14,445	8,517	2	5,501	8,667	4,990
Silk: raw - - —	26,497	25,425	159,882	234,980	3,974	8,262	30,644	46,017
thrown - - —	4,576,706	4,436,862	3,725,693	6,664,532	3,318,112	3,013,369	3,646,116	6,568,910
Silk manufactures: — Crape shawls, scarfs, and handkerchiefs, and crape in pieces - lbs.	359,320	555,576	428,553	262,494	263,361	416,532	433,552	298,647
China damask - running yds.	13,061	5,195	13,963	4,501	25,597	10,609	27,681	11,297
Pongees - pieces	26,147	14,634	7,006	5,382	5,884	2,653	1,518	1,278
Pongee handkerchiefs - —	1,823	4,668	1,263	2,369	4,461	7,084	2,092	5,057
Silk manufactures, not particularly enumerated - value	11,145	7,144	9,928	6,929	8,661	5,986	10,291	6,524
Sugar, unrefined - cwts.	-	-	-	-	5,965	5,546	8,964	5,630
Tea - - - lbs.	6	3	18,345	61,700	6	3	27,698	79,725
Wool, sheep and lambs' - —	83,301,550	81,560,207	84,795,802	60,295,610	5,379,892	5,118,752	5,125,080	4,310,205
	206,380	517,137	171,329	343,687	5,589	17,777	6,425	11,953
Total value of the above and of all other articles -	-	-	-	-	9,125,040	8,746,590	9,421,648	11,448,689

Account of the Quantity and Value of the Produce and Manufactures of the U. K. exported to China and Hong Kong, in the following Years ended with 1858.

Years.	Cotton Manufactures.	Cotton Yarn.		Woollen and Worsted Stuffs.		Woollen Manufactures (ex. Stuffs).	All other Articles.	Aggregate Value of B. Produce exp. to China and H. Kong.
	Value.	Quantity.	Value.	Quantity.	Value.	Value.	Value.	Value.
	£	*Lbs.*	£	*Pieces.*	£	£	£	£
1827	67,280	300	25	119,783	274,444	187,028	81,860	610,637
1828	72,277	232,520	20,420	178,426	405,674	212,738	74,810	785,919
1829	57,906	504,814	14,146	155,126	285,747	205,575	64,345	627,517
1830	49,486	509,120	13,581	169,470	311,223	163,220	27,490	565,050
1831	77,835	497,100	57,116	153,060	257,280	142,865	56,985	547,701
1832	31,742	240,000	14,708	162,126	259,027	207,075	35,104	545,656
1833	51,097	300,400	15,248	167,986	285,960	250,710	29,562	630,577
1834	165,238	952,440	56,859	69,560	167,050	416,005	40,060	845,192
1835	291,853	2,853,562	170,390	109,567	208,572	318,562	85,351	1,074,708
1836	370,461	3,158,870	212,933	121,379	251,920	402,668	83,406	1,326,388
1837	275,387	1,875,965	103,908	59,619	134,584	111,952	54,544	678,375
1838	522,857	3,851,365	217,047	127,456	184,025	225,737	54,690	1,204,356
1839	386,775	1,589,760	78,892	99,517	175,865	159,347	55,122	851,969
1840	255,589	1,774,350	88,248	64,248	103,825	60,517	32,919	530,598
1841	422,957	3,402,109	156,580	54,849	116,209	96,356	70,468	862,570
1842	470,349	5,774,796	245,965	62,491	107,318	59,562	106,387	969,581
1843	655,276	5,685,775	216,665	124,714	258,025	159,790	166,426	1,456,180
1844	1,457,794	3,599,074	117,853	170,054	545,105	220,325	164,542	2,505,617
1845	1,655,185	2,609,850	99,958	152,819	245,886	293,552	120,468	2,394,827
1846	1,024,662	5,567,828	221,856	105,975	211,779	297,890	105,252	1,791,439
1847	846,814	4,104,040	164,264	115,635	241,766	148,671	100,454	1,505,969
1848	608,822	4,572,276	142,423	151,581	267,514	112,398	114,802	1,445,959
1849	885,189	3,552,994	118,094	132,267	254,392	116,487	164,947	1,537,109
1850	894,546	3,116,176	126,569	107,050	179,856	224,941	148,453	1,574,145
1851	1,409,782	4,319,530	189,047	103,576	188,110	186,498	187,851	2,161,268
1852	1,651,814	6,638,552	253,507	125,611	225,240	211,267	165,801	2,503,599
1853	1,209,948	5,234,617	186,485	65,955	118,741	84,258	158,185	1,749,597
1854	501,527	3,614,709	159,293	44,640	88,205	68,756	202,937	1,020,718
1855	788,474	2,864,500	95,511	23,411	37,280	96,790	259,889	1,277,944
1856	1,535,941	5,775,620	210,294	56,563	103,769	164,875	403,246	2,216,125
1857	1,575,828	3,462,011	158,081	60,189	116,618	170,254	451,221	2,449,982
1858	1,825,822	6,231,991	266,356	75,685	150,695	240,018	395,576	2,876,447

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported from the U. K. to China, inc. Hong Kong, in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Apparel, slops, and haberdashery - - value	- -	- -	- -	- -	£ 8,178	£ 7,765	£ 15,676	£ 11,253
Beer and ale - - barrels	2,912	2,814	3,115	9,741	11,917	12,924	12,620	35,769
Coals, cinders, and culm tons	16,854	30,908	35,698	83,048	10,783	18,214	20,758	45,523
Copper, wrought and unwrought - - cwts.	3,771	7,701	6,132	4,164	25,230	46,768	36,940	24,929
Cottons: entered by the yard - - - yards	41,672,293	74,033,426	112,665,202	121,587,515	498,833	785,922	1,330,839	1,572,397
at value - value	- -	- -	- -	- -	2,694	2,552	3,102	1,431
Cotton yarn - - lbs.	3,614,709	2,864,500	5,775,620	3,462,611	139,293	95,517	210,294	158,081
Earthenware and porcelain - - - value	- -	- -	- -	- -	1,158	2,484	2,375	4,126
Glass manufactures - ,,	- -	- -	- -	- -	6,752	7,251	7,447	14,844
Iron - - - tons	1,130	1,745	6,145	7,432	16,475	22,187	66,638	74,413
Lead and shot - - ,,	1,935	2,102	3,222	3,660	44,040	47,389	80,109	92,623
Linens, entered by the yard - - - yards	452,479	331,683	3,198,738	752,610	12,259	11,424	51,705	18,041
Tin plates - - value	- -	- -	- -	- -	965	1,407	6,879	4,298
Woollens: entered by the piece - - - pieces	58,772	44,636	92,109	91,181	147,710	130,596	263,181	276,057
by the yard yards	73,184	17,793	46,466	121,888	7,576	2,711	4,238	8,801
at value - value	- -	- -	- -	- -	1,673	963	1,223	1,994
All other articles - ,,	- -	- -	- -	- -	67,200	82,096	102,101	102,402
Total - -	- -	- -	- -	- -	1,000,716	1,277,944	2,216,123	2,449,982

Account of the Quantities of Raw Silk, Nankeen Cloth, Silk Manufactures, Cassia Lignea, and other Articles of Chinese Produce, imported into the U. Kingdom, in each Year from 1830 down to 1845, both inclusive.

Years.	Raw Silk.	Nankeen Cloths.	Silk Manufactures. Silk Handkerchiefs.	Silk Manufactures. Crape Shawls, Scarfs, and Handkerchiefs.	Silk Manufactures. Silks and Crapes in Pieces.	Silk (thrown).	Canes.	Cassia Lignea.	China Root.	Rhubarb.	Tin.	Mother-of-Pearl Shells (Rough).	Vermilion.
	Lbs.	*Pieces.*	*Pieces.*	*Number.*	*Pieces.*	*Lbs.*	*Number.*	*Lbs.*	*Lbs.*	*Lbs.*	*Cwts.*	*Cwts.*	*Lbs.*
1830	19,198	22,758	161	6,185	925	2	327,366	- -	- -	- -	607	1,455	56
1831	8,574	2,500	85	6,538	2,074	45	546,675	- -	36,373	- -	1,138	1,215	
1832	28,105	- -	126	6,755	138	6	485,868	- -	73,114	- -	101	788	3,525
1833	22,181	9,700	1,875	10,763	2,422	5	1,087,275	- -	108,589	- -	1,275	319	110
1834	582,834	25,000	4,276	973	533	25	1,102,283	110,697	139,588	56,717	-	2,111	12,798
1835	737,489	11,236	4,155	5,646	1,956	313	2,058,561	153,637	55,429	28,515	-	2,579	12,152
1836	1,277,027	11,900	6,595	4,946	2,630	4,588	655,854	74,883	- -	44,028	-	116	
1837	1,751,252	129,467	30,081	10,618	7,208	47,478	1,209,502	8,252	23,580	85,238	60	1,591	6,376
1838	698,248	59,038	21,870	8,451	3,713	18,840	461,983	44,142	12,449	55,811	165	1,848	
1839	349,549	56,400	21,327	7,206	13,563	381	525,352	51,206	33,406	36,759	-	278	
1840	247,755	2,700	2,256	1,604	3,440	7	301,948	- -	- -	15,986	306	243	2,184
1841	277,093	5,599	15,578	8,288	12,106	4	730,989	38,766	9,124	43,640	-	- -	665
1842	186,114	5,300	9,338	2,433	20,771	24	587,746	276,117	19,216	72,518	183		
1843	264,304	7,854	12,235	8,247	16,620	11,007	312,168	617,390	94,272	172,882	6	- -	399
1844	339,795	56,293	7,510	12,748	1,952	13,023	742,570	650,942	196,934	141,255	-	- -	17,400
1845	1,169,615	31,084	15,250	6,266	9,834	6,222	753,337	782,176	354,221	221,030	-	- -	14,774

Summary of the Value of the British Import and Export Trade at Canton, during each of the 7 Years ending with 1856. (We had no trade at Canton in 1857.)

Articles.	1850.	1851.	1852.	1853.	1854.	1855.	1856.
Import Trade.							
Woollen manufactures - -	992,800	818,817	134,826	99,989	30,750	3,020	399,955
Cotton do. - -	1,610,900	2,451,945	678,156	555,756	85,320	368,500	1,768,300
Metals - - -	251,971	459,570	447,642	21,098	38,020	32,500	420,673
Miscellaneous, raw and manufactured - - -	28,829	46,245	18,513	26,094	18,446	48,788	
Raw cotton - - -	3,432,000	5,500,000	8,227,040	2,474,825	2,706,425	906,425	5,666,977
Other Indian and Straits produce	594,400	817,681	467,890	880,491	468,983	2,246,557	886,156
Total dollars -	6,896,900	10,094,261	9,974,022	4,058,233	3,348,444	3,605,590	9,142,061
Export Trade.							
Tea - - - -	7,672,771	10,544,100	5,454,652	5,147,156	4,647,550	2,500,000	6,355,275
Silk: raw - - -	1,016,900	836,220	432,168	522,507	386,950	5,100	669,792
manufactured - -	486,360	329,535	188,965	367,324	40,300	46,200	375,692
Sundries - - -	749,740	1,490,457	541,187	495,002	1,025,677	405,620	856,500
Total dollars -	9,918,811	13,210,312	6,596,272	6,531,989	6,098,477	2,956,920	8,217,259

Estimate of the British Export Trade at Canton during the Year 1856, compiled principally from private Sources.

Denomination of Articles.	Quantities.	Average Prices during the Year in Dollars.	Estimated Value in Dollars.
Tea - - - -	Piculs *, 254,211	18 taels, or say $25 per picul	6,355,275
Raw silk - - -	,, 2,034½	$280 ,,	569,792
refuse - - -	1,500 cases	- - -	100,000
Silk piece goods, value estimated at -	- - -	- - -	375,692
Sugar and sugar-candy - -	Piculs, 65,000	$5·30 per picul	344,500
Cassia - - -	,, 12,000	$20 ditto	242,000
Sundries, as rhubarb, alum, matting, preserves, value estimated at -	- - -	- - -	250,000
Total estimated value, dollars -	- - -	- - -	8,217,359

* The picul = 133⅓ lb. avoird. Equal at the average exchange of the year of 4*s.* 9*d.* per dollar, 1,951,5997.

Account of the Quantities and Values of the various Articles of Foreign Produce and Manufacture imported into the U. K. from China and Hong Kong during the following Years ended with 1858.

Years.	Tea.		Silk.		Other Articles.	Agg. Imports into U. K. from China and H. Kong.
	Quantities.	Official Value.	Quantities.	Official Value.	Official Value.	Official Value.
1825	*Lbs.*29,345,699	£2,954,570	*Lbs.*125,107	£45,159	£102,400	£3,082,109
1826	29,840,401	2,984,040	169,591	62,183	86,453	3,132,676
1827	30,746,147	3,074,614	128,451	47,256	75,488	4,067,358
18	32,678,546	3,267,855	212,895	78,061	135,471	3,481,387
1829	30,544,382	3,054,438	120,078	44,584	128,459	3,227,281
1830	31,897,546	3,189,755	19,200	7,045	35,483	3,232,285
1831	31,648,922	3,164,892	8,419	3,259	38,882	3,207,006
1832	31,708,956	3,170,896	28,111	10,320	26,141	3,207,357
1833	32,057,747	3,205,775	22,186	8,151	52,554	3,266,460
1834	32,029,052	3,202,905	582,857	215,773	90,251	3,508,929
1835	42,052,047	4,205,205	737,802	271,559	88,922	4,564,766
1836	48,520,508	4,852,051	1,281,839	474,088	96,757	5,422,896
1837	36,302,345	3,630,234	1,807,690	705,483	179,874	4,553,691
1838	38,998,572	3,899,857	721,517	278,104	131,004	4,309,965
1839	37,191,762	3,719,176	360,882	129,731	129,011	3,977,918
1840	22,576,405	2,257,640	247,762	90,870	40,159	2,388,669
1841	27,630,817	2,763,982	277,067	101,814	99,083	2,964,879
1842	37,409,544	3,740,954	180,148	66,134	148,115	3,956,200
1843	42,779,265	4,277,927	275,508	110,104	243,423	4,631,544
1844	51,754,485	5,175,449	355,016	140,788	249,353	5,565,590
1845	50,714,657	5,071,466	1,175,866	456,508	312,968	5,820,942
1846	54,554,248	5,455,425	1,856,872	673,056	511,183	6,642,664
1847	55,355,590	5,535,559	2,021,765	748,247	418,727	6,702,533
1848	47,346,817	4,734,682	2,241,011	861,955	222,042	5,818,679
1849	55,102,129	5,510,213	1,861,537	685,949	164,510	6,170,672
1850	49,568,001	4,956,800	1,812,370	709,101	212,924	5,949,025
1851	69,487,979	6,948,798	2,099,134	841,981	186,712	7,977,491
1852	65,295,202	6,529,920	2,470,029	945,903	258,048	7,712,771
1853	68,639,727	6,863,973	2,996,411	1,211,435	180,207	8,255,615
		Computed Real Value.		Computed Real Value.	Computed Real Value.	Computed Real Value.
1854	83,501,550	5,379,892	4,952,889	3,582,856	162,512	9,125,040
1855	81,560,207	5,118,752	5,048,997	3,452,739	125,090	8,746,590
1856	84,795,802	5,125,080	4,195,849	4,106,208	192,360	9,421,648
1857	60,295,610	4,510,295	7,127,090	6,910,650	227,804	11,448,639
1858	75,359,599	5,036,293	2,521,080	1,856,045	170,151	7,043,089

Account of the Trade between India and China, inc. Hong Kong, specifying, separately, the Value and Quantity of the Opium and Cotton exported to China and Hong Kong from India.

Years.	Total Exports, India to China.					Total Value of Exports from India to China.	Manufactures and Produce imported into India from		
	Opium.		Cotton.		All other Articles of Manufacture and Produce		H. Kong.	Other Ports	Total China.
	Quantity.	Value.	Quantity.	Value.			Value.	Value.	Value.
	Chests.	£	*Lbs.*	£	£	£	£	£	£
1813-14	5,215	557,128	-	625,595	141,344	1,324,067	-	-	452,528
1814-15	2,999	711,776	-	697,120	171,316	1,580,212	-	-	573,315
1815-16	2,723	580,691	-	749,394	131,315	1,461,400	-	-	552,986
1816-17	3,576	685,658	-	739,557	126,070	1,551,065	-	-	704,227
1817-18	2,911	653,152	-	785,595	174,464	1,583,216	-	-	806,363
1818-19	3,575	685,084	-	542,596	170,080	1,397,760	-	-	834,065
1819-20	1,741	349,819	-	272,663	181,540	804,022	-	-	731,788
1820-21	-	1,180,063	-	834,821	237,625	2,252,507	-	-	760,364
1821-22	-	965,067	-	558,213	158,318	1,742,322	-	-	960,956
1822-23	-	1,339,805	-	438,480	242,195	2,070,480	-	-	754,059
1823-24	-	940,473	-	557,352	192,561	1,690,386	-	-	478,120
1824-25	-	815,764	-	882,687	296,309	1,994,760	-	-	532,967
1825-26	-	1,196,283	-	1,042,587	172,373	2,411,045	-	-	728,853
1826-27	Quantities	1,587,380	-	975,192	156,046	2,718,618	-	-	685,293
1827-28	cannot be	1,795,119	-	937,918	187,490	2,919,527	-	-	757,807
1828 29	given for	1,262,943	-	806,260	204,997	2,274,200	-	-	726,774
1829-30	these years.	1,592,617	Cannot be given for	894,705	166,410	2,453,750	-	-	822,078
1830-31	-	1,479,516	these years.	833,210	150,794	2,463,520	Not shown in the returns from India for these years.		810,865
1831-32	-	2,326,349	-	732,262	125,048	3,181,659			486,765
1832-33	-	1,804,041	-	776,620	36,534	2,618,935	-	-	455,556
1833-34	-	2,272,060	-	1,118,690	103,188	3,558,858	-	-	544,922
1834-35	-	1,909,555	-	758,846	220,059	2,888,408	-	-	515,528
1835-36	-	2,866,025	-	1,345,868	216,697	4,428,590	-	-	556,150
1836-37	31,375	3,934,459	-	1,287,984	219,619	5,442,062	-	-	525,544
1837-38	26,484	2,904,284	-	1,025,947	164,994	4,095,225	-	-	440,066
1838 39	21,852	2,791,132	-	1,253,555	210,455	4,255,142	-	-	461,055
1839-40	5,948	191,422	-	696,803	116,514	1,004,739	-	-	201,138
1840-41	17,859	1,267,387	-	707,859	200,935	2,176,659	-	-	629,272
1841-42	25,695	1,859,651	-	829,015	215,380	2,885,794	-	-	566,805
1842-43	30,108	2,820,552	-	1,377,650	199,960	4,397,942	-	-	572,562
1843 44	32,541	4,229,542	-	1,279,104	216,080	5,724,786	-	-	658,985
1844-45	29,594	4,133,591	-	1,181,459	237,051	5,552,081	-	-	804,316
1845-46	40,965	5,541,735	-	820,620	146,541	6,508,696	-	-	733,514
1846-47	38,057	4,271,320	-	865,504	97,155	5,231,992	-	-	666,892
1847-48	54,549	5,507,804	62,196,000	626,120	108,970	6,241,944	-	-	1,014,595
1848-49	49,262	5,345,719	96,119,905	1,013,512	167,059	6,526,290	20,766	810,595	851,369
1849-50	47,509	5,543,588	52,445,222	741,504	116,754	6,401,846	23,865	785,936	809,801
1850-51	48,030	5,074,078	77,050,629	1,160,304	118,005	6,352,535	15,017	974,552	989,561
1851-52	58,080	6,082,507	169,717,651	2,291,926	148,784	8,523,017	6,893	923,466	924,159
1852-53	56,412	6,470,916	75,671,742	1,026,444	122,959	7,620,319	25,758	843,185	866,945
1853-54	60,054	5,802,469	55,777,008	806,570	65,695	6,704,734	79,527	730,810	810,337
1854-55	59,910	5,684,978	45,885,923	639,143	121,013	6,445,134	149,756	765,293	915,049
1855-56	65,427	5,592,532	56,691,112	810,628	189,793	6,592,953	59,922	728,495	787,717
1856-57	66,305	6,505,586	48,784,561	715,852	547,546	7,568,984	119,622	479,750	599,672
1857-58	68,004	8,241,052	20,524,119	595,493	732,312	9,566,857	659,474	256,384	915,858

Account of the Quantities of Tea exported from Canton to various Countries in each Year from 1852 to 1856, and in 1858.

Countries.	1852.	1853.	1854.	1855.	1856.	1858.*
Great Britain - - - lbs.	32,620,000	38,311,000	28,890,300	17,603,000	31,819,000	26,227,556
Other European countries - „	3,284,000	2,583,900	1,350,000	909,400	1,327,100	
Australia - - - „	986,301	3,490,139	3,500,000	101,800	2,075,820	1,000,000
United States - - - „	15,894,187	11,739,665	15,452,781	1,629,170	7,518,484	1,400,000
Total - - -	52,784,448	56,124,704	49,193,081	20,243,370	42,740,404	28,627,556

Account of the Number and Tonnage of Merchant Vessels, specifying the Countries to which they belong, that entered the Port of Canton during each of the 6 Years ending with 1856.

	No.	1851. Tonnage.	No.	1852. Tonnage.	No.	1853. Tonnage.	No.	1854. Tonnage.	No.	1855. Tonnage.	No.	1856. Tonnage.
British -	234	101,334	230	124,385	172	85,361	137	68,795	174	71,391	204	109,370
American -	82	49,283	86	60,010	71	47,827	65	45,690	86	65,073	76	50,017
All other flags -	78	24,201	82	25,687	85	27,247	118	39,672	118	43,864	150	50,285
	394	177,818	398	210,082	328	160,435	320	154,157	378	180,328	430	209,672

NOTE. — Exclusive of river steamers, lorchas, and small craft, tonnage of river steamers for 1856, estimated at —

British - - - - 50,000 tons.
Under American and Portuguese flags - 40,000 „

Owing to the war we had no trade with Canton in 1857.

In addition to the trade with Canton, we carry on a very extensive trade with the ports of Shanghai, Foochowfoo, Amoy, and Ningpo, especially the first, which is becoming an important emporium, and is, in various respects, better situated for trade than Canton. (See SHANGHAI.) We subjoin

Account of the Quantities of Tea exported to various Countries from the Port of Foochowfoo in each of the 4 Years ending with 1858.

Countries.	1855.	1856.	1857.	1858.
Great Britain - - - - - lbs.	22,700,000	22,883,100	20,189,400	18,513,500
United States - - - - - „	11,900,000	7,863,200	7,267,200	4,885,700
Australia - - - - - „	900,000	4,372,100	2,730,500	3,960,100
Continent - - - - - „	1,000,000	3,119,800	1,395,700	630,300
Total - -	36,500,000	38,238,200	31,882,800	27,989,600

Consular Fees.—The consular fees imposed in 1843 have been withdrawn, and the following table of fees, payable by British ships in all the ports of China, has been substituted in its stead :—

TABLE A :—

Certificate of due landing of goods exported from the U. Kingdom	2 dollars.
Signature of ship's manifest	2 —
Certificate of origin, when required	2 —
Bill of health, when required	2 —
Signature of muster-roll, when required	2 —
Attestation of a signature, when required	1 —
Administering an oath, when required	½ —
Seal of office, and signature of any other document not specified therein, when required	1 —

TABLE B :—

Bottomry or arbitration bond	2 —
Noting a protest	1 dollar.
Order of survey	2 —
Extending a protest or survey	1 —
Registrations	1 —
Visa of passport	¼ —
Valuation of goods	1 ½ cent.

Attending sales, ½ per cent. where there has been a charge for valuing; otherwise 1 per cent.

Attendance out of consular office at a shipwreck, 5 dollars per diem for his personal expenses, over and above his travelling expenses.

Attendance on opening a will	5 dollars.
Management of property of British subjects dying intestate	2½ cent.

The exports from China to India consist of sugar for Western India, tea, porcelain, nankeens, cassia, camphor, &c.; but the amount of these is not very considerable, and the returns are principally made in bills and bullion.

Currency.—Doubts having been entertained respecting the value of the coins current in Hong Kong and its dependencies, the following rates at which such coins are made legal tender were fixed by proclamation dated 1st May, 1845 :—

"The gold mohur of the East India Company's territory, coined since the 1st day of September, 1835, at the rate of 29*s.* 2*d.* sterling money of the United Kingdom.

"The dollar of Spain, Mexico, or the South American States, at the rate of 4*s.* 2*d.* sterling.

"The rupee of the East India Company's territory, coined since the 1st day of September, 1835, at the rate of 1*s.* 10*d.* sterling, and the half-rupee, quarter rupee, and eighth of rupee pieces, in proportion.

"The cash, or copper coin current in China, at the rate of 288 cash for 1*s.* sterling.

The following proviso establishes with respect to silver currency the same principle that prevails in England :—

"Provided always, nevertheless, and we do further ordain and declare, that nothing herein contained shall be deemed or taken to render it compulsory on any person to accept in any one payment a larger amount in silver coins of the United Kingdom of lower denomination than 1*s.*, or in the half, quarter, or eighth rupee pieces herein-before mentioned, than the equivalent to 20*s.* sterling money, or a larger amount in copper coins of the United Kingdom, or in the Chinese copper coins before mentioned, than the equivalent to 1*s.* sterling money."

The Portuguese trade, particularly that with the possessions of Portugal on the continent of India, was considerable during the war, but has since greatly declined. A nation of more spirit than the Portuguese would, with the advantage they enjoy in the possession of the convenient station of Macao, be able to carry on the Chinese trade with superior success. There is a considerable intercourse, carried on in Spanish ships, between Canton and Manilla. The Philippine Islands afford many commodities in demand in the Chinese markets; but the Spaniards are deficient in the skill and enterprise required fully to avail themselves of these advantages.

American Trade with China.—Next to the U. Kingdom, the Americans have by far the largest trade with China. It appears, from the official returns published by order of Congress, that in the year ending the 30th June, 1858, the total value of the exports from the U. States to China amounted to $3,007,748; and that of the imports from China into the U. States to $10,570,536, leaving $7,562,788 to be paid in bullion, or by drafts on London and other places indebted to the U. States. We subjoin —

* From the 23rd February to 31st December.

An Account of the Exports of Teas from China to the United States in the undermentioned Years, viz —

Years.	Black.	Green.	Total.
1852-53	*lbs.* 14,451,596	*lbs.* 26,529,161	*lbs.* 40,960,730
1853-54	11,365,693	21,980,155	33,345,851
1854-55	8,022,939	21,354,922	29,377,891
1855-56	14,956,304	24,358,134	39,314,758
1856-57	8,176,795	17,378,638	25,555,435
1857-58	12,257,603	18,002,516	30,240,119

Of 1,300,065 lbs. silk imported into the U. States in 1857–58, 864,033 lbs. were from China.

The following table should have been inserted in a previous part of this article: —

Account of the Average Weights and Measurements of the Principal Goods.

Articles.	Net Weight.	Measurement.	Packages in a Ton of 40 Feet.	Packages in a Ton of 50 Feet.
		cubic feet.		
Teas: Congou chests	85 lbs.	4·5	9	11
do. half chests	40 ,,	2·5	16	20
Souchong chests	80 ,,	4·5	9	11
do. half chests	37 ,,	2·6	16	20
Flowery Pekoe chests	65 ,,	4·5	9	11
Orange Pekoe half chests	50 ,,	2·5	16	20
Powchong, ,,	30 ,,	2·2	18	23
Ningyong and Oolong ,,	36 ,,	2·5	16	20
Hyson chests	70 ,,	4·3	9·3	11·6
do. half chests	46 ,,			
Young hyson ,,	55 ,,			
Gunpowder ,,	58 ,,	3·1	13	16
Imperial ,,	53 ,,			
Twankay ,,	49 ,,			
Hyson Skin chests	68 ,,	4·2	9½	12
Raw silk bale	80 catties	6·0	6⅔	8⅓
do. case	50 lbs.	2·6	15·4	19¼
Cassia in mats bundle	50 catties	4·0	10	12½
do. cases ,,	50 ,,	5·8	7	8⅔
Rhubarb ,,	50 ,,	3·6	11	14
Cassia buds ,,	1 pecul	5·2	7·7	9·6
Star Anise ,,	1 ,,	3·5	4·7	5·9
Camphor ,,	1 ,,	4·1	9·7	12·2
Cassia oil ,,	½ ,,	2·8	14·3	17·9
Anise ,,	½ ,,	2·5	16	20
Vermilion ,,	½ ,,	1·2	33	41·7
Split rattans bundle	½ ,,	3·6	11	14
Preserves cases	8 jars.	1·35	22½	28·3
Fire Crackers ,,	40 packs	0·32	95	120
Rattan chairs bundle	2 chairs	13·75	3	3·6
Matting 3/4 roll	40 yds.	3·6	11	14
do. ,, 4/4 ,,	,,	4·8	8⅓	10·4
do. ,, 5/4 ,,	,,	5·0	6⅔	8⅓
do. ,, 6/4 ,,	,,	7·2	5·6	7

Trade with the Indian Islands, &c.—In his evidence before the select committee of the House of Commons, Mr. Crawfurd gave the following details with respect to the native foreign trade with China:—

Native Foreign Trade of China.—"The principal part of the junk trade is carried on by the four contiguous provinces of Canton, Fokien, Chekiang, and Kiannan.

"No foreign trade is permitted with the island of Formosa; and I have no means of describing the extent of the traffic which may be conducted between China, Corea, and the Leechew Islands. The following are the countries with which China carries on a trade in junks; viz. Japan, the Philippines, the Soo-loo Islands, Celebes, the Moluccas, Borneo, Java, Sumatra, Singapore, Rhio, the east coast of the Malayan peninsula, Siam, Cochin China, Cambodia, and Tonquin; and these may, in all, employ about 222 junks. The ports of China at which this trade is conducted are Canton, Tchae-tcheou, Nomhong, Hoeitcheon, Suheng, Kongmoon, Changlim and Hainan, in the province of Canton; Amoy and Chinchew, in the province of Fokien; Ningpo and Siang-hai, in the province of Chekiang; and Soutcheon, in the province of Kiannan.

"The above estimate does not include a great number of small junks belonging to the island of Hainan, which carry on trade with Tonquin, Cochin China, Cambodia, Siam, and Singapore. Those for Siam amount yearly to about 50, and for the Cochin Chinese dominions to about 43; these alone would bring the total number of vessels carrying on a direct trade between China and foreign countries to 307. The trade with Japan is confined to the port of Ningpo, in Chekiang, and expressly limited to 10 vessels; but as the distance from Nangasacki is a voyage of no more than 4 days, it is performed twice a year.

"With the exception of this branch of trade, the foreign intercourse of the two provinces Chekiang and Kiannan, which are famous for the production of raw silk, teas, and nankeens, is confined to the Philippine Islands, Tonquin, Cochin China, Cambodia, and Siam; and none of this class of vessels, that I am aware of, have ever found their way to the western parts of the Indian Archipelago. The number of these trading with Siam is 24, all of considerable size; those trading with the Cochin Chinese dominions 16, also of considerable size; and those trading with the Philippines 5; making in all 45, of which the average burden does not fall short of 17,000 tons.

"Besides the junks now described, there is another numerous class, which may be denominated the colonial shipping of the Chinese. Wherever the Chinese are settled in any numbers, junks of this description are to be found; such as in Java, Sumatra, the Straits of Malacca, &c.; but the largest commerce of this description is conducted from the Cochin Chinese dominions, especially from Siam, where the number was estimated to me at 200. Several junks of this description from the latter country come annually to Singapore, of which the burden is not less than from 300 to 400 tons.

"The junks which trade between China and the adjacent countries are some of them owned and built in China; but a considerable number also in the latter countries, particularly in Siam and Cochin China. Of those carrying on the Siamese trade, indeed, no less than 81 out of the 89, of considerable size, were represented to me as being built and owned in Siam. The small junks, however, carrying on the trade of Hainan, are all built and owned in China.

"The junks, whether colonial or trading direct with China, vary in burden from 2,000 piculs to 15,000, or carry dead weight from 120 to 900 tons. Of those of the last size I have only seen 3 or 4, and these were at Siam, and the same which were commonly employed in carrying a mission and tribute yearly from Siam to Canton. Of the whole of the large class of junks, I should think the average burden will not be overrated at 300 tons each, which would make the total tonnage employed in the native foreign trade of China between 6 ,000 and 70,000 tons, exclusive of the small junks of Hainan, which, estimated at 150 tons each, would make in all about 80,000 tons.

"The junks built in China are usually constructed of fir and other inferior woods. When they arrive in Cambodia, Siam, and the Malayan islands, they commonly furnish themselves with masts, rudders and wooden anchors, of the superior timbers of these countries. The junks built in Siam are a superior class of vessels, the planks and upper works being invariably teak. The cost of ship-building is highest at the port of Amoy in Fokien, and lowest in Siam. At these places, and at Chang-lim in Canton, the cost of a junk of 8,000 piculs, or 476 tons burden, was stated to me, by several commanders of junks, to be as follows: at Siam, 7,400 dollars; Chang-lim, 16,000 dollars; Amoy, 21,000 dollars. A junk of the size just named has commonly a crew of 90 hands, consisting of the following officers, besides the crew; a commander, a pilot, an accountant, a captain of the helm, a captain of the anchor, and a captain of the hold. The commander receives no pay, but has the advantage of the cabin accommodation for passengers, reckoned on the voyage between Canton and Singapore worth 150 Spanish dollars. He is also the agent of the owners, and receives a commission, commonly of 10 per cent. on the *profits* of such share of the adventure, generally a very considerable one, in which they are concerned. The pilot receives for the voyage 200 dollars of wages, and 50 piculs of freight out and home. The helmsman has 15 piculs of freight and no wages. The captains of the anchor and the hold have 9 piculs of freight each; and the seamen 7 piculs each. None of these have any wages. The officers and seamen of the colonial junks are differently rewarded. In a Siamese junk, for example, trading between the Siamese capital and Singapore, of 6,000 piculs burden, the commander and pilot had each 100 dollars for the voyage, with 12 piculs of freight apiece. The accountant and helmsman had half of this allowance, and each seaman had 13 dollars, with 5 piculs of freight.

"In construction and outfit, Chinese junks are clumsy and awkward in the extreme. The Chinese are quite unacquainted with navigation, saving the knowledge of the compass: notwithstanding this, as their pilots are expert, their voyages short, and as they hardly ever sail except at the height of the monsoons, when a fair and steady 7 or 8 knots' breeze carries them directly from port to port, the sea risk is very small. During 13 years' acquaintance with this branch of trade, I can recollect hearing of but 4 shipwrecks; and in all these instances the crews were saved.

"The construction and rigging of a Chinese junk may be looked upon as her proper registry, and they are a very effectual one; for the least deviation from them would subject her at once to foreign charges and foreign duties, and to all kinds of suspicion. The colonial junks, which are of a more commodious form and outfit, if visiting China, are subjected to the same duties as foreign vessels. Junks built in Siam, or any other adjacent country, if constructed and fitted out after the customary model, are admitted to trade to China upon the same terms as those built and owned in the country. If any part of the crew consist of Siamese, Cochin Chinese, or other foreigners, the latter are admitted only at the port of Canton; and if found in any other part of China, would be seized and taken up by the police exactly in the same manner as if they were Europeans. The native trade of China conducted with foreign countries is not a clandestine commerce, unacknowledged by the Chinese laws, but has in every case at least the express sanction of the viceroy or governor of the province, who, on petition, decides the number of junks that shall be allowed to engage in it: and even enumerates the articles which it shall be legal to export and import. At every port, also, where such a foreign trade is sanctioned, there is a hong or body of security merchants, as at Canton; a fact which shows clearly enough that this institution is parcel of the laws or customs of China, and not a peculiar restraint imposed upon the intercourse with Europeans.

"The Chinese junks properly constructed pay no measurement duty, and no cumshaw or present; duties, however, are paid upon goods exported and imported, which seem to differ at the different provinces. They are highest at Amoy, and lowest in the island of Hainan. The Chinese traders of Siam informed me that they carried on the fairest and easiest trade, subject to the fewest restrictions, in the ports of Ningpo and Siang-hai in Chekiang, and Soutcheon in Kiannan. Great dexterity seems everywhere to be exercised by the Chinese in evading the duties. One practice, which is very often followed, will afford a good example of this. The coasting trade of China is nearly free from all duties and other imposts. The merchant takes advantage of this; and, intending in reality to proceed to Siam or Cochin China, for example, clears a junk out for the island of Hainan, and thus avoids the payment of duties. When she returns she will lie 4 or 5 days off the mouth of the port, until a regular bargain be made with the custom-house officers for the reduction of duties. The threat held out in such cases is to proceed to another port, and thus deprive the public officers of their customary perquisites. I was assured of the frequency of this practice by Chinese merchants of Cochin China, as well as by several commanders of junks at Singapore. From the last-named persons I had another fact of some consequence, as connected with the Chinese trade; viz. that a good many of the junks, carrying on trade with foreign ports to the westward of China, often proceeded on voyages to the northward in the same season. In this manner they stated that about 20 considerable junks, besides a great many small ones, proceeded annually from Canton to Souchong, one of the capitals of Kiannan, and in wealth and commerce the rival of Canton, where they sold about 200 chests of opium at an advance of 50 per cent. beyond the Canton prices. Another place where the Canton junks, to the number of 5 or 6, repair annually, is Chinchew, in the province of Canton, within the Gulf of Pecheley, or Yellow Sea, and as far north as the 37th degree of latitude."—(*Appendix, Report of* 1830, p. 298.)

A Chinese ship or junk is seldom the property of one individual. Sometimes 40, 50, or even 100 different merchants purchase a vessel, and divide her into as many different compartments as there are partners; so that each knows his own particular part in the ship, which he is at liberty to fit up and secure as he pleases. The bulk-heads, by which these divisions are formed, consist of stout planks, so well caulked as to be completely water-tight. A ship thus formed may strike on a rock, and yet sustain no serious injury;

a leak springing in one division of the hold will not be attended with any damage to articles placed in another; and, from her firmness, she is qualified to resist a more than ordinary shock. A considerable loss of stowage is, of course, sustained; but the Chinese exports generally contain a considerable value in small bulk. It is only the very largest class of junks that have so many owners; but even in the smallest class the number is very considerable.

Population of China.—For some remarks on the conflicting accounts and theories that have been put forth with respect to the population of this empire, the reader is referred to the *Geographical Dictionary*, art. *China*.

CANVAS (Fr. *Toile à voile*; Ger. *Segeltuch*; It. *Canevazza, Lona*; Rus. *Parussnoe polotno, Parussina*; Sp. *Lona*), unbleached cloth of hemp or flax, chiefly used for sails for shipping. Masters of ships used to be required to make entry of all foreign-made sails and cordage, not being standing or running rigging, in use on board their respective ships, under a penalty of 100*l*. But this and all other restrictions and regulations in regard to foreign canvas are now repealed. It had been the practice for a considerable period to grant bounties on the exportation of canvas or sail-cloth; these, however, finally ceased on the 1st of January, 1832. By an act passed in the reign of Geo. 2., new sails were ordered to be stamped with the maker's name and place of abode; but this regulation was repealed by the 10 Geo. 4. c. 43. § 9.

CAOUTCHOUC. "This substance, which has been improperly termed elastic gum, and vulgarly, from its common application to rub out pencil marks on paper, *India rubber*, is obtained from the milky juice of different plants in hot countries. The chief of these are the *Jatropha elastica*, and *Urceola elastica*. The juice is applied in successive coatings on a mould of clay, and dried by the fire or in the sun; and when of a sufficient thickness the mould is crushed, and the pieces shaken out. Acids separate the caoutchouc from the thinner part of the juice at once, by coagulating it. The juice of old plants yields nearly two-thirds of its weight; that of younger plants less. Its colour, when fresh, is yellowish white, but it grows darker by exposure to the air. The elasticity of this substance is its most remarkable property; when warmed, as by immersion in hot water, slips of it may be drawn out to 7 or 8 times their original length, and will return to their former dimensions nearly. Cold renders it stiff and rigid, but warmth restores its original elasticity. Exposed to the fire, it softens, swells up, and burns with a bright flame. In Cayenne it is used to give light as a candle."—(*Ure's Dictionary.*)

Caoutchouc has become an article of very considerable importance. M. de la Condamine, who was one of the first to communicate authentic information with respect to it, mentions, that, owing to its being impervious to water, it was made into boots by the Indians.—(*Voyage de la Rivière des Amazones*, p. 76.) It is now employed in a similar way here. Means have, within these few years, been discovered of reducing it to a state of solution; and when thin filaments of it are spread over cloth or any other substance, it is rendered impervious alike to air and water. Air cushions and pillows are manufactured in this way; as are water-proof cloaks, now in very extensive demand, hats, boots, shoes, &c. It is also extensively used in the manufacture of braces and other articles which it is desirable should possess considerable elasticity; and there can be little doubt that it will be employed still more extensively, and in a still greater variety of ways.

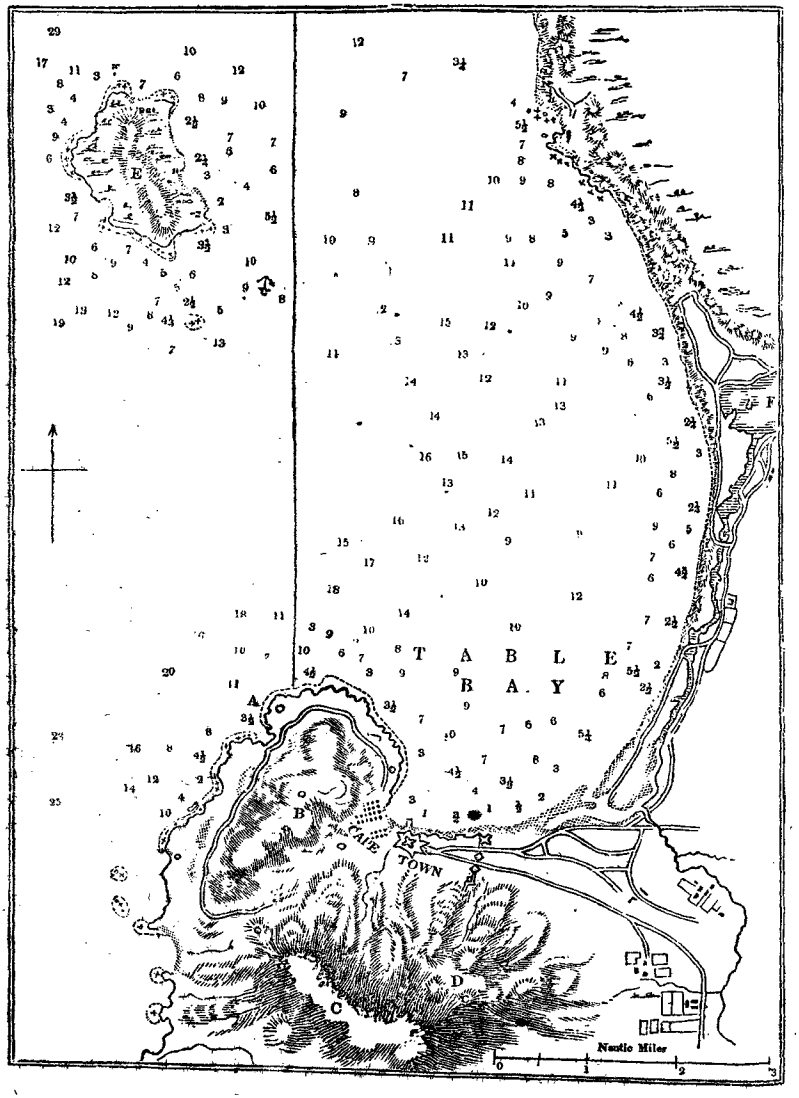
Previously to 1830, the importations of caoutchouc were comparatively inconsiderable, having in that year amounted to only 464 cwt., whereas, in 1840, 6,640 cwt. were retained for consumption. Down to 1846 caoutchouc paid a duty of 1*s.* a cwt., which was then repealed. And owing partly to this circumstance, but incomparably more to the increasing use of the article, the imports have since been greatly augmented. In 1851 they amounted to 22,000 cwt., of which 7,661 cwt. were re-exported. We also imported, during the same year, 794,023 lbs. manufactured caoutchouc. It is mostly brought from Para in Brazil, which exported, in 1856, 148,118 arrobas, of which 61,292 were destined for England, and 75,485 for the U. States. There is a pretty good account of the caoutchouc manufacture in England in Hancock's work on the subject, London, 1857.

CAPERS (Fr. *Capres*; Ger. *Kappern*; Du. *Kappers*; It. *Cappari*; Sp. *Alcaparras*; Rus. *Kaperszü*; Lat. *Capparis*), the pickled buds of the *Capparis spinosa*, a low shrub, generally growing out of the joints of old walls, and the fissures of rocks, in most of the warm parts of Europe. Capers are imported into Great Britain from different parts of the Mediterranean; the best from Toulon in France. Some small salt capers come from Majorca, and a few flat ones from about Lyons. In 1857, 139,187 lbs. capers were entered for consumption. In 1853 the duty of $6\frac{3}{10}d.$ per lb. on their importation was reduced to $1\frac{1}{2}d.$ per ditto.

CAPE-TOWN, the capital of the British territory in South Africa, at the bottom of Table Bay, about 32 miles north from the Cape of Good Hope, and on the western side of the territory to which it gives its name; lat. 30° 55′ 56″ S., long. 18° 21′ E. The town was founded by the Dutch in 1650; and remained, with the territory subject to it, in their possession, till it was taken by the British in 1795. It was restored to the Dutch by the treaty of Amiens; but being again captured by the British in 1806,

it was finally ceded to us in 1815. The streets are laid out in straight lines, crossing each other at right angles; many of them being watered by canals, and planted on each side with oaks. The population in 1842 amounted, according to the statement in the *Cape Almanac*, to 22,543, of whom about a third were blacks. The town is defended by a castle of considerable strength. Table Bay is capable of containing any number of ships; but it is exposed to the westerly winds, which, during the months of June, July, and August, throw in a heavy swell, that has been productive of many distressing accidents. This, in fact, is the great drawback upon Cape-Town, which in all other respects is most admirably fitted for a commercial station. At the proper season, however, or during the prevalence of the easterly monsoon, Table Bay is perfectly safe; while the cheapness and abundance of provisions, the healthiness of the climate, and above all its position, render it a peculiarly desirable resting-place for ships bound to or from India, China, Australia, &c.

The subjoined plan of Table Bay is taken from the survey of the Cape of Good Hope, executed by Lieut. Vidal and others, under the direction of Captain Owen.



References to the Plan.—A, lighthouse, furnished with double lights. They may be seen clearly off deck at 16 miles' distance; but they do not appear double till within 6 or 7 miles to the westward; from the northward only one light is seen. B, Lion's Rump. C, Table Mountain. D, Devil's Peak, in lat. 33° 57′ 2″. E, Robbin Island. F, Salt River. The figures denote the soundings in fathoms.

Port Instructions.—Art. 1. On the arrival of merchant vessels in Table Bay, a proper berth will be pointed out to the masters thereof by the port captain, when he boards them; and no master of a merchant vessel shall shift his berth without permission from the port captain, unless in case of extreme emergency, when he must report his having done so as early as possible at the Port-office.

2. Should it be the intention of a master of a vessel to discharge or receive on board any considerable quantity of merchandise, a berth will be pointed out to him as close to the jetty, or other landing-place, as the safety of the vessel and other circumstances will admit. And the master will then moor with two bower anchors, with an open hawse to the N.N.E., taking especial care, in so mooring, not to overlay the anchors of any other ship, or in any way to give the vessel near him a foul berth. Ships and vessels touching in Table Bay for water and refreshments alone, may ride at single anchor in the outer anchorage; but in this case it is particularly recommended to veer out 80 or 90 fathoms, if they ride by a chain cable, as the liability of starting or fouling the anchor, or breaking the chain, will thereby be greatly lessened; and if riding by a rope or coir cable, to run out a stream or good hedge, to steady the ship; and in both cases the other bower anchor should be kept in perfect readiness to let go. When the vessel is properly moored with bower anchors, or well secured with a bower and stream anchor, and with good cables, buoys, and buoy-ropes, the master will then take the exact place of the ship by the bearings of 2 land-marks, and the depth of the water; and should accident occur, by which the vessel may drift from this situation, or lose her anchors, a good bearing and depth of water must be taken at the time, and the same must be notified in writing to the port captain. It is particularly recommended that vessels be kept as snug as possible, to counteract the effects of the periodical winds, which at times blow with considerable violence.

Cape Colony, extending as it does from Cape-Town on the west to the Keiskamma River on the east, is of very great extent, and contains every variety of soil, from the richest level land to the wildest mountain, and tracts destitute of even the appearance of vegetation. The climate fluctuates between the two extremes of rain and drought. On the whole, its advantages and disadvantages seem to be pretty equally balanced; and the prospects which it holds out to the industrious emigrant, if not very alluring, are certainly not discouraging.

Population.—According to the official returns, the population of the Cape Colony in 1855 amounted to 244,224.

Produce.—Large quantities of corn of a very good description are produced in the immediate neighbourhood of Cape-Town, and in other parts of the colony; but agriculture is crippled by the Dutch law of succession, which, by dividing a man's property equally among his children, hinders the accumulation of capital in masses, and the formation of proper farming establishments.—(*Thomson's Travels in Southern Africa*, p. 324.)

The Mauritius and Rio Janeiro are the principal markets for the corn of the Cape. The exports of wool have increased with astonishing rapidity, having risen from 113,077 lbs. in 1833, to 1,754,757 lbs. in 1845, and to above 16,000,000 lbs. in 1858. It is now by far the most important article sent from the colony. The native breed of sheep is very inferior: its fleece is worth nothing, and it is remarkable only for the size of the tail, which sometimes weighs 20 lbs! But fine woolled Spanish merinos, Saxon and English sheep succeed remarkably well, and their wool fetches a high price. The eastern district of Albany is especially suitable for sheep.

Large quantities of wine, and of what is called brandy, are produced at the Cape; but, with the exception of Constantia, they are very inferior. The effect of allowing the importation of Cape wines into the United Kingdom at a comparatively low duty is, not to occasion their direct consumption, but to cause them to be employed as a convenient means of adulterating others; so that, besides being injurious to the revenue, such reduction of duty promotes fraudulent practices, and detracts from the comforts of the public.

Considerable quantities of hides, skins, and horns are exported. They are principally brought from Algoa Bay, on the eastern side of the colony; and the trade has increased very fast during the last 6 or 7 years. Aloes are an important product; and horses, butter, beef, ivory, argol, and various other articles, are among the exports. The latter also include dried fish, whale and seal oil, &c., the Cape fisheries being of considerable value. Copper ore is also become an important article of export.

The imports at the Cape consist of woollens, cottons, hardware, earthenware, furniture, haberdashery, soap, paper, books, and portions of most articles used in this country. Piece goods and teak timber are imported from India, tea from China, sugar from India, the Mauritius, &c.

Trade.—The trade between the colonists and the independent natives is subjected to various restraints, of which it is not always easy to discover the policy. The sale of gunpowder and firearms to the natives has been prohibited; a regulation which might have been a judicious one, had they not been able to obtain them from any one else. The Americans have however traded with the eastern coast, and have liberally supplied the natives with these and various other articles; so that by keeping up the regulation in question, we merely exclude ourselves from participating in what might be an advantageous trade. But since we have taken possession of Natal, this intercourse may perhaps have been stopped.

Account of the Quantities and Values of the Principal Articles, the Produce of the Colony, exported in each of the 3 Years ending with 1856.

Articles.	Quantities.			Values.		
	1854.	1855.	1856.	1854.	1855.	1856.
				£	£	£
Aloes - - - - lbs.	433,079	618,456	664,475	6,204	8,461	10,578
Argol - - - - ,,	9,800	71,176	60,256	2,908	1,085	1,764
Beef and pork - - - casks	1,570	3,028	2,896	4,782	9,052	8,625
Butter - - - - lbs.	38,096	67,881	49,438	2,294	3,300	2,545
Candles - - - - ,,	6,100	4,783	1,965	225	191	512
Copper ore - - - - tons	1,084	1,864	2,607	25,056	54,337	77,749
Corn, grain, and meal, viz.—						
Barley - - - - muids	397	1,840	1,448	417	1,806	776
Beans and peas - - - ,,	123,411	692,556	2,181	437	2,347	3,078
Oats - - - - ,,	48	797	5,695	53	1,919	2,321
Wheat - - - - ,,	958	855	1,227	6,159	5,149	1,709
Bran - - - - lbs.	1,453,262	1,311,689	744,865	15,855	14,957	2,605
Flour - - - - ,,	- -	- -	781,452	3,522	4,567	3,878
Feathers (ostrich) - - - ,,	1,147	1,478	1,127	6,737	9,129	7,496
Fish, cured - - - - ,,	350,985	387,751	1,375,799	5,299	5,179	8,324
Fruits, dried and green - - ,,	4,620	225	394,749	18	4	5,722
Hides - - - - no.	68,360	73,571	96,218	14,415	52,406	69,099
Horns - - - - ,,	106,591	186,838	246,462	2,182	3,779	5,525
Horses - - - - ,,	411	367	396	15,194	15,449	15,275
Ivory - - - - lbs.	31,061	13,725	4,896	7,751	5,272	1,166
Skins:						
Goat - - - - no.	170,941	200,627	298,798	21,497	24,382	38,470
Seal - - - - ,,	348	1,743	350	88	483	120
Sheep - - - - ,,	285,625	392,384	467,954	15,065	23,912	28,795
Spirits: brandy - - - galls.	3,991	8,745	5,952	653	1,434	874
Tallow - - - - lbs.	29,777	387,649	440,787	760	9,496	9,080
Wine:						
Constantia - - - galls.	2,498	1,838	2,910	1,101	870	1,051
Ordinary - - - ,,	361,325	491,958	790,299	39,179	60,907	85,305
Wool - - - - lbs.	8,567,427	12,016,415	14,920,988	446,959	634,150	831,152
Total value of the above and of all other articles - - -	- -	- -	- -	662,936	970,839	1,210,625

But we should fall into the greatest error if we supposed that either the whole or even the greater portion of this produce was shipped from Cape-Town. On the contrary Port Elizabeth, on the W. side of Algoa Bay, with an excellent harbour, being situated in the most fertile district of the colony, and the most suitable for the growth of wool, is become in a commercial point of view of considerably more importance than the Cape. Port Beaufort and Simon's Town have, also, a considerable trade. The following table shows the comparative commercial importance of the places referred to.

Statement shewing the total Value of the Exports from each of the undermentioned Ports of Cape Colony in 1854, 1855, and 1856.

Ports.	1854.			1855.			1856.		
	In British Vessels.	In Foreign Vessels.	Total.	In British Vessels.	In Foreign Vessels.	Total.	In British Vessels.	In Foreign Vessels.	Total.
	£	£	£	£	£	£	£	£	£
Cape Town - -	303,142	25,227	328,369	372,259	57,028	429,287	456,631	80,450	537,081
Port Beaufort - -	44,798	- -	44,798	19,644	12,422	32,066	28,840	7,014	35,854
Mossel Bay - -	- -	- -	- -	817	- -	817	916	- -	916
Simon's Town - -	9,218	- -	9,218	14,304	55	14,359	1,251	1,531	2,782
Port Elizabeth - -	359,425	22,651	382,076	509,563	74,884	584,447	623,199	127,343	750,542
East London - -	- -	- -	- -	92	- -	92	- -	- -	- -
Total - -	716,583	47,878	764,461	916,679	144,389	1,061,068	1,110,837	216,338	1,327,175

Account of the Quantities and Values of Domestic Products and Manufactures exported from the U. K. to the Cape Colony in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Apothecary wares -	cwts.	- -	- -	- -	- -	5,489	6,806	10,063	9,838
Apparel, slops, and haberdashery - -	value	- -	- -	- -	- -	188,572	138,855	213,035	347,116
Arms and ammunition: viz.—									
guns - -	no.	1,823	895	317	959	6,011	2,417	1,909	6,177
gunpowder -	lbs.	75,550	74,089	227,925	287,063	2,258	2,660	7,965	10,084
Bags, empty - -	dozens	11,557	11,963	31,771	43,650	13,620	12,971	31,958	40,361
Beer and ale - -	barrels	5,352	3,185	7,298	8,926	20,531	13,530	30,340	36,157
Books, printed -	cwts.	792	712	826	786	11,784	10,937	11,722	11,722
Brass and copper manufactures - -	,,	1,444	1,329	1,819	1,830	9,465	8,124	9,915	11,616
Coal, cinders, and culm	tons	7,691	19,877	10,188	61,590	4,588	11,664	6,058	32,416
Cottons: entered by the yard - - -	yard-	7,257,662	7,581,494	17,690,475	20,546,322	130,814	135,299	314,538	376,158
at value	value	- -	- -	- -	- -	11,071	10,417	18,906	26,364
Earthenware and porcelain - - -	,,	- -	- -	- -	- -	11,606	12,983	19,454	22,074
Furniture, cabinet, and upholstery wares -	,,	- -	- -	- -	- -	13,536	8,167	9,227	17,019
Glass manufactures -	,,	- -	- -	- -	- -	9,554	8,268	13,578	17,763
Hardwares and cutlery -	cwts.	11,186	7,476	16,233	28,266	58,818	33,508	67,908	128,867
Hats of all sorts - -	dozens	7,834	8,629	13,584	17,666	15,080	16,873	23,883	33,950
Iron, wrought and unwrought including unwrought steel -	tons	2,326	2,479	3,376	5,499	44,416	41,223	57,636	100,648
Leather: wrought and unwrought -	lbs.	278,792	215,325	353,015	466,294	50,183	35,070	56,219	82,298
saddlery -	value	- -	- -	- -	- -	26,926	12,372	16,533	28,975
Linens: entered by the yard - - -	yards	669,097	556,034	956,291	1,257,485	23,482	20,221	33,607	43,051
at value -	value	- -	- -	- -	- -	1,156	367	833	2,431
Silk manufactures -	lbs.	- -	- -	- -	- -	11,998	14,104	13,484	17,320
Soap and candles -	lbs.	1,846,516	2,088,698	2,694,608	2,624,989	27,201	26,561	39,309	40,499
Stationery - -	value	- -	- -	- -	- -	13,504	18,228	25,267	25,727
Sugar, refined - -	cwts.	4,132	1,177	2,753	2,173	7,655	2,836	6,767	6,445
Woollens: entered by the piece -	pieces	21,036	18,950	31,113	39,810	47,156	38,572	66,369	90,723
by the yard	yards	430,971	596,886	1,087,533	1,013,033	25,638	33,977	65,860	58,279
at value -	value	- -	- -	- -	- -	5,140	6,599	9,644	7,749
All other articles -	,,	- -	- -	- -	- -	123,697	107,924	162,630	228,455
Total value - -		- -	- -	- -	- -	921,957	791,315	1,344,338	1,860,638

The imports during the same year into the U. Kingdom from the Cape, amounted to 1,793,717*l.*, whereof 14.287,828 lbs. wool made no less than 1,111,605*l.*, wine, 178,559*l.*, hides, 149,075*l.*, and copper ore, 98,078*l.*

Custom-house Regulations, Duties, Fees, &c.

On Admission of a Ship to Entry, observe—

1. The ship's register must be lodged in the Custom-house, until the vessel clear again for sea.
2. The manifest of the cargo on board for this place must be deposited there.
3. The cockets of cargoes shipped from any place in Great Britain or Ireland for this place must also be deposited there.

From the endorsement of such cockets, an extract is to be made, which will show the contents of the different packages on board, and facilitate the making out of the entries.

4. In making out the declarations, the value by invoice of the different commodities must be given by the importer, in order to enable the Custom-house to estimate the duties payable, and to send into government, annually, the required statement of the total duties received upon the several articles imported.

In the clearing of a Ship outwards, observe,—

1. The master must produce a certificate from the harbour-master, that the tonnage duties of the port have been paid.
2. The export manifest must be examined with the permits granted, in order to ascertain whether packages have been shipped without a permit.
3. Export declarations must be sent in by the several shippers, of the quality and value of goods or produce shipped by them, in order to ascertain the amount of the exports of the colony.
4. When Cape wine is shipped for exportation to England, affidavit of the particular description of such wine must be delivered, and a certificate granted, by the collector or comptroller of customs, to the master, of his having received such affidavit.
5. Manifests, in triplicate, of such goods as are shipped from the Cape for Great Britain, must be delivered, signed and sworn to by the master, before the collector or comptroller.

The original of which is to be returned to the master to accompany the cargo.

The duplicate to be forwarded, by the first conveyance sailing subsequently to the vessel containing the original, to the commissioners of customs in England or Scotland respectively, as the case may happen.

And the triplicate, written on or covered with a stamp, to remain as an office copy.

N.B.—Ships taking in cargoes for other parts of the world, are required to deliver only original and duplicate manifests.

6. When whale oil or whale bone is shipped from the Cape for England, the proprietor of the whale fishery is to make oath before the collector or comptroller, that the same were *bond fide* the produce of fish, or creatures living in the sea, actually taken and caught wholly by his Majesty's subjects usually residing in this colony; and the collector or comptroller is to grant a certificate under his hand and seal to the master, testifying that such oath hath been made before him.
7. When salted seal skins are shipped from the Cape for England, the shipper is to make oath before the collector or comptroller, that the same are really and *bond fide* the skins of seals taken and caught on the coast appertaining to the Cape of Good Hope, wholly by his Majesty's subjects usually residing in this colony; and that all the salt used in the curing or preserving of the same was not made in, or exported from, Great

Britain or Ireland; and the collector or comptroller is to grant a certificate to the master accordingly.

8. The original manifest, and a copy thereof, of ships touching at the Cape of Good Hope, with cargoes from the eastward for England, to be delivered and sworn to by the master before the collector or comptroller. The original to be returned to the master, and the copy forwarded from the Custom-house to the commissioner of customs.

9. If any part of such cargo shall be discharged at the Cape of Good Hope, the collector or comptroller is to endorse upon the manifest the part of the cargo so discharged, and verify the same.

A Table of Duties of Customs payable on goods, wares, and merchandise, imported into the Colony of the Cape of Good Hope, per Act 1., 1855.

Goods.		Duty. £ s. d.
Ale or beer, viz.:—		
In bottles	gal.	0 0 3
Not in bottles	gal.	0 0 2
Cheese	cwt.	0 10 0
Cinnamon or cassia	lb.	0 0 3
Cloves	lb.	0 0 4
Coffee	cwt.	0 12 6
Flour, wheaten	bar. of 196 lbs.	0 3 0
Fruits, dried, viz.:—		
Currants, raisins, or figs	cwt.	0 5 0
Ginger, viz.:—		
Dry	lb.	0 0 1
Preserved or chowchow	lb.	0 0 1
Gunpowder	lb.	0 0 6
Guns, or gun-barrels	bar.	1 0 0
Mace	lb.	0 0 9
Meat, salted or cured	cwt.	0 5 0
Nutmegs	lb.	0 0 6
Pepper	cwt.	0 10 0
Pistols, or pistol-barrels	each	0 10 0
Rice	cwt.	0 2 0
Spirits, of all sorts, not exceeding the strength of proof by Sykes' hydrometer, and so in proportion for any greater strength	gal.	0 3 0
Liqueur, cordials, or sweetened spirits	gal.	0 4 0
Sugar, viz.:—		
Unrefined	cwt.	0 3 6
Refined, or candy	cwt.	0 5 0
Molasses	cwt.	0 2 0
Tea	lb.	0 0 6
Tobacco, viz.:—		
Not manufactured	cwt.	1 8 0
Manufactured (*not* cigars), or snuff	cwt.	2 16 0
Cigars (at the option of the officers of customs)	1000	0 12 6
Of the lb.		0 1 3
Wine, viz.:—		
In bottles	gal.	0 2 6
Not in bottles	gal.	0 2 0
Wood, unmanufactured	cubic foot	0 0 2
Goods not being enumerated or described, nor otherwise charged with duty, and not prohibited to be imported into, or used in, the Colony of the Cape of Good Hope, for every 100*l.* value		7 10 0

Foreign reprints of books, originally published in the United Kingdom, and there protected by copyright, may now (Act Col. Parl. No. 4, 1854) be imported here on paying an *ad valorem* duty of 20 per cent. on the *bonâ fide* value of such reprints.

Free.

Animals, living.
Books and music, printed.
Bottles of common glass, imported full of spirits, wine, beer, or ale.
Bullion or coin.
Coals, coke, or patent fuel.
Diamonds.
Guano.
Ice.
Maps or charts.
Pictures.
Provisions or stores of every description, imported or supplied for the use of her Majesty's land or sea forces, when the customs duties shall not have been paid thereon.
Seeds, bulbs, or plants.
Specimens illustrative of natural history.
Wine, imported or taken out of bond for the use of military officers, serving on full pay in this colony, or in British Kaffraria, and also for the use of officers of her Majesty's navy, serving on board any of her Majesty's ships: subject, however, to such regulations as the governor shall think fit to make; and provided that if any such wines shall be subsequently sold in this colony, except for the use or consumption of any of her Majesty's military or naval officers, serving as aforesaid, the same shall be forfeited, and be liable to seizure accordingly.
All articles of naval or military uniforms or appointments imported by officers stationed in this colony, or British Kaffraria, for their own use.

Custom House Fees.—All fees abolished by Ordinance No. 6 of 1853.

Queen's Warehouse Rent.—A certain sum per week is charged upon goods, in proportion to their bulk and value.

Commission.—The following rates of commission are charged and allowed, namely:—

	Per cent.
1. On the net amount of all sales of goods by public sale, and on the gross amount of all other sales	5
2. Goods consigned, and afterwards withdrawn	2½
3. On purchases effected, from the proceeds of goods on which a commission has already been charged	2½
4. On all other purchases, or shipments of goods	5
5. On the sale or purchase of ships, houses, or lands	2½
6. On ships' disbursements	5
7. On procuring freight	5
8. On collecting freight on ships bound to this place	2½
9. On guaranteeing bills or bonds by indorsement or otherwise	2½
10. On collecting debts without recourse to law	2½
Ditto where legal proceedings are taken	5
11. On effecting remittances by bills of exchange	1
12. On the negotiation of bills	1
13. On effecting insurances	0½
14. On the administration of estates	5
15. On cash advances	2½
16. On the debtor and creditor sides of cash accounts, on which no other commission is charged	1

Money.—Accounts are either kept in pounds, shillings, pence, and farthings, or in rix-dollars, schillings, and stivers.

1 Stiver = ½ of a penny.
6 Stivers = 2½ Pence, or 1 schilling.
8 Schillings = 18 Pence, or 1 rix-dollar.

The Commissariat department grant bills on the Treasury at a premium of 4½ per cent.

Revenue and Expenditure.—In 1856 the revenue of Cape Colony amounted to 348,362*l.*, of which 173,080*l.* was derived from Customs duties. During the same year the expenditure amounted to 333,151*l.*

Banks, &c.—Five joint-stock banking companies have been established in Cape Town, viz., the Cape of Good Hope Bank, established in 1837, with a paid-up capital of 70,000*l.*; the South African Bank, established in the following year, with a paid-up capital of 60,000*l.*; the Colonial Bank, established in 1844; the Union Bank in 1847; and the Commercial Bank in 1854. These banks transact ordinary banking business, and allow interest on deposits, but the first only issues notes. Joint stock companies have also been formed for conducting the business of insurance and for other purposes.

Weights and Measures.—The weights made use of in the Cape are derived from the standard pound of Amsterdam; and these assized are from 50 lbs. down to 1 loot, or the 32d part of a pound, which is regarded as unity.

Liquid Measure.

16 Flasks = 1 Anker.
4 Ankers = 1 Aam.
4 Aams = 1 Leaguer.

Corn Measure.

4 Schepels = 1 Muid.
10 Muids = 1 Load. 167 schepels = 32 Winch. bushels, or 4 schepels = 3 Imp. bushels, very nearly.

The muid of wheat weighs, at an average, *about 120 lbs.* Dutch, being somewhat over 196 lbs. English.

Cloth and Long Measure.

12 Rhyniand inches = 1 Rhyniand foot.
27 ditto = 1 Dutch ell.
144 ditto = 1 *Square foot.*
144 Square feet = 1 Rood.
600 Roods = 1 Morgen.

Colonial Weights and Measures compared with those of England.

Weights.

100 lbs. Dutch = nearly 109 lbs. English avoirdupois.
100 lbs. English = nearly 92 lbs. Dutch.

Wine or Liquid Measure.

1 Flask = 0·6 Old gallon, or 4·946 Imperial gallons.
1 Anker = 9½ „ 7·9 „
1 Aam = 38 „ 31½ „
1 Leaguer = 152 „ 126·6 „
1 Pipe = 110 „ 91 6 „

Saldanha Bay, in lat. 33° 0′ S., long. 17° 58′ 15″ E., being 16½ leagues north of Cape Town, is one of the best and most commodious harbours in the world. It is perfectly safe at all seasons.

Besides the *Cape Almanac* for 1856, one of the best of that class of publications, and the other authorities referred to, we have derived part of the above details from the *Geographical Dictionary*, the papers of the Board of Trade, &c.

CAPITAL, in political economy, is that portion of the produce of industry existing in a country, which may be made directly available, either for the support of human existence, or the facilitating of production.—(*Principles of Political Economy*, 3d ed. p 96.) But in commerce, and as applied to individuals, capital is understood to mean the sum of money which a merchant, banker, or trader adventures in any undertaking, or which he contributes to the common stock of a partnership. It signifies likewise the fund of a trading company, or corporation; in which sense the word *stock* is generally added to it. Thus we say the *capital stock* of the Bank, &c. The profit derived from any undertaking is estimated by the *rate* which it bears to the capital that was employed.

CAPSICUM. See PEPPER.

CARAVAN, an organised company of merchants, or pilgrims, or both, who associate together in many parts of Asia and Africa, that they may travel with greater security through deserts and other places infested with robbers; or where the road is naturally dangerous. The word is derived from the Persian *kervan*, or *cârvân*, a trader or dealer. —(*Shaw's Travels in the Levant, p. 9. 4to ed.*)

Every caravan is under the command of a chief or aga (*caravan-bachi*), who has frequently under him such a number of troops or forces as is deemed sufficient for its defence. When it is practicable, they encamp near wells or rivulets; and observe a regular discipline. Camels are used as a means of conveyance, almost uniformly, in preference to the horse or any other animal, on account of their wonderful patience of fatigue, eating little, and subsisting three or four days or more without water. There are generally more camels in a caravan than men.—(See CAMEL.)

The commercial intercourse of Eastern and African nations has been principally carried on, from the remotest period, by means of caravans. During antiquity, the products of India and China were conveyed either from Suez to Rhinoculura, or from Bussorah, near the head of the Persian Gulf, by the Euphrates, to Babylon, and thence by Palmyra, in the Syrian desert, to the ports of Phœnicia on the Mediterranean, where they were exchanged for the European productions in demand in the East. Sometimes, however, caravans set out directly from China, and, occupying about 250 days in the journey, arrived on the shores of the Levant, after traversing the whole extent of Asia.—(*Gibbon*, vol. vii. p. 93.) The formation of caravans is, in fact, the only way in which it has ever been possible to carry on any considerable internal commerce in Asia or Africa. The governments that have grown up in those continents have seldom been able, and seldomer indeed have they attempted, to render travelling practicable or safe for individuals. The wandering tribes of Arabs have always infested the immense deserts by which they are intersected; and those only who are sufficiently powerful to protect themselves, or sufficiently rich to purchase an exemption from the predatory attacks of these freebooters, can expect to pass through territories subject to their incursions, without being exposed to the risk of robbery and murder.

Since the establishment of the Mohammedan faith, religious motives, conspiring with those of a less exalted character, have tended to augment the intercourse between different parts of the Eastern world, and to increase the number and magnitude of the caravans. Mohammed enjoined all his followers to visit, once in their lifetime, the Caaba, or square building in the temple of Mecca, the immemorial object of veneration amongst his countrymen; and in order to preserve continually upon their minds a sense of obligation to perform this duty, he directed that, in all the multiplied acts of devotion which his religion prescribes, true believers should always turn their faces towards that holy place. In obedience to a precept so solemnly enjoined and sedulously inculcated, large caravans of pilgrims used to assemble annually in every country where the Mohammedan faith is established; and though, owing either to a diminution of religious zeal, or the increasing difficulties to be encountered in the journey, the number of pilgrims has of late years declined greatly, it is still very considerable. Few, however, of the pilgrims are actuated only by devotional feelings. Commercial ideas and objects mingle with those of religion; and it redounds to the credit of Mohammed, that he granted permission to trade during the pilgrimage to Mecca; providing at the same time for the temporal as well as the lasting interests of his votaries. "It shall be no crime in you, if ye seek an increase from your Lord *by trading during the pilgrimage.*"—(*Sale's Koran*, c. 2. p. 36. ed. 1764.)

The numerous camels of each caravan are loaded with those commodities of every country which are of easiest carriage and readiest sale. The holy city is crowded during the month of Dhalhajja, corresponding to the latter part of June and the beginning of July, not only with zealous devotees, but with opulent merchants. A fair or market is held in Mecca and its vicinity, on the twelve days that the pilgrims are allowed to remain in that city, which used to be one of the best frequented in the world, and continues to be well attended.

"Few pilgrims," says Burckhardt, "except the mendicants, arrive without bringing some productions of their respective countries for sale: and this remark is applicable as well to the merchants, with whom commercial pursuits are the main object, as to those who are actuated by religious zeal; for, to the latter, the profits derived from selling a few articles at Mecca diminish, in some degree, the heavy expenses of the journey. The Moggrebyns (pilgrims from Morocco and the north coast of Africa) bring their red bonnets and woollen cloaks; the European Turks, shoes and slippers, hardware, embroidered stuffs, sweetmeats, amber, trinkets of European manufacture, knit silk purses, &c.; the Turks of Anatolia bring carpets, silks, and Angora shawls; the Persians, Cashmere shawls and large silk handkerchiefs; the Afghans, tooth-brushes, called Mesouak Kattary, made of the spongy boughs of a tree growing in Bokhara, beads of a yellow soapstone, and plain coarse shawls manufactured in their own country; the Indians, the numerous productions of their rich and extensive region; the people of Yemen, snakes for the Persian pipes, sandals and various other works in leather; and the Africans bring various articles adapted to the slave trade. The pilgrims are, however, often disappointed in their expectations of gain; want of money makes them hastily sell their little adventures at the public auctions, and often obliges them to accept very low prices."—(*Travels in Arabia*, vol. ii. p. 21.)

The two principal caravans which yearly rendezvous at Mecca are those of Damascus and Cairo. The first is composed of pilgrims from Europe and Western Asia; the second of Mohammedans from all parts of Africa.

The Syrian caravan is said by Burckhardt to be very well regulated. It is always accompanied by the pacha of Damascus, or one of his principal officers, who gives the signal for encamping and starting by firing a musket. On the route, a troop of horsemen ride in the front, and another in the rear to bring up the stragglers. The different parties of pilgrims, distinguished by their provinces or towns, keep close together. At night torches are lighted, and the daily distance is usually performed between 3 o'clock in the afternoon and an hour or two after sunrise on the following day. The Bedouins or Arabs, who carry provisions for the troops, travel by day only, and in advance of the caravans; the encampment of which they pass in the morning, and are overtaken in turn and passed by the caravan on the following night, at their own resting place. The journey with these Bedouins is less fatiguing than with the great body of the caravan, as a regular night's rest is obtained; but their bad character deters most pilgrims from joining them.

At every watering place on the route is a small castle and a large tank, at which the camels water. The castles are garrisoned by a few persons, who remain the whole year to guard the provisions deposited there. It is at these watering-places, which belong to the Bedouins, that the sheikhs of the tribe meet the caravan, and receive the accustomed tribute for allowing it to pass. Water is plentiful on the route; the stations are nowhere more distant than 11 or 12 hours' march; and in winter, pools of rain-water are frequently found. Those pilgrims who can travel with a litter, or on commodious camel-saddles, may sleep at night, and perform the journey with little inconvenience: but of those whom poverty, or the desire of speedily acquiring a large sum of money, induces to follow the caravan on foot, or to hire themselves as servants, many die on the road from fatigue. — (*Travels in Arabia*, vol. ii. p. 3—9.)

The caravan which sets out from Cairo for Mecca is not generally so large as that of Damascus; and its route along the shores of the Red Sea is more dangerous and fatiguing. But many of the African and Egyptian merchants and pilgrims sail from Suez, Cosseir, and other ports on the western shore of the Red Sea, for Djidda, whence the journey to Mecca is short and easy.

The Persian caravan for Mecca sets out from Bagdad; but many of the Persian pilgrims are now in the habit of embarking at Bussorah, and coming to Djidda by sea.

Caravans from Bagdad and Bussorah proceed to Aleppo, Damascus, and Diarbeker, laden with all sorts of Indian, Arabian, and Persian commodities; and large quantities of European goods, principally of English cottons, imported at Bussorah, are now distributed throughout all the eastern parts of the Turkish empire by the same means. The intercourse carried on in this way is, indeed, every day becoming of more importance.

The commerce carried on by caravans, in the interior of Africa, is widely extended and of considerable value. Besides the great caravan, which proceeds from Nubia to Cairo, and is joined by Mohammedan pilgrims from every part of Africa, there are caravans which have no object but commerce, which set out from Fez, Algiers, Tunis, Tripoli, and other states on the sea-coast, and penetrate far into the interior. Some of them take as many as 50 days to reach the place of their destination; and as their rate of travelling may be estimated at about 18 miles a day at an average, the extent of their journeys may easily be computed. As both the time of their outset and their route is known, they are met by the people of the countries through which they travel, who trade with them. Indian goods of every kind form a considerable article in this traffic; in exchange for which, the chief commodity the inhabitants have to give is slaves.

Three distinct caravans are employed in bringing slaves and other commodities from Central Africa to Cairo. One of them comes direct from Mourzouk, the capital of Fezzan, across the Libyan desert; another from Senaar; and the third from Darfur. They do not arrive at stated periods, but after a greater or less interval, according to the success they have had in procuring slaves, ivory, gold dust, drugs, and such other articles as are fitted for the Egyptian markets. The Mourzouk caravan is said to be under the best regulations. It is generally about 50 days on its passage; and seldom consists of less than 100, or of more than 300, travellers. The caravans from Senaar and Darfur used formerly to be very irregular, and were sometimes not seen in Egypt for 2 or 3 years together; but since the occupation of the former by the troops of Mohammed Ali, the intercourse between it and Egypt has become comparatively frequent and regular. The number of slaves imported into Egypt by these caravans is said to amount, at present, to about 10,000 a year. The departure of a caravan from Darfur is looked upon as a most important event; it engages for a while the attention of the whole country, and even forms a kind of æra. — (*Browne's Travels in Africa*, 2d ed. p. 78.) A caravan from Darfur is considered large if it has 2,000 camels and 1,000

slaves. Many of the Moorish pilgrims to Mecca cross the sea from Souakin and Massouah to the opposite coast of Arabia, and then travel by land to Mecca; and Burckhardt states, that of all the poor pilgrims who arrive in the Hedjaz, none bear a more respectable character for industry than those from Central Africa.

Caravans are distinguished into *heavy* and *light*. Camels loaded with from 500 to 600 lbs.* form a heavy caravan; light caravans being the term applied to designate those formed of camels under a moderate load, or perhaps only half loaded. The mean daily rate at which heavy caravans travel is about 18½ miles, and that of light caravans 22 miles.

The safety of a caravan depends materially on the conduct of the *caravan-bachi*, or leader. Niebuhr says, that when the latter is intelligent and honest, and the traveller understands the language, and is accustomed to the Oriental method of travelling, an excursion through the desert is rarely either disagreeable or dangerous. But it is not unusual for the Turkish pachas to realise considerable sums by selling the privilege of conducting caravans; and it is generally believed in the East, that leaders so appointed, in order to indemnify themselves, not unfrequently arrange with the Arabian sheikhs as to the attack of the caravans, and share with them in the booty! At all events, a leader who has paid a large sum for the situation, even if he should be honest, must impose proportionally heavy charges on the association. Hence the best way in travelling with caravans is, to attach oneself to one conducted by an active and experienced merchant, who has a considerable property embarked in the expedition. With ordinary precaution, the danger is then very trifling. It would be easy, indeed, were there any thing like proper arrangements made by government, to render travelling by caravans, at least on all the great routes, abundantly secure.—(*Niebuhr, Voyage en Arabie*, tome ii. p. 194. ed. Amst. 1780.)

No particular formalities are required in the formation of a caravan. Those that start at fixed periods are mostly under the control of government, by whom the leaders are appointed. But, generally speaking, any dealer is at liberty to form a company and make one. The individual in whose name it is raised is considered as the leader, or *caravan-bachi*, unless he appoint some one else in his place. When a number of merchants associate together in the design, they elect a chief, and appoint officers to decide whatever controversies may arise during the journey.—(For further details with respect to caravans, see the *Modern Part of the Universal History*, vol. xiv. pp. 214—248.; *Robertson's Disquisition on Ancient India*, Note 54.; *Rees's Cyclopædia*, art. *Caravan*, most of which is copied from Robertson, though without a single word of acknowledgment; *Burckhardt's Travels in Arabia*, vol. ii. *passim*; *Urquhart on Turkey and its Resources*, p. 137, 151, *&c.*)

CARAVANSERA, a large public building or inn appropriated for the reception and lodgment of the caravans. Though serving in lieu of inns, there is this radical difference between them,—that, generally speaking, the traveller finds nothing in a caravansera for the use either of himself or his cattle. He must carry all his provisions and necessaries with him. They are chiefly built in dry, barren, desert places; and are mostly furnished with water brought from a great distance and at a vast expense. A well of water is, indeed, indispensable to a caravansera. Caravanseras are also numerous in cities; where they serve not only as inns, but as shops, warehouses, and even exchanges.

CARAWAY-SEED (Fr. *Carvi, Cumin des prés*; Ger. *Keummel, Brodkümmel*; It. *Carvi*), a small seed, of an oblong and slender figure, pointed at both ends, and thickest in the middle. It is the produce of a biennial plant (*Carum carui*), with a taper root like a parsnip, but much smaller. It should be chosen large, new, of a good colour, not dusty, and of a strong agreeable smell. It is principally used by confectioners; and is extensively cultivated in several parts of Essex.

CARBUNCLE (Ger. *Karfunkel*; Fr. *Escarboukle*; It. *Carbonchio*; Sp. *Carbunculo*; Lat. *Carbunculus*), a precious stone of the ruby kind, of a very rich glowing blood-red colour, highly esteemed by the ancients.—(See RUBY.)

CARD (Fr. *Cardes*; Ger. *Kardätschen, Karden, Wollkratzen*; It. *Cardi*; Rus. *Bardü*; Sp. *Cardas*), an instrument, or comb, for arranging or sorting the hairs of wool, cotton, &c. Cards are either fastened to a flat piece of wood, and wrought by the hand; or to a cylinder, and wrought by machinery.

CARDAMOMS (Fr. *Cardamomes*; Ger. *Kardamom*; It. *Cardamomi*; Sp. *Kardamomos*; Hind. *Gujarati elachi*), seed capsules produced by a plant, of which there are different species growing in India, Cochin China, Siam, and Ceylon. The capsules are gathered as they ripen; and when dried in the sun, are fit for sale. The small capsules, or lesser cardamoms, are produced by a particular species of the plant, and are the most valuable. They should be chosen full, plump, and difficult to be broken; of a bright yellow colour; a piercing smell; with an acrid, bitterish, though not very

* This is the burden of the small camel only. The large ones usually carry from 750 to 1,000 lbs.

...pleasant taste; and particular care should be taken that they are properly dried. They are reckoned to keep best in a body, and are therefore packed in large chests, well jointed, pitched at the seams, and otherwise properly secured; as the least damp greatly reduces their value. The best cardamoms are brought from the Malabar coast. They are produced in the recesses of the mountains, by felling trees, and afterwards burning them; for wherever the ashes fall in the openings or fissures of the rocks, the cardamom plant naturally springs up. In Soonda Balagat, and other places where cardamoms are planted, the fruit or berry is very inferior to that produced in the way now mentioned. The Malabar cardamom is described as a species of bulbous plant, growing 3 or 4 feet high. The growers are obliged to sell all their produce to the agents of government, at prices fixed by the latter, varying from 550 to 700 rupees the candy of 600 lbs. avoirdupois: and it is stated that the contractor often puts an *enhanced value on the coins* with which he pays the mountaineers; or makes them take in exchange tobacco, cloths, salt, oil, betel nut, and such necessary articles, at prices which are frequently, no doubt, estimated above their proper level. Such a system ought assuredly to be put an immediate end to. Not more than *one hundredth* part of the cardamoms raised in Malabar are used in the country. They are sent in large quantities to the ports on the Red Sea and the Persian Gulph, to Sind, up the Indus, to Bengal, Bombay, &c. They form a universal ingredient in curries, pillaus, &c. The market price, at the places of exportation on the Malabar coast, varies from 800 to 1,200 rupees the candy.—(*Milburn's Orient. Commerce*, and the valuable evidence of T. H. Baber, Esq. before the Lords' Committee of 1830, p. 216.)

Malabar cardamoms were worth, in January 1843, from 2*s.* 3*d.* to 3*s.* a pound in the London market, duty (2*d.*) excluded; Ceylon cardamoms were, at the same time, worth from 1*s.* 2*d.* to 1*s.* 4*d.*

CARDS, OR PLAYING CARDS (Du. *Kaarten, Speelkarden*; Fr. *Cartes à jouer*; Ger. *Karten, Spiel Karten*; It. *Carte da giuoco*; Rus. *Kartu*; Sp. *Carras, Naipes*; Sw. *Kort*). The only thing necessary to be noticed in this place with respect to cards, is the regulations as to their manufacture, sale, and the payment of the duty.

It is regulated by the 9 Geo. 4. c. 18., that an annual licence duty of 5*s.* shall be paid by every maker of playing cards and dice. The duty on every pack of cards is 1*s.*, and is to be specified on the ace of spades. Cards are not to be made in any part of Great Britain, except the metropolis; nor in Ireland, except in Dublin and Cork; under a penalty of 100*l.* Cards are to be enclosed in wrappers, with such marks as the commissioners of stamps may appoint. Before licence can be had, bond must be given to the amount of 500*l.* for the payment of the duties, &c. Selling or exposing to sale any pack of cards not duly stamped, subjects a licensed maker to a penalty of 50*l.*; and any one else to a penalty of 10*l.* Any person having in his possession, or using, or permitting to be used, any pack of cards not duly stamped, to forfeit 5*l.* Second-hand cards may be sold by any person, if sold without the wrapper of a licensed maker; and in packs containing not more than 52 cards, including an ace of spades duly stamped, and enclosed in a wrapper with the words "*Second-hand Cards*" printed or written in distinct characters on the outside: penalty for selling second-hand cards in any other manner, 20*l.*

The duty of 1*s.* per pack on cards produced, in 1841, the sum of 9,223*l.* 18*s.*; showing that 184,478 packs had been disposed of.

CARMEN, of the city of London, are constituted a fellowship by act of common council. The rates which they are allowed to charge, and the regulations by which they are to be guided, are settled at the quarter sessions. In other respects they are subjected to the rule of the president and governors of Christ's Hospital, to whom the owner of every cart pays an annual licence duty of 17*s.* 4*d.*

Carmen are to help to load and unload their carts; and if any carman exacts more than the regular rates, upon due proof, before the Lord Mayor, or any two magistrates, he shall suffer imprisonment for the space of 21 days.

If any person shall refuse to pay any carman his hire, according to the regular rates, upon complaint made, the president of Christ's Hospital, or a justice of the peace, may compel payment.

Merchants or other persons may choose what cart they please, except such as stand for wharf-work, tackle-work, crane-work, at shops and merchants' houses, which are to be taken in turn; and every carman standing with his empty cart next to any goods to be loaded, shall, upon the first demand, load the same for the accustomed rates; and if any person shall cause a carman to attend at his house, shop, warehouse, or cellar, with his loaded cart, the carman being willing to help to unload the same, he shall pay the carman after the rate of 12*d.* for every hour after the first half hour for his attendance.

Every licensed carman is to have a piece of brass fixed upon his cart, upon which is to be engraven a certain number; which number, together with the carman's name, is registered in a register kept at Christ's Hospital; so that, in case of any misbehaviour, the party offended, by taking notice of the number of the cart, may search for it in the register, and the name will be found.

Carmen not conforming to these rules, or working without a numbered piece of brass fixed on the cart, may be suspended from their employment.

Carmen riding upon the shafts of their carts, or sitting within them, not having some person on foot to guide the horses, shall forfeit 10*s.*

CARMINE (Ger. *Karmin*; Du. *Karmyn*; Fr. *Carmine*; It. *Carminio*; Lat. *Carminium*), a powder of a very beautiful red colour, bordering upon purple, and used by painters in miniature. It is a species of *lake*, and is formed of finely pulverised cochineal. It is very high priced.

CARNELIAN. See AGATE.

CARPET, CARPETS (Ger. *Teppiche*; Du. *Tapyten, Vloer-tapyten*; Fr. *Tapis*; It. *Tappeti*; Sp. *Alfombras, Alcatifas, Tapetes*; Rus. *Kowrii, Kilimi.*) Persian and Turkish carpets are the most esteemed. In England, carpets are principally manufactured at Kidderminster, Wilton, Cirencester, Worcester, Axminster, &c.; and in Scotland, at Kilmarnock. Those made at Axminster are believed to be very little, if any thing, inferior to those of Persia and Turkey.

CARRIAGES. See COACHES.

CARROT (*Daucus carota* Lin.), a biennial plant, a native of Britain. Though long known as a garden plant, its introduction into agriculture has been comparatively recent. The uses of the carrot in domestic economy are well known. It is extensively cultivated in Suffolk, whence large quantities are sent to the London market. Horses are said to be remarkably fond of carrots.

CARRIERS are persons undertaking for hire to carry goods from one place to another.

Proprietors of carts and wagons, masters and owners of ships, hoymen, lightermen, bargemen, ferrymen, &c. are denominated common carriers. The master of a stage coach who *only carries passengers for hire*, is not liable for goods; but if he undertake to carry *goods and passengers*, then he is liable for both as a common carrier. The postmaster general is not a carrier in the common acceptation of the term, nor is he subjected to his liabilities.

1. *Duties and Liabilities of Carriers.* — Carriers are bound to receive and carry the goods of all persons, for a reasonable hire or reward; to take proper care of them in their passage; to deliver them safely, and in the same condition as when they were received (excepting only such losses as may arise from *the act of God or the king's enemies*); or, in default thereof, to make compensation to the owner for whatever loss or damage the goods may have received while in their custody, that might have been prevented.

Hence a carrier is liable, though he be robbed of the goods, or they be taken from him by irresistible force: and though this may seem a hard rule, yet it is the only one that could be safely adopted; for if a carrier were not liable for losses unless it could be shown that he had conducted himself dishonestly or negligently, a door would be opened for every species of fraud and collusion, inasmuch as it would be impossible, in most cases, to ascertain whether the facts were such as the carrier represented. On the same principle a carrier has been held accountable for goods accidentally consumed by fire while in his warehouse. In delivering the opinion of the Court of King's Bench on a case of this sort, Lord Mansfield said — "A carrier, by the nature of his contract, obliges himself to use all due care and diligence, and is answerable for any neglect. But there is something more imposed upon him by custom, that is, by the common law. *A common carrier is in the nature of an insurer.* All the cases show him to be so. This makes him liable for every thing except the act of God and the king's enemies; that is, even for *inevitable accidents*, with those exceptions. The question then is, *What is the act of God?* I consider it to be laid down in opposition to the act of *man*; such as lightning, storms, tempests, and the like, which could not happen by *any human intervention*. To prevent litigation and collusion, the law presumes negligence except in those circumstances. An armed force, though ever so great and irresistible, does not excuse; the reason is, for fear it may give room for collusion, which can never happen with respect to the act of God. We all, therefore, are of opinion that there should be judgment for the plaintiff." — (*Forward* v. *Pittard*, 1 *T. R.* 27.)

A carrier is not obliged to have a new carriage for every journey; it is sufficient if he provide one that, without any extraordinary accident, may be fairly presumed capable of performing the journey.

A carrier may be discharged from his liability by any fraud or concealment on the part of the individual employing him, or of the bailor; as if the latter represent a parcel as containing things of little or no value, when, in fact, it contains things of great value. But when the carrier has not given a notice limiting his responsibility, and when he puts no questions with respect to the parcel to the bailor, the latter need not say any thing with respect to it; and though the bailor should represent the thing delivered to the carrier as of no value, yet *if the latter know it to be otherwise*, he will be responsible in the event of its being lost or damaged. If the bailor deliver goods imperfectly packed, and the carrier *does not perceive it*, he is not liable in the event of a loss occurring; but if the defect in the package were such that the carrier could not but perceive it, he would be liable. On this principle a carrier was made to answer for the loss of a greyhound that had been improperly secured when given to him.

A carrier may refuse to admit goods into his warehouse at an unseasonable time, or before he is ready to take his journey; but he cannot refuse to do the ordinary duties incumbent on a person in his situation.

It is felony, if a carrier open a parcel and take goods out of it with intent to steal them; and it has been decided, that if goods be delivered to a carrier to be carried to a specified place, and he carry them to a different place, and dispose of them for his own profit, he is guilty of felony; but the embezzlement of goods by a carrier, without a felonious taking, merely exposes to a civil action.

No carrier, waggonman, carman, or wainman, with their respective carriages, shall travel on Sundays, under a penalty of 20*s*. — (3 *Chas.* 1. c. 1.)

A carrier is always, unless there be an express agreement to the contrary, entitled to a reward for his care and trouble. In some cases his reward is regulated by the legislature, and in others by a special stipulation between the parties; but though there be no legislative provision or express agreement, he cannot claim more than a *reasonable* compensation.

2. *Limitation of Responsibility.* — Until the act of 1830, a carrier might, by express stipulation, giving *public notice* to that effect, discharge his liability from all losses by robbery, accident, or otherwise, except those which arose from *misfeasance and gross negligence*, from which no stipulation or notice could exempt him), and provided the notice did not contravene the express conditions of an act of parliament.

Notices generally bore, that the carrier would not be responsible for more than a certain sum (usually 5*l*.) on any one parcel, the value of which had not been declared and paid for accordingly; so that a person aware of this notice, entering a box worth 100*l*. without declaring its value, or entering it as being worth 20*l*., would, should it be lost, have got in the first case only 5*l*., and in the latter only 20*l*., unless he could have shown that the carrier had acted fraudulently or with gross negligence. But, to avail himself of this defence, the carrier was bound to show that the bailor or his servant was acquainted with the notice at the time of delivering the goods. No particular manner of giving notice was required. It might be done by express communication, by fixing it up in a conspicuous place in the carrier's office, by insertion in the public papers or Gazette, by the circulation of handbills, &c.; it being in all cases a question for the jury to decide whether the bailor was really acquainted with the notice of the limitation; since, if he were not, he was entitled to recover, whatever efforts the carrier may have made to publish it. Thus, a notice stuck up in a carrier's warehouse, where goods were delivered, was of no avail against parties who could not read; neither was it of any avail against those who could read, and who had seen it, *unless they had actually read it.* On this principle it was held, that a notice in a newspaper is not sufficient, even when it was proved that the bailor read the newspaper, unless it could also be proved that he had read the notice itself.

These attempts to limit responsibility gave rise to a great deal of litigation and uncertainty; and to obviate the inconveniences thence arising, the important statute 1 Will. 4. c. 68. was passed. This act declares, that carriers *by land* shall not be liable for the loss of certain articles specified in the act, when their value exceeds 10*l*., unless the *nature and value* of such articles be stated at the time of their delivery to the carrier, and an increased charge paid or agreed to be paid upon the same. It is further

declared, that no publication of any notices by carriers shall have power to limit their responsibility at common law for all other articles except those specified in the act. But as the act is of great importance, we subjoin it.

From and after the passing of this act, no mail contractor, stage coach proprietor, or other common carrier *by land* for hire, shall be liable for the loss of or injury to any article or articles or property of the description following, viz. gold or silver coin of this realm or of any foreign state, or any gold or silver in a manufactured or unmanufactured state, or any precious stones, jewellery, watches, clocks, or time-pieces of any description, trinkets, bills, notes of the Governor and Company of the Banks of England, Scotland, and Ireland respectively, or of any other bank in Great Britain or Ireland, orders, notes, or securities for payment of money, English or foreign stamps, maps, writings, title-deeds, paintings, engravings, pictures, gold or silver plate or plated articles, glass, china, silks in a manufactured or unmanufactured state, and whether wrought up or not wrought up with other materials, furs, or lace, or any of them, contained in any parcel or package which shall have been delivered, either to be carried for hire or to accompany the person of any passenger in any mail or stage coach or other public conveyance, when the value of such article or articles or property aforesaid contained in such parcel or package shall exceed the sum of 10*l*., unless at the time of the delivery thereof at the office, warehouse, or receiving house of such mail contractor, &c. the value and nature of such article or articles or property shall have been declared by the person or persons sending or delivering the same, and such increased charge as hereinafter mentioned, or an engagement to pay the same, be accepted by the person receiving such parcel or package. — § 1.

When any parcel or package containing any of the articles above specified shall be so delivered, and its value and contents declared as aforesaid, and such value shall exceed the sum of 10*l*., it shall be lawful for such mail contractors, stage coach proprietors, and other common carriers, to demand and receive an increased rate of charge, to be notified by some notice, affixed in legible characters in some public and conspicuous part of the office, warehouse, or other receiving house, where such parcels or packages are received by them for the purpose of conveyance, stating the increased rates of charge required to be paid over and above the ordinary rate of carriage, as a compensation for the greater risk and care to be taken for the safe conveyance of such valuable articles; and all persons sending or delivering parcels or packages containing such valuable articles as aforesaid at such office shall be bound by such notice, without further proof of the same having come to their knowledge. — § 2.

Provided always, that when the value shall have been so declared, and the increased rate of charge paid, or an engagement to pay the same shall have been accepted as herein-before mentioned, the person receiving such increased rate of charge or accepting such agreement shall, if required, sign a receipt for the package or parcel, acknowledging the same to have been insured, which receipt shall not be liable to any stamp duty; and if such receipt shall not be given when required, or such notice as aforesaid shall not have been affixed, the mail contractor, stage coach proprietor, or other common carrier as aforesaid, shall not have or be entitled to any benefit or advantage under this act, but shall be liable and responsible as at the common law, and be liable to refund the increased rate of charge. — § 3.

And be it enacted, that from and after the 1st day of September 1830, no public notice or declaration heretofore made or hereafter to be made shall be deemed or construed to limit or in any wise affect the liability at common law of any such mail contractors, stage coach proprietors, or other public common carriers as aforesaid, for or in respect of any articles or goods to be carried and conveyed by them; but that all and every such mail contractors, stage coach proprietors, and other common carriers as aforesaid shall, from and after the said 1st day of September, be liable, as at the common law, to answer for the loss of any injury *[so in the act]* to any articles and goods in respect whereof they may not be entitled to the benefit of this act, any public notice or declaration by them made and given contrary thereto, or in anywise limiting such liability, notwithstanding. — § 4.

And be it further enacted, that for the purposes of this act, every office, warehouse, or receiving house, which shall be used or appointed by any mail contractor, or stage coach proprietor, or other such common carrier, for the receiving of parcels to be conveyed as aforesaid, shall be deemed and taken to be the receiving house, warehouse, or office of such mail contractor, stage coach proprietor, or other common carrier; and that any one or more of such mail contractors, stage coach proprietors, or common carriers, shall be liable to be sued by his, her, or their name or names only; and that no action or suit commenced to recover damages for loss or injury to any parcel, package, or person, shall abate for the want of joining any co-proprietor or co-partner in such mail, stage coach, or other public conveyance by land for hire as aforesaid. — § 5.

Provided always, and be it further enacted, that nothing in this act contained shall extend or be construed to annul or in any wise affect any special contract between such mail contractor, stage coach proprietor, or common carrier, and any other parties, for the conveyance of goods and merchandises. — § 6.

Provided also, and be it further enacted, that where any parcel or package shall have been delivered at any such office, and the value and contents declared as aforesaid, and the increased rate of charges been paid, and such parcels or packages shall have been lost or damaged, the party entitled to recover damages in respect of such loss or damage shall also be entitled to recover back such increased charges so paid as aforesaid, in addition to the value of such parcel or package. — § 7.

Provided also, and be it further enacted, that nothing in this act shall be deemed to protect any mail contractor, stage coach proprietor, or other common carrier for hire, *from liability to answer for loss or injury to any goods or articles whatsoever, arising from the felonious acts of any coachman, guard, book-keeper, porter, or other servant in his or their employ, nor to protect any such coachman, guard, book-keeper, or other servant, from liability for any loss or injury occasioned by his or their own personal neglect or misconduct.* — § 8.

Provided also, and be it further enacted, that such mail contractors, stage coach proprietors, or other common carriers for hire, shall not be concluded as to the value of any such parcel or package by the value so declared as aforesaid, but that he or they shall in all cases be entitled to require, from the party suing in respect of any loss or injury, proof of the actual value of the contents by the ordinary legal evidence; and that the mail contractors, stage coach proprietors, or other common carriers, as aforesaid, shall be liable to such damages only as shall be so proved as aforesaid, not exceeding the declared value, together with the increased charges as before mentioned. — § 9.

And be it further enacted, that in all actions to be brought against any such mail contractors, &c., the defendant or defendants may pay the money into court. — § 10.

It will be observed, that carriers continue, notwithstanding this act, liable, as before, for the felonious acts of their servants, and their own misfeazance or gross negligence. It is not possible, however, to lay down any general rule as to the circumstances which constitute this offence. Differing as they do in almost every case, the question, when raised, must be left to a jury. But it has been decided, that the *misdelivery* of a parcel, or its *nondelivery within a reasonable time*, is a misfeazance that cannot be defeated by any notice on the part of the carrier limiting his responsibility. In like manner, the sending of a parcel by a different coach from that directed by the bailor, the removing it from one carriage to another, are misfeazances. Where a parcel is directed to a person at a particular place, and the carrier, knowing such person, delivers the parcel to another

who represents himself as the consignee, such delivery is gross negligence. Leaving parcels in a coach or cart unprotected in the street is also gross negligence.

At common law, there is no distinction between carriage performed by sea or land; but by the 7 Geo. 2. c. 15. and 26 Geo. 3. c. 86., corrected and amended by the 53 Geo. 3. c. 159., it is enacted that ship owners are not to be liable for any loss or damage happening to goods on board through the fraud or neglect of the master, without their knowledge or privity, further than the value of the vessel and the freight accruing during the voyage.—(See Owners.)

3. *Commencement and Termination of Liability.* — A carrier's liability commences from the time the goods are actually delivered to him in the character of carrier. A delivery to a carrier's servant is a delivery to himself, and he will be responsible. The delivery of goods in an inn yard or warehouse, at which other carriers put up, is not a delivery so as to charge a carrier, unless a special notice be given him of their having been so delivered, or some previous intimation to that effect.

A carrier's liability ceases, when he vests the property committed to his charge in the hands of the consignee or his agents, by actual delivery; or when the property is resumed by the consignor, in pursuance of his right of stopping it *in transitu*. It is in all cases the duty of the carrier to deliver the goods. The leaving goods at an inn is not a sufficient delivery. The rule in such cases, in deciding upon the carrier's liability, is to consider whether any thing remains to be done by the carrier, as such; and if nothing remains to be done, his liability ceases, and conversely.

A carrier has a lien upon goods for his hire. Even if the goods be stolen, the rightful owner is not to have them without paying the carriage.

For further details as to this subject see *Jeremy on the Law of Carriers*, passim; *Chitty's Commercial Law*, vol. iii. pp. 369—386.; and *Burn's Justice of the Peace*, tit. *Carriers*. There are some excellent observations with respect to it in *Sir William Jones's Essay on the Law of Bailments*.— (For an account of the regulations as to the conveyance of passengers in stage coaches, see Coaches, Stage.)

CARTS. Every cart, &c. for the carriage of any thing to and from any place, where the streets are paved, within the bills of mortality, shall contain 6 inches in the felly. No person shall drive any cart, waggon, &c. within 5 miles of the General Post Office, unless the name, surname, and place of abode of the owner, be painted in conspicuous letters, at least 1 inch in height, on the right or off side thereof, under a penalty of 5*l*. Any person may seize and detain any cart, waggon, &c. without such mark.—(1 & 2 *Will.* 4. c. 22.)

CASH, in commerce, means the ready money, bills, drafts, bonds, and all immediately negotiable paper in an individual's possession.

CASH ACCOUNT, in book-keeping, an account to which nothing but cash is carried on the one hand, and from which all the disbursements of the concern are drawn on the other. The balance is *the cash in hand*. When the credit side more than balances the debit, or disbursement side, the account is said to be *in cash*; when the contrary, to be *out of cash*.

Cash Account, in banking, is the name given to the account of the advances made by a banker in Scotland, to an individual who has given security for their repayment.—(See Banks (Scotch).)

CASHEW NUTS (Ger. *Akajunüsse, Westindische Anakarden*; Du. *Catsjoenooten*, Fr. *Noix d'acajou*; It. *Acaju*; Sp. *Nueces d'acaju*; Port. *Nozes d'acaju*), the produce of the *Anacardium occidentale*. They are externally of a greyish or brownish colour, of the shape of a kidney, somewhat convex on the one side, and depressed on the other. The shell is very hard; and the kernel, which is sweet and of a very fine flavour, is covered with a thin film. Between this and the shell is lodged a thick, blackish, inflammable oil, of such a caustic nature in the fresh nuts, that if the lips chance to touch it, blisters immediately follow. The kernels are used in cooking, and in the preparation of chocolate.

CASPIAN SEA. See Taganrog.

CASSIA. There are four species of cassia in the market, viz. *Cassia Lignea* or *Cassia Bark*; *Cassia Fistula*; *Cassia Buds*, and *Cassia Senna*.

1. *Cassia Lignea*, or *Cassia Bark* (Fr. *Casse*; Ger. *Cassia*; Port. *Cassia lenhosa*; Arab. *Selecheh*; Hind. *Tuj*; Malay, *Kayū-legi*), the bark of a tree (*Laurus Cassia* Lin.) growing in Sumatra, Borneo, the Malabar coast, Philippine Islands, &c.; but chiefly in the provinces of Quantong and Kingsi, in China, which furnish the greatest part of the cassia met with in the European markets. The tree grows to the height of 50 or 60 feet, with large, spreading, horizontal branches. The bark resembles that of cinnamon in appearance, smell, and taste, and is very often substituted for it; but it may be readily distinguished; it is thicker in substance, less quilled, breaks shorter, and is more pungent. It should be chosen in thin pieces; the best being that which approaches nearest to cinnamon in flavour: that which is small and broken should be

rejected. A good deal of the cassia in the Indian markets is brought from Borneo, Sumatra, and Ceylon. Malabar cassia is thicker and darker coloured than that of China, and more subject to foul packing; each bundle should be separately inspected. — (*Ainslie's Materia Indica; Milburn's Orient. Com. &c.*)

2. *Cassia Buds*, the dried fruit or berry of the tree (*Laurus cassia*) which yield the bark described in the previous article. They bear some resemblance to a clove, but are smaller, and, when fresh, have a rich cinnamon flavour. They should be chosen, round, fresh, and free from stalk and dirt. Cassia buds are the produce of China. — (*Milburn's Orient. Com.; Anglo-Chinese Kalendar*; and *Parl. Paper*, No. 257, Sess. 1843.)

3. *Cassia Fistula* (Fr. *Casse*; Ger. *Rhonkasie*; It. *Polpa di cassia*; Lat. *Cassiæ pulpa*; Arab. *Khyar sheber*) is a tree which grows in the East and West Indies, and Egypt (*Cassia fistula* Lin.) The fruit is a woody, dark brown pod, about the thickness of the thumb, and nearly 2 feet in length. Those brought to this country come principally from the West Indies, packed in casks and cases; but a superior kind is brought from the East Indies, and is easily distinguished by its smaller smooth pod, and by the greater blackness of the pulp.

Cassia Senna. See SENNA.

Account exhibiting the Imports and Exports of Cassia Lignea, with the Quantities entered for Home Consumption, in each Year from 1841 to 1852, both inclusive.—(*Parl. Paper*, No. 928, Sess. 1853.)

Years.	From within the Limits of the E. I. Co.'s Charter.	From all Parts.	Quantities re-exported from U. Kingdom.	Quantities entered for Home Consumption.
1841	1,188,577 lbs.	1,261,648 lbs.	1,262,164 lbs.	84,604 lbs.
1842	1,512,771	1,312,804	1,247,496	121,560
1843	2,470,502	2,470,502	1,986,413	142,106
1844	1,272,171	1,278,115	1,405,315	115,030
1845	1,422,256	1,422,256	1,186,265	150,571
1846	995,490	995,490	950,265	138,725
1847	342,506	342,693	543,755	114,576
1848	500,839	510,247	259,193	76,152
1849	472,691	472,693	525,798	83,500
1850	1,010,099	1,010,008	755,915	97,539
1851	212,604	267,462	215,514	82,467
1852	327,994	496,855	344,077	109,029

The duties from 9th July, 1842, have been $1\frac{1}{20}d.$ and $3\frac{3}{20}d.$ per lb. on cassia from British possessions and foreign countries.

During the 3 years ending with 1852, the imports of Cassia buds amounted, at an average, to 35,917 lbs. a year, and the exports to 1,087 lbs. a year. Cassia buds are not charged with any duty. Cassia buds were worth in the London market in October, 1853, from 9*l.* 5*s.* to 9*l.* 15*s.* per cwt., and cassia lignea from 6*l.* 5*s.* to 6*l.* 10*s.* per do.

CASTOR (Fr. *Castoreum*; Ger. *Kastoreunt*; It. *Castoro*; Sp. *Castoreo*), the produce of the beaver. In the inguinal region of this animal are found four bags, a large and a small one on each side: in the two large ones there is contained a softish, greyish yellow, or light brown substance, which, on exposure to the air, becomes dry and brittle, and of a brown colour. This is castor. It has a heavy but somewhat aromatic smell, not unlike musk; and a bitter, nauseous, and subacrid taste. The best comes from Russia; but of late years it has been very scarce; and all that is now found in the shops is the produce of Canada. The goodness of castor is determined by its sensible qualities; that which is black is insipid, inodorous, oily, and unfit for use. Castor is said to be sometimes counterfeited by a mixture of some gummy and resinous substances; but the fraud is easily detected, by comparing the smell and taste with those of real castor. — (*Thomson's Dispensatory.*)

CASTOR OIL (Fr. *Huile du Ricin*; Ger. *Rizinusohl*; It. *Olio di Ricino*; Sp. *Ricinsoel*) is obtained from the seeds of the *Ricinus communis*, or *Palma Christi*, an annual plant found in most tropical countries, and in Greece, the south of Spain, &c. The oil is separated from the seeds either by boiling them in water, or by subjecting them to the action of the press. It is said, that though the largest quantity of oil may be procured by the first method, it is less sweet, and more apt to become rancid, than that procured by expression, which, in consequence, is the process now most commonly followed. Good expressed castor oil is nearly inodorous and insipid; but the best leaves a slight sensation of acrimony in the throat after it is swallowed. It is thicker and heavier than the fat oils, being viscid, transparent, and colourless, or of a very pale straw colour. That which is obtained by boiling the seeds has a brownish hue; and both kinds, when they become rancid, thicken, deepen in colour to a reddish brown, and acquire a hot, nauseous taste. It is very extensively employed in the materia medica as a cathartic. — (*Thomson's Dispensatory.*)

The duty of 1*s.* 3*d.* per cwt. on castor oil was repealed in 1845. In 1852 the imports amounted to 30,528 cwt., and the exports to 7,403 cwt.

CATECHU (Fr. *Cachou*; Ger. *Kaschu*; Hind. *Cut*; Mal. *Gambir*), a brown astringent substance, formerly known by the name of *Terra Japonica*, because supposed to be a kind of earth. It is, however, a vegetable substance obtained from two plants; viz. the *Mimosa*, or more correctly the *Acacia catechu*, and the *Uncaria gambir*. The first of these is a tree from 20 to 30 feet high, found in abundance in many of the

forests of India, from 16° of lat. up to 30°. The places most remarkable for its production are the Burmese territories; a large province on the Malabar coast called the Concan; and the forests skirting the northern part of Bengal, under the hills which divide it from Nepaul. The catechu is obtained from this tree by the simple process of boiling the heart of the wood for a few hours, when it assumes the look and consistency of tar. The substance hardens by cooling; is formed into small balls or squares; and being dried in the sun, is fit for the market.

The price to the first purchaser in the Concan is about 15s. a cwt. According to Dr. Davy, who analysed it, the specific gravity of Concan catechu is 1·39; and that of Pegu, 1·28. The taste of this substance is astringent, leaving behind a sensation of sweetness; it is almost wholly soluble in water. Of all the astringent substances we know, catechu appears to contain the largest portion of tannin. According to Mr. Purkis, 1 lb. is equivalent to 7 or 8 lbs. of oak bark for tanning leather. From 200 grs. of Concan catechu, Dr. Davy procured 109 of tannin, 68 of extractive matter, 13 of mucilage, and 10 of earths and other impurities: the same quantity of Pegu catechu afforded 97 grs. of tannin, 73 of extract, 16 of mucilage, and 14 of impurities. The *uncaria gambir* is a scandent shrub, extensively cultivated in all the countries lying on both sides of the Straits of Malacca; but chiefly in the small islands at their eastern extremity. The catechu is in this case obtained by boiling the leaves and inspissating the juice, a small quantity of crude sago being added, to give the mass consistency: it is then dried in the sun, and being cut, like the Concan catechu, into small squares, is ready for use. There is a great consumption of this article throughout all parts of India as a masticatory; it forms an ingredient in the compound of betel pepper, areca nut, and lime which is in almost universal use. Catechu may be purchased at the Dutch settlement of Rhio, or at Malacca, in the Straits of Singapore, at the rate of about 10s. a cwt. Large quantities of it are imported, under the corrupted name of cutch, into Calcutta from Pegu. From Bombay a considerable quantity is annually imported into China. The quantity of catechu, under the name of gambir, produced in Rhio by the Chinese settlers, amounts to about 4,600 tons a year, about 2,000 of which are exported for the consumption of Java; the rest being sent to China, Cochin China, and other neighbouring countries.—(See *Ainslie's Materia Indica; Ure's Dictionary; Singapore Chronicle; Buchanan's Journey through Mysore, Canara, and Malabar; Bell's Review of the external Commerce of Bengal.*)

CAT'S EYE, a mineral of a beautiful appearance, brought from Ceylon. Its colours are grey, green, brown, red, of various shades. Its internal lustre is shining, its fracture imperfectly conchoidal, and it is translucent. From a peculiar play of light, arising from white fibres interspersed, it has derived its name. The French call the appearance *chatoyant*. It scratches quartz, is easily broken, and resists the blowpipe. It is set by the jewellers as a precious stone.

CAT SKINS. The skin or fur of the cat is used for a variety of purposes, but is principally dyed and sold as false sable. It appears from evidence taken before a late Committee of the House of Commons, that it is a common practice in London to decoy the animal and kill it for the sake of its skin. The fur of the wild cat is, however, far more valuable than that of the domestic cat. The wild cat skins imported into this country are brought almost wholly from the territories of the Hudson's Bay Company. The animal from which they are taken is a good deal larger than the English wild cat, and is sometimes called the *loup cervier*, or Canadian lynx. It is very courageous. At an average about 30,000 cat-skins are annually imported, of which more than a half are retained for home consumption.

CATTLE, a collective term applied to designate all those quadrupeds that are used either as food for man, or in tilling the ground. By *neat* or *horned cattle* is meant the two species included under the names of the ox (*Bos*) and the buffalo (*Bubulus*); but as the latter is hardly known in this country, it is the former only that we have here in view.

The raising and feeding of cattle, and the preparation of the various products which they yield, have formed, in all countries emerged from the savage state, an important branch of industry.

It would be quite inconsistent with the objects and limits of this work, to enter into any details with respect to the different breeds of cattle raised in this or other countries. They are exceedingly various. In Great Britain they have been vastly improved, both in the weight of carcase, the quality of the beef, and the abundance of the milk, by the extraordinary attention that has been given to the selection and crossing of the best breeds, according to the objects in view. This sort of improvement began about the middle of last century, or rather later, and was excited and very much forwarded by the skill and enterprise of two individuals—Mr. Bakewell of Dishley, and Mr. Culley of Northumberland. The success by which their efforts were attended roused a spirit of emulation in others; and the rapid growth of commerce and manufactures since 1760 having occasioned a corresponding increase in the demand for butcher's meat, improved systems of breeding, and improved breeds, have been very generally introduced.

But the improvement in the size and condition of cattle has not been alone owing to the circumstances now mentioned. Much of it is certainly to be ascribed to the great improvement that has been made in their feeding. The introduction and universal extension of the turnip and clover cultivation has had, in this respect, a most astonishing influence, and has wonderfully increased the food of cattle, and consequently the supply of butcher's meat.

It was stated in the First Report of the Select Committee of the House of Commons on Waste Lands (printed in 1795), that cattle and sheep had, at an average, increased in size and weight about *a fourth* part since 1732; but there are strong grounds for supposing that the increase had been much more considerable than is represented by the committee.

According to an estimate of Dr. Davenant in 1710, the average weight of the *nett* carcase of black cattle was only 370 lbs., of calves 50 lbs., and of sheep only 28 lbs.; but according to Sir F. M. Eden (*Hist. of the Poor*, vol. iii. Appen. p. 88.) and Mr. Middleton (*Agric. of Middlesex*, 2d ed. p. 541.), the average nett weight of the carcase of bullocks killed in London might be taken, about the end of the last or the beginning of this century, at 800 lbs., calves at 140 lbs. sheep at 80 lbs., and lambs at 50 lbs.

Consumption of Butcher's Meat in London.—The number of head of cattle, sheep and lambs, sold in Smithfield market, each year since 1732, has been as follows: —

Years.	Cattle.	Sheep.	Years.	Cattle.	Sheep.	Years.	Cattle.	Sheep.	Years.	Cattle.	Sheep.
1732	76,210	514,700	1763	80,851	653,110	1793	116,848	728,480	1823	149,552	1,264,920
1733	80,169	555,050	1764	75,168	556,360	1794	109,448	719,420	1824	163,615	1,239 720
1734	78,810	566,910	1765	81,630	537,000	1795	131,092	745,640	1825	156,985	1,130,310
1735	83,894	590,970	1766	75,534	574,790	1796	117,152	758,840	1826	143,460	1,270,530
1736	87,606	587,420	1767	77,324	574,050	1797	104,377	693,510	1827	138,363	1,335,100
1737	89,862	607,330	1768	79,660	626,170	1798	107,470	753,010	1828	147,698	1,288,460
1738	87,010	589,470	1769	82,131	642,910	1799	122,986	834,400	1829	158,313	1,240,360
1739	86,787	568,980	1770	86,890	649,090	1800	125,073	842,210	1830	159,907	1,287,070
1740	84,810	501,020	1771	93,573	631,860	1801	134,546	760,560	1831	148,168	1,189,010
1741	77,714	536,180	1772	89,503	609,540	1802	126,389	743,470	1832	165,224	1,364,160
1742	79,601	503,200	1773	90,133	609,740	1803	117,551	787,430	1833	152,603	1,167,820
1743	76,475	468,120	1774	90,419	585,290	1804	113,019	908,940	1834	162,485	1,237,360
1744	76,648	490,620	1775	93,581	623,950	1805	125,043	912,410	1835	170,325	1,381,540
1745	74,188	563,990	1776	98,372	671,700	1806	120,250	858,570	1836	164,351	1,219,510
1746	71,582	620,790	1777	93,714	714,870	1807	134,326	924,030	1837	172,435	1,329,010
1747	71,150	621,780	1778	97,360	658,540	1808	144,042	1,015,280	1838	183,362	1,403,460
1748	67,681	610 060	1779	97,352	676,54	1809	137,600	989,250	1839	180,780	1,360,250
1749	72,706	624,220	1780	102,383	706,850	1810	132,155	962,750	1840	177,497	1,371,870
1750	70 765	656.340	1781	102,543	748,330	1811	125,012	966,400	1841	166,922	1,310,220
1751	69,589	631,890	1782	101,176	728,970	1812	133,854	953,630	1842	175,347	1,438,960
1752	73.708	642,100	1783	101,840	701,610	1813	137,770	891,240	1843	175,133	1,571,760
1753	75,252	648,440	1784	98.143	616,110	1814	135,071	870,880	1844	186,191	1,609,130
1754	70,437	631,350	1785	99,047	641 470	1815	124,948	962,840	1845	192,180	1,441,980
1755	74,290	647,100	1786	92,270	665,910	1816	120,439	968,560	1846	199,875	1,458,820
1756	77,257	624.710	1787	94.946	668.570	1817	129,888	1,044,710	1847	220,862	1,438,280
1757	82,612	574,960	1788	92,820	679,100	1818	138,047	963,250	1848	220,193	1,348,770
1758	84,252	550.93	1789	93.269	693 700	1819	135,226	949.900	1849	223 560	1,514,130
1759	86,439	582,260	1790	103,708	749,660	1820	132.933	947,990	1850	229,744	1,555,270
1760	88,594	622,210	1791	101,164	740,360	1821	129,125	1,107,230	1851	243,541	1,577,950
1761	82,514	666,010	1792	107,348	769,859	1822	142,043	1,340,160	1852	256,948	1,575,340
1762	102,831	772,160									

The number of *fatted calves*, exclusive of sucklers, of which no account is taken, sold annually in Smithfield from 1821 inclusive, has been as follows: —

Date.	Number.	Date.	Number.	Date.	Number.
1821	21,768	1832	19.522	1843	19.113
1822	24,255	1833	18,374	1844	19,083
1823	22,739	1834	19,721	1845	18,734
1824	21,949	1835	20,852	1846	19,864
1825	20,958	1836	18,900	1847	25,732
1826	22,118	1837	17,716	1848	28,706
1827	20,729	1838	18,653	1849	26,422
1828	20,832	1839	18,148	1850	30,278
1829	20,879	1840	17,154	1851	33,273
1830	20,300	1841	17,054	1852	36,027
1831	——	1842	19,648		

The contract prices of butcher's meat per cwt. at Greenwich Hospital, since 1730, have been as below: —

	£ s. d.		£ s. d.		£ s. d.
1730	1 5 8	1790	1 16 10	1830	2 3 6
1740	1 8 0	1800	3 4 4	1835	2 0 7½
1750	1 6 6	1810	3 12 0	1840	2 14 0
1760	1 11 6	1815	3 8 0	1845	2 6 9
1770	1 8 6	1820	3 10 4½	1850	2 1 5½
1780	1 12 6	1825	2 19 6½		

We suspect, from what we have heard from practical men of great experience, that the weights assigned by Sir F. M. Eden and Mr. Middleton to the cattle sold in Smithfield were, at the time when their estimate was framed, decidedly in excess; but the great improvements that have since been made in the breeding and feeding of cattle in all parts of the empire have materially increased their average size; so that the above weights are now, we have been well assured, not far from the mark. In order, however, to be within bounds, we shall take the nett weight of the cattle at 750 lbs.; and supposing this and the other estimates to be nearly right, we should be able, provided we knew the respective numbers of sheep and lambs, to estimate the total quantity of butcher's meat furnished for London by Smithfield market, exclusive of hogs and pigs. Sheep and lambs are not, however, distinguished in the returns; but it is known that the

former are to the latter nearly as 3 to 1; so that we may estimate the average weight of the sheep and lambs at about 70 lbs.

Average Number of Animals sold in Smithfield in each of the 3 years ending 31st Dec. 1832.	Gross Weight.	Offal.	Nett Weight.	Butcher's Meat.
	Lbs.	Lbs.	Lbs.	Lbs.
243,411 Cattle - - -	1,000	250	750	182,558,250
1,569,520 Sheep and lambs - -	90	20	70	109,866,400
33,192 Calves - - -	175	35	140	4,646,880
			Total	297,071,530

This quantity, estimated at the average price of 6*d.*, would cost 7,426,788*l.*; at 8*d.* it would cost 9,902,384*l.*

But exclusive of the above, or of the beef properly so called, a large portion of the offal, including the head and tongue, heart, tripe, fat, &c., is used as food.

A part of the cattle sold at Smithfield go to supply the towns in the vicinity; but, on the other hand, many cattle are sold in the adjoining towns, and slaughtered for the use of London, of which no account is taken. We have reason to think that the latter quantity rather exceeds the former; but, supposing that they mutually balance each other, the above quantity of 297,071,530 lbs. may be regarded as forming the annual supply of butcher's meat at present required for London; exclusive, however, of the offal used as food, and of hogs, pigs, suckling calves, &c., and exclusive also of bacon, hams, and salted provisions brought from a distance. The quantities thus omitted from the account are very large indeed; and since the introduction of steam navigation great numbers of cattle and sheep are killed in Scotland and other distant parts of the empire, the carcases of which are sent up for sale in the London market. We have no means of forming any correct conclusion on such a subject, but we are inclined to think that the carcases so sent up, added to the offal used as food, and the hogs killed in town, may be considered as fully equivalent to the butcher's meat used in the *victualling of ships*. On this hypothesis there will remain 297,071,530 lbs. of butcher's meat for the supply of the metropolis, which, taking the population at 2,400,000, gives 123¾ lbs. for the consumption of every individual, exclusive of bacon, hams, and salted provisions, and, also, of poultry.

This, though not nearly so great as has been sometimes represented*, is, we believe, a larger consumption of animal food than takes place any where else by the same number of individuals.† According to M. Chabrol, the consumption of butcher's meat in Paris amounts to between 85 lbs. and 86 lbs. for each individual. At Brussels the consumption is a little greater, being supposed to average 89 lbs. each individual; being rather more than 3 lbs. above the mean of Paris, and 34¾ lbs. under the mean of London.

In estimating the weights of the animals killed in country towns, a lower standard must be adopted than that taken for London; first, because the largest and finest cattle are brought to the metropolis; and secondly, because a very large proportion of the calves killed in country towns are sucklers, which are excluded from the London accounts. Neither is the consumption so great in country towns as in the metropolis; and supposing the consumption in the latter to be at the rate of 123 lbs. per individual, it does not probably exceed 100 lbs. per do. in Manchester, Glasgow, Liverpool, and other great provincial towns. In 1851 there were slaughtered in Glasgow 29,569 oxen, 4,443 calves, 123,188 sheep and lambs, and 5,157 pigs. And this statement taken in connection with the fact that very large quantities of fresh and salted meat are imported into Glasgow, and that, so late as 1760, the slaughter of bullocks for the supply of the public market was unknown in that city, sets the wonderful improvement that has taken place in the food of the Scotch people in the most striking point of view. Previously to 1780 it was customary in Glasgow, Edinburgh, and the principal Scotch towns, for families to purchase in November what would now be reckoned a small half-fed cow or ox, the salted carcase of which was the only butcher's meat they tasted throughout the year. In the smaller towns and country districts this practice prevailed till the present century; but it is now everywhere abandoned. We believe, indeed, that there has never been, in any country, a more rapid increase in the quantity, or a greater improvement in the quality, of the food brought to market, than has taken place in Scotland since 1770. In so far as respects butcher's meat, this has been occasioned partly by the growing numbers and opulence of all classes, and partly by the vast increase in the food of cattle consequent to the introduction of green crops, and of an improved system of cultivation. —(See BREAD).

* Mr. Middleton (*Agriculture of Middlesex*, p. 643.) estimates the consumption of animal food in London, exclusive of fish and poultry, at 284 lbs. a year for every individual! And he further estimates the total average annual expense incurred by each inhabitant of the metropolis, for *all* sorts of animal food, at 8*l.* 8*s.*!

† In a former edition of this work we inadvertently deducted the offal from the *nett* instead of the *gross* weight of the animals. And we regret to say this obvious blunder was soon after quoted in the *Dictionnaire de Commerce* to show that the weight of cattle slaughtered in Paris was greater than that of those killed in London; and that the consumption of animal food was, also, greater in the former than in the latter!

The introduction of steam navigation, and the improved means of communication by railroads and otherwise, has already had, and will no doubt continue to have, a material influence over the supply of butcher's meat. Owing to the difficulty and expense of their conveyance, cattle could not formerly be conveniently fattened at any very considerable distance from the great markets; but steam navigation has gone far to remove this difficulty. Instead of selling their cattle, lean or half-fed to the Norfolk graziers, by whom they were fattened for the London market, the producers, in various districts of Scotland, now fatten them at home, either sending the live animals or the carcases by steam to London, Liverpool, &c. This practice is indirectly as well as directly advantageous to the farmer, inasmuch as it enables him to turn his green crops to better account, and to raise larger supplies of manure. The same practice is also extending in Ireland; and will, no doubt, spread itself over every part of the country where feeding can be carried on, that has the required facility of transport.

Exclusive of the cattle raised in Great Britain, we import considerable supplies of beef and of live cattle from Ireland.

Account of the Number of Cows and Oxen, and of the Quantities of Beef imported into Great Britain, from Ireland, in the undermentioned Years.

Years.	Cows and Oxen.	Beef.	Years.	Cows and Oxen.	Beef.	Years.	Cows and Oxen.	Beef.
	No.	*Barrels.*		*No.*	*Barrels.*		*No.*	*Barrels.*
1801	31,543	58,911	1810	44,553	74,605	1820	39,011	52,591
1805	21,862	88,519	1815	33,309	60,307	1825	65,519	63,557

In 1825 the trade between Great Britain and Ireland was placed on the footing of a coasting trade, so that there are no means of continuing this account to a later date from official returns. But the following statement collected by the Customs from non-official sources is believed to represent with very considerable accuracy the

Imports of Cattle, Sheep, and Swine, from Ireland into Great Britain, during each of the 6 Years ending with 1851.

Years.	Oxen, Bulls, and Cows.	Calves.	Sheep and Lambs.	Swine.
1846	186,483	6,363	259,257	480,827
1847	189,960	9,992	324,179	106,407
1848	196,042	7,086	255,682	110,787
1849	201,811	9,831	241,061	68,053
1850	184,616	4,462	176,945	109,170
1851	183,760	2,474	151,807	136,162

Number of Head of Cattle in Great Britain. — It would, on many accounts, be very desirable to have an accurate estimate of the number and value of the stock of cattle in Great Britain, and of the proportion annually killed and made use of; but owing to the little attention that has been paid to such subjects in this country, where most branches of statistical knowledge are at a low ebb, there are no means of arriving at any conclusions that can be depended upon. The following details may not, however, be unacceptable.

Arthur Young has given, both in his *Eastern* and *Northern Tours*, estimates of the number and value of the different descriptions of stock in England. The greatest discrepancy, unaccompanied by a single explanatory sentence, exists between them; but there can be no doubt that the following estimate (*Eastern Tour*, vol. iv. p. 456), though, perhaps, rather under the mark, is infinitely nearer the truth than the other, which is about twice as great:—

Number of Draught cattle	-	684,491
Cows	-	741,532
Fatting cattle	-	513,369
Young cattle	-	912,656
		2,852,048

Now, taking this number at the round sum of 3,000,000, and adding a half to it for the increase since 1770, and 1,500,000 for the number of cattle in Scotland * we shall have 6,000,000 as the total head of cattle of all sorts in Great Britain. The common estimate is, that about a *fourth* part of the entire stock is annually slaughtered; which, adopting the foregoing statement, gives 1,500,000 head for the supply of the kingdom; a result which all that we have heard inclines us to think is not far from the mark.

Importation of Cattle. — Previously to 1842, the importation of horned cattle, sheep, hogs, and other animals used as food was strictly prohibited; but this prohibition was then withdrawn, and the importation of the animals in question permitted on paying a duty of 20*s.* a head on oxen and bulls, 15*s.* on cows, 3*s.* on sheep, 5*s.* on hogs, &c. This certainly was one of the boldest and most important inroads ever made on the prohibitive system, and reflected the greatest credit on the administration of Sir Robert Peel. It was supposed at the time that it would lead to a very heavy fall in the prices of all sorts of stock, a supposition which was in some degree realised by the panic which it occasioned. But there was no good foundation for such anticipations. And this we

* In the *General Report of Scotland*, iii. *Addenda*, p. 6., the number of cattle is estimated at 1,047,142. It may now be estimated at 1,500,000; and the weight of the cattle has doubled in the interval.

endeavoured to show, as follows, in the edition of this Dictionary published soon after the repeal of the prohibition.

"The fact is that, low as the duties are, very few cattle can be imported into England; nor is there any such discrepancy as is commonly supposed between the prices of butcher's meat here and on the Continent. No doubt the rates at which it is quoted in the markets of the latter are in the great majority of instances a good deal below its price in London and other great British markets; but this difference is in great part apparent only, and depends on the superior quality of English butcher's meat as compared with that of other countries.

"There is an immense variety in the breeds of the continental cattle; but with the exception of the cattle of Holstein and Holland, the beef of those in Western Europe is universally inferior to that of England; and the continental mutton is hardly eatable. In most parts of the Continent the object is to have a fine fleece, with but little regard to the carcase; whereas in England the carcase is an object of more importance than the fleece.

"Denmark, including Holstein, exports annually from 25,000 to 30,000 head of cattle, principally to Hamburg and Altona; and there can be no reason for supposing that the repeal of the prohibition against importation into this country should lessen the demand for beef in Hamburg, otherwise than by raising its price. Inasmuch, however, as the beef of Holstein (which is principally cured and smoked) has hitherto sold in Hamburg at from 4½*d.* to 5*d.* per lb., or at but little below the cost of beef in England, it is evident that a comparatively small increase of price will suffice to prevent its exportation.

"If we except Denmark and Ireland, no country of Western Europe has hitherto been in the habit of exporting cattle. Holland, however, has very fine pastures, and large herds of cattle and flocks of sheep; and their importation being comparatively easy she may very probably send us some considerable number. France exports a few cattle; but her imports always overbalance her exports; and it is probable, indeed, should no change be made in the policy on which she has been acting of late years, that she will cease to export a single animal. The truth is, that there has latterly been a great increase in the price of butcher's meat in France, and a material decrease in the stock of cattle in that kingdom, occasioned by the excessive additions made to the duty on the importation of cattle. Previously to 1814 all sorts of cattle might be imported into France duty free. In that year, however, a duty of 3 francs (2*s.* 6*d.*) a head was laid on their importation; and had the duty been allowed to continue at this reasonable rate, it could not justly have been objected to. But in 1822, this moderate duty was suddenly raised to the enormous amount of 55 francs, or 44*s.*; and the result has been, that, in the interval, the stock of cattle in France has been reduced about 2,000,000 head; the price of butcher's meat has been greatly increased, and the consumption of beef in Paris has declined from about 31 kilogrammes to 25 kilogrammes per individual! In consequence, loud and well-founded complaints have been made by the town and manufacturing population of the operation of the duty; and the probability is, that it will, at no very distant period, be effectually reduced. But it is material to observe, that, despite this oppressive duty, the value of the live animals imported into France in 1839, principally from England, Wirtemberg, Bavaria, and Baden, amounted to 674,775*l.*! Under these circumstances, the idea of France supplying us with any considerable quantity of cattle would seem to be entirely out of the question. Indeed, any one acquainted with the state of France, with the smallness of the farms, and the all but total deficiency of green crops, must treat with contempt the notion of her exporting beef or cattle.

"Spain, since the repeal of the prohibition, has supplied us with a few cattle, and sanguine expectations have been entertained of her capabilities in this respect. We doubt, however, whether these be destined to be realised. The pastures of Spain are no doubt of vast extent; but it is generally believed that they are more suitable for sheep than for cattle; and the voyage across the Bay of Biscay will always be a considerable obstacle to the cheap and easy importation of the latter.

"Eastern Europe, including Hungary and the southern parts of European Russia, has a vast extent of fine pasture land and some very fine breeds of cattle, with which, but for the distance, we might be abundantly supplied. Unluckily, however, the expense of their conveyance would be so very great as to preclude the possibility of their being imported; and it is even doubtful whether we shall ever be able to derive from these countries any considerable supply of salted provisions.

"It appears from the customs' returns, that from the repeal of the prohibition against the importation of foreign cattle, on the 9th July, 1842, down to the 5th of January, 1843, only 4,277 head of cattle (including calves) were imported, and only 648 sheep and lambs (*Parl. Paper*, No. 45, Sess. 1843.) And it is well known that this inconsiderable importation was unprofitable rather than otherwise. At the same time it must

be admitted that it is by no means improbable that agriculturists in Holland and the contiguous countries should apply themselves to the breeding of stock for the English markets, and that their importation should, in consequence, be considerably increased. But supposing (of which we regret there is little probability) that in some half dozen years we should be able annually to import 30,000 or 40,000 head of foreign cattle, and that eventually this number should be increased to 100,000 or 150,000 head, still it is easy to see it could entail no real injury on the agriculturists of this country.

"We have already seen that at present (1843) the average annual slaughter of cattle in London amounts to about 175,000 head; and the average annual slaughter in Great Britain is certainly not under 1,350,000 head. Hence it appears, that even on the supposition that 100,000 head of cattle were imported, it would not amount to one thirteenth part of our supply, and could not therefore have any material influence over prices. The influence of an importation of 30,000 head would, it is obvious, be all but insensible.

"In saying that an importation even of 100,000 head of cattle, which certainly is much greater than the importation will amount to for a good many years to come, would not materially affect prices, we do not reason theoretically, but on the solid foundation of experience and analogy. In 1826, for example, we imported about 57,000 head of cattle from Ireland into Great Britain; but in consequence of the increased facilities given to importation, by the introduction and extension of steam navigation, Ireland now supplies us with about 180,000 head of cattle, or between 3 and 4 times as many as we imported from her 17 years ago! But instead of the price of cattle in Great Britain falling in consequence of this immense increase of importation, every body knows that it has very decidedly increased. And when such is the fact, is it not childish to suppose that the value of stock is to be seriously depressed, and the breeders and graziers ruined, by the admission of cattle from abroad under a duty of 20*s.* each?

"It is singular how, in a great and rich country like this, a vast addition may be made to the supply of any important article without materially affecting prices. In illustration of this we may observe, that in 1840 the imports of fresh salmon into London amounted to about 1,700,000 lbs., and in 1841 they amounted to about 3,200,000 lbs. Here we have an increase of little less than 100 per cent. in the supply, and yet the wholesale price was only reduced from 11*d.* in 1840, to about 9*d.* in 1841: and it should be borne in mind that salmon is more of a luxury than beef, and that, its consumption being necessarily at all times confined within a more limited circle, it has less power of expanding and contracting with variations of price. — (See art. SALMON.) Taking the average price of beef in England at 6*d.* per lb., a fall to 5½*d.* per lb. would certainly take off 100,000 additional head of cattle; that is, that it would take off more than there is much probability we shall get from the Continent, under the existing arrangements, any time during the next dozen years.

"It is probable that the principal imports of beef and other articles of provision from the Continent and elsewhere under the existing tariff, will not come to us in the shape of live animals, but of salted provisions. But even of these, the importation, we apprehend, will be much less than has been supposed. For some years past, foreign salted and cured beef has been admitted on paying a duty of 12*s.* a cwt. If, therefore, the price in any part of the Continent had been so low as most people here imagine, a large importation of salted and cured beef could hardly have failed to have taken place under this duty. But, *in point of fact*, the importation has been quite inconsiderable; the entries of foreign salted beef for home consumption in 1841 being only 1,698 cwt. This shows conclusively that the notions as to the cheapness of foreign beef are nearly if not altogether chimerical; and it also shows that the reduction of the duty from 12*s.* to 8*s.* a cwt. can have but little influence over the trade.

"We believe, however, that there will, under the new arrangements, be a considerable importation of bacon and hams, the duty on which has been reduced from 28*s.* to 14*s.* a cwt. It is, indeed, much to be wished that such should be the case, inasmuch as a fall in the price of bacon would be a great boon to the labouring classes, at the same time that it could do little or no injury to any one else.

"It may, perhaps, be asked, If you be right in these statements, if the new measures will not materially reduce the price of provisions, where is the advantage of having interfered with the former arrangements? Why not 'let well alone?' To that question we might reply by asking, has not the importation of cattle from Ireland been of vast advantage, though it has not sensibly influenced prices? Though the new measure should not lower the price of butcher's meat, it will, at all events, prevent its farther increase, and enable provision to be made for the wants of our rapidly increasing population. It will also have the good effect of undeceiving the public, of proving to the conviction of every individual, that the price of butcher's meat in this country is what Adam Smith would call its natural and necessary price, and that it is not sensibly *affected by restrictive regulations.*"

These anticipations were so completely realised, that Sir Robert Peel found that to make the repeal of the prohibition of the importation of cattle and sheep of any real value, they must be admitted duty free; and this was accordingly done in 1846. But owing to the circumstances previously stated, this wise and truly liberal measure has not had so great an influence over the importation of stock as was expected. Its operation has, however, been most salutary. It has reduced the prices of butcher's meat in this country to their lowest level; and it has done this without compromising in any degree the interests of the farmers and graziers. On the contrary it has, by increasing their supplies of lean stock, been peculiarly advantageous to them. And it is admitted on all hands that at no former period have the stock and dairy farmers and graziers been so prosperous as during the last half dozen years. We subjoin

An Account of the Imports of Cattle, Sheep, and Hogs, during each of the 7 Years, ending with 1852.

	1846.	1847.	1848.	1849.	1850.	1851.	1852.
Oxen and bulls - No.	17,191	27,811	21,590	21,761	28,951	37,624	40,533
Cows - - -	25,349	35,138	22,506	17,921	17,757	21,026	25,058
Calves - - -	2,503	12,389	15,642	13,615	19,754	24,870	27,490
Sheep - - -	91,732	136,527	128,406	126,217	143,498	201,859	217,601
Lambs - - -	2,892	3,319	2,177	3,018			12,343
Swine and hogs - -	3,856	1,242	2,119	2,653	7,287	15,868	10,541
All sorts - - -	143,523	216,456	195,140	185,235	217,247	304,247	333,622

The sources whence we derive our foreign supplies of live stock are seen in the following table: —

Account exhibiting the Imports of Live Stock in 1851, with the Numbers brought from different Countries.

Countries.	Oxen and Bulls.	Cows.	Calves.	Sheep and Lambs.	Swine and Hogs.	All Sorts.
Denmark - - -	14,919	3,111	9	6,581	1,488	26,111
Oldenburg and Kniphausen -	843	544	5	327	23	1,742
Hanseatic Towns - -	1,740	552	72	20,285	69	22,716
Holland - - -	18,259	16,370	21,832	165,365	11,768	235,594
Belgium - - -	114	7	2,703	8,585	261	11,670
Channel Islands (foreign produce)	128	2,555	40	20	212	2,955
France - -	1,060	712	188	191	1,858	4,009
All other countries - -	531	145	21	501	209	1,410
	37,694	24,026	24,870	201,859	15,868	304,247

Cattle of the Continent.—Baron Malchus gave, in his work on European Statistics, published at Stuttgard in 1826, an account of the number of horned cattle, sheep, swine, &c., in most European countries. In so far as respects the British empire, the statements, mostly copied from Colquhoun, were ludicrously inexact. Perhaps, however, they were, in so far as regards the Continental states, better entitled to credit. The following statements, which we have endeavoured to deduce from the best authorities, come, we believe, pretty near the mark: —

Countries.	Head of Cattle.	Countries.	Head of Cattle.	Countries.	Head of Cattle.
Sweden (1837) -	1,657,976	Prussia (1843) -	5,042,000	Bavaria - -	2,350,388
European Russia(1846)	24,947,000*	Saxony - -	400,000?	Austria (1846) -	11,657,500
Denmark - -	1,650,000?	Hanover - -	900,000?	France (1838) -	7,823,894
Holland - -	1,500,000?	Wirtemberg - -	800,000?	Spain and Portugal -	3,000,000?
Belgium - -	898,076	Baden - -	480,000?	Switzerland - -	800,000?

Laws as to Cattle.— No salesman, broker, or factor, employed in buying cattle for others, shall buy for himself in London, or within the bills of mortality, on penalty of double the value of the cattle bought and sold. — (31 *Geo.* 2. c. 40.)

Cattle not to be driven on Sunday, on penalty of 20*s.* — (3 *Cha.* 1. c. 1.)

Any person unlawfully and maliciously killing, wounding, or maiming any cattle, shall be guilty of felony, and, upon conviction, may be transported, at the discretion of the court, beyond seas for life, or for any term not less than 7 years, or be imprisoned for any term not exceeding 4 years, and kept to hard labour; and, if a male, may be once, twice, or thrice publicly or privately whipped, if the court shall think fit so to order. — (7 & 8 *Geo.* 4. c. 30.)

Persons wantonly and cruelly abusing, beating, or ill-treating cattle, may, upon being convicted before a justice of such offence, be fined in any sum not exceeding 5*l.* and not below 10*s.*; and upon nonpayment of fine, may be committed to the house of correction for any time not exceeding 3 months.

Complaint must be made within 10 days after the offence. Justices are instructed to order compensation to be made, not exceeding 20*s.*, to persons vexatiously complained against. — (3 *Geo.* 4. c. 71.)

CAVIAR (Fr. *Caviar, Cavial*; Ger. *Kaviar*; It. *Caviario, Caviale*; Sp. *Caviario*; Rus. *Ikra*; Lat. *Caviarium*), a substance prepared in Russia, consisting of the salted roes of large fish. The best, which is made of the roe of the sturgeon, appears to consist entirely of the eggs, and does not easily become fetid. It is packed in small casks or kegs; the inferior sort being in the form of dry cakes. Caviar is highly esteemed in Russia, and considerable quantities are exported to other countries. It is principally made of the roe of the sturgeon caught in the Wolga, in the neighbourhood of Astrachan, as many as 30,000 barrels of caviar having been exported from that city in a single season. — (See *Geog. Dict.* art. ASTRAKHAN.)

CAYENNE PEPPER, OR GUINEA PEPPER. See CHILLIES.

CEDAR (Ger. *Zeder*; Du. *Ceder*; Fr. *Cedre*; It. and Sp. *Cedro*; Rus. *Kedr*; Lat. *Cedrus*). The cedar of Lebanon, or great cedar (*Pinus cedrus*), is famous in Scripture: it is a tall majestic-looking tree. "Behold," says the inspired writer, "the Assyrian was a cedar in Lebanon with fair branches, and with a shadowing shroud, and

* *Tegoborski, Forces Productives de la Russie*, i. 235.

of an high stature; and his top was among the thick boughs. His height was exalted above all the trees of the field, and his boughs were multiplied, and his branches became long. The fir trees were not like his boughs, and the chestnut trees were not like his branches, nor any tree in the garden of God was like unto him in beauty." — (*Ezekiel*, xxxi. 3. 5. 8.) The cedar grows to a very great size. The timber is resinous, has a peculiar and powerful odour, a slightly bitter taste, a rich yellowish brown colour, and is not subject to the worm. Its durability is very great; and it was on this account (*propter æternitatem*, Vitruvius, lib. ii. § 9.) employed in the construction of temples, and other public buildings, in the formation of the statues of the gods, and as tablets for writing upon. In the time of Vitruvius, cedars were principally produced in Crete. Africa, and some parts of Syria. — (*Loc. cit.*) Very few are now found on Lebanon; but some of those that still remain are of immense bulk, and in the highest preservation.

Cedar exceeds the oak in toughness, but is very inferior to it in strength and stiffness. Some very fine cedars have been produced in England.

There are several other kinds of timber that are usually called cedar: thus a species of cypress is called white cedar in America; and the cedar used by the Japanese for building bridges, ships, houses, &c. is a kind of cypress, which Thunberg describes as a beautiful wood, that lasts long without decay. The *Juniperus oxycedrus* is a native of Spain, the south of France, and the Levant; it is usually called the brown berried cedar. The Bermudian cedar (*Juniperus Bermudiana*), a native of the Bermuda and Bahama islands, is another species that produces valuable timber for many purposes; such as internal joiners' work, furniture, and the like. The red cedar, so well known from its being used in making black lead pencils, is produced by the Virginian cedar (*Juniperus Virginiana*), a native of North America, the West India islands, and Japan. The tree seldom exceeds 45 feet in height. The wood is very durable, and, like the cedar of Lebanon, is not attacked by worms. It is employed in various ways, but principally in the manufacture of drawers, wardrobes, &c., and as a cover to pencils. The internal wood is of a dark red colour, and has a very strong odour. It is of a nearly uniform texture, brittle, and light. — (See *Tredgold's Principles of Carpentry*; *Lib. of Entertaining Knowledge, Veget. Substances*; *Rees's Cyclopædia*, &c.)

The duties on cedar, which produced only a trifling sum, were repealed in 1845. The consumption, which is now very considerable, may be estimated at about 1000 logs Havannah and 20,000 tons pencil cedar a year.

CERTIFICATES, in the customs. *Certificates of origin* are required in respect of all goods which are entitled to any exemption from or remission of duty, or other peculiar advantage, on their being imported. They are required, for example, in the case of sugar and spirits from the British possessions in America and the Mauritius, of sugar from places within the limits of the E. I. Company's charter, of wine from the Cape of Good Hope, &c. The clauses with respect to them are embodied in the Customs Consolidation Act. — (See *post.* IMPORTATION AND EXPORTATION.) The statute enacts that

"The Commissioners of the Treasury may by order under their hands declare that a certificate of production shall be required upon the exportation of any goods from any British possession abroad or other place, or upon the importation of such goods into the U. K., and frame such regulations respecting such certificates and goods as they may think fit; and if any goods in respect of which such certificates are required be imported without such certificate, they shall be deemed to be foreign goods and liable to any duty attaching to them as such; and such orders of the Treasury shall be published in the London and Dublin gazettes three times at least within 3 months from the date thereof respectively. — § 78.

The following clauses relate to the importation of goods from the Channel Islands.

Goods of Guernsey, Jersey, &c. — Any goods of the growth of the Channel Islands, and any goods manufactured in the said islands from materials of the growth of the said islands, or from materials not subject to duty in the U. K., or from materials upon which the duty has been paid in the U. K., and upon which no drawback has subsequently been granted, may be imported into the U. K. from the said islands respectively without payment of any duty, and such goods shall not be deemed to be included in any charge of duties imposed by any act on the importation of goods generally from parts beyond the seas; but such goods shall be charged with any proportion of such duties as shall fairly countervail any duties of excise payable on the like goods the produce or manufacture of the part of the U. K. into which they shall be imported, or payable upon any of the materials from which such goods are manufactured; and all goods manufactured in any of the said islands from any other materials than the materials aforesaid shall be declared and taken to be foreign goods. — § 82.

Master to deliver Certificate of Produce. — Before any goods shall be entered as being the produce of the said islands, (if any benefit attach to such distinction), the master of the ship importing the same shall deliver to the collector or comptroller of customs a certificate from the governor, lieutenant-governor, or commander-in-chief of the island from whence such goods were imported, that proof had been made in manner required by law that such goods were of the produce of such island, stating the quantity and quality of the goods, and the number and denomination of the packages containing the same. — § 83.

CHAIN, *in surveying*, a measure of length, composed of a certain number of links made of iron wire, serving to take the distance between two or more places. Gunter's chain contains 100 such links, each measuring $7\frac{92}{100}$ inches, consequently equal to 66 feet, or four poles.

CHALDRON, a dry English measure. 36 coal bushels make a chaldron, and 21 chaldrons a score. The coal bushel is $19\frac{1}{2}$ inches wide from the outside, and 8 inches deep. It contains 2217·6 cubic inches; but when heaped, 2815·5, making the chaldron 58·65 cubic feet. There are 12 sacks of coal in a chaldron; and if

5 chaldrons be purchased at the same time, the seller must deliver 63 sacks: the 3 sacks additional are called the *ingrain*. But coals are now sold in London, and almost everywhere else by the ton of 20 cwt. avoirdupois. The Newcastle chaldron of coals is 53 cwt., and is exactly double the London chaldron. — (See COAL.)

CHAMBER OF COMMERCE, is an assembly of merchants and traders, where affairs relating to trade are treated of. There are several establishments of this sort in most of the chief cities in France; and in this country, chambers of this kind have been erected for various purposes.

CHAMBER OF ASSURANCE, in France, denotes a society of merchants and others for carrying on the business of insurance; but in Holland it signifies a court of justice, where causes relating to assurances are tried.

CHAMPAGNE, one of the most esteemed and celebrated of the French wines. See WINE.

CHANKS, OR CHANK SHELLS, common conch shells (*Voluta Pyrum*), are fished up by divers in the Gulph of Manaar, on the coast opposite Jaffnapatam, in Ceylon, in about 2 fathoms water; and at Travancore, Tuticoreen, and other places. Large fossil beds of chanks have also been found. They are of a spiral form, and form a considerable article of trade in India, where they are in extensive demand all over the country. They are sawn into narrow rings or bracelets, and are worn as ornaments on the arms, legs, fingers, &c. by the Hindoo women; many of them are also buried with the bodies of opulent and distinguished persons. Those which, from being taken with the fish, are called green chanks, are most in demand. The white chank, which is the shell thrown upon the beach by strong tides, having lost its gloss and consistency, is not worth the freight up to Calcutta. The value of the green chank depends upon its size. A chank opening to the right, called in Calcutta the right handed chank, is so highly prized, as sometimes to sell for 400, or 500, or even 1,000 rupees.—(*Bell's Commerce of Bengal*, and *private communications*.)

The fishery of chanks used to be monopolised by government, who formerly let the banks for from 3,000*l*. to 4,000*l*. a year. But of late years the fishery, partly from the poaching of the fishermen of the contiguous coasts, and partly from a decrease in the supply of chanks, declined so that the rental of the banks fell off to from 300*l*. to 400*l*. a year. And this smaller sum was not paid, as formerly, for a licence to dive for live chanks, but for permission to dig up the dead shells along the shore of the Gulph of Manaar. Under these circumstances government have wisely abandoned the chank monopoly, which, without being of any value in a financial point of view, obstructed the employment of the inhabitants on the shores of the gulph. — (See the valuable *Report of Sir J. E. Tennent*, p. 55. of *Papers on Ceylon*, presented to Parliament in 1848.)

CHARCOAL. (Fr. *Charbon de bois*; Ger. *Reine Kohle*; It. *Carbone di legna*; Sp. *Carbon de lena*; La. *Carbo ligni*), a sort of artificial coal, consisting of wood burned with as little exposure to the action of the air as possible. "It was customary among the ancients to *char* the outside of those stakes which were to be driven into the ground, or placed in water, in order to preserve the wood from spoiling. New-made charcoal, by being rolled up in clothes which have contracted a disagreeable odour, effectually destroys it. When boiled with meat beginning to putrefy, it takes away the bad taint: it is, perhaps, the best tooth-powder known. When putrid water at sea is mixed with about $\frac{1}{4}$ of its weight of charcoal powder, it is rendered quite fresh; and a much smaller quantity of charcoal will serve, if the precaution be taken to add a little sulphuric acid previously to the water. If the water casks be charred before they are filled with water, the liquor remains good in them for years; this precaution ought always to be taken for long sea voyages. The same precaution, when attended to for wine casks, will be found very much to improve the quality of the wine."—(*Thomson's Chemistry*.)

CHARLESTON, a city and sea-port of the United States, in South Carolina, in lat. 32° 46′ 33″ N., long. 79° 48′ W. Population in 1850, 42,985, inc. the suburbs of Neck, &c., beyond the limits of the city.

The situation of Charleston has a good deal of resemblance to that of New York, being built on a point of land between the Ashley and Cooper rivers, at their point of confluence. The exports principally consist of cotton and rice (particularly the former), which are the staple products of the state. There are a few other articles exported, such as naval stores, hams, bacon, &c., but their value is inconsiderable. All the cotton sent from South Carolina to foreign countries is shipped at Charleston. In the year ending 31st of August, 1857, the shipments of cotton to foreign countries amounted to 229,185 bales; the shipments of cotton coastwise during the same year were estimated at 169,348 bales. The imports from foreign countries principally consist of cottons, woollens, linens and silks, hardware, iron and steel, coffee, sugar, tea, wine, spices, &c. The greater part of the imports do not, however, come from abroad, but from the northern and middle states. The former supply her with fish, shoes, and all sorts of coarse manufactured goods for the use of the slave population; while the latter supply her with wheat,

flour, &c. Most part of the imports of foreign produce are also brought at second-hand from New York, which occupies the same rank in the Union that Liverpool and London do in Great Britain. The registered, enrolled, and licensed tonnage belonging to Charleston, on the 30th June, 1858, amounted to 60,197 tons, of which 25,864 tons were employed in the coasting trade. The total value of the articles imported into South Carolina, in the year ending 30th of June, 1858, was 2,071,519 dollars; the total value of the exports during the same year being 16,924,056 dollars. In South Carolina, the dollar is worth 4*s.* 8*d.* currency, so that 1*l.* sterling = 1*l.* 0*s.* 8$\frac{3}{4}$*d.* currency. *Weights and Measures* same as in England.—(For further details, see New York.)

The Quantities and Values of the Principal Articles imported into Charleston in 1857 were—

Articles.	Quantity.	Value.
Coffee	3,942,625 lbs.	$352,868
Guano	697 tons	8,617
Woollen manufactures	Not specified	172,533
Cotton ditto	ditto	90,833
Iron and steel ditto	ditto	130,000
Railroad iron	105,110 cwt.	202,623
China ware	Not specified	89,318
Molasses	724,250 gallons	196,579
Brown sugar	6,496,955 lbs.	371,280
Cigars	4,898 thousand	90,909
Salt	542,279 bushels	98,678
		$1,804,238

Port.—Charleston harbour is spacious and convenient; but the entrance to it is incommoded by a range of sandbanks, stretching from Sullivan's Island on the north to Folly Island on the South, about 2$\frac{1}{2}$ leagues. There are several channels through these banks, but only three, the middle or direct channel, the ship channel, and Lawford channel, between the latter and the mainland, that ought to be attempted by ships of considerable burden. The entrance to the ship channel is in lat. 32° 40′. The depth of water on the shallowest part of the bar at ebb tide is 12 feet, and at flood from 17 to 18 feet; whilst the depth in the middle channel at low water does not exceed 9 feet, and in Lawford channel it does not exceed 10 or 11 feet. A lighthouse has been erected on the south point of Lighthouse Island, bearing from the middle of the bar of the ship channel W. N. W. ½ N. It is 80 feet high, having a revolving light, alternately brilliant and obscure, the period of obscuration being double that of brilliancy; but on approaching the light, the latter gains upon the former, and within 1$\frac{1}{2}$ league it is never wholly dark. The light may be seen in fine weather at from 3 to 4 leagues off. After getting into the channel, which is marked by the breakers and buoys on each side, the proper course for a ship to steer is to bring the lighthouse to bear N. W. by W., and stand direct for it till you get within the banks, when the course is N. by W. But it is unnecessary to enter into further details on these points, as all ships entering Charleston harbour are bound, provided they are hailed by a licensed pilot off the bar, to pay him full pilotage fees, whether they accept his services or not. In point of fact, however, they are always accepted; for the shifting of the sands, the influence of the tides, &c. render the entrance so difficult to those not perfectly familiar with it, that even the packet ships that sail regularly to and from New York uniformly heave-to without the bar for a pilot.—(See plan of Charleston Harbour, reduced from the original survey of Major H. Bache.)

Ships usually moor alongside quays or wharfs, where they are in perfect safety.

Shipping Charges.—The charges of a public nature paid by ships entering this port differ but little in amount on a native and a foreign ship. On a vessel supposed to be of 300 tons burden, entering, unloading, taking on board a mixed cargo and clearing out, they would be as under:—

	Doll.	Cts.	£	s.	d.
Fee on entry at the custom-house	2	60 or	0	11	1½
Surveyor's fee, on a foreign ship	5	00 =	1	1	4½
Ditto, on a native ship	3	00 =	0	12	9¾
Harbour master's fee	2	00 =	0	8	6½
Port warden's survey, when required	10	00 =	2	2	8½
Fees on clearance at the custom-house, of a native ship	3	50 =	0	14	11½
Ditto, of a foreign ship	2	70 =	0	11	6½
Pilotage inwards and outwards, supposing the ship to draw 14 ft. water	50	00 =	10	13	6½
Wharfage per diem	1	00 =	0	4	3¾

The difference in the fees on the clearance at the custom-house of a native and a foreign ship, is owing to the former being obliged to give certain bonds which are not required of the latter.

The greater or smaller tonnage of the ship makes no difference on any of the above charges except that of pilotage, which is in proportion to her draught of water, and is the same whether for a foreign or a native ship.

Rates of Commission.—The rates of commission or factorage usually charged and allowed at Charleston on transacting different sorts of business, are as follows, viz.—

For selling domestic produce, 2$\frac{1}{2}$ per cent.

For selling foreign merchandise, 5 per cent.

For guaranteeing either of these sales, 2$\frac{1}{2}$ per cent. additional is commonly allowed.

For purchasing with funds in hand, or drawing domestic bills for reimbursement, 2$\frac{1}{2}$ per cent.

For purchasing goods and drawing foreign bills for reimbursement, 5 per cent. is charged.

For the sale of real or personal estate, the regular charge is 5 per cent.; but where the property to be sold is of any considerable value, the parties in general enter into an agreement beforehand, and a much lower rate of commission is allowed.

CHART (Ger. *Seekarten*; Du. *Zeekarten*; Fr. *Cartes marines*; It. *Carte marine*; Sp. and Port. *Cartes de marear*) is properly applied to a projection of some part of the sea, as the term *Map* is to a portion of the land; wherefore charts are sometimes denominated "Hydrographical Maps." They are distinguished into several kinds, as plain, globular, and Mercator charts.

CHARTERPARTY, the name given to a contract in writing, between the owner or master of a ship and the freighter, by which the former hires or lets the ship, or a part of the ship, under certain specified conditions, for the conveyance of the goods of the freighter to some particular place or places. Generally, however, a charterparty is a contract for the use of the whole ship: it is in commercial law, what an indenture is at common law.

No precise form of words, or set of stipulations, is requisite in a charterparty. The forms subjoined to this article are those most commonly in use; but these may, and, indeed, in many cases must, be varied, to suit the views and intentions of the parties.

A charterparty is generally under seal: but sometimes a printed or written instrument is signed by the parties, called a *memorandum of a charterparty*; and this, if a formal charterparty be not afterwards executed, is binding. The stamp in either case is the same.

Charterparties, when ships are let or hired at the place of the owners' residence, are generally executed by them, or some of them; but when the ship is in a foreign port, it must necessarily be executed by the master, and the merchant or his agent, unless the owners have an agent in such port, having proper authority to act for them in such matters.

A charterparty made by the master in his name, when he is in a foreign port in the usual course of the *ship's employment*, and, therefore, under circumstances which do not afford evidence of fraud; or when

it is made by him at home, under circumstances which afford evidence of the expressed or implied assent of the owners; is binding upon the latter. But, according to the law of England, no *direct* action can be maintained upon the instrument itself against the owners, unless it be signed and sealed by them, or unless they authorise the master (or agent, as the case may be) to enter into the contract, and unless it be distinctly expressed in the charterparty that he acts only as agent.

When a ship is chartered by several owners to several persons, the charterparty should be executed by each, or they will not be liable to an action for nonperformance. But if the charterparty be not expressed to be made between the parties, but runs thus—"This charterparty indented witnesseth, that C., master of the ship W., with consent of A. and B., the owners thereof, lets the ship to freight to E. and F.," and the instrument contains covenants by E. and F. to and with A. and B.; in this case A. and B. may bring an action upon the covenants expressed to be made with them; but unless they seal the deed, they cannot be sued upon it. This, therefore, is a very proper form.

The general rule of law adopted in the construction of this, as of other mercantile instruments, is, that the interpretation should be liberal, agreeable to the real intention of the parties, and conformable to the usage of trade in general, and of the particular trade to which the contract relates.

The charterparty usually expresses the burden of the ship; and by the famous French Ordinance of 1681, it is required to do so. According to Molloy (book ii. c. 4. § 8.), if a ship be freighted by the ton, and found of less burden than expressed, the payment shall be only for the real burden; and if a ship be freighted for 200 tons, or *thereabouts*, the addition of thereabouts (says the same author) is commonly reduced to *five* tons more or less; but it is now usual to say so many tons "register measurement."

The usual covenant, that the ship shall be seaworthy, and in a condition to carry the goods, binds the owners to prepare and complete every thing to commence and fulfil the voyage. But though the charterparty contained no such covenant, the owner of the vessel would be, at common law, bound, as a *carrier*, to take care that the ship should be fit to perform the voyage; and even though he should give notice, limiting his responsibility from losses occasioned to any cargo put on board his vessel, unless such loss should arise from want of ordinary care, &c., he would be liable if his ship were not seaworthy.—(See SEAWORTHY.)

In all maritime transactions, expedition is of the utmost consequence; for even by a short delay, the object or season of a voyage may be lost; and therefore, if either party be not ready by the time appointed for the loading of the ship, the other may seek another ship or cargo, and bring an action to recover the damages he has sustained.

The manner in which the owner is to lade the cargo is, for the most part, regulated by the custom and usage of the place where he is to lade it, unless there be any express stipulation in the charterparty with respect to it. Generally, however, the owner is bound to arrange the different articles of the cargo in the most proper manner, and to take the greatest care of them. If a cask be accidentally staved, in letting it down into the hold of the ship, the master must answer for the loss.

If the owner covenants to load a full and complete cargo, the master must take as much on board as he can do with safety, and without injury to the vessel.

The master must not take on board any contraband goods, whereby the ship or cargo may be liable to forfeiture and detention; nor must he take on board any false or colourable papers; but he must take and keep on board all the papers and documents required for the protection and manifestation of the ship and cargo by the law of the countries from and to which the ship is bound, by the law of nations in general, or by any treaties between particular states.

If the master receive goods at the quay or beach, or send his boat for them, his responsibility commences with the *receipt* in the port of London. With respect to goods intended to be sent coastwise, it has been held, that the responsibility of the wharfinger ceases by the delivery of them to the mate of the vessel *upon the wharf*. As soon as he receives the goods, the master must provide adequate means for their protection and security; for even if the crew be overpowered by a superior force, and the goods taken while the ship is in a port or river within the country, the master and owners are liable for the loss, though they may have committed neither fraud nor fault. This may seem a harsh rule; but it is necessary, to put down attempts at collusive or fraudulent combinations.

The master must, according to the terms of the charterparty, commence the voyage without delay, as soon as the weather is favourable, but not otherwise.

Sometimes it is covenanted and agreed upon between the parties, that a specified number of days shall be allowed for loading and unloading, and that it shall be lawful for the freighter to detain the vessel a farther specified time, on payment of a daily sum as *demurrage*.—(See DEMURRAGE.) If the vessel be detained beyond both periods, the freighter is liable to an action on the contract. The rate of demurrage mentioned in the charterparty will, in general, be the measure of the damages to be paid; but it is not the absolute or necessary measure; more or less may be payable, as justice may require, regard being had to the expense and loss incurred by the owner. When the time is thus expressly ascertained and limited by the terms of the contract, the freighter is liable to an action for damages if the thing be not done within the time, *although this may not be attributable to any fault or omission on his part*; for he has engaged that it shall be done.—(*Abbott on the Law of Shipping*, part iii. c. 1.)

If there has been any undertaking or warranty to sail with convoy, the vessel must repair to the place of rendezvous for that purpose; and if the master neglect to proceed with convoy, he will be answerable for all losses that may arise from the want of it.

The owners or master should sail with the ship for the place of her destination with all due diligence, and by the usual or shortest course, unless in cases of convoy, which the master must follow as far as possible. Sometimes the course is pointed out in the charterparty. A *deviation* from the usual course may be justified for the purpose of repairs, or for avoiding an enemy or the perils of the seas, as well as by the sickness of the master or mariners, and the mutiny of the crew.

By an exception in the charterparty, not to be liable for injuries arising from the act of God and the king's enemies, the owner or master is not responsible for any injury arising from the sea or the winds, unless it was in his power to prevent it, or it was occasioned by his imprudence or gross neglect. "The question," said Lord Mansfield, in an action brought by the East India Company, "is, whether the owners are to pay for the damage occasioned by the storm, the act of God; and this must be determined by the intention of the parties, and the nature of the contract. It is a charter of freight. The owners let their ships to hire, and there never was an idea that they insure the cargo against the perils of the sea. What are the obligations of the owners which arise out of the fair construction of the charterparty? Why, that they shall be liable for damages incurred by their own fault, or that of their servants, as from defects in the ship, or improper stowage, &c. If they were liable for damages occasioned by storms, they would become insurers." The House of Lords confirmed this doctrine by deciding (20th of May, 1788) that the owner is not liable to make satisfaction for damage done to goods by storm.

The charterer of a ship may lade it either with his own goods, or, if he have not sufficient, may take in the goods of other persons, or (if not prevented by a clause to that effect in the charterparty) he may wholly underlet the ship to another.—(For further details, see *Abbott on the Law of Shipping*, part iii. c. 1.; *Chitty's Commercial Law*, vol. iii. c. 9., &c.; and the articles BILL OF LADING, FREIGHT, MASTER, &c. in this Dictionary.)

Forms of Charterparties.

The following is one of the most usual forms of a charterparty:—

THIS charterparty, indented, made, &c., between A. B., &c., mariner, master, and owner of the good ship or vessel, called, &c., now riding at anchor, &c., of the burthen of 200 tons, or thereabouts, of the one

part, and C. D. of, &c., merchant, of the other part, witnesseth, that the said A. B., for the consideration hereinafter mentioned, hath granted, and to freight letten, and by these presents doth grant, and to freight let, unto the said C. D., his executors, administrators, and assigns, the whole tonnage of the hold, stern-sheets, and half-deck of the said ship or vessel, called, &c., from the port of London, to, &c., in a voyage to be made by the said A. B. with the said ship, in manner hereinafter mentioned, (that is to say,) to sail with the first fair wind and weather that shall happen after, &c. next, from the port of London with the goods and merchandise of the said C. D., his factors or assigns, on board, to, &c. aforesaid, (the act of God, the king's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind, in so far as ships are liable thereto, during the said voyage, always excepted,) and there unlade and make discharge of the said goods and merchandises; and also shall there take into and on board the said ship again, the goods and merchandises of the said C. D., his factors or assigns, and shall then return to the port of London with the said goods, in the space of, &c. limited for the end of the said voyage. In consideration whereof, the said C. D., for himself, his executors, and administrators, doth covenant, promise, and grant, to and with the said A. B., his executors, administrators, or assigns, by these presents, that the said C. D., his executors, administrators, factors, or assigns, shall and will well and truly pay, or cause to be paid, unto the said A. B., his executors, administrators, or assigns, for the freight of the said ship and goods, the sum of, &c. (or so much per ton,) within twenty-one days after the said ship arrived, and goods returned, and discharged at the port of London aforesaid, for the end of the said voyage; and also shall and will pay for demurrage, (if any shall be by default of him, the said C. D., his factors or assigns,) the sum of, &c. per day, daily, and every day, as the same shall grow due. And the said A. B., for himself, his executors and administrators, doth covenant, promise, and grant, to and with the said C. D., his executors, administrators, and assigns, by these presents, that the said ship or vessel shall be ready at the port of London to take in goods by the said C. D., on or before, &c. next coming. And the said C. D., for himself, his, &c., doth covenant and promise, within 10 days after the said ship or vessel shall be thus ready, to have his goods on board the said ship, to proceed on in the said voyage; and also, on arrival of the said ship at, &c., within, &c. days to have his goods ready to put on board the said ship, to return on the said voyage. And the said A. B., for himself, his executors and administrators, doth further covenant and grant, to and with the said C. D., his executors, administrators, and assigns, that the said ship or vessel now is, and at all times during the voyage shall be, to the best endeavours of him, the said A. B., his executors and administrators, and at his and their own proper costs and charges, in all things made and kept stiff, staunch, strong, well-apparelled, furnished, and provided, as well with men and mariners sufficient and able to sail, guide, and govern the said ship, as with all manner of rigging, boats, tackle, and apparel, furniture, provision, and appurtenances, fitting and necessary for the said men and mariners, and for the said ship during the voyage aforesaid. In witness, &c.

The great variety of circumstances under which different voyages are made produce a corresponding diversity in charterparties. The charterparty of which the following is a copy affords a good example of the more complex species of these instruments.

It is this day mutually agreed between Mr. T. B. Rann, owner of the good ship or vessel called the Mermaid, William Henniker, master, of the measurement of 472 tons, or thereabouts, now in the river Thames, and Mr. David Thomson, of the firm of Messrs. Thomson, Passmore, and Thomson, of Mauritius, merchants, that the said ship, being tight, staunch, and strong, and every way fitted for the voyage, shall, with all convenient speed, sail and proceed to Calcutta, with leave to take convicts out to New South Wales, and from thence troops, merchandise, or passengers, to the aforementioned port of Calcutta, with leave to touch at Madras on her way thither, if required on owner's account, or so near thereunto as she may safely get, and there load, from the factors of the said merchants at Calcutta, a full and complete cargo of rice, or any other lawful goods which the charterer engages to ship, and proceed with the same to Port Louis, in the Isle of France, and deliver the same free of freight; afterwards load there a full and complete cargo of sugar in bags, or other lawful merchandise of as favourable tonnage, which the charterer engages to ship, not exceeding what she can reasonably stow and carry over and above her tackle, apparel, provisions, and furniture; and, being so loaded, shall therewith proceed to London, or so near thereunto as she may safely get, and deliver the same on being paid freight, viz. for such quantity of sugar equal to the actual quantity of rice, or other goods, that may be shipped at Calcutta, at the rate of 5*l*. 12*s*. 6*d*. per ton of 20 cwt. nett, shipped there; and should the vessel deliver more nett sugar in the port of London than the quantity of rice, or other goods, actually shipped in Calcutta, the owners to be paid on the excess at the regular current rate of freight for sugar which other vessels, loading at the same time at Port Louis, receive; the tonnage of the rice, wheat, or grain, to be reckoned at 20 cwt. nett per ton; that of other goods at the usual measurement (the act of God, the king's enemies, fire, and all and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, during the said voyage, always excepted). The freight to be paid on unloading and right delivery of the cargo, as is customary in the port of London. Ninety running days are to be allowed the said merchant (if the ship is not sooner despatched) for loading the ship at Calcutta, discharging the cargo at Port Louis, and loading the cargo there; the said lay days to commence on the vessel being ready to receive cargo, the master giving notice in writing of the same at Calcutta, and to continue during the loading there; and from the time of her arrival at Port Louis, and being ready to discharge, till the final loading at that port, and to be discharged in the port of London with all possible despatch; and 20 days on demurrage over and above the said laying days, at 12*l*. per day. Penalty for non-performance of this agreement, 4,000*l*. The cargo to be brought to and taken from alongside at the expense and risk of the merchants. The necessary cash for the disbursements of the vessel at Calcutta, not exceeding 350*l*., to be advanced by the charterer's agents; they taking the master's drafts on the owner for the same, at the regular current rate of exchange, and at three months' sight; and if the said bills be not regularly accepted and paid when due, the same to be deducted from the freight payable by this charterparty. The vessel to be disbursed at Port Louis by the chartering agents; sum not to exceed 300*l*., free of commission; and the amount to be deducted from the freight at the final settlement at the port of London. Captain not to ship goods without consent. In the event of the ship being prevented, by damage or any other cause, reaching the Mauritius on or before the 1st day of January, 1843, the charterer or his agents shall be at liberty to employ the vessel for one or two voyages to Calcutta, at the rate of 2*l*. per ton of rice, or other goods, delivered at Mauritius. Fifty running days, to load and discharge, to be allowed on each voyage; it being understood that the charterer or his agents shall load the ship, as before agreed, either at the end of the first or second voyage, as the case may be. The freight on the intermediate voyages (if any) to be paid on delivery of the cargo, in cash, or by bills on London at usance, at the option of the master. The vessel to be addressed, both at Calcutta and Isle of France, to the agents of the charterer. In witness whereof, the said parties have hereunto set their hands and seals, at London, the 2d day of December, 1841.

Signed, sealed, and delivered, in the presence of (Signed) E. FORSYTH.

(Signed) THOS. B. RANN, (L.S.)
D. THOMSON, (L.S.)

Stamp Duty on Charterparties. — The statute 55 Geo. 3. c. 184. enacts, that any charterparty, or any agreement or contract for the charter of any ship or vessel, or any memorandum, letter, or other writing, between the captain, master, or owner of any ship or vessel, and any other person, for or relating to the

freight or conveyance of any money, goods, or effects, on board of such ship or vessel, shall be charged with a duty of 1*l.* 15*s.*

And when the same, together with any schedule, receipt, or other matter, put or indorsed thereon, or annexed thereto, shall contain 2,160 words or upwards, then for every entire quantity of 1,080 words contained therein over and above the first 1,080 words, there shall be charged a further *progressive* duty of 1*l.* 5*s.*

CHAY OR CHOY ROOT, the roots of a small biennial, rarely triennial, plant, growing spontaneously in light, dry, sandy ground near the sea; and extensively cultivated, especially on the coast of Coromandel. The cultivated roots are very slender, and from 1 to 2 feet in length, with a few lateral fibres; but the wild are shorter, and supposed to yield one fourth part more of colouring matter, and of a better quality. The roots are employed to dye the durable reds for which the Indian cotton yarn and chintzes have been long famous, and which can only be equalled by the Turkey red.

Chay root forms a considerable article of export from Ceylon. Only a particular set of people are allowed to dig it. It used to be all bought up by government, who paid the diggers a fixed price of 75 or 80 rix-dollars a candy, and sold it for exportation at about 175 rix-dollars. — (*Bertolacci's Ceylon*, p. 270.)

This root has been imported into Europe, but with no success. Dr. Bancroft suspects it may be injured by the long voyage; but he adds, that it can produce no effect which may not be more cheaply produced from madder. It is a very bulky article, and is consequently burdened with a very heavy freight. — (*Permanent Colours*, vol. ii. pp. 282—303.)

CHECKS, CHEQUES, OR DRAFTS, are orders addressed to some person, generally a banker, directing him to pay the sum specified in the check to the person named in it, or bearer, on demand. The following is the usual form:—

£100. *London, 10th November, 1853.*

Pay A. B. Esq., or bearer, One Hundred Pounds on account of

Messrs. Jones, Loyd, and Co. C. D.

In point of form, checks nearly resemble bills of exchange. They are assignable by delivery only; and are payable instantly on presentment, without any days of grace being allowed. But by the custom of London, a banker has until 5 of the afternoon of the day on which a check is presented for payment, to return it; so that where a check was returned before 5, with a memorandum of "cancelled by mistake" written under it, it was held a refusal to pay. If a check upon a banker be lodged with another banker, a presentment by the latter at the clearing-house is sufficient. Checks are usually taken conditionally as cash; for unless an express stipulation be made to the contrary, if they be presented in due time and not paid, they are not a payment. It is difficult to define what is the due or reasonable time within which checks, notes, or bills should be presented. A man, as Lord Ellenborough has observed, is not obliged to neglect all other business that he may immediately present them: nevertheless it is the safest plan to present them without any avoidable delay; and if received in the place where payable, they had better be presented that day, or next at furthest. If a check be not presented within a reasonable time, the party on whom it is drawn will be justified in refusing to pay it; and the holder will lose his recourse upon the drawer. — (*Chitty on Commercial Law*, vol. iii. p. 591.; *Woolrych on Commercial Law*, c. 3. § 2, &c.)

In consequence of the alteration of the law, effected by the 16 & 17 Vict. c. 59., checks are now of two sorts, viz. those on unstamped or plain paper, and those on paper impressed with a penny stamp.

1. In plain checks the place of issue and the date of issue must be correctly stated; they must, also, be drawn upon bankers having their place of business within 15 miles of the locality where the checks are issued; and they must not be payable to order, but to bearer.

2. Checks on stamped paper enjoy sundry privileges. Thus it is not necessary to affix the date or the place of their issue; they may be drawn upon any one, whether banker or not; they may be issued at any distance from the place where they are to be paid; and they may be payable either to bearer or to order. If made payable to order, they must "purport to be indorsed" by the payee; but the party on whom they are drawn, provided he be a banker, is not bound to inquire whether such indorsement is genuine.

If the party on whom a stamped check payable to order is drawn be not a banker, his responsibilities are not affected by the late act; and we apprehend that to make himself secure he should be satisfied, before paying the check, of the authenticity of the signature of the payee.

CHEESE (Ger. *Käse*; Du. *Kaas*; Fr. *Fromage*; It. *Formaggio, Cacio*; Sp. *Queso*; Rus. *Sur*; Lat. *Caseus*), the curd of the milk separated from the whey, or pressed or

hardened. It has been used as an article of food from the earliest ages: vast quantities of it are consumed in Great Britain, and in most countries of Europe.

There is an immense variety of cheeses, the qualities of which depend principally on the richness and flavour of the milk of which they are made, and partly on the way in which they are prepared. England is particularly celebrated for the abundance and excellence of its cheese. Cheshire and Gloucestershire are, in this respect, two of its most famous counties; the cheese produced in the former has been estimated at 14,000 tons a year. There are two kinds of Gloucester cheese, double and single; the first is made of the milk and cream, the latter of the milk deprived of about half the cream. They are of various sizes, from 20 to 70 and even 80 lbs.; but they generally run from 50 to 60 lbs. A great deal of cheese is also made in that part of Shropshire which borders upon Cheshire, and in North Wiltshire. The former goes under the name of Cheshire cheese; the latter was, till lately, called Gloucestershire cheese: now it receives its appellation from the county where it is made. A strong cheese, somewhat resembling Parmesan, is made at Cheddar in Somersetshire. The celebrated rich cheese called Stilton, is made in Leicestershire, principally in the villages round Melton Mowbray. It is not reckoned sufficiently mellow for cutting unless it be two years old; and is not saleable unless it be decayed, blue, and moist. A rich cheese is also made at Leigh, in Lancashire. The other cheeses made in England, which have acquired a peculiar name, either from the quantity made, or from the quality, are the Derbyshire, Cottenham, and Southam cheeses. The last two are new milk cheeses, of a peculiarly fine flavour: the places where they are made are in Cambridgeshire. Bath and York are remarkable for their cream cheeses. The county of Warwick, and Banbury in Oxfordshire, are also remarkable for cheeses; the former for the quantity made in it, very large supplies being sent from it to London and Birmingham. Banbury cheese is distinguished for its richness.

Scotland is not celebrated for its cheese; the best is called Dunlop cheese, from a parish in Ayrshire, where it was originally manufactured. Dunlop cheeses generally weigh from 20 to 60 lbs. each; and are, in most respects, similar to those of Derbyshire, except that the latter are smaller. Cheeses made to resemble those of Dunlop are now extensively produced in other parts of Scotland.

Large quantities of very good cheese are produced in Holland. In the manufacture of Gouda cheese, which is reckoned the best made in Holland, muriatic acid is used in curdling the milk instead of rennet. This renders it pungent, and preserves it from mites. Parmesan cheese, so called from Parma in Italy, where it is manufactured, is merely a *skim-milk* cheese, which owes its rich flavour to the fine herbage of the meadows along the Po, where the cows feed. The best Parmesan cheese is kept for 3 or 4 years, and none is ever carried to market till it be at least six months old. Swiss cheese, particularly that denominated Gruyère, from the bailiwick of that name in the canton of Friburg, is very celebrated. Gruyère cheeses are made of skimmed or partially skimmed milk, and are flavoured with herbs. They generally weigh from 40 to 60 lbs. each, and are packed for exportation in casks containing 10 cheeses each.

According to Mr. Marshall, the average yearly produce of cheese from the milk of a cow in England is from 3 to 4 cwt., or more than double the weight of the butter. For further details, see *Statistical Account of British Empire*, i. 501. 3*d*. ed.

The duty on all descriptions of foreign cheese amounted, previously to 1842, to 10*s*. 6*d*. a cwt.; but in that year the duty on cheese imported from a British possession was reduced to 2*s*. 6*d*. a cwt. In 1843, the duties were fixed at 5*s*. a cwt. and 1*s*. 6*d*. per ditto respectively on cheese from foreign parts and from British possessions. And in 1853 the duties on cheese from a foreign country was further reduced to 2*s*. 6*d*. per cwt.

Of the total quantity of cheese imported in 1851, amounting to 338,982 cwts., no fewer than 84,316 cwts. were from the U. States; but in the following year the imports from the latter were much less considerable. In 1852, 279,528 cwt. foreign cheese were entered for consumption, producing a revenue of 70,001*l*.

CHERRIES, the fruit of a tree (*Prunus Cerasus*, Lin.) too well known to require any description.

They derive their name from Cerasus, a city of Pontus, whence the tree was brought by Lucullus, about half a century before the Christian æra. It soon after spread into most parts of Europe, and is supposed to have been carried to Britain about a century after it came to Rome. The principal supplies of cherries for the London market are brought from the cherry orchards in Kent and Herts. The wood of the cherry is close, takes a fine polish, and is not liable to split.—(*Rees's Cyclopædia; Loudon's Encyc. of Agriculture, &c.*)

CHESNUT, a forest tree (*Fagus castanea*) growing abundantly in most parts of the southern countries of Europe. It was at one time very common in England; and is still frequently met with. It is long lived; grows to an immense size; and is very ornamental. The wood is hard and compact; when young, it is tough and flexible; but when old, it is brittle, and often shaky. The chesnut contains only a very small proportion of sap-wood; and hence the wood of young trees is found to be superior to even the oak in durability. It is doubtful whether the roof of Westminster Hall be of oak or chesnut; the two woods being, when old, very like each other, and having been formerly used almost indifferently in the construction of buildings. A good deal of chesnut has been planted within the last thirty years.—(*Tredgold's Principles of Carpentry.*)

CHESNUTS (*Fr. Châtaignes*; Ger. *Kastanien*; It. *Castagne*; Sp. *Castanas*), the fruit of the chesnut tree. Chesnuts grow in this country, but are very inferior both in size and perfection to those imported from the South of Europe. In some parts of the Continent they are frequently used as a substitute for bread, and form a large proportion of the food of the inhabitants. This is particularly the case in the Limousin, in Corsica, and of several districts of Spain and Italy. The inhabitants of the Limousin are said to prepare them in a peculiar manner, which deprives them of their astringent and bitter properties. Chesnuts imported from Spain and Italy are frequently kiln-dried, to prevent their germination on the passage. In this country they are principally served up roasted at desserts.

The duty of 2*s*. a bushel on chesnuts, repealed in 1845, produced in 1842, 3,435*l*. 3*s*. 0*d*. nett, showing

that the consumption must have amounted to 34,351 bushels. In 1852, 54,030 bushels were imported, of which only 1,172 bush. were exported.

CHETWERT OR TSCHETWERT, a measure of corn in Russia, equal to 5·77 Imperial bushels; hence 100 chetwerts = 72·12 Imperial quarters.

CHICORY OR SUCCORY, the wild endive, or *Cichorium Intybus* of Linnæus. This plant is found growing wild on calcareous soils in England, and in most countries of Europe. In its natural state the stem rises from 1 to 3 feet high, but when cultivated it shoots to the height of 5 or 6 feet. The root, which runs deep into the ground, is white, fleshy, and yields a milky juice. In Germany, the Netherlands and France, chicory has long been extensively cultivated for the sake of its root, which is used as a substitute for coffee. When prepared on a large scale, the roots are partially dried, and sold to the manufacturers of the article, who wash them, cut them in pieces, kiln-dry them, and grind them between fluted rollers into a powder, which is packed up in papers containing from 2 oz. to 3 or 4 lbs. The powder has a striking resemblance to dark ground coffee, and a strong odour of liquorice. It is largely used in Prussia, Brunswick, and other parts of Germany; but as it wants the essential oil and the rich aromatic flavour of coffee, it has little in common with the latter, except its colour, and has nothing to recommend it except its cheapness.

Chicory was formerly raised to some extent in England as an herbage plant, its excellence in this respect having been much insisted upon by the late Arthur Young. Latterly, however, chicory has been largely substituted for coffee here as well as on the Continent; and as foreign chicory, when imported, formerly paid a duty of 6*d.* per lb., which is now reduced to 4*d.* per do., (to cease 10th October, 1854) while chicory raised at home has never paid any duty, its cultivation has rapidly extended. It has in fact been affirmed, by those best acquainted with the subject, that in 1850 the growth of British chicory was little, if at all, short of 12,500 tons! And the influence of this large supply of chicory in diminishing the consumption of coffee, and the revenue derived from it, has been strongly manifested during the last four or five years. (See COFFEE.) We need not, therefore, wonder that the chicory question, as it has been called, should have attracted a good deal of attention. But it does not appear to involve any real difficulty. If chicory be sold under its own proper name, there can be no fair objection to its culture, or to its being exempted from taxation. But if it be fraudulently sold under the name of coffee, which in truth and reality is the very purpose to which it has been applied, and used as a substitute for and a means of adulterating the latter, then there can be no question that justice to the coffee-growers and to the public requires that this abuse should be prevented, or that chicory should be subjected to the same duty as coffee. And yet singular as it may appear, the fraudulent substitution of chicory for coffee was in effect legalised by a Treasury Minute of the 4th of August, 1840. And though much objected to, this Minute was not rescinded till 1852, when a new Minute was issued, prohibiting the sale of coffee mixed with chicory; but allowing coffee dealers to sell the latter in parcels marked as such. But though a great improvement on the previous practice, this arrangement was said not to realise all the advantages that were expected. And after a good deal of further inquiry and discussion a fresh Minute was issued on the 25th February, 1853, permitting the sale of chicory mixed with coffee, provided the parcels containing such compound be labelled "MIXTURE OF COFFEE AND CHICORY." And notwithstanding the objections that have been taken to this Minute we do not well see what more can be required. It is illegal to sell coffee mixed with chicory without giving intimation that such is the case. But if parties aware of the circumstance prefer the mixture to pure coffee, it is merely an affair of taste, to the gratification of which, whatever we may think of it, there can be no good objection.

Supposing the consumption of chicory to amount to 12,500 tons a year, this quantity, had it been charged with the late coffee duty of 4*d.* and 1-5th per lb., would have produced about 500,000*l.* a year! And this sum is, consequently to be looked upon as a *bonus* paid by the public to encourage the growth of chicory and the practice of adulteration! But the duty on coffee being reduced to 3*d.* per lb., the bonus on chicory adulteration was, at the same time, reduced to 350,000*l.* a year; though even at this rate it was high time that something should be done in the matter.

CHILLIES (Hind. *Gas Murridge*; Javan. *Lombok*; Malay, *Chabai*), the pods or fruit of the *Capsicum annuum*, or Guinea pepper.

This is one of the hardiest and most productive plants found in tropical climates; growing luxuriantly in almost all dry soils, however indifferent. In the wild state the pods are small, and so pungent and acrid as to blister the tongue; but when raised on rich soils, they are large and comparatively mild. The plant is said to be a native of both Indies. It is very extensively cultivated; and, with the exception of salt, it is far more extensively used than any other condiment. In tropical countries, the pods are frequently made use of when unripe and green; when ripe, they become of a deep red colour; and in that state they are exported dry and entire, or reduced to powder—that is, to *Cayenne pepper*: which, when genuine, consists wholly of the ground pods of the *capsicum*.—(See PEPPER.)

CHINA ROOT (Ger. *Chinawurzel*; Du. *Chinawortel*; Fr. *Squine, Esquine*; Sp. *Raiz China, Cocolmeca*; Arab. *Rhubsinie*), the root of a species of climber (*Smilax China* Lin.). It comes from the West Indies as well as from China: but that from the latter is best. It is oblong and thick-jointed, full of irregular knots, of a reddish brown colour on the outside, and a pale red within; while new, it will snap short, and look glittering within; if old, the dust flies from it when broken, and it is light and kecky. It should be chosen large, sound, heavy, and of a pale red colour internally. It is of no value if the worm be in it.—(*Milburn's Orient. Commerce.*)

CHINA WARE. See PORCELAIN.

CHINTS OR CHINTZ (Fr. *Indiennes*; Ger. *Zitze*; It. *Indiane*; Rus. *Siz*; Sp. *Chites, Zaraza*), fine printed calico, first manufactured in the East Indies, but now largely manufactured in Europe, particularly in Great Britain.—(See CALICO.)

CHIP HATS. See HATS.

CHOCOLATE (Du. *Chocolade*; Fr. *Chocolat*; Ger. *Schokolate*; It. *Cioccolata*; Por. *Chocolate*; Rus. *Schokolad*; Sp. *Chocolate*), a kind of cake or confection, prepared

principally from the cocoa nut. The nuts are first roasted like coffee; and being next reduced to powder and mixed with water, the paste is put into tin moulds of the desired shape, in which it speedily hardens, being, when taken out and wrapped in paper, fit for the market. Besides cocoa, the Spanish use vanilla, sugar, maize, &c. in the preparation of chocolate. This article, though celebrated for its nutritious qualities, is but little used in Great Britain; a circumstance which is probably, in some considerable degree, ascribable to the fiscal regulations to which it has been subjected. Its importation used, indeed, to be prohibited; and though this prohibition no longer exists, yet, as the duties on it are proportionally heavier than upon cocoa, we manufacture at home almost all that is required for our consumption. British chocolate is said to be very largely adulterated with flour and Castile soap. — (See *Edward's West Indies*, vol. ii. p. 364. ed. 1819.; and the art. Cocoa.) Of 30,242 lbs. chocolate imported in 1857, 28,639 lbs. were entered for consumption. Duty 2*d.* per lb.

"Alike easy to convey and employ as an aliment, it contains a large quantity of nutritive and stimulating particles in a small compass. It has been said with truth, that in Africa, rice, gum, and *shea* butter, assist man in crossing the deserts. In the New World, chocolate and the flour of maize have rendered accessible to him the table lands of the Andes and vast uninhabited forests."—*Humboldt's Pers. Nar.* vol. iv. p. 234. Eng. trans.

CHRISTIANIA, the capital of Norway, situated at the bottom of a fiord or gulph, in the province of Aggerhuus; in lat. 59° 55½′ N., long. 10° 48¾′ E. Population in 1855, 38,958. Christiania is about 60 miles from the open sea: the gulph is in some places very narrow, and its navigation somewhat difficult; but it is sufficiently deep for the largest vessels, having 6 or 7 fathoms water close to the quay. It is compulsory on all ships to take a pilot on board at the mouth of the bay. The trade of the town is considerable. The principal exports are timber and deals, which are largely imported into the U. K.; glass, particularly bottles; iron and nails, bones, smalts, oak bark, &c. Salted and pickled fish, one of the staple products of Norway, is principally exported from Bergen. The deals of Christiania have always been in the highest estimation; a consequence of the excellence of the timber, and of the care with which the sap-wood and other defective parts are cut away; and not, as Mr. Coxe seems to have supposed, of the skilful sawing of the plank. The saw mills were formerly licensed to cut a certain quantity only, and the proprietors were bound to make oath that it was not exceeded.—(*Coxe's Travels in the North of Europe*, 5th edit. vol. iv. p. 28.) This absurd regulation no longer exists. There are far fewer restrictions on industry and commerce in Norway than in Sweden. In the former, British manufactured goods are admitted on moderate duties, and are very generally made use of. The principal articles of import are colonial produce; iron and hardware; machinery; woollen, linen, and cotton goods; coals, butter, wine, brandy, &c.; corn is sometimes extensively imported. We subjoin

Account of the Quantities and Values of the Principal Articles of British and Irish Produce and Manufacture exported from the U. K. to Norway, in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apparel, slops, and haberdashery . . value					43,899	72,818	59,768	51,441
Coals, cinders, and culm . tons	88,668	100,774	115,776	118,067	38,841	43,786	49,919	52,487
Copper, wrought and unwrought . . cwts.	604	840	1,476	1,237	3,685	4,788	7,737	9,948
Cottons: entered by the yard yds.	2,403,811	2,741,333	2,660,089	1,609,741	39,917	44,308	48,431	29,481
,, ,, at value . value					1,703	2,594	2,603	2,613
Cotton yarn . . lbs.	1,502,390	1,204,284	634,900	229,083	55,053	46,606	27,404	9,831
Earthenware and porcelain value					10,953	12,109	11,210	10,457
Hardwares and cutlery . cwts.	3,901	3,824	6,106	6,552	23,973	25,136	30,720	28,152
Iron, wrought and unwrought, including unwrought steel tons	3,602	7,116	9,699	9,096	41,204	62,546	77,119	82,563
Leather, wrought and unwrought . . lbs.	42,515	74,574	50,812	13,138	3,951	4,912	3,611	1,339
Linens: entered by the yard yds.	348,536	401,738	302,429	356,463	16,390	21,511	15,129	18,096
,, ,, at value . value					5,420	6,022	5,098	4,374
Machinery: steam engines —					3,394	2,766	3,849	8,851
,, all other sorts —					15,324	25,120	42,790	21,266
Oil, linseed . . gallons	29,635	22,631	65,769	58,696	4,557	3,665	9,536	9,122
Painters' colours . . value					4,182	2,400	2,852	3,404
Salt . . . tons	6,315	4,334	7,188	4,955	4,541	2,643	4,490	2,544
Tin plates . . . value					5,067	3,366	2,522	3,207
Woollens: entered by the piece . pieces	25,962	30,954	24,202	22,200	44,604	49,559	34,021	33,808
,, by the yard . yards	192,107	135,521	234,214	446,412	9,643	7,961	15,555	36,901
Total value of the above and of all other articles . £					402,290	487,160	488,489	441,704

Our imports from Norway in 1857 were valued at 842,053*l.*, of which the value of timber, spars, &c. amounted to no less than 707,134*l.*

Customs Regulations. — Within 24 hours after a vessel has got to her moorings, the master should deliver to the collector his general report as to ship and cargo, or present the requisite documents for having such report made out with the assistance of a ship broker, whose services masters of foreign vessels cannot entirely dispense with. On making this general report, the measuring bill is to be exhibited, and payment of the tonnage and other dues inward is to be made. If the ship have not been previously measured in Norway, and is, consequently, not provided with a Norwegian measuring bill, she is to be measured, to ascertain her burden in Norwegian commercial lasts, for the calculation of the tonnage duty.

The general report having been made, the Custom-house officers in charge of the vessel are furnished with the books for delivery, and the discharge of the cargo commences under their inspection; and the consignees may make their special reports under their responsibility and signature. If they are without precise information as to the contents of any or all of the packages or bales to their address, these bales or packages may, at their request, be opened in the presence of the officers before report is made. If a consignee omits availing himself of this permission, his pretending thereafter, that more or other goods than he had ordered, or been advised of, have been sent to his address, will not be attended to. In the reports or entries is to be stated, whether it is intended to pay the duties forthwith, whether the goods are intended for exportation, or whether they are to be landed.

Prior to commencing loading outwards, the master is to give verbal notice of his intention at the Custom-house. If he have no Norwegian measuring bill, the vessel is to be measured. This being done, the shipper or shippers of the outward bound cargo, are each of them to make their special entries as to the quality, weight, and measure of the goods they mean to load. A copy of such entries is to be deposited at the Custom-house, and the loading commences under the control of the officers. This applies to all mixed cargoes; but if the outward bound cargo consist exclusively of wood, the shipper or shippers are only to notify that they intend loading wood, without specifying quantity, measure, &c., as the export duty on wood is charged according to the burden of the vessel. When the master clears outwards, he produces the proper documents for showing the burden of his vessel, and to what port she belongs, and he is then, on proper application being made, provided with a pilot, who takes his vessel to sea.

Warehousing. — In Norway, goods brought from abroad may be bonded or warehoused, with a view to their being again exported at some future period. Goods entered for home consumption may also be bonded for a certain period, in order to facilitate the payment of the duties.

The former is called "*transit oplag*," that is, depositing or warehousing goods for exportation, subject to transit duties only. The latter is called "*credit oplag*," that is, warehousing or bonding on credit.

1. *Transit Oplag.* — Under this system, goods from abroad may be warehoused for exportation free of import duty, paying on exportation a transit duty, which, in most cases, is 1-10th of what they would pay if entered for home consumption. If the goods are deposited in the Custom-house warehouses, they lie free of rent or dues during 14 days, and if in private warehouses, under the key and seal of the customs, during 6 months. If they remain long, viz. beyond 14 days in the one, and beyond 6 months in the other case, they pay rent or dues equa to 1-8th of the transit duty per month; which, after the lapse of 3 *months*, as regards goods in the Custom-house warehouses, is increased to 1-4th of the transit duty per month.

2. *Credit Oplag.* — This system allows most goods imported from abroad to be placed in the owner's or importer's own warehouses, under his own lock, free of duty, for a given time, on his reporting to the customs, every 3 months, how much he has sold, otherwise consumed, or exported, and then paying the duty on such amount; the Custom-house officers, who are bound quarterly to examine the goods, convincing themselves, by ocular demonstration, that no more is missing than the quantity reported to have been taken away.

This credit on the duties in no case to exceed 2 years from the time the goods were imported.

By way of security for payment of the duties on which the credit is granted, government reserve to themselves —

1. Priority of mortgage on all the goods in question.

2. Priority for their claim, in the property, goods, and effects of every description belonging to the trader availing himself of this credit, in as far as such property is not previously legally mortgaged.

3. Liberty for the Custom-house officers, when and as often as they shall deem it expedient, between the stated quarterly inspection, to look over the stock on hand, with a view of ascertaining whether there remains sufficient value for the duties; and if they see reason to doubt this, full right, in default of other satisfactory security being offered, to seize the stock, and to sell the whole, or as much as shall cover the duties.

4. In case of death or failure of the party, an equal right to sell forthwith the whole of his stock at public auction, and to retain as much of the proceeds as shall cover the duties; and in case of deficiency, an established claim for the remainder on the estate of the deceased or bankrupt, as the case may be.

In charging the duties, no allowance is made for waste or damage in the warehouses.

The warehouse rent charged on goods bonded under the transit system, in the Custom-house warehouses, is as follows:

	s.	d.	
On a quarter of wheat, for the first 3 months	0	0·5538	per month
Afterwards	0	1·1076	—
On a ton of raw sugar, for the first 3 months	0	11·5384	per month
Afterwards	1	11·0769	—

Money, Weights, and Measures.—In Norway there are no gold coins. The principal silver coin, called a species dollar, is divided into 120 skillings. There are, also, half species, or 60 skilling pieces; 1-5th species, or 24 skilling pieces; 1-15th species, or 8 skilling pieces; and what is denominated skillemynt, or small change — that is, 4 and 2 skiling pieces. The species dollar contains 390·58 Eng. grs. pure silver, and is consequently worth 4*s.* 6½*d.* sterling, the par of exchange being 4 species dollars 42 6-17 skill. = 1*l.* All Norway coins, except the small change, are alloyed with 1-7th copper, so that the species dollar weighs 448·38 Eng. grs., and its divisions in proportion. Small change coins are alloyed with three times their weight of copper. There are ½ and 2 skilling pieces of copper.

Weights and Measures, same as at COPENHAGEN; which see.

Shipping Charges. — The various charges of a public nature payable by a ship of about 300 tons burden, entering the port of Christiania with a mixed cargo on board, unloading there, taking on board another cargo, and clearing out, are as follows —

	£	s.	d.
1. *Charges Inwards.* — Pilotage from Farder, at the mouth of Christiania Bay, where all ships must take a *pilot* on board	2	2	2
Bill of health, assuming that the crew, including the master, consists of 14 persons	0	17	9
Tonnage dues and light money	9	16	
Brokers' fees	1	5	4
	£14	2	0
2 *Charges Outwards.* — Pilotage	0	9	2
Castle dues	0	1	7
Muster roll of crew	1	0	5
Pale or stake money	0	3	2
Measuring bill	2	4	5
Charity chest	0	1	7
Tonnage dues and light money	10	11	1
Highholm light	0	0	9
Pilotage to Farder	1	16	8
Brokers' fees	1	18	11
	£18	6	11

N.B. — There is no difference between the charges on native ships in Norwegian ports, and privileged foreign ships, that is, the ships of countries having reciprocity treaties with Norway; nor in the duties on goods imported by native ships and such privileged foreign ships. Great Britain is a privileged country.

The shipping of Norway has declined considerably of late years; a proof, if any such were wanting, of the groundlessness of the clamours kept up in this country as to the supposed pernicious influence of reciprocity treaties on our shipping.

Banking. — There are no private banking establishments in Norway; but there is a public bank, having its principal office at Dronthelm, with branches at Christiania, Bergen, and Christiansand. It was established by a compulsory assessment in 1816. Its capital consists of 2,000,000 species dollars, in transferable shares, divided amongst those who were forced to contribute to its formation. These shares are now at a premium of 30 per cent. Its managers are appointed by, and are accountable to, the Storthing or Norwegian parliament. It issues notes for 100, 50, 10, and so low as 1 species dollar. These notes should be payable in specie on demand; but they are at a discount of 35 per cent., and are paid by the bank at that rate. It discounts bills at 2 and 3 months date at 6 per cent. per annum; advances money on mortgage at 4 per cent.; and transacts the ordinary banking business of individuals. It does not allow interest on deposits.

Credit. — Goods are sold partly for ready money, and partly on credit, but principally the former.

Commission, &c. — The number of brokers in Christiania is limited to 4. Commission on the sale of goods, 2 per cent., or, *del credere* included, 3 per cent. Brokerage is fixed by law at 5-6ths per cent., which, in practice, is paid by the sellers.

Insurance. — All houses situated in Norwegian market towns must be insured in the General Insurance Company at Christiania, which is guaranteed by the state. The premium is moderate, being, on buildings situated in towns, 1-4th, and on those situated in the country, 1-8th per cent. Sometimes, however, when very destructive fires occur, it is raised.

Provisions, &c. — Christiania is not a favourable place for careening and repairing ships; but supplies of beef, bread, water, and other sea stores, may be had as cheap or cheaper than in any other port of Norway; but its distance from the sea is too great to allow of its being visited by ships desirous merely of victualling. — (We have derived these details from various sources, but principally from Consular Returns.

Timber. — A standard Christiania deal is 11 feet long, 1½ inch thick, and 9 inches broad; and 51·2 such deals make a load. Freight of deals from Norway to England is calculated at the rate of single deals, the standard measure of which for Christiania and all the southern ports of Norway, except Dram (a small town on the Drammen, about 20 miles S.W. of Christiania), is 11 feet long, and 1½ inch in thickness. A single deal from Dram is reckoned 10 feet long and 1½ inch thick.

Battens. — Three battens make 2 deals, retaining their own length and thickness. Half deals are only counted as deal ends, if they run under 6 feet; but if they run 6 or 7 feet long, then 2 half deals are counted a deal, retaining their own thickness.

Ends of Deals. — Four ends of deals, although 5 feet long, make but a deal 11 feet long, retaining their thickness, which the owners and captains of ships think unreasonable; but as the freighters of ships seldom wish to have this assortment, which commonly run from 3 to 5 feet, and are taken on board as stowage, consequently for the advantage of the ship and not the freighter, the ship ought to bear the burden.

Ends of Battens, called *Larvwick Pallings.* — No less than 6 ought to be counted a single deal, 11 feet long and 1½ inch thick.

Pale-boards, when they have their proper length, are 7 feet long; 3 pale-boards are counted a single deal.

Staves for hogsheads take up much room; in consequence of which more than 40 cannot be computed a single deal.

The width of deal is never noticed in the calculation of freight: a good deal ought to run 9 inches within the sap,

which not a twentieth part of a cargo does at present; but, though some may be above 9 inches wide, many are only 8, therefore one must make up for the other.

Timber or *Hemn Goods*, cannot be exactly computed according to the contents in deals, because it cannot be stowed in a ship in the same manner as deals; the freight is, therefore, agreed for by the lump, or according to the number of deals which the vessel may have taken on board on a former occasion.

One hundred deals = 120.
A ton = 40 solid feet of timber, cut to a square.
One load of balk, or timber, = 50 solid feet.
Two loads of timber are reckoned for 150 deals.

The several bills of lading contain together an exact account of the cargo which the captain has received on board his ship, consequently binding him to deliver according to their contents: when, therefore, the deals are mentioned as usual 9 and 10 feet, and 11 and 12 feet, he cannot insist on more freight than half of the length, according to its description.

One thousand Norway standard deals are reckoned equal to a keel of coals, which is 21 tons.

Bonsprits pay duty as masts; capravens are above 12 and under 18 inches in circumference at the middle, and without bark. Clapboard is exported in whole pieces and unquartered. Deals from Germany pass as Norway deals; spruce deals are upwards of 20 feet in length; deals from Norway, above 7 feet long, are counted as whole deals; above 5 feet, and not above 7 feet in length, are accounted as half deals, and two of them pass as one whole deal.

The difference between the Christiania and Dram standard being nearly 1-11th part, the freights to Dram ought to be varied proportionally. It has sometimes happened that ships both for Christiania and Dram have been in company, and those for Christiania have got up, loaded, and sailed, before the others for Dram have got over Dramstroom, which runs very strong down in the spring of the year.—(*Rordanz' European Commerce.*)

CHUNAM, the name given in India to lime. The best, obtained by the calcination of shells, is employed in the composition of BETEL—(which see), to prevent, it is said, its injuring the stomach.

CIDER, or CYDER (Fr. *Cidre*; Ger. *Zider, Apfelwein*; It. *Cidro*; Rus. *Sidor*; Sp. *Sidra*), the juice of apples expressed and fermented. The produce of the duty on cider and perry (the expressed and fermented juice of pears) amounted, in 1828, to 37,220*l.*; which, as the duty was 10s. a barrel, shows that the quantity produced and brought to charge must have amounted to 74,440 barrels, exclusive of what might be clandestinely manufactured. The perry is supposed to have amounted to about a fourth part of this quantity. The duty was repealed in 1830.—(See APPLES.) Perhaps the total produce of cider and perry may now be estimated at from 100,000 to 110,000 barrels.

CIGARS. See TOBACCO.

CINNABAR (Ger. *Zinnober*; Du. *Cinaber, Vermilioen*; Fr. *Cinnabre*; It. *Cinabro*; Sp. *Cinabrio*; Rus. *Kinowar*; Lat. *Cinnabrium*).

1. *Native Cinnabar*—a mineral substance, red, heavy, and brilliant. It is found in various places, chiefly in quicksilver mines, being one of the ores of that metal. The cinnabar of the Philippine Islands is said to be of the highest colour; but that of Almaden, in Spain, is the richest. The best native cinnabar is of a high colour, brilliant and free from earthy or stony matter.

2. *Artificial Cinnabar.*—"When two parts of mercury and one of sulphur are triturated together in a mortar, the mercury gradually disappears, and the whole assumes the form of a black powder, formerly called *Ethiops mineral*. When this mineral is heated red hot, it sublimes; and if a proper vessel be placed to receive it, a cake is obtained of a fine red colour. This cake was formerly called cinnabar; and, when reduced to a fine powder, is well known in commerce under the name of *vermillion*."—(*Thomson's Chemistry.*)

CINNAMON (Du. *Kaneel*; Fr. *Cannelle*; Ger. *Zimmet, Kanehl*; It. *Canella*; Lat. *Cinnamomum, Canella*; Por. *Canella*; Sp. *Canela*; Pers. and Hind. *Darchinie*; Arab. *Darsini*; Malay, *Kaimanis*; Greek, Κινάμον), the bark of the cinnamon tree (*Laurus cinnamomum*), a native of Ceylon, where it grows in great abundance Cochin China, and perhaps of some other countries. It is brought home in bags or bales weighing 92½ lbs. each; and, in stowing it, black pepper is mixed with the bales to preserve the cinnamon. The best cinnamon is thin and rather pliable: it ought to be about the substance of royal paper, or somewhat thicker; is of a light yellow colour, approaching nearly to that of Venetian gold; it is smooth and shining; fractures splintery; has an agreeable, warm, aromatic flavour, and a mild sweetish taste; when chewed, the pieces become soft, and seem to melt in the mouth; it is not so pungent but that it may be borne on the tongue without pain, and is not succeeded by any after taste. Whatever is hard, thick as a half-crown piece, dark-coloured or brown, or so hot that it cannot be borne, should be rejected. Particular care should be taken that it be not false packed, or mixed with cinnamon of an inferior sort.—(*Milburn's Orient. Comm.*; *Marshall's Essay*, quoted below.)

The cinnamon of Cochin China grows in the dry sandy districts lying N. W. of the town of Faifoe, between 15° and 16° N. lat. It is preferred in China to the cinnamon of Ceylon: the annual imports into Canton and other ports vary from 250,000 to 300,000 lbs. There are no fewer than 10 varieties of this species in the market. It is not cured, like that of Ceylon, by freeing it from the epidermis.—(*Crawfurd's Embassy to Siam, &c.* p. 475.)

Cinnamon Monopoly.—Down to 1833, the cultivation of cinnamon in Ceylon was restricted to a few gardens in the neighbourhood of Colombo; the production and sale of the article being wholly monopolised by government. Upon the transference of the island from the East India Company to the king's government, the former agreed to pay 60,000*l.* a year for 400,000 lbs. or 4,342½ bales of cinnamon: it being stipulated, that if the quantity collected exceeded this amount, *the surplus was to be burned!** But

* See an article by H. Marshall, Esq., staff surgeon to the forces in Ceylon, in *Thomson's Annals of Philosophy*, vol. x. p. 356.

this agreement was afterwards broken off; and the cinnamon was sent to England by government, and sold on its account at quarterly sales. The nett revenue derived from the cinnamon monopoly, in 1831, is said to have amounted to 127,961*l.* As the monopoly could not be enforced, except by confining the culture of cinnamon to certain districts, it necessarily led to the most oppressive interferences with the rights of individuals, to the creation of numberless imaginary offences, and the multiplication of punishments, forming a heavy drawback upon the prosperity of the island. A sense of these disadvantages led at length to the abolition of the monopoly system in 1833, when we ceased to be amenable to the charge of upholding, without improving, the worst part of the Dutch policy, and restored to the natives their right to cultivate cinnamon anywhere and in any way they think fit.

Duties on Cinnamon.—Unluckily, however, the abolition of the old monopoly system was accompanied by the imposition of the exorbitant duty of 3*s.* per lb. on all cinnamon exported, without distinction of quality, reduced in 1837 to 2*s.* 6*d.* on the 1st and 2nd qualities, and 2*s.* on the 3rd or lowest quality, and in 1841 to 2*s.* on all qualities. We took the liberty to animadvert as follows on this system in a former edition of this work: — "The natural cost of cinnamon does not, we believe, exceed 6*d.* or 8*d.* per lb.; but taking it at 1*s.*, the duty is no less than 200 per cent.! So enormous a tax, by confining the export of cinnamon within the narrowest limits, will go far to deprive the island of the advantages it would otherwise derive from the repeal of the monopoly, and will be, in all respects, most injurious. It is contended, in vindication of this oppressive tax, that Ceylon having a natural monopoly of cinnamon, it is sound policy to burden it with the highest duty it will bear; as the largest revenue is thus obtained at the least expense to the island. But, in addition to the cinnamon produced in Cochin China, and which it is more than probable will speedily find its way to the European markets, the extent to which cassia lignea is substituted for cinnamon, shows that the monopoly possessed by Ceylon is of trifling importance. And though it were otherwise, though cassia lignea did not exist, and cinnamon were to be found nowhere but in Ceylon, we should not the less object to so exorbitant an export duty. So long as it is maintained, it will confine within the narrowest limits, what might otherwise become an important branch of industry, and a copious source of wealth to the island.

"Under the old system, the produce of cinnamon in Ceylon amounted to about 500,000 lbs.; and it is not at all probable that the exports will materially increase under the new system; but had the duty varied from about 6*d.* per lb. on the best, to 3*d.* or 4*d.* on the inferior sorts, we have little doubt, now that the culture is free, that the exports would, at no very distant period, have amounted to a million pounds. It is the high price of cinnamon — a price not caused by its scarcity or the difficulty of its production, but by the oppressive monopolies and duties to which it has been subjected — that has made it be regarded as a luxury attainable only by the rich.

"Should the exports of cinnamon from Ceylon under the new plan amount to 500,000 lbs. a year, government will receive from it an annual revenue of 50,000*l.*; and supposing them to amount to 600,000 lbs., the revenue will be 60,000*l.* And to secure the immediate payment of this trifling sum, every ulterior consideration of profit and advantage has been sacrificed. It is, however, pretty clear that this short-sighted rapacity will be, in the end, no less injurious to the revenue, than to the industry and trade of the island. Were cinnamon allowed to be exported for a few years under a low duty, or till such time as the taste for it was fully diffused throughout this and other countries, it might then be easy, by gradually raising the duty, to obtain from it, without materially checking the consumption, a *large revenue;* at least 2 or 3 times more than it will ever produce under the present plan.

"Suppose that we had had the power effectually to monopolise the inventions by which Sir Richard Arkwright and others have so prodigiously facilitated the spinning of cotton; what would have been thought of the policy of those who should have proposed laying a duty on exported cotton equivalent to the peculiar advantages we enjoyed in their production? Had this been done, we should have got a *monopoly value* for our exports of cotton; but instead of amounting, as at present, to 30,000,000*l.* a year, they would not, under such a plan, have amounted to 200,000*l.*; and instead of affording subsistence for some 1,300,000 or 1,400,000 individuals, the cotton manufacture would not have supported 50 000! And yet this is the mischievous nostrum — for it would be an abuse of terms to call it a principle — on which we have proceeded to regulate the export of the staple product of Ceylon."

The experience of the last 10 years has more than confirmed the truth of these statements. Instead of increasing, as they certainly would have done but for the exorbitancy of the duty, the exports of cinnamon declined even below their amount during the monopoly. Notwithstanding the reduction of the duty in 1841 to 2*s.* per lb., the exports in that year amounted to only 323,461 lbs., producing a revenue of 33,111*l.*! This result was brought about, as we anticipated, partly by the high duty and its consequent high price restricting the demand for cinnamon; partly by the duty operating as a bar to introduce the culture of the plant into other places; and partly and principally by its encouraging the use of *cassia lignea* and other substitutes in the place of the genuine article.

"It does not," says Mr. Cook*, "admit of a doubt, that unless the export duty of 2*s.* per lb. payable on the shipment of cinnamon at Ceylon, be removed, the trade must speedily be annihilated. From 1798 to 1825 the cultivation was known in no other part of the world, and notwithstanding the impolicy even then of such an exorbitant charge, the trade was comparatively little affected; but in 1825 a successful attempt was made in Java by an experienced planter from Ceylon, and the shipments from that island, which, having since been annually increasing, are now estimated for this year (1842) at 117,000 lbs. at least, on which is levied a duty, on the value, of 4 per cent. only. The culture has also extended itself to Guiana and the West Indies; and, judging from a small parcel lately received from Jamaica, there can be no question it can be successfully produced in that quarter, and that a supply may at no distant period confidently be expected from thence, the duty there being only 2½ *per cent.* From Cochin China, Malabar, &c. large quantities will also doubtless ere long find their way to Europe, their produce being comparatively free from fiscal charges. It is therefore evident that Ceylon cinnamon cannot, under existing circumstances, withstand the competition of that of other countries; and if the merits of the question were understood by the government, this interesting trade would assuredly be no longer suffered to remain in its present anomalous state. Indeed Ceylon cinnamon, independently of other adverse influences, would be very soon driven out of the European markets by the increased use of cassia lignea as a substitute. The question of revenue will no doubt engage the attention of government, the cinnamon duty having yielded in 1833 as much as 160,000*l.*, or about half the revenue of the island; whereas in 1841 the governor estimated it at 47,000*l.* only, and it is doubtful if it will realise even this much,—(in fact it only realised 33,111*l.*); so that the levying an impost so oppressive has proved as injurious to the collection of revenue as to the prosperity of the trade."

Such conclusive statements could not be disregarded, and in 1844 the export duty on cinnamon was reduced to 1*s.* But even this was a great deal too high; and it soon

* Of the firm of Trueman and Cook, brokers.

became evident that the culture of the plant had taken such firm root in Java and elsewhere, and that the public taste had become so habituated to cassia and other substitutes, that the Ceylon planters would with difficulty maintain their ground, even if the duty were wholly repealed. And after being reduced to 4*d.* in 1848, it was finally suppressed in 1853. But it had continued long enough to inflict irreparable injury on the trade. The exports have, indeed, increased, though not very materially; but the quality of the spice has deteriorated, and now principally consists of the coarser and inferior varieties; so that, though the quantities exported are greater than formerly, their value is less. The consumption of the spice has not increased in the U. K.

This brief notice of the legislation in regard to cinnamon affords an instructive and striking example of the risk attending the imposition of duties on the exportation of articles for which substitutes may be found, or that may be raised elsewhere. Had no duty been laid on the export of cinnamon in 1833, when the monopoly was set aside, it is all but certain that its production would have been incomparably greater than at present, and that it would have formed an important as well as interesting branch of Ceylonese industry.

The imports of cinnamon from Ceylon into the U. K. have been:—

1845	624,856* lbs.	1856	724,632 lbs.
1850	688,237* „	1857	686,875 „
1855	695,153* „		

The years marked thus * include a few pounds weight from other places than Ceylon, but they are inconsiderable. The duty on cinnamon from a British possession, after being constant from 1840 at 3$\frac{3}{20}$*d.* per lb., was reduced in 1853 to 2*d.* per lb., from whatever quarter it might be imported. The annual entries for consumption vary between 30,000 and 60,000 lbs. In 1856 they amounted to 56,815 lbs., and in 1857 to 39,343 lbs. In the article COLUMBO we have given an account of the exports of cinnamon from Ceylon since 1840. And, for ample details on this subject, see Sir James Emerson Tennent's excellent work on Ceylon.

CINQUE PORTS. These are ancient trading towns, lying on the coast of Kent and Sussex, which were selected, from their proximity to France, and early superiority in navigation, to assist in protecting the realm against invasion, and vested with certain privileges by royal charter.

"The ports so privileged, as we at present account them, are Dover, Sandwich, Romney, Hastings, Hythe, and the two ancient towns of Winchelsea and Rye; although the two latter places appear to have been originally only members. The services which they were appointed to perform were either honorary, viz. assisting at the coronation and sending members to parliament; or auxiliary to the defence of the realm, as furnishing a certain supply of vessels and seamen, on being summoned to that service by the king's writ.

"In process of time the Cinque Ports grew so powerful, and, by the possession of a warlike fleet, so audacious that they made piratical excursions in defiance of all public faith; on some occasions they made war, and formed confederacies as separate independent states. It seems, however, that these irregularities were soon suppressed, when the government was strong, and sufficiently confident to exert its powers. So long as the mode of raising a navy by contributions from different towns continued, the Cinque Ports afforded an ample supply; but since that time their privileges have been preserved, but their separate or peculiar services dispensed with. Their charters are traced to the time of Edward the Confessor; they were confirmed by the Conqueror, and by subsequent monarchs. William the Conqueror, considering Dover Castle the key of England, gave the charge of the adjacent coast, with the shipping belonging to it, to the constable of Dover Castle, with the title of Warden of the Cinque Ports; an office resembling that of the Count of the Saxon coast (*Comes litoris Saxonici*) on the decline of the Roman power in this island. The lord warden has the authority of admiral in the Cinque Ports and its dependencies, with power to hold a court of admiralty; *he* has authority to hold courts both of law and equity; is the general returning officer of all the ports,—parliamentary writs being directed to him, on which he issues his precepts; and, in many respects, he was vested with powers similar to those possessed by the heads of counties palatine. At present the efficient authority, charge, or patronage of the lord warden is not very great; the situation is, however, considered very honourable, and the salary is 3,000*l.* He has under him a lieutenant and some subordinate officers; and there are captains at Deal, Walmer, and Sandgate Castles, Archcliff Fort, and Moats Bulwark.

"There is an exclusive jurisdiction in the Cinque Ports (before the mayor and jurats of the ports), into which exclusive jurisdiction the king's ordinary writ does not run; that is, the court cannot direct their process immediately to the sheriff, as in other cases. In the Cinque Ports, the process is directed to the governor of Dover Castle, his deputy or lieutenant. A writ of error lies from the mayor and jurats of each port to the lord warden of the Cinque Ports, in his court of Shepway, and from the court of Shepway to the King's Bench; a memorial of superiority reserved to the crown at the original creation of the franchise; and prerogative writs, as those of habeas corpus, prohibition, certiorari, and mandamus, may issue, for the same reason, to all these exempt jurisdictions, because the privilege, that the king's writ runs not, must be intended between party and party, and there can be no such privilege against the king."—(*Chitty's Commercial Law*, vol. ii. p. 12.)

CITRON (Ger. *Succade*; Da. *Sukkat*; It. *Confetti di cedro*; Sp. *Acitron verde*; Fr. *Citronat verd*), an agreeable fruit, resembling a lemon in colour, smell, and taste. The principal difference lies in the juice of the citron being somewhat less acid, and the yellow rind being somewhat hotter, and accompanied with a considerable bitterness.—(*Lewis's Mat. Med.*) It is imported, preserved and candied, from Madeira, of the finest quality.

CIVET (Ger. *Zibeth*; Du. *Civet*; Fr. *Civette*; It. *Zibetto*; Sp. *Algalia*), a perfume taken from the civet cat. It is brought from the Brazils, Guinea, and the interior of Africa. When genuine, it is worth 30*s.* or 40*s.* an ounce.

CIVITA VECCHIA, a fortified sea-port town of the papal dominions, on the Mediterranean, lat. 42° 4′ 38″ N., lon. 11° 44′ 52″ E. Population 10,000.

Harbour.—The port of Civita Vecchia is artificial, and is formed by three large moles. Two of them projecting from the mainland, inclined one to the north and the other to the south, form the sides of the harbour; while a third mole, or breakwater, constructed opposite to the gap between the other two, serves to protect the harbour from the heavy sea that would otherwise be thrown in by the westerly gales. A lighthouse, having the lantern elevated 74 feet above the level of the sea, is erected on the southern extremity of the outward mole; the distance from its extremities to the extremities of the lateral moles, on which there are towers, being about 90 fathoms. Vessels may enter either by the south or north end of the outer mole, but the southern channel is the deepest, having from 8 to 6 and 4 fathoms. Ships may anchor within the port, in from 16 to 18 feet water; or between it and the outer mole, where the water is deeper. Within the port there is a dock and an arsenal.—(*Plan of Civita Vecchia.*)

Historical Notice.—This harbour, which is by far the best on the western side of the papal dominions, owes its origin to the Emperor Trajan, and affords the most unequivocal proof, not of his power merely, but of his sagacity and desire to promote the interests of commerce and navigation. There is in one of Pliny's Letters (lib. vi. epist. 31.) a clear and interesting account of this great work, which has obviously been planned and constructed with equal skill and judgment. The outer mole was mostly formed, precisely like the breakwater at Plymouth, by sinking immense blocks of stone in o the sea, which became fixed and consolidated by their own weight, till by degrees it was raised above the waves. (*Assurgit autem arte visenâ: ingentia saxa latissima navis provehit. Contra hæc alia super alia dejecta ipso pondere manent, ac sensim quodam velut aggere construuntur.*) Originally it was called *Trajanus Portus*, and it is to be regretted that it did not always bear the name of its illustrious founder. But in the latter ages of the Roman empire it was called *Centum Cellæ*, and in modern times *Civita Vecchia.*—(*Cellarii Notitia Orbis Antiquæ*, i. p. 734.)

Money.—Accounts are kept here, and throughout the papal states, in crowns or *scudi*, called scudi Romani and scudi moneta. 1 *scudo* = 10 *paoli*, and 1 *paoli* = 10 *bajocchi*. The scudo contains 403 grains of English standard silver, and is, consequently, worth 4*s.* 4*d.* sterling. Payments above 5 scudi are made in *cedole*, or schedules, a species of bank notes; but these, not being payable in specie on demand, are uniformly at a discount.

Weights.—The *libra* or pound of 12 *onci* or 6,192 *grani*, contains 5,234 English grains. Hence, 100 Roman pounds = 74,771 lbs. avoirdupois = 90,868 lbs. Troy = 33,906 kilogrammes = 70,008 lbs. of Hamburg. There are three different cantaros or quintals; viz. of 100, 160, and 250 lbs. The migliajo = 1,000 lbs.

Measures.—The Roman foot = 11·72 Eng. inches; the *canna* = 78·34 Eng. inches; the canna used by builders = 87·96 English inches; the *barrel* of wine = 12,841 imp. gallons, and the barrel of oil = 12·61 imp. galls.; the *soma* of oil = 36·13 imp. do.; the rubbio of corn = 8·145 imp. bushels.—(*Kelly's Cambist*; *Nelkenbrecher, Manuel Universel.*)

Imports and Exports.—Though the wealth and population of the country round Civita Vecchia be much fallen off in modern times compared with antiquity, it still continues to be the entrepôt of Rome, with which it either is, or is about to be connected by a railway, and engrosses almost the entire trade of the papal dominions on the side of the Mediterranean. The imports consist principally of cotton stuffs and yarn; woollens, silks, and linens; iron and hardware; coffee, sugar, cocoa, and other colonial products; salt and salted fish, coal, wines, jewellery, glass and earthenware, &c. The exports consist of staves and timber, corn, wool, cheese, potash, pumice-stone, alum, from Tolfa, in the vicinity, cream of tartar, rags, &c. The total value of the imports may be reckoned at from 700,000*l.* to 800,000*l.*; inasmuch, however, as a considerable portion of these are on account of the strangers resident in Rome, the exports are by no means so great, and do not, indeed, exceed from 250,000*l.* to 350,000*l.* Marseilles and Genoa have the largest share of the foreign trade of Civita Vecchia, and next to them England.

In addition to the ordinary sailing vessels that frequent the port it is now regularly visited by steam packets from Malta, Marseilles, Genoa, Naples, &c., by which from 10,000 to 12,000 passengers are annually conveyed on their way to and from Rome.

In 1857 the value of the exports of domestic produce from the U. Kingdom to the Papal Dominions amounted to 318,797*l.* of which cottons and cotton yarn made 3ds. During the same year our imports from the Papal Dominions amounted to 60,805*l.*

Duties.—Civita Vecchia is a free port, that is, a port into which produce may be imported, and either consumed or re-exported, free of duty.

Quarantine regulations are strictly enforced; no vessel with a foul bill of health being permitted to enter any of the papal ports.—(*Annuaire du Commerce Maritime*, tom. ii. p. 366, &c.)

CLARET, one of the best French wines. See the articles BORDEAUX and WINE.

CLEARING. In 1775, the London, or rather the "City," bankers established the "Clearing-house." This is a house to which each banker who deals with it is in the habit of daily sending a clerk, who carries with him the various bills and cheques in the possession of his house that are drawn upon other bankers; the practice formerly being to exchange them for the bills and cheques in the possession of those others that were drawn upon his constituents, and to pay the balance on the one side or the other, in cash or Bank of England notes. By this means the bankers connected with the clearing-house were enabled to settle transactions to the extent of several millions a day, by the employment of not more, at an average, than from 200,000*l.* to 500,000*l.* in cash or Bank of England notes.

Latterly, however, the arrangements connected with the clearing-house have been so much simplified and improved, that neither notes nor coins are any longer required in settling the largest transactions. The clearing-house itself, and the various banking firms connected with it, have accounts at the Bank of England; and the balances that were formerly settled by a money payment are now settled by transfers from one account to another. The saving of money in the adjustment of large transactions, occasioned by this and other contrivances, accounts for the fact that the proportion of notes of 20*l.* and upwards issued by the Bank has considerably declined of late years, while that of 5*l.* and 10*l.* notes, which are used in ordinary dealings, has been materially increased.

CLEARING-HOUSE, the place where the operation termed clearing is carried on.

CLOCK, CLOCKS (Ger. *Uhren, Grosse Uhren, Wiandunrhe*; Du. *Uuren, Uurwerken, Horologien*; Fr. *Horloges*; It. *Orologgi, Oriuoli*; Sp. *Relojes*; Rus. *Tschasii*), a kind of machine, put in motion by a gravitating body, and so constructed as to divide, measure, and indicate the successive portions of time with very great accuracy. Most clocks mark the hour by striking or chiming. It is a highly useful instrument, and is extensively employed for domestic and philosophical purposes. Clocks are made of an endless variety of materials and models, so as to suit the different uses to which they are to be applied, and the different tastes of their purchasers. Their price consequently varies from a few shillings to more than 100*l.* The Germans and Dutch are particularly celebrated for their skill in the manufacture of wooden clocks; while the English, French, and Genevese, especially the former, have carried the art of making metallic clocks, so as to keep time with the greatest precision, to a high degree of perfection.

The history of the invention, introduction, and successive improvements in the manufacture of clocks, has been carefully investigated by some very learned and industrious antiquaries—(see *Beckmann's Hist. of Inventions*, vol. i. pp. 419—462. Eng. ed.; and *Rees's Cyclopædia*); but, notwithstanding these researches, the subject is still involved in considerable obscurity. It seems, however, that the middle of the fourteenth century may be regarded as the epoch when clocks, having weights suspended as a moving power, and a regulator, began to be introduced. The period when, and the individual by whom, the pendulum was first applied to clockwork, have been subjects of much contention. Galileo and Huygens have disputed the honour of the discovery. "But whoever may have been the inventor, it is certain that the invention never flourished till it came into the hands of Huygens, who insists, that if ever Galileo thought of such a thing, he never brought it to any degree of perfection. The first pendulum clock made in England was in the year 1662, by one Fromantel, a Dutchman."—(*Hutton's Math. Dictionary.*)

The clock manufacture is of considerable importance and value. It is carried on to a great extent in London.

Previously to 1842, an *ad valorem* duty of 25 per cent., which was then reduced to 10 per cent., was laid on all clocks when imported. In 1853 the duty was further reduced, and placed on a new footing. (See TARIFF.) We subjoin

An Account of the Numbers and Values of the Clocks imported and entered for Consumption in 1857, specifying the Countries whence they came, and the Numbers brought from each, with the Duties, &c.

Countries.	Imports.	Entered for Consumption.	Computed Value of Imports.	Duty Received.	Rates of Duty.
	Number.	*Number.*	£	£	
Clocks, not exceeding the value of 12*s.* 6*d.* each.					
Holland	64,121	63,095	15,180	1,093	Not exceeding 5*s.* each, duty 4*s.* per dozen.
France	82,169	79,906	26,094	1,749	
United States	98,204	90,500	43,829	2,665	Exceeding 5*s.* and not exceeding 12*s.* 6*d.* each, duty 8*s.* per dozen.
Other parts	1,770	1,240	524	24	
	246,264	234,741	85,627	5,531	
Exceeding the value of 12*s.* 6*d.* each.					
Holland	612	571	1,616	62	Exceeding 12*s.* 6*d.* and not exceeding 3*l.* each, duty 2*s.* each.
France	18,226	17,569	57,104	2,461	Exceeding 3*l.* and not exceeding 10*l.* each, duty 4*s.* each.
United States	1,030	1,054	1,089	106	
Other parts	413	398	1,553	64	Exceeding 10*l.* each, duty 10*s.* each.
	20,281	19,552	61,362	2,693	

Clockmakers are obliged to engrave upon the dial-plate of all clocks made by them their names and the place of their residence. It is illegal to import except in transit, and subject to such regulations as the Treasury may direct, clocks and watches of any metal impressed with any mark or stamp appearing to be or to represent any legal British assay mark or stamp, or purporting by any mark or appearance to be of the manufacture of the U. Kingdom.—(16 & 17 *Vict.* c. 107. § 44.)

It is said, however, not to be an uncommon practice among the less reputable portion of the trade, to engrave their names and "London" on foreign clocks and watches, and to sell them to the public as English work. The fraud may be detected by referring to any respectable watchmaker.

By a Treasury order of the 4th of September, 1828, clocks and watches for private use, though not marked in the manner now specified, may be admitted on payment of the duty, on the parties making affidavit of their entire ignorance of the law in question.

Persons hired by, or in the employment of, clock and watchmakers, who shall fraudulently embezzle, secrete, sell, &c. any metal, material, or precious stone, with which he may happen to be intrusted, shall upon trial and conviction before a justice of the peace, forfeit 20*l.* for the first offence; and for the second, and every subsequent offence, he shall forfeit 40*l.*; and, in default of payment, is to be committed to the house of correction.—(27 *Geo.* 2. c. 7. § 1.)—(See WATCH.)

CLOTH. See WOOL, LINEN, &c.

CLOVER (Ger. *Klee*; Du. *Klaver*; Fr. *Trefile, Luzerne*; It. *Trifoglio*; Sp. *Trebol*; Rus. *Trilistnik*; Lat. *Trifolium*), a very important species of grass. Some of the species

in cultivation are annual; others biennial or triennial; and others perennial. The seed used formerly to be principally imported from Holland; but that which is raised in this country is now said to be of a superior quality.—(*Loudon's Encyclopædia of Agriculture.*) Culture for seed is, however, very precarious, and of uncertain profit.

We have been for a lengthened period in the habit of importing considerable quantities of clover seed; and there can be little doubt, despite the improvement of the home produce, that the imports would have been much greater but for the heavy duty of 20*s.* a cwt. with which foreign clover seed was formerly loaded. Such duty had the mischievous effect of tempting farmers to use seed of inferior quality, and fell with peculiar severity on Scotland and those parts of the country which grow no seed. We are, therefore, glad to have to state that after being reduced to 10*s.* in 1842, and to 5*s.* per do., in 1846, the duty was finally repealed in 1853. In 1857 we imported 171,585 cwt. clover seed, while the exports amounted to only 1,692 cwt.

CLOVES (Ger. *Näglein, Gewurznelken*; Du. *Kruidnagelen*; Fr. *Clous de girofle, Girofles*; It. *Chiovi di garofana, Garofani, Garoffoli*; Sp. *Clavos de especia, Clavillos*; Rus. *Gwosdika*; Arab. *Kerenful*; Malay, *Chankee*), the fruit, or rather cup of the unopened flowers of the clove tree, or *Caryophyllus aromaticus*. The clove tree is a native of the Moluccas, where it was originally found; but plants have since been carried to Cayenne and other places, where they succeed tolerably well. Cloves are shaped like a nail; whence the name, from the French *clou*, nail. They are imported from the Dutch settlements; the best in chests, and an inferior kind in bags. The best variety of the Amboyna cloves is smaller and blacker than the other varieties, very scarce, and, as a mark of pre-eminence, is termed the Royal clove. Good cloves have a strong, fragrant, aromatic odour; and a hot, acrid, aromatic taste, which is very permanent. They should be chosen large sized, perfect in all parts; the colour should be a dark brown, almost approaching to black; and, when handled, should leave an oily moisture upon the fingers. Good cloves are sometimes adulterated by mixing them with those from which oil has been drawn; but these are weaker than the rest, and of a paler colour; and whenever they look shrivelled, having lost the knob at the top, and are light and broken, with but little smell or taste, they should be rejected. As cloves readily absorb moisture, it is not uncommon, when a quantity is ordered, to keep them beside a vessel of water, by which means a considerable addition is made to their weight.—(*Thomson's Dispensatory*; *Milburn's Oriental Commerce.*)

Policy of the Dutch as to the Trade in Cloves. — From the expulsion of the English from Amboyna in 1623, the Dutch have, a few short intervals only excepted, enjoyed the exclusive possession of the Moluccas, or Clove Islands. In their conduct as to the clove trade, they exhibited a degree of short-sighted rapacity, which has been, we believe, seldom equalled even in the annals of monopoly. The object of the Dutch E. I. Company was not to encourage the growth and trade of cloves, but to confine both within the narrowest limits. They preferred deriving a large profit from a stunted and petty trade, to a moderate profit from a trade that might have afforded employment for a very large amount of capital; and to prevent their narrow and selfish projects from being counteracted by the operations of the natives, they subjected them to the most revolting tyranny. "That they might," says Mr. Crawfurd, "regulate and control production and price just as they thought proper, the clove trees were extirpated everywhere but in Amboyna, the seat of their power; and the surrounding princes were bribed by annual stipends, to league with them for the destruction of their subjects' property and birthright. This plan was begun about the year 1551. The contracts are still in force, and an annual fleet visits the surrounding islands to suppress the growth of cloves, which, in their native country, spring up with a luxuriance which these measures of Satanic rigour, and of sacrilege towards bountiful nature, can scarce repress. By the plan on which the clove trade is now conducted — a plan carried into effect through so much iniquity and bloodshed, — the country of spices is rendered a petty farm, of which the natural owners are reduced to the worst condition of predial slavery; and the great monopoliser and oppressor is that government, whose duty it should have been to insure freedom and afford protection. Human ingenuity could hardly devise a plan more destructive of industry, more hostile to the growth of public wealth, or injurious to morals, than this system framed in a barbarous age; and it reflects disgrace upon the character of a civilised people to persevere in it.

"It is curious to remark how the monopolisers, in carrying the details of this system into effect, at once impose upon the natives and deceive themselves. The *nominal* price paid to the natives is actually above the natural price of the commodity, but they are cheated in the details. The cultivator brings his produce to the public stores, where it is subjected at once to a deduction of one-fifth for payment of the salaries of the civil and military officers. The price of the remainder is fixed at the rate of 9·6 Spanish dollars the picul: but before payment is made, another deduction of one-fifth is made; one half of which is for the chiefs or *rajas*, and the other for the native *elders*, who are overseers of the forced culture. The real price, therefore, paid to the grower is 8 Spanish dollars per picul, or 3¾*d.* per lb. avoirdupois, instead of $11\frac{52}{100}$ Spanish dollars per picul, or 4¾*d.* which is pretended to be given.

"When cloves have been sold on the spot, the price usually exacted has been about 64 Spanish dollars the picul, or 8 times the price paid to the cultivator. The average price in Holland, previously to the war of the French revolution, was about 6*s.* per lb., or $177\frac{78}{100}$ Spanish dollars per picul, being 2,122 per cent. advance on the real cost of the commodity in the place of its growth. When brought direct

to England, they cost at an average 3s. 8d. the lb., making 108-$\frac{64}{100}$ Spanish dollars per picul, an advance on the natural export price of 1,258 per cent."—(*Eastern Archipelago*, vol. iii. pp. 388–390.)

But it would be most unfair to the government and people of Holland not to mention that this oppressive system has been entirely abolished. As respects the culture of cloves it is now carried on upon nearly the same plan that has been adopted in Java, in respect to the culture of coffee and most other articles, and is not very different from that under which opium is raised in Bengal. A certain extent of land is assigned to each village for the growth of spices; and the produce, which the villagers are bound to raise, is delivered to the government at certain fixed rates. And provided these are reasonable, which we are assured is the case, we incline to think that this is the best plan that can be pursued. If left to follow their own views, it is all but certain that the natives would confine their attention to the culture of the few articles necessary for their subsistence, and that the production of spices would be either wholly neglected, or prosecuted only to a trifling extent.—(Temminck, *Possessions Neerlandaises dans l'Inde Archipelagique*, iii. pp. 202—241.)

It was supposed for a lengthened period that cloves were a product peculiar to the Moluccas, and that they could not be raised elsewhere; and this notion seems to have stimulated the Dutch E. I. Company to obtain the monopoly of the trade. This notion is, however, far from being so well founded as was at first supposed. It is true, that the attempts to cultivate the clove tree in Surinam have not been very successful, and that in Java, where its prospects were believed to be highly favourable, it has not answered. This, however, is not the case with the plantations that have been tried in other places. Those for example that have been formed in Prince of Wales Island (formerly *Pulo Penang*) have been singularly successful, and furnish considerable supplies of the finest cloves. (Thornton's *E. I. Gazetteer*, iv. 175.) They are, also, pretty extensively grown in the Isle de Réunion (*ci-devant* Isle de Bourbon), at Bencoolen, in Sumatra, and other places.

Of 900,057 lbs. cloves imported in 1857, no fewer than 873,716 lbs. are said to have been supplied by the British E. Indies. But of these considerable quantities were no doubt derived indirectly from the Dutch possessions, and from the Isle de Réunion, the Mauritius, &c.

The Duty on Cloves was considerably reduced in 1819; and there was, in consequence, a considerable increase in the consumption of the article; though not nearly so great as it would have been, had it been supplied under a more liberal system. It was farther reduced in 1842 to 6$\frac{3}{10}$*d.* per lb., and in 1853 to 2*d.* In 1857, 204,459 lbs. were admitted to home consumption.

In the London market, in April, 1859, the price of cloves varied; Amboyna from 5$\frac{1}{2}$*d.* to 6$\frac{1}{2}$*d.* per lb. and Penang and Bencoolen from 1*s.* 3*d.* to 1*s.* 4*d.* per do.

CLOVES, OIL OF, is procured from cloves by distillation. When new, it is of a pale reddish brown colour, which becomes darker by age. It is extremely hot and fiery, and sinks in water. The kind generally imported from India contains nearly half its weight of an insipid expressed oil, which is discovered by dropping a little into spirits of wine; and on shaking it, the genuine oil mixes with the spirit, and the insipid separating, the fraud is discovered.—(*Milburn.*)

COACHES, vehicles for commodious travelling. They have sometimes two, and sometimes four wheels. The body of the coach is generally suspended, by means of springs, upon the framework to which the wheels are attached. They are usually drawn by horses, but recently have been impelled by steam. The forms and varieties of coaches are almost innumerable.

1. *Historical Notice.*—Beckmann has investigated the early history of coaches with his usual care and learning. It is certain that a species of coaches were used at Rome; but whether they were hung on springs, like those now made use of, is not certain. After the subversion of the Roman power, horseback was almost the only mode of travelling. About the end of the fifteenth century, however, covered carriages began to be employed by persons of distinction on great occasions. In 1550, there were at Paris only three coaches; one of which belonged to the queen; another to the celebrated Diana of Poitiers; and the third to a corpulent, unwieldy nobleman, René de Laval, lord of Bois-Dauphin. Coaches were seen for the first time, in Spain, in 1546. They began to be used in England about 1580; and were in common use among the nobility in the beginning of the seventeenth century.—(*Hist. of Inven.* vol. i. pp. 111. 127. *Eng. trans.*)

2. *Manufacture of Carriages.*—This is a department of considerable value and importance. The best built and handsomest carriages are made in London, where only the trade of a coach currier is carried on; but the carriages made at Edinburgh, and some other places, are also very superior. Down to 1825, a duty was laid on all carriages made for sale; and, supposing that at an average carriages may last for 10 years, an annual supply of from 23,000 to 24,000 new carriages would be required to keep up the stock of those that are now (1859) charged with duty, ex hackney carriages.

3. *Duties on Carriages.*—These duties have been long imposed, and have fluctuated

considerably at different periods. The Table on the next page shows the number of four-wheeled and other carriages (exclusive of hackney coaches) charged with duties in 1856 and 1857.

4. *Stage Coaches, Travelling by.*—Owing to the improvement in the breed of horses and the building of carriages, but above all, to the extraordinary improvements that were effected within the last half century in the laying out, construction, and keeping of roads, the ordinary rate of travelling by stage coaches, previously to their all but total extinction by railways, was seldom under 9 or 10 miles an hour, stoppages included, and, on some roads, was as much as 11 or 12. The stages having been shortened, this speed was not found to be materially more injurious to the horses than the slower rate at which they previously travelled. The surface of the roads being perfectly smooth, and most sharp turns or rapid descents having been got rid of, travelling even at this rate was comparatively safe; and it was surprising, considering the number of coaches, how few accidents occurred. They were occasioned, for the most part, by the misconduct of the drivers; and principally by their endeavouring to make up by increased speed for time lost at stoppages, or by their attempting to pass each other. It is, perhaps, needless to add that since the opening of railways between all the principal places of the country, travelling by stage coaches no longer exists, except in a few remote districts, and has become a matter of history.

Law as to Stage Coaches.—This is embodied in the acts 2 & 3 Will. 4. c. 120., and 3 & 4 Will. 4. c. 48.

Definition.—A stage coach is any carriage travelling along the road at the rate of 3 miles or more an hour, without regard to form, provided the passengers pay separate fares for their places therein; but all carriages used wholly on a railway, or impelled by steam, are excepted from this definition.—(2 & 3 *Will.* 4. c. 120. § 4.)

Licences, Duties, &c.—The licence duties imposed by this act, and the mileage, or duty on passengers travelling by stage carriages, were repealed in 1853, and the following licence duties imposed in their stead, viz.:—

Postmasters:—

Licences to let horses for hire:	£	s.	d.
Persons keeping 1 horse or 1 carriage	7	10	0
Not exceeding 2 horses or 2 carriages	12	10	0
— 4 — 3 —	20	0	0
— 8 — 6 —	30	0	0
— 12 — 9 —	40	0	0
— 16 — 12 —	50	0	0
— 20 — 15 —	60	0	0
Exceeding 15 carriages	70	0	0
Exceeding 20 horses, then for every additional number of 10 horses, and for any additional number less than 10, over and above 20, or any other multiple of 10 horses, the further additional duty of	10	0	0

The duty of 1*s.* 2*d.* per mile on every four passengers conveyed by railway, imposed by the 2 & 3 Will. 4. c. 129., having been found to operate unequally and oppressively, was repealed in 1842 by the 5 & 6 Vict. c. 79. This act imposed, at the same time, a duty of 5 per cent. on all receipts from passengers (restricted by the 7 & 8 Vict. c. 85. sect. 9. to those paying more than 1*d.* per mile) by railways.

Want of Licence, &c.—Keeping, using, &c. any stage carriage without a licence, or without plates, or with recalled plates, or contrary to their licences, or with improper plates, are offences punishable each by a penalty of 20*l.*—§§ 27, 28.

Penalty on Drivers of Coaches without Plates, if not the owner, 10*l.*; if the owner, 20*l.*—§ 30.

Forging Plates, a misdemeanor.—§ 32.

Names of Proprietors, &c. to be painted outside, in legible and conspicuous characters, the names of the extreme places between which such carriage shall be licensed to go, and also the greatest number of passengers licensed to be carried inside and outside. Penalty for neglect in this particular, 5*l.*—§ 36.

Certain Carriages not to Carry outside Passengers or Luggage, viz. those, the top or roof of which shall be more than 8 feet 9 inches from the ground, or the bearing of which on the ground, that is, the distance between the centres of the tracks of the wheels, shall be less than 4 feet 6 inches. Penalty, 5*l.*—§ 37.

Luggage on the Roof not to exceed a certain Height, viz. 10 feet 9 inches from the ground on a carriage drawn by 4 or more horses; and 10 feet 3 inches from ditto, if on a carriage drawn by 2 or 3 horses. Driver of any carriage where such offence is committed liable in a penalty of 5*l.*—§ 43.

The clauses in the act 2 & 3 Will. 4. c. 120. relating to the distribution of outside passengers, &c. have been repealed by the act 3 & 4 Will. 4. c. 48., which substitutes the following in their stead.

Number of Outside Passengers, &c.—Any licensed stage carriage with 4 wheels or more, the top or roof of which shall not be more than 8 feet 9 inches from the ground, and the bearing of which on the ground shall not be less than 4 feet 6 inches from the centre of the tracks of the wheels, if such carriage shall be licensed to carry any number not more than 9 passengers, shall be allowed to carry not more than 5 of such passengers outside; and if licensed to carry more than 9 and not more than 12 passengers shall be allowed to carry not more than 8 of such passengers outside; and if licensed to carry more than 12 and not more than 15 passengers, shall be allowed to carry not more than 11 of such passengers outside; and if licensed to carry more than 15 and not more than 18 passengers, shall be allowed to carry not more than 12 of such passengers outside, and if licensed to carry any greater number than 18 passengers, shall be allowed to carry not more than 2 additional passengers outside for every 3 additional passengers which such carriage shall be so licensed to carry in the whole: provided that in no case a greater number of passengers shall be carried on the outside than is authorised by the licence. If more be carried, driver to forfeit 5*l.*—§ 2.

Driver, Guard, and Children in lap, not to be counted as passengers: 2 children under 7 years reckoned as 1 passenger.—§ 3.

No Person to sit on Luggage on the Roof, nor more than 1 person besides driver on the box. Penalty 5*l.*—§ 14.

Justices, Road-surveyors, Toll-keepers, &c. authorised to cause stage carriages and luggage to be measured; any passenger authorised to require the driver to stop at a toll-gate, and to require the gate-keeper to measure the carriage and luggage, and to count the number of inside and outside passengers. Penalty on driver refusing to stop, 5*l.*; on gate-keeper neglecting to provide a measure, or refusing to measure and count, 5*l.*—(2 & 3 *Will.* 4. c. 120. § 45.)

Conduct of Drivers, &c.—Drivers quitting the box before a proper person shall stand at the head of the horses; such person leaving the horses before some other person shall be placed in like manner, or have the command of the horses, or before the driver has resumed his seat on the box and taken the reins; driver allowing any passenger or other person to drive for him, or leaving the box without any reasonable occasion, or for a longer time than is absolutely necessary; concealing or misplacing plates; guard discharging fire arms unnecessarily; driver, conductor, or guard neglecting to take care of luggage; asking more than the proper fare; neglecting to account to his employer; or assaulting or using abusive language to any person having travelled, or about to travel, as a passenger, or to any person accompanying the same; shall in each and every such case forfeit 5*l.*—§ 47.

Drunkenness, &c.—Drivers, conductors, or guards having the care of any stage carriage, endangering, through intoxication, negligence, or wanton and furious driving, the safety of any passenger or other person, or the property of the owner of such carriage or other person, shall each person so offending forfeit 5*l.*—§ 49.

Owners liable for penalties, when driver or guard is not known or cannot be found.—§ 49.

MAIL COACHES are under the regulations of the postmaster-general; and the enactments in this act as to plates, inscriptions, outside passengers, and luggage, do not extend to them; but the other regulations as to the conduct of drivers, guards, &c. do apply to them. Mail coaches have only four outside passengers: one on the box, and three immediately behind the box. No passenger allowed to sit beside the guard. The rate of travelling, the time allowed for stoppages, the quantity of luggage to be carried, &c. are all regulated by the postmaster-general.

Rates of Duty on Carriages.—These are fixed by the 16 & 17 Vict. c. 90. as follows, viz.: —

	Annual Duty for each Carriage.				Annual Duty for each Carriage.		
	£	s.	d.		£	s.	d.
For every such carriage with four wheels:				And where the same shall be drawn by one pony or mule only not exceeding 13 hands in height -	0	10	0
Where the same shall be drawn by two or more horses or mules -	3	10	0	And where any such carriage shall be kept and used solely for the purpose of being let for hire -	One half of the above mentioned duties respectively.		
And where the same shall be drawn by one horse or mule only -	3	0	0	For every carriage used by any common carrier principally and *bonâ fide* for and in the carrying of goods, wares, or merchandise whereby he shall seek a livelihood, where such carriage shall be occasionally only used in conveying passengers for hire, and in such manner that the stage carriage duty or any composition for the same shall not be payable under any licence by the Commissioners of Inland Revenue:			
For every carriage with less than four wheels:							
Where the same shall be drawn by two or more ponies or mules, neither of them exceeding 13 hands in height	1	15	0				
And where the same shall be drawn by one such pony or mule only -	1	0	0				
For every carriage with less than four wheels:							
Where the same shall be drawn by two or more horses or mules -	2	0	0	Where such last-mentioned carriage shall have four wheels - -	2	6	8
And where the same shall be drawn by one horse or mule only -	0	15	0	And where the same shall have less than four wheels - -	1	6	8

Rules for charging the said Duties.

1. The said duties to be respectively charged for every coach, landau, chariot, chaise, sociable, caravan, curricle, chair, or car, and for every other carriage constructed for the like purposes, by whatever name or names the same shall be called or known, and upon all such carriages hired by the year or any longer period, and upon all such carriages kept to be let out to hire.

2. The duty on carriages kept to be let out to hire to be paid by the person keeping the same for such purpose, and to be charged on the greatest number of such carriages which shall have been kept at any one time, and which shall have been actually let during the preceding year; provided that if a due return thereof shall not be made by the hirer of any such carriage, according to the directions of the acts in force, stating therein the name and place of abode of the person letting the same to hire, such hirer shall be chargeable with the said duties.

For an account of HACKNEY COACHES, see the term.

Numbers of Carriages.—At an average of the years ending the 31st March, 1857 and 1858, 3,327 stage carriages paid duty in Great Britain, the proportion being about 10 in England for 1 in Scotland. The duty, for what reason it is not easy to divine, does not extend to Ireland.

During the Years ended the 5th April, 1856 and 1857, the Carriage Duty was charged and produced as follows, viz.: —

	1856.			1857.		
	Articles Charged.	Amount of Duty.		Articles Charged.	Amount of Duty.	
		£	s. d.		£	s. d.
Carriages with four wheels, drawn by two or more horses - -	24,735	83,182	15 0	26,855	90,739	5 0
Ditto ditto by one horse -	47,761	84,792	10 0	54,298	93,181	3 0
Ditto, with less than four wheels, drawn by two or more horses - - -	243	477	0 0	233	459	0 0
Ditto ditto by one horse -	147,030	105,270	7 6	152,146	108,738	0 0
Ditto, used by carriers - -	5,471	9,119	13 4	5,649	9,582	16 8
Totals - -	225,240	282,842	5 10	257,181	302,473	4 8

COAL (Du. *Steenkoolen*; Fr. *Charbon de terre*; Ger. *Steinkohlen*; It. *Carboni fossili*; Lat. *Lithanthrax*; Port. *Carvoes de terra, ou de pedra*; Rus. *Ugolj, Kamennoe*; Sp. *Carbones de tierra, Carbones de piedra*; Sw. *Stenkol*). This highly important combustible mineral is divided by mineralogists into the three great families of black coal, uninflammable coal, and brown coal; each of these being again divided into many subordinate species.

All the common coals, as slate coal, foliated coal, cannel coal, &c., belong to the black coal family. Slate and foliated coal is found in vast quantities in Durham and Northumberland, at Whitehaven in Cumberland, in the river district of the Forth and Clyde, in South Wales, &c. The best Newcastle coal kindles easily; in burning it cakes or runs together into a solid mass, emitting a great deal of heat, as well as of smoke and flame; it leaves a small quantity of heavy, dark-coloured residuum or ashes. Most of the Scotch coals are what are familiarly called *open burning* coals. They do not last as long as the Newcastle coals, yield less heat, do not cake or run together in burning, and usually leave a considerable quantity of light, white ashes. They make, however, a very pleasant, cheerful fire; and for most household purposes, the best fire is said to be made of a mixture of Scotch and Newcastle coal.

Cannel coal is sometimes met with in the Newcastle pits, in Ayrshire, &c.; but the largest beds of it, and of the purest kind, are near Wigan in Lancashire. It burns with a beautiful clear flame, emitting a great deal of light, but not much heat. It takes a good polish; and articles made of it are often passed off for pure jet.

The uninflammable coals are those known by the names of Welsh culm or stone coal, Kilkenny coal, and the *blind* or *deaf* coal of Scotland. These coals are difficult to kindle, which has given rise to their name; but when once thoroughly ignited, they burn for a long time: they make a hot, glowing fire, like charcoal, without either flame or smoke; but owing to their emitting noxious vapours, they cannot be used in dwelling houses, though they are in considerable demand among maltsters, dyers, &c.

Brown, or Bovey coal, so called from its being principally found at Bovey near Exeter, is light, yields but little heat in burning, and is seldom used as fuel.

In all, about *seventy* species of coal are said to be imported into London, of which *forty-five* are sent from Newcastle! Of course, many of them differ from each other by almost imperceptible degrees, and can only be distinguished by those thoroughly conversant with the trade.

Origin of Coal. Phenomena of Combustion, &c. — Coal beds, or strata, lie among those of gravel, sand, chalk, clay, &c., which form great part of the present surface of the earth, and have been evidently accumulated during remote ages by the agency of "moving water," —similar to accumulations now in process of formation at the mouths of all great rivers, and in the bottoms of lakes and seas. When these strata had, by long contact and pressure, been solidified into a rocky crust to the earth, this crust, by subsequent convulsions of nature, of which innumerable other proofs remain, has been in various parts broken and heaved up above the level of the sea, so as to form the greater part of our dry or habitable land; in some places appearing as lofty mountains, in others as extended plains. In many situations, the fracture of the crust exhibits the edges of the various distinct strata found in a given thickness of it. When the fracture has the form of a precipitous cliff, these edges appear one above another, like the edges of piled planks or books; but often also they are met with in horizontal succession along a plain, as the edges of a pile of books laid down upon a table; or they may be seen surrounding hills of granite, which protrude through them. Coal, and other precious minerals, were first discovered at the fractures of the strata above described, and by the continued digging of the strata or veins the vast excavations called mines have been gradually formed. When it was at last discovered that the mineral strata occur every where in nearly the same order or succession, so that the exposure of a portion of one stratum is a good indication of the other strata being near, the operations of the miner became of much surer result, and expensive boring through superior strata might be prudently undertaken, even where no specimen of the desired but more deeply buried substance had yet been seen.

Before the discovery of coal mines, or the invention of cheap means of working them, wood was generally used as fuel; and in many countries where the arts have not much flourished, it continues to be principally employed as such. Coal, however, for many purposes, answers much better than wood; and, in fact, the two, although in appearance so different, are in their ultimate composition very nearly allied. They both have for their basis or chief ingredient the substance called by the chemists *carbon*, and for their chief other ingredient, the substance called hydrogen, which, when separated, exists in the form of air or gas. The hydrogen is easily driven away or volatilised from either coal or wood, by heating in a close place; and when it is caught and preserved, it forms the gas now used to light our streets and public buildings. What remains of coal, after being so treated, is the substance called *coke*; and what remains of wood, similarly treated, is the substance called *charcoal*, — both being nearly pure carbon, but differing as to the states of compactness. This kindred nature of coal and wood does not surprise, when the fact is known, that much of our coal is really transformed wood; many coal mines being evidently the remains of antediluvian forests, swept together in the course of the terrestrial changes already alluded to, and afterwards solidified to the state now seen. In these mines, the species of the plants or trees which formed them are still quite evident in abundant specimens, mixed often with the remnants of the animals which inhabited the earth at the same time. The extensive peat-mosses now existing on the surface of the earth, consist chiefly of vegetable remains in an early stage of the kind of change which terminates in the formation of coal.

A substance which, like coal or wood, cheaply answers the purpose of producing great heat and light, is called fuel, and the phenomenon of that production is called combustion. Now, modern discovery has ascertained that, in every instance, combustion is merely an appearance which accompanies the mutual action, when very intense, of two substances in the act of forming an intimate or chemical union. Where that act is less energetic, the heat produced is less intense, and there is no light. Thus, water and sulphuric acid when mixing produce great heat, but no light. Water and quicklime produce still greater heat; sufficient, it is known, to set fire to a ship in which the mixture unfortunately occurs. It is an occurrence of the same kind when heat is evolved from an acid dissolving a metal; and it is still of the same kind when a mass of coal or wood in a

fire-grate is, with the appearance of combustion, undergoing solution in the oxygen of the atmosphere. In this last case, however, the temperature of the fuel is, by the very intense action, raised so much that the fuel becomes incandescent or luminous; an appearance assumed by every substance, whether burning or not, — of a stone, for instance, or piece of metal, — when heated beyond the temperature indicated by 800° of Fahrenheit's thermometer. The inferior degrees of such incandescence are called *red heat*; the superior degrees, *white heat*. The reason why any strongly heated body throws out light, we cannot yet explain. When a quantity of wood or coal has been burned to ash in a confined portion of air, the whole of the fuel, vanished from view, is held in solution by the air, as salt is held in water, and is again recoverable by the art of the chemist. The phenomenon of common fire, or combustion, then, is merely the fuel being chemically dissolved in the air of the atmosphere. If the fuel has nothing volatile in it, as is true of pure carbon, and nearly true of coke and charcoal, it burns with the appearance of red-hot stones; but if there be an ingredient, as hydrogen, which, on being heated, readily assumes the form of air, that ingredient dilates before burning, and in the act produces the more bulky incandescence called flame.

The two great purposes which combustion serves to man, are, to give light and heat. By the former he may be said to lengthen considerably the duration of his natural existence; for he converts the dismal and almost useless night into what, for many ends, serves him as well as day; and by the latter, besides converting winter into any climate which he desires, he is enabled to effect most important mutations in many of the substances which nature offers for his use; and, since the invention of the steam-engine, he makes heat perform a great proportion of the work of society. From these considerations may be perceived the importance of having fire at command; and, as the cheapest means of commanding fire, of having abundance of coal.

As respects the supply of coal, Britain is singularly favoured; a large portion of the surface of the country having under it continuous and thick beds of this valuable mineral, — vastly more precious to us than would have been mines of the precious metals, like those of Peru and Mexico; for coal, since it has been applied to the steam-engine, is really hoarded power, applicable to almost every purpose which human labour directed by ingenuity can accomplish. It is the possession of her coal mines which has rendered Britain, in relation to the whole world, what a city is to the rural district which surrounds it, — the producer and dispenser of the various products of art and industry. Calling her coal mines the coal cellars of the great city, there is in them a supply, which, at the present rate of expenditure, will last for 1,000 or 1,200 years at least; and, therefore, a provision which, as coming improvements in the arts of life will naturally effect economy of fuel, or substitution of other means to effect similar purposes, may be regarded as inexhaustible.

The kinds or differences of coal depend on their comparative proportions of carbon and hydrogen, and of earthy impurities totally incombustible. While some species of coal contain nearly a third of their weight of hydrogen, others have not a fiftieth part. The former kinds are flaming coal, pleasing in parlour fires, and fit for the manufacture of gas. The other kinds — some of the Welch stone coal, for instance — will only burn when in large heaps, or when mixed with more inflammable coal: they have no flame. When flaming coal is burned where a sufficiency of oxygen cannot pass through or enter above the fire, to combine with and consume the hydrogen as fast as it rises, a dense smoke is given out, consisting of hydrogen and carbon combined in the proportions which form a pitchy substance. The Welch coal above mentioned can as little give out smoke as flame, and hence is now much used in great breweries, and in the steam-engine furnaces of towns, where smoke is a serious nuisance. The foliated or cubical coal, and slate coal, are chiefly used as fuel in private houses; the caking coals, for smithy forges; the slate coal, from its keeping open, answers best for giving great heats in a wind furnace, as in distillation on a large scale; and glance coal, found in Staffordshire, is used for drying grain and malt. The coals of South Wales contain less volatile matter than either the English or the Scotch; and hence, when employed in smelting the ore, produce a greater quantity of iron. It is supposed that 3 parts of good Newcastle coal are equivalent, as fuel, to 4 parts of good Scotch coal.

Consumption of Coal. Number of Persons engaged in the Trade. Supply of Coal. — The great repositories of coal in this kingdom are in Northumberland and Durham, whence London and most parts of the south of England are at present supplied; in Cumberland, whence large quantities of coal are exported to Ireland; and in Staffordshire, Derbyshire, Lancashire, Yorkshire, Leicestershire, Warwickshire, South Wales, &c. In Scotland, coal is found in the Lothians, Lanarkshire, Renfrewshire, Ayrshire, and other counties. In Ireland, coal is both deficient in quantity and inferior in quality to that of Great Britain; and turf forms the great article of fuel.

It is not easy to form any very accurate estimate of the annual consumption of coal in Great Britain; probably, however, the following may not be far from the mark.

	Tons.
Domestic consumption in 1858 and smaller manufactures	20,000,000
Production of pig and bar iron	16,000,000
Copper smelting, iron and brass manufactures, &c.	10,000,000
Cotton manufacture	1,000,000
Woollen, linen, silk ditto	1,000,000
Salt works, glass works, &c.	1,500,000
Lime works and brick works	2,000,000
Railway carriages, steam boats, &c.	5,000,000
Home consumption	56,500,000
Exports to Ireland	2,000,000
Ditto to colonies and foreign parts	6,500,000
Total home and foreign consumption	65,000,000

The above estimate corresponds very closely with, and is supported by the following estimate of the coal produced in the U. K. in 1857. The latter has been compiled by Mr. Robert Hunt, keeper of mining records in the Museum of Economical Geology, who has collected with equal sagacity and industry a vast deal of valuable information in regard to the mineral produce of the U. K.

Summary Account of the Coal produced in the U. Kingdom in 1857.

	Tons.
Durham and Northumberland	15,826,525
Cumberland	942,018
Yorkshire	8,875,440
Derby and Nottingham	3,687,442
Warwickshire	398,000
Leicestershire	698,750
Stafford and Worcester	7,164,625
Lancashire	8,565,500
Cheshire	750,500
Shropshire	750,000
Gloucester, Somerset, and Devon	1,225,000
North Wales	1,046,500
South Wales	7,132,304
Scotland	8,211,473
Ireland	120,630
Total produce of the U. K. in 1857	65,394,707

Mr. Buddle, of Wallsend, a well informed coal engineer, gave, in 1830, the following estimate of the number of persons engaged in the different departments of the coal trade on the Tyne and Wear, in the conveyance of coal to London, and in the London coal trade:—

"I hold a paper in my hand stating the number of people employed in the coal trade in each department. I would beg to observe, the returns from the Tyne are official documents; from the Wear I have no returns, but it is by an approximate calculation. The number of persons employed underground on the Tyne are,—men, 4,937; boys, 3,554; together, 8,491: above ground,—men, 2,745; boys, 718; making 3,463: making the total employed in the mines above and below ground, 11,954, which in round numbers I call 12,000, because I am pretty sure there were some omissions in the returns. On the river Wear, I conceive there are 9,000 employed; making 21,000 employed in digging the coal, and delivering it to the ships on the two rivers. From the best calculations I have been able to make, it would appear that, averaging the coasting vessels that carry coals at the size of 220 London chaldrons each vessel, there would be 1,400 vessels employed, which would require 15,000 seamen and boys. I have made a summary. There are, seamen, 15,000, pitmen and above ground people employed at the collieries, 21,000; keel-men, coal-boatmen, casters, and trimmers, 2,000: making the total number employed in what I call the Northern Coal Trade, 38,000. In London, whippers, lightermen, and so forth, 5,000; factors, agents, &c. on the Coal Exchange, 2,500;—7,500 in all, in London. Making the grand total in the North country and London departments of the trade, 45,500. This does not, of course, include the persons employed at the outports in discharging the ships there." But it is necessary to bear in mind that these statements apply to 1830; and as there has been a very great change in the interval, both in the quantity of coal produced and in other matters, it were much to be wished that some equally competent party would furnish us with similar statements applicable to the present time.

In another place, Mr. Buddle states, that "colliers are always paid by the piece," and consequently their wages, although at the same rate per chaldron, vary according to the quantity of work they have to do; and it is difficult to form an average, they vary so very considerably; they have varied from 14*s.* a week, to, in some instances, 40*s.* "The colliers can earn up to 5*s.* or even more per day; but there is not full employment for them; they sometimes do not earn more than half that sum; 2*s.* 6*d.* is the certain wages that they are hired to receive from their employers, whether they are employed or not; that is, consequently, a tax on the coal owner, during the suspension of his colliery from any accident. The men have the option of finding work elsewhere; but if they cannot do this, they may call upon their master to pay them 14*s.* per week; it was 15*s.* a week till 1828."

In a late edition of this work, we estimated the total number of persons engaged in the *coal trade* at from 190,000 to 220,000; and this we believe to have been at the time pretty accurate, though it would now be very considerably below the mark. According to Mr. Hunt the following is the

Total Number of Persons employed in Mining Operations in Great Britain. Corrected, as far as possible, for the Year 1854.

Mineral Occupation.	Men and Women of all Ages.	Under 20 Years of Age.		Twenty Years and upwards.	
		Male.	Female.	Male.	Female.
Coal	219,995	65,705	1,290	151,648	1,352
Iron	26,106	6,331	20	19,755	
Copper	21,169	5,323	2,353	12,023	1,493
Tin	14,761	4,305	4,039	8,574	843
Lead	21,249	4,937	271	16,441	100
Zinc, &c.	171	46	21	79	28
Total	303,977	86,647	4,994	208,520	3,816

And to these have to be added the number engaged in the carriage, sale, and distribution of the various articles to get the total numbers to which their production and the trade in them give employment.

The importance of coal as a necessary of life, and the degree in which our superiority in arts and manufactures depends upon our obtaining supplies of it at a cheap rate, has naturally attracted a good deal of attention to the question as to the period when the exhaustion of the coal mines may be anticipated. But the investigations hitherto made in regard to the magnitude and thickness of the different coal-beds, and the extent to which they may be wrought, are too vague and unsatisfactory to afford grounds for forming any thing like a tolerably near approximation to a solution of this question. But such as they are, they are sufficient to show that *many centuries* must elapse before posterity can feel any serious difficulties from a diminished supply of coal. According to an estimate prepared by Mr. Taylor, an intelligent coal engineer, in 1829, the coal-fields of Durham and Northumberland were adequate to furnish the then annual supply for a very long period. We subjoin Mr. Taylor's estimate.

ESTIMATE OF THE EXTENT AND PRODUCE OF THE DURHAM AND NORTHUMBERLAND COAL-FIELDS.

		Sq. Miles.
	Durham.	
" From South Shields southward to Castle Eden 21 miles; thence westward to West Auckland 32 miles; north-east from West Auckland to Eltringham, 33 miles; and then to Shields, 22 miles; being an extent or area of		594
	Northumberland.	
" From Shields northward, 27 miles, by an average breadth of 9 miles		243
		837
	Portion excavated.	
" In Durham, on Tyne, say		39
on Wear		40
		79
" In Northumberland, say 13 miles by 2		26
		105
		732

	Tons.
" Estimating the workable coal strata at an average thickness of 12 feet, the contents of 1 square mile will be 12,390,000 tons, and of 732 square miles	9,069,480,000
" Deduct one third part for loss by small coal, interceptions by dikes, and other interruptions	3,023,160,000
Remainder	6,046,320,000

" This remainder is adequate to supply the present vend from Newcastle, Sunderland, Hartley, Blyth, and Stockton, of 3,500,000 tons, for a period of 1,727 years." (But the vend being since greatly increased, the period of duration will be proportionally lessened.)

" It will be understood that this estimate of the quantity of coal in Durham and Northumberland can only be an approximation, especially as the south-eastern coal district of Durham is yet almost wholly unexplored; but the attempt is made, in the hope of satisfying your Lordships that no apprehension need be entertained of this valuable mineral being exhausted for many future generations.

" There is also a considerable extent of coal-field in the northern and south-western districts of Northumberland; but the foregoing comprises that which is continuous, and most suitable and available for exportation. It is, however, to be observed that the shipments of coal from the ports mentioned by Mr. Taylor has been largely increased during the last dozen years; so that, supposing the estimate to be in other respects accurate, it must now be modified accordingly."—(*Lords' Report*, 1829, p. 124.)

Dr. Buckland, the celebrated geologist, considered Mr. Taylor's estimate as greatly exaggerated; but in an examination before the committee of the House of Commons in 1829, he quoted with approbation a passage of Bakewell's *Geology*, in which it is stated that the coal-beds in South Wales were alone sufficient to supply the then demand of England for coal for 2,000 years.

But supposing the supply of coal to last only 800 or 1,000 years, that carries us so far into futurity, that it appears to be quite idle either to prohibit, or impose heavy duties on the exportation of coal, on the ground of its accelerating the exhaustion of the mines.

Profits of Coal Mining. Coal Owners' Monopoly, &c.—Instead of the business of coal mining being, generally speaking, an advantageous one, it is distinctly the reverse. Sometimes, no doubt, large fortunes have been made by individuals and associations engaged in this business; but these are rare instances. The opening of a mine is a very expensive and hazardous operation, and of very uncertain result. Collieries are exposed to an infinite number of accidents, against which no caution can guard. The chances of explosion have, it is true, been a good deal lessened by the introduction of Sir Humphry Davy's lamp; and some mines are now wrought, that, but for the invention of this admirable instrument, must have been entirely abandoned. But besides explosions, which are still every now and then occurring, from the carelessness of the workmen, and other contingencies, mines are very liable to be destroyed by *creeps*, or by the sinking of the roof, and by drowning or the irruption of water from old workings, through fissures which cannot be seen, and consequently cannot be guarded against. So great, indeed, is the hazard attending this sort of property, that it has never been possible to effect an insurance on a coal-work, against fire, water, or any other accident.

Mr. Buddle informed the committee of the House of Lords, in 1829, that "although many collieries, in the hands of fortunate individuals and companies, have been, perhaps, making more than might be deemed a reasonable and fair profit, according to their risk, like a prize in a lottery; yet, as a trade, taking the whole capital employed on both

rivers, he should say that certainly it has not been so."—(*First Report*, p. 56.) Again, being asked, "What have the coal owners on the Tyne and Wear, in your opinion, generally made on their capital employed?" he replied, "According to the best of my knowledge, I should think that *by no means ten per cent. has been made at simple interest, without allowing any extra interest for the redemption of capital.*"—(p. 57.)

In addition to the vast expense attending the sinking of shafts, the erection of steam engines, &c., and the risk of accidents, the coal, after being brought to the surface, has frequently to be conveyed 7 or 8 miles to the place of shipping; and those whose collieries are in that situation, have to pay *way-leave* rents, amounting, in some cases, to 500*l.* a year, for liberty to open a communication, or a railroad, through the properties lying between them and the shore.

Much has frequently been said of the monopoly of the coal owners on the Tyne and the Wear; but we are satisfied, after a pretty careful investigation of the circumstances, that no such monopoly has ever existed; and that the high price of coal in the metropolis is to be ascribed wholly to the various duties and charges that have been laid upon it, from the time that it has passed from the hands of the owner to the time that it is lodged in the cellar of the consumer. What means have the coal owners of obtaining a *monopoly price* for their coal? They enjoy no exclusive privileges of any sort; they are a numerous body; and the trade is as open as any other to all capitalists to engage in. The number of places on the east and west coasts, both of England and Scotland, and the southern parts of Wales, from which coals are exported, render it quite visionary to suppose that any general agreement to keep up prices can take place amongst the various coal proprietors. And though such an agreement were entered into, it is imposible it could be maintained. The *power* of producing coal greatly exceeds the present demand; many new mines have been recently opened, and many others would be brought into activity were the price artificially enhanced. It is true that the coal owners referred to, having experienced the ruinous effects of throwing a superabundant quantity of coal upon restricted and already-glutted markets, have occasionally met together; and each having named the price he thinks his coal will command, and at which he intends to sell it, they have proceeded jointly to regulate, according to the probable demand, the quantity that each shall raise during any particular period. By means of this arrangement, the supply and price of coal have been kept, during the time it has existed, comparatively steady. Common prudence prompts and justifies such an arrangement; but it also suggests the necessity of reducing the price of coal to the lowest level that will afford the customary rate of profit. For were the price demanded by the northern coal owners raised above this level, new mines would be opened in Durham and Northumberland; the imports from the Tees, whence a large supply of excellent coal *is at present brought* to the London market, would be augmented; and fresh competitors, from Swansea and other places, would come into the field and undersell them. Government should encourage and promote this fair competition; but it ought, at the same time, to do equal justice by all the competitors. It is not to lend assistance to, or remove burdens from, one set of adventurers, which it does not lend to or remove from others. It is no part of its duty to say *how* coals, or any species of produce, shall be carried to market. It is bound to give every reasonable facility for the opening of new channels or modes of conveyance between all parts of the country; but it would be glaringly unjust to lay a tax on the coals conveyed by a particular channel from which those conveyed by other channels were exempted.

The aggregate capital employed by the coalowners on the Tyne amounts to about 4,500,000*l.* exclusive of the craft in the river: and supposing this estimate to be nearly correct, it will follow, allowing for the value of the ships, that the total capital employed in the coal trade may be moderately estimated at from 20 to 25 millions; an immense sum to be almost wholly at the risk of the owners, without any insurance upon it.

Progressive Consumption of Coal. Duties and Regulations affecting it, particularly in the Port of London.—There are no mines of coal in either Greece or Italy; and no evidence has been produced to show that the ancients had learned to avail themselves of this most useful mineral. Even in England, it does not seem to have been used previously to the beginning of the thirteenth century; for the first mention of it occurs in a charter of Henry III., granting licence to the burgesses of Newcastle to dig for coal. In 1281, Newcastle is said to have had a considerable trade in this article. About the end of this century, or the beginning of the fourteenth, coals began to be imported into London, being at first used only by smiths, brewers, dyers, soap-boilers, &c. This innovation was, however, loudly complained of. A notion got abroad that the smoke was highly injurious to the public health; and, in 1316, parliament petitioned the king, Edward I., to prohibit the burning of coal, on the ground of its being an intolerable nuisance. His Majesty issued a proclamation conformably to the prayer of the petition; but it being but little attended to, recourse was had to more vigorous measures;

a commission of oyer and terminer being issued out, with instructions to inquire as to all who burned sea-coal within the city, or parts adjoining, to punish them for the first offence, by "pecuniary mulcts;" and upon a second offence, to demolish their furnaces; and to provide for the strict observance of the proclamation in all time to come.

But notwithstanding the efforts that were thus made to prohibit the use of coal, and the prejudice that was long entertained against it, it continued progressively to gain ground. This was partly, no doubt, owing to experience having shown that coal smoke had not the noxious influence ascribed to it, but far more to the superior excellence of coal as an article of fuel, and the growing scarcity and consequent high price of timber. In the reign of Charles I. the use of coal became universal in London, where it has ever since been used to the exclusion of all other articles of fuel. At the Restoration, the quantity imported was supposed to amount to about 200,000 chaldrons. In 1670, the imports had increased to 270,000 chaldrons. At the Revolution, they amounted to about 300,000 chaldrons, and have since gone on increasing with the growing magnitude and population of the city; being, in 1750, about 500,000 chaldrons; in 1800, about 900,000 chaldrons; and at present about 1,700,000 chaldrons. — (*Campbell's Political Survey of Great Britain*, vol. ii. p. 30.; *Edington on the Coal Trade*, p. 41, &c.)

It might have been supposed, considering that coal is, in this country, a prime necessary of life, and by far the most important of all the instruments of manufacturing industry, that it would have been exempted from every species of tax; and that every possible facility would have been given for its conveyance from the mines to the districts in the south of England, and other places in want of it. But such has not been the case. The coal-trade of Great Britain was, for more than a century and a half, subjected to the most oppressive regulations. From a very early period, the corporation had undertaken the task of weighing and measuring the coal brought to London; and had been accustomed to charge 8*d.* a ton for their trouble. In 1613, the power to make this charge was confirmed to the city by royal charter, it being at the same time ordered that no coal should be unladen from any vessel till the Lord Mayor had given leave. The right to charge this sum according to the chaldron of coal, has since been confirmed to the city by act of parliament; and as the labouring meters, notwithstanding they have been very well paid, have received only 5*d.* out of the 8*d.*, the balance of 3*d.* per chaldron, which produced about 20,000*l.* a year, went to the city treasury.

But besides the above, duties for civic purposes have been laid on the coal imported into London from the reign of Charles II. downwards. They were originally imposed in 1667, after the great fire, in order to assist in the rebuilding of churches and other public edifices; and have ever since been continued, to enable the corporation to execute improvements in the city; though it is probable most of our readers will be inclined to think that few improvements could be so great, as a reduction in the price of so very important an article as coal.

Exclusive of the corporation duties, a duty payable to government was laid on *all sea-borne* coal in the reign of William III., which only ceased in 1831. This duty was at once glaringly unjust and oppressive: unjust, inasmuch as it fell only on those parts of the empire to which coals had to be carried by sea; and oppressive, inasmuch as it amounted to full *fifty* per cent. upon the price paid to the coal owner for the coal. This tax, after being long stationary at 5*s.* a chaldron, was raised to 9*s.* 4*d.* during the late war; but was reduced to 6*s.* in 1824. But the inequality of the tax was not confined to its affecting those parts only of the empire to which coal had to be carried by sea. Even there its pressure was not equal; for, while it amounted to 6*s.* a chaldron, or 4*s.* a ton, in the metropolis and all the south of England, it only amounted to 1*s.* 7½*d.* a ton on coal carried by sea to Ireland, and to 1*s.* 8*d.* on that carried to Wales; while Scotland was for many years entirely exempted from the duty.

Besides this striking partiality and injustice, various troublesome Custom-house regulations were required, in consequence of distinctions being made between the duties on large and small coal, between those on coal and culm (a species of coal), and coal and cinders, and of coal being allowed to be imported duty free into Cornwall, Devon, &c. for the use of the mines. These distinctions were, however, wholly abolished in 1830, and no duties exist on coal except those collected in London and a few other ports, and appropriated to local purposes.

A small supply of coal was of late years brought to London from Staffordshire, by canal navigation. This coal was charged with a duty of 1*s.* a chaldron; but this is now also repealed.

The regulations to which the sale and delivery of coals were subjected in the city of London were, if possible, still more objectionable than the duties imposed on them. Instead of being sold by weight, all coals imported into the Thames were, previously to 1831, sold by measure. It is curious to observe the sort of abuses to which this practice has given rise. It is stated by the celebrated mathematician, Dr. Hutton, who, being a native of Newcastle, was well acquainted with the coal trade, that, "If

one coal, measuring exactly a cubic yard (nearly equal to 5 bolls) be broken into pieces of a moderate size, it will measure 7½ bolls; if broken very small, it will measure 9 bolls; which shows that the proportion of the weight to the measure depends upon the size of the coals; therefore, accounting by weight is the most rational method." The shippers were well aware of this, and insisted upon the coal owners supplying them with large coal only; and to such an extent was this principle carried, that all coal for the London market was *screened*, as it is technically termed, or passed over gratings, to separate the smaller pieces. Inasmuch, however, as coals were sold in all their subsequent stages by measure, no sooner had they been delivered by the owner, than it was for the interest of every one else into whose hands they came before reaching the consumer, to break them into smaller portions. In fact, the profit of many of the retailers in London arose chiefly from the increase of measure by the breakage of coal. And Mr. Brandling, a very intelligent and extensive coal owner, stated to the Commons' committee of 1829, that, in consequence of the breakage, coals are reduced in London to a size inferior to what they would be, were they put on board *unscreened*, and subjected to no additional breakage.

The statements now made sufficiently evince the nullity of all the regulations enforcing the sale of coal by correct measures: for even though these regulations had been enforced, instead of being, as they usually were, wholly neglected, they would have been of almost no use; inasmuch as any dishonest dealer was as able to cheat, by breaking his coals a little smaller than usual, as if he had sold them in deficient measures.

The loss occasioned by the useless process of screening has been very great. The quantity of coal separated by it has amounted in some cases to from 20 to 25 per cent. of the whole; and the greater part of this residue, containing a portion of the very best coal, is *burned on the spot*. "I have known," says Mr. Buddle, "at one colliery, as many as from 90 to 100 chaldrons a day destroyed. If they were not consumed, they would cover the whole surface, and in the burnings of them they are extremely destructive; they destroy the crops a great way round, and we pay large sums for injury done to the crops, and for damage to the ground."—(*First Lords' Report*, p. 72.) The waste of coal has been in this way enormous; and the coal owner has been obliged to charge a higher price upon the coal sold, in order to indemnify himself for the loss of so great a quantity, and for the mischief he does to others in burning.

The fact, that so monstrous a system should have been persevered in for more than a century, sets the power of habit in reconciling us to the most pernicious absurdities in a very striking point of view. Happily, however, the nuisance was at last abated; the sale of coal by weight taking away both the temptation to break coal, and the necessity of screening.

The duties of all sorts that were formerly paid to the corporation of the city of London were commuted in 1830 for a duty of 1*s.* 1*d.* per ton, which produced in 1851 a gross revenue of 187,991*l.* 16*s.* 4½*d.* (*Parl. Paper*, No. 29, Sess. 1852.) Various oppressive duties and regulations were then also abolished, a measure which has been productive of a considerable saving to the public. Supposing the average price of a ton of coal, in the pool below London Bridge, to be at present (1853) 20*s.*, it would perhaps be made up nearly as follows:

	£	s.	d.	
Prime cost and shipping charges in the Tyne or the Wear	0	9	3	per ton.
Freight	0	8	6	
Insurance	0	0	1½	
City dues	0	1	1	
Half weighage	0	0	1½	
Allowance to the buyer, of tret, discount, and scorage	0	0	6	
Factory, 3*d.* *Del credere*, 1*d.*	0	0	4	
Stamps and petty incidents	0	0	1½	
	0	20	0	

The charges on the conveyance of coal from the vessel to the cellar of the consumer amounted, in 1830, to about 11*s.* a ton, but at present they do not exceed 7*s.*; thus:—

	£	s.	d.		£	s.	d.
Lighterage	0	1	3	Cartage	0	3	6
Wharfinger	0	0	6	Shooting	0	1	0
Loading	0	0	9	Total	0	7	0

No doubt, however, the expenses attending the delivery of coal to the consumer might be farther and very materially reduced, were quays constructed at which ships could lie alongside, and discharge their cargoes without the intervention of lighters, and without being subject to the delays to which they are now exposed. It appears, also, that the practice of sending coals to the consumers in bags, might in the great majority of cases be advantageously dispensed with. No such practice exists in Manchester, Liverpool, Glasgow, or other large towns; and, generally speaking, it seems to occasion not only a heavy, but a perfectly useless, expense. There is a very keen competition in the retail coal trade in London, and the individual who deals with a respectable coal merchant may be pretty well assured that he gets his coals at the lowest price at which, as matters now stand, they can be sold.

Eightpence per ton of the duty of 1*s.* 1*d.* will (unless the regulations under which it is now imposed be altered in the interval) cease in 1862, its produce having been mortgaged till that year, to defray the cost of certain city improvements.

Account exhibiting the Quantities of the various Descriptions of Coal imported into London by Sea in 1858, and specifying also the Number of Ships or Cargoes.

Description of Coal.	Ships or Cargoes.	Tons.	Description of Coal.	Ships or Cargoes.	Tons.
Newcastle Main	2,684	961,360	Welsh	534	155,342
Newcastle Wallsend	804	227,392	Yorkshire, &c.	376	29,943
Seaham	1,073	267,409	Liverpool	3	502
Sunderland	351	144,479	Small coal	52	15,257
Sunderland Wallsend	1,837	646,692	Culm	6	1,390
Middlesboro'	257	60,859	Cinders	91	8,387
Hartlepool & West Hartlepool	2,531	693,594			
Blyth	175	43,067	Total, 1858	10,603	3,266,446
Scotch	59	16,973			

During the same year (1858) 1,213,464 tons were imported into London by land, that is, by canals, railways, and common roads.

Regulations as to Sale in London.—A seller's ticket is to accompany all coals sold within the city of London and its environs, specifying the species of coal, and the number of sacks and weight of coal sent. The coals may be either in bags containing 1 or 2 cwt., or in bulk. The carman is in all cases bound to carry a weighing machine with the coal, which machine is to be made conformably to regulation; and, upon being desired, he is to weigh any one sack, or the whole sacks in his waggon. Penalty on refusing to weigh, or otherwise obstructing the weighing, 20*l.* Penalty on non-delivery of ticket to purchaser, 2*l.* In the event of the weight being deficient, a penalty is imposed of 10*l.* or 50*l.*, according to deficiency. Quantities of less than 560 lbs. may be sold without being weighed.—(1 & 2 Will. 4. c. 76.)

To save trouble in collecting the duties that still attach to coal in the port of London, the corporation is authorised to compound with the owner or master of any ship or vessel importing coal, for the tonnage upon which the duties are to be paid. A certificate of such composition, expressing the number of tons of coal, cinders, or culm, agreed to be taken as the cargo of the ship or vessel compounded for, is to be given to the master or owner of the same, and to be taken as evidence of the quantity on board.

When no composition is entered into, the coal is to be weighed in the presence of an officer of the customs *at the port of shipment*; and the duties are to be paid upon the weight so shipped.

The shipment of coal in the Tyne is at present regulated by the act 5 Geo. 4. c. 72., commonly called the *Tyne Act*. The object of this act is to make all ships engaged in the trade of the Tyne be loaded in the order in which they arrive. It prevents any preference being given to particular ships; and renders it nearly impossible for any coalowner to give constant employment to any vessel in the trade which he may wish to employ. In some respects this act is probably advantageous, but, on the whole, its policy seems very questionable. Why should a coalowner be prevented from employing certain ships in preference to others? Under this act, if more ships engage in the trade than can be profitably employed in it, the loss produced by detention in port, and waiting for a cargo, instead of falling, as it naturally would, were the trade free, on particular ships, and driving them from the business, falls equally on every ship employed, and represses the whole trade. There is no regulation of this sort on the Wear.

Duty on Coal conveyed to London by Railway, Canal, &c.—The 8 & 9 Vict. c. 101. has imposed the same duties on coals conveyed to the metropolis by railway, canal, or other inland carriage, that are imposed on them when conveyed by sea. It has farther enacted that 1*d.* per ton of the produce of such duties shall be accumulated, from the 31st December, 1845, as a fund for the execution of improvements within the metropolis.

An Account of the Number of Tons of Coals imported into the Port of London during each of the Years from 1845 to 1852 inclusive, and of the Gross and Nett Amount of Revenue received in each of those Years from the Duty on Coals; showing, also, the Quantity of Coals brought Landwise into the City of London and its Limits, and the Amount of Duty received thereon, in each of these Years.

Years.	Seaborne Coals.			Coals brought Landwise.		
	Tons imported.	Gross Duties of 1*s.* 1*d.* per Ton.	Nett Duties, deducting Drawbacks, &c.	Tons.	Gross duties of 1*s.* 1*d.* per Ton.	Nett Duties, deducting Expenses, &c.
		£ *s.* *d.*	£ *s.* *d.*		£ *s.* *d.*	£ *s.* *d.*
1845	3,592,512	183,761 1 4	177,540 3 1	68,688	3,720 11 10½	3,640 11 10½
1846	2,960,772	160,375 3 0	153,114 13 5	34,196	1,852 6 4½	1,772 6 4½
1847	3,276,364	177,469 18 4	170,249 16 0	42,675	2,311 9 4½	2,231 9 4½
1848	3,418,698	185,179 9 6	176,727 1 9	57,342	3,133 2 5½	3,053 2 5½
1849	3,289,540	178,170 8 4	169,398 17 2	2,861	2,104 19 11½	2,024 19 11½
1850	3,545,611	192,053 18 7	184,595 16 6	141,816	6,056 14 4½	5,976 14 4½
1851	3,246,287	175,840 10 11	165,461 1 3	224,339	12,151 5 5½	12,071 5 5½
1852	3,330,428	—	—	414,917	—	—

Duties on Coal when exported.—The question as to the policy of laying duties on the exportation of coal mainly depends (as the exhaustion of the mines need not be thought of) on the fact whether British coal be necessary or of considerable consequence to the progress of manufactures and arts in foreign countries. If it be, then certainly it would be good policy to preserve that superiority which we derive from the possession of coal by prohibiting its exportation, or burdening it when exported with a considerable duty; but if the possession of our coal be not necessary or of considerable importance to the foreigner, such prohibition or duty would encourage the working of foreign mines by discouraging the working of our own, without producing any corresponding advantage. It has been said that it is not easy to pronounce positively how the fact stands. On the whole, however, there does not appear to be much room for doubting that a supply of British coal, though it may not be indispensable to the foreigner, is of the greatest service to him; and enables him to carry on with advantage various undertakings, in which he could not otherwise have engaged with much chance of success. The coal of Belgium is not so good as that of England, and is too far inland to come into successful competition with ours in the market of the world; and the same may be said of the coal of the U. States. The latter, indeed, far from supplying others with coal, are large importers of English coal, having taken from us in 1858 no fewer than 301,004 tons. Such being the case we have always regarded the repeal in 1845 of the duty of 4*s.* a ton on coal when exported as a most unwise proceeding. We are well convinced that its retention would not have materially affected the exportation of coal, at the same time that it would have yielded a considerable amount of revenue which (be it remembered) would have been wholly paid by the foreigner. But British coal is of incomparably more importance to the foreigner now than it was in 1845; and we think that the imposition of a duty of 5*s.* a ton on it when exported would be a highly expedient measure. It will be no holiday task to show how a revenue of about 1,500,000*l.* a year may be raised with less inconvenience.

It is probable that coal will ere long be included among those articles that are reckoned contraband of war. Now that steam is destined to play an important part in naval warfare, the coal by which steam is produced, is certainly entitled to a prominent place among *munitions de guerre*.

Price of Coal.—The following is an account of the contract price of coal supplied to Greenwich Hospital in the undermentioned years.

Years.	Per Chaldron.	Years.	Per Chaldron.	Years.	Per Chaldron.	Years.	Per Chaldron.	Years.	Per Ton.
	£ s. d.		£ s. d.		£ s. d.		£ s. d.		£ s. d.
1730	1 4 6	1760	1 12 8	1790	1 14 4½	1815	2 15 6½	1840	0 19 8
1735	1 5 0	1765	1 12 4½	1795	1 19 9	1820	2 5 9	1841	0 19 5
1740	1 9 0	1770	1 9 1½	1800	2 11 7	1825	2 3 2	1842	0 18 9
1745	1 10 0	1775	1 10 11½	1805	2 11 8½	1830	1 12 11	1845	0 18 9
1750	1 7 7½	1780	1 17 3½	1810	3 0 8	1833	℔ Ton 16 8	1849	0 14 9
1755	1 8 7½	1785	1 14 2½						

This table sets the beneficial influence of the abolition of the duty on coals, and of the other alterations that have been made in the management of the trade, in a very striking point of view.

An Account of the Quantities and Value of Coal, Cinders and Culm, and Patent Fuel, exported from the U. K. in 1857, specifying the Quantities and Values of the Coal sent to different Countries.

Countries.	Quantities Exported.				Declared Value thereof.			
	Coals.	Cinders, Culm, and Coke.	Total of Coals, Cinders, Coke, and Culm.	Patent Fuel.	Coals.	Cinders, Culm, and Coke.	Total of Coals, Cinders, Coke, and Culm.	Patent Fuel.
	Tons.	*Tons.*	*Tons.*	*Tons.*	£	£	£	£
Russia: Northern Ports	272,692	5,174	277,866	842	119,118	3,998	123,116	469
,, Black Sea	35,043	191	35,234	- -	16,658	132	16,790	
Sweden - -	170,985	8,253	179,238	- -	73,261	6,200	79,461	
Norway - -	113,512	4,555	118,067	- -	49,067	3,420	52,487	
Denmark - -	458,072	14,427	472,499	143	193,087	11,181	201,268	79
Prussia - -	374,706	39,208	413,914	670	149,674	30,834	180,508	378
Mecklenburg -	35,829	314	36,143	- -	14,667	227	14,894	
Hanover - - -	68,540	3,672	72,212	- -	31,530	2,941	34,471	
Oldenburg - -	40,340	295	40,635	- -	16,475	211	16,686	
Hanseatic Towns -	511,690	8,576	520,266	345	217,920	7,013	224,933	190
Holland - -	268,778	6,387	275,165	100	111,591	4,807	116,398	65
Belgium - -	71,698	633	72,331	- -	28,459	545	29,002	
Channel Islands -	65,603	1,215	66,818	- -	31,601	940	32,541	
France - -	1,268,943	10,190	1,279,133	7,199	568,330	6,096	574,426	4,053
Portugal, Azores, &c.	115,347	4,578	119,925	2,994	52,148	3,288	55,436	1,662
Spain & the Canaries	228,094	92,594	320,488	9,086	112,848	67,379	180,227	5,096
Gibraltar - -	60,269	154	60,423	- -	30,037	100	30,137	
Italy - - -	304,742	26,807	331,549	3,837	144,475	19,913	164,407	2,172
Malta - -	94,204	3	94,207	- -	58,115	5	58,120	
Ionian Islands -	21,494	- -	21,494	1,226	9,828	- -	9,828	774
Greece - -	23,822	- -	23,822	- -	11,096	- -	11,096	
Turkey - -	206,334	1,764	208,098	- -	95,604	1,465	97,069	
Wallachia & Moldavia	8,290	117	8,407	- -	4,115	60	4,175	
Syria and Palestine -	13,312	- -	13,312	- -	5,764	- -	5,764	
Egypt - -	103,251	11,840	115,091	944	50,474	8,906	59,380	548
Algeria - -	35,809	- -	35,809	- -	17,474	- -	17,474	
Western Coast of Africa - -	17,151	- -	17,151	6,744	9,469	- -	9,469	4,671
British possessions in S. Africa - -	61,590	- -	61,590	6,402	32,416	- -	32,416	3,873
Aden - - -	57,024	- -	57,024	1,405	28,773	- -	28,773	775
British Territories in the East Indies -	326,397	2,760	329,157	8,335	168,947	2,572	171,519	4,866
Java - - -	7,870	142	8,012	303	4,651	330	4,981	247
China - - -	85,018	30	85,048	5,851	45,443	80	45,523	4,449
British Settlements in Australia - -	40,380	2,262	42,642	12	27,172	1,806	28,978	10
British N. A. Colonies	122,501	1,358	123,859	- -	53,845	1,066	54,911	
British West Indies -	99,294	718	100,012	2,872	56,351	597	56,948	2,249
Foreign West Indies -	179,638	34	179,672	- -	87,510	38	87,548	
United States: Ports on the Atlantic	191,119	50	191,169	- -	118,584	50	118,634	
California - -	6,338	- -	6,338	- -	4,427	- -	4,427	
Brazil - - -	102,835	2,068	104,903	2,256	56,892	1,893	58,785	1,354
Chili - - -	89,432	2,158	91,590	3,707	43,656	1,765	45,419	2,719
Peru - - -	22,456	1,780	24,236	2,319	11,428	1,371	12,799	2,870
Total of the above, and of those to all other places -	6,483,416	254,302	6,737,718	84,032	3,019,228	191,433	3,210,661	53,437

The coal shipped coastwise in the U. Kingdom amounts to from 9,000,000 to 10,000,000 tons a year.

COASTING TRADE, the trade or intercourse carried on by sea between two or more ports or places of the same country.

It has been customary in most countries to exclude foreigners from all participation in the coasting trade. This policy began in England in the reign of Elizabeth (5 Eliz. c. 5.), or, perhaps, at a more remote æra; and it was perfected by the acts of navigation passed in 1651 and 1660. A vast number of regulations have since been enacted having reference to this matter. And it was finally laid down in the Customs Consolidation Act of 1853 (16 & 17 Vict. c. 107. §§ 152. 191.) that no goods or passengers should be carried coastwise from one part to another of the U. K. except in British vessels. But this restriction was repealed in the course of 1854 by the 17 Vict. c. 5., so that the coasting trade is now quite free.

Policy of the Repeal of Restrictions on Coasting Trade.—Much doubt has, for a considerable time, been entertained in regard to the policy of the monopoly of the coasting trade: and in 1849 it was proposed that it should be thrown open. It is not easy, indeed, to see any grounds on which this monopoly could be satisfactorily vindicated. In considering this question it is needless to refer to countries destitute of a commercial

marine, for without the aid of foreigners they could have no coasting trade. And the shipowners of countries that have such a marine, and, which, also, have any considerable facilities for carrying on navigation, have so many advantages on their side, that it is difficult to imagine that they should ever be superseded, in any considerable degree, by foreigners, in carrying on the coasting trade. But while the admission of the latter to the privileges of engaging in that trade, hinders the native shipowners from availing themselves of any peculiar circumstances (such as existed in 1853 and 1854) to charge oppressive rates of freight, it at the same time subjects them to that wholesome competition by which alone their inventive energies can be fully developed. The probability consequently is that the introduction of a free system will be as advantageous in all that respects shipping and navigation as in most other things. Our naval pre-eminence is the result of our manufacturing and mercantile superiority, and of the greater facilities we enjoy for the construction of ships, and the breeding of sailors. And while the former will most likely be increased, the latter will not certainly be diminished by the opening of the coasting trade to the ships of other nations.

Foreign ships engaged in the coasting trade are subjected in all respects to the rules and regulations (given below) laid on British ships engaged in the same trade. We subjoin an abstract of the Act admitting foreign ships to the coasting trade, the 17 Vict. c. 5.

Repeal of the recited Enactments.—Sections 152 and 191 of the Customs Consolidation Act, 1853, 16 & 17 Vict. c. 107., shall be repealed from the passing of this Act: Provided, that it shall be lawful for Her Majesty to exercise, in respect of foreign ships employed in the coasting trade as aforesaid, and of goods carried coastwise in such ships, such or the like powers as are conferred on her Majesty by the 16 & 17 Vict. c. 107. ss. 324, 325, & 326., in respect of foreign ships employed in the oversea trade, and of goods exported or imported in such ships.—§ 1.

Foreign Ships in Coasting Trade subject to same Rules as British Ships.—Every foreign ship which after the passing of this act is employed in carrying goods or passengers coastwise from one part of the U. K. to another, or from the Islands of Guernsey, Jersey, Alderney, Sark, or Man, to the U. K., or from the U. K. to any of the said Islands, or from any of the said Islands to any other of them, or from any part of any one of the said Islands to any other part of the same, shall be subject, as to stores for the use of the crew, and in all other respects, to the same laws, rules, and regulations to which British ships when so employed are now subject.—§ 2.

Foreign Ships in Coasting Trade not subject to higher Rates than British Ships.—No foreign ship which after the passing of this act is employed in the coasting trade as aforesaid, nor any goods carried in any such ship, shall, during the time such ship is so employed, be subject to any higher or other rate of dock, pier, harbour, light, pilotage, tonnage, or other dues, duties, tolls, rates, or other charges whatsoever, or to any other rules as to the employment of pilots, or any other rules or restrictions whatsoever, than British ships employed in like manner, or goods carried in such ships, any law, charter, special privilege, or grant to the contrary notwithstanding; nor shall any body corporate or person having or claiming any right or title to any such higher or other rates, dues, duties, tolls, or other charges as aforesaid be entitled to any compensation in respect thereof under any law or statute relating thereto, or otherwise howsoever.—§ 3.

Foreign Steam Vessels carrying Passengers Coastwise subject to 14 & 15 Vict. c. 79.—And whereas it is expedient to provide for the safety of passenger steamers: be it enacted, that every foreign steam vessel carrying passengers from one place to another on the coasts of the U. K. and the Channel Islands shall be subject to the provisions of the Steam Navigation Act, 1851, (14 & 15 Vict. c. 79.)—§ 4.

Regulations under which Coasting Trade is conducted.—These, which have been very much simplified, are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107., and are as follow, viz.:—

All Trade by Sea from one Part of the U. K. to another to be deemed coastwise.—All trade by sea from any one part of the U. K. to any other part thereof shall be deemed to be a coasting trade, and all ships while employed therein shall be deemed to be coasting ships, and no part of the U. K., however situated with regard to any other part, shall be deemed in law, with reference to each other, to be parts beyond the seas; and if any doubt shall at any time arise as to what or to or from what parts of the coast of the U. K. shall be deemed a passage by sea, the commissioners of the Treasury may determine and direct in what cases the trade by water from one port or place in the U. K. to another of the same shall or shall not be deemed a trade by sea within the meaning of this or any act relating to the Customs.—§ 151.

Coasting Ship confined to Coasting Voyage.—No goods shall be carried in any coasting ship, except such as shall be laden to be so carried at some port or place in the U. K., and no goods shall be laden on board any ship to be carried coastwise until all goods brought in such ship from parts beyond the seas shall have been unladen; and if any goods shall be taken into or put out of any coasting ship at sea or over the sea, or if any coasting ship shall touch at any place over the sea, or deviate from her voyage, unless forced by unavoidable circumstances, or if the master of any coasting ship which shall have touched at any place over the sea shall not declare the same in writing under his hand to the collector or comptroller at the port in the U. K. where such ship shall afterwards first arrive, the master of such ship shall forfeit the sum of 100*l.*—§ 153.

Times and Places for landing and shipping.—If any goods be unshipped from any ship arriving coastwise, or be shipped or water-borne to be shipped to be carried coastwise, on Sundays or holidays, or unless in the presence or with the authority of the proper officer of the Customs, or unless at such times and places as shall be appointed or approved by him for that purpose, the same shall be forfeited, and the master of the ship shall forfeit the sum of 50*l.*—§ 154.

Master of Coasting Vessel to keep a Cargo Book.—The master of every coasting ship shall keep or cause to be kept a cargo book, stating the names of the ship, the master, and the port to which she belongs, and of the port to which she is bound on each voyage, and shall at every port of lading enter in such book the name of such port, and an account of all goods there taken on board such ship, stating the descriptions of the packages and the quantities and descriptions of the goods therein, and the quantities and descriptions of any goods stowed loose, and the names of the respective shippers and consignees, so far as such particulars are known to him, and shall at every port of discharge of such goods note the respective days on which the same or any of them are delivered out of such ship, and the respective times of departure from every port of lading and of arrival at every port of discharge; and such master shall, on demand, produce such book for the inspection of any officer of Customs, who shall be at liberty to make any note or remark therein; and if upon examination any package entered in the cargo book as containing foreign goods shall be found not to contain such goods, such package, with its contents, shall be forfeited, or if

any package shall be found to contain foreign goods not entered in such book, such goods shall be forfeited; and if such master shall fail correctly to keep such cargo book, or to produce the same, or if at any time there be found on board such ship any goods not entered in such book as laden, or any goods noted as delivered, or if any goods entered as laden or any goods not noted as delivered be not on board, the master of such ship shall forfeit the sum of 20*l.* — § 155.

Account previous to Departure to be delivered to Collector. — Before any coasting ship shall depart from the port of lading, an account, with a duplicate thereof, in the form or to the effect following, and signed by the master, shall be delivered to the collector or comptroller; and the collector or comptroller shall retain the duplicate, and return the original account, dated and signed by him; and such account shall be the clearance of the ship for the voyage, and the TRANSIRE or PASS for the goods expressed therein; and if any such account be false, the master shall forfeit the sum of 20*l.*

Port of TRANSIRE.

Ship's Name.	Tonnage.	Port of Registry.	Master's Name.	Whither bound.
Here state the Particulars according to the above Headings.				

Foreign Goods, distinguishing Warehoused Goods removed under Bond.	Quantities of Corn, Grain, Meal, Flour, or Malt.	Goods liable to Duty of Excise or entitled to Drawback thereof.	Here state "Sundry other Goods," or "No other Goods," as the Case may be.
Here state the Particulars according to the above Headings.			

(Signed) Master.

Cleared the Day of 183 .

(Signed) Collector or Comptroller.

Provided always that the commissioners of Customs may, whenever it appears to them expedient, permit general transires to be given, under such regulations as they may direct, for the lading and clearance and for the entry and unlading of any coasting ship and goods, and the same may be revoked by notice in writing under the hand of the proper officer delivered to the master or owner of any ship, or any of the crew on board. — § 156.

Transire to be delivered in 24 Hours after Arrival. — Within 24 hours after the arrival of any coasting ship at the port of discharge, and before any goods be unladen, the transire, with the name of the place or wharf where the lading is to be discharged noted thereon, shall be delivered to the collector or comptroller, who shall note thereon the date of delivery; and if any of the goods on board such ship be subject to any duty of excise, the same shall not be unladen without the authority or permission of the proper officer of excise; and if any goods on board any coasting ship arriving in Great Britain or Ireland from the Isle of Man shall be the growth or produce of that isle, or manufactures of that isle from materials the growth or produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials upon which the duty shall have been paid and not drawn back in Great Britain or Ireland, the same shall not be unladen until a certificate be produced to the collector or comptroller, from the collector or comptroller at the port of shipment, that proof had there been made in manner required by law that such goods were of such growth, produce, or manufacture, as the case may be; and if any goods shall be unladen contrary hereto, the master shall forfeit the sum of 20*l.*; and if any goods shall be laden on board any ship in any port or place in the U. K., and carried coastwise, or having been brought coastwise, shall be unladen in any such port or place contrary to this or any other Act relating to the Customs, such goods shall be forfeited. — § 157.

Officer may go on board and examine any Coasting Ship. — Any officer of the Customs may go on board any coasting ship in any port or place in the U. K., or at any period of her voyage search such ship, and examine all goods on board, and all goods then lading or unlading, and demand all documents which ought to be on board such ship; and the collector or comptroller may require that all or any such documents shall be brought to him for inspection, and the master of any ship refusing to produce such documents, on demand, or to bring the same to the collector or comptroller when required, shall forfeit and pay the sum of 20*l.* — § 158.

Account of the Number and Tonnage of British and Foreign Vessels (Sailing and Steam) entered and cleared, Coastwise, in 1857, with Cargoes only, at Ports in the U. Kingdom, distinguishing the Vessels employed between Great Britain and Ireland.

	Entered.						Cleared.	
	British.		Foreign.		Total.		British and Foreign.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
Employed between Great Britain and Ireland	33,037	5,031,571	76	13,501	33,113	5,045,072	32,570	4,960,701
Other coasting vessels	117,809	10,744,272	243	36,858	118,052	10,781,130	123,289	10,929,601
Total	150,846	15,775,843	319	50,359	151,165	15,826,202	155,859	15,890,302

COBALT. (Ger. *Kobalt*; Du. *Kobal*; Sw. *Cobolt*; Fr. *Cobalt*; It. *Cobalto*; Rus. *Kobolt*; Lat. *Cobaltum*), a mineral of a grey colour, with a shade of red, and by no means brilliant. It has scarcely any taste or smell; is rather soft; specific gravity about 8·6. Sometimes it is composed of plates, sometimes of grains, and sometimes of small fibres adhering to each other. Its oxides are principally employed. — (See SMALTS, or SMALTZ.) They form the most permanent blue with which we are acquainted. The colouring power of oxide of cobalt on vitrifiable mixtures is greater

perhaps, than that of any other metal. One grain gives a full blue to 240 grains of glass.—(*Thomson's Chemistry*; and *Ure's Dictionary*.)

COCCULUS INDICUS, OR INDIAN BERRY (Sans. *Kakamari*; Malay, *Tubabidgi*), the fruit or berry of the *Menispermum Cocculus*, a strong climbing tree or shrub found on the Malabar coast, in Ceylon, &c.

The berry is kidney-shaped, dark brown, of about the size of a large pea; but when dried and imported it is shrivelled and smaller. The outer layer encloses a woody shell, containing a yellowish kernel. Cocculus Indicus is acrid and intensely bitter, and is a very powerful narcotic. In some parts of the East it is used, when formed into a paste with moistened rice, as a bait by fishermen and bird-catchers, but especially the former. Being thrown into the sea, or scattered on the ground, it is greedily devoured by the fish and birds, which it either kills or stupefies, so that they are easily captured. Its effects on man have not been accurately determined; but if taken in large doses it would, no doubt, be fatal. When added to malt liquors it increases their intoxicating power; and provided it be not administered in excess, or does not exceed 3 lbs. Cocculus to 10 qrs. malt, its use in this way is not supposed to have any injurious influence. (*Pereira's Materia Medica*, 3rd ed. p. 2153; *Thomson's Materia Medica*; *Ainslie's Materia Medica*, p. 131., &c.)

The imports of Cocculus Indicus are very considerable. In 1857, 68 cwt. were entered for consumption. And as it is hardly used, or only to a very trifling extent, in the Materia Medica, it would seem to follow that it must be principally employed by brewers' druggists. Its use in this way is, however, illegal, being prohibited, along with a number of other articles, by the 56 Geo. 3. c. 58., under a penalty of 200*l.* upon the brewer and of 500*l.* on the seller of the drug, over and above the confiscation of the beer and brewing utensils. But a statute of this sort had much better be repealed. It is binding only on such tradesmen as choose to respect the law, and is no check on those of a different character. Cocculus Indicus is imported in bags of about 1 cwt. each. Duty on importation 5*s.* a cwt.

COCHINEAL (Ger. *Koschenilje*; Du. *Conchenilje*; Fr. *Cochenille*; It. *Cocciniglia*; Sp. *Cochinilla*, *Grana*; Port. *Cochenilha*; Russ. *Konssenel*), an insect (*Coccus cacti*) found in Mexico, Central America, and New Granada, the Canary Islands, Brazil, &c. It has been introduced into Java, and promises to become an important product of that rapidly improving colony. Formerly it was in Mexico only that it was reared with care, and formed a valuable article of commerce; but its culture is now more or less attended to in many other places, and especially, of late, in the Canary Islands. Here its growth has been so very rapid that the exports, which amounted in 1832 to only 120 lbs., had increased in 1856 to no fewer than 1,511,716 lbs.—(*Consular Reports*, 1857, p. 149.) It is a small insect, seldom exceeding the size of a grain of barley; and was generally believed, for a considerable time after it began to be imported into Europe, to be a sort of vegetable grain or seed. There are two sorts or varieties of cochineal: the best or domesticated, which the Spaniards call *grana fina*, or fine grain; and the wild, which they call *grana sylvestra*. The former is nearly twice as large as the latter; probably because its size has been improved by the favourable effects of human care, and of a more copious and suitable nourishment, derived solely from the *Cactus cochinillifer*, during many generations. Wild cochineal is collected six times in the year; but that which is cultivated is only collected thrice during the same period. The insects, of which there are about 70,000 in a pound, being detached from the plants on which they feed by a blunt knife, are put into bags, and dipped in boiling water to kill them, after which they are dried in the sun. It is principally used in the dyeing of scarlet, crimson, and other esteemed colours. The watery infusion is of a violet crimson; the alcoholic, of a deep crimson; and the alkaline, of a deep purple, or rather violet hue. It is imported in bags, each containing about 200 lb.; and has the appearance of small, dry, shrivelled, rugose berries or seeds, of a deep brown, purple, or mulberry colour, with a white matter between the wrinkles. In this state they suffer no change from length of keeping. Dr. Bancroft says that that cochineal is the best, which is "large, plump, dry, and of a *silver white* colour on the surface."

The species of cochineal called *granilla*, or dust, is supposed by Dr. Bancroft to be principally formed of *grana sylvestra*. The insects of which it consists are smaller than those composing the fine cochineal; and it does not yield more than a third part of the colouring matter that is yielded by the latter. The cochineal insect was introduced into India in 1795; but a very inferior sort only is produced. It has also been introduced into Java and Spain; but with what success remains to be seen.—*Thomson's Dispensatory*; *Bancroft on Colours*, &c.

The duties on cochineal, after being reduced in 1842 to 1*s.* a cwt., were finally abolished in 1845.

In 1857 the imports and exports of cochineal were respectively 22,792 and 12,398 cwts. There were also imported during the same year 227 cwt. granilla, and 539 cwt. dust. The consumption may, perhaps, be estimated at about 12,000 cwt. or 1,342,000 lbs.

The price of cochineal fluctuated very much during the war, partly on account of the obstacles which it occasionally threw in the way of importation, and partly on account of its being an article of direct government expenditure. In 1814 the price of the best cochineal was as high as 36*s.* and 39*s.*; and it has since gone on regularly declining, with hardly a single rally, till, in 1850, it settled down to from 4*s.* to 6*s.* 4*d.* per lb. Previously to the late war it had never been under 12*s.* or 13*s.* Lac dye has been employed to some extent in dyeing scarlet; but notwithstanding this circumstance, the consumption of cochineal, occasioned, no doubt, partly by its cheapness, and partly, perhaps, by some change of fashion, has been materially increased since 1835. This, however, has not had any material influence on its price, and it would appear, from the long continuance of low prices, not only without any diminution, but with a large increase of imports, that they are quite sufficient to remunerate the growers of the article.—(*Tooke, &c. on High and Low Prices.*) In December, 1858, the price of cochineal in the London market varied from 3*s.* 4*d.* to 4*s.* 5*d.* per lb.

COCOA, or, more properly, CACAO (Fr. and Sp. *Cacao*; Ger. *Kakao*), the seed or nuts of the cocoa tree (*Theobroma cacao*), growing in the West Indies, and in many parts of South America. It is said, by Mr. Bryan Edwards, to bear some resemblance, both in size and shape, to a young *blackheart cherry*.

The nuts are contained in pods, much like a cucumber, that proceed immediately from all parts of the body and larger branches; each pod contains from 20 to 30 nuts, of the size of large almonds, very compactly set. The shell of the nut is of a dark brown colour, brittle, and thin; the kernel is, both internally and externally, brownish, divided into several unequal portions adhering together, but separating without much difficulty; it has a light agreeable smell, and an unctuous, bitterish, rather rough and peculiar, but not ungrateful taste. The nuts should be chosen full, plump, and shining, without any mustiness, and not worm-eaten. They yield, by expression, a great deal of oil; but they are cultivated only that they may be employed in the preparation of the excellent beverage cocoa, and the manufacture of chocolate, of which they form the principal ingredient. The finest cocoa is said to be that of Socomusco. The principal importations were formerly derived from the Caraccas and Guayaquil, particularly the former, the cocoa of which is, also, the more valuable. The exports from Venezuela amounted in 1851 to 8,159,905 lbs., worth 1,299,631 doll.

M. Humboldt estimated the consumption of cocoa in Europe, in 1806, at 23,000,000 lbs., of which from 6,000,000 to 9,000,000 were supposed to be consumed in Spain. The production of cocoa was languishing in the Caraccas for several years previously to the commencement of the disturbances in South America; and latterly the cultivation of coffee seems to have been in most parts gaining the ascendancy.—(*Humboldt, Pers. Narrative*, vol. iv. pp. 236—247. Eng. trans.) In 1851 the exports of coffee from Venezuela amounted to 37,968,081 lbs.

Duties. Consumption in England.—Down to a late period the consumption of cocoa in England was confined within very narrow limits; a result which we are inclined to ascribe to the oppressiveness of the duties with which it has been loaded, and not to its being unsuitable to the public taste. It is now many years since Mr. Bryan Edwards declared that the ruin of the cocoa plantations, with which Jamaica once abounded, was the effect of "*the heavy hand of ministerial exaction.*"—(*Hist. of West Indies*, ii. 363. ed. 1819.) And, unaccountable as it may seem, this pressure was not materially abated till 1832, when the duties on cocoa from a British possession were reduced from 6*d.* to 2*d.* per lb. And such was the influence of this judicious measure, that the consumption of cocoa, which, at an average of the 3 years ending with 1831, amounted to 440,578 lbs. a year, had increased at an average of the 3 years ending with 1842. to 2,072,335 lbs.! The duty on foreign cocoa continued from 1830 down to 1842 to be (generally 6*d.* per lb.) *three* times as great as that on coffee from a British possession; and in consequence of this discrepancy, none of it was entered for home consumption under the duty, though it is worthy of remark that cocoa for the navy, which pays no duty, was almost always taken from a foreign stock. In 1842 the duty on cocoa from a British possession was farther reduced $1\frac{1}{20}$*d.* per lb.; and it might have been expected that the ratio of protection in favour of plantation cocoa would then, also, have been diminished; but it was not till 1846 that the duty on foreign cocoa was reduced to $2\frac{1}{10}$*d.* per lb.

In 1853 the duties were finally equalised, and fixed at 1*d.* per lb. The duties on husks and shells were then, also, fixed at $\frac{1}{4}$*d.* per lb., and on paste or chocolate at 2*d.* per do.

In 1857, 2,772,921 lbs. cocoa were admitted to consumption, ex. the supply for the navy.

In 1857 the imports of cocoa from the British W. Indies amounted to 3,932,121 lbs., of which 2,643,605 lbs. were supplied by Trinidad, and 949,365 lbs. by Grenada; but in 1856 the imports from Trinidad amounted to 3,274,466 lbs. In the former year we imported 968,573 lbs. from Ecuador, and 925,689 lbs. from Brazils.

No abatement is made from the duty on cocoa on account of damage.—16 & 17 Vict. c. 107. § 76.

Cocoa husks and shells are brought not only from the West Indies, but from Gibraltar and other places, being the refuse of the chocolate manufactories carried on in them.

British plantation cocoa was worth in bond in the London market, in October, 1858, from 48*s.* to 70*s.* a cwt.

COCO, COKER, or, more properly, COCOA NUTS (Ger. *Kokoniisse*; Du. *Kokosnooten*; Fr. and Sp. *Cocos*; It. *Cocchi*; Russ. *Kokos*, Sans. *Narikēla*), the fruit of a species of palm tree (*Cocos nucifera* Lin.).

This tree is common almost everywhere within the tropics, and is extremely valuable; being to the palmivorous inhabitants of many parts of Ceylon, Brazil, and other intertropical regions, not merely their principal wealth, but almost their entire dependence. Every part of the tree is appropriated to some peculiar purpose; and an Indian with a garden containing 12 coco-nut trees and 2 jack trees is said to be comparatively independent! But we may observe that this facility of obtaining subsistence is not an advantage, but the reverse; indolence and a want of civilisation being its invariable accompaniment. The tree grows to the height of from 50 to 90 feet; it has no branches, but the leaves are from 12 to 14 feet in length, with a very strong middle rib. The fruit is nearly as large as a man's head; the external rind is thin, tough, and of a brownish red colour. Beneath this there is a quantity of very tough fibrous matter, which is used in the manufacture of cordage, and coarse sail-cloth. It is buoyant and extremely well suited for ropes of large diameter; and until the introduction of chain cables most part of the ships which navigated the Indian seas were supplied with cables of this material.—(see Coir.) Within the fibrous coating is the shell of the nut, which is nearly globular, very hard, susceptible of a high polish, and used for many domestic purposes; the kernel is white, in taste and firmness resembling that of a hazel nut; it is hollow in the interior, the hollow being filled with a milky fluid. While the nut is green, the whole hollow of the shell is filled with fluid, which is refreshing, agreeable, and pleasant to the taste. The solid part of the ripe kernel is extremely nutritious, but rather indigestible. The kernels yield by expression a great deal of oil, which, when recent, is equal to that of sweet almonds; but it soon becomes rancid, and is then employed by painters. A tree generally yields about 100 nuts, in clusters near the top of about a dozen each. The wood of the tree is made into boats, rafters, the frames of houses, and gutters to convey water. The leaves are used for thatching buildings; and are wrought into mats, baskets, and many other things, for which osiers are employed in Europe; so that every part of it is applied to some useful end.

If the body of the tree be bored, there exudes from the wound a white liquor, called palm wine or toddy. It is very sweet when fresh; kept a few hours, it becomes more poignant and agreeable; but next day it begins to grow sour, and in the space of 24 hours is changed into vinegar. When distilled, it produces the best species of Indian arrack; it also yields a great deal of sugar. Toddy is obtained from several species of palms, but that of the *Cocos nucifera* is the best.—(See *Marshall on the Coco-Nut Tree; Ainslie's Materia Indica; Rees's Cyclopædia, &c.*)

An improvement effected in the preparation of cocoa oil has made it of much importance in the arts, by rendering it available in the manufacture of candles and soap, and for various purposes to which it was not previously applicable.

The palm oil met with in the market is not obtained from the *Cocos nucifera*, but from another species of palm. It is chiefly imported from the coast of Guinea.—(See Palm Oil.)

Cocoa nuts are produced in immense quantities in Ceylon, forming, with their products, — oil, arrack, and coir, — the principal articles of export from that island. They are also very abundant in the Maldive Islands, Siam, and on several places of the coast of Brazil. Cocoa oil is in very extensive use all over India, and large quantities are manufactured in the lower provinces of Bengal. This latter is said to be superior to that imported from Ceylon.

At an average of the 3 years ending with 1850, 431,071 gall. of cocoa nut oil were exported from Ceylon.

A duty on cocoa nuts when imported into the U. Kingdom, after being reduced in 1832, was suppressed in 1845. In 1852 we imported 1,825,471 nuts, which were almost wholly retained for consumption. They are used, instead of wedges, to fill up the interstices between casks and packages in the cargoes of ships, so that their freight costs but little. In the same year our imports and exports of cocoa-nut oil amounted respectively to 101,863 and 74,751 cwts. — (*Parl. Paper*, No. 504. sess. 1853.)

COD (Ger. *Kabljau*, *Bakalau*; Du. *Kabeljaauw*, *Baukaelja*; Da. *Kabliau*, *Skreitorsk*, *Bakelau*; Sw. *Kabeljo*, *Bakelau*; Fr. *Morue*, *Cabillaud*; It. *Baccala*, *Baccalare*; Sp. *Bacalao*; Port. *Bacalhão*; Lat. *Gadus*), a species of fish, too well known to require any description. "It is amazingly prolific. Leewenhoek counted 9,384,000 eggs in a cod-fish of a middling size; a number that will baffle all the efforts of man to exterminate. In our seas they begin to spawn in January, and deposit their eggs in rough ground, among rocks. Some continue in roe till the beginning of April.

"The cod is only found in the northern parts of the world; it is an ocean fish, and never met with in the Mediterranean. The great rendezvous of the cod-fish is on the banks of Newfoundland, and the other sand-banks that lie off the coasts of Cape Breton, Nova Scotia, and New England. They prefer those situations, by reason of the quantity of worms produced in these sandy bottoms, which tempt them to resort there for food. But another cause of the particular attachment the fish have to these spots is their vicinity to the polar seas, where they return to spawn: there they deposit their roes in full security; but want of food forces them, as soon as the more southern seas are open, to repair thither for subsistence. Few are taken to the north of Iceland, but they abound on its south and west coasts. They are also found to swarm on the coasts of Norway, in the Baltic, and off the Orkney and Western Isles; after which their numbers decrease in proportion as they advance towards the south, when they seem quite to cease before they reach the mouth of the Straits of Gibraltar.

"Before the discovery of Newfoundland, the greater fisheries of cod were on the seas of Iceland, and off our Western Isles, which were the grand resort of ships from all the commercial nations; but it seems that the greatest plenty was met with near Iceland. The English resorted thither before the year 1415; for we find that Henry V. was disposed to give satisfaction to the King of Denmark for certain irregularities committed by his subjects on those seas. In the reign of Edward IV. the English were excluded from the fishery, by treaty. In latter times, we find Queen Elizabeth condescending to ask permission to fish in those seas, from Christian IV. of Denmark. In the reign of her successor, however, no fewer than 150 English ships were employed in the Iceland fishery; which indulgence might arise from the marriage of James with a princess of Denmark." — (*Pennant's British Zoology.*)

Cod is prepared in two different ways; that it, it is either gutted, salted, and then barrelled — in which state it is denominated green or pickled cod, — or it is dried and cured — in which state it is called dried cod. Ready access to the shore is indispensable to the prosecution of the latter species of fishery.

Cod Fishery, British. — This fishery, including under the term not only that of common cod, but of haddock, ling, hake, torsk, &c., is of very considerable value and importance. It consists of two grand departments, which may be respectively termed the *home*, and the *distant* or *colonial* fishery. The first is carried on in a great variety of places contiguous to the shores of the British islands; but the most productive and valuable of the adjacent fisheries are those in the neighbourhood of the Shetland and Orkney islands, and off the shores of Essex, Suffolk, Norfolk, Lincoln, &c. Formerly the principal part of the cod brought to London was taken round the edges of the Dogger-bank, or rather in the hollows between it and the Well-bank; and the finest is still brought from thence. But within the last few years the London market has been in great part supplied with cod taken between Yarmouth and the Nore; and in consequence of its being procured so much nearer home, the average price of cod has fallen from 30 to 50 per cent. below what it was from 1815 to 1820. — (*Report on the Channel Fisheries*, p. 85.) This change has occasioned a great increase in the number of fishing smacks belonging to Barking, Gravesend, and other ports on the Thames; while those

belonging to Harwich and the more distant ports have been materially reduced. The cod taken by the fishermen of Shetland and the Western Isles is mostly cured dried, but it is partially, also, cured green or in pickle; and it is sometimes, though much seldomer now than formerly, conveyed alive in welled vessels to London. The haddocks taken on the Aberdeenshire coast, and cured at the village of Finnan, near Aberdeen, are held in the highest estimation. The haddocks taken in Dublin bay are the largest of any taken on the British coasts.

There are no means by which to form any estimate either of the number of fishing vessels, or of the quantity or value of the fish annually taken in the home cod fishery; by far the larger portion being landed without account or notice of any kind, and disposed of fresh. The following account contains such particulars only as have been brought under the notice of the commissioners for the improvement of the British fisheries.

Account of the Total Quantity of Cod, Ling, or Hake, cured, punched, or branded, and exported, since 1830, in so far as the same has been brought under the Cognizance of the Officers of the Fishery Board.

Periods.	Total Quantity of Cod, Ling, or Hake cured.			Total Quantity of Cod, Ling, or Hake, punched or branded.		Total Quantity of Cod, Ling, or Hake exported.		
	Cured dried.	Cured in Pickle.		Cured dried.	Cured in Pickle.	Cured dried.		Cured in Pickle.
Year ended 5th April,	*Cwt.*	*Cwt.*	*Barrels.*	*Cwt.*	*Barrels.*	*Cwt.* *qrs.* *lbs.*		*Barrels.*
1830 - -	101,914	5,652½	8,836½	92,314½	8,464	16,369	3 15	
1835 - -	44,152½	- -	3,767½	9,492½	2,235	10,632	2 24	
1836 - -	38,010½	- -	6,276	6,766	3,018	10,992	2 20	
1837 - -	66,899½	- -	7,273	9,589½	3,206	10,195	2 11	1½
1838 - -	84,996½	- -	10,503	9,259½	4,573	22,166	2 12	56
1839 - -	85,279½	- -	10,051½	23,936½	5,093	26,701	3 0	150½
1840 - -	95,560½	- -	6,053	21,695½	3,205†	29,656	1 0	24
1841 - -	91,494½	- -	9,480	21,029½	3,891	30,550	1 0	44
1842 - -	76,849	- -	7,038½	13,283½	2,164	25,293	1 0	
1843 - -	77,207½	- -	6,451	10,030½	1,512	23,737	3 0	70
1844 - -	92,813½	- -	5,123	20,810½	2,226½	35,476	0 0	4
1846 - -	92,525	- -	5,037	14,372½	955	29,352	0 0	
1847 - -	90,783½	- -	6,341½	12,587½	1,492	34,465	1 0	15
1848 - -	86,624½	- -	6,247½	8,145½	955	25,662	3 0	
1849 - -	85,465	- -	6,810½	9,520	1,681	22,608	3 0	
1850 - -	98,903	- -	6,588	16,556	997	24,154	1 0	20
1851* - -	90,658½	- -	5,032	† - -	- -	22,304	1 0	
1852 - -	92,083½	- -	7,019½	- -	- -	17,141	2 0	
1852 (31st December)	102,976½	- -	6,886	- -	- -	18,994	2 0	
1853 ,, -	105,596	- -	5,122½	- -	- -	22,650	3 0	14
1854 ,, -	109,684½	- -	6,166½	- -	- -	19,557	2 0	
1855 ,, -	113,561½	- -	6,316½	- -	- -	29,154	2 0	25
1856 ,, -	110,504½	- -	6,612	- -	- -	29,629	3 0	
1857 ,, -	104,668½	- -	4,393½	- -	- -	34,310	0 0	

* Since this date for Scotland and the Isle of Man only.
† The branding and punching of cod and ling was discontinued at the 5th January, 1850, as well as the collection of returns for England.

N.B.—The books of this department do not exhibit the total quantity of cod, ling, or hake cured till the year commencing 5th of April, 1825. The bounty from the commencement of this abstract to the 5th of April, 1830, was near 4*s.* per cwt. for fish cured and dried, and 2*s.* 6*d.* per barrel for fish cured in pickle, taken by the crews of vessels or boats not on the tonnage bounty; while the bounty vessels licensed for cod, ling, or hake fishery, on the tonnage bounty, was 50*s.* per ton for tonnage and cargo to the 5th of July, 1826; 45*s.* from thence to the 5th of July, 1827; 40*s.* to the 5th of July, 1828; and 35*s.* to the 5th of April, 1830; when the bounties ceased altogether, and have not since been renewed.

Distant Cod Fishery. — The great bank of Newfoundland, discovered by John or Sebastian Cabot in 1497, was long, and perhaps still is, the principal seat of the distant cod fishery. The extraordinary abundance of cod-fish on its banks having been speedily ascertained, the French, Portuguese, and Spaniards soon after engaged in the fishery. The English were later in coming into the field. In 1578, France had on the banks of Newfoundland 150 vessels, Spain 120 or 130, Portugal 50, and England from 30 to 50. During the first half of last century, the fishery was principally carried on by the English, including the Anglo-Americans, and the French; but the capture of Cape Breton, and of their other possessions in America, gave a severe blow to the fishery of the latter. The American war divided the British fishery; that portion of it which had previously been carried on from New England being thereafter merged in that of the United States. Still, however, we contrived to preserve the largest share. At an average of the 3 years ending with 1789, we are said to have had 402 ships, 1,911 boats, and 16,856 men, engaged in the American fisheries. During last war, the French being excluded from the fisheries, those of England attained to an extraordinary degree of prosperity; the total value of the produce of the Newfoundland fishery in 1814 having exceeded 2,800,000*l.* But since the peace, the British fishery on the Newfoundland banks has rapidly declined; and can hardly, indeed, be said, at this moment, to exist. It is now carried on almost entirely by the French and the Americans; the facilities enjoyed by the latter for its prosecution being greater than those of any other people, and the former being tempted to engage in it by the extraordinary encouragements afforded by government. At present, the British fishery carried on by the inhabitants of Newfoundland is confined entirely to the shore or boat fishery. But this, though probably not so good a nursery of sailors as the bank fishery, is admitted to be "the most productive of merchantable fish and oil." — (*M'Gregor's British America*, 2d ed. vol. i.

p. 206.) The average annual products of the fisheries of all sorts, including sea-salmon, &c., exported from Newfoundland, during the 3 years ended with 1832, is stated by M'Gregor to have amounted to 516,417*l.*—(Vol. i. p. 161.) A considerable fishery is also carried on from the ports and harbours of Nova Scotia and Cape Breton, New Brunswick, &c. But next to that of Newfoundland, the principal British fishery is carried on along the coast of Labrador. We borrow from the valuable work now referred to, the following statements with respect to it :—

"During the fishing season, from 280 to 300 schooners proceed from Newfoundland to the different fishing stations on the coast of Labrador, where about 20,000 British subjects are employed for the season. About one third of the schooners make two voyages, loaded with dry fish, back to Newfoundland during the summer, and several merchant vessels proceed from Labrador with their cargoes direct to Europe, leaving, generally, full cargoes for the fishing vessels to carry to Newfoundland. A considerable part of the fish of the second voyage is in a green or pickled state, and dried afterwards at Newfoundland. Eight or nine schooners from Quebec frequent the coast, having on board about 80 seamen and 100 fishermen. Some of the fish caught by them is sent to Europe, and the rest to Quebec; besides which, they carry annually about 6,000*l.* worth of furs, oil, and salmon, to Canada.

"From Nova Scotia and New Brunswick, but chiefly from the former, 100 to 120 vessels resort to Labrador. The burthen of these vessels may amount to 6,000 or 7,000 tons, carrying about 1,200 seamen and fishermen. They generally carry the principal part of their cargoes home in a green state.

"One third of the resident inhabitants are English, Irish, or Jersey servants, left in charge of the property in the fishing rooms, and who also employ themselves, in the spring and fall, catching seals in nets. The other two-thirds live constantly at Labrador, as furriers and seal-catchers on their own account, but chiefly in the former capacity, during winter, and all are engaged in the fisheries during summer. Half of these people are Jerseymen and Canadians, most of whom have families.

"From 16,000 to 18,000 seals are taken at Labrador in the beginning of winter and in spring. They are very large; and the Canadians, and other winter residents, are said to feast and fatten on their flesh. About 4,000 of these seals are killed by the Esquimaux. The whole number caught produce about 350 tuns of oil, value about 8,000*l.*"—(Vol. i. p. 185.)

The total produce of the Labrador fishery in 1832 was estimated by M'Gregor at 302,050*l.*; and he farther estimated the total produce of the British fisheries in the various seas and rivers of America, including seal oil and skins, at an average of the 5 years ending with 1832, at 857,210*l.* a year.—(Vol. ii. p. 596) But it is now considerably greater. We subjoin

An Account of the Quantities and Values of the Exports of the Produce of the Newfoundland Fishery (including that carried on at Labrador by Boats from Newfoundland) in 1854, 1855, and 1856.

Articles.	Quantities.			Values.		
	1854.	1855.	1856.	1854.	1855.	1856.
				£	£	£
Codfish - - quintals	774,117	Cwts. 1,107,388	Quintals 1,268,334	521,387	680,283	789,124
Oil: cod, unrefined - tuns	5,200	5,797	5,998	118,288	116,565	162,313
refined - "	209	262	207	21,807	30,280	15,908
seal - "	5,567	5,760	5,009	218,390	154,624	216,006
Skins, seal - - no.	398,870	293,083	361,317	68,215	46,836	71,386
Total values - - - - - - - -				£951,087	1,028,388	1,254,737

Note.—The number of ships employed in the fisheries cannot be ascertained; the number of boats is about 7,000.

About eight-tenths of the dried fish exported from Newfoundland by British subjects are sent to Spain, Portugal, Italy, and other Continental nations; the rest goes to the West Indies and to Great Britain.

The act 5 Geo. 4. c. 51. contains several regulations, with respect to the Newfoundland fisheries. Aliens are prohibited from fishing on the coasts, or in the bays or rivers of Newfoundland, excepting, however, the rights and privileges granted by treaty to foreign states at amity with his Majesty.

All British subjects may take, cure, and dry fish, occupy vacant places, cut down trees for building, and do other things useful for the trade.—§ 5.

Certificates should be granted to vessels clearing out for the fishery; and on arrival at Newfoundland a report should be made of such certificate, and registered; and on leaving the fishery the usual clearance shall be obtained. Vessels having on board any goods other than fish, &c. to forfeit the fishing certificate.—§ 4.

Persons throwing out ballast, &c. to the prejudice of the harbours in Newfoundland, shall be subject to a penalty.—§ 5.

A contract in writing, specifying wages, and how to be paid, must be entered into with seamen and fishermen.—§ 7.

A fisherman is prohibited receiving more than three-fourths of his wages during service; but the balance due to him is to be paid immediately upon the expiration of the covenanted time of service. No fisherman to be turned off, except for wilful neglect of duty, or other sufficient cause, under a penalty, for each offence, of not less than 5*l.*, nor more than 50*l.*

In order to fulfil the conditions in any treaty with a foreign state, his Majesty may empower the governor of Newfoundland to remove any works erected by British subjects for the purpose of carrying on the fishery between Cape St. John and Cape Ray, and to compel them to depart to another place.—§12.

Every person so refusing to depart shall forfeit 50*l.*—§ 13.

The governor is empowered to sell or lease places within the island called Ship-rooms.—§ 14.

For the regulations, &c. as to the importation of fish into Great Britain, see FISH.

It is doubtful whether the distant cod fishery may not have passed its zenith. Spain, Italy, and other Catholic countries, have always been the great markets for dried fish: but the observance of Lent is every day becoming less strict; and the demand for dried fish will, it is most likely, sustain a corresponding decline. The relaxed observance of Lent in the Netherlands and elsewhere has done more than anything else to injure the herring fishery of Holland.

Cod Fishery, American.—The Americans have at all times prosecuted the cod fishery with great vigour and success. Their fishermen are remarkable for their activity and enterprise, sobriety, and frugality; and their proximity to the fishing grounds, and the other facilities they possess for carrying on the fishery, give them advantages with which it would be very difficult to contend, even if they were not assisted by government, which, however, is the case. In 1795, the Americans employed in the cod fishery about 31,000 tons of shipping; in 1807, they are said to have employed 70,306 tons: but it subsequently declined for several years, and was almost entirely suspended during the late war. We subjoin

An Account of the Tonnage of the Vessels engaged in the Cod Fishery of the U. States, and of the Allowances, &c., paid to them from 1848 to 1857, both inclusive.

Years.	Tonnage employed.	Allowances to Fishing Vessels.	Sums due as Drawbacks.	Excess of Bounty over Drawbacks.
1848	82,652	$243,434	$22,811 95	$220,622
1849	73,882	287,604	21,809 66	265,794
1850	85,646	286,796	22,307 76	264,488
1851	87,476	328,267	25,193 08	303,074
1852	102,659	304,569	26,855 59	277,713
1853	99,990	323,199	24,847 41	298,351
1854	102,194	374,286	31,261 36	343,024
1855	102,928	346,496	32,484 07	313,712
1856	95,816	134,659	29,319 69	105,339
1857	101,573	601,453	29,233 61	572,219
Ten years	937,826	$3,230,463	$266,124 18	$2,964,336
Average tonnage per annum for 10 years				93,782·6
Average allowance per annum for 10 years				$323,046 30
Average sum due as drawback per annum for 10 years				26,612 40
Average excess of bounty over drawbacks per annum for 10 years				296,433 60

In the year ending the 30th of June, 1858, the Americans had 110,896 tons shipping engaged in the cod fishery. During the same year they exported 161,269 quintals of dried, and 30,470 barrels and 3,375 kegs of pickled cod; their aggregate value being 684,448 dollars.

"The Americans follow two or more modes of fitting out for the fisheries. The first is accomplished by 6 or 7 farmers, or their sons, building a schooner during winter, which they man themselves (as all the Americans on the sea coast are more or less seamen as well as farmers); and after fitting the vessel with necessary stores, they proceed to the banks, Gulf of St. Lawrence, or Labrador; and, loading their vessel with fish, make a voyage between spring and harvest. The proceeds they divide, after paying any balance they may owe for outfit. They remain at home to assist in gathering their crops, and proceed again for another cargo, which is salted down, and not afterwards dried: this is termed mud-fish, and kept for home consumption. The other plan is, when a merchant, or any other, owning a vessel, lets her to 10 or 15 men on shares. He finds the vessel and nets. The men pay for all the provisions, hooks and lines, and for the salt necessary to cure their proportion of the fish. One of the number is acknowledged master; but he has to catch fish as well as the others, and receives only about 20*s.* per month for navigating the vessel: the crew have five eighths of the fish caught, and the owners three eighths of the whole.

"The first spring voyage is made to the banks; the second either to the banks, Gulf of St. Lawrence, or the coast of Labrador; the third or fall voyage, is again to the banks; and a fourth, or second fall voyage, is also made, sometimes, to the banks."—(*M'Gregor*, vol. i. p. 220.)

It is stipulated in the first article of a convention between Great Britain and the United States, signed at London, 20th of October, 1818, that the subjects of the United States shall have liberty to take all sorts of fish "on that part of the coast of Newfoundland from Cape Ray to the Rameau Islands, on the western and northern coasts of Newfoundland from Cape Ray to the Quirpon Islands, on the Magdalen Islands, and also on the coasts, bays, harbours, and creeks, from Mount Joly, on the southern coast of Labrador, to and through the Straits of Belleisle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson's Bay Company; and that the American fishermen shall also have liberty, for ever, to dry and cure fish in any of the unsettled bays, harbours, and creeks of the southern parts of the coast of Newfoundland here above described, and of the coast of Labrador; but so soon as the same, or any portion thereof, shall be settled, it shall not be lawful for the said fishermen to dry or cure fish without previous agreement for such purpose with the inhabitants, proprietors, or possessors of the ground. And the United States hereby renounce for ever any liberty heretofore enjoyed or claimed by the inhabitants thereof, to take, dry, or cure fish on or within 3 marine miles of any of the coasts, bays, creeks, or harbours of his Britannic Majesty's dominions in America not included within the above mentioned limits." The American fishermen are, however, admitted into all bays, &c. for the purpose of shelter, of repairing damages, of purchasing wood, and of obtaining water, and for no other purpose whatever; and when there, they are to be placed under such restrictions as may be necessary to prevent their abusing the privileges hereby reserved to them.

Cod Fishery, French.—France has always enjoyed a considerable share of the cod fishery. The following Table shows the extent to which she has latterly carried it on.

Account of French Ships, Crews, &c. engaged in the Cod Fishery, with the Produce thereof, from 1852 to 1857 inclusive.

Years.	Outfit.			Exports of Cod.				Total Exports.	Value, fr.
				From the Fishery.		From France.			
	Ships.	Crews.	Cost, fr.	Kilog.	Value, fr.	Kilog.	Value, fr.	Kilog.	
1852	419	13,648	656,700	14,098,584	2,596,877	6,229,241	1,070,659	20,327,825	3,667,516
1853	421	13,615	654,350	13,270,102	2,177,851	5,390,297	860,796	18,660,399	3,038,647
1854	382	11,961	596,890	9,475,172	1,845,631	3,747,986	642,477	13,225,758	2,488,108
1855	352	9,659	465,830	10,066,301	1,944,575	5,170,921	833,281	15,236,822	2,777,856
1856	372	10,753	544,590	9,265,855	1,738,453	4,703,861	790,591	13,969,696	2,529,044
Total	1,946	58,716	2,813,360	56,176,594	10,603,387	25,241,906	4,197,784	81,418,500	14,801,171
Average	389	11,743	563,672	11,235,318	2,120,678	5,048,381	839,557	16,283,700	2,960,234
1857	447	15,696	659,080	10,554,895	1,925,827	8,829,952	1,415,599	19,184,827	3,541,226

But notwithstanding the apparent prosperity of this branch of industry, it may be doubted whether it be really so beneficial to France as would at first sight appear. It depends more upon artificial regulations than upon anything else. Foreign cod is excluded from the French markets by the oppressive duty with which it is loaded; and the comparatively great demand for dried fish in Catholic countries renders this a very great boon to the French fishermen. But it is admitted that this would not be enough to sustain the fishery; and high bounties are paid to those engaged in it. These, however, have been reduced of late years; and they will probably, in no long time, undergo still further alterations.

St. Pierre and Miquelon, small islands on the coast of Newfoundland, belong to the French. Their right of fishing upon the shores of that island, and upon the great bank, was replaced, in 1814, upon the footing on which it stood in 1792. This concession has been much objected to by M'Gregor and others: we believe, however, that they have materially over-rated its influence.

COFFEE (Ger. *Koffe, Koffebohnen*; Du. *Koffy, Koffiboomen*; Da. *Kaffe, Kaffebönner*; Sw. *Koffe*; Fr. It. and Port. *Caffé*; Sp. *Café*; Rus. *Kofé*; Pol. *Kawa*; Lat. *Coffea, Caffea*; Arab. *Bun*; Malay, *Kāwa*; Pers. *Tochem, Kéwéh*; Turk. *Chaube*), the berries of the coffee plant (*Coffea Arabica* Lin.). They are generally of an oval form, smaller than a horse-bean, and of a tough, close, and hard texture; they are prominent on the one side and flattened on the other, having a deeply marked furrow running lengthwise along the flattened side; they are moderately heavy, of a greenish colour, and a somewhat bitterish taste.

Historical Notice of Coffee. — The coffee plant is a native of that part of Arabia called *Yemen — terris faba missa Sabæis*; but it is now very extensively cultivated in the southern extremity of India, in Java, the West Indies, Brazil, &c. We are ignorant of the precise period when it began to be roasted, and the decoction used as a drink, though the discovery is not supposed to date further back than the early part of the fifteenth century. No mention of it is made by any ancient writer; nor by any of the moderns previously to the sixteenth century. Leonhart Rauwolf, a German physician, is believed to be the first European who has taken any notice of coffee. His work was published in 1573, and his account is, in some respects, inaccurate. Coffee was, however, very accurately described by Prosper Albinus, who had been in Egypt as physician to the Venetian consul, in his works *de Plantis Egypti*, and *de Medicina Egyptiorum*, published in 1591 and 1592.

A public coffee-house was opened for the first time, in London, in 1652. A Turkey merchant, of the name of Edwards, having brought along with him from the Levant some bags of coffee, and a Greek servant accustomed to make it, his house was thronged with visitors to see and taste this new sort of liquor; and, wishing to gratify his friends without putting himself to inconvenience, he allowed his servant to make and sell coffee publicly. In consequence of this permission, the latter opened a coffee-house in Newman's Court, Cornhill, on the spot where the Virginia Coffee-house now stands. Garraway's was the first coffee-house opened after the great fire in 1666. — (See the learned and elaborate treatise of Moseley on coffee, 5th ed. p. 15.)*

M. de la Roque mentions that the use of coffee was introduced into France between 1640 and 1660; and he further states, that the first coffee-house for the sale of coffee in France was opened at Marseilles, in 1671. — (*Voyage de la Syrie*, tom. ii. pp. 310—319.) It was hardly, however, known, except to a few travellers who had visited the East, till 1669, when it was introduced to the best society in Paris by Solyman Aga, ambassador from the Grand Seignior to Louis XIV. It immediately became fashionable; and the taste for it having been quickly diffused, a coffee house was opened for its sale in 1672, which, in no long time, had several competitors. — (See the excellent work of Le Grand D'Aussy, *Vie Privée des Françoís*, iii. 127. ed. 1815.)

Some time between 1680 and 1690, the Dutch planted coffee beans they had procured from Mocha, in the vicinity of Batavia. In 1690, they sent a plant to Europe; and it was from berries obtained from this plant that the first coffee plantations in the West Indies and Surinam were derived.

Progressive Consumption of Coffee in Great Britain. Influence of the Duties. — In 1660, a duty of 4*d.* a gallon was laid on all coffee made and sold. Previously to 1732, the duty on coffee amounted to 2*s.* a pound; but an act was then passed, in compliance with the solicitations of the West India planters, reducing the duty to 1*s.* 6*d.* a pound; at which it stood for many years, producing, at an average, about 10,000*l.* a year. In consequence, however, of the prevalence of smuggling, caused by the too great magnitude of the duty, the revenue declined, in 1783, to 2,869*l.* 10*s.* 10½*d.* And it having been found impossible otherwise to check the practice of clandestine importation, the duty was reduced, in 1784, to 6*d.* The consequences of this wise and salutary measure were most beneficial. Instead of being reduced, the revenue was immediately raised to near *three* times its previous amount, or to 7,200*l.* 15*s.* 9*d.*, showing that the consumption of legally imported coffee must have increased in about *a ninefold proportion!* — a striking and conclusive proof, as Mr. Bryan Edwards has observed, of the effect of heavy taxation in defeating its own object. — (*Hist. of the West Indies*, vol. ii. p. 340. 8vo. ed.)

The history of the coffee trade abounds with similar and even more striking examples of the superior productiveness of low duties. In 1807, the duty was 1*s.* 8*d.* a pound; and the quantity entered for home consumption amounted to 1,170,164 lbs., yielding a revenue of 161,245*l.* 11*s.* 4*d.* In 1808, the duty was reduced from 1*s.* 8*d.* to 7*d.*;

* Charles II. attempted, by a proclamation issued in 1675, to suppress coffee-houses, on the ground of their being resorted to by disaffected persons, who "devised and spread abroad divers false, malicious, and scandalous reports, to the defamation of his Majesty's government, and to the disturbance of the peace and quiet of the nation." The opinion of the Judges having been taken as to the legality of the proceeding, they resolved, "That retailing coffee might be an innocent trade; but as it was used to nourish sedition, spread lies, and scandalise *great men*, it might also be a common nuisance!"

and in 1809, no fewer than 9,251,847 lbs. were entered for home consumption, yielding, notwithstanding the reduction of duty, a revenue of 245,856*l.* 8*s.* 4*d.* The duty having been raised, in 1819, from 7*d.* to 1*s.* a pound, the quantity entered for home consumption, in 1824, was, 7,993,041 lbs., yielding a revenue of 407,544*l.* 4*s.* 3*d.* In 1824, however, the duty being again reduced from 1*s.* to 6*d.*, the quantity entered for home consumption, in 1825, was 10,766,112 lbs., and in 1831 it had increased to 22,740,627 lbs., yielding a nett revenue of 583,751*l.*

The rapid increase in the consumption from 1825 to 1832 must not, however, be wholly ascribed to the reduction of the duty. This, no doubt, had the greatest influence; but a good deal is also owing to the low price of coffee from 1824 to 1830; and also to the great reduction during the same period in the price of low brown sugar (fully 1½*d.* per pound), a cheap and abundant supply of which is indispensable to the extensive use of coffee.

These statements, which are principally deduced from the accompanying account, No. I., refer to the consumption of Great Britain only; but the account No. II. includes the United Kingdom, and is brought down to 1858 inclusive. The most remarkable features in this account are the reduction of the duty on coffee from the East Indies and Ceylon to the same level as that on coffee from the West Indies, and the farther reduction of the duty on coffee from British possessions in 1842 to 4½*d.* per lb. The equalisation of the duty on East and West India coffee had become indispensable after the rapid decline in the supplies from the West Indies consequent to the emancipation of the slaves; for as foreign coffee was burdened with a high discriminating duty, the price of British coffee must otherwise have risen to such a height as materially to interfere with the consumption. The latter, indeed, has not increased since 1837 in the ratio that might have been expected from the increasing population and wealth of the country, and since 1847, when the consumption amounted to 37,441,373 lbs., it has declined, having been in 1858 only 35,208,932 lbs.

The stationary or declining state of the consumption of coffee may, however, be easily explained. We have seen how rapidly the growth of chicory has extended in this country (art. Chicory); and its substitution for coffee has no doubt prevented the increase of the latter. The adulteration of coffee with chicory was, indeed, authorised by a Treasury Minute passed in 1840. But the well-founded objections made to this extraordinary attempt to legitimise a proceeding by which the revenue as well as the public was defrauded, led to the repeal of the Minute referred to in 1852. The sale of coffee mixed with chicory was then prohibited. Inasmuch, however, as this prohibition could not be made effectual, a new Minute was passed in 1853, permitting the sale of coffee intermixed with chicory, provided the parcels containing such compound be labelled Mixture of Coffee and Chicory. And we do not well see what more can be done in the matter. Dealers who supply chicory, or a mixture of coffee and chicory, to customers who order coffee, are swindlers who ought to be adequately punished. But if customers order chicory, or coffee alloyed with chicory, there neither is nor can be any good reason why they should not be supplied with the article they want. It is supposed that at present (1859) about 12,000 tons of chicory and other matters used in adulterating coffee, are annually disposed of, in part avowedly, according to law, and in part fraudulently.

Under such circumstances the best thing that can be done by those who have the opportunity, and who wish to make sure of getting genuine coffee is to buy it before it is ground; and as a mill for grinding may be bought for a small sum, and coffee is sold ready "roasted," there is, in this way, no great difficulty in obviating adulteration. Those who use ground coffee will also be pretty secure against fraud if they resort only to first-class shops.

It is seen, from the accompanying tables, that the duty on foreign coffee was reduced in 1844 to 6$\frac{1}{10}$*d.* per lb. And, following up the example set in the case of the sugar duties, it was farther reduced in 1851 to 3*d.* per lb. that is, to the same rate of duty that was then laid on British colonial coffee. The duty on all descriptions of coffee, after being raised to 4*d.* per lb. in 1855, was again reduced in 1857 to 3*d.* Hence it follows, that while we place our colonists on the same footing with the foreigner, we give the chicory growers a protection against them both of 3*d.* per lb. or 28*s.* a cwt.! And though it would be very difficult, or rather quite impracticable, to subject chicory to a duty, every effort should be made to prevent the substitution of adulterated for genuine coffee.

I.—An Account of the Quantity of Coffee retained for Home Consumption in Great Britain, the Rates of Duty thereon, and the Produce of the Duties, in each Year from 1789 to 1832, both inclusive.

Years	Quantities retained for Home Consumption.	Rates of Duty on British Plantation.	Rates of Duty on East India.		Nett Revenue of Customs and Excise.
	Lbs.	Per lb. *s. d.*	Per lb. *s. d.*	Per cent. ad valorem. *£ s. d.*	*£ s. d.*
1789	930,141	0 10⅝	2 0⅛	Nil.	46,286 17 11
1790	973,110	—	—	—	50,799 7 4
1791	1,047,276	—	—	—	57,659 5 11
1792	946,666	—	—	—	48,825 6 2
1793	1,070,438	—	—	—	67,357 11 9
1794	969,612	—	—	—	74,430 4 6
1795	1,054,588	1 5⅛	2 6⅛	—	65,788 3 7
1796	396,953	—	—	—	30,048 6 11
1797	637,001	1 5⅛	3 7	—	92,469 3 11
1798	697,487	1 5⅛	2 7⅛	—	78,966 6 9
1799	682,432	1 5⅛	2 7⅛	2 0 0	74,001 2 2
1800	826,590	—	—	—	142,867 11 5
1801	750,861	1 5⅛	2 7	2 0 0	106,076 2 7
1802	829,435	1 6	2 7⅛	2 0 0	72,183 2 3
1803	905,532	1 6⅛	1 11⅛	2 16 3	72,093 15 8
1804	1,061,327	1 7⅛	2 0⅛	3 2 6	151,388 0 11
1805	1,201,736	1 7⅛	2 0⅛	3 3 9	120,172 18 7
1806	1,157,014	1 7⅛	2 0⅛	3 7 11	152,759 6 9
1807	1,170,164	—	—	—	161,245 11 4
1808	1,069,691	0 7	0 10	3 7 11	229,738 16 8
1809	9,251,837	0 7	0 10	3 6 8	245,886 8 4
1810	5,308,096	—	—	—	175,567 1 4
1811	6,390,122	—	—	—	212,890 12 10
1812	8,118,734	—	—	—	255,184 7 1
1813	8,788,601	0 7⅜	0 10⅜	3 19 2	Custom records destroyed.
1814	6,324,267	0 7⅜	0 11⅜	Nil.	213,513 18 4
1815	6,117,311	—	—	—	258,762 18 3
1816	7,557,471	—	—	—	290,834 0 11
1817	8,688,726	—	—	—	298,540 5 1
1818	7,967,857	—	—	—	250,106 4 10
1819	7,429,352	1 0	1 6	—	292,154 8 10
1820	6,869,286	—	—	—	340,223 6 7
1821	7,327,283	—	—	—	371,252 5 6
1822	7,404,204	—	—	—	374,596 19 7
1823	8,209,245	—	—	—	416,324 3 9
1824	7,993,040	—	—	—	407,544 4 3
1825	10,766,112	0 6	0 9	—	307,204 14 2
1826	12,724,139	—	—	—	324,667 11 1
1827	14,974,378	—	—	—	384,994 13 2
1828	16,522,423	—	—	—	425,389 3 7
1829	18,906,373	—	—	—	484,975 10 8
1830	21,840,520	—	—	—	558,544 3 10
1831	21,747,813	—	—	—	559,431 19 6
1832	22,053,326	—	—	—	575,264 18 8

II.—An Account of the Quantity, in Pounds Weight, of Coffee imported into the U. Kingdom, the Quantity retained for Consumption, the Produce of the Duties, and the Rates of Duty on the same, in each Year from 1820.

Years.	Quantities imported into the United Kingdom.	Quantities retained for Home Consumption in the U. Kingdom.	Amount of Duty received thereon.	Rates of Duty per Pound.	*£ s. d.*
	Lbs.	*Lbs.*	*£*		
1820	48,841,626	7,103,409	342,828	Of any British possession in America or Africa From any place within the limits of the East India Company's charter All other coffee	0 1 0 0 1 6 0 2 6
1821	45,237,869	7,593,091	384,285		
1822	44,005,124	7,669,351	387,342		
1823	45,055,573	8,454,920	428,613		
1824	50,674,249	8,262,943	420,088		
1825	52,597,518	11,082,970	515,804	Of any British possession in America Of any British possession within the limits of the East India Company's charter Of any other place (From 5th April.)	0 0 6 0 0 9 0 1 3
1826	42,017,103	13,199,235	336,570	Of any British possession in America Of Sierra Leone Imported from any British possession within the limits of the East India Company's charter Imported from any other place within those limits Otherwise imported (From 5th July.)	0 0 6 0 0 9 0 0 9 0 1 0 0 1 3
1827	47,938,047	15,560,117	399,690		
1828	41,069,737	17,114,636	440,245		
1829	39,071,315	19,466,098	498,351		
1830	40,952,163	22,669,253	579,563		
1831	43,007,828	22,715,807	583,751		
1832	49,982,939	22,952,527	598,038		
1833	34,426,109	22,741,984	591,241		
1834	41,865,111	23,785,095	614,434		
1835	28,598,493	23,295,046	652,124	Of any British poss. in America, or within the limits of the East India Co.'s charter, or of Sierra Leone Imported from any British poss. within the limits of the East India Co.'s charter, not being the produce thereof Imported from any other place within those limits Otherwise imported (From 9th September.)	0 0 6 0 0 9 0 1 0 0 1 3

Table II.—*continued.*

Years.	Quantities imported into the United Kingdom.	Quantities retained for Home Consumption in the U. Kingdom.	Amount of Duty received thereon.	Rates of Duty per Pound.
	Lbs.	*Lbs.*	£	£ s. d.
1836	34,054,837	24,947,690	691,616	
1837	36,412,514	26,346,961	696,645	
1838	39,932,279	25,765,673	685,082	
1839	41,003,316	26,789,945	779,115	
1840	70,250,766	28,664,341	921,551	Of any British poss. in America, or within the limits of the East India Co.'s charter, or of Sierra Leone - - - 0 0 6 3/10 Imported from any British poss. within the limits of the East India Co.'s charter, not being the produce thereof - - 0 0 9 9/20 Imported from any other place within those limits - - - - - 0 1 0 3/5 Otherwise imported - - 0 1 5 1/4 (From 15th May.)
1841	43,317,762	28,370,857	887,747	
1842	41,444,414	28,519,646	768,886	Of and from British possessions - - 0 0 4 1/2 Of and from foreign countries - - 0 0 8 2/5 (From 9th July.)
1843	38,942,469	29,979,404	697,376	
1844	46,523,188	31,352,382	681,616	Of and from British possessions - - 0 0 4 1/2 Of and from foreign countries - - 0 0 6 3/10 (From 6th June.)
1845	50,377,915	34,293,190	717,871	
1846	51,815,651	36,754,554	756,838	
1847	55,354,044	37,441,373	746,436	
1848	57,053,450	37,077,546	709,632	
1849	63,315,787	34,399,374	642,520	
1850	50,803,152	31,166,358	565,659	Raw { Of British possessions 0 0 4 1/2 ; Foreign - 0 0 6 3/10 } Kiln-dried, roasted or ground { Of British possessions 0 0 5 ; Foreign - 0 0 8 } (From 1st January.)
1851	53,110,660	32,504,545	444,670	Raw (from all parts) - - 0 0 3 Kiln-dried, roasted, or ground - - 0 0 6 (From 15th April.)
1852	54,935,510	34,978,432	437,229	
1853	55,634,733	36,983,122	462,397	Raw - - - - 0 0 3 Kiln-dried, roasted or ground - - 0 0 4 (From 4th June.)
1854	66,500,358	37,350,924	467,018	
1855	64,061,479	35,764,554	546,264	Raw - - - - 0 0 4 Kiln-dried, roasted, or ground - - 0 0 5 (From 21st April.)
1856	56,992,116	34,993,944	584,517	
1857	58,892,726	34,353,125	454,727	Raw - - - - 0 0 3 Kiln-dried, roasted, or ground - - 0 0 4 (From 6th April.)
1858	60,697,265	35,208,932	440,475	

III. An Account exhibiting the different Sources whence the Coffee imported into the U. Kingdom in 1857, was derived, with the Quantities imported from each, the Total Quantities retained for Home Consumption, and the Computed Value of the Imports and the Duty.

Countries whence Imported.	Quantities.		Values.		Gross Amount of Duty.
	Imports.	Entered for Consumption.	Of Imports.	Assumed Rates of Price.	
	lbs.	*lbs.*	£	*per cwt.* £ s. d.	£
Holland (Java)	2,027,550	1,846,585	59,484	3 5 9	25,762
Belgium	221,700	33,109	5,226	2 14 10	425
France	891,975	165,816	22,073	2 15 6	2,074
Portugal	236,820	17,218	7,298	3 9 0	215
Egypt	447,370	130,570	14,008	3 10 2	1,678
Philippine Islands	110,711	36,658	1,522	1 10 9	463
Porto Rico	10,678	9,602	300	2 17 0	126
Hayti	553,372	133,956	12,901	2 13 6	1,747
United States	2,065,882	128,073	42,838	2 6 6	1,612
Central America	4,560,555	3,395,488	130,654	3 4 2	44,986
New Granada	78,636	20,566	2,193	3 2 6	259
Venezuela	253,018	240,400	6,674	3 4 2	3,294
Brazil	6,747,639	581,409	146,586	2 8 8	7,994
British Poss. S. Africa	71,000	60,102	2,007	3 5 0	787
Mauritius	402	335	14	3 18 0	4
British East Indies	3,688,943	3,566,768	122,932	3 14 8	47,594
Ceylon	32,717,056	21,173,394	1,015,929	3 9 5	280,594
British W. Indies	4,054,028	2,699,431	124,298	3 9 3	34,950
British Guiana	2,351	3,019	73	5 9 6	38
Other parts	113,032	70,721	3,155	2 3 6 to 4 0 0	961
Withdrawn from H. M.'s victualling yards, for consumption		202,285			5,442
	58,892,726	34,515,685	1,720,465		456,805
Deduct exported on drawback, over entered		162,562		Repaid	2,078
		34,353,123			454,727

This table is interesting inasmuch as it not only shows the sources whence we derive our supplies of coffee, but the estimation in which the products of different countries are held in the mercantile world.

The introduction of tea and coffee, it has been well remarked, "has led to a wonderful change in the diet of civilised nations, a change highly important both in a moral and physical point of view. These beverages have the admirable advantage of affording stimulus without producing intoxication, or any of its evil consequences. Lovers of tea

or coffee are, in fact, rarely drinkers; and hence the use of these beverages has benefited both manners and morals."—(*Scotsman*, 17th of October, 1827.) So early as 1710, the famous Latin poet Vanierius described the preparation and eulogised the virtues of coffee.

> ——————"illo medicamine vates
> Ingenium emendet, lætusque infecta resumat
> Carmina; nec fontes alios, quibus ora poëtæ
> Proluerint, fluxisse solo male credet Achivo."
> Lib. xi. p. 272. ed. 1774.

Supply and Consumption of Coffee.—Owing to the increasing consumption of coffee in this country, the Continent, and America, the great value of the article, the large amount of capital and labour employed in its production, and the shipping required for its transport, it has become a commodity of primary commercial importance. It deserves particular attention, too, inasmuch as there are few, if any, articles that exhibit such variations, not only of consumption, but also of growth and price. These are occasioned partly by changes of commercial regulations and duties, and partly, also, by the plant requiring 4 or 5 years before it comes to bear; so that the supply is neither suddenly increased when the demand increases, nor diminished when it falls off. St. Domingo used formerly to be one of the greatest sources of supply, having exported, in 1786, about 35,000 tons; and it is supposed that, but for the negro insurrection which broke out in 1792, the exports of that year would have amounted to 42,000 tons. The devastation occasioned by this event caused, for a series of years, an almost total cessation of supplies. They have again, however, increased, and are understood to amount, at present, to about 16,000 tons a-year. From Cuba, the exports of coffee have, for some years, owing partly to the decline in its price, and partly to the efforts of the planters having been more directed to the cultivation of sugar, greatly fallen off. They may at present amount, including Porto Rico, to 7,000 tons. In Java and Brazil, the culture of coffee has increased with unprecedented rapidity (see BATAVIA and RIO JANEIRO); so much so, that the exports from Java, which did not, a few years ago, exceed 18,000 tons, now amount to at least 55,000; while those from Brazil, which have increased in an equal degree, amount to above 120,000 tons. The growth of coffee in India and Ceylon has, also, been very greatly increased, especially in the latter, where, within the last few years, the plantations have been so much extended, that their produce is now equal to more than double the present consumption of the U. Kingdom. There has, no doubt, been a serious decrease in the exports of coffee from the British West Indies; the imports into the U. Kingdom having declined from 11,014 tons in 1832 to 1,810 do. in 1857; but when reference is made to the whole supply, this diminution is but inconsiderable.

The following may, we believe, be regarded as a pretty fair estimate of the present (1858) *exports* of coffee from the principal places where it is produced, and of the annual *consumption* in those countries into which it is imported from abroad.

Exports.	Tons.	
Mocha, Hodeida, and other Arabian ports	8,000	
Java	55,000	
Sumatra and other parts of Foreign India	8,000	
Brazil and the Spanish Main	160,000	
Hayti	16,000	
Cuba and Porto Rico	7,000	
British West India colonies	2,000	
India and Ceylon	38,000	
Dutch West Indies	2,000	
French West Indies and the Isle de Bourbon	2,500	
		298,500

Consumption.	Tons.	
Great Britain	16,000	
Netherlands and Holland	40,000	
Germany, Russia, and countries round the Baltic	60,000	
France, Spain, Italy, Turkey in Europe, the Levant, &c.	55,000	
The United States	90,000	
Canada, Australia, &c.	30,000	
		291,000

Of the entire export of coffee from Arabia, not more, perhaps, than 4,000 or 5,000 tons finds its way to the places mentioned above; so that, supposing these estimates to be about correct, it follows that the supply of coffee at present exceeds the demand by about 3000 or 4000 tons a-year. The latter, however, is rapidly increasing; and it is not easy to say whether it be destined to outrun, keep pace with, or fall short of the supply. On the whole, however, we should be inclined to think, that though they may occasionally vary to the extent of a few thousand tons on the one side or the other, the probability is that the supply and demand will be pretty nearly balanced; so that, supposing tranquillity to be preserved in Brazil, Java, and other coffee-producing countries,

and no violent measures to be adopted with respect to the slaves in them, we do not anticipate any very great variation of price. When prices are considerably depressed, consumption is stimulated, and production checked, and conversely when prices are high. Oscillations will, no doubt, continue to take place in future, as they have done hitherto; but unless the cost of producing coffee should be seriously affected, which is not very likely, they will not be more than temporary.

The consumption of coffee in the United States has increased with great rapidity since 1821, in which year it amounted to only 5,306 tons. Part of this increase is, no doubt, to be ascribed to the reduction of the duty, first from 5 to 2 cents per pound, and its subsequent repeal; part to the fall in the price of coffee; and a part, perhaps, to the increase of temperance societies. Probably, also, it was in some degree ascribable to the comparatively high duties formerly laid on the teas imported into the United States; these, however, finally ceased in 1833. In the year ending the 30th June, 1858, the imports of coffee into the U. States amounted to 188,937,111 lbs., or 84,346 tons; and the exports to 14,707,980 lbs., or 6,565 tons.

The extraordinary increase in the production of coffee in Ceylon since 1837 is seen in the following statement.

Account of the Quantities and Values of the Coffee exported from Ceylon in each quinquennial period from 1837 to 1856, both inclusive.

Years.	Quantity.	Value.	Years.	Quantity.	Value.	Years.	Quantity.	Value.	Years.	Quantity.	Value.
	Cwts.	£		*Cwts.*	£		*Cwts.*	£		*Cwts.*	£
1837	54,164	106,999	1842	119,806	269,763	1847	293,221	456,695	1852	372,379	692,893
1838	49,541	112,642	1843	94,847	192,891	1848	280,010	397,180	1853	328,971	655,604
1839	41,865	126,385	1844	133,957	267,663	1849	373,593	545,545	1854	407,621	850,815
1840	68,206	214,529	1845	178,603	363,259	1850	278,473	609,262	1855	506,540	1,025,282
1841	80,584	196,048	1846	173,892	328,791	1851	349,957	688,156	1856	440,819	981,753
Total for 5 years	274,360	756,603		701,101	1,422,367		1,575,254	2,686,738		2,056,330	4,206,345
Average	54,872	151,320		140,220	284,473		315,050	537,347		411,266	841,269
1857	601,635	1,495,898									

The following Statement shows the Prices in Bond of the principal Varieties of Coffee in the London Market, 15th April, 1859.

		s. d.		s. d.
West India fine middling and fine	per cwt.	74 0	@	85 0
Good middling				
Low middling and middling		66 0	—	70 0
Fine ordinary		60 0	—	64 0
Good ordinary		56 0	—	58 0
Ordinary and triage		40 0	—	50 0
Java		50 0	—	68 0
Mysore		50 0	—	80 0
Mocha, good and fine		80 0	—	108 0
Good and fine, fine ordinary		70 0	—	78 0
Ungarbled		56 0	—	66 0
Ceylon, native good ordinary		57 0	—	60 0
Fine ordinary		62 0	—	67 0
Plantation good to fine		72 0	—	90 0
Fine ordinary to middling		68 0	—	70 0
Good ordinary		52 0	—	64 0
Triage and broken		42 0	—	58 0
Pea berry		65 0	—	88 0
St. Domingo		47 0	—	50 0
Costa Rica, low middling to fine		60 0	—	72 0
Ordinary to fine ordinary		56 0	—	58 0
Brazil		42 0	—	60 0

Coffee is sold in bond; the business being done in the public market either by private or public sales. It is always sold at landing weights and revenue tares; the latter being on casks, barrels, and boxes identical with the real tares, and an average rate on bales and bags. Draft is allowed for as follows: viz. on packages weighing under 1 cwt., 1 lb.; 1 cwt. and under 3 cwt., 2 lbs.; 3 cwt. and under 5 cwt., 4 lbs.; and 5 cwt. and upwards 5 lbs. Coffee is sold at a prompt of 1 month, allowing a discount of 2½ per cent. or 1 per cent. Thus the coffees of St. Domingo, Havannah, and Brazil (with the exception of the "plantation" variety of the last two), are sold at a discount of 2½ per cent., whereas all coffee of British plantations, or that liable to the low duty, including also the coffee of Laguayra, Costa Rica, "Plantation" Rio and Havannah, Mocha, Java, and other East India varieties, are sold at a discount of 1 per cent.

The following *pro formâ* account of the sale of coffee from Ceylon may be taken as representing coffee sold at a discount of 1 per cent., and that of the sale of Rio coffee as representing coffee sold at a discount of 2½ per cent.; but, of course, the freight and insurance would vary according to the port it came from. These sales are made out as if the goods were sold within one month from arrival. There is no charge for rent, as the consolidated rate covers that charge for 12 weeks. Coffee is always rent-free to the purchaser to the prompt day, and lies at the seller's risk till then, unless paid for.

Species of Coffee. Roasting, &c.—The coffees of Jamaica, Ceylon, and Mocha are generally esteemed the best; then follow the coffees of Costa Rica, Dominica, Berbice, Demerara, Bourbon, Java, Martinique and Hayti. Arabian or Mocha coffee is produced in a very dry climate, the best being raised upon mountainous slopes and sandy soils. The most fertile soils are not suitable for the growth of very fine coffee. Mr. Bryan Edwards, observes, that "a rich deep soil, frequently ameliorated by showers, will produce a luxuriant tree and a great crop; but the beans, which are large, and of a dingy green, prove, for many years, rank and vapid." And the same remark is made by Mr. Crawfurd, with respect to the coffee of Java.—(*East Indian Archipelago*, vol. i. p. 487.) Coffee is improved by being kept; it then becomes of a paler colour.

Mocha, or as it is commonly called, Turkey coffee, should be chosen of a greenish light olive hue, fresh and new, free from any mustiness, the berries of a middling size, clean, plump, and without any intermixture of sticks or other impurities. Particular care should be taken that it be not false packed. Good West India coffee should be of a greenish colour, fresh, free from any unpleasant smell, the berries small and unbroken.

Coffee berries readily imbibe exhalations from other bodies, and thereby acquire an adventitious and disagreeable flavour. Sugar placed near coffee will, in a short time, so impregnate the berries and in-

jure their flavour, as to lower its value 10 or 20 per cent. Dr. Moseley mentions, that a few bags of pepper, on board a ship from India, spoiled a whole cargo of coffee.

"The roasting of the berry to a proper degree requires great nicety: the virtue and agreeableness of the drink depend upon it; and both are often injured by the ordinary method. Bernier says, when he was at Cairo, where coffee is so much used, he was assured by the best judges, that there were only two people in that great city who understood how to prepare it in perfection. If it be under-done, its virtues will not be imparted, and, in use, it will load and oppress the stomach; if it be over-done, it will yield a flat, burnt, and bitter taste, its virtues will be destroyed, and, in use, it will heat the body, and act as an astringent."—(*Moseley*, p. 39.)

Regulations with respect to Sale, Importation, &c.—Roasted beans and rye, reduced to powder, have frequently been used to adulterate ground coffee: and the possession of such substitutes for coffee was formerly an offence punishable by the forfeiture of the articles, and a penalty of 100*l.* But by the act 3 Geo. 4. c. 53., persons who are *not dealers in coffee* may take a licence for roasting and selling corn, peas, beans, or parsneps, labelling the parcels with the names, and conforming to the various regulations prescribed in the act.

Dealers in coffee must take out a licence, renewable annually, which, at present, costs 11*s.*

No coffee can be imported in packages of less than 100 lbs. *nett* weight.

No abatement of duties is made on account of any damage coffee may have received.

Coffee cannot be entered as being the produce of any British possession in America or of the Mauritius, until the master of the ship in which the coffee is imported deliver to the collector or comptroller a certificate of its origin, and declare that the coffee is the produce of such place.—(8 & 9 *Vict.* cap. 86. § 38.)

PRO FORMA SALES of 15 Tierces 10 Barrels Coffee per "Kingston," from Jamaica, sold by Order and for Account of J. K. and Co.

1845.						£	s.	d.	£	s.	d.
Dec. 3.	By S. M. for 15 tierces and 10 barrels.										
		Cwt.	*qrs.*	*lbs.*		*Cwt.*	*qrs.*	*lbs.*			
	Lot 1. 5 casks, weighing	35	0	0	Real tare	5	2	18			
		3	3	15	Draft	0	0	25			
		31	0	13	nett at 90*s.*				140	0	5
	Lot 2. 5 casks, weighing	35	0	0							
		3	3	15							
		31	0	13	nett at 80*s.*				124	9	3
	Lot 3. 5 casks, weighing	35	0	0							
		3	3	15							
		31	0	13	nett at 60*s.*				93	6	11
	Lot 4. 10 barrels, weighing	20	0	0	Real tare	2	0	16			
		2	1	8	Draft	0	0	20			
		17	2	20	nett at 70*s.*				61	17	6
									419	14	1
					Discount 1 per cent.				4	4	0
											415 10 1
	Charges.					£	s.	d.			
	Warehousing entry								0	4	6
	Sea insurance 350*l.* at 40*s.* per cent.					7	0	0			
	Policy 2*s.* 4*d.* per cent., 9*s.* 4*d.* Commission ½ per cent., 35*s.*					2	4	4			
									9	4	4
	Insurance against fire, 2 months on 400*l.* at 2*s.* per cent.								0	8	0
	Dock rates on 111 cwt. 3 qrs. 14 lbs. nett at 1*s.* 6*d.* per cwt.					8	7	10			
	Lotting, 9*d.* per tierce and 6*d.* per barrel					0	16	3			
									9	4	1
	Freight on 111 cwt. 3 qrs. 14 lbs. nett, at 6*s.*					33	11	3			
	Primage, 6*d.* per tierce; 2*d.* per barrel, 9*s.* 2*d.* Pierage, 6*s.* 11*d.*					0	16	1			
									34	7	4
	Interest on dock charges 31 days								0	0	9
	Public sale expenses 8*s.* Stamps, &c. 7*s.* 6*d.*								0	15	6
	Brokerage and guarantee 1 per cent.								4	4	9
	Commission 2½ per cent.								10	9	10
											68 18 4
	Nett proceeds. Cash, 3d January, 1846										£ 346 11 9
	Errors excepted.										
	London, 3d of January, 1846.										

PRO FORMA SALES of 500 Bags Ceylon Coffee per "Persia," and sold by Order and for Account of D. A. M. and Co.

1845.						£	s.	d.	£	s.	d.
Dec. 3.	By R. L. for 500 bags.										
		Cwt.	*qrs.*	*lbs.*							
	Lots 1 to 25., 500 bags, weighing	625	0	0	tare 4 lbs.						
		26	3	4	draft 2 lbs.						
		598	0	24	nett at 65*s.*				1924	5	11
					Discount 1 per cent.				19	8	9
											1924 15 2
	Charges.					£	s.	d.			
	Warehousing entry								0	4	6
	Sea insurance 1700*l.* at 45*s.* per cent.					38	5	0			
	Policy at 3*s.* 6*d.* per cent., 2*l.* 19*s.* 6*d.* Commission ½ per cent., 8*l.* 10*s.* 0*d.*					11	9	6			
									49	14	6
	Insurance against fire for 2 months on 2000*l.* at 2 per cent								2	0	0
	Dock rates on 607 cwt. 0 qrs. 16 lbs. at 1*s.* 2*d.* per cwt.					35	8	2			
	Lotting 1*d.* per bag					2	1	8			
									37	9	10
	Freight 607 cwt. 0 qrs. 16 lbs. at 4*l.* 10*s.* per ton of 18 cwt.								151	15	8
	Interest on dock rates, 31 days								0	3	2
	Public sale expenses, stamps, &c.								2	10	0
	Brokerage and guarantee 1 per cent.								19	8	9
	Commission 2½ per cent.								48	12	0
											311 18 6
	Nett proceeds. Cash, 3d January, 1846.										£ 1612 16 9
	Errors excepted.										
	London, 3d of January, 1846.										

COINS, pieces of metal, most commonly gold, silver, or copper, impressed with a public stamp, and frequently made legal tender in payment of debts, either to a limited or an unlimited extent.

1. *Circumstances which led to the Introduction and Use of Coins.* — When the precious metals first began to be used as money, or as standards by which to measure the value of different articles, and the equivalents for which they were most commonly exchanged, they were in an unfashioned state, in bars or ingots. The parties having agreed upon the quantity of metal to be given for a commodity, the exact amount was then ascertained by weight. But it is obvious that a practice of this sort must have been attended with a great deal of trouble and inconvenience. There can, however, be little doubt that the greatest obstacle to the use of unfashioned metals as money would be found in the difficulty of determining their quality, or the degree of their purity, with sufficient precision. The operation of assaying is one of great nicety and difficulty; and could not be performed in the early ages otherwise than in a clumsy, tedious, and inaccurate manner. It is, indeed, most probable, that when the precious metals were first used as money, their quality would be appreciated only by their weight and colour. A very short experience would, however, be sufficient to show the extreme inexactness of conclusions derived from such loose and unsatisfactory criteria; and the devising of some method, by which the fineness of the metal might be easily and correctly ascertained, would very soon be felt as indispensable to the general use of gold and silver as money. Such a method was not long in presenting itself: it was early discovered, that, to ascertain the purity of the metal, and also to avoid the trouble and expense of weighing it, no more was necessary than to mark each piece with a *stamp*, declaring its weight and fineness. This invention was made at a very early period. According to Herodotus, the Lydians were the first who coined money. — (Lib. i. c. 94.) Other ancient authors say that the art of coining was invented during the period when Saturn and Janus reigned in Italy; that is, in a period antecedent to authentic history. — (*Goguet, de l'Origine des Loix, &c.* tom. i. p. 267.)

2. *Metal used in the Manufacture of Coins.* — Before the art of metallurgy was well understood, the baser metals were frequently used as money. Iron was the primitive money of the Lacedæmonians, and copper of the Romans. But both iron and copper deteriorate by being kept; and besides this defect, the rapid improvement of the arts, by lowering their price, rendered their bulk too great in proportion to their value to permit of their continuing to be used as money. Copper, indeed, is still used in the form of tokens, convertible into silver in very small payments. In this country, copper pence and halfpence are rated at about 72 per cent. above their real value; but as their issue is exclusively in the hands of government, and as they are only legal tender to the extent of one *shilling* in any one payment, this over-valuation is not productive of any bad effect. The use of copper in other countries is limited in much the same way; gold and silver being every where the only metals made use of in the manufacture of the coins used in considerable payments.

3. *Standard of Coins.* — By the standard of a coin, is meant the degree of its purity, and its weight; that is, the fineness of the metal of which it is made, and the quantity of metal contained in it.

(1.) *Silver Coins.* — A pound Troy, or 12 ounces, of the metal of which English silver coins are made, contains 11 oz. 2 dwts. pure silver, and 18 dwts. alloy. This pound is coined into 66 shillings; so that each shilling contains 80·727 grains fine silver, and 87·27 grains standard silver; and the *money pound*, consisting of 20 shillings, contains 1614·545 grains pure silver, and 1745·454 grains standard silver. From 1600 down to 1816, the pound weight of standard silver bullion was coined into 62 shillings. All the English silver coins have been coined out of silver of 11 oz. 2 dwts. fine, from the Conquest to this moment, except for the short period of 16 years, from the 34th Henry VIII. to the 2d Elizabeth.

(2.) *Gold Coins.* — The purity of gold is not estimated by the weights commonly in use, but by an Abyssinian weight called a *carat*. The carats are subdivided into four parts, called grains, and these again into quarters; so that a *carat grain*, with respect to the common divisions of a pound Troy, is equivalent to 2¼ dwts. Gold of the highest degree of fineness, or pure, is said to be 24 carats fine. When gold coins were first made at the English mint, the standard of the gold put in them was of 23 carats 3½ grains fine and ½ grain alloy; and so it continued, without any variation, to the 18th of Henry VIII., who, in that year, first introduced a new standard of gold of 22 carats fine, and 2 carats alloy. The first of these standards was called the old; and the second the new standard, or crown gold; because crowns, or pieces of the value of 5*s.*, were first coined of this new standard. Henry VIII. made his gold coins of both these standards under different denominations; and this practice was continued by his successors until 1633. From that period to the present, the gold of which the coins of this kingdom have been made has been invariably of the *new* standard, or

crown gold; though some of the coins made of the old standard, previously to 1633, continued to circulate till 1732, when they were forbidden to be any longer current. — (*Liverpool on Coins*, p. 27.)

The purity of our present gold coins is, therefore, 11 parts fine gold and 1 part alloy. The sovereign, or 20 shilling piece, contains 113·001 grains fine gold, and 123·274 grains standard gold. The pound Troy of standard gold is coined into 46 $\frac{89}{129}$ sovereigns, or into 46*l.* 14*s.* 6*d.* The mint, or standard price of gold is, therefore, said to be 46*l* 14*s.* 6*d.* per lb. Troy, or 3*l.* 17*s.* 10½*d.* an ounce.

The alloy in coins is reckoned of no value. It is allowed, in order to save the trouble and expense that would be incurred in refining the metals, so as to bring them to the highest degree of purity; and, because, when its quantity is small, it has a tendency to render the coins harder, and less liable to be worn or rubbed. If the quantity of alloy were considerable, it would lessen the splendour and ductility of the metals, and would add too much to the weight of the coins.

The standard of the coins of foreign countries may be learned at a glance, by inspecting the *Table of Coins* subjoined to this article.

4. *Variations of the Standard.* — The value of all sorts of property being estimated, and the stipulations in almost all contracts for its purchase, sale, or hire, being made in money or coins, it is plain that no change can take place in the value of such money or coins, without virtually subverting these estimates and contracts, and enriching the debtor portion of society at the expense of the creditor portion, or *vice versâ*. As the cost of producing all commodities is liable to vary from improvements in the arts, the exhaustion of the present or the discovery of new sources of supply, none can be selected to serve as money or coin that may not vary in its real value. It is believed, however, that the precious metals vary less than any material that could be suggested. And with the exception of the extraordinary fall in their value caused by the discovery of the American mines, it seems to have been remarkably constant at other periods.

But in addition to the fluctuations naturally inherent in the value of coins, arising from variations in the cost of the metal of which they are made, their standard has been repeatedly changed. Notwithstanding that money or coin, from its being universally used as a scale by which to compute the value of all commodities, and as the equivalent for which they are commonly exchanged, is by far the most important of all the measures used in society; and should, consequently, be preserved as invariable as possible; there is none that has been so frequently altered. The necessities or extravagance of governments have forced them to borrow; and to relieve themselves of the incumbrances thus contracted, they have almost universally had recourse to the disgraceful expedient of degrading the coin; that is, of *cheating* those who lent them money, to the extent of the degradation, and of enabling every other debtor in their dominions to do the same.

The ignorance of the public in remote ages facilitated this species of fraud. Had the names of the coins been changed when the quantity of metal contained in them was diminished, there would have been no room for misapprehension. But, although the weight of the coins was undergoing perpetual, and their purity occasional, reductions, their ancient denominations were almost uniformly preserved: and the people who saw the same names still remaining after the substance was diminished; who saw coins of a certain weight and fineness circulate under the names of florins, livres, dollars, and pounds; and who saw them continue to circulate as such, after both their weight and the degree of their fineness had been lessened; began to think that they derived their value more from the *stamp* affixed to them by authority of government, than from the quantity of the precious metals they contained. This was long a very prevalent opinion. But the rise of prices which invariably followed every reduction of the standard, and the derangement that was thereby occasioned in every pecuniary transaction, undeceived the public, and taught them, and their rulers, the expediency of preserving the standard of money inviolate.

The standard may be reduced by simply raising the denomination of the coin; by ordering, for example, that a half-sovereign should pass for a sovereign, and the latter for a double sovereign, &c. If injustice be resolved upon, this is the least mischievous way in which it can be perpetrated, inasmuch as it saves all the trouble and expense of a recoinage. But as it renders the fraud obvious and glaring, it has rarely been resorted to; and most reductions have been effected either by diminishing the weight of the coins, or by increasing the proportion of alloy in the metal of which they are made, or both.

Originally the coins of all countries seem to have had the same denomination as the weights commonly used in them; and contained the exact quantity of the precious metals indicated by their name. Thus, the *talent* was a weight used in the earliest period by the Greeks, the *as* or *pondo* by the Romans, the *livre* by the French, and the *pound* by the English and Scotch; and the coins originally in use in Greece, Italy,

France, and England, bore the same names, and weighed precisely a talent, a pondo, a livre, and a pound. The standard has not, however, been preserved inviolate, either in modern or ancient times. It has been less degraded in England than any where else; but even here the quantity of silver in a pound sterling is less than the *third* part of a pound weight, — the quantity it contained in 1300. In France, the livre current in 1789 contained less than *one sixty-sixth* part of the silver implied in its name, and which it had actually contained previously to 1103. In Spain, and some other countries, the degradation has been carried still further.*

From 1296 to 1355, the coins of England and Scotland were of the same weight and purity; but at the last mentioned epoch the standard of Scotch money was, for the first time, sunk below that of England; and by successive degradations, the value of Scotch money, at the union of the crowns in 1600, was only a *twelfth* part of the value of the English money of the same denomination. It remained at this point till the union of the kingdoms cancelled the separate coinage of Scotland.

The gold and silver coins of Ireland have been for a considerable period the same as those of Great Britain; but, until 1825, they were nominally rated 8⅓ per cent. higher. This difference of valuation, which was attended with considerable inconveniences, was put an end to by the act 6 Geo. 4. c. 79., which assimilated the currency throughout the empire.

The Tables annexed to this article contain all the information that can be desired by mercantile men with respect to the weight, fineness, &c. of English and Scotch gold and silver coins, from the earliest periods to the present moment.

5. Mint, or Government Valuation of Gold and Silver Coins. — If both gold and silver coins be made legal tenders, it is obviously indispensable that their value with respect to each other should be fixed by authority; or that it should be declared, that individuals shall be entitled to discharge the claims upon them by payments, either of gold or silver coins, according to some regulated proportion. The practice of making both metals legal tenders was long adopted in England. From 1257 till 1664, the value of gold coins was regulated by proclamation; or, which is the same thing, it was ordered that the gold coins, then current, should be taken as equivalent to certain specified sums of silver. — (*Liverpool on Coins*, p. 128.) From 1664, down to 1717, the relation of gold to silver was not fixed by authority; and silver being then the only legal tender, the value of gold coins fluctuated, according to the fluctations in the relative worth of the metals in the market. But, in 1717, the ancient practice was again reverted to; and it was fixed that the guinea should be taken as the equivalent of 21 shillings, and conversely.

But the value of each of the precious metals is liable to perpetual changes. And hence, how accurately soever their proportional value, as fixed by the mint regulations, may correspond with the proportion which they actually bear to each other in the market when the regulation is made, the chances are 10 to 1 that it will speedily cease to express their relation to each other. But the moment that such a change takes place, it becomes the obvious interest of every one who has a payment to make, to make it in the *overvalued* metal; which, consequently, becomes the sole, or nearly the sole, currency of the country. Hence the reason why the coins of some countries are almost wholly of silver, and others almost wholly of gold. It is estimated, for example, that when it was fixed, in 1717, that the guinea should exchange for 21 shillings, gold was overvalued as compared with silver to the extent of $1\frac{10}{31}$ per cent. — (*Liverpool on Coins*, p. 85.); and as the real value of silver with respect to gold continued to increase during the greater part of last century, the advantage of paying in gold in preference to silver became more decided, and ultimately led to the universal use of gold in all large payments, and to the fusion or exportation of all silver coins of full weig ıt. — (*Liverpool, loco cit.*)

In France, a different valuation of the metals has had a different effect. Previously to the recoinage in 1785, the *Louis d'or* was rated in the mint proportion at only 24 livres, when it was really worth 25 livres 10 sols. Those, therefore, who should have discharged the obligations they had contracted by payments of gold coin instead of silver, would plainly have lost 1 livre 10 sols on every sum of 24 livres. In consequence, very few such payments were made; gold was almost entirely banished from circulation, and silver became almost the only species of metallic money used in France. — (*Say, Traité d'Economie Politique*, tom. i. p. 393.)

In 1816, however, a new system was adopted in this country; it being then enacted (56 Geo. 3, c. 68.), *that gold coins only should be legal tender in all payments of more than 40 shillings.* The pound of silver bullion, that had previously been coined into 62 shillings, was then also coined into 66 shillings, the additional *four* shillings being retained by government as a *seignorage* or duty (amounting to $6\frac{1}{4}$ per cent.) upon the

* For an account of the degradation of the coins of the ancient and modern Continental nations, see the article *Money*, in the Supplement to the old, or in the new edition of the *Encyclopædia Britannica*.

coinage. To prevent the silver coins from becoming redundant, government nas retained the power to issue them in its own hands. Under these regulations, silver has ceased to be a standard of value, and forms merely a subordinate or subsidiary species of currency, or change, occupying the same place in relation to gold that copper occupies in relation to itself. This system has been found to answer exceedingly well.

A good deal of difference of opinion has existed as to whether gold or silver coins are best fitted for being made legal tender. It does not seem that the one possesses any very striking advantage over the other; none, certainly, that would justify a change, after a selection has been made, and acted upon for any considerable period.

Down to 1626, a seignorage or duty upon the coinage was usually charged upon the gold and silver coins issued by the mint; and it may be easily shown that the imposition of such a duty, when it is not carried to an undue height, is advantageous. A coin is more useful than a piece of uncoined bullion of the same weight and purity; the coinage fitting it for being used as money, while it does not unfit it for being used for any other purpose. When, therefore, a duty or seignorage is laid upon coin equal to the expense of coinage, it circulates at its real value; but when this charge is defrayed by the public, it circulates at *less* than its real value, and is consequently either melted down or exported whenever there is any demand for bullion in the arts, or any fall in the exchange. It is, indeed, true, that were a seignorage to be laid on gold coins, it would be necessary, to prevent an enhancement of the value of the currency, that their weight should be proportionally reduced; and it is on this account better, perhaps, to let them remain on the present footing. But when a seignorage was laid on the silver coins, in 1816, it was not necessary to take the circumstance now alluded to into consideration; for as they were made subordinate to gold, and were intended to serve as change merely, its imposition had no tendency to raise the value of the currency, at the same time that it was calculated effectually to prevent the fusion of the coins, and to yield a small revenue to government.

6. *Coinage since* 1790. *Amount of Coin in Circulation.*— No. V. of the subjoined Tables shows the amount of the gold and silver coinage at the British mint, each year, from 1790 downwards.

It will be seen from this account, that gold coin to the amount of 60,126,047*l.* has been coined at the mint between 1817 and 1841, both inclusive. It is not, however, possible to form any very precise estimate of the portion of this immense sum now in circulation. In consequence of the exemption of gold coin from any seignorage, large quantities of the coins carried abroad during an unfavourable exchange find their way to the foreign mints, where they are melted and recoined. Large quantities are also conveyed away by emigrants, of which no account is or can be taken; and it is neither possible to estimate the sums in the coffers of the different banks or of individuals. On the whole, however, we shall not perhaps be far wrong if we estimate the stock of coin at present (1843) in possession of the public and of the different private and joint stock banks (ex. Bank of England) at 30,000,000*l.*

7. *The Exportation and Importation of Gold and Silver Coins* was formerly prohibited: but in 1819 it was enacted (59 Geo. 3. c. 49.), that they might be freely exported and imported, without being liable to any charge or duty whatever; and they may be imported without being either reported or entered at the Custom-house. This regulation has rendered it next to impossible to ascertain the value of the bullion imported.

8. *Forgery of Coin. Issue of forged or spurious Coins.* — The forgery of coin is an offence that is practised more or less at all periods. The most effectual means of preventing it is to improve the fabric of the genuine coins, to cut the dies with great delicacy, and occasionally to vary the form of the coins. During the lengthened period from 1770 down to 1816, the genuine silver coins in circulation were so much worn and defaced, that it was very difficult to distinguish between them and counterfeits, which, in despite of the severest penalties, were thrown into circulation in immense quantities. But since the issue of the new coins, in 1816, forgery has been comparatively rare. Sufficient time has not yet been afforded for determining the influence of the law exempting the offence of counterfeiting from the punishment of death.

9. *Law as to the counterfeiting, &c. of Coin.* — The acts as to this were consolidated and amended by the 2 & 3 Will. 4. c. 34., of which the following is a brief abstract: —

Counterfeiting the gold or silver coin of the realm, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years; and every such offence shall be deemed to be complete, although the counterfeiting be not finished. — § 3.

Colouring counterfeit coin, or any pieces of metal, with intent to make them pass for gold or silver coin; colouring or altering genuine coin, with intent to make it pass for higher coin; transportation for life, or for any term not less than 7 years, or imprisonment for any term not exceeding 4 years. — § 4.

Impairing the gold or silver coin, with intent to make the coin so impaired pass for gold or silver coin of full weight, transportation for not exceeding 14, nor less than 7 years, or imprisonment for not exceeding 3 years. — § 5.

Buying or selling, &c. counterfeit gold or silver coin for lower value than its denomination, importing counterfeit coin from beyond seas, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years. — § 6.

Uttering counterfeit gold or silver coin, imprisonment for not exceeding 1 year; and uttering, accompanied by possession of other counterfeit coin, or followed by a second uttering within 10 days, imprisonment for not exceeding 2 years; every second offence of uttering after a previous conviction, shall

be felony: transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years.—§ 7.

Having 3 or more pieces of counterfeit gold or silver coin in possession, with intent to utter the same, imprisonment for not exceeding 3 years; second offence, transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years.—§ 8.

Making, mending, having possession of, or selling any mould, &c., or coining tools, or any press or engine, conveying tools or monies out of the mint without authority, felony: transportation for life, or for not less than 7 years, or imprisonment for not exceeding 4 years.—§ 10, 11.

Counterfeiting any current copper coin, or making, mending, or having in his possession any coining tool, or buying, selling, &c. any counterfeit copper coin for lower value than its denomination, transportation for not exceeding 7 years, or imprisonment for not exceeding 2 years; and uttering any counterfeit copper coin, or having in his possession 3 or more pieces of counterfeit copper coin, imprisonment for not exceeding 1 year.—§ 12.

Gold or silver coin tendered to any person suspecting any piece to be counterfeit, may be broken by such person; and if it shall appear to be counterfeit, the person tendering shall bear the loss; but if it shall be of due weight, and appear to be of lawful coin, the person breaking it is to receive it at the rate it was coined for, and any dispute shall be finally determined by any justice; and the tellers of the Exchequer and the receivers-general of the revenue are to break or deface every piece of counterfeit coin tendered for payment.—§ 13.

Any person discovering any counterfeit coin, gold, silver, or copper, or any coining tool, is to carry the same forthwith before some justice, and on reasonable cause to suspect any person of counterfeiting, or having such coin, or any tool, &c., such justice may cause any place under the control of such suspected person to be searched, either in the day or night, and if any such coin or tool shall be found, to cause the same to be seized forthwith, and carried before a justice, who is to secure the same for the purpose of being produced in evidence, and afterwards of being delivered up to the mint.—§ 14.

The necessity of the evidence of any officer of the mint to prove counterfeit coin dispensed with.—§ 17.

The court may order hard labour or solitary confinement.—§ 19.

The words "king's coin" include all coin lawfully current in the United Kingdom; and wilfully having, in any dwelling-house or other building, lodging, apartment, field, or other place, open or inclosed, whether belonging to or occupied by himself or not, and whether for his own use or benefit, or for that of another, shall be deemed having in his possession within this act.—§ 21.

Persons acting in the execution of this act, protected in the usual manner, by requiring notice of action, &c., and allowing tender of amends, &c.—§ 22.

10. *Convictions for Coining and Uttering.*—In the 7 years ending with 1818, 63 persons were convicted in England and Wales of the offence of counterfeiting the coin of the realm, of whom 1 was executed. In the next 7 years the convictions for coining were reduced to 14, but of these 5 were executed. In the last septennial period, ending with 1832, the convictions were 34, and the executions 7. The convictions for issuing forged coins in the first of the above periods were 21, in the second, 9, and in the third, 32.

Tables relative to the Coins of Great Britain and other Countries.

No. I. English Coins.—Account of the Quantity of *Fine* Silver coined into 20*s.* or the Pound Sterling; the Quantity of *Standard* Silver, of 11 oz. 2 dwts. Fine and 18 dwts. Alloy, contained in 20*s.* or the Pound Sterling, in the different Reigns, from the Time of Edward I. to the Reign of William IV.—A similar Account with respect to Gold.—And an Account of the proportional Value of Fine Gold to Fine Silver, according to the Number of Grains contained in the Coins.—*Calculated in Grains and 1000th Parts Troy Weight.*

A. D.	Anno Regni.	Silver. 1. Number of Grains of Fine Silver in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures.	Silver. 2. Number of Grains of Standard Silver, 11 oz. 2 dwts. Fine in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures.	Gold. 3. Number of Grains of Fine Gold in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures.	Gold. 4. Number of Grains of Standard Gold, 22 Carats fine, in 20 Shillings, or the Pound Sterling, as coined by the Mint Indentures.	5. Proportionate Value of Fine Gold to Fine Silver, according to the Quantity of each Metal contained in the
		Grains.	*Grains.*	*Grains.*	*Grains.*	*Gold to Silver.*
1506	Conquest	4,995·000	5,400·000			
1280	8 Edward I.	4,995·000	5,400·000			
1344	18 Edward III.	4,933·333	5,333·333	407·990	445·080	1 to 12·091
1349	23 ——	4,440·000	4,800·000	383·705	418·588	1 — 11·571
1356	30 ——	3,996·000	4,320·000	368·125	390·682	1 — 11·158
1401	3 Henry IV.	3,996·000	4,320·000	358 125	390·682	1 — 11·158
1421	9 Henry V.	3,330·000	3,600·000	322·312	351·613	1 — 10·331
1464	4 Edward IV.	2,664·000	2,880·000	257·850	281·291	1 — 10·331
1465	5 ——	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1470	49 Henry VI.	2,664·000	2,880,000	238·750	260·454	1 — 11·158
1482	22 Edward IV.	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1509	1 Henry VIII.	2,664·000	2,880·000	238·750	260·454	1 — 11·158
1527	18 ——	2,368·000	2,560·000	210·149	229·253	1 — 11·268
1543	34 ——	2,000·000	2,162·162	191·666	209·090	1 — 10·434
1545	36 ——	1,200·000	1,297·297	176·000	192·000	1 — 6·818
1546	37 ——	800·000	864·864	160·000	174·545	1 — 5·000
1547	1 Edward VI.	800·000	864·864	160·000	174·545	1 — 5·000
1549	3 ——	800·000	864·864	155·294	169·412	1 — 5·151
1551	5 ——	400·000				
*	——	1,760·000	1,902·702	160·000	174·545	1 — 11·000
——	——	1,768·000	1,911·351	160·000	174·545	1 — 11·050
1552	6 ——	1,760·000	1,902·702	159·166	173·636	1 — 11·057
1553	1 Mary	1,776·000	1,920·000	160·000	174·545	1 — 11·100
1560	2 Elizabeth	1,718·709	1,858·064	157·612	171·940	1 — 10·904
1600	43 ——	1,718·709	1,858·064	141·935	154·838	1 — 12·109
1604	2 James I.	1,718·709	1,858·064	128·780	140·487	1 — 13·346
1626	2 Charles I.	1,718·709	1,858·064	118·651	129·438	1 — 14·485
1666	18 Charles II.	1,718·709	1,858·064	113·001	123·274	1 — 15·209
1717	3 George I.	1,614·545	1,745·454	113·001	123·274	1 — 14·287
†1816	56 George III.					

* 1551 — 5 Edward VI.] The coinage of debased silver money in the 5th year of Edward VI. of 3 oz. fine, ought more properly to be considered as Tokens. The sum of 120,000*l.* only was so coined.—(See *James's Essays*, chap. iv.)

† 1816—56 George III.] The government having taken the coinage of silver into its own hands, there is at present no fixed price paid to the public, by the mint, for standard silver. And supposing the present mint regulations, and to keep gold at 77*s.* 10½*d.* an ounce, as the government to continue relative value of gold to silver will vary in like proportion. price of silver varies, the

No. II. ENGLISH COINS.—Account of the English Silver and Gold Coins; showing their Value, the Seignorage or Profit upon the Coinage, and the Price of the Pound Troy of Standard Gold and Silver, from the Conquest to the present Time.

A.D	Anno Regni.	Silver. 1. Fineness of the Silver in the Coins.	Silver. 2. Pound Weight of such Silver coined into	Silver. 3. Profit or Seignorage on the Coinage.	Silver. 4. Equal to the Mint Price for Standard Silver of 11oz. 2 dwts. fine Troy weight.	Gold. 5. Fineness of the Gold in the Coins.	Gold. 6. Pound Weight of such Gold coined into	Gold. 7. Profit or Seignorage on the Coinage.	Gold. 8. Equal to the Mint Price for Standard Gold of 22 Carats fine Troy weight.
		Oz. dt.	£ s. d.	£ s. d.	£ s. d.	Crts. grs.	£ s. d.	£ s. d.	£ s. d.
1606	Conquest	11 2	1 0 0						
1280	8 Edward I.	— —	1 0 0	0 1 0	1 0 3¼				
1300	28	— —	1 0 3	0 1 2½					
1344	18 Edward III.	— —	1 0 3	0 1 3	1 0 3¼	23 3½	13 3 4	0 8 4	12 10 8
1349	23	— —	1 2 6	0 1 3	1 2 8	— —	14 0 0	0 11 8	13 3 9
1356	30	— —	1 5 0	0 0 10	1 5 9½	— —	15 0 0	0 6 8	14 8 4
1394	18 Richard II.	— —	1 5 0	0 0 10	1 5 9½	— —	15 0 0	0 5 0	14 9 11
1401	3 Henry IV.	— —	1 5 0	0 0 10	1 5 9½	— —	15 0 0	0 5 0	14 9 11
1421	9 Henry V.	— —	1 10 0	0 1 0	1 10 11¼	— —	16 13 4	0 5 0	16 2 9
1425	4 Henry VI.	— —	1 10 0	0 1 0	1 10 11¼	— —	16 13 4	0 5 10	16 1 11
1464	4 Edward IV.	— —	1 17 6	0 4 6	1 15 2½	— —	20 16 8	2 10 0	18 0 5
1465	5	— —	1 17 6	0 4 6	1 15 2½	— —	22 10 0	1 0 10	21 1 10
1470	49 Henry VI.	— —	1 17 6	0 2 0	1 17 10½	— —	22 10 0	0 13 0	21 9 7
1482	22 Edward IV.	— —	1 17 6	0 1 6	1 18 4½	— —	22 10 0	0 7 6	21 15 0
1483	1 Richard III.	— —	1 17 6	0 1 6	1 18 4½	— —	22 10 0	0 7 6	21 15 0
1485	1 Henry VII.	— —	1 17 6	0 1 6	1 18 4½	— —	22 10 0	0 7 6	21 15 0
1509	1 Henry VIII.	— —	1 17 6	0 1 0	1 18 11¼	— —	22 10 0	0 2 6	22 0 0
*1527	18	— —	2 0 0	0 1 0½	1 18 11¼	— —	24 0 0	0 2 8	22 0 0
——	——	— —	2 5 0	0 1 0	2 4 0	— —	27 0 0	0 2 9	
——	——	— —	— —	— —	— —	22 0	25 2 6	0 3 0	24 19 6
1543	34	10 0	2 8 0	0 8 0	2 4 4½	23 0	28 16 0	1 4 0	26 8 0
1545	36	6 0	2 8 0	2 0 0	2 11 9½	22 0	30 0 0	2 10 0	27 10 0
1546	37	4 0	2 8 0	4 4 0	2 15 6	20 0	30 0 0	5 0 0	27 10 0
1547	1 Edward VI.	4 0	2 8 0	4 4 0	2 15 6	20 0	30 0 0	1 10 0	31 7 0
1549	3	6 0	3 12 0	4 0 0	2 19 2½	22 0	34 0 0	1 0 0	33 0 0
1551	5	3 0	3 12 0						
——	——	11 0	3 0 0	— —	— —	— —	23 3½	36 0 0	
——	——	— —	— —	— —	— —	— —	22 0	33 0 0	
1552	6	11 1	3 0 0	0 1 0	2 19 3¼	— —	23 3½	36 0 0	0 2 9
——	——	— —	— —	— —	— —	— —	22 0	33 0 0	0 3 0
1553	1 Mary	11 0	3 0 0	0 1 0	2 19 6½	23 3½	36 0 0	0 3 0	33 0 8
1560	2 Elizabeth	11 2	3 0 0	0 1 6	2 18 6	23 3½	36 0 0	0 5 0	
——	——	— —	— —	— —	— —	22 0	33 0 0	0 4 0	32 16 0
1600	43	— —	3 2 0	0 2 0	3 0 0	23 3½	36 10 0	0 10 0	
——	——	— —	— —	— —	— —	22 0	33 10 0	0 10 0	33 0 0
1604	2 James I.	— —	3 2 0	0 2 6	2 19 6	22 0	37 4 0	0 10 0	35 14 0
1626	2 Charles I.	— —	3 2 0	0 2 0	3 0 0	— —	41 0 0	1 1 5	39 18 7
†1666	18 Charles II.	— —	3 2 0	0 0 0	3 2 0	— —	44 10 0	— —	44 10 0
1717	3 George I.	— —	3 2 0	0 0 0	3 2 0	— —	46 14 6	— —	46 14 6
1816	56 George III.	— —	3 6 0	0 4 0	— —	— —	46 14 6	— —	46 14 6

(The preceding Tables, Nos. I. and II., are taken from Part II. of *Essays on Money, Exchanges, and Political Economy*, by Henry James.)

No. III. SCOTCH COINS.—Account of the Number of Pounds, Shillings, and Pennies Scotch which have been coined out of One Pound Weight of Silver, at different Times; with the Degree of Purity of such Silver, or its Fineness, from the Year 1107 to the Year 1601.—(From *Cardonnel's Numismata Scotiæ*, p. 24.)

A.D.	Anno Regni.	Purity.	Alloy.	Value of the Money coined out of a Lb. Weight of Silver.	A. D.	Anno Regni.	Purity.	Alloy.	Value of the Money coined out of a Lb. Weight of Silver.
		Oz. pw.	Oz. pw.	£ s. d.			Oz. pw.	Oz. pw.	£ s. d.
From 1107 to 1296	Alexander I. David I. William Alexander II. Alexander III. John Baliol	11 2	0 18	1 0 0	1451	James II.	15	1 2 0 18	3 4 0
					1456	——	20	11 2 0 18	4 16 0
					1475	James III.	16	11 2 0 18	7 4 0
					1484	——	24	11 2 0 18	7 0 0
					1488	James IV. 1	11	2 0 18	7 0 0
					1489	2			
From 1306 to 1329	Robert I.	11 2	0 18	1 1 0	1529	James V.	16	11 0 1 0	9 12 0
					1544	Mary	3	11 0 1 0	9 12 0
					1556	——	14	11 0 1 0	13 0 0
1366	David II. 38	11 2	0 18	1 5 0	1565	——	23	11 0 1 0	18 0 0
1367	—— 39	11 2	0 18	1 9 4	1567	James VI.	1	11 0 1 0	18 0 0
From 1371 to 1390	Robert II.	11 2	0 18	1 9 4	1571	——	5	9 0 3 0	16 14 0
					1576	——	10	8 0 4 0	16 14 0
					1579	——	13	11 0 1 0	22 0 0
					1581	——	15	11 0 1 0	24 0 0
					1597	——	31	11 0 1 0	30 0 0
1393	Robert III. 4	11 2	0 18	1 12 0	1601	——	35	11 0 1 0	36 0 0
1424	James I. 19	11 2	0 18	1 17 6					

* 1527—Henry VIII.] The Saxon or Tower pound was used at the mint up to this time, when the pound Troy was substituted in its stead. The Tower pound was but 11 oz. 5 dwts. Troy; so that, from the Conquest to the 28th of Edward I., 20 shillings in tale were exactly a pound in weight.

† 1666—18 Charles II.] The seignorage on the coinage was at this time given up, and the gold bullion brought to the mint has ever since been coined free of expense. A seignorage of 6¼ per cent. was imposed on the coinage of silver by 56 Geo 3.

No. IV. Scotch Coins. — Account of the Number of Pounds, Shillings, and Pennies Scotch which have been coined out of One Pound Weight of Gold; with the Degree of their Purity, and the Proportion that the Gold bore to the Silver. — (*Cardonnel*, p. 25.)

A. D.	Annò Regni.		Fineness.			Alloy.			Value of the Coin coined out of One Pound of Gold.			Pound of Pure Gold weighed of Pure Silver.			
			Oz.	pw.	gr.	Oz.	pw.	gr.	£	s.	d.	Lbs.	oz.	pw.	gr.
1371, &c.	Robert II.	-	11	18	18	0	1	6	17	12	0	11	1	17	22
1390, &c.	Robert III.	-	11	18	18	0	1	6	19	4	0	11	1	17	22
1424	James I.	19	11	18	18	0	1	6	22	10	0	11	1	17	22
1451	James II.	15	11	18	18	0	1	6	33	6	0	9	8	4	14
1456	———	20	11	18	18	0	1	6	50	0	0	9	8	4	14
1475	James III.	16	11	18	18	0	1	6	78	15	0	10	2	0	20
1484	———	24	11	18	18	0	1	6	78	15	0	10	5	7	9
1488	James IV.	1	11	18	18	0	1	6	78	15	0	10	5	7	9
1529	James V.	16	11	18	18	0	1	6	108	0	0	10	5	7	9
1556	Mary	14	11	0	0	1	0	0	144	0	0	10	5	8	6
1567	James VI.	10	11	0	0	1	0	0	240	0	0	10	5	8	6
1579	———	13	10	10	0	1	10	0	240	0	0	11	5	2	20
1597	———	31	11	0	0	1	0	0	360	0	0	12	0	0	0
1601	———	35	11	0	0	1	0	0	432	0	0	12	0	0	0
1633	Charles I.	9	11	0	0	1	0	0	492	0	0	13	2	7	11

No. V. — Account of the Value of the Gold and Silver Coins, specifying each, coined at the Mint, each Year since 1790.

Years.	Gold coined.			Silver coined.			Years.	Gold coined.			Silver coined.		
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
1790	2,660,521	10	0	Nil.			1816	Nil.			1,805,251	16	0
1791	2,456,566	17	6	Nil.			1817	4,275,337	10	0	2,436,297	12	0
1792	1,171,863	0	0	251	17	6	1818	2,862,373	10	0	576,279	0	0
1793	2,747,430	0	0	Nil.			1819	3,574	10	8	1,267,272	12	0
1794	2,558,894	12	6	Nil.			1820	949,516	0	10	847,717	4	0
1795	493,416	0	0	293	11	11	1821	9,520,758	13	10	433,686	0	0
1796	464,680	2	6	Nil.			1822	5,356,787	12	6	31,430	7	1
1797	2,000,297	5	0	Nil.			1823	759,748	10	0	285,271	16	0
1798	2,967,504	15	0	Nil.			1824	4,065,075	0	0	282,070	16	0
1799	449,961	15	0	Nil.			1825	4,580,919	0	0	417,535	16	0
1800	189,937	2	6	Nil.			1826	5,896,461	7	6	608,605	16	0
1801	450,242	2	0	53	7	1	1827	2,512,636	17	6	33,019	16	0
1802	487,018	18	6	62	0	0	1828	1,008,559	2	6	16,288	3	0
1803	596,444	12	6	72	6	8	1829	2,446,754	12	6	108,259	16	0
1804	778,396	17	6	77	10	0	1830	2,387,881	2	6	151	16	0
1805	54,668	5	0	182	18	0	1831	587,949	14	5	33,696	5	8
1806	405,105	15	0	Nil.			1832	3,730,757	12	6	145	4	0
1807	Nil.			108	10	0	1833	1,225,269	13	6	145	4	0
1808	371,744	2	0	Nil.			1834	66,949	12	5	432,775	4	0
1809	298,946	11	0	144	14	0	1835	1,109,718	8	10	151,615	4	0
1810	316,935	13	6	120	18	0	1836	1,787,782	5	5	503,857	4	0
1811	312,263	3	6	Nil.			1837	1,253,088	8	2	76,111	4	0
1812	Nil.			52	14	0	1838	2,855,364	15	0	201,168	0	0
1813	519,722	3	6	89	18	0	1839	504,310	14	3	402,534	0	0
1814	Nil.			161	4	0	1840	Nil.			216,414	0	0
1815	Nil.			Nil.			1841	378,472	10	0	96,175	4	0

No. VI. Gold Coins of different Countries. — A Table containing the Assays, Weights, and Values of the principal Gold Coins of all Countries, computed according to the Mint Price of Gold in England, and from Assays made both at London and Paris, which have been found to verify each other.*

*** The publishers of this work purchased the right to publish this Table from Dr. Kelly, in the second edition of whose *Cambist* it originally appeared.

COINS.			Assay.	Weight.	Standard Weight.	Contents in Pure Gold.	Value in Sterling.	
			Car. gr.	Dwt. gr.	Dwt. gr. m	Grains.	s.	d.
Austrian Dominions	Souverain	- - -	W. 0 0½	3 14	3 13 15	78·6	13	10·92
	Double ducat	- - -	B. 1 2⅔	4 12	4 20 5	106·4	18	9·97
	Ducat Kremnitz, or Hungarian	-	B. 1 3	2 5⅔	2 10 3	53·3	9	5·91
Bavaria -	Carolin - - -		W. 3 2	6 5½	5 5 10	115·	20	4·23
	Max d'or, or Maximilian -		W. 3 2½	4 4	3 14 0	77·	13	7·44
	Ducat - - -		B. 1 2½	2 5⅔	2 19 11	52·8	9	4·12
Bern - -	Ducat (double, &c. in proportion)		B. 1 1½	1 23	2 2 1	45 9	8	1·48
	Pistole - - -		W. 0 1½	4 21	4 19 0	105·5	18	7·86
Brunswick -	Pistole (double in proportion)		W. 0 1½	4 21½	4 19 5	105·7	18	8·48
	Ducat - - -		B. 1 0½	2 5⅔	2 8 9	51·8	9	2·
Cologne -	Ducat - - -		B. 1 2	2 5⅔	2 9 8	52·6	9	3·70
Denmark -	Ducat current - - -		W. 0 3⅔	2 0	1 21 19	42·2	7	5·62
	Ducat specie - - -		B. 1 2	2 5⅔	2 9 8	52·6	9	3·70
	Christian d'or - - -		W. 0 1	4 7	4 5 16	93·3	16	6·14

* The London Assays in this Table were made by Robert Bingley, Esq. F.R.S., the King's Assay Master of the Mint, and those at Paris by Pierre Frédéric Bonneville, Essayer du Commerce, as published in his elaborate work on the coins of all nations.

Specimens of all the foreign coins brought to London for commercial purposes have been supplied for this Table from the Bullion-office, Bank of England, by order of the Bank Directors, and have been selected by John Humble, Esq., the chief clerk of that office, who also examined the Tables in their progress. It may likewise be added, that the Mint Reports of these commercial coins are chiefly from average assays; and that all the computations have been carefully verified by different calculators. — (Note by Dr. Kelly, to second edition of the *Cambist*, published in 1821.)

COINS.		Assay.	Weight.	Standard Weight.	Contents in Pure Gold.	Value in Sterling.
		Car. gr.	Dwt. gr.	Dwt. gr. vi.	Grains.	s. d.
ENGLAND	Guinea	Stand.	5 9½	5 9 10	118·7	21 0
	Half-guinea	Stand.	2 16¾	2 16 15	59 3	10 6
	Seven shilling piece	Stand.	1 19	1 19 0	39·6	7 0
	Sovereign	Stand.	5 3¼	5 3 5	113·1	20 0
FRANCE	Double Louis (coined before 1786)	W. 0 2	10 11	10 5 6	224·9	39 9·64
	Louis	W. 0 2	5 5½	5 2 12	112·4	10 10·71
	Double Louis (coined since 1786)	W. 0 1½	9 20	9 15 19	212·6	37 7·53
	Louis	W. 0 1½	4 22	4 19 19	106·3	18 9·75
	Double Napoleon, or piece of 40 francs	W. 0 1¼	8 7	8 3 0	179·	31 8·36
	Napoleon, or piece of 20 francs	W. 0 1¼	4 3½	4 1 10	89·7	15 10·5
	New Louis (double, &c.) the same as the Napoleon.					
FRANCKFORT ON THE MAINE	Ducat	B. 1 2½	2 5¼	2 9 14	52·9	9 4·34
GENEVA	Pistole, old	W. 0 2	4 7½	4 4 18	92·5	16 4·45
	Pistole, new	W. 0 0½	3 15½	3 15 4	80·	14 1·9
GENOA	Sequin	B. 1 3½	2 5¼	2 10 6	53·4	9 5·41
HAMBURGH	Ducat (double in proportion)	B. 1 2½	2 5¼	2 9 14	52·9	9 4·35
HANOVER	George d'or	W. 0 1½	4 6½	4 5 3	92·6	16 4·66
	Ducat	B. 1 3½	2 5¼	2 10 3	53·3	9 5·19
	Gold florin (double in proportion)	W. 3 0½	2 2	1 18 6	39·	6 10·83
HOLLAND	Double ryder	Stand.	12 21	12 21 0	283·2	50 1·46
	Ryder	Stand.	6 9	6 9 0	140·2	24 9·75
	Ducat	B. 1 2½	2 5¼	2 9 12	52·8	9 4·13
MALTA	Double Louis	W. 1 3½	10 16	9 18 18	215·3	38 1·25
	Louis	W. 1 3	5 8	4 21 16	108·	19 1·37
	Demi Louis	W. 1 2½	2 16	2 11 3	54·5	9 7·75
MILAN	Sequin	B. 1 3	2 5¼	2 10 0	53·2	9 4·98
	Doppia or pistole	W. 0 1	4 1½	4 0 8	88·4	15 7·74
	Forty lire piece of 1808	W. 0 1½	8 8	8 4 0	179·7	31 9·64
NAPLES	Six ducat piece of 1783	W. 0 2½	5 16	5 12 18	121·9	21 6·89
	Two ducat piece, or sequin, of 1762	W. 1 2½	1 20½	1 16 6	37·4	6 7·42
	Three ducat piece, or oncetta, of 1818	B. 1 3½	2 10½	2 15 1	58·1	10 3·40
NETHERLANDS	Gold lion, or 14 florin piece	Stand.	5 7½	5 7 16	117·1	20 8·69
	Ten florin piece (1820)	W. 0 1½	4 7½	4 5 15	93·2	16 5·93
PARMA	Quadruple pistole (double in proportion)	W. 1 0	18 9	17 12 18	386·	68 3·78
	Pistole or Doppia of 1787	W. 0 3	4 14	4 10 4	97·4	17 2·85
	Ditto of 1796	W. 1 0½	4 14	4 8 14	95·9	16 11·67
	Maria Theresa (1818)	W. 0 1½	4 3½	4 1 10	89·7	15 10·5
PIEDMONT	Pistole coined since 1785 (⅓, &c. in proportion)	W. 0 1½	5 20	5 17 0	125 6	22 2·75
	Sequin (⅓ in proportion)	B. 1 2½	2 5¼	2 9 12	52·9	9 4·34
	Carlino, coined since 1785 (⅓, &c. in proportion)	W. 0 1½	29 6	28 20 0	634·4	112 3·33
	Piece of 20 francs	W. 2 0	4 3½	3 18 4	82·7	14 7·63
POLAND	Ducat	B. 1 2½	2 5¼	2 9 12	52·9	9 4·34
PORTUGAL	Dobraon of 24,000 rees	Stand.	34 12	34 12 0	759·	134 3·96
	Dobra of 12,800 rees	Stand.	18 6	18 6 0	401·5	71 0·70
	Moidore or Lisbonnine (½, &c. in prop.)	Stand.	6 22	6 22 0	152·2	26 11·24
	Piece of 16 testoons, or 1,600 rees	W. 0 0⅝	2 6	2 5 14	49·3	8 8·70
	Old crusado of 400 rees	W. 0 0¼	0 15	0 14 18	13·6	2 4·84
	New crusado of 480 rees	W. 0 0⅜	0 16¼	0 16 2	14·8	2 7·43
	Milree (coined for the African colonies 1755)	Stand.	0 19⅝	0 19 15	18·1	3 2·44
PRUSSIA	Ducat of 1748	B. 1 2½	2 5¼	2 9 14	52·9	9 4·04
	Ducat of 1787	B. 1 2	2 5¼	2 9 6	52·6	9 3·71
	Frederick (double) of 1769	W. 0 1½	8 14	8 9 18	185·	32 8·90
	Frederick (single) of 1778	W. 0 1½	4 7	4 5 4	92·8	16 5·08
	Frederick (double) of 1800	W. 0 2	8 14	8 9 6	184·5	32 7·84
	Frederick (single) of 1800	W. 0 2	4 7	4 4 13	92·2	16 3·42
ROME	Sequin (coined since 1760)	B. 1 3½	2 4½	2 9 0	52·2	9 2·86
	Scudo of the Republic	W. 0 1½	17 0½	16 16 6	367·	64 11·43
RUSSIA	Ducat of 1796	B. 1 2½	2 6	2 10 0	53·2	9 4·98
	Ducat of 1763	B. 1 2	2 5¼	2 9 8	52·6	9 3·71
	Gold ruble of 1756	Stand.	1 0¾	1 0 10	22·5	3 11·78
	Ditto of 1799	W. 0 0½	0 18⅝	0 18 14	17·1	3 0·31
	Gold poltin of 1777	Stand.	0 9	0 9 0	8·2	1 5·41
	Imperial of 1801	B. 1 2½	7 17½	8 6 8	181·9	32 2·31
	Half Imperial of 1801	B. 1 2½	3 20¾	4 3 4	90·9	16 1·05
	Ditto of 1818	B. 0 0½	4 3½	4 3 12	91·3	16 1·98
SARDINIA	Carlino (⅓ in proportion)	W. 0 2⅝	10 7½	9 23 16	219·8	30 8·10
SAXONY	Ducat of 1784	B. 1 2½	2 5¼	2 9 8	52·6	9 3·71
	Ducat of 1797	B. 1 2½	2 5¼	2 9 14	52·9	9 4·34
	Augustus of 1754	W. 0 2⅝	4 6¾	4 3 8	91·2	16 1·69
	Augustus of 1784	W. 0 1½	4 6¾	4 4 12	92·2	16 3·81
SICILY*	Ounce of 1751	W. 1 2½	2 20½	2 15 8	58·2	10 3·60
	Double ounce of 1758	W. 1 2	5 17	5 7 14	117·	20 8·48
SPAIN	Doubloon of 1772 (double and single in proportion)	W. 0 2¼	17 8½	61 21 16	372·	65 10·05
	Quadruple pistole of 1801	W. 1 1	17 9	16 9 6	360·5	63 9·62
	Pistole of 1801	W. 1 1	4 8½	4 2 6	90·1	15 11·35
	Coronilla, gold dollar, or vintem of 1801	W. 1 2½	1 3	1 0 18	22·8	4 0·42
SWEDEN	Ducat	B. 1 2	2 5	2 8 12	51·9	9 2·22

* Much variation is found in the fineness of the Sicilian gold coins.

COINS.		Assay.	Weight.	Standard Weight.	Contents in Pure Gold.	Value in Sterling.
		Car. gr.	*Dwt. gr.*	*Dwt. gr. mi.*	*Grains.*	*s. d.*
SWITZERLAND	Pistole of the Helvetic Republic of 1800	W. 0 1½	4 21½	4 19 9	105·9	18 8·91
TREVES	Ducat	B. 1 2	2 5¾	2 9 8	52·6	9 3·71
TURKEY	Sequin fonducli of Constantinople of 1773	W. 2 2½	2 5¾	1 23 6	43·3	7 7·94
	Sequin fonducli of 1789	W. 2 3½	2 5¾	1 22 16	42·9	7 7·11
	Half missier (1818)	W. 5 3½	0 18¼	0 13 5	12·16	2 1·82
	Sequin fonducli	W. 2 3	2 5	1 22 7	42·5	7 6·26
	Yermeebeshlek	B. 0 3½	2 1¾	3 4 13	70·3	12 5·30
TUSCANY	Zecchino or sequin	B. 1 3½	3 5¾	2 10 14	53·6	9 5·83
	Ruspone of the kingdom of Etruria	B. 1 3½	6 17½	7 7 13	161·	28 5·93
UNITED STATES	* Eagle (½ and ¼ in proportion)	W. 0 0½	11 6	11 4 8	246·1	43 6·66
VENICE	Zecchino or sequin (½ and ¼ in proportion)	B. 1 3½	2 6	2 10 10	53·6	9 5·83
WIRTEMBERG	Carolin	W. 3 2	6 3½	5 4 0	113·7	20 1·47
	Ducat	B. 1 2	2 5	2 8 12	51·9	9 2·22
	Ducat (double and ½ ducat in proportion)	B. 1 2	2 5¾	2 9 8	52·6	9 3·71
EAST INDIES.						
	Mohur of 1770	B. 1 2½	7 22½	8 11 15	186·8	33 0·72
	Mohur, Half (1787), (¼ in proportion)	B. 1 2½	3 23½	4 16 10	94·	16 7·64
	Mohur Sicca of Bengal	B. 1 3⅜	7 23	8 15 0	189·8	30 1·04
	Mohur of the Dutch East India Company (1783)	W. 3 3¼	10 2	8 8 0	183·4	32 5·50
	Mohur, Half Ditto (1801)	W. 3 1¾	5 3½	4 18 18	96·2	17 0·30
	Rupee, Bombay (1818)	B. 0 0⅝	7 11	7 11 13	164·7	29 1·78
	Rupee of Madras (1818)	Stand.	7 12	7 12 0	165·	29 2·42
	Pagoda, star	W. 3 0	2 4⅝	1 21 11	41·8	7 4·77

No. VII. SILVER COINS OF DIFFERENT COUNTRIES.—A Table containing the Assays, Weights, and Values of the principal Silver Coins of all Countries, computed at the Rate of 5*s.* 2*d.* per Ounce Standard, from Assays made both at the London and Paris Mints.

COINS.		Assay.	Weight.	Standard Weight.	Contents in Pure Silver.	Value in Sterling.
		Oz. dwt.	*Dwt. gr.*	*Dwt. gr. mi.*	*Grains.*	*s. d.*
AUSTRIA	Rixdollar of Francis II. (1800)	W. 1 5	18 1	16 0 4	355·5	4 1·64
	Rixdollar of the kingdom of Hungary	W. 1 2	18 1	16 6 1	360·9	4 2·39
	Half rixdollar, or florin, *Convention*	W. 1 3	9 0½	8 2 1	179·6	2 1·07
	Copftsuck, or 20 creutzer piece	W. 4 3	4 6½	2 16 3	59·4	0 8·29
	17 creutzer piece	W. 4 8	4 0	2 9 18	53·5	0 7·47
	Halbe copf, or 10 creutzer piece	W. 5 5	2 11	1 7 1	28·8	0 4·01
BADEN	Rixdollar	W. 1 4	18 2	16 3 1	358·1	4 2·
BAVARIA	Rixdollar of 1800 (½ in proportion)	W. 1 4½	17 12	15 13 13	345·6	4 0·25
	Copftsuck	W. 4 3	4 6½	2 16 3	59·4	0 8·29
BELGIUM	Since 1832 the money of Belgium has been identical with that of France.					
BERN	Patagon or crown (⅓ in proportion)	W. 0 7	18 22	18 7 14	406·7	4 8·79
	Piece of 10 batzen	W. 1 2	5 3	4 14 17	102·5	1 2·31
BREMEN	Piece of 48 grotes	W. 2 2	11 0	8 22 1	198·	2 3·64
BRUNSWICK	Rixdollar, *Convention*	W. 1 3	18 1	16 4 4	359·2	4 2·15
	Half rixdollar	W. 1 3	9 0½	8 2 2	179·6	2 1·07
	Gulden, or piece of ⅓, fine, of 1764	B. 0 16	8 10½	9 1 1	200·8	2 4·03
	Gulden, common, of 1764	W. 1 2	9 0	8 2 10	180·	2 1·13
	Gulden, ditto, of 1795	W. 2 2	11 1½	8 23 7	199·1	2 3·80
	Half gulden, or piece of ½, of 1764	W. 1 2	4 12	4 1 5	90·	1 0·56
DENMARK	Ryksdaler, specie, of 1798	W. 0 13	18 14	17 11 17	388·4	4 6·23
	New piece of 4 marks	W. 0 12	12 9	11 16 14	259·8	3 0·27
	Half ryksdaler	W. 0 13	9 7	8 17 8	194·2	2 3·11
	Mark, specie, or ¼ ryksdaler	W. 3 1	4 0	2 21 12	64·4	0 7·59
	Rixdollar, specie, of Sleswig and Holstein (pieces of ⅔ and ⅓ in prop.)	W. 0 12	18 13	17 12 6	389·4	4 6·37
	Piece of 24 skillings	W. 4 7	5 2½	3 2 10	68·9	0 9·62
ENGLAND	Crown (*old*)	Stand.	19 8½	19 8 10	429·7	5 0·
	Half-crown	Stand.	9 16¼	9 16 5	214·8	2 6·
	Shilling	Stand.	3 21	3 21 0	85·9	1 0·
	Sixpence	Stand.	1 22½	1 22 10	42·9	0 6·
	Crown (*new*)	Stand.	18 4½	18 4 7	403·6	4 8·36
	Half-crown	Stand.	9 2	9 2 4	201·8	2 4·18
	Shilling	Stand.	3 15½	3 15 6	80·7	0 11·27
	Sixpence	Stand.	1 19½	1 19 14	40·3	0 5·63
FRANCE	Piece of 5 francs	W. 0 7	16 1	15 12 4	344·9	4 0·16
	Piece of 2 francs	W. 0 7	6 11	6 6 2	138·8	1 7·38
	Franc	W. 0 7	3 5½	3 3 1	69·4	0 9·69
	Demi-franc	W. 0 8½	1 15	4 13 6	34·7	0 4·84
FRANKFORT †						
GENEVA	Patagon	W. 1 0	17 9	15 19 8	351·	4 1·03
	Piece of 15 sous of 1794	W. 2 6	2 1½	1 15 1	36·1	0 5·04

* This statement refers to the American eagle coined previously to 1834. Its weight was then reduced from 246 gr. pure gold to 232 do.; and hence, as the eagle is the equivalent of 10 dollars, the sovereign, which was previously worth 4 doll. 57 cents, has since been worth 4 doll. 87 cents. The reader will find in the Art. NEW YORK, in this work, full details in regard to the coins of the U. States, with the values of other coins rated in them.

† By one of the articles of the Zollverein, or Customs-union of Germany, *it was stipulated that the* settlements for the duties should be made either in Prussian dollars or in florins, at the rate of 7 florins

COINS.	Assay.	Weight.	Standard Weight.	Contents in Pure Silver.	Value in Sterling.
	Oz. dwt.	*Dwt. gr.*	*Dwt. gr. mi.*	*Grains.*	*s. d.*
GENOA - See SARDINIA.					
HAMBURG - Rixdollar, specie - -	W. 0 10	18 18	17 21 12	397·5	4 7·49
Double mark, or 32 schilling piece (single in proportion) - -	W. 2 3	11 18	9 11 8	210·3	2 5·36
Piece of 8 schillings - -	W. 3 12	3 8¼	2 6 4	50·1	0 6·99
Piece of 4 schillings. (See Art. HAMBURG.) - - -	W. 4 6	2 2	1 6 12	28·3	0 3·95
HANOVER Rixdollar, *Constitution* - -	W. 0 9	18 19	18 0 14	400·3	4 7·89
Florin, or piece of ⅓, fine - -	B. 0 16	8 10	9 0 10	200·3	2 3·96
Half florin, or piece of ⅙, ditto -	B. 0 16	4 4	4 11 4	99·2	1 1·85
Quarter, or piece of 6 good groschen, ditto - - -	B. 0 16	2 1	2 4 10	48·6	0 6·78
Florin, or piece of ⅓, base - -	W. 2 1	11 0⅔	8 23 15	199·6	2 3·87
HESSE CASSEL Rixdollar, *Convention* - -	W. 1 6	18 1	15 22 6	353·	4 1·39
Florin, or piece of ⅔ (⅓ in proportion)	W. 1 6	9 0½	7 23 3	176·8	2 0·68
Thaler of 1789 - - -	W. 0 10½	12 7½	11 17 5	259·7	3 0·26
Ecu, *Convention* (1815) - -	W. 1 6	17 23⅔	15 21 2	349·3	4 0·77
Bon gros - - -	W. 6 14	1 4	0 11 5	10·3	0 1·43
HOLLAND - Ducatoon - - -	B. 0 3	20 22	21 4 15	471·6	5 5·85
Piece of 3 florins - - -	W. 0 2	20 7	20 2 12	446·4	5 2·33
Rixdollar (the assay varies) -	W. 0 16	18 6	16 20 8	375·9	4 4·99
Half rixdollar - - -	W. 0 16	9 0	8 8 8	185·4	2 1·88
Florin or guilder (⅖ in proportion) -	W. 0 4⅘	6 18	6 14 14	146·8	1 8·49
12 Stiver piece - - -	W. 0 16⅘	4 12	4 3 18	92·4	1 0·90
Florin of Batavia - -	W. 0 5⅘	6 13	6 9 2	141·6	1 7·77
Rixdollar, or 50 stiver piece -	W. 0 5⅘	17 0	16 13 18	367·9	4 3·37
LUBEC - Rixdollar, specie - -	W. 0 13	18 8	17 15 12	391·9	4 6·72
Double mark - - -	W. 2 3	11 18	9 11 8	210·3	2 5·36
Mark - - - -	W. 2 3	5 21	4 17 14	105·1	1 2·67
LUCCA - Scudo - - - -	W. 0 3	17 0	16 18 10	372·3	4 3·98
Barbone - - -	W. 3 3	1 20½	1 7 14	29·3	0 4·09
MALTA - Ounce of 30 tari of Emmanuel Pinto	W. 2 5	19 1¼	15 4 14	337·4	3 11·11
2 Tari piece - - -	W. 2 19	1 2	0 19 2	17·7	0 2·41
MILAN - Scudo of 6 lire (⅛ in proportion) -	W. 0 7	14 20⅘	14 9 10	319·6	3 8·62
Lira, new - - -	W. 4 10	4 0	2 9 0	52·8	0 7·37
Lira, old - - -	W. 0 3	2 10	2 9 4	52·9	0 7·38
Scudo of the Cisalpine Republic -	W. 0 7	14 21⅓	14 10 4	320·2	3 8·71
Piece of 30 soldi of ditto - -	W. 2 18	4 17	3 11 8	77·2	0 10·78
MODENA - Scudo of 15 lire, 1739 (double, &c. in proportion) - - -	W. 0 14	18 12½	17 8 9	385·2	4 5·78
Scudo of 5 lire, of 1782 - -	W. 0 3	5 19	5 17 2	126·8	1 5·70
Scudo of 1796 - - -	W. 3 3	18 1⅔	12 22 12	287·4	3 4·13
NAPLES - Ducat, new (⅛ in proportion) -	W. 1 0	14 15	13 7 8	295·4	3 5·24
Piece of 12 Carlini of 1791 -	W. 1 0	17 15	16 0 18	356·	4 1·71
Ditto of 1796 - - -	W. 1 2	17 16⅘	15 22 12	353·9	4 1·41
Ditto of 1805 (⅛ in proportion) -	W. 1 2	17 18½	15 23 18	355·2	4 1·60
Ditto of 10 Carlini (1818) - -	W. 1 2	14 18	13 7 0	295·1	3 5·20
NETHERLANDS. Crown (⅓, &c. in proportion) -	W. 0 14	19 0	17 19 4	395·2	4 7·18
5 Stiver piece - - -	W. 6 3	3 4	1 9 18	31·3	0 4·37
Florin of 1816 - - -	W. 0 7½	6 22	6 16 6	148·4	1 8·72
Half florin (with divisions in prop.)	W. 4 5⅓	5 11	3 9 2	75·	0 10·46

for four Prussian dollars. There were, however, no florins in existence exactly of this value; but as the nearest approach to it was a valuation called the 24½ guldenfuss, or florin-foot, these Zollverein florins were nominally reckoned to be in this rate, though the difference amounts to more than 2 per cent.

"The term 24 guldenfuss implies that the mark weight of fine silver is rated at 24 gulden or florins. It was formed by giving to the coins minted or valued in 20 guldenfuss an increased value of one-fifth, as rating the 20 kreutzer piece at 24 kreutzers. At 60*d.* per ounce standard, the value of this mark of fine silver is worth 40*s.* 7½*d.* sterling, from which the value of the different German monetary integers is readily obtained; as reckoning 27⅔ marks banco or 34 marks current of Hamburg, 14 dollars of Prussia, 24½ florins of South Germany, 20 florins of Austria, and also 60 lire Austriache of Lombardy, to be of this amount.

"In order, therefore, to prevent the loss or inconvenience which would attend their adhering to this mode of valuation, a money convention was entered into on the 25th of August, 1837, among the states forming the union, by which it was agreed upon that a new basis of valuation should be adopted for their coins, under the term of Süddeutscher Währung, or South German valuation, at the rate of 24½ guiden or florins from the mark's weight of fine silver.

"Bavaria, Wirtemberg, Baden, and Saxony have since issued their coins at this rate, and the other states of the confederation are doing or preparing to do the same. Among them Frankfort, in 1840, began the mintage of coins of this value; and by a regulation of the Chamber of Commerce of this free city, all the rates of exchange, as well as the values of bullion and foreign coins, were ordered to be expressed in this Süddeutscher Währung from the beginning of this present year (1843). One of these new and very exactly-minted florins was assayed by Messrs. Johnson and Cock, of Hatton Garden, who reported it to be, full weight, 6 dwts. 19¾ grains, worse 6 dwts., gold under 2 grains; from which the value, at 60*d.* per ounce standard, is very exactly 19¾*d.* sterling, making the par of exchange with London 120⅔ florins in S. D. W. for 10*l.* sterling.

"I have been thus particular in these explanations, partly because several persons imagine that the late alteration in the rate of exchange with Frankfort was made in compliance with the wishes, or to suit the convenience, of one or more of our leading houses in exchange negotiations, but more particularly because it is maintained by many that the valuation of this rate is not merely nominally, but really, in 24 guldenfuss. This is a point of no small importance to the commercial world, for had it been so, the par of exchange with London would have been only 118 florins for 10*l.* sterling, and the difference between this and the present price of sight bills on Frankfort would have exceeded 2¾ per cent.; a variation which every practical cambist well knows could not exist, except under very extraordinary circumstances, and with nearly corresponding differences in the other rates of exchange: neither of which causes is now in operation."—(*Letter of William Tate, Esq., cambist to the Times.*)

COINS.	Assay.	Weight.	Standard Weight.	Contents in Pure Silver.	Value in Sterling.
	Oz. dwt.	*Dwt. gr.*	*Dwt. gr. mi.*	*Grains.*	*s. d.*
PARMA - Ducat of 1784	W. 0 9.	16 11	15 19 18	350·6	4 0·95
Ducat of 1796 ($\frac{1}{4}$ in proportion)	W. 0. $5\frac{1}{2}$	16 $12\frac{1}{2}$	16 2 18	357·9	4 1·97
Piece of 3 lire	W. 1· 4	4 14	4 2 2	90·7	1 0·66
POLAND - Rixdollar, old	W. 1 2	18 1	16 6 0	360·8	4 2·38
Rixdollar, new (1794)	W. 2 17	15 $10\frac{1}{2}$	11 11 6	254·3	2 11·51
Florin, or gulden	W. 4 2	6 0	3 18 16	84·	0 11·72
PORTUGAL - New crusado (1690)	W. 0 4	11 0	10 19 0	239·2	2 9·40
Ditto (1718)	W. 0 $6\frac{1}{2}$	9 8	9 1 0	200·2	2 3·95
Ditto (1795)	W. 0 7	9 9	9 1 18	201·6	2 4·15
Doze vintems, or piece of 240 rees (1799)	W. 0 7	4 16	4 12 10	100·4	1 2·01
Testoon (1799)	W. 0 7	2 $0\frac{1}{2}$	1 22 18	43·4	0 6·06
New crusado (1809)	W. 0 4	9 $3\frac{1}{2}$	8 23 0	198·2	2 4·67
Seis vintems, or piece of 120 rees (1802)	W. 0 9	2 $4\frac{1}{2}$	2 2 8	46·6	0 6·50
Testoon (1802)	W. 0 [illegible]	2 0	1 22 0	42·5	0 5·93
Tres vintems, or piece of 60 rees (1802)	W. 0 9	1 $2\frac{1}{2}$	1 1 4	23·3	0 3·25
Half testoon (1802)	W. 0 9	0 23	0 22 0	20·4	0 2·84
PORTUGUESE COLONIES } Piece of 8 macutes, of Portuguese Africa	W. 0 9	7 12	7 4 14	159·8	1 10·31
Ditto of 6 ditto	W. 0 9	5 13	5 7 12	118·	0 4·47
Ditto of 4 ditto	W. 0 9	3 16	3 12 8	78·1	1 10·90
PRUSSIA - * Rixdollar, Prussian currency ($\frac{1}{8}$ in proportion)	W. 2 5	14 $6\frac{1}{2}$	11 9 0	252·6	2 11·27
Rixdollar, *Convention*	W. 1 3	18 1	16 4 2	359·	4 2·13
Florin, or piece of $\frac{2}{3}$	W. 2 3	11 2	8 22 8	198·4	2 3·70
Florin of Silesia	W. 2 2	9 11	7 16 0	170·3	1 11·78
Drittel, or piece of 8 good groschen	W. 3 3	5 $8\frac{1}{2}$	3 20 4	85·3	0 11·91
Piece of 6 groschen	W. 2 8	3 $14\frac{1}{2}$	2 19 6	62·3	0 8·69
ROME - Scudo, or crown (coined since 1753)	W. 0 4	17 1	16 17 13	371·5	4 3·87
Mezzo scudo, or half-crown	W. 0 4	8 $12\frac{1}{2}$	8 8 16	185·7	2 1·93
Testone (1785)	W. 0 5	5 2	4 23 4	110·3	1 3·40
Paolo (1785)	W. 0 4	1 17	1 16 4	37·2	0 5·19
Grosso, or half Paolo (1785)	W. 0 5	0 $20\frac{1}{2}$	0 20 0	18·5	0 2·58
Scudo of the Roman Republic (1799)	W. 0 6	17 1	16 13 18	368·1	4 3·40
RUSSIA - Rouble of Peter the Great	W. 2 7	18 1	14 1 8	342·1	3 7·58
Ditto of Catherine I. (1725)	W. 2 $4\frac{1}{2}$	17 11	13 23 0	309·9	3 7·27
Ditto of Peter II. (1727)	W. 2 12	18 $5\frac{1}{2}$	13 23 4	310·	3 7·28
Ditto of Anne (1734)	W. 1 11	16 $14\frac{1}{2}$	14 6 16	317·2	3 8·29
Ditto of Elizabeth (1750)	W. 1 7	16 12	14 11 16	321·8	3 8·93
Ditto of Peter III. (1762)	W. 2 2	15 10	12 12 0	277·5	3 2·75
Ditto of Catherine II. (1780)	W. 2 4	15 12	12 10 6	275·9	3 2·52
Ditto of Alexander	W. 0 16	13 12	12 12 12	278·1	3 2·83
N. B. It was ordered by a ukase, dated the 1st of July, 1839, that this coin should be the standard of value in Russia. It is divided into 100 copecks; and the other silver coins are of the value of 75, 50, 25, and 10 copecks each. This same ukase enacts, that 1 silver rouble shall henceforth be equal to $3\frac{1}{2}$ old paper roubles.					
SARDINIA - Since 1816 the money of Sardinia has been identical with that of France. The scudo of Genoa=6 fr. 56 cents.					
SAXONY - Rixdollar, *Convention* ($\frac{1}{3}$ and $\frac{1}{4}$ in proportion)	W. 1 3	18 0	16 3 4	358·2	4 2·01
Piece of 16 groschen of Leipsic	W. 2 2	9 $9\frac{1}{2}$	7 14 16	169·1	1 11·61
Rixdollar current of Saxe Gotha	W. 4 $4\frac{1}{2}$	18 1	11 4 2	248·1	2 10·64
$\frac{1}{2}$ Thaler of 1804	W. 4 11	3 11	2 0 19	45·3	0 6·32
Ditto of 1808	W. 4 $11\frac{1}{2}$	3 $5\frac{1}{2}$	1 21 8	42·1	0 5·87
Ditto of Jerome Bonaparte of 1809	W. 5 4	3 17	1 23 6	43·7	0 6·10
SICILY - Scudo ($\frac{1}{2}$ in proportion)	W. 1 4	17 14	15 16 6	348·2	4 0·62
Piece of 40 grains	W. 1 2	5 21	5 7 2	117·5	1 4·40
SPAIN - † Dollar, of late coinage	W. 0 8	17 8	16 17 0	370·9	4 3·79
Half dollar, ditto	W. 0 8	8 16	8 8 10	185·4	2 1·88
Mexican peceta (1774)	W. 0 8	4 $7\frac{1}{2}$	4 3 16	92·3	1 0·88
Real of Mexican plate (1775)	W. 0 8	2 $3\frac{3}{4}$	2 1 20	46·1	0 6·43
Peceta provincial of 2 reals of new plate (1775)	W. 1 $9\frac{3}{4}$	3 18	3 6 0	72·2	0 10·08
Real of new plate (1795)	W. 1 $9\frac{3}{4}$	1 21	1 15 0	36·1	0 5·04
SWEDEN - Rixdollar (1762)	W. 0 12	18 20	17 19 10	395·5	4 7·22
Rixdollar of late coinage	W. 0 $14\frac{1}{2}$	18 17	17 12 0	388·5	4 6·28
SWITZERLAND - Ecu of 40 batzen of Lucerne (1796)	W. 0 5	19 0	18 13 14	412·3	4 9·57
Half ditto	W. 1 2	9 20	8 20 12	196·7	2 3·46
Florin, or piece of 40 schillings of Lucerne (1793)	W. 1 5	4 22	4 8 14	96·8	1 1·51
Ecu of 40 batzen of the Helvetic Republic, 1798 ($\frac{1}{8}$ in proportion)	W. 0 6	18 23	18 10 14	409·5	4 9·18
Ecu of 4 franken	W. 0 7	18 23	18 8 12	407·6	4 9·18
TURKEY - ‡ Piastre of Selim of 1801	W. 3 6	8 6	4 7 8	95·7	1 1·36
Piastre of Crim Tartary (1778)	W. 6 $12\frac{1}{2}$	10 5	4 2 4	90·9	1 0·69
Piastre of Tunis (1787)	W. 6 $5\frac{1}{2}$	10 0	4 8 6	96·5	1 1·47
Piastre (1818)	W. 5 14	6 $6\frac{1}{2}$	3 1 4	67·7	0 9·45
TUSCANY - Piece of 10 Paoli of the kingdom of Etruria (1801)	W. 0 4	17 $13\frac{1}{2}$	17 5 18	382·9	4 5·46

* The Prussian coins, having been debased at different periods, vary in their reports.
† This is the coin which is universally circulated under the name of the Spanish dollar.
‡ For an account of the new Turkish coins, see CONSTANTINOPLE.

COINS.	Assay.	Weight.	Standard Weight.	Contents in Pure Silver.	Value in Sterling.
	Oz. dwt.	*Dwt. gr.*	*Dwt. gr. mi.*	*Grains.*	*s. d.*
Scudo Pisa of ditto	W. 0 2	17 12	17 8 4	385·0	4 5·76
Piece of 10 lire ditto	B. 0 7	25 6	26 1 12	578·7	6 8·60
Lira	B. 0 7	2 8	2 9 16	53·4	0 7·45
UNITED STATES Since 1853 the weights and values of the American silver coins have been as follows, viz. :—					
Dollar of 10 dimes,	weight 412½ gr. standard silver,			= 4*s.* 3·75*d.* sterling.	
Half dollar, 5 "	192	"		2 1·87	
Quarter dollar 2½ "	96	"		1 0·93	
Dime, 10 cents	38·40	"		0 0·46	
N.B. The half and quarter dollars, not being of full weight, are merely a subsidiary currency, and are legal tender to the extent of only 5 dollars.					
VENICE Piece of 2 lire, or 24 creutzers (1800)	W. 8 4½	5 19½	1 12 2	33·4	0 4·66
Ditto, moneta provinciale	W. 8 3	5 13½	1 11 8	32·8	0 4·58
Ditto of 2 lire, 1802 (½ and ½ in prop.)	W. 8 4	5 6½	1 8 19	30·5	0 4·25
WIRTEMBERG Rixdollar, specie	W. 1 3	18 1	16 14 2	359·1	4 2·14
Copfstuck	W. 4 2	4 16½	2 16 12	59·8	0 8·35
EAST INDIES.					
Rupee Sicca, coined by the East India Company at Calcutta	B. 0 13	7 11½	7 22 0	175·8	2 0·54
Company's or Standard	Stand.	—	—	165·	1 11·11
Calcutta (1818)	Stand.	8 0	8 0 0	175·9	2 0·56
Bombay, new, or Surat (1818)	W. 0 0½	7 17	7 10 4	164·7	1 11·01
Fanam, Cananore	W. 0 1½	1 11½	1 11 10	32·9	0 4·5
Bombay, old	B. 0 13	1 11½	1 13 16	35·	0 4·88
Pondicherry	B. 0 5½	1 0½	1 1 2	22·8	0 3·18
Ditto, double	W. 0 3	1 18½	1 18 2	39·	0 5·44
Gulden of the Dutch E. I. Co. (1820)	W. 0 7½	6 22	6 16 6	148·4	1 8·72

The sterling value of the foreign coins, in the foregoing tables, has been computed from the assays as follows: — Let it be required to assign the value, in sterling, of a French double Louis d'or coined since 1786, the assay master's report being as follows: — "Weight, 9 dwts. 20 grs.; assay W. 1½ grs.," that is, 0 car. 1½ grs. worse than the English standard. We proceed as under: —

From 22 car. 0 gr. the fineness of English standard gold,
Take 0 car. 1½ gr. } There remains 21 car. 2½ gr.

Then, as 22 car. : 21 car. 2½ grs. :: 9 dwts. 20 grs. : 9 dwts. 16 grs., the standard gold contained in the Louis d'or; and hence, as 1 oz. : 3*l.* 17*s.* 10½*d.* :: 9 dwts. 16 grs. : 1*l.* 17*s.* 7½*d.*, the value of the Louis in sterling money, and so for any of the other coins.

Ancient Coins. — We subjoin, for the convenience of such of our readers as may at any time have occasion to consult works in which reference is made to ancient coins, the following tables of those that were principally current among the Jews, Greeks, and Romans. They were calculated by Dr. Arbuthnot (*Tables of Ancient Coins, Weights, &c.* 4to ed. Lond. 1754), and do not differ materially from the tables of Paucton, whose *Métrologie* (4to. Paris, 1780) is the most complete and elaborate work that has ever been published with respect to ancient monies, weights, and measures. At the same time we confess we should not be disposed to place much reliance on these tables, and we have elsewhere stated our reasons for holding this opinion. — (*Encyc. Britannica*, art. *Money*.)

JEWISH COINS.

Names and Proportions.	Value in Sterling. £ *s. d.*
Gerah	0 0 1$\frac{39}{165}$
10 Bekah	0 1 1$\frac{1}{16}$
20 2 Shekel	0 2 3$\frac{3}{8}$
1,200 120 50 Maneh Mina Hebraica	5 14 0$\frac{3}{4}$
60,000 6,000 3,000 60 Talent	342 3 9
Solidus aureus, or sextula, worth	0 12 0$\frac{3}{4}$
Siclus aureus, worth	1 16 6
A talent of gold, worth	5,475 0 0

GRECIAN COINS.

	s. d. grs.
Lepton	0 0 0$\frac{21}{336}$
7 Chalcus	0 0 0$\frac{21}{48}$
14 2 Dichalcus	0 0 1$\frac{7}{24}$
28 4 2 Hemiobolum	0 0 2$\frac{7}{12}$
56 8 4 2 Obolus	0 1 1$\frac{1}{6}$
112 16 8 4 2 Diobolum	0 2 2$\frac{1}{3}$
224 32 16 8 4 2 Tetrobolum	0 5 0$\frac{2}{3}$
336 48 24 12 6 3 1½ Drachma	0 7 3
662 96 48 24 12 6 3 2 Didrachma	1 3 2
1,324 112 96 48 24 12 6 4 2 Tetradrachma	2 7 0
1,660 384 120 60 30 15 7½ 5 2½ 1½ Pentadrachma	3 2 3

Of the foregoing Grecian coins, the drachma and didrachma were of silver; the rest, for the most part, of brass.

The drachma is here, with the generality of authors, supposed equal to the denarius: though there is reason to believe that the drachma was somewhat the weightier.

	Value in Sterling. £	s.	d.
The Grecian gold coin was the stater aureus, weighing 2 Attic drachms, or half of the stater argenteus; and exchanging usually for 25 Attic drachmas of silver	0	16	1¼
But according to our proportion of gold to silver it was worth	1	0	9
There were likewise the stater Cyzicenus, exchanging for 28 Attic drachmas, or	0	18	1
The stater Philippicus, and stater Alexandrinus, were of the same value.			
Stater Daricus, according to Josephus, worth 50 Attic drachmas, or	1	12	3½
Stater Crœsius, of the same value.			

VALUE AND PROPORTION OF THE ROMAN COINS.

						Sterling. s.	d.	grs.
Teruncius						0	0	$0\frac{775}{1000}$
2	Sembella					0	0	$1\frac{53}{106}$
4	2	Libella As				0	0	$3\frac{1}{10}$
10	5	$2\frac{1}{2}$	Sestertius			0	1	$3\frac{3}{4}$
20	10	5	2	Quinarius Victoriatus		0	3	$3\frac{1}{8}$
40	20	10	4	2	Denarius	0	7	3

	£	s.	d.
The Roman gold coin, or aureus, weighed generally double the denarius; its value, according to the proportion of gold to silver, mentioned by Pliny, was	1	4	3¾
According to the proportion that now obtains amongst us	1	0	9
According to the decuple proportion mentioned by Livy and Julius Pollux	0	12	11
According to the proportion mentioned by Tacitus, by which the aureus exchanged for 25 denarii, its value	0	16	1½

COIR, a species of yarn manufactured out of the husk of cocoa nuts. The husks being steeped in water, the dry dusty substance mixed with the fibres is separated. These are afterwards spun into yarn, and manufactured into cordage, that is deemed by some superior to that made of hemp. The goodness of coir depends on the fineness of the filaments, and on their being of a bright yellow colour. About 2,500,000 lbs. weight are annually exported from Ceylon, principally to Calcutta, and other ports in the East Indies. It is also prepared in the Maldive Islands, and many other places; and is very extensively used throughout the East.—(*Bertolacci's Ceylon; Bell's Commerce of Bengal, &c.*)

COLOCYNTHIS, COLOQUINTIDA, OR BITTER CUCUMBER (Ger. *Koloquinten*; Du. *Bitter-appelen*; Fr. *Coloquintes*; It. *Coloquintida*; Sp. *Coloquintidas*; Arab. and Pers. *Hunzil*), the produce of an annual plant (*Cucumis colocynthis* Lin.) growing in Turkey, Nubia, India, and other places, much resembling the cucumber in herbage. When ripe, the fruit is peeled and dried in a stove; and in this state is brought to England. It is inodorous, but has an extremely nauseous taste. It is an exceedingly powerful drastic cathartic. When it is larger than a St. Michael's orange, and has black acute pointed ends, it is not good.—(*Ainslie's Materia Indica.*)

COLONIES.—COLONY TRADE.—*Colonies* are establishments founded on foreign countries by individuals who either voluntarily emigrate from, or are forcibly sent abroad by, their mother country. The *colony trade* is the trade carried on between colonies and their parent states.

I. ESTABLISHMENT OF COLONIES.
II. INFLUENCE OF THE MONOPOLY OF THE COLONY TRADE.
III. MAGNITUDE, POPULATION, TRADE, &C. OF BRITISH COLONIES.—DISPOSAL OF LAND IN THE COLONIES, &C.
IV. REGULATIONS UNDER WHICH THE COLONY TRADE IS CONDUCTED.
V. FOREIGN COLONIES.

I. ESTABLISHMENT OF COLONIES.

(1.) *Greek Colonies.*—Various motives have, in different countries and ages, led to the formation of colonies.* The Greek colonies of antiquity seem to have been chiefly

* Seneca has given, in a few words, a very clear and accurate statement of the different motives that induced the ancients to found colonies.—"*Nec omnibus eadem causa relinquendi quærendique patriam fuit. Alios excidia urbium suarum, hostilibus armis elapsos, in aliena, spoliatos suis, expulerunt: Alios domestica seditio submovit: Alios nimia superfluentis populi frequentia, ad exonerandas vires, emisit: Alios pestilentia, aut frequens terrarum hiatus, aut aliqua intoleranda infelicis soli ejecerunt: Quosdam fertilis oræ, et in majus laudatæ, fama corrupit: Alios alia causa excivit domibus suis.*"—(Consol. ad Helviam, c. 6.)

founded by citizens whom the violence and fury of contending factions forced to leave their native land; but they were sometimes formed for the purpose of relieving the mother country of a redundant population, and sometimes also for the purpose of extending the sphere of commercial transactions, or of providing for their security. The relations between the mother country and the colony depended, in a great measure, on the motives which led to the establishment of the latter. When a colony was founded by fugitives forcibly expelled from their ancient homes; or when it was founded, as was frequently the case, by bodies of voluntary emigrants, who received no assistance from, and were in no respect controlled by, the parent state, it was from the first independent; and even in those rarer cases in which the emigration was conducted under the superintendence of the parent city, and when the colony was protected by her power and influence, the dependence was, mostly, far from being absolute and complete. The great bulk of the Greek colonies were really independent states; and though they commonly regarded the land of their forefathers with filial respect, though they yielded to its citizens the place of distinction at public games and religious solemnities, and were expected to assist them in time of war, they did so as allies only, on fair and equal terms, and never as subjects. Owing to the freedom of their institutions, and their superiority in the arts of civilised life to the native inhabitants of the countries among whom they were generally placed, these colonies rose, in a comparatively short period, to a high pitch of opulence and refinement; and many among them, as Miletus and Ephesus in Asia Minor, Syracuse and Agrigentum in Sicily, and Tarentum and Locri in Italy, not only equalled, but greatly surpassed, their mother cities in wealth and power.

(2.) *Roman Colonies.*—The Roman colonies were, for the most part, founded by and under the authority of government; being intended to serve both as outlets for poor and discontented citizens, and as military stations, or garrisons, to secure the subjection of the conquered provinces over which they were scattered. The most intimate political union was always maintained between them and the mother city. Their internal government was modelled on that of Rome; and, while their superior officers were mostly sent from the capital, they were made to contribute their full quota of troops and taxes, to assist in carrying on the contests in which the Republic was almost constantly engaged.

(3.) *Spanish Colonies.*—The early colonies of most modern nations were founded by private adventurers, influenced either by the hope of gain, or by a desire to escape from religious persecution, without any wish to relieve the mother country of a surplus population, or to bridle subjugated provinces. On their first institution, therefore, the modern colonies approached, though with some essential variations, more nearly to the Grecian than the Roman model—but the period of their freedom was of very limited duration. They were very soon subjected to laws and regulations framed in the metropolis, and calculated, as was to be supposed, rather to promote its interests than those of the colony. At a somewhat later period the foundation of colonial establishments was eagerly patronised by most European governments, in the view of extending commerce, and of enriching the mother country, by securing to her the exclusive possession of the market of distant countries; and where, from the thinness of the aboriginal population, or their inferiority in the arts of civilised life, the colonists were enabled to amass fortunes with comparative rapidity.

The Spaniards who first resorted to America after its discovery, had no intention of settling in the country, or of colonising it. The idea that gold and silver alone constituted wealth was then universally prevalent; and the bold and enterprising companions and followers of Columbus, instead of engaging in industrious undertakings, which they neither understood nor relished, sought only to enrich themselves by plundering the feeble and defenceless natives of the gold and silver in their possession, and of the abundance of which the most exaggerated accounts were immediately spread throughout Europe. When new adventurers arrived on an unknown coast, their single inquiry was, whether it abounded in gold. If it did, they remained, for some time at least, in the country; if not, they immediately set sail for some other quarter. *Auri rabida sitis a cultura Hispanos divertit*, is the expressive statement of a contemporary writer (Petrus Martyrus, in the *Novus Orbis* of Grynæus, p. 511.). The slow progress of the Spanish colonies, after their first discovery, must principally be ascribed to this cause. The gold and silver accumulated by the natives were very soon exhausted; and the skill and energy of the successive swarms of adventurers, who continued to pour into the country, were principally directed to the unproductive and generally ruinous trade of mining. The few large fortunes that were made in this way, like the large prizes in a lottery, inflamed the cupidity of the multitude, and gave an appearance of credibility to the fabulous accounts of the excessive productiveness of the mines. After the gambling spirit which had exclusively actuated the early adventurers had begun to subside, the colonists gradually betook themselves to agricultural and commercial pursuits: and the vast variety of valuable productions with which Mexico and the other Spanish colonies

abound, the extreme richness of the soil, and their advantageous situation, would, had they been only tolerably well governed, have occasioned their rapid increase in wealth and civilisation. But a blind and intolerant despotism paralysed their energies, and fettered and retarded their progress. All the abuses and defects of the government of Old Spain were transferred to, and multiplied in, the colonies. The whole property of those vast regions was considered as vested in the crown of Spain; and every law or regulation, whether of a local or general nature, affecting their government, emanated from the council of the Indies, in which it was supposed the king was always present. We cannot stop to describe the sort of regulations to which the colonists were subjected with any degree of minuteness; but we may notice a few of them, to furnish the means of judging of their general spirit and probable effect. It was, for example, made a *capital* offence to carry on any intercourse with foreigners; and the inhabitants of the different colonies were even forbidden any intercourse with each other, unless under the strictest and most vexatious regulations. There were several articles, such as flax, hemp, and wine, which they were not permitted to cultivate; at the same time that the crown reserved to itself the monopoly of salt, tobacco, gunpowder, and some other less important articles. The alcavala, and other oppressive imposts, which had proved destructive of industry in Old Spain, were rigorously levied as well on the exports as on the imports of the colonies. No situation of power or emolument could be filled except by a native of Old Spain. The Catholic religion was established, to the exclusion of every other; and bishops, tithes, and the inquisition, followed in its train: while, in order still better to consolidate and strengthen the foundations of this monstrous despotism, the government endeavoured to make the colonists insensible of their degradation, by proscribing every species of instruction, and watchfully opposing the introduction and progress of all useful knowledge!

Under such circumstances, we cannot be surprised that the Continental colonists, among whom the monopoly system was maintained in its greatest purity, should have languished for above two centuries in a state of sluggish inactivity. Though surrounded by all the means of producing wealth, they were not generally wealthy. Oppression rendered them indolent; and went far to deprive them not only of the power, but also of the wish, to emerge from poverty. The progress of the colonists who occupied the West India islands was not quite so slow. It is certain, however, that down to the middle of last century, Spain reaped no greater advantage from the possession of Cuba, Hispaniola, and Porto Rico, than England or France from the smallest of its dependencies. In proof of this we may mention, that the noble island of Cuba, which could without difficulty supply all Europe with sugar, did not, in 1750, produce a sufficient quantity even for the consumption of Old Spain. But the combined influence of an arbitrary and intolerant government, and of a degrading superstition, could not balance the means of improvement, which the fertility of the soil, and the command thence arising over most of the necessaries and many of the conveniences of life, gave to the colonists. Owing also to the total incapacity of Old Spain to furnish her transatlantic provinces with a sufficient supply of the articles she had forced them to import from Europe, and the consequent extension of the contraband trade carried on with them by the other European nations, she had been compelled gradually to relax the severity of her commercial monopoly. A new impulse was thus given to the spirit of industry. The colonists began to be more sensible of the natural advantages of their situation, and less inclined to submit to the blind and bigoted policy of the Spanish court. In 1781, a rebellion broke out in Peru, in consequence of an attempt made by the government to establish a new monopoly in that province, which threatened to end in the total dissolution of the connection between Spain and South America, and was not quelled without great difficulty and much bloodshed. But the spirit of liberty, when once excited, could not be suppressed. It continued to gain ground progressively, until the commencement of the late contest between France and Spain interrupted the communication with the mother country, and gave the colonists an opportunity of proclaiming that independence which, after a lengthened and bloody struggle, they happily succeeded in achieving.

(4.) *British Colonies.*—The English, who, like all the other nations of Europe, had been impressed with mingled feelings of admiration and envy by the extent and importance of the acquisitions made by the Spaniards in the New World, speedily entered with enthusiasm and ardour into the career of discovery. Owing, however, to the bull which Ferdinand and Isabella had obtained from the Pope, conveying to them the ample donation of all the countries inhabited by infidels that the Spaniards had discovered, or might discover, the English, to avoid encroaching on the dominions of their rivals, directed their efforts further to the north. Several attempts to found colonies on the coast of America were made in the reign of Elizabeth by Sir Humphrey Gilbert, Sir Richard Grenville, Sir Walter Raleigh, and others. But in consequence of their ignorance of the country, the deficiency of their supplies of provisions,

the loss of time in fruitless searches after gold, and the various difficulties incident to the first settlement of a colony, none of these attempts proved successful: and it was not until 1607, that a small body of adventurers founded the first permanent establishment of the English in America, at James Town in Virginia. Letters patent were granted in 1609, by King James, to the principal persons resident in London, by whom the expense attending the formation of the colony was to be defrayed, incorporating them into a company, and establishing a council in England for the direction of their proceedings, the members of which were to be chosen by, and removeable at the pleasure of, the majority of the partners of the company; permitting whatever was necessary for the support and sustenance of the colony for the first 7 years to be exported free of duty; declaring that the colonists and their descendants were to be secured in all the rights and privileges of Englishmen, the same as if they had remained at home, or been born in England; and reserving only, as the stipulated price of these concessions, and in imitation of the policy of the Spaniards, *one fifth* part of the gold and silver ore to be found in the colonies, which was to be paid to his Majesty and his successors in all time to come. In virtue of these powers, the company issued, in 1621, a charter or ordinance, which gave a legal and permanent form to the constitution of the colony. By this charter the supreme legislative authority was lodged, partly in the governor, who held the place of the sovereign, partly in a council of state, named by the company, and partly in a general council, or assembly composed of the representatives of the people, in which were vested powers and privileges similar to those of the House of Commons. It was not long, however, before the king and the company quarrelled. The latter were in consequence divested of all their rights, partly by open violence, and partly under colour of law, without compensation, after having expended upwards of 150,000*l.* in founding the colony; and a governor and council of state appointed by the king succeeded to the powers of those appointed by the committee.—(*Robertson's History of America*, book ix. *passim*; *Jefferson's Notes on Virginia*, p. 179.)

The founders of the colony in Virginia had been actuated solely by the hopes of gain: but the colonies that were soon after established in New England, were chiefly planted by men who fled from religious and political persecution. The form of government in the New England colonies, though at first modified a good deal by the peculiar religious opinions entertained by the colonists, was in its leading principles essentially free. For a considerable period, the colonists elected their own governors, coined money, and exercised most of the rights of sovereignty; while the English, wholly engrossed with the contest between freedom and prerogative at home, had no leisure to attend to their proceedings. Subsequently to the Restoration, however, the governments of most of the New England states were established nearly on the same footing as that of Virginia; which, indeed, became the favourite model, not only for the constitution of the colonies established on the Continent, with the exception of the proprietary governments of Pennsylvania and Maryland, but also for those that were established in the West India islands. But under every vicissitude of government and fortune, the New England colonists were distinguished by the same ardent and enthusiastic love of liberty that had first induced them to quit their native land. Every thing relating to the internal regulation and administration of the different colonies was determined, in the colonial assemblies, by representatives freely chosen by the settlers. The personal liberty of the citizens was well secured and vigilantly protected. And, if we except the restraints on their commerce, the monopoly of which was jealously guarded by the mother country, the inhabitants of Virginia, Pennsylvania, and New England enjoyed nearly the same degree of freedom, when colonists of England, that they now enjoy as citizens of the powerful republic of North America. Their progress in wealth and population was in consequence quite unprecedented in the history of the world. The white population of the colonies had increased in 1776, at the commencement of the revolutionary war, to above 2,000,000, and the value of the exports from Great Britain to them amounted to about 1,300,000*l.* a year!

It is not difficult to discover the causes of the unexampled prosperity and rapid growth of our North American colonies, and generally of all colonies placed under similar circumstances. The North American colonists carried with them a knowledge of the arts and sciences practised by a civilised and polished people. They had been trained from their infancy to habits of industry and subordination. They were practically acquainted with the best and wisest form of civil polity that had been established in Europe; and they were placed in a situation that enabled them, without difficulty, to remedy its defects, and to try every institution by the test of utility. But the thinness of the aboriginal population, and the consequent facility of obtaining inexhaustible supplies of fertile and unoccupied land, must certainly be placed at the head of all the causes which have promoted the rapid increase of wealth and population in the United States, and in all the other colonies both of North and South America. On the first foundation of a colony, and for long after, each colonist gets an ample supply of land of

the *best quality;* and having no rent, and scarcely any taxes, to pay, his industry necessarily becomes exceedingly productive, and he has every means, and every motive, to amass capital. In consequence, he is eager to collect labourers from all quarters, and is both willing and able to reward them with high wages. But these high wages afford the means of accumulation, and, joined to the plenty and cheapness of the land, speedily change the more industrious labourers into proprietors, and enable them, in their turn, to become the employers of fresh labourers; so that every class participates in the general improvement, and capital and population advance with a rapidity hardly conceivable in old settled and fully peopled countries.

It has been frequently said, that the establishment of our American and West India colonies was a device of the supporters of the exclusive or mercantile system — that they founded them in the view of raising up a vast agricultural population, whose commerce should be confined entirely to an exchange of their raw products for our manufactured goods. There is, however, no truth in these assertions. On the contrary, the charters granted to the founders of the settlement in Virginia distinctly *empower the colonists to carry on a direct intercourse with foreign states.* Nor were they slow to avail themselves of this permission; for they had, so early as 1620, established tobacco warehouses in Middleburg and Flushing — (*Robertson's America*, book ix. p. 104.); and the subsequent proceedings of the British government, depriving them of this freedom of commerce, were the chief cause of those disputes which broke out, in 1676, in an open rebellion of ominous and threatening import. — (*Robertson's America*, p. 147.) It was not until the colonists had surmounted the difficulties and hardships incident to their first establishment, and had begun to increase rapidly in wealth, that their commerce became an object of importance, and that regulations were framed in the view of restricting its freedom, and of rendering it peculiarly advantageous to the mother country. The act of 1650, passed by the republican parliament, laid the first foundations of the monopoly system, by confining the import and export trade of the colonies exclusively to British or colony built ships. But the famous Navigation Act of 1660 (12 Charles 2. c. 18.) went much further. It enacted, that certain specified articles, the produce of the colonies, and since well known in commerce by the name of *enumerated* articles, should not be exported directly from the colonies to any foreign country; but that they should first be sent to Britain, and there unladen (the words of the act are, *laid upon the shore*), before they could be forwarded to their final destination. Sugar, molasses, ginger, fustic, tobacco, cotton, and indigo, were originally enumerated; and the list was subsequently enlarged by the addition of coffee, hides and skins, iron, corn, lumber, &c. In 1739, the monopoly system was so far relaxed, that sugars were permitted to be carried directly from the British plantations to any port or place southward of Cape Finisterre; but the conditions under which this indulgence was granted, continued so strict and numerous down to 1803, when they were a good deal simplified, as to render it in a great degree nugatory — (*Edwards's West Indies*, vol. ii. p. 452. ed. 1819.); and with this exception, the oppressive and vexatious restrictions on their direct exportation to foreign countries were maintained on most of the other *enumerated* commodities of any importance, down to a late period.

But besides compelling the colonists to *sell* their produce exclusively in the English markets, it was next thought advisable to oblige them to *buy* such foreign articles as they might stand in need of entirely from the merchants and manufacturers of England. For this purpose it was enacted, in 1663, that "no commodity of the growth, production, or manufacture of Europe, shall be imported into the British plantations, but such as are laden and put on board in England, Wales, or Berwick-upon-Tweed, and in English-built shipping, whereof the master and three fourths of the crew are English." The preamble to this statute, which effectually excluded the colonists from every market for European produce, except that of England, assigns the motive for this restriction to be, "the maintaining a greater correspondence and kindness between the subjects at home and those in the plantations; keeping the colonies in a firmer dependence on the mother country; making them yet more beneficial to it, in the further employment and increase of English shipping, and the vent of English manufactures and commodities; rendering the navigation to and from them more safe and cheap; and making this kingdom a staple, not only of the commodities of the plantations, but also of the commodities of other countries and places for their supply; it being the usage of other nations to keep their plantation trade exclusively to themselves."

It was also a leading principle in the system of colonial policy, adopted as well by England as by the other European nations, to discourage all attempts to manufacture such articles in the colonies as could be provided for them by the mother country. The history of our colonial system is full of efforts of this sort; and so essential was this principle deemed to the idea of a colony, that Lord Chatham did not hesitate to declare, in his place in parliament, that "the British colonists of North America had *no* RIGHT *to manufacture even a nail for a horseshoe!*" — (*Edwards's West Indies*, vol. ii. p. 566.) And

when such were the enactments made by the legislature, and such the avowed sentiments of a great parliamentary leader and a friend to the colonies, we need not be surprised at a declaration of the late Lord Sheffield, who did no more, indeed, than express the opinion of almost all the merchants and politicians of his time, when he affirmed that "THE ONLY *use of American colonies or West India islands is* THE MONOPOLY *of their consumption, and the carriage of their produce!*"

II. INFLUENCE OF THE MONOPOLY OF THE COLONY TRADE.

(1.) It is not necessary to enter into any lengthened disquisitions with respect to this part of our subject. The rules by which we are to form our judgment upon it, are unfolded in the article COMMERCE. Here it is sufficient to observe, in the first place, that, though it could be shown that restrictions on the colony trade were really advantageous to the mother country, that is not enough to prove that they should be adopted. In dealing with a colony, we are not dealing with a foreign country, but with an integral part of our own empire. And hence, in order to show that restrictions on the colony trade are advantageous, it must not merely be shown that they are beneficial to the mother country, but it must further be shown that they are beneficial, or, at all events, not injurious, to the colony. The advantage of one part of the empire is not to be purchased by the depression of some other part. The duty of government is to promote the prosperity and to maintain the equal rights and privileges of all; not to enrich one class, or one province, at the expense of others.

This principle is decisive of the whole question. Owing to the identity of language, manners, and religion, the merchants of the mother country must always have very great advantages in the colony markets; and if the commodities which they have to sell be about as suitable for them, and as low priced, as those of others, none else will be imported into them; but if they be not, it would plainly be to the injury of the colony to compel her to buy from the mother country what she might procure cheaper from others. It will immediately be seen that such forced sale could be of no real advantage to the mother country; but whether that were so or not, its mischievous influence upon the colony is manifest. Were Jamaica, for example, obliged to import any article from England which cost her 100,000*l.* a year more than she could procure a similar article for elsewhere, she would manifestly lose this amount; and though it were true that every shilling of this sum found its way as *extra profit* into the pockets of the merchants or manufacturers of England, that would be no sufficient justification of the policy of such a system. The protection due by a government to its subjects does not depend on the varying degrees of latitude and longitude under which they happen to live. It would not be more glaringly unjust to lay peculiar burdens on the Lothians for the sake of Middlesex, than it is to lay them on Jamaica for the sake of England.

In point of fact, however, the monopoly of the colony trade is of no real use, but the reverse, to the mother country. If, as has been already observed, she can supply her colonists with goods as cheaply as they can be supplied by others, she will have no competitors in their markets; and if she cannot do this, the monopoly is really hostile to her interests. Each country has some natural or acquired capabilities that enable her to carry on certain branches of industry more advantageously than any one else. But the fact of a country being liable to be undersold in the markets of her colonies, shows conclusively, that instead of having any superiority, she labours under a disadvantage, as compared with others, in the production of the peculiar articles in demand in them. And hence, in providing a forced market in the colonies for articles that we should not otherwise be able to dispose of, we really engage a portion of the capital and labour of the country in a less advantageous channel than that into which it would naturally have flowed. We impress upon it an artificial direction; and withdraw it from those secure and really beneficial businesses in which it would have been employed, to engage it in businesses the existence of which depends only on the continuance of oppressive regulations, and in which we are surpassed by foreigners.

Even were it conceded that the possession of an outlet in the colonies for goods that could not otherwise be disposed of, was an advantage, it is one that can exist in theory only. Practically it can never be realised. The interests of the colonists, and the dexterity and devices of the smuggler, are too much for Custom-house regulations. Cheap goods never fail of making their way through every obstacle. All the tyrannical laws and *guarda costas* of Old Spain did not hinder her colonies from being glutted with prohibited commodities. And we may be assured that the moment a competitor appears in the field capable of supplying the Canadians and people of Jamaica with cottons, woollens, hardware, &c. cheaper than we can supply them, that moment will they cease to be our customers. All the revenue officers, and all the ships of England, supposing them to be employed for that purpose, would be unable to avert this result.

The consequences of the American war should have led to sounder opinions than those that are still current as to the value of the monopoly of the colony trade. Has

the independence of the United States been in any respect injurious to us? So far from this, it is certain that it has redounded materially to our advantage. We have been relieved from the expense and trouble of governing extensive countries at a great distance from our shores, at the same time that we have continued to reap all the advantage that we previously reaped from our intercourse with them. It is visionary to imagine that we could have succeeded either in preventing them from establishing manufactories at home, or from importing products from abroad, had any one been able to undersell us. Our command of the American market depends, at this moment, on the very same principle—the comparative cheapness of our goods—on which it depended when we had a governor in every state. So long as we preserve this advantage, we preserve the only means by which the monopoly of any distant market can be maintained, and the only means by which such monopoly is rendered of the least advantage.

Being integral parts of the empire, the trade with the colonies should, as far as circumstances will permit, be conducted on the footing of a coasting trade. The state of the revenue requires that moderate duties should be laid on sugar, coffee, and rum, when imported into Great Britain or Ireland; but the duties on cotton, cocoa, and most other colonial products, might be repealed without injury to the revenue, and with advantage to all parties. Unfortunately, however, the system we pursued down to a late period was in most respects the reverse of what it should have been. By excluding the colonists from the cheapest markets for their food and lumber, we artificially raised the cost of their produce; and then, to protect them from the consequences of such short-sighted policy, we gave them a monopoly of the British market! It is thus that one unjust and vicious regulation is sure to give birth to others; and that those who depart from sound principle have nothing left but to endeavour to bolster up one absurdity by another. It is time, surely, that an end were put to every vestige of so ruinous a system. It is as much for the interest as it is the *duty* of England, to remove all restrictions from the colonists, not essential for the sake of revenue: for this is the only means by which she can provide for their real prosperity, by turning their industry into those departments for the prosecution of which they are naturally fitted, and rid herself of those monopolies that form the heaviest clog upon her industry.

We could not, however anxious, exclude manufactured articles, and such foreign goods as are valuable without being very bulky, from our West India islands, provided they were offered cheaper by others. But such is not the case with lumber, provisions, &c. They are too bulky to be easily smuggled; and may be, and indeed were, very much raised in price by restrictions on their importation. For many years, all direct intercourse between our West India colonies and the United States was interdicted; and, in consequence, the planters were compelled either to supply themselves with lumber, staves, &c. by a distant voyage from Canada, or, which was by far the most common practice, from the United States, through the circuitous and expensive channel of St. Thomas and other neutral islands! In papers laid by the West India merchants and planters before the House of Commons (No. 120. Session 1831), they estimated the increased expense they thus incurred on lumber, staves, flour, shingles, fish, &c. at 15 per cent. of the entire value of these articles, or at 187,576*l.* a year. And it will be observed, that no part of this sum went into the pockets of any British merchant. It went wholly to indemnify the Americans and others for being obliged to bring their products round about by St. Thomas, instead of direct from the States.

This system grew out of the American war; but it is due to Mr. Pitt to state that it received no countenance from him. On the contrary, he introduced a bill, in 1785, for reviving the beneficial intercourse that existed previously to the war, between the United States and the West India islands. But being opposed by a powerful party in parliament, and by the ship owners and Canada merchants, he was obliged reluctantly to withdraw the bill. The following remarks of Mr. Bryan Edwards on this subject, written in 1794, are too interesting to be omitted.

"This," says he, "is not a business of selfishness or faction; nor (like many of those questions which are daily moved in parliament merely to agitate and perplex government) can it be dismissed by a vote. It will come forward again and again, and haunt administration in a thousand hideous shapes, until a more liberal policy shall take place; for no folly can possibly exceed the notion that any measures pursued by Great Britain will prevent the American states from having, some time or other, a commercial intercourse with our West Indian territories on their own terms. With a chain of coast of 20° of latitude, possessing the finest harbours for the purpose in the world, all lying so near the sugar colonies and the track to Europe, with a country abounding in every thing the islands have occasion for, and which they can obtain no where else; all these circumstances necessarily and naturally lead to a commercial intercourse between our islands and the United States. It is true we may ruin our sugar colonies, and ourselves also, in the attempt to prevent it; but it is an experiment which God and nature have marked out as impossible to succeed. The present restraining system is forbidding men

to help each other; men who, by their necessities, their climate, and their productions, are standing in perpetual need of mutual assistance, and able to supply it. — (*Hist. West Indies*, Preface to 2d ed.)

We have also thought fit to interdict the West Indians from the refining, or, as it is technically termed, the *claying* of sugars. This is one of the few manufactures that might be advantageously set up in the islands. The process adds considerably to the value of sugar; and it might be carried on in the buildings, and by the hands, that are required to boil the cane or to prepare the raw or muscovado sugar. Instead, however, of being allowed to refine their sugars on the spot, and where it might be done for a third part of the expense that is required in England, the planters have been prohibited from engaging in this branch of industry; and have been obliged to export all their sugars, either raw or crushed, to England. Nothing can exceed the oppressiveness of such a regulation; and what is most singular, it has not been enforced, like most regulations of the sort, in order to bolster up any of the leading interests of the country, but merely to give a factitious employment to a very small class, — that of the sugar refiners, whose natural residence is in the West Indies. The planters and merchants estimated (in 1830) the loss caused by this preposterous regulation at 75,550*l.* a year; and we regret to say that it is still enforced.

The distillation of spirits from sugar, that used to be only occasionally, is now always allowed. The duties having been adjusted so as to give no advantage to the planters over the growers of barley, or to the latter over the former, the distillers have been permitted to distil indiscriminately from sugar, molasses, or grain. It was the business of government to take care that the duties should be so arranged as to give no unfair advantage to one party over another; but, having done this, it could, with propriety, do nothing more. To prohibit distillation from sugar, that a forced market may be opened for grain; or distillation from grain, that a forced market may be opened for sugar; are interferences with the freedom of industry, for which no good reason has been, nor, we believe, can be assigned.

(2.) *Relaxation of the Monopoly.* — But though something still remains to be done, it is not to be denied that great progress has been made towards the adoption of a sound system of colonial policy since 1822, when measures for the relaxation of the monopoly were introduced by Mr. Robinson (now Lord Ripon). These measures were farther followed up by Mr. Huskisson in 1825, by the act 6 Geo. 4. cap. 114.; and since his time by the 3 & 4 Will. 4. cap. 59., and more recently by the 5 & 6 Vict. cap. 49., which came into operation in the West Indies on the 5th of April, 1843. These acts repealed several of the prohibitions that formerly existed against the importation of certain articles into the West Indian colonies and the Mauritius, and they also either repealed or very materially reduced the duties that were previously laid on others. For example, the barrel of American or other foreign flour, that down to 1843 paid a duty of 5*s.*, has since been imported on paying a duty of 2*s.* Most other duties on articles of food have been reduced in the same proportion; and rice, wood, and lumber, articles of great importance in the colonies, which formerly paid high duties, may now be imported duty free. — (See *post.*) We believe, indeed, that it would be sound policy to carry still farther this liberal system, by entirely repealing the duties on flour, salt, meat, and all other articles of provision. Jamaica and our other West Indian colonies may be viewed as immense sugar, rum, and coffee manufactories, which, though situated at a distance from England, belong to Englishmen, and are carried on by English capital. But to promote the prosperity of any manufacture without injury to others, there are no means, at once so obvious and effectual, as to give those engaged in it the means of carrying it on with the least outlay, and to keep the duties on its produce as low as possible. And, how much soever we may fail in the last of these necessary conditions, we have now but little to reproach ourselves with in regard to the former. It were better, perhaps, that the duties on necessaries imported into the colonies should be repealed; but if they are to be retained, those imposed by the late act are as moderate as can well be desired.

Formerly, though American and other foreign flour could not be imported from a foreign country into the West India Islands without paying a duty of 5*s.* a barrel, it might be imported free of duty into Canada and our other possessions on the continent of N. America, and be thence exported in British ships to the islands free of duty. In consequence of this regulation a large proportion of the flour, lumber, and other articles required for the supply of the islands, instead of being shipped direct for them from New Orleans, Baltimore, and other American ports, was sent in the first instance to Canada, whence it was conveyed in British ships to its final destination. So that the influence of the duty was not so much to raise a revenue, or to open a market for the flour, provisions, and lumber of Canada, as to make the flour and other necessaries supplied to the colonists by the United States be carried, at a heavy expense, a roundabout voyage

of some 2,000 miles and transhipped, that employment might be found for a few thousand tons of British and colonial shipping! But this preposterous system is happily at an end. American flour is now charged with a duty of 3*s.* a barrel in Canada; and, independently of this, the duties on foreign articles directly imported into the colonies are too low to give any encouragement to their indirect conveyance.

It was, however, not a little singular, that while the imperial legislature had thus endeavoured, by repealing and lowering the duties on most articles of foreign produce, to provide for the future prosperity of the colonies, the legislature of Jamaica should have passed an act imposing heavy duties on the same articles. Luckily, however, this impolitic act expired on the 31st of December, 1843, and government most properly directed the governor to refuse his assent should it be attempted to renew it, or to propose any similar measure.—(*Parl. Paper*, No. 292. Sess. 1843.)

For a lengthened period, however, concession was all on the one side; and while we had all but emancipated the trade of the colonies, and allowed them to resort to all the markets of the world, we confined our demand for colonial produce exclusively to their markets. So long, indeed, as the colonists were compelled to take all that they wanted from us, it was but fair that we should be compelled to take the sugar and other articles with which they could supply us exclusively from them. But having liberated them from this obligation and permitted them to resort to whatever markets they thought most advantageous, there was neither justice nor policy in continuing to confine the people of the U. Kingdom to their markets. This, of all possible cases, is that in which reciprocity would seem to be most desirable. If it be right, as no doubt it is, that the planters of Jamaica should, if they deem it most for their interest, be allowed to draw supplies of flour, provisions, and manufactured goods from New Orleans or Baltimore, on what pretence is the British manufacturer or merchant to be prevented from importing sugar from Rio, the Havannah, or Batavia?

Having done so much to abolish prohibitions on one side, we were bound to do as much for their abolition on the other. Having deprived the merchants and manufacturers of the U. Kingdom of the monopoly of the colony market, we could not, without violating every principle of consistency and justice, refuse to deprive the colonists of the monopoly of the British markets. Indeed the ablest and most zealous defenders of the colony system have admitted that one part of it could not be supported independently of the rest, that it is of a piece, and must either stand or fall together. "The British dominions," says Lord Sheffield, "*are as much entitled to the markets of the British West Indies, as the latter are entitled to those of the former, and whenever that monopoly is given up it* WILL BE THE HIGHEST ABSURDITY NOT TO OPEN ALL THE BRITISH PORTS TO FOREIGN RAW SUGARS."—(*Observations on the Commerce of the American States*, p. 288.) Inasmuch, indeed, as the well-being and prosperity of the people of the U. Kingdom is of incomparably more importance than that of the West Indian colonists, every argument that has been or that may be brought forward to show the impolicy of the restraints on the trade of the latter, applies with tenfold force to those laid on the trade of the former.

Influence of the Monopoly on the Sugar, Timber, &c. imported into the U. Kingdom.—It appears from the official returns given in the Parl. Paper No. 226. Sess. 1843, that during the three years ending with 1842, 3,840,309½ cwts. sugar were annually retained for home consumption in the U. Kingdom; and it farther appears, from the same return, that while the average price of British muscovado sugar during that period was 41*s.* 10½*d.* a cwt., the average price of Brazil sugar was only 20*s.* 2*d.* a cwt. Hence it follows that had the then prohibitory duty of 63*s.* a cwt. on foreign sugar been reduced to the same level (24*s.*) as that on British colonial sugar, we might have purchased the same supply of sugar for 20*s.* 2*d.* a cwt. that cost us 41*s.* 10½*d.*, which, on the average quantity consumed during the three years referred to would have been a total saving in this single article of no less than 4,168,335*l.* a year! But it may, perhaps, be said, that, had our ports been open to the free importation of Cuban and other foreign sugars, the price of the latter would have been raised; and so, probably, it would; though, considering the vast extent and productiveness of the field from which sugar may now be brought, we doubt whether this effect would have been very sensible. But supposing that the opening of our ports had raised the price of foreign sugar from 20*s.* 2*d.* to 25*s.* a cwt., still the saving would have amounted to 3,240,260*l.* 6*s.* a year!—(See art. SUGAR.)

We are, however, glad to say that this preposterous system has been abandoned. Foreign sugar is now admitted, without regard to its origin, on payment of reasonable duties, which are to be reduced, in 1854, to the same level with those on British colonial sugar. Probably, indeed, we have gone, in this case, from one extreme to another; for, considering the difficulties under which the British colonists are placed from the want of supplies of compulsory labour, it may be doubted whether they were not entitled to a reasonable discriminating duty in their favour.

The extraordinary preference shown to colonial sugar was, on the whole, probably less objectionable than that shown to colonial timber; the latter having been, for a lengthened period, admitted into our markets at a nominal duty of 1*s.* a load, while Baltic and other foreign timber was subjected to a duty of 25*s.* a load! And this preference, though greatly modified, still exists. An act of the present year (1851), the 14 & 15 Vict. c. 62., has reduced the duties on foreign timber to 7*s.* 6*d.* per load. But there is no reason why this very moderate duty should not be extended to colonial timber. The differential duty of 6*s.* 6*d.* which it leaves in favour of the latter, is too trifling to have any considerable influence over the trade. The great demand for timber from British N. America of late years must have been occasioned, more by its suitableness for the purposes in which it is employed, than by its having been burdened with a less amount of duty than other timber.

The expense of the colonies is, also, a very heavy item in the national expenditure — far more so than is generally supposed. Not only have we been subjected to discriminating duties on foreign articles, that similar articles from the colonies might enjoy the monopoly of our markets, but we have to defray a very large sum on account of their military and naval expenditure. There are no means by which to estimate the precise amount of this expense; but it is, notwithstanding, abundantly certain, that Canada and the islands in the West Indies cost us annually, in military and naval outlays, upwards of a *million and a half in time of peace*, exclusive of the revenue collected in them. And if to this heavy expense be added the vast additional sums their defence costs during war, the debtor side of a fairly drawn up colonial budget would attain to a very formidable magnitude; and one which we apprehend could not easily be balanced.

With the exception of the outlet which they afford to emigrants (which, however, is not so great as that afforded by the U. States), it would be difficult to specify the peculiar advantages which we derive from our colonies in N. America. They furnish but few, if any, articles, which we might not import as cheaply, or cheaper, from elsewhere; and if we said that their occupation costs us directly and indirectly the sum of 2,000,000*l.* a-year, we are pretty confident we should be within rather than beyond the mark. Some, if not all, of our West India colonies are in the same, or nearly the same predicament. And on the whole, it would appear to be probable that we should gain, rather than lose, by providing, under judicious regulations, for the independence of our transatlantic dominions.

In entertaining this opinion we are not singular. "If," said Lord Sheffield, "we have not purchased our experience sufficiently dear, let us derive a lesson of wisdom from the misfortunes of other nations, who, like us, pursued the phantom of foreign conquest and distant colonisation; and who, in the end, found themselves less populous, opulent, and powerful. By the war of 1739, which may be truly called an American contest, we incurred a debt of upwards of 31,000,000*l.*; by the war of 1755 we incurred a further debt of 71,500,000*l.*; and by the war of the revolt we have added to both these debts nearly 100,000,000*l.* more! And thus we have expended a far larger sum in defending and retaining our colonies, than the value of all the merchandise we have ever sent them. So egregious has our impolicy been, in rearing colonists for the sake of their custom!" — (*On the Commerce of the American States*, p. 240.)

We hope it will not be supposed, from any thing now stated, that we consider the foundation of colonial establishments as, generally speaking, inexpedient. We entertain no such opinion. We do not object to the establishment of colonies, provided they be placed in advantageous situations, but we do object to the trammels that have been laid on their industry, the interference exercised by the mother countries in their domestic concerns, and the attempts to govern and coerce them after they have attained to maturity. Every individual should have full liberty to leave his native country; and occasions very frequently occur, when governments may advantageously interfere to settle emigrants in foreign countries, and when the soundest policy dictates the propriety of their supporting and protecting them until they are in a situation to support and protect themselves. There can be no question that Europe has been prodigiously benefited by the colonisation of America. The colonists carried the arts, the sciences, the language, and the religion of the most civilised communities of the Old World to regions of vast extent and great natural fertility, occupied only by a few miserable savages. The empire of civilisation has in consequence been immeasurably extended: and while the experience afforded by the rise and progress of communities placed under such novel circumstances, has served to elucidate and establish many most important and fundamental principles in government and legislation, Europe has been enriched by the vast variety of new products America has afforded to stimulate the inventive powers of genius, and to reward the patient hand of industry.

But whatever may have been the advantages hitherto derived from the colonisation of America, they are trifling compared to what they would have been, had the European

powers left the colonists at liberty to avail themselves of all the advantages of their situation, and avoided encumbering themselves with the government of extensive territories 3,000 miles distant. Fortunately, however, a new æra has begun — *Novus sæclorum nascitur ordo!* The monopoly of the trade of America is destroyed, and her independence achieved. From Canada to Cape Horn, every port is ready to receive adventurers from Europe; and a boundless field has, in consequence, been opened for the reception of our surplus population, and for the advantageous employment of European arts, capital, and skill. The few remains of the old colonial system which still exist, cannot be of long duration. Their mischievous operation is no longer doubtful, and they will disappear according as the knowledge of sound commercial principles is more generally diffused.

The colonisation of Australia will also contribute in no ordinary degree to extend the blessings of civilisation; and there can be no doubt that this newly discovered quarter of the globe, the native inhabitants of which were still fewer in number and more barbarous than those of America, is destined, at no very remote period, to be the seat of flourishing communities: and while they preserve the language and literature, it is to be hoped that they may also pursue the mild, liberal, and tolerant policy, of the illustrious people from whom it should ever be their proudest boast to have descended.

(3.) *Slavery.* — Since the publication of the first edition of this work, a vast change has been effected in the condition of society in our West India colonies and the Mauritius, by the abolition of slavery, under the provisions of the act 3 & 4 Will. 4. cap. 73. (See art. Slaves and Slave Trade.)

In the second edition of this work, published soon after the act for the abolition of slavery had been passed, and before its provisions had been carried into effect, we ventured to speculate as follows on its probable results: —

"Nothing but vague conjectures can, of course, be indulged in as to the future working of this measure in the colonies. We believe, however, that those who have contended that it will not be productive of any falling off in the industry of the blacks will be found to have taken a very erroneous view of the matter. Field labour in the West Indies has hitherto been always associated with slavery and degradation, and been enforced by the lash. The fair inference, consequently, is, that when the fetters are struck off the slave, and he is left to follow his own inclinations, he will be desirous of escaping from what he cannot fail to consider an ignominious occupation. Necessity, no doubt, will prevent him from becoming altogether indolent; but the effect will in this, as in other instances, be proportioned to its cause: and necessity in the West Indies is very different from necessity in Europe. Most articles that are here deemed indispensable, would there be positive incumbrances; and those essential to subsistence may be procured with less, certainly, than half the labour hitherto exacted from the slaves. At some future period, perhaps, when the recollection of their degradation has begun to fade, and a taste for conveniences and gratifications has been introduced amongst them, they may become more industrious; but this is a distant and a very uncertain prospect. We therefore look, at first, for a very considerable decline in the industry of the slaves, and a proportional falling off in the exports from the islands."

It will be seen, from the returns given in a subsequent part of this article, that these anticipations have been more than realised, and that there has been a most extraordinary falling off in the imports from the colonies. We confess, also, that we are a good deal more sceptical than formerly in our anticipations of their future increase. Industry, when carried on by free labourers, is prosecuted only as a means by which they may acquire an adequate supply of necessaries and conveniences. And it is all but contradictory and absurd to suppose that a population with few wants, occupying a soil of great natural fertility, lying under a burning sun which unfits for exertion, should voluntarily engage in severe, and, to them, useless labour. We believe, indeed, that it will be found wholly impossible, except under peculiar circumstances, to carry on the culture of sugar on its present plan, in tropical countries, by the agency of *really* free labourers. Hayti, formerly the most important and productive of all the sugar colonies, does not now produce a single cwt. of sugar. Mexico is, also, fast relapsing into the most deplorable barbarism (see *Geog. Dict.*, art. *Mexico*); and experience seems to show that some sort of modified slavery, or, which is the same thing, of compulsory labour, is indispensable to the successful prosecution of industry in tropical countries. It is to this that the extraordinary increase of produce in Java is to be ascribed; and, how much soever we may cry out against the slavery of the U. States, there cannot, we apprehend, be a doubt that its existence, how objectionable soever in many respects, is necessary to the advantageous cultivation of the Southern states. It is the same in Cuba and Brazil. Were their slaves emancipated, may it not be fairly presumed that they would gradually, and not very slowly, sink into the state of Mexico and Hayti? and that instead of an extensive culture of sugar and other articles for foreign demand, the bulk of the population would be satisfied if they supplied themselves with those

PLAN of the CITY and HARBOUR of MONTREAL
RIVER ST. LAWRENCE
PLAN of the CITY and HARBOUR of QUEBEC
UPPER CANADA
LAKE HURON
LAKE ONTARIO
LAKE ERIE
PENNSYLVANIA
NEW YORK
NEW JERSEY
NIPISSING LAKE
Lake St Clair
Lake Michigan
Lake Superior

NEWFOUNDLAND.
ATLANTIC
OCEAN
BRITISH POSSESSIONS
IN
NORTH AMERICA,
WITH PART OF THE UNITED STATES,
COMPILED FROM
OFFICIAL SOURCES.

necessary for their subsistence? We need not, therefore, wonder that the projects for slave emancipation should make but little progress among the Americans, Brazilians, and Cubans. Whether the West India colonies cease to produce sugar and cotton is a matter of excessively little importance to the people of Britain; but it is a matter of the very last importance to the white people of the Southern states of America, of Brazil, and of Cuba; and they will be much to blame if they do not exercise extreme caution in legislating upon this most delicate matter. Perhaps the better policy will be for them gradually to relax the rigours of servitude, and to endeavour to improve the character and condition of the slaves, so as to fit them the better for emancipation, which may, probably, in the end be forced upon them: but they should carefully eschew all rash or precipitate measures.

III. Magnitude, Population, Trade, etc. of the British Colonies.

Notwithstanding the loss of the U. States, the colonies of Great Britain, exclusive of India, exceed in number, extent, and value, those of every other country. Previously, indeed, to the breaking out of the late contests, the colonial dominions of Spain far exceeded in extent and importance those of any other power. But Cuba, Porto Rico, and the Philippine Islands are now all that remain to her. These, indeed, are very valuable possessions, though inferior to those of England.

(1.) *North American Colonies.*—In N. America we possess the provinces of Lower and Upper, or of East and West Canada, Nova Scotia, New Brunswick, Prince Edward's Island, and their dependencies. The situation and boundaries of these provinces will be more easily learned from the inspection of the accompanying map, than they could be from any description. The shores of Nova Scotia and New Brunswick are washed by the Atlantic Ocean; and the noble river St. Lawrence, by its communication with the great American lakes, gives to Canada all the benefits of a most extensive inland navigation, and forms a natural outlet for her surplus produce, as well as for the surplus produce of that part of the U. States which is washed by the lakes. There is every variety in the soil and climate of these regions. In Lower Canada, the winter is very severe. The surface of the country is covered with snow for nearly half the year. From the beginning of December to the middle of April, the St. Lawrence is frozen over, and affords a smooth and convenient passage for the sledges by which it is then covered. But though severe, the climate is far from being unhealthy or disagreeable. The weather is generally clear and bracing; and the labour of artizans, at their out-door employments, is rarely suspended for many days in succession. On the breaking up of the ice in the latter end of April, or the beginning of May, the powers of vegetation almost immediately resume their activity, and bring on the fine season with a rapidity that is astonishing to a stranger. The highest temperature in Lower Canada varies from 96° to 102° of Fahrenheit; but the purity of the atmosphere abates the oppressive heat that is felt in most countries where the mercury ranges so high; and the weather is, on the whole, decidedly pleasant.

That part of the province of Upper or West Canada, which stretches from Lake Simcoe and the rivers Trent and Severn, westward to Lake Huron and the St. Clair River, and southward to Lake Erie, and part of Lake Ontario, has a soil of extraordinary fertility, capable of producing luxuriant crops of wheat, and every sort of grain. "The climate," says Mr. Bouchette, late surveyor-general of Lower Canada, "is so particularly salubrious, that epidemic diseases, either among men or cattle, are almost entirely unknown. Its influence on the fertility of the soil is more generally perceptible than it is in Lower Canada, and is supposed to be congenial to vegetation in a much superior degree. The winters are shorter, and not always marked with such rigour as in the latter. The duration of frost is always accompanied with a fine clear sky and a dry atmosphere. The spring opens, and the resumption of agricultural labours takes place, from 6 weeks to 2 months earlier than in the neighbourhood of Quebec. The summer heats rarely prevail to excess, and the autumns are usually very friendly to the harvests, and favourable for securing all the late crops."—(*Bouchette's Topographical Description of Canada*, p. 595.) The ground on the shores of Lake Ontario and Lake Erie, as far west as the junction of the Thames with the St. Clair Lake, is laid out in townships, and partly settled. But the population is still very thin. To the north of the river Thames, along the banks of the St. Clair, and the shores of Lake Huron, round to the River Severn, and thence to the river that joins Lake Nippissing and Lake Huron, is a boundless extent of country that is almost entirely unoccupied. The interior of this space has hitherto been but imperfectly explored; but the banks of the St. Clair and the shores of Lake Huron afford the finest situations for settlements. The soil is in many places of the greatest fertility, the river and lake teem with fish, and every variety of the best timber is found in the greatest profusion.

The winters in the provinces of Nova Scotia, Prince Edward's Island, and New Brunswick are more severe than in Upper Canada, and they are a good deal infested with fogs and mists. But their proximity to England, and their favourable situation for the fishing business, give them considerable advantages.

In addition to the above, we possess the Hudson's Bay territory, a tract of vast extent, but situated in an inhospitable climate, and worth very little except as hunting grounds. We also possess the large islands of Newfoundland and Cape Breton, the latter being a dependency of Nova Scotia; but their soil is barren, and the climate severe and foggy; so that they are valuable principally as fishing stations.

The following table exhibits the population of the different N. American colonies at the under-mentioned epochs:—

Colony.	Population (and Date of Census).	Colony.	Population (and Date of Census).
Western Canada - - -	1851, 952,004 *	Prince Edward's Island - -	1854, 71,496
Eastern Canada - - -	1852, 890,261	Newfoundland - - -	1857, 125,000
New Brunswick - - -	1851, 193,800	Nova Scotia and Cape Breton -	1850, 276,117

Of the inhabitants of Lower Canada in 1844 no fewer than 518,565 were of French extraction, forming what is called the *Nation Canadienne*. In Upper Canada, on the other hand, the population is almost wholly of British origin.

Number of Emigrants.—There emigrated to the British Colonies in N. America in

Years.	Individuals.	Years.	Individuals.	Years.	Individuals.	Years.	Individuals.
1825	8,741	1834	40,060	1843	25,518	1851	42,605
1826	12,818	1835	15,573	1844	22,924	1852	32,876
1827	12,648	1836	34,226	1845	31,803	1853	34,523
1828	12,084	1837	29,884	1846	43,459	1854	43,761
1829	15,507	1838	4,577	1847	109,680	1855	17,966
1830	30,574	1839	12,658	1848	31,065	1856	16,578
1831	58,067	1840	32,293	1849	41,367	1857	21,001
1832	66,339	1841	38,164	1850	32,961	1858	9,704
1833	28,808	1842	54,123				

Total emigration of the 34 years, 1,180,046.

* *Estimated to amount, in 1857, to 2,500,000.*

Of these the great majority have been destined for Upper Canada. (For the total emigration from the U. Kingdom, see PASSENGERS.)

Information for Emigrants to British North America.—In January, 1840, a board of "Colonial Land and Emigration Commissioners" was appointed. It consists of 3 commissioners, whose proceedings are guided by instructions from the secretary of state for the colonies, and their practical duties may be divided under 3 heads, viz., the sale of colonial lands; the superintendence of emigration; and the diffusion of information in respect of the colonies.

1. The functions of the commissioners under the first head do not extend to the North American colonies. The crown having placed the revenue derived from the sale of their waste lands at the disposal of the local legislatures, these lands are, of course, disposed of by the authorities on the spot.

2. The board endeavours, in as far as possible, to protect poor emigrants from imposition, and from the effects of improvident arrangements on their parts, and takes care that the provisions of the Passengers' Acts are duly carried out and enforced.

3. The board publishes from time to time such authentic information as they may receive on matters connected with the settlement of waste lands in the colonies, the prices of the principal articles of colonial produce, the wages of labour, and such other matters as may appear to be useful to persons who propose to settle in the colonies. They likewise answer all applications from individuals, and afford them, as far as may be in their power, such information as may be adapted to their particular cases.*

No pecuniary assistance is afforded by government to parties desirous of proceeding to the N. American colonies; and emigrants after their arrival no longer receive grants of land, that being now wholly disposed of in the way stated below.

But though government makes no gifts at the public expense to emigrants to N. America, it maintains agents at the principal colonial ports, whose business is to protect emigrants from imposition upon their first landing, to acquaint them with the demand for labour in different districts, to point out the most advantageous routes, and to furnish them with useful advice upon the objects which they have had in view in emigrating, without making any charge for the same. Persons newly arrived should not omit to consult these agents, and should avoid detention in the ports, where they are exposed to all kinds of imposition, and pretences for keeping them at taverns till any money they may possess has been expended.

We subjoin a Table, extracted from the Colonisation Circular of the Emigration Commissioners, issued June, 1859, showing the cost of a passage to the different colonies.

Cost of Passage in private Ships from some of the principal Ports of the U. Kingdom to the British Colonies and the United States.

		CABIN.		INTERMEDIATE.				STEERAGE.			
		Cost, including Provisions.		Cost, with Provisions.		Cost, without Provisions.		Cost, with full Allowance of Provisions.		Cost, without Provisions, beyond the legal Allowance.	
		From	To	From	To	From	To	From	To	From	To
		£12	£—	£8	£—	£—	£—	£6	£—	£—	£—
Quebec	London	15	15s.	5	10s.	—	—	—	—	4	10s.
	Liverpool	10	12	6	7	—	—	5	—	—	—
	Plymouth	12	—	4	10s.	5	—	4	4	10s.	—
	Ports in the Clyde	10	—	4	10s.	—	—	4	5s.	—	—
	Londonderry	10	—	4	10s.	5	10s.	—	—	—	—
	Limerick	16	—	—	—	—	—	—	—	5	—
	Cork	12	15	9	10	—	—	8	—	—	—
	London	15	15s.	6	—	—	—	—	—	5	—
	Liverpool	11	12	—	—	—	—	—	—	—	—
New Brunswick	Ports in the Clyde	10	—	4	10s.	—	—	3	15s.	—	—
	Londonderry	10	10s.	5	10s.	—	—	—	—	—	—
	Limerick	15	—	9	10	—	—	8	—	—	—
	London	10	—	6	—	—	—	—	—	—	—
Halifax	Liverpool	12	—	—	—	—	—	—	—	—	—
	Ports in the Clyde	12	—	—	—	4	—	—	—	5	6
	Belfast	15	20	—	—	6	—	—	—	3	17s. 6d. 5
	London	15	—	3	10s. 3 15s.	—	—	—	—	3	5s. —
New York	Liverpool	12	15 15s.	5	10s. 6	—	—	4	8 8s.	—	—
	Ports in the Clyde	25	40	—	—	—	—	—	—	10	12
	London	20	25	—	—	—	—	—	—	—	—
West Indies	Liverpool	20	24	—	—	—	—	—	—	—	—
	Ports in the Clyde	35	50	20	—	—	—	14	18	—	—
Cape of Good Hope and Natal	London	30	35	—	—	—	—	—	—	—	—
	Liverpool	30	35	—	—	—	—	—	—	—	—
	Ports in the Clyde	35	80*	16	20	—	—	13	13s. 18	—	—
Sydney	London	45	55	20	28	—	—	—	—	16	18
	Liverpool	35	45	—	—	—	—	18	20	—	—
	Ports in the Clyde	35	80*	16	25	—	—	13	13s. 18	—	—
Victoria, late Port Phillip	London	40	50	16	25	—	—	—	—	14	—
	Liverpool	35	40	—	—	—	—	16	—	—	—
	Ports in the Clyde	35	80*	16	25	—	—	13	13s. 25	—	—
	London	—	—	—	—	—	—	—	—	—	—
Tasmania	Liverpool	—	—	—	—	—	—	—	—	—	—
	Ports in the Clyde	35	80*	16	25	—	—	—	—	—	—
	London	—	—	—	—	—	—	—	—	—	—
Western Australia	Liverpool	35	45	18	25	—	—	—	—	16	—
	Ports in the Clyde	35	80*	16	25	—	—	—	—	—	—
	London	35	45	—	—	—	—	17	20	—	—
South Australia	Liverpool	42	80*	20	20	—	—	15	10s. 26	—	—
	Ports in the Clyde	—	—	—	—	—	—	—	—	—	—
	London	45-50	—	30	—	—	—	18	—	—	—
New Zealand	Liverpool	60	80	35	40	—	—	30	—	—	—
	Ports in the Clyde										
California	London										

* According to the accommodation and diet scale, and whether supplied with wine and spirits.

Charges for Children.—The general practice in charging for children to British North America is, to compute them according to the Passengers' Act, viz., Children from 1 to 12 years of age, half the price of adults; under 1, no charge.

CAUTION.—*Emigrants to New Brunswick, Prince Edward Island, or Nova Scotia, should not proceed thither by way of Quebec.*

Passage.—Emigrants intending to settle in Canada will find it in all respects more advantageous to proceed by Quebec.

The best months for leaving England are March and April; the later emigrants do not find employment so abundant, and have less time in the colony before the commencement of winter.

For information respecting the cost of passage and probable opportunities of sailing, application should be made to the government emigration agents at the various ports at which they are stationed; but no party need apply who does not intend to pay his own passage. The following are the ports at which agents are established:—London, Liverpool, Leith, Greenock, Belfast, Londonderry, Sligo, Limerick, and Cork.

* The office of the commissioners is at No. 9, Park Street, Westminster.—Secretary, Stephen Walcott, Esq.

The conveyance of emigrants or passengers to parts out of Europe is now (1859) regulated by the Passengers' Act of 1855, the 18 & 19 Vict. c. 119., of which a full abstract is given under the art. PASSENGERS. The following order in council has since been issued under the authority of that act.

Abstract of Order in Council (25 Feb. 1856) for promoting Order and Health, &c. in Passenger Ships to any of H. Majesty's Possessions abroad.

1. Every passenger to rise at 7 A.M., unless otherwise permitted by the surgeon; or, if no surgeon, by the master.
2. Breakfast from 8 to 9 A.M., dinner at 1 P.M., supper at 6 P.M.
3. The passengers to be in their beds at 10 P.M, except under permission of the surgeon, or if no surgeon, of the master.
4. Fires to be lighted by the passengers' cook at 7 A.M., and kept alight by him till 7 P.M.; then to be extinguished, unless otherwise directed by the master, or required for the use of the sick.
5. The master to determine the order in which each passenger or family of passengers shall be entitled to the use of the fires. The cook to take care that this order is preserved.
6. On each passenger deck three safety lamps to be lit at dusk, and kept burning all night, and such further number as shall allow one to be placed at each of the hatchways used by the passengers.
7. No naked light between deck or in the hold to be allowed at any time, or on any account.
8. The passengers, when dressed, to roll up their beds, to sweep the decks (including the space under the bottom of the berths), and to throw the dirt overboard.
9. Breakfast not to commence till this is done.
10. The sweepers for the day to be taken in rotation from the males above 14, in the proportion of 5 for every 100 passengers.
11. *Duties of the sweepers* to be to clean the ladders, hospitals, and round houses, to sweep the decks after every meal, and to dry holy-stone and scrape them after breakfast.
12. But the occupant of each berth to see that his own berth is well brushed out; and single women are to keep their own compartment clean in ships where a separate compartment is allotted to them.
13. The beds to be well shaken and aired on deck, and the bottom boards, if not fixtures, to be removed, and dry-scrubbed and taken on deck, at least twice a week.
14. Two days in the week to be appointed by the master as washing-days, but no clothes on any account to be washed or dried between decks.
15. The coppers and cooking vessels to be cleaned every day, and the cisterns kept filled with water.
16. The scuttles and stern ports, if any, to be kept open (weather permitting) from 7 A.M. to 10 P.M., and the hatches at all hours.
17. On Sunday the passengers to be mustered at 10 A.M., when they will be expected to appear in clean and decent apparel. The day to be observed as religiously as circumstances will admit.
18. No spirits or gunpowder to be taken on board by any passenger. Any that may be discovered to be taken into the custody of the master till the expiration of the voyage.
19. No loose hay or straw to be allowed below.
20. No smoking to be allowed between decks.
21. All gambling, fighting, riotous, disorderly, or quarrelsome conduct, swearing, and violent or indecent language, are strictly prohibited. Fire-arms, swords, and other offensive weapons, as soon as the passengers embark, to be placed in the custody of the master.
22. No sailors to remain on the passenger deck among the passengers except on duty.
23. No passenger to go to the ship's cookhouse without special permission from the master, nor to remain in the forecastle among the sailors on any account.

Besides the sea voyage from England, persons proceeding to Canada should be provided with the means of paying for the journey which they may have to make after their arrival at Quebec. The cost of their journey must, of course, depend upon the situation of the place where the individual may find employment, or where he may have previously formed a wish to settle. The Emigration Commissioners have published the following Hints to Emigrants to the N. American colonies: —

Hints to Emigrants to the North American Provinces.

1. *Caution to keep Contract Tickets.*—Emigrants ought to keep their contract tickets, as otherwise if the ship is prevented by any accident from reaching her destination, or if the passengers, for any other reason, are not landed at the place named in the tickets, they may have a difficulty in obtaining a return of their passage money, to which in that case they would by law be entitled.

2. *Caution against proceeding to New Brunswick, &c. viâ Quebec.*—Emigrants to New Brunswick, Prince Edward Island, or Nova Scotia, are particularly cautioned against taking passage to Quebec, as the only means of conveyance from Quebec is by steamer, which leaves once a fortnight for Pictoo, calling at the intermediate ports; viz., Gaspe (passage, 16*s.* stg.), Dalhousie (24*s.*), Miramichi (28*s.*), Pictoo (32*s.*): thence to Prince Edward Island, by steam, 5*s.* Time, from Quebec to Pictoo, 5 days. Passengers to find their own provisions.

The route from Quebec to St. John, New Brunswick, Halifax, &c. is by Grand Trunk Railway to Portland, in the United States; thence, by steamer, to St. John; and thence, by steamer and railway, to Halifax viâ Windsor.

3. *Caution to provide means for subsistence and transport after arrival.*—Many emigrants having latterly been found to rely on public funds for their assistance in the colonies, they are hereby warned that they have no claim of right on such fund, and that they should provide themselves with sufficient means of their own for their subsistence and conveyance into the interior from the port where they land.

In Canada a recent law expressly prohibits relief from the Emigrant Tax Fund, excepting in cases of sickness on the part of destitute emigrants.

4. *Tools.*—It is not generally considered desirable that agricultural labourers should take out implements of husbandry, as these can be easily procured in the colonies; but artisans are recommended to take such tools as they may possess, if not very bulky.

5. *Time to arrive in the Colony.*—The best period is early in May, so as to be in time to take advantage of the spring and summer work, and to get settled before the winter sets in.

6. *Average Length of Passage:*—

To Quebec	40 days.
Prince Edward Island (say)	56 ,,
Nova Scotia	34 ,,
New Brunswick	36 ,,
British Columbia, round Cape Horn	150 ,,
,, ,, viâ Panama	50 ,,

By the Passengers' Act, provisions and water are, however, required to be laid in for 70 days, and in winter time for 80 days.

7. *Maintenance on Arrival, &c.*—Passengers are entitled by law to be maintained on board in the same manner as during the passage for 48 hours after arrival, unless within that time the ship should quit the port in the prosecution of her voyage. Those bound to Quebec must also, by a Colonial Law, be landed with their baggage free of expense, at the usual public landing places of the port, not earlier than 6 in the morning nor later than 4 o'clock in the afternoon. The water of the river St. Lawrence is stated to have a strong tendency to produce bowel complaints in strangers. It should at first, therefore, be drunk as sparingly as possible. Emigrants should also avoid exposure to the great heat of the sun by day and the dews and noxious vapour by night.

8. *Colonial Tax on Emigrants:*—

CANADA.—By a Colonial Law of 30th June, 1858, the capitation tax is 5*s.* currency, payable by the master, for every passenger over the age of 1 year; and no part of the tax is remitted on emigrants going on to the United States. If embarked, however, without the sanction of Her Majesty's Government, ascertained by a certificate from an officer of customs at the port of embarkation, the tax is 7*s.* 6*d.* currency for every passenger.

NOVA SCOTIA.—The Emigrant Tax Act of 1850 has been repealed by an Act (No. 9.) passed 18th April, 1856. No tax is, therefore, now payable in respect of emigrants arriving in this colony.

NEW BRUNSWICK.—By an Act passed 22d October, 1852, the tax is 2*s.* 6*d.* for each passenger; but security must be given by bond in the penalty of 75*l.* currency, that any lunatic, idiotic, maimed, blind, or infirm person not belonging to an emigrant family, shall not become chargeable to the funds of the colony within 3 years. This bond may, however, be dispensed with on payment of such sum as may be deemed reasonable under the circumstances.

PRINCE EDWARD ISLAND.—The tax now levied under a Colonial Act, passed 8th May, 1851, is 12*s.* currency (equal to about 10*s.* sterling) on each emigrant passenger arriving in the colony between the 1st of April and the 1st of October, but no payment is required for children under 18 months old. The tax is increased to 18*s.* currency if the emigrants arrive after the 1st of October. The master of the ship has to pay an additional tax if the vessel is put into quarantine.

In all of the colonies the tax is made payable by the master of the ship.

NEWFOUNDLAND.—No emigrants' tax in this colony.

9. *Personal Effects exempt from Duty.*—By a Canadian Act (8 & 9 Vict. c. 31): "Wearing apparel in actual use, and other personal effects not merchandise, implements and tools of trade of handicraftsmen used in the occupation or employment of persons coming into the province for the purpose of actually settling therein;" are exempt from customs duties. A similar provision is in force in New Brunswick.

10. *Caution not to refuse good Wages.*—Until emigrants become acquainted with the labour of the country, their services are of comparatively small value to their employers. They should, therefore, be careful not to fall into the common error of refusing reasonable wages on their first arrival.

11. *Expense of erecting a Log Hut.*—The cost of a log hut, such as settlers usually erect, may be stated at from 5*l.* to about 12*l.* But when the chief part of the work is performed by the emigrant himself, the cost is much less. These huts, if properly constructed, are very warm and comfortable.

12. Value of the English Coins in Canada and United States West.

	Halifax Currency.	United States' Currency.
	£ *s.* *d.*	Dolls. *Cts.*
1 sovereign-sterling	1 4 4	4 85
1 crown	0 6 1	1 20
1 shilling	0 1 3	0 24

In Upper Canada the English sixpence is generally called in retail dealings "one York shilling" or a shilling; emigrants often believe one shilling sterling or currency is meant.

Emigrants should bring their money in gold, silver, or good Bills of Exchange. Bank notes are liable to heavy discounts and hardly taken.

13. *Route for Emigrants to Canada.*—Emigrants intending to settle in Canada will find it in all respects more advantageous to proceed by Quebec.

As there is competition among the steam-boat and railway companies at Quebec and the forwarding companies at Montreal, emigrants should exercise caution before agreeing for their passage, and should avoid those persons who crowd on board ships and steam-boats, offering their service to get passages, &c.

Emigrants for Upper Canada should not pause at Quebec or Montreal, but proceed at once on their journey. If, however, they require advice or direction, they should apply only to the Government Agents, who will furnish gratuitously all requisite information.

(2.) *West India Colonies.*—In the West Indies we possess Jamaica, Barbadoes, St. Lucia, Antigua, Grenada, Trinidad, and some other islands, exclusive of Demerara and Berbice in South America. Jamaica, by far the largest and most valuable of our insular possessions, is about 120 miles in length and 40 in mean breadth, containing about 2,800,000 acres, of which from 1,100,000 to 1,200,000 are supposed to be in cultivation. Being situate within the tropic of Cancer, the heat in the West Indies is intense, but is moderated by the sea breeze which blows regularly during the greater part of the day. The rains make the only distinction of seasons. They sometimes fall with prodigious impetuosity, giving birth to innumerable torrents, and laying all the low country under water; the trees are green the whole year round: they have no snow, no frost, and but rarely some hail. The climate is very humid; iron rusts and corrodes in a very short time; and it is this, perhaps, that renders the West Indies so unfriendly to European constitutions, and produces those malignant fevers that are so very fatal. The vegetable productions are numerous and valuable; but the sugar cane and the coffee plant are incomparably more important than the others, and constitute the natural riches of the islands.

The West Indies are occasionally assailed by the most dreadful hurricanes, which destroy in a moment the hopes and labours of the planters, and devastate entire islands. Whole fields of sugar canes are sometimes torn up by the roots, houses are either thrown down or unroofed, and even the heavy copper boilers and stills in the works have, in numerous instances, been wrenched from the ground and battered to pieces. The rain pours down in torrents, sweeping before it every thing that comes in its way. The destruction caused by such dreadful scourges seldom fails to produce a very great scarcity, and not unfrequently famine; and we are grieved to have to add, that the severity of the distress has on several occasions been materially aggravated by a refusal on the part of the authorities to allow importation direct from the United States!* This was the case at Dominica as late as 1817.

Jamaica was discovered by Columbus in 1494, and continued in possession of the Spaniards till 1655, when it was wrested from them by the English. Although it had thus been for more than a century and a half under the power of Spain, such was the deadening influence of her colonial system, that it did not, when we conquered it, contain 1,500 white inhabitants, and these were immersed in sloth and poverty. Of the many valuable articles which Jamaica soon after produced in such profusion, many were then altogether unknown; and of those that were known, such a supply only was cultivated as was required for the consumption of the inhabitants. "The Spanish settlers," says Mr. Bryan Edwards, "possessed none of the elegancies of life; nor were they acquainted even with many of those gratifications which, in civilised states, are considered necessary to its comfort and convenience. They were neither polished by social intercourse, nor improved by education; but passed their days in gloomy languor, enfeebled by sloth, and depressed by poverty. They had been for many years in a state of progressive degeneracy, and would probably in a short time have expiated the guilt of their ancestors, by falling victims themselves to the vengeance of their slaves."—(*Hist. West Indies*, vol. i. p. 297. 8vo. ed.)

For a considerable number of years after we obtained possession of Jamaica, the chief exports were cocoa, hides, and indigo. Even so late as 1772, the exports of sugar amounted to only 11,000 hogsheads. In 1774, they had increased to 78,000 hogsheads of sugar, 26,000 puncheons of rum, and 6,547 bags of coffee. The American war was very injurious to the West India settlements; and they may, indeed, be said to be still suffering from its effects, as the independence of America led to the enactment of those restrictions on the importation of food, lumber, &c., that were so very hurtful to the planters. In 1780, Jamaica was visited by a most destructive hurricane, the devastation occasioned by which produced a dreadful famine; and other hurricanes followed in the immediately succeeding years. But in 1787, a new æra of improvement began. The devastation of St. Domingo by the negro insurrection which broke out in 1792, first diminished, and in a few years almost entirely annihilated, the annual supply of 115,000 hogsheads of sugar which France and the Continent had previously been accustomed to receive from that island. This diminution of supply, by causing a greatly

* It is stated in a report by a committee of the Assembly of Jamaica, that 15,000 negroes perished between the latter end of 1780 and the beginning of 1787, through famine occasioned by hurricanes and the prohibition of importation from the United States.—(*Edwards's West Indies*, vol. ii. p. 515.)

increased demand for, and a consequent rise in the price of, sugar raised in the other islands, occasioned an extraordinary extension of cultivation. So powerful in this respect was its influence, that Jamaica, which at an average of the 6 years preceding 1799, had produced only 83,000 hogsheads, exported, in 1801 and 1802, upwards of 286,300 hogsheads, or 143,000 a year!

The same rise of price, which operated so powerfully in Jamaica, occasioned a similar though less rapid extension of cultivation in our other islands, and in Cuba, Porto Rico, and the foreign colonies generally. The vacuum caused by the cessation of the supplies from St. Domingo being thus more than filled up, a reaction commenced. The price of sugar rapidly declined; and, notwithstanding a forced market was for a while opened to it, by substituting it for malt in the distillery, prices did not attain to their former elevation. On the opening of the Continental ports, in 1813 and 1814, they, indeed, rose, for a short time, to an extravagant height; but they very soon fell, involving in ruin many of the speculators upon an advance. Prices, however, continued at a pretty high level down to 1818; but they sustained a material fall in the course of the following year, and were comparatively low from that period down to 1835, when the extraordinary falling off in the supplies of sugar consequent to the measures connected with the emancipation of the slaves, again occasioned a considerable rise of price. But, as already seen, this high price was entirely factitious, being wholly caused by our excluding foreign sugar from our market. Now that the sugar of Brazil, Cuba, and Java is admitted on paying reasonable duties, prices are comparatively low. And from the extraordinary facility with which sugar may be raised in the countries referred to and elsewhere, we have no idea, provided they adopt no rash or ill-advised measure in relation to slaves, that its price in their markets would be likely to sustain any material or permanent increase, even though the demand for it were doubled or more. The imports of sugar from our West Indian colonies, which amounted to 4,103,800 cwts. in 1831, sunk, in 1841, to 2,151,217 cwts.! In 1858 they amounted to 3,496,938 do.

The devastation of St. Domingo gave the same powerful stimulus to the growth of coffee in the other West Indian colonies, that it did to the growth of sugar; and owing to the extraordinary increase in the demand for coffee in this and other European countries, the supply went on increasing till it was checked by the influence of the measures relating to slavery. In 1752, for example, only 60,000 lbs. of coffee were exported from Jamaica; in 1775 the export amounted to 440,000 lbs.; in 1797 it had increased to 7,931,621 lbs.; and in 1832, when it had attained its maximum, the exports to England only amounted to 19,405,933 lbs. Such, however, and so rapid has been their subsequent decline, that in 1858 the exports to England from Jamaica amounted to only 2,091,607 lbs. (See next page.)

We have already seen, that when Jamaica was taken from the Spaniards, it only contained 1,500 white inhabitants. In 1673, the population amounted to 7,768 whites and 9,504 slaves. It would have been well for the island had the races continued to preserve this relation to each other; but, unfortunately, the black population has increased more than *five* times as rapidly as the white; the latter having only increased from 7,768 to about 30,000, while the former has increased from 9,504 to about 310,000, exclusive of persons of colour.

The real value of the exports to Jamaica amounts to about 700,000*l.* a year, being about 1-3rd part of the exports to the West Indian colonies. It was formerly much more; but then a large portion of the articles sent to Jamaica, and some of the other colonies, were only sent there as to an *entrepôt*; being subsequently exported to the Spanish main. During the ascendancy of the Spanish dominion in Mexico and South America, this trade, which was then contraband, was carried on to a great extent. It is now much fallen off, and is principally carried on from St. Thomas and Honduras.

Barbadoes was the earliest of our possessions in the West Indies. It is the most easterly of the Caribbee Islands; Bridge Town, the capital, being in long. 59° 41′ W. Barbadoes is by far the best cultivated of all the West Indian islands. It contains about 105,000 acres, having (in 1852) a population of about 13,000 whites, 15,000 people of colour, and 110,000 blacks. Of late years it has exported from 500,000 to 750,000 cwts. of sugar. Barbadoes had attained the acme of its prosperity in the latter part of the seventeenth century, when the white population is said to have amounted to about 50,000, though this is probably an exaggeration. But it is only as compared with itself that it can be considered as having fallen off; for, compared with the other West Indian islands, its superiority is manifest. It raises nearly as much food as is adequate for its supply.

The islands next in importance are St. Vincent, Grenada, Trinidad, Antigua, &c. It is unnecessary to enter into any special details with respect to them; their population and trade being exhibited in the annexed Tables.

During the late war, we took from the Dutch the settlements of Demerara, Berbice, and Essequibo, in Guiana, which were definitively ceded to us in 1814. The soil of these settlements is naturally very rich; and they have, in this respect, a decided advantage over most of the West Indian islands. Their advance, since they came into our possession, was for a while very great, but recently their progress has been checked, and their exports have declined most materially. This, however, is entirely in consequence of the want of labour; for, in other respects, these colonies have every facility of production. Various schemes have been suggested for supplying this want; but none of them, unless they involve the principle of compulsory service, will, we apprehend, be successful. The rum of Demerara enjoys a high reputation. The best samples of Berbice coffee are very superior, and it used to be extensively cultivated both in that colony and in Demerara. In 1831, the exports amounted, from both colonies, to 3,576,744 lbs.; but they have since declined to next to nothing, having amounted in 1858 to only 2,615 lbs.! Considerable quantities of cotton were formerly exported from Guiana; but the Americans having superior facilities for its production, its culture has nearly ceased. Cocoa, annotto, &c. are produced, but not abundantly.

Exclusive of the above, we possess the settlement of Balize on the Bay of Honduras. This is of importance, as affording a means of obtaining abundant supplies of mahogany; but it is of more importance as an *entrepôt* for the supply of Guatemala and Central America with English-manufactured goods.

The exports from this country to our West Indian colonies consist of coarse cottons, linens, checks, hats, and other articles of negro clothing; iron and steel, wrought and unwrought; leather, inc. saddlery and harness; glass; beer and ale; soap and candles; stationery; hardware and earthenware; staves, hoops, coal, lime, paint, lead; Irish provisions, herrings, and other salt fish; along with furniture, wine, beer, medicines, and, indeed, almost every article which a great manufacturing country can supply to one situated in a tropical climate, which has very few mechanics and hardly any manufactures. Since the opening of the ports on the Spanish main to ships from England, the exports to the West Indies have decreased both in quantity and value; this decrease being, however, more than balanced by the increased shipments to Mexico, Columbia, &c. The declared or real value of the exports amounted, in 1858, to 2,253,699*l.*

Money.—What used to be called West India currency was an imaginary money, and had a different value in different colonies. The value it bore, as compared with sterling money, was supposed to represent the corresponding value of the coins in circulation in the different islands at the time the proportion was fixed; these coins being for the most part mutilated and otherwise worn and defaced, currency was in all cases less valuable than sterling. The following are the old values of 100*l.* sterling, and of a dollar, in the currencies of the different islands;—

	Sterl.		Curr.	Dol.		Curr.
Jamaica	100*l.*	=	140*l.*	1	=	6*s.* 8*d.*
Barbadoes	100*l.*	=	135*l.*	1	=	6*s.* 3*d.*
Windward Islands (except Barbadoes)	100*l.*	=	175*l.*	1	=	8*s.* 3*d.*
Leeward Islands	100*l.*	=	200*l.*	1	=	9*s.* 0*d.*

Account of the Quantities of Sugar, Molasses, Rum, Coffee, and Cocoa, imported into the U. K. from the West Indies and British Guiana, during each of the under-mentioned 10 Years ending with 1858. — *Parl. Paper*, printed 8th June, Sess. 1859.

Colonies from which imported.	1851.	1855.	1840.	1845.	1850.	1854.	1855.	1856.	1857.	1858.
SUGAR.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Antigua	195,177	174,818	203,071	210,013	123,860	244,508	219,939	203,992	205,802	258,459
Barbadoes	379,052	344,689	207,484	351,485	524,658	666,465	592,567	652,445	585,625	754,256
Dominica	58,559	25,014	34,675	57,883	51,816	58,315	55,978	47,041	57,654	60,826
Grenada	185,771	170,280	88,982	71,252	92,850	95,681	66,981	55,184	90,455	98,768
Jamaica	1,429,093	1,148,760	518,541	742,867	575,022	505,680	450,282	371,319	422,772	535,086
Montserrat	26,137	16,261	12,205	11,265	1,607	38	455	1,764	285	785
Nevis	49,924	39,637	27,857	30,858	15,518	34,663	33,982	13,744	21,926	29,554
St. Christopher	101,968	87,641	94,390	122,773	70,717	140,842	111,785	103,652	91,571	139,250
St. Lucia	72,376	54,744	37,667	71,250	53,903	75,053	65,952	61,286	65,970	77,579
St. Vincent	221,662	195,057	101,020	132,675	159,581	142,460	98,121	105,956	126,655	146,401
Tobago	121,249	77,260	51,743	62,709	44,297	44,428	39,334	58,583	54,172	67,982
Tortola	15,559	13,821	7,566	7,177	1,406	1,382	—	—	—	—
Trinidad	357,167	289,593	245,778	364,152	360,220	537,280	418,902	483,078	442,476	549,626
Bahamas	—	—	202	1,669	—	101	—	—	—	4,500
Bermudas	104	—	4,356	—	—	—	2	—	2	—
Demerara	302,134	760,376	486,487	499,102	472,750	806,534	675,851	597,013	691,849	678,667
Berbice	122,038	126,485	93,157	120,575	55,210	91,780	85,461	75,613	112,745	95,201
Total	4,103,800	3,524,209	2,214,764	2,857,705	2,589,420	3,443,190	2,915,592	2,810,648	2,945,751	3,496,938
MOLASSES.	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*	*Cwt.*
Antigua	47,394	75,985	96,117	100,934	57,305	97,711	56,788	54,214	52,791	68,745
Barbadoes	15,562	58,125	35,959	70,693	121,720	109,536	54,247	67,002	52,416	104,062
Dominica	2,173	2,700	5,423	9,466	9,640	8,552	3,589	2,644	7,376	4,235
Grenada	10,504	8,747	7,485	4,097	5,906	1,392	1,118	843	2,828	684
Jamaica	47	982	129	58	82	4	—	289	324	366
Montserrat	456	1,848	2,985	2,108	137	59	158	419	134	—
Nevis	1,068	161	5,727	2,606	162	4,767	2,683	1,547	2,160	2,101
St. Christopher	739	7,526	23,932	13,254	25,359	33,097	25,014	12,255	11,866	16,672
St. Lucia	4,968	6,057	7,460	5,724	4,801	6,458	6,445	4,769	6,658	2,509
St. Vincent	23,801	26,455	16,529	24,900	20,249	16,036	5,358	7,121	15,426	8,102
Tobago	1,643	5,986	14,451	7,083	3,749	725	144	1,725	1,655	690
Tortola	—	1,408	717	522	306	—	—	—	—	—
Trinidad	55,362	84,508	69,608	94,465	105,707	110,683	65,605	87,335	92,526	105,269
Bahamas	—	—	—	—	—	—	—	208	1,781	—
Bermudas	—	—	—	—	—	—	—	—	—	—
Demerara	159,088	221,782	152,363	156,623	106,915	54,048	11,610	22,802	28,986	14,805
Berbice	2,521	5,225	5,276	18,803	11,654	4,988	1,641	2,023	7,245	5,760
Total	325,506	507,495	424,141	491,116	473,672	428,070	230,400	264,996	286,160	331,998
RUM.	*Gallons*	(*including*	*overproof*).							
Antigua	165,849	67,051	75,592	16,120	21,456	201,918	168,430	182,429	65,334	150,840
Barbadoes	26,733	1,798	718	5,495	261	122,053	150,192	145,285	28,574	156,127
Dominica	63,007	7,308	14,077	51,328	18,883	62,745	75,744	85,885	62,775	74,197
Grenada	223,471	248,294	159,747	78,390	53,772	262,110	260,454	128,507	179,501	196,338
Jamaica	3,522,465	2,450,272	1,294,557	1,745,685	1,585,696	2,051,652	2,110,404	1,577,477	1,541,808	2,091,607
Montserrat	40,629	26,492	22,806	3,067	—	—	1,691	800	299	—
Nevis	147,750	59,566	24,819	25,285	1,066	44,778	52,869	9,867	9,767	25,188
St. Christopher	236,032	107,101	131,984	111,745	63,942	227,111	188,518	173,131	101,516	134,365
St. Lucia	12,628	10,972	11,950	4,748	709	15,554	28,925	18,851	6,415	12,426
St. Vincent	160,211	139,154	145,909	82,626	50,448	279,289	209,101	200,453	154,917	216,255
Tobago	498,717	299,705	229,582	188,494	125,756	181,807	155,268	188,446	125,947	167,321
Tortola	48	5,220	6,671	—	—	216	—	—	—	—
Trinidad	64,933	9,586	20,539	2,887	33,528	315,992	357,244	349,581	116,142	305,511
Bahamas	—	59	15	—	—	10,445	1,114	22,561	2,158	—
Bermudas	257	35	13	27	—	—	1	2	—	—
Demerara	2,332,970	1,875,245	1,464,970	1,555,794	1,615,338	3,224,133	3,265,655	2,848,138	3,162,115	2,952,063
Berbice	224,579	115,411	177,210	105,087	10,341	156,787	158,716	107,585	175,635	98,369
Total	7,844,157	5,453,300	3,780,979	3,955,076	3,579,176	7,134,966	7,160,105	5,858,797	5,732,515	6,609,605
COFFEE.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Antigua	212	580	4,404	193	—	45	30	84	—	—
Barbadoes	2,420	57,325	74,167	1,059	235	2,790	51	446	1,409	1,882
Dominica	613,360	112,557	285,593	42,636	792	219	460	244	1,897	119
Grenada	5,863	236	15,741	91,047	102	207	231	73	226	71
Jamaica	15,644,072	11,154,507	8,646,016	5,249,079	4,156,666	3,521,864	3,076,580	1,724,474	3,588,844	2,955,015
Montserrat	—	—	—	—	—	—	—	—	—	—
Nevis	4	—	—	20	—	6	—	—	—	—
St. Christopher	—	40	—	—	9	—	—	—	—	—
St. Lucia	89,549	53,582	292,583	8,781	55	62	—	2,158	146	79
St. Vincent	44	118	699	—	120	—	—	—	—	51
Tobago	—	—	2,103	262	—	—	—	—	47	—
Tortola	—	28	—	—	—	—	—	—	—	—
Trinidad	3,008	21,950	253,183	9,630	96,444	1,045	1,942	10,121	2,482	961
Bahamas	95,716	280,156	14,904	7,445	77,867	6,607	28	593,059	458,452	3,237
Bermudas	—	—	72	55	8	—	2,168	179	1,441	—
Demerara	1,991,352	1,139,054	1,622,056	228,966	10,614	5,664	1,756	1,569	1,591	2,161
Berbice	1,585,402	2027,037	1,587,538	716,778	698	—	350	179	760	454
Honduras	—	—	—	21	—	—	—	—	—	—
Total	20,050,802	14,855,470	12,797,059	6,355,970	4,343,590	3,536,509	3,083,564	2,132,532	4,056,379	2,964,058
COCOA.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Antigua	—	—	3,496	—	—	—	—	—	—	—
Barbadoes	2,554	77	51,018	6,422	3,222	77,894	59,411	119,670	33,301	3,069
Dominica	7,414	685	2,366	5,414	19,071	—	12,461	57,284	56,654	5,372
Grenada	368,882	276,359	269,680	342,092	609,954	607,887	783,417	796,499	949,865	82,480
Jamaica	6,684	407	42	—	125	130	64	10	562	1,249,544
Montserrat	—	—	—	—	—	—	—	—	—	3,544
Nevis	—	—	—	—	—	—	—	—	75	10,390
St. Christopher	—	904	—	—	—	1,131	—	—	—	—
St. Lucia	42,380	—	51,479	50,979	1,372	5,913	65,906	111,291	193,851	130,197
St. Vincent	6,045	272	6,442	6,450	8,642	14,034	20,489	13 587	19,214	17,006
Tobago	—	—	—	—	74	—	—	—	—	—
Tortola	—	—	—	—	—	—	—	—	—	—
Trinidad	1,057,990	160,617	2,007,494	2,060,215	1,345,384	2,142,617	3,874,716	3,274,466	2,643,605	2,805,795
Bahamas	—	—	—	—	—	—	—	—	—	742
Bermudas	—	—	—	—	—	—	—	—	—	—
Demerara	—	126	2,376	—	21	45	—	23	55,036	55,52
Berbice	—	—	—	—	—	—	—	—	—	—
Honduras	—	—	—	—	—	—	—	—	—	—
Total from the above colonies	1,491,947	439,447	2,574,501	3,351,602	2,187,760	2,749,649	4,794,464	4,552,850	3,952,121	4,468,966

But latterly these currencies have been in great measure superseded by the introduction of sterling money, current at the same rates as in England, and of the Spanish dollar.

By an order in council of the 23rd of March, 1825, British silver money was made legal tender throughout all British colonial possessions, at the same nominal value as in England; and bills for the same are given on the Treasury of London, of 100*l.* each bill for 103*l.* such silver money. By this order, also, the value of the Spanish dollar was fixed at 4*s.* 4*d.* British silver money throughout all the colonies where it is current; but this value was farther reduced on the 21st of September, 1838, to 4*s.* 2*d.* The value of the doubloon was then, also, fixed at 64*s.*

(3.) *Australian Colonies.*—This group of colonies, though founded in a very distant part of the world, and at a comparatively recent epoch, will, probably, at no very distant epoch, surpass the others in magnitude and importance. The countries in which they are situated, including the great Australian continent, formerly called New Holland, with Van Diemen's Land or Tasmania, New Zealand, &c., are of vast extent, and differ in many respects from each other. Hitherto, also, by far the larger portion of the continent is wholly unexplored; and even the islands are but very imperfectly known. Enough, however, has transpired to show that this great division of the globe differs in some most important respects from most or all countries with which we were previously acquainted; and that it is, in fact, full of anomalies. The interior of the continent has not been sufficiently explored to enable any distinct opinion to be formed as to the height of the mountain chains; but it appears to be pretty well established that it has no great rivers, or, at least, none that reach the sea. Indeed it seems, speaking generally, to be a law in this new world, that rivers are largest near their source; and that they gradually diminish as they proceed, and most commonly dwindle into insignificance, or lose themselves in marshes, before they reach the ocean!

In consequence, perhaps, of this singular constitution of its river system, it is found that in Australia, the best land is not at the mouths, but towards the sources, of the rivers. There are, no doubt, exceptions to this rule; but it appears to hold in the greater number of instances. Generally, also, the extent of fine land appears to be comparatively limited; and in so far as the continental portion of the country has been explored, it appears to be much better adapted for pasturage than for tillage.

Gold Deposits.—But the land, the pasturage, the sheep, the copper and other ordinary minerals, which are found in abundance in various parts of Australia, have all been rendered, for the present at least, of no importance compared with the gold deposits with which the continent is so largely endowed. These, which were discovered so late as 1851, are of extraordinary richness. They equalled or exceeded in productiveness not only the gold fields of California, but every thing of which any idea could previously have been entertained. Australia, in consequence, became an object of earnest and universal attention. An almost unparalleled amount of emigration was directed to her shores. Her population and her trade increased with gigantic strides; and her gold influenced the wages, the prices, and the industry of every civilised people. —(See art. PRECIOUS METALS.)

A Licence Duty of 30*s.* a month, charged on all individuals who engage in the search for gold, was much, and, we think, justly objected to. We observed in the last edition of this work, "that licence duties are essentially unfair, except when they are proportioned to the extent of business carried on by those who pay them. But the business of the gold diggers is, to all intents and purposes, a lottery. So that while the tax presses with greatest severity on the great bulk of those at the 'diggings,' it is hardly felt by the few who carry off the great prizes. The better plan would be to make the licence duty next to nominal, and to impose a moderate customs' duty on gold when exported. The tax would then cease to be felt as a burden by individuals, while it would yield quite as great a revenue to government." And we are glad to have to state that this course has been nearly adopted. A duty of 2*s.* 6*d.* per oz. has been laid on gold when exported; and though the licence duty has not been wholly repealed, it has been reduced to the moderate charge of 20*s.* a year.

It were idle to indulge in speculations in regard to the period when the exhaustion of the Australian gold fields may be expected; there are no data on which to hazard even a conjecture on such a subject. But whether the supplies from them be destined to be of long or short duration, they have already been, and, no doubt, will continue to be, of great advantage. We do not mean by this to say, or insinuate, that the good resulting from the influx of gold from Australia and California has been unaccompanied by any drawbacks. The gambling and dissipation to which it has given rise are obvious. But these, though considerable, are but a trifling deduction from its many advantages; from the powerful stimulus it has given to industry and civilisation, from the new channels it has opened to commerce, and from its greatly ameliorating the condition of the labouring classes in this and most other countries.

The northern portion of Australia, including, perhaps, about a third part of the entire continent, lies between the tropics; the other portion of the continent, with the adjacent islands of Van Diemen's Land and New Zealand, being in the south temperate zone. The climate of the different parts of the continent *must*, therefore, it is obvious, differ very widely. We, however, know but little of the climate of intertropical Australia, except that it is within the range of the Indian monsoon; that the temperature along the coast is rapidly raised by a wind from the south, which has been supposed to afford a strong pre-

sumption of the existence of sandy deserts in the interior; and that the air is so very moist that during the season of the dry monsoon iron articles are with the utmost difficulty preserved from rusting.

It is commonly said that the climate of extra-tropical Australia, and especially of New South Wales, assimilates closely to that of Southern Italy. But this statement must be taken with considerable limitation; for, 1st, the atmosphere is very decidedly denser; 2nd, the extremes of temperature are infinitely greater; 3rd, the average heat is rather less; and 4th, the temperature appears to decline more rapidly by increase of elevation. The grand defect in the climate of extra-tropical Australia appears to consist in the periodical recurrence of wet and dry seasons. Sometimes hardly a single drop of rain falls for an entire year or more; and though, happily, dews are in such seasons peculiarly abundant, they form no adequate substitute for rain. During long-continued droughts crops of all kinds are destroyed; and herbage, except in a few favoured spots, suffers severely.

Hence, as already stated, all the eastern parts of extra-tropical Australia, and perhaps, also, the southern, would seem to be much better fitted for pasturage than for husbandry. The droughts are exceedingly injurious to the latter, and they would necessarily involve any large population that depended principally on the indigenous products of the soil in extreme privations. Certainly, however, no country seems to be better fitted for grazing, or rather for the growth of sheep and wool. A dry climate is especially suitable to the latter; and though the pastures be far from luxuriant, their boundless extent compensates for every other deficiency. Sheep are not native to the country, a small flock of 29 head having been introduced for the first time by the original English settlers in 1788. For a while, however, their value was not appreciated; but the importance of sheep farming, and its suitableness to the country, having been demonstrated by John M'Arthur, Esq. (to whom the colony is under the greatest obligations), it has since increased with unprecedented rapidity. In proof of this, it is only necessary to mention that while the import of wool from Australia amounted, in 1822, to only 152,880 lbs., it had increased, in 1825, to 411,600 lbs., in 1830 to 899,750 lbs., and in 1858 to the enormous amount of 51,104,560 lbs.

Van Diemen's Land being less subject to droughts than New South Wales, husbandry is carried on in it to a greater extent, and with more advantage; but there also sheep-farming is the principal and, perhaps, the most advantageous employment.—(See VAN DIEMEN'S LAND.)

New Zealand, which has only been resorted to by regular colonists since 1840, is better fitted for agriculture than either Australia or Van Diemen's Land, and its climate is more like that of England. The ground in it is, however, rather difficult to clear; the natives are also much more formidable, and it is not so suitable for sheep-farming.

The first of the Australian colonies, that in New South Wales, founded so late as 1788, and that in Van Diemen's Land, founded in 1808, were originally intended to serve as penal settlements; and great numbers of convicts have been carried to them. These colonies had, also, notwithstanding their distance, become, even before the discovery of the gold fields, a favourite resort of free settlers, consisting partly of voluntary emigrants, and partly of emigrants carried out at the public expense: and since their discovery the emigration to Australia from this country, China, California, &c., has been quite unprecedented. The facility with which supplies of compulsory labour were obtained tended at first to reconcile the free colonists to the abuses of the convict system, but they gradually became such as to occasion the greatest dissatisfaction in N. S. Wales; and since 1843 no fresh convicts have been sent to it.—They still, however, continued to be sent to Van Diemen's Land, but it, also, has ceased to be a receptacle for them. No convicts have ever been sent to the important and flourishing settlement of South Australia, founded in 1834, nor to Western Australia or New Zealand.—The settlements in the latter have recently made a rapid progress, and it promises, at no very remote period, to be a peculiarly thriving colony.

Population.—The population of the Australian colonies is believed to have been at the under-mentioned dates, nearly as follows:—

Countries.	Years	Males.	Females.	Total.
New South Wales	1857	171,673	133,814	305,487
Victoria	1838	209,983	176,786	485,769
South Australia	1857	55,735	54,182	109,917
Western Australia	1858	9,560	4,733	14,293
Tasmania	1857	45,916	34,886	80,802
New Zealand	1857	29,435	22,720	52,155
" Natives	1857	31,667	24,303	55,970
Total		652,969	451,424	1,104,393

Passage.—The cost of a passage to the Australian colonies, including provisions, is for the
Cabin, from 45*l.* to 90*l.*
Intermediate, from 20*l.* to 40*l.*
Steerage, about 16*l.*

The average length of the voyage is about four months; and at whatever season of the year it may be made, the passengers have to pass through both very hot and very cold weather, and should, therefore, be prepared accordingly with suitable clothing.

The prices of cabin and intermediate passages to New Zealand are about the same as to the Australian colonies; but a steerage passage is rather higher.

Emigration.—We subjoin a return of the number of individuals that have emigrated from the U. Kingdom to the Australian colonies, from 1825 down to 1858, both inclusive.

Years.	Emigrants.	Years.	Emigrants.
1825	485	1843	3,478
1826	903	1844	2,282
1827	715	1845	830
1828	1,056	1846	2,347
1829	2,016	1847	4,949
1830	1,242	1848	23,904
1831	1,561	1849	32,191
1832	3,733	1850	16,037
1833	4,093	1851	21,532
1834	2,800	1852	87,424
1835	1,860	1853	61,401
1836	3,124	1854	83,237
1837	5,054	1855	52,309
1838	14,021	1856	44,584
1839	15,786	1857	61,248
1840	15,850	1858	39,295
1841	32,625		
1842	8,534	Total	652,910

Account of the Declared or Real Value of the Exports of British Produce and Manufactures from the U. Kingdom to each British Colony and Possession, during each of the 8 Years ending with 1858.

Colonies.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Channel Islands	£613,724	£564,453	£470,107	£480,339	£468,078	£533,319	£539,768	£508,443
Gibraltar	481,286	510,889	670,840	754,357	829,354	866,479	655,661	853,738
Malta	301,443	256,867	297,906	413,285	625,623	541,097	458,547	432,979
Ionian Islands	223,096	138,642	146,567	128,975	211,886	351,344	253,202	338,011
N. American Colonies	3,843,707	3,065,364	4,898,544	5,980,876	2,885,331	4,120,377	4,329,055	3,159,055
Honduras (B. Settlements)	232,633	122,806	105,493	137,706	168,566	205,000	156,877	136,706
W. I. Islands and Guiana	2,201,039	1,908,552	1,801,146	1,870,674	1,811,390	1,875,397	2,349,041	2,253,699
Australia	2,807,356	4,222,205	14,513,700	11,931,552	6,278,966	9,912,575	11,632,594	10,464,198
Hong Kong	632,399	585,355	375,908	468,077	389,265	800,645	721,097	1,146,356
East Indies	7,022,296	6,483,647	7,324,147	9,127,556	9,949,154	10,546,190	11,666,714	16,782,515
Singapore	608,886	637,981	595,566	516,157	672,964	872,814	896,282	961,034
Ceylon	175,414	231,299	265,982	382,27[illegible]	305,576	388,435	516,657	640,700
Mauritius	232,955	229,695	385,879	383,270	303,173	420,180	665,554	601,899
Cape of G. Hope & Natal	752,393	1,064,283	1,242,630	921,957	791,313	1,344,338	1,860,638	1,705,377
Poss. on the Gold Coast	107,653	47,566	55,862	117,419	111,182	93,445	91,743	95,112
Poss. on the R. Gambia	47,197	50,784	52,106	55,365	47,641	46,580	55,576	49,398
Sierra Leone	94,546	103,609	126,192	95,042	147,271	165,144	223,495	118,653
Other Possessions	50,818	60,298	64,149	63,024	62,544	79,055	84,277	79,091
Ports of the Crimea	-	-	-	26,571	493,398	139,725	-	-
Total of B. Possessions	20,598,834	20,284,273	33,332,724	33,852,198	26,552,875	33,300,439	37,154,688	40,224,994

Account of the Computed or Real Values of the Imports into the U. Kingdom from each British Colony and Possession, during each of the 5 Years ending with 1858.

Colonies.	1854.	1855.	1856.	1857.	1858.
Channel Islands	£330,121	£214,501	£294,678	£377,738	£412,011
Gibraltar	65,961	70,621	52,695	48,139	31,822
Malta	303,278	201,075	215,202	161,312	63,770
Ionian Islands	164,913	184,632	307,975	208,571	321,629
North American Colonies	7,192,134	4,693,065	6,854,324	6,399,110	4,654,634
Honduras (British Settlements)	567,234	492,781	435,110	424,364	337,025
W. I. Islands and Guiana	5,613,538	5,470,212	5,575,362	7,214,566	6,334,984
Australia	4,301,868	4,500,200	5,736,043	5,925,305	5,255,687
East Indies	10,672,862	12,668,732	17,262,851	18,650,223	14,972,952
Singapore	791,105	615,738	806,499	940,181	741,800
Ceylon	1,506,616	1,474,251	1,304,174	1,503,897	1,689,433
Mauritius	1,677,533	1,723,807	2,427,007	2,288,188	1,502,832
Cape of Good Hope and Natal	691,352	949,640	1,502,828	1,793,717	1,713,814
Possessions on the Gold Coast	71,253	113,287	75,531	86,509	31,667
Possessions on the River Gambia	28,002	29,326	19,522	23,273	32,012
Sierra Leone	153,559	141,167	99,982	107,062	139,988
Other Possessions	15,140	3,323	8,583	31,041	106,620
Ports in the Crimea	- -	6,953	48,120		
Total British Possessions	34,149,499	33,583,311	43,026,586	46,183,196	38,375,610

(4.) *Disposal of Land in the Colonies.*—The question as to the best method of disposing of the unoccupied lands in colonies planted in unsettled countries is one of considerable nicety and difficulty. Land in old settled and fully occupied countries being, for the most part, very valuable, and its possession bringing along with it great consideration and influence, and frequently, also, great wealth, colonists are very apt, wherever they have the opportunity, to appropriate a much larger extent of land than they have the means of cultivating, or of turning to any useful account. Not only, however, are settlers disposed to act in this way, but speculators, who have no thought of emigrating, and persons having influence with government, endeavour to obtain large tracts of land, in the view of holding them till, in consequence of the increase of population in the vicinity, they acquire a considerable value. It has been usual, also, to reserve large tracts for ecclesiastical and other public purposes. And these extensive tracts of unoccupied and reserved lands being interposed between the settled parts of a colony, render it in all cases more difficult, and sometimes all but impossible, to form roads and other means of communication; so that the settlers are thus frequently cut off from a market for their produce; and are less able to combine for municipal or such like purposes, and for the establishment of schools and churches, and the undertaking of such public works as require co-operation.

The improvident manner in which large tracts of land have been granted in Canada, and the great extent of the clergy and other reserves in that colony, have materially retarded its prosperity; and the same circumstances have had a similar operation in our other North American possessions, in Western Australia, and elsewhere. But there are various ways in which an abuse of this sort might be prevented. One of the most obvious of these is to impose such a moderate price on the land as might, without crippling the means of the settlers, hinder them from seeking unduly to extend their possessions; and making all the land held by individuals, whether occupied or not, contribute according to its extent to the construction of roads and other public works. Perhaps, however, the better plan would be to apportion the land according to the available capital of the settlers, it being stipulated that no individual should obtain above a certain number of acres; and that it should revert back to the public unless certain improvements were effected upon it within a specified time after the grant was made.

But, not satisfied with attempting to prevent abuses like those noticed above, we were lately told that all the difficulties incident to colonisation originated in the too great dispersion of the colonists, and that to obviate them, and to insure to all new colonies the acmé of prosperity, we had merely to compel the colonists to keep close together by exacting a high price for the surrounding waste or unoccupied land — in other words, by making the colony as like an old settled country as possible! And this precious nostrum was trumpeted forth as a great discovery. It is obvious, however, that if, on the one hand, the price set on waste land were inconsiderable, it would not (without a limitation of quantity) prevent the purchase of large tracts of land on speculation, and the entailing on the colony all the disadvantages that have resulted from the making of injudicious grants; and if, on the other hand, the price demanded for the land were high, it would go far to oppose an insuperable obstacle to the progress of the colony, at least if it were to be founded by voluntary emigrants. Rich men do not leave their native country to expose themselves to the inconveniences and hardships attending the establishment of new settlements in the wilderness. This, if it be done at all, must be done in time to come, as in time past, by individuals in straitened circumstances, and anxious to improve their fortunes. But to exact a high or considerable price for land from such persons would, by sweeping away the whole, or a considerable portion of their capital, deprive them of the means of clearing and culti-

vating the land, and proportionally retard their progress and that of the colony. The plan of letting lands by fine is admitted by every one who knows any thing of agriculture to be one of the worst that can be devised; and this colonisation project was bottomed on the same principle, and has been quite as pernicious.

It is said that, in consequence of the exacting of a price for the land, and the concentration of the colonists, their employments, being more combined and divided, will be prosecuted with a great deal more success than at present. All this, however, proceeds on the false and exploded assumption that the colonists are not, like other individuals, the best judges of what is for their own advantage. Adam Smith says truly, that it is the highest impertinence for kings and ministers to attempt to direct private people *how* they should employ their capitals. But it is, if possible, a still greater impertinence to attempt to direct them *where* they shall employ them. A regard to their own interest will draw people sufficiently together. And to enact regulations in the view of concentrating them still more, is in every respect as contradictory and absurd as it would be to set about increasing the public wealth by regulating the sort of employments to be carried on, and the countries with which, and the commodities in which, to deal.

Of late years the English government has disposed of all ungranted colonial lands by sale: and though we incline to think, as already stated, that the preferable plan would be to distribute them according to the capital or means of the settlers, still if the price at which land is sold be reasonable, the quantity that may be held by individuals be limited, and the lots put up to sale be of sizes suited to the means of the various classes of purchasers, we do not know that the plan is open to any very good objection. But the price charged for land in most of our colonies, and especially in Australia, where the minimum is 20*s.* an acre, is much too high, and has led to the most mischievous results. At the same time, however, we must bear in mind the distinction between founding a colony with a view principally to the interests of the colonists; and founding it not only with a view to their interests, but in an especial degree for the relief of the mother country. For it is not to be denied that the plan of exacting a pretty high (but not an oppressive) price for colonial lands, and applying that price to defray the cost of carrying out emigrants, may (how injurious soever to voluntary emigrants) be made to assist in relieving the mother country of those who might otherwise have had to be supported at the public expense. Inasmuch, too, as an extraordinary quantity of labour is thus supplied to the colony, the injury done to the capitalists by making land artificially dear, is in some degree, at least, compensated by its making labour artificially cheap. The emigration to the Australian colonies in the 4 years ending with 1847 was principally a consequence of the principle now stated, a very large proportion of the emigrants having been carried out at the public expense. It is, however, to be borne in mind, that when the revenue derived from the sale of land in the Australian colonies was at its maximum, its price was only 12*s.* an acre. After it had been raised to 20*s.* the sales, down to the æra of the gold discoveries, were comparatively trifling.

It would obviously be the extreme of folly for an agriculturist intending to emigrate who has a little, but not a great deal of capital, to think of establishing himself in a colony where a high price is set upon land. At all events, such person must not expect in such a colony to become a landowner, or to be independent, but must make up his mind to be a hired labourer: whereas, if he emigrate to a colony where land is sold at a low price, or given away on condition of certain improvements being effected upon it within a given time, he may at once acquire an estate, and exchange the condition of a hired servant for that of landowner.

Seeing that the Americans sell the best lands in the valley of the Mississippi at about a dollar an acre, it was not easy to discover the principle on which we proceeded to exact 6*s.* 7*d.* an acre for the worst land in Upper Canada. If this regulation were meant to divert the current of voluntary emigration from Canada to the U. States, nothing could be found to say against it: but otherwise it was alike contradictory and absurd. Notwithstanding the facilities of getting out to Quebec in timber ships, the direct emigration to the U. States greatly exceeds that to British N. America, the emigrants to the former being also of a superior description and having a greater command of capital. And there can be no doubt that the U. States are in no inconsiderable degree indebted for this influx of comparatively valuable immigrants to the fact of the public lands being sold at a less price than ours. "It is population alone which imparts value to land, and a more effectual method could not be devised for preventing an influx of inhabitants into Upper Canada, and drawing away many of those already settled, than government adhering to the present prices of land." (See Shireff's valuable *Agricultural Tour through N. America*, p. 365.) But since Canada has been in great measure self-governed, the price of land has been reduced.

Regulations for the Sale and Management of the Public Lands, approved by his Excellency the Governor General in Council:—

1. That the lands in townships which have already been delineated, or shall hereafter be delineated on survey by the exterior lines only, may be offered for sale on block on the following terms, viz.:—

2. That the price shall be one-half dollar per acre, payable at the time of sale.

3. That the purchaser shall cause the lands to be surveyed at his own expense into lots comprising either 100 or 200 acres of land in each lot; and on the north shore of Lake Huron into quarter sections of 160 acres each, except in spots where the configuration of the township may render such exact quantities impracticable, and then as near to those allotments as possible.

4. That such survey shall be made by a duly licensed provincial land surveyor, approved of by the Commissioner of Crown Lands, and acting under his instructions, who shall make his return with field notes, &c., in the usual method observed by surveyors, to be also approved of by the Department.

5. That one-third of the quantity of land in the township shall be settled upon within two years from the time of sale; one-third more settled upon within the following five years, that is seven years from the time of sale; and the residue within the further period of three years—i. e., ten years from the date of sale; the settlement required being that there shall be at least one bona fide settler in authorised occupation for every 200 acres of land; all land not so settled at the expiration of ten years from the time of sale to become forfeited and revert to the Crown absolutely, except such portions thereof as shall be found unfit for settlement, or such portions as are of a very inferior quality, and by reason thereof have remained unoccupied, in respect to which the Governor in Council may, upon application, dispense with the forfeiture, and cause the same to be conveyed to the original purchaser or his assignee.

6. A contract or sale to be made with the purchaser from the Crown subject to the foregoing and following conditions; but patents for the land to issue only to the occupants of the lots purchased deriving claim under the vendee of the Crown, or to the assignees claiming under such purchasers and occupants who shall have complied with the conditions of settlement hereinafter mentioned, upon a certificate or other evidence that they have paid such vendee or his assignee, or complied with the contract with him, for or in regard to such particular lot; and upon evidence that the party applying, or some one under whom he claims, has been a resident on the said lot for at least two years continuously, and that upon the same (not exceeding 200 acres) at least 10 acres for each 100 acres have been cleared and rendered fit for cultivation and crop, and have been actually under crop, and that a habitable house, in dimensions at least 16 by 20 feet, is erected thereon, and upon payment of the sum of $4 as patent fees, to cover expenses, &c. The nature and description of proof above referred to to be settled and prescribed by the Commissioner of Crown Lands.

7. All lands which shall under the foregoing conditions revert to the Crown, shall be exposed to sale at public auction at such times and places, and on such upset price as the Commissioner of Crown Lands shall fix.

8. That in townships which have been surveyed and laid out into lots, and where lands are now offered for sale at 4*s.* per acre, or where no lands have as yet been offered for sale, and in townships under survey or yet to be surveyed in lots, lands to be sold under the following regulations, to wit:

9. That lands be sold for cash at 70*c.* per acre, and on time upon the following terms—viz., $1 per acre; one-fifth to be paid at the time of the sale, and the remaining four-fifths in

four equal annual instalments, with interest on the purchase-money unpaid.

10. That when the lands in a township have remained open for sale for one year after public notice thereof, the lands unsold at the expiration of that period shall, at a time to be fixed, and after reasonable notice given by the Commissioner of Crown Lands, be offered for sale by public auction, at the upset price fixed for their sale as above, or at such other upset price as under special circumstances may be named by the Commissioner of Crown Lands; and that such public sales of all lands which shall remain unsold in the mean time shall take place semi-annually, at times to be named therefor by the Commissioner of Crown Lands, until the whole of the lands in the township shall have been disposed of; the lands remaining unsold after any such public sale to continue open for private sale at the said upset price until the period of one week next before the time at which the next public sale shall take place.

11. That all lots of land which shall have been offered as "Free Grants," and shall not have been located and occupied at the expiration of one year from the time the same shall have been so offered, shall no longer remain as "Free Grants," but shall be open for private sale, or shall be exposed to public sale by auction as part of the lands in the township in which the same are situate, and upon the same terms as other lands therein.

12. That all lands (except those now exempt) shall be subject to settlement duties, and no patent in any case (even though the land be paid for in full at the time of purchase) shall issue for any such land to any person who shall not by himself, or the person or persons under whom he claims, have taken possession of such land within six months from the time of sale, and shall from that time continuously have been a bona fide occupant of, and resident on the land for at least two years, and have cleared and rendered fit for cultivation and crop, and had under crop within four years at farthest from the time of sale of the land, a quantity thereof in the proportion of at least 10 acres to every 100 acres, and have erected thereon a house habitable, and of the dimensions at least of 16 by 20 feet.

13. That all other lands not embraced in the foregoing category be exposed to sale by public auction annually, or, in the discretion of the Commissioner of Crown Lands, half-yearly, for cash, at such times and places, and at such upset prices as the Commissioner of Crown Lands shall fix.

14. That the lands known as "Clergy Reserves" be sold on the same terms and in the same manner as other public lands in the townships in which they respectively lie.

15. That prompt payment in all cases be made of the essence of the contract, and any default to be on pain of forfeiture of all previous payments and of all right in the lands.

16. That in the cases of sales already made payment of arrears be required, and that public notice be given in the "Official Gazette," and through the usual channels, that unless such arrears be paid within 12 months from the 1st of January, 1859, the land in respect of which default shall continue will be resumed by the Crown and resold, and that in regard to all purchase moneys and interest hereafter to fall due, prompt payment will be exacted.

Squatters.

17. That the system of recognising unauthorised occupation of land, commonly known as "squatting," be discontinued, subject to the following provisions, viz.:—

That public and general notice be given by the Crown Lands Department, that no claim to pre-emption by reason of such occupation will be entertained after the first day of September next; and that no claim to such pre-emption not now in a state to be admitted, can be made good by any act of the party hereafter; and that therefore his labour will be thrown away.

That the prices above fixed for lands shall apply to Upper Canada only.

The prices of lands in Lower Canada shall be regulated by Orders in Council from time to time.

P. M. VANKOUGHNET, Commissioner.

Crown Lands Department, Toronto, Jan. 13, 1859.

Nova Scotia.—The public lands are here also sold at a fixed price, of 1*s.* 9*d.* sterling per acre, payable at once. The smallest regular farm lot contains 100 acres. Any less quantity of land may be had, but the cost would be the same as for 100 acres, viz. 8*l.* 15*s.*, the minimum sum for which a deed of grant is issued.

New Brunswick.—There are two modes of selling Crown lands in this province, viz, by auction, once a month; and by private contract on conditions of settlement. By the first, the lands are to be put up to sale at an upset price of 5*s.* an acre, exclusive of charge of survey, which, it is believed, is 2½*d.* sterling per acre. The purchase money is to be paid by 4 equal annual instalments, carrying interest at 6 per cent., with an allowance, on the other hand, of a discount of 20 per cent., if the whole of the purchase money is paid down at once. No person can purchase, under this plan, more than 100 acres.

By the other plan, the land is sold at a fixed price of 3*s.* an acre, payable also in 4 equal annual instalments, either in money or labour, at the option of the purchaser. If in money the amount is to be expended in opening or improving public roads leading to or through the land.

There is also a provision by which, if not less than 6 persons apply to any of the emigration officers in the United Kingdom, stating that they wish to obtain land in New Brunswick for actual settlement, and name an agent in the province to select it, such agent, on his name being reported by the Emigration Officer to the Colonial Government, will be authorised to select, not exceeding 100 acres, for each of the applicants, and the land will be reserved for them for one year.

Prince Edward Island.—With the exception of between 2000 and 3000 acres, the whole of the Crown lands in this colony were alienated in one day. But by Colonial Acts of 1853, 16 Vict. c. 18., and of 1857, 20 Vict. c. 20., the local government is authorised to repurchase from proprietors their unsold lands and to resell them to the present tenants or otherwise. 80,000 acres were thus repurchased in 1854. These may now be obtained at the land office at from 4*s.* to 8*s.* sterling per acre, according to locality and quality. About 40,000 acres of these lands remain undisposed of, for which the late proprietors demanded from 10*s.* to 20*s.* sterling per acre.

Most of the Crown lands (*i. e.*, those not repurchased under the Act of 1857) have been sold. There is, however, a small number of town lots for sale in Princetown. These lots are chiefly sought for at present as qualifications for electors of members to serve in the General Assembly; but may become valuable hereafter, being situated in front of one of the best harbours in this Island, from which the fisheries might be prosecuted.

Newfoundland.—By a Colonial law Crown lands are to be sold by auction, at an upset price to be fixed by the Governor, at not less than 2*s.* per acre. Land exposed to auction more than once on different days may afterwards be sold, without further competition, at the last upset price.

British Columbia.—That part of British territory on the north-west coast of North America, previously known as New Caledonia, has, by an Act passed on the 2nd of August, 1858 (21 & 22 Vict. cap. 99.), been erected into a colony, under the name of "British Columbia." It is bounded on the south by the frontier of the United States (*i. e.* the 49th degree of north latitude), on the east by the main chain of the Rocky Mountains, on the north by Simpson's river and the Finlay branch of the Peace River; and on the west by the Pacific Ocean. It includes Queen Charlotte's Island and all other adjacent islands, except Vancouver's Island. The Queen, however, may at any time, upon a joint address of the two Houses of the Legislature of Vancouver's Island, incorporate it with British Columbia.

Extent of Colony.—British Columbia possesses an extent of about 500 miles of sea coast, stretching from the point where the 49th parallel of latitude first strikes the sea coast to the line of the Russian possessions in Portland Canal.

The area of the colony, including Queen Charlotte's Island, is computed by Mr. Arrowsmith to contain about 200,000 square miles.

All the lands in British Columbia, and all the mines and minerals therein, belong to the Crown in fee.

The price of lands not being intended for the sites of towns, and not being reputed to be mineral lands, shall be 10*s.* per acre, payable one half in cash at the time of the sale (by auction), and the other half at the end of 2 years from such sale. Provided that under special circumstances some other price, or some other terms of payment may from time to time be specially announced for particular localities.

It shall also be competent to the Executive at any time to reserve such portions of the unoccupied Crown lands, and for such purposes, as the Executive shall deem advisable.

Except as aforesaid, all the land in British Columbia will be exposed in lots for sale, by public competition, at the upset price above mentioned, as soon as the same shall have been surveyed and made ready for sale. Due notice will be given of all such sales. Notice at the same time will be given of the upset price and terms of payment when they vary from those above stated, and also of the rights reserved (if any) for public convenience.

All lands which shall remain unsold at any such auction may be sold by private contract at the upset price and on the terms and conditions herein mentioned, on application to the Chief Commissioner of Lands and Works.

Unless otherwise specially notified at the time of sale, all such sales of Crown land shall be subject to such public rights of way as may at any time after such sale, and to such private rights of way, and of leading or using water for animals, and for mining and engineering purposes, as may at the time of such sale be specified by the Chief Commissioner of Lands and Works.

Unless otherwise specially announced at the time of sale, the conveyance of the land shall include all trees and all mines and minerals within and under the same, except mines of gold and silver.

When any "Ditch Privilege" shall be granted, there shall be included (unless excluded by express words) the right to lop, dress, or fell any trees standing on unoccupied Crown lands which, in the opinion of the proprietors of the ditch, might, by their accidental fall or otherwise, endanger the safety of the ditch or any part thereof.

Australian Colonies and Tasmania.

By the Imperial Acts 18 & 19 Vict. c. 56. (16th July, 1855), the Land Sales Acts 5 & 6 Vict. c. 56. and 9 & 10 Vict. c. 104. are repealed, and the Crown in Western Australia and the local legislatures in the other Australian colonies are left at liberty to alter the land regulations which existed at the time of the passing of the first-mentioned Act, 18 & 19 Vict. c. 56.

South Australia and Tasmania have accordingly passed laws to regulate the disposal of their public lands. New South Wales and Victoria have not yet passed land acts. The land question, however, has recently been under the consideration of the legislatures and government of those two colonies, and new regulations may shortly be expected in each. In the meantime, their waste lands, it is understood, are still disposed of as heretofore under the regulations which were prescribed in the Imperial Land Sales Act.* An abstract of the principal provisions of this Act is therefore subjoined.

Principal Regulations of the Repealed Land Sales Act, 5 & 6 Vict. c. 56. (1842).—1. All lands are to be disposed of by sale alone, and must have once at least been exposed to public auction.

2. The lowest upset price is to be not less than 1*l.* per acre; but the Government has power to raise the same by proclamation.

3. The lands are distinguished into three different classes, viz., Town, Suburban, and Country lots.

4. Upon town and suburban lots, as well as upon a proportion not exceeding one tenth of the whole of the country lots offered for sale at any auction, the Governor has the power of naming a higher than the general or lowest upset price; the country lots on which such power is exercised are designated "Special Country Lots."

5. Town and suburban lots will in no case be disposed of except by public auction, but country lots which have already been put up to public auction and not sold, may be disposed of afterwards by private contract at the upset price. In Victoria,

* In Victoria, however, the following alterations have recently been made:—

1. Lots are now rarely submitted to public competition of a larger size than about 200 acres.—2. The term "special country lots" has been abandoned.—3. The power of selecting blocks of 20,000 acres or more has been rescinded.

lands on which the deposit made at the time of sale has been forfeited by the non-payment of the balance within one month, will be open for selection by the public at the purchase price, less the amount of forfeited deposit.

6. No lands will be sold by private contract except for ready money. When sold by public auction, one tenth at least of the whole purchase-money must be paid down, and the remainder within one calendar month, or the deposit will be forfeited.

7. Lands will be put up for sale in lots not exceeding in extent 1 square mile each.

8. As an exception to the general regulations, and subject to certain restrictions laid down in the Australian Land Act, the Governor will have it in his discretion to dispose, by private contract, at a price not less than the lowest upset price for the district, of blocks comprising 20,000 acres or more.

South Australia.—The Waste Lands Act for this colony (21 Vict., No. 5, of 1857), was passed on the 19th of November of that year. The following is an abstract of the act:—

Abstract of South Australia Waste Land Acts.—§ 1 & 2.—Waste lands of the Crown not to be alienated except by sale as prescribed by act.

§ 3. *Reserves.*—Governor in Council may, however, make reserves for purposes of public safety, convenience, health, or enjoyment (except for churches).

§ 4. *Surveys and Size of Lots.*—Except pastoral lands, all lands to be surveyed and mapped in lots not exceeding 640 acres before they are sold.

§ 5. *Deed of Grant.*—Governor, on behalf of the Crown, to convey lands sold under the public seal of the province.

§ 6. *Auction.*—Except pastoral, all lands to be sold by auction after public notice of not less than 1 nor more than 3 months.

§ 7. *Classification of Lands.*—Lands to be classified into town, suburban, and country.

§ 8. *Upset Price.*—Lowest upset price, 1*l.* per acre.

§ 9. Government may fix a higher upset price for town lots and for special country lots, *i. e.* country lots on which improvements may have been lawfully made.

§ 10. *Sale by Private Contract.*—Town lots to be sold only by auction, but country lots which have been exposed to sale at auction may (if not withdrawn for future sale by auction) be sold by private contract at the upset price, or if bid for at auction and not sold, then at the price last bid.

§ 11. *Payment of Purchase Money.*—In the case of private sales, the whole of the purchase money to be paid down. At auctions 20 per cent. down, and the remainder within 1 calendar month.

§ 12. *Pasture Leases.*—The Governor may, without auction, grant to the first discoverer, or first occupier of waste lands, leases of 14 years for pastoral purposes; but no second lease is to be granted unless first put up to auction; the bidding to be on the rent. Annual leases of land within hundreds may be granted without being put up at auction.*

§ 13. *Mineral Leases.*—The Governor may also grant leases of 14 years for mining purposes of lots not exceeding 80 acres, at a rent of 10*s.* an acre, with a right of renewal for 14 years more on paying a fine of not less than 1*l.* an acre, subject to future regulations.

§ 14. *Regulations.*—The Governor in Council may make regulations from time to time for pastoral leases, to be officially published.

§ 15. All regulations made by Governor under the act are to be laid before the provincial Parliament within 14 days.

§ 16. *Mineral and Timber Licences.*—The Governor in Council may grant licences of 12 months' duration to search for gold and other metals, and to cut timber on the unsurveyed waste lands.

By an act No. 18 of 1858 (22nd Victoria, passed 24th December, 1858), to amend the above "Waste Lands Act," the Governor is empowered, when any lease for pastoral purposes shall have been determined by reason of the land being included in any hundred, to grant annual leases, without auction, to the lessee or his assigns, during the residue of his term.

The Governor is also empowered to make regulations affecting and defining the issue of depasturing, gold, timber, and mineral licences; and to fix a higher upset price for suburban land, than the lowest upset price fixed for waste lands.

The following table shows the quantity of Crown lands sold and paid for within South Australia during each year from the first sales:—

Year.	Acres.	Purchase Money received in the Colony.
1837 . .	563	£13,566 4 0
1838 . .	9,972	
1839 . .	122,505	122,505 0 0
1840 . .	2,446	2,446 0 0
1841 . .	7,331	7,331 2 0
1842 . .	17,001¼	17,001 16 0
1843 . .	598	613 13 0
1844 . .	5,428	5,566 13 0
1845 . .	49,658	52,902 8 0
1846 . .	37,682	76,874 8 0
1847 . .	33,096	35,428 18 0
1848 . .	28,914	31,476 13 0
1849 . .	54,957	58,557 17 0
1850 . .	62,237	86,557 15 0
1851 . .	81,092	87,242 14 0
1852 . .	85,562	97,059 8 0
1853 . .	211,985	290,324 6 0
1854 . .	212,846	376,224 8 0
1855 . .	170,730	232,864 13 0
1856 . .	187,251	255,260 3 0
1857 . .	178,086½	215,500 18 0
1858 (to 9th Dec.)	151,344	194,839 6 0
Grand totals .	1,709,584	£2,250,163 17 0

* N.B.—By an act (22 Vict.) No. 20 of 1858, an annual assessment is imposed of 2*d.* a head in respect of each sheep

The average price of all Crown lands sold during 1852 was 1*l.* 7*s.* 3*d.* per acre; in 1853 it was 1*l.* 7*s.* 3*d.*, in 1854 it was 1*l.* 18*s.* 3*d.*; in 1855 it was 1*l.* 10*s.* 8¾*d.*; in 1856 it was 1*l.* 5*s.* 5*d.*; and in 1857 it was 1*l.* 4*s.* 2½*d.*

Western Australia.—The Crown lands to be divided into 4 separate classes, town, suburban, mineral, and country. Country lands are to be sold at a fixed price of 10*s.* an acre, and in lots of not less than 40 acres. Town, suburban, and mineral lots are to be sold by auction. The size and upset price of the town and suburban lots are to be fixed by the Governor. The upset price for mineral lands is not to be less than 20*s.* an acre, payable in 3 equal instalments; one at the time of sale, another on the 1st of January then next, and the third on the 1st of January of the succeeding year.

For pastoral purposes country lands are subdivided into classes A and B. Class A is to comprise all lands near the settled districts, the sea-coast, and certain rivers; class B to comprehend all other lands in the colony. In class A the Governor may, if he sees fit, grant pastoral licences, not exceeding 1 year, at a yearly rent of not less than 1*l.*, nor more than 2*s.* per 100 acres, for sections of 1000 acres and upwards. A preference is to be given to the legal occupants, in fee simple, of the adjoining lands. No renewal of the licence is to be claimable as a right, but licences for the succeeding year may be granted preferably to existing holders. The lands under licence are to be subject to resumption for public purposes, or to general selection for purchase, without compensation to the licensee; but if the whole of the run be resumed or sold, land to an equal extent to be assigned in lieu.

Within class B, the Governor, if he thinks fit, may grant pastoral leases, not exceeding 8 years, for quantities of land not exceeding 10,000 acres, at a rent, for each run, of 5*l.* per annum, with an addition of 10*s.* per annum for every 1000 acres comprised in the lease. No right of renewal, however, is to be conveyed by any lease of lands in class B. Any lessee having a right of pre-emption will be entitled to exercise it at the rate of 10*s.* an acre for land not mineral.

Timber Licences, not exceeding 12 months, may also be granted on such conditions as may be established by the Governor in Council.

Tasmania.—On the 25th February, 1858, two Land Acts were passed,—21 Vict., Nos. 33 and 34, called "The Waste Lands Act," and "The Unsettled Lands Act."

The first Act provides for the division of the waste lands into the classes of town, agricultural, and pastoral, for their survey previously to their being sold, for their sale as a general rule by auction, and for the establishment of a minimum upset price (10*s.* an acre on new land, and 20*s.* on land that has been occupied, plus the cost of survey and grant deed). It also requires prompt payment of the purchase money, but allows a longer credit where the amount exceeds 40*l.* on the addition to the purchase money of a premium of 10*l.* per cent. It introduces, however, an exception to the rule of sale by auction, by allowing any person to select a single lot, not being town land, nor exceeding 320 acres, for purchase at the fixed price of 1*l.* an acre, but no person is, under any circumstances, to be allowed to exercise this right of selection more than once, and any land obtained in contravention of this prohibition is to be forfeited. The usual powers are reserved to the Governor in Council for granting lands necessary for wharves, jetties, and other works of public utility. The Act further contains the necessary provisions for the grant of leases and licences for the occupation of land; it is provided that leases should not exceed 14 years; that in the case of land that has been occupied the rent should not be less than 1*l.* per 100 acres, and in the case of new land not less than 10*s.*; that the lease shall be determinable on 12 months' notice if the land is required for sale; that it shall contain such covenants and conditions as may be prescribed by regulations to be made by the Governor in Council; and that during its continuance the land shall be open to survey. Licences of occupation are to be granted for 12 months only, and licences to cut timber, for terms not specified, on such conditions as may be provided by the regulations of the Governor in Council.

Provision is likewise made for the resumption of land forfeited for non-fulfilment of conditions, and for the summary extrusion of persons in unlawful occupation.

The second Act withdraws from the operation of the preceding Act that portion of the colony which lies between lines drawn from S.W. Cape to Arthur River along the coast, and from South Cape to the Surrey Hills, comprising, apparently, a tract of about 200 miles long by from 30 to 50 broad. And with a view to promote settlement in this district, it provides for the free grant within it of lands not less than 50 nor more than 640 acres in extent, under the special authority in each case of the Governor in Council, and on terms to be prescribed by regulations, which, however, must embody the following conditions:—That the applicant is possessed of capital in money, stock, or implements to the extent of 1*l.* for every acre applied for; that he has not already obtained a grant of this description, and will not, until he has obtained a grant, dispose of his interest without the consent of the Commissioner of Crown Lands; that he shall reside on his land for 5 years, and that during that period he shall clear, fence, and bring into cultivation one-tenth of the whole or erect buildings of the value of 250*l.* for every 50 acres. In case of only a partial fulfilment of these conditions, the Governor may either allow an extension of time, or make a proportionate reduction in the extent of the grant. The Act further provides for the issue of gratuitous leases for 10 years, of lands not exceeding 10,000 acres, on condition that the lessee shall within 1 year stock the land with a proportionate number of sheep or cattle.

New Zealand.—This colony is divided into 6 provinces, with a separate government in each, subject, however, to the general government, the seat of which is Auckland. The natives are prohibited from alienating their lands except to the Crown. In the 3 provinces of Nelson, Canterbury, and Otago the Crown

which the demised land is estimated to be capable of grazing. Waste lands leased, or to be leased, for pastoral purposes, are to be divided into classes (which classification is to be renewed every 5 years), and to be assessed at not less than 100 sheep per square mile for the lowest class, and at not more than 240 sheep for the highest class. On the expiration of the lease, the annual value of the lands is to be determined by an appointee of the Governor for the next 5 years, and the lease may be renewed for that term at the new rent.

has accordingly extinguished by purchase the native title over all the lands. In the other 3 provinces, which are situated in the Northern Island, this result has only been partially effected, and the native title still exists over large tracts.

The management of the crown lands throughout the colony has, by the imperial act 15 & 16 Vict. cap. 72, granting the colony a constitution, been vested in the general assembly. The general assembly, in its session of 1858, accordingly passed an act, No. 75, to regulate the disposal and administration of the waste lands of the crown in New Zealand. But the operation of the act, which was reserved for her majesty's assent, has been suspended to give the local legislature an opportunity of removing an objection to which the act was found open. It might only mislead, therefore, to introduce here the land regulations adopted by the act, as they are not in force, and may be modified by the colonial legislature.

West Indies.—Crown lands are to be sold by auction at an upset price of not less than 1*l.* per acre.

Antigua and Dominica.—The smallest lot sold is 40 acres, except in certain localities for villages.

British Guiana.—The crown lands will, in future, be disposed of by sale in tracts of 100 acres each and upwards by competition at the upset price of 1*l.* sterling per acre.

The limitation in the extent of grants does not apply to the owners of plantations who, under the regulations of their high mightinesses the States of Holland, are entitled to an additional depth of 250 acres as soon as two-thirds of the first grant are in cultivation. So long as an estate is in cultivation, and there is the most distant chance of the second depth being required by the proprietor of the first, a second depth can never be granted to a third party.

It is not the practice in British Guiana to open on survey any lands for settlement until after application has been made to the government for some particular tract.

Trinidad.—The price of crown land is 2*l.* per acre. All limitations as to the number of acres have fallen into desuetude. Lagoon or swampy land is sold at a lower rate, 10*s.*, and building lots are higher, depending on competition.

Bahamas.—The mode of sale is by auction, but the Governor is from time to time to name the upset price, which is never to be less than 6*s.* per acre. Land once exposed to auction may, in the discretion of the Governor, be afterwards sold by private contract, at not less than the upset price of such land. The ordinary size of the lots in the Bahamas is to be 20 acres, but lots of 5 acres may, if thought expedient, be disposed of.

Jamaica.—There are no regulations in force in this island, for the disposal of public lands, pasture licences, &c.

Cape of Good Hope. — Government Notice, 31st October, 1856. The conditions and regulations relative to the disposal of crown lands in this colony, published by government notice of the 17th May, 1844, are cancelled, and in future all waste and unappropriated crown lands will be sold subject to an annual quit rent on each lot, and at a reserved price sufficient to defray the costs of inspection, survey, and title deed.

Natal.—1. The unappropriated crown lands in this colony are sold in freehold, and by public auction only.

2. Unless it is otherwise notified the upset price will be 4*s.* per acre (one acre is about half a morgen), but the Governor for the time being will have the power to fix such higher upset price as the locality or other circumstances may render expedient, of which due notice will always be publicly given. Lands not sold at auction may at any time within three years afterwards be purchased at the upset price on payment of the whole purchase money.

Ceylon.—Crown lands are sold by auction at an upset price fixed by the Governor, at not less than 1*l.* per acre. They must be previously surveyed by the government, and duly advertised.

Summary of Modes of Sale, and Prices, in the Principal Land-Selling Colonies.

Colony.	Mode of Sale.	Price per Acre.
North American Colonies.		
Canada (West)	Fixed price for a whole township, and for lots in townships, till public notice of auction; afterwards, and for all other lands, auction.	For a whole township 2*s.* 6*d.* currency, 2*s.* 1*d.* stg. For lots in townships 3*s.* 6*d.* currency, 2*s.* 11*d.* stg. For all other lands upset price 5*s.* currency, 4*s.* 2*d.* stg.
Canada (East)	Ditto	1*s.* to 5*s.* ditto, according to situation, 10*d.* to 4*s.* 2*d.* sterling.
Nova Scotia	Fixed price	1*s.* 9*d.* sterling.
New Brunswick	Auction and private sales.	2*s.* 5*d.* sterling upset price, with 20 per cent. discount for ready money.
Newfoundland	Ditto	2*s.* currency upset price, 1*s.* 8*d.* stg.
Prince Edward Island.	Private contract	4*s.* to 8*s.*, according to situation.
Vancouver's Island	Ditto	1*l.* sterling.
British Columbia	Auction for agricultural lands. Lands not sold at auction may afterwards be bought at the upset price.	Upset price 10*s.*
Australian Colonies.		
New South Wales	Auction. Country lands not sold at auction may afterwards be bought at the upset price.	Upset price 1*l.* sterling.
Victoria	Ditto	Ditto.
South Australia	Ditto	Ditto.
Australian Colonies.		
Western Australia	Fixed price for agricultrl. lands. Auction for town, suburban, and mineral.	10*s.* Upset price for town and suburban, 20*s.* For mineral, to be fixed by government.
Tasmania	Auction and private sales.	Upset price to be fixed by government.
New Zealand [crown lands].	Auction for town, suburban, and rural lands. Fixed price for country lands.	Highest fixed price 10*s.* an acre, except in Canterbury, where it is 2*l.*
Falklands	Auction. Country lands not sold at auction may afterwards be bought at the upset price.	Upset price 8*s.* sterling.
Bahamas	Auction.	Ditto 6*s.*
Other West India colonies.	Ditto. ditto. Auction	Ditto 1*l.*
Cape of Good Hope	Ditto, subject to a quit-rent.	No fixed upset price.
Natal	Ditto	Upset price 4*s.* sterling.
Ceylon	Ditto	Ditto 1*l.* sterling.
Hong Kong	Ditto. Only leases granted.	The lowest fixed rental for *building*, not *farm*, lots is 2*l.* per acre. Highest ditto, hitherto, 35*l.*

Rights of Commonage and Leases of Pasture Lands in Australia.

New South Wales.—The following is the substance of the most important provisions of the regulations in force for the disposal of land for pastoral purposes: 1st, in the settled districts; and, 2dly, in the unsettled and intermediate districts. These regulations were established by the governor in pursuance of an order of the Queen in council, dated 9th March, 1847, and issued under the act of Parliament 9 & 10 Vict. c. 104.

I. As to the settled districts:

1. All purchasers of crown lands, or grantees who have commuted their quit rents, are to have a right of commonage over vacant crown lands in their neighbourhood until disposed of.

2. Persons holding in fee simple not less than 640 acres of land will be entitled to claim of government a lease of the adjacent lands, to the extent of three times their own property, at a fixed rent of 10*s.* for each section of 640 acres.

3. Any person may require government, or the government may proceed of its own accord, to put up to auction leases of any vacant lands at a minimum upset rent of the same amount.

4. The leases will, as a general rule, be renewed, unless the land is wanted by government for sale, or is required under the above provisions by the owner in fee of the adjacent property.

5. The leases are to be annual, and for pastoral purposes only, with a limited right of cutting timber. They are not assignable; and if the land is required for sale, it must be surrendered at one month's notice, without any compensation for improvements.

II. As to the unsettled and intermediate districts:

1. The governor may grant leases of runs for 14 years in the unsettled districts, and 8 in the intermediate. These leases confer the right to use the land for pastoral purposes, and to cultivate so much as is necessary for the consumption of the lessee's own establishment, but not for sale.

2. Each run must be capable of carrying 4,000 sheep, or an equivalent number of cattle.

3. The rent is at least 10*l.* per annum, with 2*l.* 10*s.* additional for every 1,000 sheep (beyond the first 4,000) which the run will carry.

4. During the currency of the lease the lessee may buy portions of the land, not being less than 160 acres in extent, without competition. The ordinary price will be 1*l.* an acre; but in peculiar cases the governor may require a larger sum. The governor may also resume any part of the land for public purposes.

5. Leases of vacant runs are disposed of by tender. Leases are forfeited if the lessee neglects to pay his rent, or is convicted of certain legal offences.

6. At the expiration of the lease in the unsettled districts, or at the expiration of each year of the lease in the intermediate districts, any part of the land may be sold by government, subject to a right in the lessee of preemption, and of compensation for improvements. Unless the land itself is brought within the settled districts, or one fourth part of it is sold, the lessee is entitled to a renewal of his lease as to the unsold part; but if any part of it be sold, the governor may raise the rent to an extent not exceeding 50 per cent.

7. If during the lease the land has been brought within the intermediate districts, it will only be relet subject to the rules applicable to land in those districts.

For the regulations themselves as to the settled districts, *vide* Parliamentary Papers (No. 994) presented by command in 1848, and Appendix No. 7. to the Emigration Commissioners General Report for 1849; and for the regulations as to the unsettled and intermediate districts, *vide* Parliamentary Papers

No. 252) of 1847, and Appendix No. 7. to Commissioners General Report for 1847.

South Australia.—The following regulations authorising district councils to grant depasturing licences within their districts were established by the governor's proclamation, dated Adelaide, 4th October, 1855, and issued under the authority of the provincial act, No. 16 of 1842, being an act to appoint district councils and define the powers thereof:—

1. That depasturing licences shall be granted for certain stated periods, to be determined by the district councils respectively.

2. That before granting any such licences, the several district councils shall make an estimate of the number of cattle which *the common lands* of their respective districts are capable of maintaining, and that the number of cattle to be licensed for the period then next ensuing shall in no case exceed the estimate so made.

3. That every person holding land within a district shall, on complying with any bye laws that may be made in that behalf, and on payment of such fees as may be fixed by the councils respectively, be entitled to receive a depasturing licence, the number of cattle to be depastured under such licence being calculated according to the extent of land held. Provided, however, that if any persons shall omit to take out the licences to which they are entitled, within such time as the councils may appoint, or if any persons shall take out licences for a less number of cattle than has been assigned to them, the councils may grant licences for such number of cattle as may be wanting to make up the whole number which the common lands have been estimated to be capable of maintaining, to any landholders in the district, in accordance with such regulations as the councils respectively shall think fit to make.

4. That every holder of a depasturing licence shall be entitled to depasture on the common lands either great cattle or small cattle, at his option; one head of great cattle to be deemed and taken to be equivalent to 6 head of small cattle, both as regards the number of cattle to be depastured, and the fees payable in respect thereof.

5. That the words "great cattle" shall be deemed and taken to mean horned cattle, horses, mules, and asses, male and female, with their offspring above 6 months old; and that the words "small cattle" shall be deemed and taken to mean sheep and goats, male and female, with their offspring above 4 months old; and that the words "common lands" shall be deemed and taken to mean all the unsold lands of the crown within any district, not granted under lease, nor appropriated to any particular purpose by the executive government of the province.

The holder of purchased land within any hundred or part of a hundred, not being within a district, will also be entitled, under the governor's proclamation of the 23rd March, 1853, to a depasturing licence over the unappropriated waste lands therein, for one head of great cattle, or 6 head of small cattle for every 5 acres purchased.

The licence must be applied for to the commissioner of crown lands, between the 1st and 30th of June in each year; and the fee payable is 2*s.* 6*d.* for not more than 5 head of great cattle, and 6*d.* per head for all above that number.

Timber licences are granted annually, terminable on the 31st December, on payment of a fee of 5*l.*

Considering that it may, speaking generally, be laid down that in N. S. Wales from 3 to 4 acres are required to depasture a single sheep, it is obvious that the plan of selling such land at a *minimum* price of 12*s.* or 20*s.* an acre, would effectually prevent its being bought for pastoral purposes. And, in point of fact, incomparably the greater number of the sheep belonging to the colony are depastured on what has been called the *squatting system.* A capitalist intending to become a wool grower formerly took out an annual licence, for which he paid 10*l.*, authorising him to depasture a *run*, or tract of land, of no definite magnitude, but usually varying in size from 3,000 or 4,000 to perhaps 25,000 or 30,000 acres, under the important proviso (which, however, has not been enforced) that he should pay in addition an annual rent of 1*d.* for every head of sheep and of 3*d.* for every head of cattle depastured on the run. This system having been acted upon for a lengthened period the runs began to be regarded as a sort of *quasi* property; and those in preferable situations were disposed of by one holder to another for considerable sums. In the end, however, government was forced to interfere with this system; and the act 9 & 10 Vict. c. 104. empowered the authorities to eject persons unlawfully occupying waste lands, provided they had not held them without interruption for 21 years previously to the passing of the act. If they had done this, their title was secured. From the passing of this act, a new and complicated system, the leading provisions of which have already been laid before the reader (p. 352, &c.), has been adopted for the disposal of waste lands. Under its operation, vast tracts have been let, of what was at the time *unsettled* districts, for 14 years with a right of pre-emption, without competition, at 1*l.* per acre. But, in the meantime, portions of the land so disposed of, being found to contain deposits of gold, have suddenly become of the greatest value; while other and far more extensive portions in the vicinity of the "diggings" are urgently required for agricultural purposes. Under such circumstances, we need not be surprised that the question in regard to the lands held, or alleged to be held, under 14 years' leases with a right of pre-emption, should have become of equal importance and difficulty. Owing to the want of surveys and defined boundaries, few of the occupiers of waste lands have obtained leases. And while, on the one hand, they insist on the fulfilment of their contracts, they are opposed, on the other, by the great bulk of the population, who justly object to the waste of the public property, and to the all but irreparable injury that would be done to the colony by handing over to a few individuals a vast extent of what is now become very valuable land. The idea that the leases, if granted, would be effectual, is, in the present state of the colony, quite preposterous. It is, in truth, all but contradictory to suppose that in a country like Australia, with a population increasing in numbers and wealth with unparallelled rapidity, millions of acres of the best situated lands should be engrossed, at a mere nominal rent, by a handful of individuals. If a system of this sort be not put an end to by the interference of government, it will, no doubt, be forcibly suppressed by the colonists themselves. It is too flagrant an absurdity to be tolerated, and the better way would be to come, while it is yet time, to some sort of compromise; that is, to give some compensation to the lessees for claims which were conceded to them in ignorance, and which they cannot, in the existing state of things, maintain or make good.

The following statement, laid on the council table at Sydney, the 22d May, 1849, shows the enormous extent to which the squatting system (of which the leasing system is an off-shoot) has been carried.

	Number of Persons holding Licences.	Number of Licences.	Money paid for Licences.	Land held, in Acres.
			£	
When less than 25,000 acres are held by each person	339	347	3,470	4,599,304
Not above 50,000	155	180	1,800	5,501,014
— 100,000	103	162	1,620	7,141,107
— 150,000	33	52	520	3,996,109
— 200,000	16	31	310	2,660,960
— 250,000	5	16	160	1,094,638
— 300,000	4	11	110	1,061,805
— 400,000	3	10	100	1,079,120
— 450,000	1	5	50	408,583
— 650,000	2	5	50	1,272,000
— 850,000	1	1	10	845,600
	660	820	8,200	29,464,240

* Eleven persons holding 4,570,108 acres in a colony under an infallible specific for preventing the accumulation of land in the hands of a few individuals!

Gold Fields and Miners' Rights. — Besides their great pastoral and agricultural capabilities, the Australian colonies possess vast mineral resources. South Australia has already become noted for her copper mines, and New South Wales and Victoria (late Port Philip) for their gold fields.

By law all mines of gold and all gold in its natural place of deposit, whether on the lands of the crown or of private individuals, belong by prerogative to the crown. And whoever takes away gold metal or ore containing gold, or digs for or disturbs the soil on the waste lands of the crown in search of gold metal or ore, without having been first duly authorised so to do, is liable to be prosecuted both criminally and civilly, and the gold may be seized by the crown.

In South Australia, however, the crown has given up its right to minerals.

In South Australia and in Tasmania no gold regulations have been issued, as no profitable gold fields have yet been discovered.

In New South Wales and Victoria acts have been passed by the local legislatures for regulating the right to dig for gold, and for imposing a duty on its export.

New South Wales.—By the New South Wales Act (20 Vict.) of the 17th March, 1857, No. 29., the governor in council may issue a document called "The Miners' Right," which is to be valid for 12 months, and entitles the holder to mine for gold in a space of 400 square feet of alluvial ground. 20 feet of frontage is allowed to each miner in the beds of rivers.

The annual fee for each "miner's right" is 10*s.*

The governor may also grant two classes of leases for mining purposes of auriferous tracts and quartz reefs; viz. :—

1. Leases of 8 acres of alluvial land, 500 yards of a river bed, or 400 yards on the line of a quartz vein, for a period limited to 2 years, at an annual rent of 5*l.* per acre; 5*l.* per 100 yards of river bed, or 5*l.* per 10 yards of quartz vein, respectively.

2. Leases for a longer period (but not exceeding 21 years) and for greater extent of land will be granted at a royalty on the gross produce of gold. (*Gold Fields' Regulations, Sydney, 5th August*, 1858.)

The governor may also grant business licences on the gold fields, for 12 months, the fee for which is 4*l.*

The duty on gold exported from New South Wales, whether by sea or land, is, by the Colonial Act of 12th February, 1857, No. 17., fixed at 2*s.* 6*d.* the troy oz., and on gold brought to the royal mint, 2*s.* 3*d.* per oz. But the customs duty is not to be leviable on gold which has paid duty at the mint.

Holders of "miner's rights," or of leases, are entitled, both in New South Wales and in Victoria, to vote for the members of the local court for the district in which they reside. These courts are for the consideration of matters connected with the general management of the district.

The above quoted acts will be found printed in the papers relative to the discovery of gold, presented to parliament in February, 1856, and August, 1857.

The escort of gold from the principal gold fields is undertaken by government, free of charge, if intended for export, otherwise a small charge per ounce is made, according to distance.

Victoria.—By the Victoria Act of 24th November, 1857, No. 32. (21 Vict.), the annual fee for "the miner's right" to dig for gold is 1*l.*; and storekeepers' licences to carry on business at the diggings are issued at the following rates:—

For 3 months, at	£2	10 0
„ 6 „	5	0 0
„ 12 „	10	0 0

Leases for mining purposes of auriferous lands may also be obtained at a rent, whether as a royalty or otherwise, to be fixed by the governor, for any period not exceeding 10 years.

The duty on gold exported from Victoria, whether by sea or land, is, by the Colonial Act of 20th April, 1855, No. 27., fixed at 2*s.* 6*d.* the troy oz.

Gold Fields of Victoria.—The gold fields of Victoria are divided into six principal districts, which are each under the supervision of a resident warden. These are again divided into sub-districts, as occasion may require, and placed in charge of sub-wardens.

In each of the six mining districts a local board is established, with power to make bye-laws applicable to the district, generally, with respect to mining affairs. Each of these mining boards consists of 10 members, who are elected to the office for a term of 12 months, by the holders of miners' rights or business licences resident in the district.

For the settlement of mining cases a "court of mines" is held periodically, at various places in each mining district.

The following is a list of the principal gold fields in the various mining districts of this colony, on 31st July, 1858:—

Ballaarat District.	Castlemaine Dist.	Maryborough Dist.	Ararat District.	Sandhurst District.	Beechworth Dist.
Ballaarat.	Castlemaine.	Maryborough.	Ararat.	Sandhurst.	Beechworth.
Bunningyong.	Barber's Creek.	Avoca.	Armstrong's.	Eagle Hawk.	Spring Creek.
Steighz.	Forest Creek.	Amherst.	Pleasant Creek.	Whipstick.	Snake Valley.
Mount Egerton.	Campbell's Creek.	McCullums.	Raglan.	Heathcoate.	Three-mile Creek.
Creswick.	Tarrangower.	Dunolly.		Waraicga.	Woolshed.
Smyth's Creek.	Fryer's Creek.	Sandy Creek.			Yackandaudale.
Carugham.	Tarradale.	Cochran's.			Buckland.
Linton's.	Mount Franklin.	Korong.			Omeo.
Mount Blackwood.	Saint Andrews.	Kingover.			
		New Bendigo.			

QUANTITIES OF GOLD EXPORTED.

Year.	New South Wales.		Victoria.	
	Quantity.	Value.	Quantity.	Value.
1851	oz. 144,120	£468,336	oz. 145,137	£458,777
1852	962,873	3,600,175	1,988,526	6,135,748
1853	548,052	1,781,171	2,497,723	8,644,529
1854	257,910	773,209	2,144,699	8,255,550
1855	*54,384	209,250	2,751,555	10,904,150
1856	*42,465	138,007	2,985,991	11,943,458
1857	*48,815	185,138	2,762,460	10,987,591
1858 to 30th June			1,279,767	5,119,069
Total	2,018,617	7,155,286	16,555,838	62,448,852

* The establishment of a mint at Sydney, will account for the small amount of gold exported in 1855, 1856, and 1857.

The quantity of gold *produced* at the mines in New South Wales and Victoria cannot be accurately ascertained; but the preceding Table shows the quantity and estimated value of gold *exported* from New South Wales and Victoria since the commencement of discoveries in May and October, 1851. (This Table is taken, as regards New South Wales, from Parliamentary Papers, Nos. 393. of 1856, 309. of 1857, and 480. of 1858: and as regards Victoria, from an official report of the registrar general of that colony, dated 30th June, 1858.)

There were also exported from New South Wales in 1857:—

Coin.	Boxes.	Value.
Australian sovereigns	198	£796,601
British and foreign gold	29	117,598
Total	227	914,199

The escort of gold from the principal gold fields is undertaken by the government, free of charge, if intended for export; otherwise a small charge per ounce is made, according to distance.

Return, enumerating the various Colonies, of any Importance, belonging to the United Kingdom, the Dates of their Acquisition, their Government, Population, Trade, and Navigation.

Colonies.	Date of Capture, Cession, or Settlement.	Whether having Legislative Assemblies, or governed by Orders in Council.	Population, 1858 or last Census.	Imports from U. Kingdom, 1856.	Exports to U. Kingdom. 1856.	Tonnage of Vessels, 1856.	
						Inwards from the U. Kingdom.	Outwards to the U. Kingdom.
				£	£	*Tons.*	*Tons.*
North America.							
Canada East	Capitulation, 18th Sept. 1759.	Governor, Council, and Assembly	890,261	4,097,910	2,082,301	358,526	536,303
Canada West	Ditto, 8th Sept. 1760, and cession by treaty, 1763	Ditto Ditto	952,004				
New Brunswick	Fisheries and settlements, established soon after their discovery in 1479	Ditto Ditto	193,800	538,501	747,790	97,835	111,801
Nova Scotia		Ditto Ditto	276,117	545,424	88,887	65,633	52,857
Cape Breton		Ditto Ditto					
Prince Edward's Island		Ditto Ditto	71,496	86,584	151,559	3,068	8,339
Newfoundland		Ditto Ditto	96,506	396,392	462,136	33,302	17,516
		Total	2,480,184	5,664,811	3,532,653	558,361	726,616
West Indies.							
Antigua	Settlement, 1632	Governor, Council, and Assembly	35,408	95,575	512,388	8,861	12,501
Barbadoes	Ditto, 1605	Ditto Ditto	135,939	351,998	660,960	31,992	34,408
Dominica	Ceded by France, 1763	Ditto Ditto	22,220	25,496	68,167	1,285	2,397
Grenada	Ditto, 1763	Ditto Ditto	32,671	30,403	94,952	5,827	4,195
Jamaica	Capitulation, 1655	Ditto Ditto	377,433	565,325	678,140	40,090	36,499
Montserrat	Settlement, 1632	Ditto Ditto	7,043				
Nevis	Ditto, 1628	Ditto Ditto	9,571	10,141	11,386	929	794
St. Christopher	Ditto, 1623	Ditto Ditto	20,741	57,651	118,197	6,051	5,833
Anguilla	Ditto, 1666	Ditto Ditto	2,179				
St. Lucia	Capitulation, 22d June, 1803	Governor and Council, and Orders of the Queen in Council	25,717	25,312	61,283	2,594	3,452
St. Vincent	Ceded by France, 1763	Governor, Council, and Assembly	30,128	42,021	105,715	3,996	6,427
Tobago	*Ditto, 1763*	Ditto Ditto	15,393	20,992	70,226	3,814	3,678
Tortola	Settlement, *1666*	Ditto Ditto	6,689				
Trinidad	Capitulation, 18th Feb. 1797	Governor and Council, and Orders of the Queen in Council	74,892	305,688	430,702	20,273	23,774
Bahamas	Settlement, 1629	Governor, Council, and Assembly	27,519	19,051	27,005	2,999	3,865
Bermudas	Ditto, 1609	Ditto Ditto	10,982	33,834		11,015	487
British Guiana	Capitulation, 18th Sept. 1803	Governor and Council, and Orders of the Queen in Council	113,739			46,186	53,080
Honduras	Treaty, 1670.	Superintendent and Magistrates	19,500	161,847	359,523	9,826	17,454
		Total	967,764	1,743,535	2,998,644	193,598	208,824
Australia.							
New South Wales	Settlement, 1787	Governor, Council, and Assembly	305,487	5,475,359	1,660,187	87,771	30,710
Victoria	Ditto, 1851	Ditto Ditto	485,769	7,691,995	12,895,254	197,033	57,037
Van Diemen's Land	Ditto, 1803	Ditto Ditto	80,802	812,745	472,215	21,360	8,896
Western Australia	Ditto, 1829	Ditto Ditto	14,293	100,312	26,225	4,476	5,814
South Australia	Ditto, 1834	Ditto Ditto	109,772	855,722	635,380	39,569	8,637
New Zealand	Ditto, 1839	Ditto Ditto	108,125	309,602	57,225	19,228	2,611
		Total	1,104,393	15,245,735	15,614,486	369,237	112,705
Ascension	Settlement, 1815	Governor, Council, and Assembly					
St. Helena	Ceded by Holland, 1673	Ditto Ditto	5,490	41,105	1,508	155,770	12,534
Hong Kong	Treaty, 1842	Governor and Council, and Orders of the Queen in Council	71,750			15,678	
Gibraltar	Capitulation, 4th Aug. 1704	Ditto Ditto	15,823			259,532	319,788
Malta and Gozo	Ditto, 5th Sept. 1800	Ditto Ditto	142,537	64,873	1,017,642	158,316	124,275
Cape of Good Hope and Natal	*Ditto*, 10th Jan. 1806	Ditto Ditto	376,896	1,179,994	1,088,552	69,945	87,819
Sierra Leone	Settlement, 1787	Governor and Council, and Acts of Parliament	40,383	122,801	37,208	14,408	8,656
Gambia	Ditto, 1618	Ditto Ditto	5,693	51,181	19,449	6,643	5,051
Gold Coast	African Forts, 1618	Ditto Ditto	385,000	58,694	88,806	17,310	
Ceylon	Capitulation, 17th Sept. 1795	Governor and Council, and Orders of the Queen in Council	1,677,552	537,934	872,179	29,912	32,507
Mauritius	Ditto, 3rd Dec. 1810	Ditto Ditto	241,847	555,830	1,046,563	22,993	57,865
Heligoland	Ditto, 5th Sept. 1807	Ditto Ditto	1,979				
		Total	2,964,950	2,610,412	4,171,707	750,537	648,473
		Totals: North American	2,480,184	5,664,811	3,532,653	558,361	726,616
		Totals: West Indian	967,764	1,743,335	2,998,644	193,598	208,824
		Totals: Australian	1,104,393	15,245,735	15,614,486	369,237	112,705
		Totals: Other Colonies	2,964,950	2,610,412	4,171,707	750,537	648,473
		General Totals	7,517,291	25,264,293	26,317,490	1,871,533	1,696,618

Gold Fields of British Columbia. — There seems good reason to suppose that the gold fields in this colony are both extensive and rich.

Governor Douglas, in a despatch, dated January, 1859, states that it is supposed, on very probable grounds, that the whole course of the Fraser River to its sources in the Rocky Mountains, contains deposits of gold.

Gold was known to exist in Queen Charlotte's Island in 1850, but it was not until April, 1856, that Governor Douglas reported to the secretary of state that considerable quantities of gold had been found in the Upper Columbia River. It was subsequently discovered in its natural state of deposit in the districts of Fraser River and of Thompson's River, commonly known as the Quasilan, Couteau, and Shuswap countries, which are the principal gold fields of the colony.

The governor, in the despatch above-mentioned, states that reports continue to arrive respecting the rich deposits of gold on and about Bridge River. The gold generally is coarse and lumpy, not requiring quicksilver for its separation from the soil.

Gold has been also found at Stonia, a point on Fraser's River, five miles beyond the Hudson's Bay establishment of Alexandria, about 400 miles from the sea coast.

The table in the preceding page embodies, within a brief space, a good deal of important information respecting our colonies in all parts of the world.

IV. — Regulations under which Colony Trade is conducted.

These are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107., and are as follows, viz. —

Absolute Prohibitions, Restrictions, &c. — Gunpowder, ammunition, arms, or utensils of war, except from the U. K. or any British Possession, and base or counterfeit coin, are hereby absolutely prohibited to be imported or brought, either by sea or inland carriage or navigation, into the British Possessions in America and the Mauritius.

Sugar (not being refined in bond in the U. K.) and molasses until 5th of July 1854, and rum, such sugar, molasses, and rum being the produce or manufacture of any British possession within the limits of the E. I. Company's charter (except as herein-after provided), or being of foreign produce or manufacture, are hereby prohibited to be imported or brought into any of the British possessions in the continent of S. America or in the W. Indies (the Bahama or Bermuda islands not included), or into the Mauritius except to be warehoused for exportation only, and may also by her Majesty's order in council be prohibited to be imported into the Bahama and Bermuda islands; and if any goods shall be imported or brought into any of the British possessions in America or the Mauritius, contrary hereto, the same shall be forfeited: provided always, that it shall be lawful to import into any British possessions in the W. Indies and S. America, and into the Mauritius, any sugar or rum the produce of any British possession within the limits of the E. I. Company's charter into which the importation of sugar or rum the produce of any foreign country, or of any British possession into which foreign sugar or rum may be legally imported, has been prohibited; provided that no such sugar or rum shall be so entered unless the master of the importing ship shall deliver to the proper officer of customs a *certificate of origin* under the hand of the proper officer at the place where the same shall have been taken on board, stating the name of the district in which such sugar or rum was produced, the quantity and quality or strength thereof, as the case may be, the number and denomination of the packages containing the same, and the name of the ship in which they were laden, and of the master thereof, and of the officer giving the same; the shipper of such sugar or rum shall likewise certify that there had been produced a certificate under the hand and seal of the collector or assistant collector of the land or customs revenue of the district within which such sugar and rum was produced, that such sugar or rum was the produce of such district, and that the importation into such district of foreign sugar and rum, or sugar and rum the growth of any British possession into which any foreign sugar or rum can be legally imported, is prohibited, and the master shall subscribe a declaration that such certificate was received by him at the place where the goods were taken on board, and that they are the goods therein mentioned.—§ 159.

Foreign Reprints of Books under Copyright prohibited. — Any books wherein the copyright shall be subsisting, first composed or written or printed in the U. K., and printed or reprinted in any other country, shall be and are hereby absolutely prohibited to be imported into the British possessions abroad: Provided always, that no such books shall be prohibited to be imported as aforesaid unless the proprietor of such copyright, or his agent, shall have given notice in writing to the Commissioners of Customs that such copyright subsists, and in such notice shall have stated when the copyright will expire; and the said commissioners shall cause to be made, and to be publicly exposed at the several ports in the British possessions abroad, from time to time, printed lists of books respecting which such notice shall have been duly given, and all books imported contrary thereto shall be forfeited; but nothing herein contained shall be taken to prevent H. Majesty from exercising the powers vested in her by the 10 & 11 Vict. cap. 95. to suspend in certain cases such prohibition.—§ 160.

Foreign Manufactures with British Marks.—If any articles of foreign manufacture, and any packages of such articles, bearing any names, brands, or marks being or purporting to be the names, brands, or marks of manufacturers resident in the U. K., be imported into any of the British possessions abroad, the same shall be forfeited.—§ 161.

Sugar, &c., though British, deemed Foreign in certain Cases.—All sugar and molasses, until the 5th July 1854, and rum (although the same may be of British plantations), exported from any of the British possessions in America into which the like goods of foreign production can be legally imported, shall, upon subsequent importation from thence into any of the British possessions in America or the Mauritius into which such goods being of foreign production cannot be legally imported, or into the U. K., be deemed to be of foreign production, and shall be liable on such importation respectively to the same duties or the same forfeitures as articles of the like description being of foreign production would be liable to, unless the same shall have been duly warehoused, and exported from the warehouse direct to such other British possession, or to the U. K., as the case may be.—§ 162.

Coasting Trade of the British Possessions.—No goods or passengers shall be carried from one part of any British possession in Asia, Africa, or America to another part of the same possession, except in British ships.—§ 163.

Ship and Cargo to be reported on Arrival.—The master of every ship arriving in any of the British possessions in America or the Channel Islands, whether laden or in ballast, shall come directly, and before bulk be broken, to the custom-house for the port or district where he arrives, and there make a report in writing to the proper officer of customs, in the same form and manner as hereinbefore provided on the arrival of any ship in the U. K. (see p. 696.) so far as the same may be applicable; and if any goods be unladen from any ship before such report be made, or if the master fail to make such report, or make an untrue report, or do not truly answer the questions demanded of him, he shall forfeit the sum of 50*l.*, and if any goods be not reported, such goods shall be forfeited. —§. 164.

Entry outwards of Ship or Cargo.—The master of every ship bound from any British possessions abroad, except the territories subject to the government of the presidencies of Bengal, Madras, and Bombay, shall deliver to the proper officer of customs an entry outwards under his hand of such ship, and also subscribe and deliver to such officer a content of the cargo of such ship, if any, or state that she is in ballast, as the case may be, and answer such questions concerning the ship, cargo, if any, and voyage, as shall be demanded of him, in the same manner, as nearly as may be, as is prescribed to be observed on the entry and departure of any ship from the U. K., and thereupon the proper officer shall give to the master a certificate of the clearance of such ship for her intended voyage; and if the ship shall depart without such clearance, or if the master shall deliver a false content, or shall not truly answer the questions demanded of him, he shall forfeit the sum of 50*l.*—§ 165.

Entry of Goods Inwards and Outwards.—Any person entering goods shall deliver to the proper officer a bill of entry thereof, containing the name of the ship and of the master, and of the place to or from which bound, and the particulars of the quality and quantity of the goods, and the packages containing the same, stating whether such goods be the produce of the British possessions in America or not, and the proper officer shall thereupon grant his warrant for the lading or unlading of such goods.—§ 166.

Entry of Goods to be laden or unladen, &c.—No goods shall be laden or water-borne to be laden on board any ship, or unladen from any ship, in any of the British possessions in America or in the Channel Islands, until due entry be made of such goods, and warrant granted for the lading or unlading of the same; and no goods shall be so laden or water-borne or so unladen in the said Channel Islands, except at some place at which an officer of the customs is appointed to attend the lading and unlading of goods, or at some place for which a sufferance shall be granted by the proper officer of customs for the lading and unlading of such goods, and in the presence or with the permission of such officer; but the commissioners of customs may make such regulations for the carrying coastwise of any goods, or for the removing of any goods for shipment in the said islands, as to them shall appear expedient; and all goods laden, water-borne, or unladen contrary hereto, or to any regulations to be so made, shall be forfeited.—§ 167.

Goods not stated to be Produce of British Possession to be deemed of Foreign Production.—No goods shall be stated in such certificate of clearance of any ship from any British possessions to be the produce of such possession, unless such goods shall have been so expressed in the entry outwards of the same; and all goods not expressly stated in such certificate of clearance to be the produce of such possession shall, at the place of importation in any other such possession, or in the United Kingdom, be deemed to be of foreign production.—§ 168.

If no Officer of Customs resident at the Port of Shipment, &c.—Where there is no officer of customs, the principal officer in the civil service of H. Majesty, or his representative, shall be deemed to be the proper officer for the performance of all such duties with respect to such goods as are hereby required to be performed by the collector or other officer of customs.—§ 169.

Clearing Officers to certify that the Cargo is below Deck.—Before any clearing officer permits any ship, wholly or in part laden with timber or wood goods, to clear out from any British port in North America or in the settlement of Honduras for any port in the U. K., at any time after the 1st of September or before the 1st of May in any year, he shall ascertain that the whole of the cargo of such ship is below deck, and shall give the master of such ship a certificate to that effect; and no master of any ship so laden shall sail from any of the ports aforesaid for any port of the U. K., at any such time as aforesaid, until he has obtained such certificate from the clearing officer.—§ 170.

No Part of the Cargo to be placed on Deck.—No master of any ship in respect of which such certificate as aforesaid has been obtained shall place, or permit or caused to be placed or remain, upon or above the deck of such ship, any part of the cargo thereof, until such ship has arrived at the port of her destination: Provided always, that if the master of any such ship consider that it is necessary, in consequence of the springing a leak or of other damage received or apprehended during the voyage, to remove any portion of the cargo upon deck, he may remove or cause to be removed upon the deck of such ship so much of the cargo, and may permit the same to remain there for such time, as he considers expedient; provided also, that the store spars or other articles necessary for the ship's use shall not be taken to be the cargo for the purposes of this act.—§ 171.

Penalty for Default.—If any master of any ship for which such certificate as aforesaid is required sails or attempts to sail without having obtained such certificate, or places or permits, or causes to be placed or to remain or be, upon or above the deck of such ship, any part of the cargo thereof, except in the cases in which the same is not hereby forbidden, he shall for every offence forfeit and pay any sum not exceeding 100*l.*—§ 172.

Dues in Canada on American Boats.—The same tonnage duties shall be paid upon all ships or boats of the U. States of America importing any goods into either of the provinces of Upper or Lower Canada as are or may be for the time being payable in the U. States of America on British vessels or boats entering the harbours of the State from whence such goods shall have been imported.—§ 173.

Certain Produce of the State of Maine to be treated as Produce of New Brunswick.—The treaty concluded between H. Majesty and the U. States of America, on the 9th of August 1842, stipulates that all the produce of the forest in logs, lumber, timber, timber boards, staves, or shingles, or of agriculture, not being manufactured, grown on any of those parts of the State of Maine watered by the river Saint John or by its tributaries, of which fact reasonable evidence shall, if required, be produced, shall have free access into and through the said river and its said tributaries, having their source within the State of Maine, to and from the seaport at the mouth of the river Saint John, and to and round the falls of the said river, either by boats, rafts, or other conveyance, and that within the province of New Brunswick the said produce shall be dealt with as if it were the produce of the said province; and it being the intention of the high contracting parties to the said treaty that the aforesaid produce should be dealt with as if it were the produce of the province of New Brunswick, the produce in the said recited treaty and herein-before described shall, so far as regards all laws relating to duties, navigation, and customs in force in the U. K. or in any of H. Majesty's dominions, be deemed and taken to be and be dealt with as the produce of the province of New Brunswick; provided, that in all cases in which declarations and certificates of production or origin and certificates of clearance would be required in respect of such produce if it were the produce of New Brunswick, similar declarations and certificates shall be required in respect of such produce, and shall state the same to be the produce of those parts of the State of Maine which are watered by the river Saint John or by its tributaries.—§ 174.

Newfoundland fishing Certificates in lieu of Clearance during fishing Season.—Whenever a ship shall be cleared out from any port in Newfoundland or in any other part of H. Majesty's dominions for the fisheries on the banks or coasts of Newfoundland or Labrador or the dependencies thereof, without having on board an article of traffic (except only such provisions, nets, tackle, and other things as are usually employed in and about the said fishery, and for the conduct and carrying on of the same), the master of any such ship shall be entitled to demand from the principal officer of customs at such port a certificate under his hand that such ship hath been specially cleared out for the Newfoundland fishery, and such certificate shall be in force for the fishing season for the year in which the same may be granted, and no longer; and upon the first arrival in any port in the said colony of Newfoundland or its dependencies of any ship having on board any such certificate as aforesaid, a report thereof shall be made by the master of such ship to the principal officer of customs at such port; and every ship having such certificate which has been so reported, and being actually engaged in the said fishery, or in carrying coastwise, to be landed or put on board any ship engaged in the said fishery, any fish, oil, salt, provisions, or other necessaries for the use and purposes thereof, shall be exempt from all obligation to make an entry at or obtain any clearance from any custom house at Newfoundland, upon arrival or departure from any of the ports or harbours of the said colony or its dependencies, during the continuance of the fishing season for which such certificate may have been granted; and previously to obtaining a clearance at the end of such season for any voyage at any of such ports, the master of such ship shall deliver up the before-mentioned certificate to the principal officer of the customs of such port: provided always,

that in case any such ship shall have on board during the time the same may be engaged in the said fishery any goods or merchandise whatsoever other than fish, seals, oil made of fish or seals, salt, provisions, and other things, being the produce of or usually employed in the said fishery; such ship shall forfeit the said fishing certificate, and shall thenceforth become and be subject and liable to all such and the same rules, restrictions, and regulations as ships in general are subject or liable to.—§ 175.

Certificate of Production for Sugar or Spirits.—Before any spirits or sugar, so long as any benefit attach to the distinction, shall be shipped for exportation in any British possession in America, or in the island of Mauritius, as being the produce of such possession or of the said island, the proprietor of the estate on which such goods were produced, or his known agent, shall make and sign a declaration in writing before the proper officer of customs at the port of exportation, or before one of H. Majesty's justices of the peace residing in or near the place where such estate is situated, declaring that such goods are the produce of such estate, and such declaration shall set forth the name of the estate, and the description and quantity of the goods, and the packages containing the same, with the marks and numbers thereon, and the name of the person to whose charge at the place of shipment they are to be sent; and if any justice of the peace or other officer aforesaid shall subscribe his name to any writing purporting to be such a declaration, unless the person purporting to make the same shall actually appear before him, and shall declare to the truth of the same, such justice of the peace or officer aforesaid shall forfeit and pay for any such offence the sum of 50*l.*; and the person entering and shipping such goods shall deliver such declaration to the proper officer of customs, and shall make and subscribe a declaration before him that the goods which are to be shipped by virtue of such entry are the same as are mentioned in such first-mentioned declaration; and the master of the ship in which such goods shall be laden shall, before clearance, make and subscribe a declaration before the proper officer of customs, that the goods shipped by virtue of such entry are the same as are mentioned and intended in such first-mentioned declaration, to the best of his knowledge and belief; and thereupon the proper officer of customs shall sign and give to the master a certificate of production, stating that proof has been made in manner required by law that such goods (describing the same) are the produce of such British possession or of the said island, and setting forth in such certificate the name of the exporter and of the exporting ship, and of the master thereof, and the destination of the goods; and if any spirits or sugar be imported into any British possession in America as being the produce of some other such possession or of the said island, without such certificate of production, the same shall be forfeited.—§ 176.

Certificate of Production on re-exportation from another Colony.—Before any sugar or spirits, so long as any benefit attach to the distinction, shall be shipped for exportation in any British possession in America as being the produce of some other such possession, the person exporting the same shall in the entry outwards state the place of production, and refer to the entry inwards and landing of such goods, and shall make and subscribe a declaration before the proper officer of customs to the identity of the same; and thereupon, if such goods shall have been duly imported with a certificate of production within 12 months prior to the shipping for exportation, the proper officer of customs shall sign and give to the master a certificate of production founded upon and referring to the certificate of production under which such goods had been so imported, and containing the like particulars, together with the date of such importation.—§ 177.

Certificate of Production of East India Sugar.—The shipper of any sugar the produce of some British possession within the limits of the E. I. Company's charter, about to be exported from any place in such possession, may go before the chief officer of customs at such place, or, if there be no such officer, before the principal officer of such place, or the judge or commercial resident of the district, and make and sign a declaration before him that such sugar was really and *bonâ fide* the produce of such British possession, to the best of his knowledge and belief; and such officer, judge, or resident is hereby required to grant a certificate thereof, stating therein the name of the ship in which the sugar is to be exported, and the destination of the same.—§ 178.

Certificate of Production of Wine.—The shipper of any wine, the produce of any British possession abroad, which is to be exported from thence, may go before the chief officer of customs, and make and sign a declaration before him that such wine was really and *bonâ fide* the produce of such British possessions; and such officer is hereby required to grant a certificate thereof, stating therein the name of the ship in which the wine is to be exported, and the destination of the same.—§ 179.

Certificate of Production of Goods in Guernsey, &c.—Any person who is about to export from the Channel Islands to the U. K., or to any of the British possessions in America or the Mauritius, any goods of the growth or produce of any of those islands, or any goods manufactured from materials which were the growth or produce thereof, of the U. K., or of materials duty free in the U. K., or whereupon the duty has been there paid, and not drawn back, may go before any magistrate of such islands, and make and sign before him a declaration that such goods, describing the same, are of such growth or produce, or of such manufacture, and such magistrate shall administer and sign such declaration; and thereupon the governor, lieutenant-governor, or commander-in-chief of the island from which the goods are to be exported shall, upon the delivery to him of such declaration, grant a certificate under his hand of the proof contained in such declaration, stating the ship in which, and the port to which, the goods are to be exported; and such certificate shall be the proper document to be produced at such port in proof that the goods mentioned therein are of the growth, produce, or manufacture of such island respectively.—§ 180.

Officers may board Ships.—The officer of customs may go on board any ship in any port in any British possession in America, and rummage and search such ship for prohibited goods, and if there be any goods on board prohibited to be imported into such possession they shall be forfeited.—§ 181.

Seized Goods, if unclaimed for a Month, to be condemned, and dealt with accordingly.—All vessels, boats, goods, and other things which shall have been or shall hereafter be seized as forfeited in or near any of the British possessions abroad, under this or any act relating to the customs, shall be deemed and taken to be condemned, and may be dealt with in the manner directed by law in respect to vessels, boats, goods, and other things seized and condemned for breach of any such act, unless the person from whom such vessels, boats, goods, and other things shall have been seized, or the owner of them, or some person authorised by him, shall, within one month from the day of seizing the same, give notice in writing to the person or persons seizing the same, or to the chief officer of customs at the nearest port, that he claims the vessel, boat, goods, or other things, or intends to claim them.—§ 182.

Penalties and Forfeitures, how to be recovered in British Possessions abroad.—Whenever any penalty or forfeiture shall have been incurred in any of the British possessions abroad, under this or any other act relating to the customs, such penalty or forfeiture shall and may be sued for, prosecuted, recovered, and disposed of in the Court of Record or of Vice-Admiralty having jurisdiction in any British possession where the same may have been incurred or forfeited; but in case there shall be no such court at such British possession, such penalty or forfeiture shall and may be sued for, prosecuted, recovered, and disposed of in the Court of Record or of Vice Admiralty having jurisdiction in some British possession near to that where such penalty or forfeiture may have been incurred; and all such penalties and forfeitures shall be deemed to be sterling money of Great Britain, and paid accordingly.—§ 183.

Application of Penalties.—All penalties and forfeitures recovered in the Channel Islands or in any of the British possessions abroad under this or any act relating to the customs, shall be paid into the hands of the collector, comptroller, or other proper officer of the port or place where the same shall have been recovered, and shall be divided, paid, and applied as follows; (that is to say,) after deducting the charges of prosecution from the produce thereof, ¼ of the net produce shall be paid to or for the use of

H. Majesty, ½ to the governor or commander-in-chief of the colony or plantation, and the other ½ part to the seizor, informer, and prosecutor; excepting such penalties and forfeitures as are from seizures made at sea by the commanders or officers of H. Majesty's ships of war duly authorised to make seizures, one moiety of which, first deducting the charges of prosecution from the gross produce, shall be paid as aforesaid to and for the use of H. Majesty, and the other moiety to the seizor, informer, and prosecutor, subject nevertheless to such distribution of the produce of the seizures so made at sea, as well with regard to the moiety herein-before granted to H. Majesty as with regard to the other moiety given to the seizor, informer, or prosecutor, as H. Majesty shall think fit to direct by order in council or by proclamation.—§ 184.

Bail may be given for Seizures.—If any goods or any ship or vessel shall be seized as forfeited under this or any act relating to the customs, and detained in any of the British possessions in America, the judge or judges of any court having jurisdiction to try and determine such seizures may, with the consent of the chief officer of customs, order the delivery thereof, on security by bond, with two sufficient sureties, to be first approved by such officer, to answer double the value of the same in case of condemnation; and such bond shall be taken to the use of H. Majesty in the name of the officer of customs in whose custody the goods or the ship or vessel may be lodged, and such bond shall be delivered and kept in the custody of the officer; and in case the goods or the ship or vessel shall be condemned, the value thereof shall be paid into the hands of such collector or officer, who shall thereupon cancel such bond.—§ 185.

Suits to be commenced in Name of Officers.—No suit shall be commenced for the recovery of any penalty or forfeiture in the Channel Islands, or in any of the British possessions abroad under this or any act relating to the customs, except in the name of such officer of the customs or navy, or other person employed as herein-before mentioned, or of H. Majesty's advocate or attorney-general for the place where such suit shall be commenced; and if a question shall arise whether any person is an officer of the customs or navy, or such other person as aforesaid, *vivâ voce* evidence may be given of such fact, and shall be deemed legal and sufficient evidence.—§ 186.

Limitation of Appeals.—No appeal shall be prosecuted from any decree or sentence of any of H. Majesty's courts in America touching any penalty or forfeiture imposed by this or any act relating to the customs, unless the inhibition shall be applied for and decreed within 12 months from the time when such decree or sentence was pronounced.—§ 187.

Security to abide an Appeal from Vice Admiralty.—If any proceedings shall have been or shall hereafter be instituted in any court of vice-admiralty or any other competent court in any of H. Majesty's possessions abroad, against any ship, vessel, boat, goods, or effects, for the recovery of any penalty or forfeiture under this or any act relating to the customs, the execution of any sentence or decree restoring such ship, vessel, boat, goods, or effects to the claimant thereof, which shall be pronounced by the said Vice-Admiralty Court in which such proceedings shall have been had, shall not be suspended by reason of any appeal which shall be prayed and allowed from such sentence; provided that the party or parties appellate shall give sufficient security, to be approved of by the court, to render and deliver the ship, vessel, boat, goods, or effects concerning which such sentence or decree shall be pronounced, or the full value thereof, to be ascertained either by agreement between the parties, or, in case the said parties cannot agree, then by appraisement under the authority of the said court, to the appellant or appellants, in case the sentence or decree so appealed from shall be reversed, and such ship, vessel, boat, goods, or effects be ultimately condemned.—§ 188.

Persons authorized to seize under 5 G. 4. c. 113. to have Benefit of this Act.—All persons authorised to make seizures under the act 5 Geo. 4. c. 113., shall, in making and prosecuting any such seizures, have the benefit of all the provisions granted to persons authorized to make seizures under this act; and all penalties and forfeitures created by the said act, whether pecuniary or specific, shall (except in cases specially provided for by the said act) go and belong to such persons as are thereby authorised to make seizures, in such shares, and shall and may be sued for and prosecuted, tried, recovered, distributed, and applied, in such and the like manner, and by the same ways and means, and subject to the same rules and directions, as any penalties and forfeitures incurred in Great Britain and in the British possessions in America respectively now go and belong to, and may be sued, prosecuted, tried, recovered, and distributed respectively in Great Britain or in the said possessions, under and by virtue of this act.—§ 189.

Colonial Laws repugnant to Acts of Parliament void.—All laws, byelaws, usages, or customs at this time or which hereafter shall be in practice, or endeavoured or pretended to be in force or practice, in any of the British possessions in America, which are in anywise repugnant to this act, or to any act relating to the customs or to trade and navigation, so far as the same shall relate to the said possessions, are and shall be null and void to all intents and purposes whatsoever.—§ 190.

Trade with the Channel Islands.—No goods or passengers shall be brought, imported, or carried into the U. K. from the Channel Islands, nor shall any passengers or goods be exported or carried from the U. K. to the said islands, nor shall any goods or passengers be carried from any one of the said islands to any other of them, nor from one part of any of the said islands to another part of the same, except in British ships; and if any goods or passengers be brought, imported, exported, or carried coastwise contrary hereto, all such goods shall be forfeited, and the master of the ship in which the same are so brought, imported, exported, or carried shall forfeit the sum of 100*l.*—§ 191.

Spirits from and to the Channel Islands in Ships of 50 Tons and Casks of 20 Gallons.—No spirits (except rum of the British plantations) shall be imported into or exported from the Channel Islands or any of them, or be removed from any one to any other of the said islands, or be carried coastwise from any one part to any other part of any one of the said Islands, or shall be shipped in order to be so removed or carried in any ship of less burden than 50 tons, nor in any cask or other vessel capable of containing liquids not being of the size or content of 20 gallons at the least; and all spirits imported, exported, removed, carried, shipped, or waterborne to be so shipped, removed, or carried, contrary hereto, shall be forfeited, together with the ship and any boat importing, exporting, removing, or carrying the same: provided always, that nothing herein contained shall extend to any spirits imported in glass bottles as part of the cargo, nor to any spirits being really intended for the consumption of the seamen and passengers during their voyage, and not being more in quantity than is necessary for that purpose, nor to any warehoused goods exported from the U. K. in ships of less than 40 tons burden, being regular traders to those islands, nor to any boat of less burden than 10 tons, for having on board at any one time any foreign spirits of the quantity of 10 gallons or under, such boat having a licence from the proper officer of customs at either of the islands of Guernsey or Jersey for the purpose of being employed in carrying commodities for the supply of the island of Sark, which licence such officer of customs is hereby required to grant without fee or reward; but if any such boat shall have on board at one time any greater quantity of spirits than 10 gallons, unless in casks or packages of the size and content of 20 gallons at the least, such spirits and boat shall be forfeited.—§ 192.

Importation of Cigars, &c., from Channel Islands.—No tobacco, cigars, or snuff shall be imported into the Channel Islands in ships of less than 120 tons burden, nor unless in hogsheads, chests, or cases, each containing not less than 200 lbs. net weight of such tobacco or snuff, nor unless in packages each containing not less than 100 lbs. net weight of such cigars, such tobacco or snuff not being in any manner separated or divided within such package, except tobacco, cigars, or snuff from the U. K., which may be imported from thence into the said islands in ships of not less than 50 tons burden, or in ships regularly trading to those islands not being of less than 40 tons burden, and in packages of the same weight and subject to the same provisions in and under which the like sorts of goods may respectively be legally im-

ported into the U. K.; and all cigars, tobacco, or snuff imported into the said islands contrary hereto, or which shall be found or discovered to have been on board any ship or boat within one league of the coasts thereof, shall be forfeited, together with the ship or boat.—§ 193.

Malta deemed to be in Europe.— The island of Malta and its dependencies shall be deemed to be in Europe.—§ 194.

Connection of the Planter and Home Merchant. Mode of transacting Business in England.—The mode of transacting West India business is as follows:— A sugar planter forms a connection with a mercantile house in London, Bristol, Liverpool, or Glasgow; stipulates for an advance of money on their part; grants them a mortgage on his estate; and binds himself to send them annually his crop, allowing them the full rate of mercantile commissions. These commissions are 2½ per cent. on the amount of sugar sold, and of plantation stores sent out; along with ½ per cent. on all insurances effected. During the war, when prices were high, the amount of these commissions was large; but, like other high charges, the result has, in nine cases in ten, been to the injury of those who received them; they led the merchants to undertake too much, and to make too large advances to the planters, for the sake of obtaining their business. At that time it was usual to allow a permanent loan at the rate of 3,000*l.* for the assured consignment of 100 hogsheads of sugar; but that *ratio* was very often exceeded by the planter, the 3,000*l.* becoming 4,000*l.*, 5,000*l.*, 6,000*l.*, and, in very many cases, still more, in consequence of unforeseen wants and too sanguine calculations on his part.

Persons resident in the West Indies are almost always bare of capital, and for obvious reasons. A climate of such extreme heat, and a state of society possessing so few attractions to persons of education, offer no inducement to men of substance in Europe to go thither. Those who do go, must trust to their personal exertion and the support of others; and when, after a continued residence in the West Indies, they have made some progress in acquiring a competency, and have become accustomed to the climate, they hardly ever consider themselves as settled there for life; their wish and hope is, to carry their acquisitions so far as to be enabled to pass the remainder of their days comfortably at home. The readiest means, in the view of the planter, for accomplishing this, used to be the extension of his undertakings; which he could do only by borrowing money. Hence a continual demand on his mercantile correspondents at home for fresh advances: the consuming effect of heavy commissions, and of the interest on borrowed money, being overlooked in his ardent speculations. But when prices fell, as they have done of late years to a comparatively low level, the planters found themselves embarrassed with debts contracted under a different state of things, which in but few instances they could expect to discharge: hence their ruin, and hence, also, the ruin of many of the merchants and mortgagees connected with the planters.

For a number of years the West India trade has been extremely depressed; and it is, perhaps, impossible to point out any means of effectual relief. The planters need not build expectations on such doubtful, or rather improbable, events as the stoppage of distillation from malt, or an insurrection or emancipation of the negroes in rival countries, such as Cuba or Brazil. Of a bounty on exportation it is idle to speak: so that their only rational ground of hope seems to be in the introduction of improved processes, and a reduction in the cost of producing sugar and other staples.

The sale of West India articles takes place through the medium of produce brokers, who in London reside chiefly in Mincing Lane and Tower Street. Samples of sugar and rum are on show in their respective sale rooms during four days of the week, viz. Tuesday, Wednesday, Thursday, and Friday, from 11 to 1 o'clock; during which time the sugar refiners, wholesale grocers, and other dealers in produce, call in, observe the state of the market, and buy what they require. The term of credit is short; only 1 month for coffee and rum, and 2 months for sugar. Coffee is generally sold by public auction, sugar and rum by private contract. The broker's commission is usually ½ per cent. on the amount; but in the case of coffee, as they guarantee the buyers, their charge amounts to 1 per cent. The brokers have no correspondence or connection with the planters; they are employed by the merchants; and their sales, though for large amounts, being very simple, a brokerage house of consequence generally does the business of a number of merchants. Neither merchant nor broker see, or are in the least under the necessity of seeing, the bulky packages containing the different articles of produce of which they effect the sales: all is done by sample; the packages remaining in the bonded warehouse from the time of landing till they are sold; after which they pass to the premises of the refiner, wholesale grocer, or whoever may be the purchaser.

The allowances made to the buyer in respect of weight, consist, first of the tare, which is the exact weight of the cask; and, in the second place, of a fixed allowance of 5 lbs. per cask in the case of coffee, called trett, and of 2 lbs. per cask on sugar, under the name of draft.—(See *Account Sales* of both, in p. 158.)

The shipping stores from England to the plantations is also a very simple transaction. West India merchants in London, Liverpool, or Bristol, receive from the planters, in the autumn of each year, a list of the articles required for the respective estates: these lists they divide, arrange, and distribute among different wholesale dealers in the course of September and October, with instructions to get them ready to ship in a few weeks. November and December are the chief months for the despatch of outward-bound West Indiamen, as the plantation stores ought, by rights, to arrive about the end of December, or in the course of January. That is a season of activity, and generally of health, in the West Indies; the comparatively cool months of November and December having cleared the air, and the produce of the fields having become ripe and ready to carry. Crop time lasts from January to the end of July, after which the heavy rains put a stop to field work in the islands. Demerara, being so near the line, experiences less difference in the seasons, and it is customary there to continue making sugar all the year round.

The arrivals of West Indiamen in England with homeward cargoes begin in April and continue till October; after which, with the exception of occasional vessels from Demerara and Berbice, they cease till the succeeding April. This corresponds with the time of carrying and loading the crops: for it would be quite unadvisable, on the score of health, as well as of the interruptions to work from the heavy rains, to attempt loading vessels in the sugar islands during the autumnal months.

The unloading of West Indiamen in London usually takes place at the West India docks; and did so uniformly from the autumn of 1802, when the docks were first opened, till August, 1823, when the dock monopoly expired. Cargoes are discharged very speedily, the time seldom exceeding 3 days. The dock dues have been materially reduced of late years: and the whole exhibits a striking example of the advantage attendant on transacting a mass of business on one spot; an advantage which can be enjoyed only in great sea-ports, such as London, Liverpool, or Amsterdam.—(See Docks.)

The rates of freight during the war were, on sugar from 7*s.* to 8*s.* per cwt., and on coffee from 10*s.* to 11*s.*; whereas they now amount, the former to 3*s.* 6*d.* and the latter to 4*s.* 6*d.*; the ship-owners, from the improvements that have been effected, being better paid now than formerly.

Selection of Sites for Colonial Establishments. — Nothing can be more unwise than the plan, if so we may call it, hitherto followed in the selection of places at which to found colonies. The captain of a ship, without any knowledge whatever of the nature of soils or the capacities of a country in an agricultural point of view, falls in after a long cruise with a river or bay, abounding with fish and fresh water, and surrounded with land that *looks* fertile and is covered with herbage. He forthwith reports all these circumstances, duly embellished, to the Admiralty, strongly recommending the situation as an admirable one at which to found a colony; and, in nine cases out of ten, *this* is all the information that is required in taking a step of such infinite importance! No wonder, therefore, that many fine schemes of colonisation should have ended only in loss and disappointment; and that situations which the colonists were taught to look upon as a species of paradise, have proved to be any thing but what they were represented. Botany Bay, though described by Captain Cook as one of the finest places in the world, had to be abandoned by the colonists that were sent out to it; as the country round it, instead of being favourable for cultivation, is a mere sandy swamp. Is it possible to suppose, had the proper inquiries been entered into, that any attempt would have been made to establish a colony in so pestilential a climate as that of Sierra Leone? The colony on Swan River may be adduced as another instance of misplaced or premature confidence in the reports of those who were really without the means of forming a correct estimate of the various circumstances necessary to be attended to in forming a colony.

We, therefore, hope that an end may be put to this system, — a system which is in no common degree injurious to the public interests, and is highly criminal towards those who embark as colonists. The founding of a colony should be looked upon in its true point of view—as a great national enterprise. It is not an adventure to be intrusted to presumptuous ignorance; but should be maturely weighed, and every circumstance connected with it carefully investigated. Above all, the situation in which it is proposed to found the colony should be minutely surveyed; and its climate, soil, and capacities of production deliberately inquired into by competent persons employed for the purpose. Were this done, government and the public would have the best attainable grounds upon which to proceed; and neither party would have much reason to fear those disappointments, which have hitherto so often followed the exaggerated representations of those to whom the important and difficult task of selecting situations for colonies has been delegated.

CENTRAL AMERICA
and the
WEST INDIES.
UNITED STATES
GULF OF MEXICO
CARIBBEAN SEA
JAMAICA
HAVANA

V. Foreign Colonies.

1. *Spanish Colonies.*—Spain, whose colonial possessions extended a few years ago from the frontiers of the U. States to the Straits of Magellan, is not, at present, possessed of a foot of ground in the whole American continent. Still, however, her colonial possessions are of great value and importance. In the West Indies, she is mistress of Cuba and Porto Rico;—the former by far the largest and finest of the West Indian islands; and the latter also a very valuable possession. In the East, Spain is mistress of the Philippine Islands, which, were they in the hands of an enterprising people, would speedily become of very great commercial importance.—(See the articles Havannah, Manilla, Porto Rico.)

2. *Dutch Colonies.*—Java is the principal Dutch colonial possession, and it is one of which it is not easy to exaggerate the value and importance.—(See Batavia.) In the East the Dutch also possess the Moluccas, Bencoolen on the coast of Sumatra, Macassar, and the eastern coast of Celebes, Banda, &c. They have several forts on the Gold Coast in Africa; and in the West Indies they possess the islands of Curaçao and St. Eustatius, Saba, and part of St. Martin; and on the continent of South America, they are masters of Dutch Surinam. Curaçao and St. Eustatius are naturally barren, but they have been both highly improved. From its being very conveniently situated for maintaining a contraband traffic with the Caraccas and other districts in South America, Curaçao was formerly a place of great trade, particularly during war. But since the independence of South America, Curaçao has ceased in great measure to be an *entrepôt*; the goods destined for the continent being now, for the most part, forwarded direct to the places of their destination.

That district of Surinam ceded to the British in 1814, comprising the settlements of Demerara, Berbice, and Essequibo, formed the most valuable portion of Surinam, or Dutch Guiana. The district which still belongs to the Dutch lies to the south of Berbice. It contains about 38,000 square miles, and a population of about 53,000. The value of the exports of sugar from this colony in 1854 was estimated at 2,313,000 fl. and in 1855 at 2,507,000 fl.

3. *French Colonies.*—Previously to the negro insurrection that broke out in 1792, St. Domingo was by far the most valuable colony in the West Indies. But this disastrous event, having first devastated the island, terminated in the establishment of the independent black republic of Hayti.—(See Port au Prince.) Having also sold Louisiana to the Americans, and ceded the Mauritius to the English, without making any new acquisition, the colonial dominions of France (for Algiers cannot be reckoned amongst them) are, at this moment, of very limited extent. The most important are Martinique and Guadaloupe in the W. Indies, the former with (in 1851) a population of 123,701, and the latter of 132,810. The exports of these islands were in 1857 as follows:—

	Martinique.	Guadaloupe.		Martinique.	Guadaloupe.
Sugar - - lbs.	59,333,880	50,791,000	Cassia - - lbs.	180,695	1,170
Rum - - gals.	1,120,370	174,146	Logwood - - lbs.	186,507	205,938
Coffee - - lbs.	125,435	720,019	Cotton - - lbs.	4,594	64,172
Cocoa - - lbs.	299,902	51,041			

The emancipation of the slaves was injurious to these islands; but the deficiency of labour thence arising has been, in part at least, supplied by immigrants. The crops of 1857 were below an average. The other French colonies consist of the small islands of Marie-Galante and Deseada, in the West Indies; Cayenne, in South America; Senegal and Goree, in Africa; the Isle de Réunion (Isle de Bourbon), in the Eastern Ocean; St. Marie, in Madagascar; and Pondicherry and Chandernagor, with a very small surrounding territory, in the E. Indies.

Of these the Isle de Réunion is the most important, and the exports from it have latterly increased very rapidly. At an average of 1849 and 1850, for example, she only sent to France 18,681,530 kilog. a year of sugar, whereas in 1855 and 1856 she sent to France no fewer than 47,918,170 kilog. a year. This extraordinary increase has been wholly owing to the importation of labourers from India, Africa, and Madagascar, and to the extensive employment of guano as manure.

4. *Danish Colonies.*—In the West Indies, these consist of the islands of St. Croix, St. Thomas, and St. John, and having together, in 1855, a population of 37,187. St. Croix contains about 100 sq. miles, and is fertile, and well cultivated. The principal productions are sugar, rum, and coffee. The exports formerly amounted to about 25,000,000 lbs. a-year, but they have been diminished in consequence of the emancipation of the slaves in 1848. St. Thomas, which has about 14,000 inhabitants, has long been, and though latterly much fallen off, it still continues to be one of the principal emporiums in the West Indies. It owes this distinction partly to its convenient situation, partly to its spacious and safe harbour at St. Thomas, on the S. side of the island, and partly and principally to the moderation of the import duties, which vary from 1 to 1½ per cent. St. Thomas has, in consequence, become as it were a depôt for the supply of the neighbouring islands; goods being sent to it to be warehoused till opportunity offers for conveying them to their final destination. The great articles of importation are manufactured goods, principally from England, but partly, also, from other countries of Europe, with provisions, lumber, &c. from the U. States.

The value of our exports to the 3 islands now referred to, 9-10ths being for St. Thomas, amounted in 1857, to 888,045*l.*, of which cottons made 464,414*l.*, linens 158,024*l.*, hardware and cutlery, 36,322*l.* &c.

In India the Danes formerly possessed Tranquebar, near Madras; and Serampoor, near Calcutta, but these they sold, in 1845, to the East India Company.

5. *Swedish Colonies.*—The Swedes possess one colony—the small island of St. Bartholomew, in the West Indies. It is only about 25 square miles in extent, but is very fertile. It has no springs, nor fresh water of any sort, except such as is supplied by the rain. Population between 8,000 and 9,000.

COLUMBO, the modern capital of Ceylon, on the south-west coast of the island; lat. 6° 56′ 6″ N., long. 79° 49′ 48″ E. It is defended by a very strong fort nearly surrounded by the sea, in which is a lighthouse 97 feet high. Population of the town and fort, in 1858, perhaps, 56,000. The houses, generally only one story high, are of stone, clay, and lime; and the town has more of a European appearance than any other in India. The inhabitants are principally Cingalese. The temperature is remarkable for its equality; and though very humid, the climate may, on the whole, be esteemed salubrious and temperate. There is no harbour at Columbo for large vessels, but only an open roadstead. A projecting rock, on which two batteries are erected, affords shelter to a small semicircular bay on the north side of the fort, having a wooden quay to facilitate the loading and unloading of boats. The depth of water is not

sufficient to allow sloops or large dhonies to come alongside the quay; those exceeding 100 tons burden lying at about a cable's length from it. A bar of sand, on some parts of which the water is not more than 7 feet deep, extends from the projecting rock across this bay. The channel where it may be crossed by the larger class of ships is liable to shift; and it is only in the fine weather of the safe season that they venture within the bar. The outer road affords secure anchorage for half the year, from the beginning of October to the end of March, during the prevalence of the N. E. monsoon, when the wind blows off the land: during the other, or S. W. monsoon, when the wind blows from the sea on shore, the road is very far from safe; and the ships that frequent it are sometimes obliged to slip their cables and stand out to sea. —(*Milburn's Orient. Comm.; Hamilton's Gazetteer, &c.*)

As respects its harbour, Columbo is, therefore, very inferior to Trincomalee, the harbour of which is accessible at all times, and one of the best in India, and it is also inferior to the harbour of Point de Galle. The country in the vicinity of Columbo has, no doubt, an extensive internal navigation; but as the cinnamon plantations near the town have lost much of their former importance, and as the central provinces adapted to the growth of coffee, now the great staple of the island, may be as easily reached from the other harbours as from Columbo, the decline of the commercial preponderance of the latter is far from unlikely.

Moneys.—The rix dollar = 1*s.* 6*d.*, has become obsolete, and the currency now consists of silver rupees = 2*s.* in which, or in dollars = 4*s.* 2*d.* accounts are kept.

The Bank of Ceylon, noticed in the former edition of this work, is extinct. There are now (1859) in Columbo—1st, A branch of the Oriental Bank Corporation, head-office, London; and 2nd, a branch of the Mercantile Bank of India, London, and China, head office, Bombay.

Weights, Measures, &c.—The weights are divided into ounces, pounds, &c., and are the same as in Great Britain. The candy or bahar=500 lbs. avoirdupois, or 461 lbs. Dutch Troy weight. The principal dry measures are *seers* or *parrahs*. The former is a perfect cylinder, of the depth and diameter under-mentioned:—

	Depth	Diameter.
Seer	4·35 inches.	4·35 inches.

The parrah is a perfect cube, its external dimensions being every way 11·57 inches.

The liquid measure consists of gallons, and their multiple and sub-multiples. 150 gallons = 1 leaguer or legger.

The bale of cinnamon consists of 92½ lbs. very nearly.

The great articles of export from Ceylon are coffee, cocoa-nut oil, areca nuts, cinnamon, plumbago, coir, arrack, tobacco, pearls, chanks, &c. The island is peculiarly suitable for the culture of coffee, the growth of which has rapidly increased since the reduction, in 1835, of the duty on coffee from Ceylon to the same level as that on coffee from the West Indies, the imports into the U. Kingdom from Ceylon in the former year having been only 1,870,143 lbs., whereas in 1858 they amounted to 43,755,163 lbs., and the supply appears to be susceptible of an indefinite increase. The exports of cocoa-nut oil, coir, and arrack might, also, be greatly increased; and it will be seen in the art. CINNAMON, how the growth of that important staple was restricted by the duty laid on its exportation.

Sailing Directions and Remarks on the Port of Columbo, by James Stewart, Esq., Master Attendant.

The land about Columbo is low near the sea, with some hills to the eastward at a distance in the country. The high mountain having on it a sharp cone, called Adam's Peak, bears from Columbo E. 7° S., distant 12½ leagues; its height above the level of the sea is estimated at about 7,000 feet, according to a rough trigonometrical measurement by Colonel Willerman. When the atmosphere is clear, it may be seen 50 leagues. During the prevalence of the N. E. monsoon Adam's Peak is generally visible in the morning, and frequently the whole of the day; but it is rarely seen in the S. W. monsoon, dense vapours generally prevailing over the island at this season.

Ships approaching Columbo in the night have a brilliant light to direct them, which is exhibited every night from a lighthouse in the fort; the height of the light above the level of the sea is 97 feet, and may be seen in clear weather as far as the light appears above the horizon.

A steep bank of coral, about ½ a mile broad, with 15 fathoms water on it, lies 7 miles W. from Columbo, extending northward towards Negombo (where its surface is sand), and a few miles to the southward of Columbo; outside the bank the water deepens at once to 25 fathoms, and in 2 miles to 28 fathoms, greenish sand, which is not far from the edge of soundings. Within the bank there are 25 fathoms gradually shoaling towards the shore.

A bed of sunken rocks, called the Drunken Sailor, lies S.W. by W. ½ W. from Columbo Lighthouse, distant 1,000 yards. The length of the ledge may be estimated at 100 yards, and the breadth 20 yards: on its N. end a small spot, about the size of the hull of a 20 ton boat, is said to have only 3 feet water on it at low water; but during several recent visits, when some of the coral from its surface was brought up, there did not appear to be less than 7 feet 6 inches water on the shallowest part: on the other parts of the ledge there is 4, 5, and 6 fathoms. The sea breaks on the shallow part of these rocks almost constantly during the S. W. monsoon, but this is very seldom the case during the N. E. monsoon.

The Drunken Sailor should not be approached under 9 fathoms during the night, as there are 8 fathoms very near to it, and in its stream to the southward.

The passage within the Drunken Sailor is clear, and some ships have sailed through; but no advantage can be gained by approaching the shore so very near at this point.

The Drunken Sailor lies so near the land, and so far to the southward of the anchorage in Columbo road, as scarcely to form any impediment to ships bound to or from Columbo.

The currents off Columbo are subject to considerable variation; but they are never so strong as to cause inconvenience to ships which may have to communicate with the shore in either monsoon without coming to anchor.

Columbo road affords good anchorage, free from foul ground; and is frequented at all seasons of the year.

The best anchorage during the prevalence of S. W. winds from April to October, is in from 7 to 8 fathoms, with the lighthouse bearing S. by E. ¼ E., Dutch Church E. by S. In the N. E. monsoon from November to April, it is more convenient to anchor in 6½ fathoms, with the lighthouse bearing S. or S. ¼ E., and the Dutch church E. S. E.

Ships requiring pilots to conduct them to the anchorage should make the usual signal; the charge for pilotage is 15*s.*

The bar is a bank of sand with 7 feet water on its shallowest part, the northern extremity being about 440 yards N. W. of the Custom-house Point; small vessels that draw less than 10 feet water ride within the bar protected from the S. W. wind and sea.

When the sea is high, it breaks with great force on the bar, and renders the passage from the shipping in the outer road dangerous for small boats: the native boats generally pass out and in to the southward of the bar, close to the breakers on the rocky point of the Custom-house; but as the passage is narrow, it should not be attempted by strangers: when the sea breaks on the bar, it is better to proceed round to the northward of the bar, which may be easily distinguished by the breakers.

What is strictly understood by a gale of wind, is a rare occurrence at Columbo; this may be owing to the vicinity of the equator. The strong gales which blow on the Malabar coast are felt in small squalls, and a high sea, but there is scarcely wind to endanger vessels properly found in ground tackling; it is true, ships have sometimes required the aid of a second anchor, but in most cases the cause has been attributable to some defect in the first anchor or cable, a light anchor, an anchor breaking, a short chain, or the chain coming unshackled; an instance occurred in Columbo road, of two ships receiving cargo during the S. W. monsoon, whose chain cables came unshackled twice: twice did it occur to each ship.

Customs Duties, 1858.

		Duty. £	s.	d.
Import Duties.—Arms and ammunition:				
Guns and rifles	each	0	5	0
Pistols	the pair	0	5	0
Gunpowder	the lb.	0	0	4
Shot	the cwt.	0	1	6
Bacon, butter, cheese, and hams	,,	0	6	0
Beef and pork	,,	0	2	6
Beer, ale, and porter, and all other malt liquors in wood	the gallon	0	0	3
Ditto ditto in bottles	,,	0	0	4
Fish dried or salted, and fins and skins, the produce of creatures living in the sea	per cwt.	0	1	0
Flour (wheat)	,,	0	2	0
Hops	,,	0	6	0
Jaggery or palm sugar, not equal in quality to brown or muscovado sugar	,,	0	1	0
Malt	per bushel	0	0	4
Metals:				
Brass sheets	he cwt.	0	6	0
Copper sheathing and nails	,,	0	6	0
Iron—bar	the ton	0	7	0
Corrugated	,,	0	14	0
Galvanised	,,	1	10	0
Hoop	,,	0	10	0
Pig	,,	0	5	0
Rod	,,	0	8	0
Sheet	,,	0	10	0
Lead, sheet	,,	1	0	0
Spelter and zinc	,,	0	18	0
Steel	,,	0	18	0
Opium	the lb.	0	1	0
Paddy	the bushel	0	0	5
Pitch, rosin, or tar	the barrel	0	1	0
Rice, wheat, gram, pease, beans, and other grain (except paddy)	the bushel	0	0	7
Salt	the cwt.	0	4	3
Saltpetre	,,	0	1	0
Spirits and cordials	the gallon	0	5	0
Sugar refined and candy	the cwt.	0	5	0
Unrefined	,,	0	2	6
Tea	the lb.	0	0	6

	Duty. £ s. d.
Tobacco:	
Manufactured - - - - the cwt.	1 0 0
Unmanufactured - - - - „	0 10 0
Cigars and snuff - - - - the lb.	0 0 8
Wine in wood - - - - the gallon	0 1 6
in bottles - - - - „	0 2 6
Goods, wares, and merchandise, not otherwise charged with duty or prohibited, and not comprised in the table of exemptions hereinafter set forth, for every £100 of the value thereof in this market	5 0 0

Table of exemptions.

Books and maps printed; bullion, coin, pearls, and precious stones; coal, coke, and patent fuel; cocoanut oil; coffee; coir yarn, rope, twine, and strands; copperah; cotton wool; couries and other shells; fruit, not in any way preserved; ground nuts, gingeley seed, and linseed; horses, mules, asses, and all other live stock; ice; manures; pepper, black; regimental clothing, necessaries, and accoutrements, imported for the use of Her Majesty's land and sea forces; seeds intended for agricultural and horticultural purposes, including plants; specimens illustrative of natural history; tanks (iron); whale oil - - - - - free.

Export Duties. — Duties of customs payable on goods, wares, and merchandise being the growth, produce or manufacture of the island of Ceylon, exported to parts beyond seas.

Articles.	*Rate of duty.* £ s. d.
Areca nuts - - - - - the cwt.	0 0 4
Cinnamon - - - the bale of 100 lbs. net	0 2 0
Coffee - - - - the cwt.	0 1 0
Coir yarn, fibre, rope, and junk - - „	0 0 3
Copperah, or cocoanut kernels - - „	0 0 3
Oil, cocoanut - - - - „	0 0 7½
Sugar - - - - - „	0 0 6
Tobacco, unmanufactured - - - „	0 0 4
All other goods, wares, and merchandise, not otherwise charged with duty nor comprised in the table of exemptions, for every £100 of the value thereof in this market - - - - -	2 10 0

Exemptions.

Books and maps printed; bullion, pearls, precious stones (unset); horses, mules, asses, and all other live stock; shells, couries, chanks; seeds and plants; specimens illustrative of natural history free.

Port Dues.—2*d.* per ton for entry inwards and at the rate of 2*d.* per ton for clearance outwards on all ships and vessels arriving at or departing from any port of this island. Provided always, that such dues shall not be payable on any vessel entering inwards or clearing outwards in ballast, nor in cases when the cargoes are deported for exportation, and ultimately the vessel leaves the port without breaking bulk, or taking in merchandise for the purpose of exportation.

No vessel either at the time of entering inwards with cargo, or at the time of clearing outwards with cargo, shall be subject to pay more than £5 as port dues, whatever may be the tonnage of the vessel. Provided always, that a vessel shall pay port dues only at one port in this island during the same voyage.

Any vessel employed for the conveyance of goods between one port and another in this island only, shall be allowed to compound for port dues for 12 months at the rate of 1*s.* per ton of the registered tonnage; and on payment thereof, the collector or other principal officer shall grant a certificate, which shall exempt such vessel, while so employed, from any further demand for port dues during the period stated in such certificate.

General Rates of Agency, Commission, and Godown Rent agreed upon by the Chamber of Commerce of Ceylon, on the 29th April, 15th May, and 12th June, 1839; and revised 5th August, 1848.

	Per cent
1. On all sales and shipments - -	5
With the following exceptions:	
On returns made with the proceeds of goods, on which commission has been previously charged -	2½
On treasure, bullion, and bank shares -	1
On all property withdrawn, shipped, or delivered to order - - - -	2½
2. On guaranteeing sales, bills, bonds, contracts, or other engagements - - -	2½
3. On ships' disbursements - - -	5
4. On advertising for freight and passengers, on the amount of freight or passage money, whether the same pass through the agent's hands or not -	5
5. On effecting insurance or writing orders, for insurance	0½
6. On settling losses, partial and general, and returns of premium - - - -	5
7. On procuring money on respondentia - -	2½
8. On attending the delivery of contract goods, or receiving and delivering private commissions of wines, cattle and merchandise - - -	2½
9. On the total sum of the debit or credit side of an account at the option of the agent, excepting items on which a commission of 5 per cent. is chargeable	1
10. On effecting remittances, or on purchasing, selling, or negociating bills of exchange - -	1
11. On collecting freight inward or outward - -	5
12. On letters of credit granted - - -	2½
13. On the management of estates, as executors, administrators, or attorneys - - -	5
14. On debts, when a process at law or arbitration is necessary - - - -	2½
And if recovered by such means - -	5
15. On all debts collected or secured - -	5
16. On executing transfer of immovable property -	1
17. On landing, clearing, and delivering specie from steamers or other vessels, when above 1000*l.* -	0½
—— if under 1000*l.* - -	0½
18. On sales or purchases of ships, houses, or lands -	2½
	s. d.
Rate of Godown Rent per Month. — Coffee, rice, sugar, and saltpetre, per bag - - -	0 3
Cinnamon, per bale - - -	1 0
Piece goods, per bale or case - -	1 0
Cotton screwed, per bale - - -	0 6
Raw per bale - - - -	1 0
Coir rope or junk, per cwt. - - -	0 1
Wine, spirits, beer, oil, &c. per leaguer or pipe -	2 0
Wine, in 6 doz. chests - - -	0 6
Rough goods, such as earthenware in crates, per 50 cubic feet - - -	2 0
All other articles in proportion to the above.	

Account of the Quantities and Values of the Principal Articles produced in and exported from Ceylon during 1856.

Articles.	Quantities.	Values. £ s. d.	Articles.	Quantities.	Values. £ s. d.
Arreca nuts - cwt.	66,419 3 10	50,182 7 2	Plumbago - cwt.	13,380 7 27	5,338 0 6
Biche de Mar			Stones, precious pks.	2	70 0 0
Casks - - no.	4,254	5,509 18 0	Spirits—Arrack- gals.	231,155½	12,382 8 2
Chanks - - —	690,852 and 2 pgs.	1,552 2 4	„ rum - —	11,051½	1,211 5 0
Cinnamon - lbs.	877,547	45,569 17 4	Sugar - -		
Cocoanuts - no.	2,428,538	5,505 11 2	Tobacco - - cwt.	27,607 3 20	27,722 16 2
Cocoanut kernels cwt.	29,910 2 14	16,446 5 6	Wood, dye - —	1,466 0 7	578 10 3
Coir ropes - —	28,443 1 5	18,182 12 7	„ timber - cwt.	349 2 24 and	
Curiosities - pks.	13	112 5 0		pcs. 952,567	17,675 7 5
Coffee - - cwt.	440,819 2 21	981,725 8 9	All other goods - -	- - -	9,531 8 7
Furniture - pks.	38 & 473 ps.	1,006 2 0			
Horns - - cwt.	2,563 3 13	3,601 11 2	Ceylon produce -	- - -	1,308,409 0 7
Jaggery - - —	7,075 0 20	1,516 13 0	Imports re-ex- gds.	£203,954 16 5	
Madder - -			ported and ex sp.&	154,524 0 8	358,478 17 1
Oil, cocoanut - gals.	1,046,326	101,590 18 4	the warehouse. bln.		
Vegetable - -	149,575¾oz. & 84 cs.	3,599 12 2	Total - -	- - -	1,666,887 17 8

Account of the Quantities of Coffee, Cinnamon, Cocoanut Oil, and Coir, the Produce of the Island exported from Ceylon during the following Years ending the 5th Jan.

Years ending 5th January.	Coffee.	Cinnamon.	Cocoanut Oil.	Coir.
1840	*cwts.* 41,863	*lbs.* 596,592½	*gals.* 357,543	*cwt.* 23,195 1 0
1841	68,206	389,373½	475,742	23,440 3 24
1842	80,584	317,915½	321,966	21,643 1 2
1843	119,805	121,191½	475,967	26,130 3 26
1844	94,847	669,704	726,206	22,187 1 7
1845	133,957	1,057,841	415,301	25,977 0 25
1846	178,603	408,211	282,186	19,510 2 0
1847	173,892	401,656	123,981	23,197 2 19
1848	293,221	447,369½	197,851	23,520 7 2
1849	280,019	491,687½	311,526 and 8 casks	25,199 2 24 and 10 bdls.
1850	375,593	733,781½	575,279	28,422 0 5 — 2 —
1851	278,473	644,857	407,950	39,896 1 23 — 120 —
1852	349,957	508,491	415,699	37,512 0 12
1853	372,379	427,666½	749,028 and 4 casks	37,557 2 24 — 130 —
1854	328,971	956,280	1,033,974	47,624 2 2
1855 (31 Dec.)	407,621	784,284½	1,059,272	47,380 0 12
1855	506,540	730,600	908,742	41,385 3 22
1856	440,819	877,547	1,046,326	28,443 1 5

Warehouse Rates. For all goods bonded in any Queen's Warehouse.

	Per week. £	s.	d.
For every butt, pipe, or puncheon	0	0	3
Half pipe or hogshead	0	0	2
Barrel or quarter cask	0	0	1
Cask or keg of smaller size	0	0	0¼
Six dozen case of wine, spirits or other liqueurs	0	0	2
Three dozen — —	0	0	1
One dozen — —	0	0	0½
Crate, cask, or case of hardware, earthenware or ironmongery	0	0	3
Bale of Indian cloth	0	0	3
Half bale	0	0	1½
Bale, case, or box measuring 60 cubic feet or upwards	0	0	4
— — 40 cubic feet & under 60	0	0	3
— — 20 cubic feet & under 40	0	0	2
— — 10 cubic feet & under 20	0	0	1
Other small boxes or packages	0	0	0½
Bag of rice, sugar or coffee	0	0	1
Ton of heavy goods, metals, timber, &c.	0	0	6

Other goods not enumerated, of the like weight or bulk, to be charged in proportion to these rates.

Double these rates will be charged on all goods landed under the provisions of the 21st clause of the ordinance No. 18 of 1852, which may not be entered or removed within 7 days.

Goods left on the quay, half of the above rates.

Goods brought to the custom house for exportation, and lodged in any of the custom house premises, if not shipped within two days, will also be charged half of the above rates.

25 per cent. will be deducted from the rent for all time exceeding 52 weeks. A week's rent will be charged for all fractions of a week.

Goods may be lodged in the Queen's warehouse for a period of 7 days free of charge, when, if not entered and removed for consumption, or bonded, they will be liable to the rates above mentioned.

Shipping and Landing Charges of the Cargo Boat and Wharf Improvement Company.

	£	s.	d.
120 bags of coffee of 1½ cwt. (and in proportion for larger)	0	12	6
18 casks of coffee of 6 cwt. each	0	12	6
60 bales of cinnamon of 100 lbs. each	0	12	6
30 hogsheads of oil	0	12	6
40 pipes of oil	0	12	6
120 boxes of plumbago	0	12	6

Rope yarn, horns, &c. in proportion.

Ballast, 13*s.* 6*d.* per load of about 7 tons.

Goods landed and warehoused at the Rates fixed by the Chamber of Commerce.

		£	s.	d.
Butts and pipes of wine or beer	each	0	1	0
Bales, hogsheads, and cases above the size of 3 doz. wine	—	0	0	9
Half bales, barrels, and cases above 1 doz. and not more than 3 doz.	—	0	0	6
Kegs, one doz. cases or packages of like size or less	—	0	0	3
Packages of 1 ton and not exceeding 1½ ton by weight or measurement	—	0	3	0
Packages under 1 ton by weight or measurement	—	0	0	9
Metals, per ton	—	0	3	0
Hogshead staves in packs, per 100 bundles	—	0	18	0
Puncheon	—	0	22	6
Rice or sugar, per 100 bags or robbins	—	0	15	0
Wheat, per 100 bags	—	0	18	0

Machinery by special agreement.

Double the above rates when the packages imported are less than 6 in number.

Specie will be landed by agreement with the manager.

Special agreements can be made with the manager for loading of coal, grain, and timber cargoes.

The total imports into Ceylon, in 1856, amounted (inc. 1,040,082*l.* in specie) to 2,714,565*l.* Rice, and other grain, and cotton goods are the principal articles of import, the former being wholly, and the latter partially, supplied by India. The exports from this country to Ceylon are smaller than might be supposed, having only amounted, at an average of 1856 and 1857, to 452,546*l.* a year. We subjoin

An Account of the Values of the Principal Articles imported into Ceylon in 1856.

	£	s.	d.
Coal and coke	68,453	1	0
Cotton manufacture	314,506	3	3
Cotton twist	35,501	17	7
Cotton wool	36,472	0	7
Couries and shells	15,985	6	0
Cutlery and hardware	13,640	12	4
	20,784	4	0
Earthenware	15,784	15	10
Fish dried and salted	56,800	16	0
Gram	17,665	16	0
Paddy	55,760	19	3
Rice	552,543	1	1
Wheat	13,106	5	0
Gunnies and twines	18,123	17	9
Haberdashery and millinery	26,537	3	9
Cattle, exclusive of horses and sheep	23,515	4	0
Malt liquor	16,286	16	0
Opium	10,303	15	9
All other articles (except specie)	362,011	0	8
Specie and bullion	1,040,981	10	0
	2,714,565	3	10

Trade and Navigation of Columbo for the Year 1856.

Vessels Inward. No.	Vessels Inward. Tons.	Vessels Outward. No.	Vessels Outward. Tons.	Customs Duties on Imports and Exports.	Customs Duties including Port Dues.	Total Value of Imports.	Total Value of Exports.
1,284	149,134	1,258	140,162	£116,010 3 3	£119,347 13 1	£1,765,313 7 2	£1,421,452 8 7

Extent, Population, Revenue, &c. of Ceylon.—The area of Ceylon and its dependent islets is estimated at 25,742 sq. miles. Its population, according to a census taken in 1837, amounted to 1,243,066, of whom about 6,600 were whites. And if this statement may be depended upon, it would seem that the population has increased considerably in the interval; for it appears from a census taken in 1856 that the population then amounted to 1,691,924, of whom above 7,000 were whites. The following table sets the progress of the colony in a very clear light.

Statement showing the Progress of Ceylon in Population, Revenue, Trade, &c.

	1837.	1845.	1856.
Population of Ceylon	£1,243,066	£1,472,019	£1,691,924
Total public revenue	377,952	454,146	504,174
Value of imports, including specie	411,167	1,494,823	2,546,231
Value of exports, ditto	308,703	685,100	1,718,294
Value of coffee exported	106,999	363,259	981,702
Customs duty, exclusive of cinnamon	59,521	124,005	151,067
Value of arrack exported	12,214	5,611	12,458
Do. areca nuts	27,923	30,430	50,157
Do. cinnamon	49,263	40,820	45,369
Do. cocoanut oil	28,334	15,916	101,421
Do. tobacco	8,768	17,190	36,894
Do. timber	9,250	11,735	17,558
Revenue derived from salt	30,970	36,150	50,329
Do. arrack farms	35,963	61,518	66,171
Do. tolls	5,431	24,934	35,553
Do. stamps	12,812	22,312	31,024
Do. paddy and fine grain rents	40,608	48,228	55,884
Do. postage	2,922	7,385	6,701
Do. fines and forfeitures	729	2,150	4,507
Tax on houses	804	4,090	4,838
Vessels entered inwards	*tons* 71,232	*tons* 169,128	*tons* 345,592
Do outwards	68,463	162,953	335,479

The revenue of 1857 was about 570,000*l.*, including 37,067*l.* from sales of land. The total sales of land from 1834 to end of 1857 was 361,430 acres. The revenue of 1858 is estimated at 571,000*l.*, including

20,000*l.* expected from the pearl fishery. Export duties of 2½ per cent., abolished in 1848, were re-imposed from 1st January, 1858. The total customs revenue of 1858 is estimated at 200,000*l.* The value of 601,000 cwts. of coffee, exported in 1857, was close on 1½ million sterling. The tolls on the Kandy Road alone realised 28,588*l.* in 1857, and were let in 1858 for 31,054*l.*—(*Columbo Observer's Sheet Almanac for* 1858.)

We are indebted for most part of the above and for many other details to our friend Sir James Emerson Tennent, formerly secretary to the government of Ceylon: Judging from the portion that we have seen we shall be greatly mistaken if Sir James' account of Ceylon, now in the press, be not reckoned one of the most important contributions to our colonial literature that has hitherto appeared.

COLOMBO OR CALUMBA ROOT (Da. *Columbo wortel*; Fr. *Racine de Colombo*; Ger. *Colombo-wurzel*; It. *Radice di Colombo*; Port. *Raiz di Columba*; Sp. *Raiz di Columba*; Mosamb. *Kalumb*), the root of the plant of that name; the *Cocculus palmatus* of Decandolle. It is not cultivated, but grows wild in the forests of Mozambique, and being dug up by the natives, is exported by the Portuguese. It is brought to us in transverse sections from ⅛ to ½ in. thick, from 1 to 2½ in. diameter. Bark wrinkled and thick, of a brownish colour without, and a brightish yellow within; pith, spongy, yellowish, and slightly striped; when fresh, its smell is rather aromatic; it is disagreeably bitter, and slightly pungent to the taste, somewhat resembling mustard that has been too long kept. Choose the largest pieces, fresh, of a good colour, as free from worms as possible, rejecting that which is small and broken. It is used in the materia medica, and is a valuable tonic. Freight 16 cwt. to a ton.—(*Milburn's Orient. Com.*; *Thomson's Materia Medica.*)

COMMANDITE (Partnerships en), see Companies, p. [387.] § 6. & Supplement.

COMMERCE, from *commutatio mercium*, is simply, as its name imports, the exchange of commodities for commodities.

I. Origin of Commerce.—Mercantile Classes.
II. Home Trade.
III. Foreign Trade.
IV. Restrictions on Commerce.

I. Origin of Commerce.—Mercantile Classes.

(1.) *The Origin of Commerce* is coeval with the first dawn of civilisation. The moment that individuals ceased to supply themselves directly with the various articles and accommodations they made use of, that moment must a commercial intercourse have begun to grow up amongst them. For it is only by exchanging that portion of the produce raised by ourselves that exceeds our own consumption, for portions of the surplus produce raised by others, that the division of employments can be introduced, or that different individuals can apply themselves in preference to different pursuits.

Not only, however, does commerce enable the inhabitants of the same village or parish to combine their separate efforts to accomplish some common object, but it also enables those of different provinces and kingdoms to apply themselves in an especial manner to those callings, for the successful prosecution of which the district or country which they occupy gives them some peculiar advantage. This *territorial division of labour* has contributed more, perhaps, than anything else to increase the wealth and accelerate the civilisation of mankind. Were it not for it, we should be destitute of a vast number of the necessaries, comforts, and enjoyments which we now possess: while the price of the few that would remain would, in most instances, be very greatly increased. But whatever advantages may be derived—and it is hardly possible to exaggerate either their magnitude or importance—from availing ourselves of the peculiar capacities of production enjoyed by others, are wholly to be ascribed to commerce as their real source and origin.

We do not mean to say anything in this article with respect to the practical details connected with the different departments of commerce. These will be found under the various titles to which they refer. Our object, at present, is merely to show the nature and influence of commerce in general, and the restrictions that have sometimes been imposed upon it. We shall begin by endeavouring, first of all, to give some account of the nature of the services performed by the individuals by whom commercial undertakings are usually carried on. In the second place, we shall consider the influence of the *home* trade, or of the intercourse subsisting amongst individuals of the same country. In the third place, we shall consider the influence of *foreign* trade, or of that intercourse which subsists amongst individuals belonging to different countries. After these topics have been discussed, we shall offer a few remarks on what has been termed the restrictive system; or on the principles involved in the regulations enacted at different times, in this and other countries, for the government and direction of commerce.

(2.) *Mercantile Classes.*—While the exchange of different products is carried on by the producers themselves, they must unavoidably lose a great deal of time, and experience many inconveniences. Were there no merchants, a farmer wishing to sell his

crop would be obliged, in the first place, to seek for customers, and to dispose of his corn as nearly as possible in such quantities as might suit the demands of the various individuals inclined to buy it; and after getting its price, he would next be obliged to send to 10 or 20 different and, perhaps, remote places, for the commodities he wanted to get in its stead. So that, besides being exposed to a world of trouble and inconvenience, his attention would be continually diverted from the labours of his farm. Under such a state of things, the work of production, in every different employment, would be meeting with perpetual interruptions, and many branches of industry that are successfully carried on in a commercial country would not be undertaken.

The establishment of a distinct mercantile class effectually obviates these inconveniences. When a set of dealers erect warehouses and shops for the purchase and sale of all descriptions of commodities, every producer, relieved from the necessity of seeking customers, and knowing beforehand where he may at all times be supplied with such products as he requires, devotes his whole time and energies to his proper business. The intervention of merchants gives a continuous and uninterrupted motion to the plough and the loom. Were the class of traders annihilated, all the springs of industry would be paralysed. The numberless difficulties that would then occur in effecting exchanges would lead each particular family to endeavour to produce all the articles they had occasion for: society would thus be thrown back into primæval barbarism and ignorance; the divisions of labour would be relinquished; and the desire to rise in the world and improve our condition would decline, according as it became more difficult to gratify it. What sort of agricultural management could be expected from farmers who had to manufacture their own wool, and make their own shoes? And what sort of manufacturers would those be, who were every now and then obliged to leave the shuttle for the plough, or the needle for the anvil? A society, without that distinction of employments and professions resulting from the division of labour, that is, *without commerce*, would be totally destitute of arts or sciences of any sort. It is by the assistance each individual renders to and receives from his neighbours, by every one applying himself in preference to some peculiar task, and combining, though probably without intending it, his efforts with those of others, that civilised man becomes equal to the most gigantic efforts, and appears endowed with almost omnipotent power

The mercantile class has generally been divided into two subordinate classes — the wholesale dealers, and the retail dealers. The former purchase the various products of art and industry in the places where they are produced, or are least valuable, and carry them to those where they are more valuable, or where they are more in demand; and the latter, having purchased the commodities of the wholesale dealers, or the producers, collect them in shops, and sell them in such quantities and at such times as may best suit the public demand. These classes of dealers are alike useful; and the separation that has been effected between their employments is one of the most advantageous divisions of labour. The operations of the wholesale merchant are analagous to those of the miner. Neither the one nor the other makes any change on the bodies which he carries from place to place. All the difference between them consists in this, — that the miner carries them from below ground to the surface of the earth, while the merchant carries them from one point to another on its surface. Hence it follows that the value given to commodities by the operations of the wholesale merchant may frequently exceed that given to them by the producers. The labour or expense required to dig a quantity of coal from the mine, does not exceed what is required for its conveyance from Newcastle to London; and it is a far more difficult and costly affair to fetch a piece of timber from Canada to England, than to cut down the tree. In this respect there is no difference between commerce and agriculture and manufactures. The latter give utility to matter, by bestowing on it such a shape as may best fit it for ministering to our wants and comforts; and the former gives additional utility to the products of the agriculturist and manufacturer, by bringing them from where they are of comparatively little use, or are in excess, to where they are of comparatively great use, or are deficient.

If the wholesale merchant were himself to retail the goods he has brought from different places, he would require a proportional increase of capital; and it would be impossible for him to give that exclusive attention to any department of his business, which is indispensable to its being carried on in the best manner. It is for the interest of each dealer, as of each workman, to confine himself to some one business. By this means each trade is better understood, better cultivated, and carried on in the cheapest possible manner, But whether carried on by a separate class of individuals or not, it is obvious that the retailing of commodities is indispensable. It is not enough that a cargo of tea should be imported from China, or a cargo of sugar from Jamaica. Most individuals have some demand for these articles; but there is not, perhaps, a single private person, even in London, requiring so large a supply for his own consumption. It is clear, therefore, that they must be *retailed*; that is, they must be sold in such quanti-

ties and at such times as may be most suitable for all classes of consumers. And since it is admitted, on all hands, that this necessary business will be best conducted by a class of traders distinct from the wholesale dealers, it is impossible to doubt that their employment is equally conducive as that of the others to the public interest, or that it tends equally to augment national wealth and comfort.

II. Home Trade.

The observations already made serve to show the influence of the home trade in allowing individuals to confine their attention to some one employment, and to prosecute it without interruption. But it is not in this respect only that the establishment of the home trade is advantageous. It is so in a still greater degree, by its allowing the inhabitants of the different districts of the empire to turn their labour into those channels in which it will be most productive. The different soils, different minerals, and different climates of different districts, fit them for being appropriated, in preference, to certain species of industry. A district, like Lancashire, where coal is abundant, which has an easy access to the ocean, and a considerable command of internal navigation, is the natural seat of manufactures. Wheat and other species of grain are the natural products of rich arable soils; and cattle, after being reared in mountainous districts, are most advantageously fattened in meadows and low grounds. Hence it follows, that the inhabitants of different districts, by confining themselves to those branches of industry for the successful prosecution of which they have some peculiar capability, and exchanging their surplus produce for that of others, will obtain an incomparably larger supply of all sorts of useful and desirable products, than they could do, were they to apply themselves indiscriminately to every different business. The territorial division of labour is, if possible, even more advantageous than its division among individuals. A person may be what is commonly called *Jack of all trades;* and though it is next to certain that he will not be well acquainted with any one of them, he may nevertheless make some sort of rude efforts in them all. But it is not possible to apply the same soils or the same minerals to every different purpose. Hence it is, that the inhabitants of the richest and most extensive country, provided it were divided into small districts without any intercourse with each other, or with foreigners, could not, how well soever labour might be divided among themselves, be otherwise than poor and miserable. Some of them might have a superabundance of corn, at the same time that they were wholly destitute of wine, coal, and iron: while others might have the largest supplies of the latter articles, with but very little grain. But in commercial countries no such anomalies can exist. Opulence and comfort are there universally diffused. The labours of the mercantile classes enable the inhabitants of each district to apply themselves principally to those employments that are naturally best suited to them. This superadding of the division of labour among different provinces to its division among different individuals, renders the productive powers of industry immeasurably greater; and augments the mass of necessaries, conveniences, and enjoyments, in a degree that could not previously have been conceived possible, and which cannot be exceeded except by the introduction of foreign commerce.

"With the benefit of commerce," says an eloquent and philosophical writer, "or a ready exchange of commodities, every individual is enabled to avail himself, to the utmost, of the peculiar advantage of his place; to work on the peculiar materials with which nature has furnished him; to humour his genius or disposition, and betake himself to the task in which he is peculiarly qualified to succeed. The inhabitant of the mountain may betake himself to the culture of his woods and the manufacture of his timber; the owner of pasture lands may betake himself to the care of his herds; the owner of the clay-pit to the manufacture of his pottery; and the husbandman to the culture of his fields, or the rearing of his cattle. And any one commodity, however it may form but a small part in the accommodations of human life, may, under the facility of commerce, find a market in which it may be exchanged for what will procure any other part, or the whole: so that the owner of the clay-pit, or the industrious potter, without producing any one article immediately fit to supply his own necessities, may obtain possession of all that he wants. And commerce, in which it appears that commodities are merely exchanged, and nothing produced, is, nevertheless, in its effects, very productive, because it ministers a facility and an encouragement to every artist in multiplying the productions of his own art; thus adding greatly to the mass of wealth in the world, in being the occasion that much is produced."—(*Ferguson's Principles of Moral Science*, vol. ii. p. 424.)

The roads and canals that intersect a country, and open an easy communication between its remotest extremities, render the greatest service to internal commerce, and also to agriculture and manufactures. A diminution of the expense of carriage has, in fact, the same effect as a diminution of the direct cost of production. If the coals brought into a city sell at 20*s.* a ton, of which the carriage amounts to a half, or 10*s.*, it is plain

that in the event of an improved communication, such as a more level or direct road, a railway, or a canal, being opened for the conveyance of the coals, and that they can, by its means, be imported for half the previous expense, their price will immediately fall to 15*s.* a ton; just as it would have done, had the expense of extracting them from the mine been reduced a half.

Every one acquainted with the merest elements of political science is aware that employments are more and more subdivided, that more powerful machinery is introduced, and the productive powers of labour increased, according as larger masses of the population congregate together. In a great town like London, Glasgow, or Manchester, the same number of hands will perform much more work than in a small village, where each individual has to perform several operations, and where the scale of employment is not sufficiently large to admit of the introduction of extensive and complicated machinery. But the great towns with which England is studded could not exist without our improved means of communication. These, however, enable their inhabitants to supply themselves with the bulky products of the soil and of the mines almost as cheaply as if they lived in country villages; securing to them all the advantages of concentration, with but few of its inconveniences. Roads and canals are thus productive of a double benefit; for while by affording comparatively cheap raw materials to the manufacturers, they give them the means of perfecting the divisions of labour, and of supplying proportionally cheap manufactured goods; the latter are conveyed by their means, and at an extremely small expense, to the remotest parts of the country. The direct advantages which they confer on agriculture are not less important. Without them it would not be possible to carry to a distance sufficient supplies of lime, marl, shells, and other bulky and heavy articles necessary to give luxuriance to the crops of rich soils, and to render those that are poor productive. Good roads and canals, therefore, by furnishing the agriculturists with cheap and abundant supplies of manure, reduce, at one and the same time, the *cost of producing* the necessaries of life, and the cost of bringing them to market.

In other respects, the advantages resulting from improved communications are probably even more striking. They give the same common interest to every different part of the most widely extended empire; and put down, or rather prevent, any attempt at monopoly on the part of the dealers of particular districts, by bringing them into competition with those of all the others. Nothing in a state enjoying great facilities of communication is separate and unconnected. All is mutual, reciprocal, and dependent. Every man naturally gets into the precise situation that he is best fitted to fill; and each, cooperating with every one else, contributes to the utmost of his power to extend the limits of production and civilisation. — (See. ROADS.)

Such being the nature and vast extent of the advantages derived from the home trade, it is obviously the duty of the legislature to give it every proper encouragement and protection. It will be found, however, on a little consideration, that this duty is rather negative than positive — that it consists less in the framing of regulations, than in the removal of obstacles. The error of governments in matters of trade has not been that they have done too little, but that they have attempted too much. It will be afterwards shown that the encouragement which has been afforded to the producers of certain species of articles in preference to others, has uniformly been productive of disadvantage. In the mean time it is sufficient to observe, that the encouragement which a prudent and enlightened government bestows on industry, will equally extend to all its branches; and will be especially directed to the removal of every thing that may in any respect fetter the freedom of commerce, and the power of individuals to engage in different employments. All regulations, whatever be their object, that operate either to prevent the circulation of commodities from one part of the empire to another, or the free circulation of labour, necessarily tend to check the division of employments and the spirit of competition and emulation, and must, in consequence, lessen the amount of produce. The same principle that prompts to open roads, to construct bridges and canals, should lead every people to erase from the statute book every regulation which either prevents or fetters the operations of the merchant, and the free disposal of capital and labour. Whether the freedom of internal commerce and industry be interrupted by impassable mountains and swamps, or by oppressive tolls or restrictive regulations, the effect is equally pernicious.

The common law and the ancient statute law of England are decidedly hostile to monopolies, or to the granting of powers to any particular class of individuals to furnish the market with commodities. Lord Coke distinctly states, "that all monopolies concerning trade and traffic are against the liberty and freedom granted by the great charter, and divers other acts of parliament which are good commentaries upon that charter." — (2 *Inst.* 63.) And he affirms, in another place, that, "*Commercium jure gentium commune esse debet, et non in monopolium et privatum paululorum questum convertendum. Iniquum est aliis permittere, aliis inhibere mercaturam.*"

But, notwithstanding this concurrence of the common and statute law of the country in favour of the freedom of industry, during the arbitrary reigns of the princes of the house of Tudor, the notion that the crown was by its prerogative entitled to dispense with any law to the contrary, and to establish monopolies, became fashionable among the court lawyers, and was acted upon to a very great extent. Few things, indeed, occasioned so much dissatisfaction in the reign of Elizabeth as the multiplication of monopolies; and notwithstanding the opposition made by the crown, and the court party in parliament, the grievance became at length so intolerable as to give rise to the famous statute of 1624 (21 James 1. c. 3.), by which all monopolies, grants, letters patent, and licences, for the sole buying, selling, and making of goods and manufactures, not given by an act of the legislature, are declared to be "*altogether contrary to the laws of this realm, void, and of none effect.*" This statute has been productive of the greatest advantage; and has, perhaps, contributed more than any other to the development of industry, and the accumulation of wealth. With the exception of the monopoly of printing Bibles, and the restraints imposed by the charters of bodies legally incorporated, the freedom of internal industry has ever since been vigilantly protected; full scope has been given to the principle of competition; the whole kingdom has been subjected to the same equal law; no obstacles have been thrown in the way of the freest transfer of commodities from one country or place to another; the home trade has been perfectly unfettered; and though the public have not been supplied with commodities at so low a price as they might have obtained them for, had there been no restrictions on foreign commerce, they have obtained them at the lowest price that would suffice to pay the *home producers* the cost of producing and bringing them to market. It is to this freedom that the comparatively flourishing state of industry in Great Britain is mainly to be ascribed.

III. Foreign Trade.

What the home trade is to the different provinces of the same country, foreign trade is to all the countries of the world. Particular countries produce only particular commodities, and, were it not for foreign commerce, would be entirely destitute of all but such are indigenous to their own soil. It is difficult for those who have not reflected on the subject, to imagine what a vast deduction would be made, not only from the comforts, but even from the necessaries, of every commercial people, were its intercourse with strangers put an end to. It is not, perhaps, too much to say that in Great Britain we owe to our intercourse with others a full half or more of all that we enjoy. We are not only indebted to it for the cotton and silk manufactures, and for supplies of wine, tea, coffee, sugar, the precious metals, &c.; but we are also indebted to it for most of the fruits and vegetables that we now cultivate. At the same time, too, that foreign commerce supplies us with an immense variety of most important articles, of which we must otherwise have been wholly ignorant, it enables us to employ our industry in the mode in which it is sure to be most productive, and reduces the price of almost every article. We do not misemploy our labour in raising sugar from the beet-root, in cultivating tobacco, or in forcing vines; but we employ ourselves in those departments of manufacturing industry in which our command of coal, of capital, and of improved machinery give us an advantage; and obtain the articles produced more cheaply by foreigners, in exchange for the surplus produce of those branches in which we have a superiority over them. A commercial nation like England avails herself of all the peculiar facilities of production given by Providence to different countries. To produce claret here is perhaps impossible; and at all events it could not be accomplished, unless at more than 100 times the expense required for its production in France. We do not, however, deny ourselves the gratification derivable from its use; and to obtain it, we have only to send to France, or to some country indebted to France, some articles in the production of which we have an advantage, and we get claret in exchange at the price which it takes to raise it under the most favourable circumstances. One country has peculiar capacities for raising corn, but is at the same time destitute of wine, silk, and tea; another, again, has peculiar facilities for raising the latter, but is destitute of the former; and it is impossible to point out a single country which is abundantly supplied with any considerable variety of commodities of domestic growth. *Non omnis fert omnia tellus.* Providence, by giving to each particular nation something which the others want, has evidently intended that they should be mutually dependent upon one another. And it is not difficult to see that, *cæteris paribus*, those must be the richest and most abundantly supplied with every sort of useful and desirable accommodation, who cultivate the arts of peace with the greatest success, and deal with all the world on fair and liberal principles.

"The commerce of one country with another is, in fact," to use the words of an able and profound writer, "merely an extension of that division of labour by which so many benefits are conferred upon the human race. As the same country is rendered the richer by the trade of one province with another; as its labour becomes thus infinitely

more divided and more productive than it could otherwise have been; and as the mutual supply to each other of all the accommodations which one province has, and another wants, multiplies the accommodations of the whole, and the country becomes thus in a wonderful degree more opulent and happy; the same beautiful train of consequences is observable in the world at large, — that great empire of which the different kingdoms and tribes of men may be regarded as the provinces. In this magnificent empire, too, one province is favourable to the production of one species of accommodation, and another province to another: by their mutual intercourse they are enabled to sort and distribute their labour as most peculiarly suits the genius of each particular spot. The labour of the human race thus becomes much more productive, and every species of accommodation is afforded in much greater abundance. The same number of labourers, whose efforts might have been expended in producing a very insignificant quantity of home-made luxuries, may thus, in Great Britain, produce a quantity of articles for exportation, accommodated to the wants of other places, and peculiarly suited to the genius of Britain to furnish, which will purchase for her an accumulation of the luxuries of every quarter of the globe. There is not a greater proportion of her population employed in administering to her luxuries, in consequence of her commerce; there is probably a good deal less; but their labour is infinitely more productive: the portion of commodities which the people of Great Britain acquire by means of the same labour, is vastly greater." — (*Mill's Commerce defended*, p. 38.)

What has been already stated is sufficient to expose the utter fallacy of the opinion that has sometimes been maintained, that whatever one nation may gain by her foreign commerce, must be lost by some one else. It is singular, indeed, how such a notion should ever have originated. Commerce *is not directly productive*, nor is the good derived from it to be estimated by its immediate effects. What commercial nations give is uniformly the fair equivalent of what they get. In their dealings they do not prey upon each other, but are benefited alike. The advantage of commerce consists in its enabling labour to be divided, and giving each people the power of supplying themselves with the various articles for which they have a demand, at the lowest price required for their production in those countries and places where they are raised with the greatest facility. We import wine from Portugal, and cotton from America, sending in exchange cloth and other species of manufactured goods. By this means we obtain two very important articles, which it would be all but impossible to produce at home, and which we could not, certainly, produce, except at an infinitely greater cost. But our gain is no loss to the foreigners. They derive precisely the same sort of advantage from the transaction that we do. We have very superior facilities for manufacturing, and they get from us cloth, hardware, and other important articles, at the price at which they can be produced in this country, and consequently for far less than their direct production would have cost them. The benefits resulting from an intercourse of this sort are plainly mutual and reciprocal. Commerce gives no advantage to any one people over any other people; but it increases the wealth and enjoyments of *all* in a degree that could not previously have been conceived possible.

But the influence of foreign commerce in multiplying and cheapening conveniences and enjoyments, vast as it most certainly is, is perhaps inferior to its indirect influence — that is, to its influence on industry, by adding immeasurably to the mass of desirable articles, by inspiring new tastes, and stimulating enterprise and invention by bringing each people into competition with foreigners, and making them acquainted with their arts and institutions.

The apathy and languor that exist in a rude state of society have been universally remarked. But these uniformly give place to activity and enterprise, according as man is rendered familiar with new objects, and is inspired with a desire to obtain them. An individual might, with comparatively little exertion, furnish himself with an abundant supply of the commodities essential to his subsistence; and if he had no desire to obtain others, or if that desire, however strong, could not be gratified, it would be folly to suppose that he should be laborious, inventive, or enterprising. But, when once excited, the wants and desires of man become altogether illimitable; and to excite them, no more is necessary than to bring new products and new modes of enjoyment within his reach. Now, the sure way to do this is to give every facility to the most extensive intercourse with foreigners. The markets of a commercial nation being filled with the various commodities of every country and every climate, the motives and gratifications which stimulate and reward the efforts of the industrious are proportionally augmented. The husbandman and manufacturer exert themselves to increase their supplies of raw and manufactured produce, that they may exchange the surplus for the products imported from abroad. And the merchant, finding a ready demand for such products, is prompted to import a greater variety, to find out cheaper markets, and thus constantly to afford new incentives to the vanity and ambition, and consequently to the enterprise and industry, of his customers. The whole powers of the mind and the body are thus

called into action; and the passion for foreign commodities — a passion which has sometimes been ignorantly censured — becomes one of the most efficient causes of wealth and civilisation.

Not only, however, does foreign commerce excite industry, distribute the gifts of nature, and enable them to be turned to the best account, but it also distributes the gifts of science and of art, and gives to each particular country the means of profiting by the inventions and discoveries of others as much as by those of her own citizens. The ingenious machine invented by Mr. Whitney, of the United States, for separating cotton wool from the pod, by reducing the cost of the raw material of one of our principal manufactures, has been quite as advantageous to us as to his own countrymen. And the discoveries and inventions of Watt, Arkwright, and Wedgwood, by reducing the cost of the articles we send abroad, have been as advantageous to our foreign customers as to ourselves. Commerce has caused the blessings of civilisation to be universally diffused, and the treasures of knowledge and science to be conveyed to the remotest corners. Its humanising influence is, in this respect, most important; while, by making each country depend for the means of supplying a considerable portion of its wants on the assistance of others, it has done more than any thing else to remove a host of the most baleful prejudices, and to make mankind regard each other as friends and brothers, and not as enemies. The dread, once so prevalent, of the progress of other nations in wealth and civilisation, is now universally admitted to be as absurd as it is illiberal. While every people ought always to be prepared to resist and avenge any attack upon their independence or their honour, it is not to be doubted that their real prosperity will be best secured by their endeavouring to live at peace. "A commercial war, whether crowned with victory or branded with defeat, can never prevent another nation from becoming more industrious than you are; and if they are more industrious they will sell cheaper; and consequently your customers will forsake your shop and go to theirs. This will happen, though you covered the ocean with fleets, and the land with armies. The soldier may lay waste; the privateer, whether successful or unsuccessful, will make poor; but it is the eternal law of Providence that '*the hand of the diligent can alone make rich.*'" — (*Tucker's Four Tracts*, p. 41. 3d ed.)

Mr. Hume has beautifully illustrated the powerful and salutary influence of that spirit of industry and enterprise resulting from the eager prosecution of commerce and the arts. "Men," says he, "are then kept in perpetual occupation, and enjoy, as their reward, the occupation itself, as well as those pleasures which are the fruits of their labour. The mind acquires new vigour; enlarges its powers and faculties; and, by an assiduity in honest industry, both satisfies its natural appetites, and prevents the growth of unnatural ones, which commonly spring up when nourished with ease and idleness. Banish those arts from society, you deprive men both of action and of pleasure; and, leaving nothing but indolence in their place, you even destroy the relish of indolence, which never is agreeable but when it succeeds to labour, and recruits the spirits, exhausted by too much application and fatigue.

"Another advantage of industry and of refinements in the mechanical arts is, that they commonly produce some refinements in the liberal; nor can the one be carried to perfection, without being accompanied in some degree with the other. The same age which produces great philosophers and politicians, renowned generals and poets, usually abounds with skilful weavers and ship-carpenters. We cannot reasonably expect that a piece of woollen cloth will be wrought to perfection in a nation which is ignorant of astronomy, or where ethics are neglected. The spirit of the age affects all the arts; and the minds of men, being once roused from their lethargy, and put into a fermentation, turn themselves on all sides, and carry improvements into every art and science. Profound ignorance is totally banished; and men enjoy the privilege of rational creatures, to think as well as to act, to cultivate the pleasures of the mind as well as those of the body.

"The more these refined arts advance, the more sociable do men become; nor is it possible that, when enriched with science, and possessed of a fund of conversation, they should be contented to remain in solitude, or live with their fellow citizens in that distant manner which is peculiar to ignorant and barbarous nations. They flock into cities; love to receive and communicate knowledge; to show their wit or their breeding; their taste in conversation or living, in clothes or furniture. Curiosity allures the wise, vanity the foolish, and pleasure both. Particular clubs and societies are every where formed; both sexes meet in an easy and sociable manner; and the tempers of men, as well as their behaviour, refine apace. So that beside the improvements they receive from knowledge and the liberal arts, it is impossible but they must feel an increase of humanity from the very habit of conversing together, and contributing to each other's pleasure and entertainment. Thus *industry*, *knowledge*, and *humanity* are linked together by an indissoluble chain; and are found, from experience as well as reason, to be peculiar to the

more polished, and what are commonly denominated the more luxurious ages."—(*Essay of Refinement in the Arts.*)

Most commercial treatises, and most books on political economy, contain lengthened statements as to the comparative advantages derived from the home and foreign trade. But these statements are almost always bottomed on the most erroneous principles. The quantity and value of the commodities which the inhabitants of an extensive country exchange with each other, is far greater than the quantity and value of those they exchange with foreigners: but this is not, as is commonly supposed, enough to show that the home trade is proportionally more advantageous. Commerce, it must be borne in mind, is not a direct but an indirect source of wealth. The mere exchange of commodities adds nothing to the riches of society. The influence of commerce on wealth consists in its allowing employments to be separated and prosecuted without interruption. It gives the means of pushing the divisions of labour to the furthest extent; and supplies mankind with an infinitely greater quantity of necessaries and accommodations of all sorts, than could have been produced, had individuals and nations been forced to depend upon their own comparatively feeble efforts for the supply of their wants. And hence, in estimating the comparative advantageousness of the home and foreign trades, the real questions to be decided are, which of them contributes most to the division of labour? and which of them gives the greatest stimulus to invention and industry? These questions do not, perhaps, admit of any very satisfactory answer. The truth is, that both home trade and foreign trade are most prolific sources of wealth. Without the former, no division of labour could be established, and man would for ever remain in a barbarous state. Hence, perhaps, we may say that it is the most indispensable; but the length to which it could carry any particular country in the career of civilisation, would be limited indeed. Had Great Britain been cut off from all intercourse with strangers, there is no reason for thinking that we should have been at this day advanced beyond the point to which our ancestors had attained during the Heptarchy! It is to the products and the arts derived from others, and to the emulation inspired by their competition and example, that we are mainly indebted for the extraordinary progress we have already made, as well as for that we are yet destined to make.

Dr. Smith, though he has satisfactorily demonstrated the impolicy of all restrictions on the freedom of commerce, has, notwithstanding, endeavoured to show that it is more for the public advantage that capital should be employed in the home trade than in foreign trade, on the ground that the capitals employed in the former are more frequently returned, and that they set a greater quantity of labour in motion than those employed in the latter. But we have elsewhere endeavoured to show that the rate of profit which different businesses yield is the only test of their respective advantageousness. — (*Principles of Political Economy*, 3d ed. pp. 165—181.) Now, it is quite evident that capital will not be employed in foreign trade, unless it yield as much profit as could be made by employing it at home. No merchant sends a ship to China, if it be in his power to realise a larger profit by sending her to Dublin or Newcastle; nor would any one build a ship, unless he expected that the capital so laid out would be as productive as if it were employed in agriculture or manufactures. The more or less rapid return of capital is a matter of very little importance. If the average rate of profit be 10 per cent., an individual who turns over his capital 10 times a year, will make *one* per cent. of profit each time; whereas if he turns it only once a year, he will get the whole 10 per cent. at once. Competition reduces the rate of nett profit to about the same level in all businesses; and we may be quite certain that those who employ themselves in the departments in which capital is most rapidly returned, do not, at an average, gain more than those who employ themselves in the departments in which the returns are most distant. No one is a foreign merchant because he would rather deal with foreigners than with his own countrymen, but because he believes he will be able to employ his capital more advantageously in foreign trade than in any other business: and while he does this, he is following that employment which is most beneficial for the public as well as for himself.

IV. Restrictions on Commerce.

The statements already made, by explaining the nature and principles of commercial transactions, are sufficient to evince the inexpediency of subjecting them to any species of restraint. It is obvious, indeed, that restrictions are founded on false principles. When individuals are left to pursue their own interest in their own way, they naturally resort to those branches of industry which they reckon most advantageous for themselves; and, as we have just seen, these are the very branches in which it is most for the public interest that they should be employed. Unless, therefore, it could be shown that a government can judge better as to what sort of transactions are profitable or otherwise than private individuals, its regulations cannot be of the smallest use, and may be exceedingly injurious. But any such pretension on the part of government would be

universally scouted. It is undeniably certain that a regard to our own interest is, if not an unerring guide to direct us in such matters, at least incomparably better than any other. If the trade with a particular country or in a particular commodity be a losing one, or merely a less profitable one than others, it is quite as unnecessary to pass an act to prevent it from being carried on, as it would be to interfere to prevent individuals from selling their labour or their commodities below the market price. It appears, therefore, that all regulations affecting the freedom of commerce, or of any branch of industry, are either useless or pernicious. They are useless, when they are intended to protect the interest of individuals by preventing them from engaging in disadvantageous businesses; and pernicious, when they prevent them from engaging in those that are advantageous. The self-interest of the parties concerned is the only safe principle to go by in such matters. When the acts of the legislature are in unison with it, there is nothing to object to in them, save only that they might as well not exist; but whenever they are inconsistent with it, — that is, whenever they tend to divert capital and industry into channels into which individuals, if left to their own discretion, would not have carried them, — they are decidedly injurious.

No one denies that it is possible to confer, by means of a restrictive regulation, an advantage on a greater or less number of individuals. This, however, is no proof that it is advantageous in a public point of view; and it is by its influence in this respect that we are to decide concerning it. If the exclusion of an article imported from abroad, in order to encourage its manufacture at home, raise its price in the home market, that circumstance will, for a while at least, be advantageous to those engaged in its production. But is it not clear that all that is thus gained by them is *lost by those who purchase the article?* To suppose, indeed, that the exclusion of commodities that are comparatively cheap, to make room for those that are comparatively dear, can be a means of enriching a country, is equivalent to supposing that a people's wealth might be increased by destroying their most powerful machines, and throwing their best soils out of cultivation.

But it is contended, that though this might be the case in the instance of commodities produced at home, it is materially different when the commodity excluded came to us from abroad. It is said, that in this case the exclusion of foreign produce increases the demand for that produced at home, and consequently contributes to increase the demand for labour; so that the rise of price it occasions is, in this way, more than balanced by the other advantages which it brings along with it. But the fact is, that though the demand for one species of produce may be increased by a prohibition of importation, the demand for some other species is sure to be at the same time equally diminished. There is no jugglery in commerce. Whether it be carried on between individuals of the same country, or of different countries, it is in all cases bottomed on a fair principle of reciprocity. Those who will not buy need not expect to sell, and conversely. It is impossible to export without making a corresponding importation. We get nothing from the foreigner gratuitously: and hence, when we prevent the importation of produce from abroad, we prevent, by the very same act, the exportation of an equal amount of British produce. All that the exclusion of foreign commodities ever effects, is the substitution of one sort of demand for another. It has been said, that "when we drink beer and porter we consume the produce of English industry, whereas when we drink port or claret we consume the produce of the industry of the Portuguese and French, to the obvious advantage of the latter, and the prejudice of our countrymen!" But, how paradoxical soever the assertion may at first sight appear, there is not at bottom any real distinction between the two cases. What is it that induces foreigners to supply us with port and claret? The answer is obvious: — We either send directly to Portugal and France an *equivalent in British produce*, or we send such equivalent, in the first place to South America for bullion, and then send that bullion to the Continent to pay for the wine. And hence it is as clear as the sun at noon-day, that the Englishman who drinks only French wine, who eats only bread made of Polish wheat, and who wears only Saxon cloth, gives, by occasioning the exportation of a corresponding amount of British cotton, hardware, leather, or other produce, the same encouragement to the industry of his countrymen, that he would give were he to consume nothing not immediately produced at home. A quantity of port wine and a quantity of Birmingham goods are respectively of the same value; so that whether we directly consume the hardware, or, having exchanged it for the wine, consume the latter, must plainly, in so far as the employment of British labour is concerned, be altogether indifferent.

It is absolutely nugatory, therefore, to attempt to encourage industry at home by restraining importation from abroad. We might as well try to promote it by interdicting the exchange of shoes for hats. We only resort to foreign markets, that we may supply ourselves with articles that cannot be produced at home, or that require more labour to produce them here than is required to produce the equivalent exported to pay for them. It is, if any thing can be, an obvious contradiction and absurdity to attempt

to promote wealth or industry by prohibiting an intercourse of this sort. Such prohibition, even when least injurious, is sure to force capital and labour into less productive channels; and cannot fail to diminish the foreign demand for one species of produce, quite as much as it extends the home demand for another.

It is but seldom, however, that a restriction on importation from abroad does no more than substitute one sort of employment for another. Its usual effect is both to alter the distribution of capital and to increase the price of commodities. A country rarely imports any commodity from abroad that may be as cheaply produced at home. In the vast majority of instances, the articles bought of the foreigner could not be directly produced at home, without a much greater outlay of capital. Suppose that we import 1,000,000*l.* worth of any commodity, that its importation is prohibited, and that the same quantity of produce cannot be raised in this country for less than 1,200,000*l.* or 1,500,000*l.*: in a case of this sort, — and this is actually the case in 99 out of every 100 instances in which prohibitions are enacted, — the prohibition has the same effect on the consumers of the commodity, as if, supposing it not to have existed, they had been burdened with a peculiar tax of 200,000*l.* or 500,000*l.* a year. But, had such been the case, what the consumers lost would have gone into the coffers of the treasury, and would have afforded the means of repealing an equal amount of other taxes; whereas, under the prohibitory system, the high price, being occasioned by an increased difficulty of production, is of no advantage to any one. So that, instead of gaining any thing by such a measure, the public incurs a dead loss of 200,000*l.* or 500,000*l.* a year.

We have said that a prohibition of importation may be productive of immediate advantage to the home producers of the prohibited article. It is essential, however, to remark that this advantage cannot continue for any considerable time, and that it *must* be followed by a period of distress. Were the importation of foreign silks put an end to, that circumstance, by narrowing the supply of silk goods, and raising their prices, would, no doubt, be, in the first instance, advantageous to the manufacturers, by elevating their profits above the common level. But the consequence would be, that those already engaged in the trade would immediately set about extending their concerns; at the same time that not a few of those engaged in other employments would enter a business which presented such a favourable prospect: nor would this transference of capital to the silk manufacture be stopped, till such an increased supply of silks had been brought to market as to occasion a glut. This reasoning is not founded upon hypothesis, but upon the widest experience. When a business is carried on under the protection of a restriction on importation, it is limited by the extent of the home market, and is incapable of further extension. It is, in consequence, particularly subject to that fluctuation which is the bane of industry. If, owing to a change of fashion, or any other cause, the demand be increased, then, as no supplies can be brought from abroad, prices suddenly rise, and the manufacture is rapidly extended, until a reaction takes place, and prices sink below their usual level: and if the demand decline, then, as there is no outlet abroad for the superfluous goods, their price is ruinously depressed, and the producers are involved in inextricable difficulties. The businesses deepest entrenched behind ramparts of prohibitions and restrictions, such as the silk trade previously to 1825, the West India trade, and agriculture since 1815, have undergone the most extraordinary vicissitudes; and have been at once more hazardous and less profitable than the businesses carried on under a system of fair and free competition.

A prohibition against buying in the cheapest markets is really, also, a prohibition against selling in the dearest markets. There is no test of high or low price, except the quantity of other produce for which an article exchanges. Suppose that, by sending a certain quantity of cottons or hardware to Brazil, we might get in exchange 150 hhds. of sugar, and that the same quantity, if sent to Jamaica, would only fetch 100 hhds; is it not obvious, that by preventing the importation of the former, we force our goods to be sold for *two thirds* of the price they would otherwise have brought? To suppose that a system productive of such results can be a means of increasing wealth, is to suppose what is evidently absurd. It is certainly true that a restrictive regulation, which has been long acted upon, and under which a large amount of capital is employed, should not be rashly or capriciously repealed. Every change in the public economy of a great nation ought to be gone about cautiously and gradually. Adequate time should be given to those who carry on businesses that have been protected, either to withdraw from them altogether, or to prepare to withstand the fair competition of foreigners. But this is *all* that such persons can justly claim. To persevere in an erroneous and oppressive system, merely because its abandonment might be productive of inconvenience to individuals, would be a proceeding inconsistent with every object for which society is formed, and subversive of all improvement.

It may, perhaps, be supposed that in the event of commodities being imported from abroad, after the abolition of a protecting regulation, that were previously produced

at home, the workmen and those engaged in their production would be thrown upon the parish. Such, however, is not the case. We may, by giving freedom to commerce, change the *species* of labour in demand, but it is not possible that we should thereby change its *quantity*. If, in consequence of the abolition of restrictions, our imports were increased 4,000,000*l.* or 5,000,000*l.*, our exports, it is certain, must be augmented to the same extent: so that whatever diminution of the demand for labour might be experienced in certain departments would be balanced by a corresponding increase in others.

The pressure of taxation has often been alleged as an excuse for restrictions on commerce; but it is not more valid than the rest. Taxation may be heavy, and even oppressive; but so long as it is impartially and fairly assessed, it equally effects *all* branches of industry carried on at home, and consequently affords no ground whatever for the enactment of regulations intended to protect any particular business. And to propose to protect *all* branches of industry from foreign competition, is, in effect, to propose to put a total stop to commerce; for if nothing is to be imported, nothing can be exported. The imposition of moderate duties on foreign commodities, for the sake of revenue, is quite another thing. Several of these commodities are among the very best subjects of taxation; and when the duties on them are confined within proper bounds,—that is, when they are not so high as to exert any injurious influence over trade, or to occasion smuggling and fraud,—they cannot fairly be objected to.

It is sometimes contended, by those who assert, on general grounds, that restrictions are inexpedient, that it would be unwise, on the part of any country, to abolish them until she had obtained a security that those imposed by her neighbours would also be abolished. But the reasons that have been alleged in favour of this statement are not entitled to the least weight. It is our business to buy in the cheapest and sell in the dearest markets, without being, in any degree, influenced by the conduct of others. If they consent to repeal the restrictions they have laid on commerce, so much the better. But whatever others may do, the line of policy *we* ought to follow is clear and well defined. To refuse, for example, to buy claret, brandy, &c. from the French, because they lay restrictions on the importation of British hardware, cottons, &c., is not to retaliate upon them, but upon ourselves. The fact that we *do* import French wine and brandy shows that we do export to France, or to some other country to which France is indebted, an equivalent, in some sort, of British produce. The fear of being glutted with foreign products, unless we secure beforehand a certain outlet for our own, is the most unfounded that can be imagined. The foreigner who will take nothing of ours, can send us nothing of his. Though our ports were open to the merchants of all the countries of the world, the exports of British produce must always be equal to the imports of foreign produce; and none but those who receive our commodities, either at first or second hand, could continue to send any thing to us.

"Les étrangers ne peuvent demander ni désirer rien mieux, que la liberté de vous acheter et de vous vendre chez vous et dans vos colonies. Il faut la leur accorder, non par foiblesse et par impuissance, mais parcequ'elle est juste en elle-même, et qu'elle vous est utile. Ils ont tort sans doute de la refuser chez eux: mais cette faute d'ignorance, dont, sans le savoir, ils sont punis les premiers, n'est pas un raison qui doive vous porter à vous nuire à vous-même en suivant cet exemple, et à vous exposer aux suites et aux dépenses d'une guerre pour avoir la vaine satisfaction d'user des représailles, dont l'effet ne peut manquer de retomber sur vous, et de rendre votre commerce plus désavantageux." —(*Le Trosne de l' Ordre Social*, p. 416.)

There are some, however, who contend, that though restrictions on importation from abroad be unfavourable to opulence, and the advancement of individuals and nations in arts and civilisation, they may, notwithstanding, be vindicated on other grounds, as contributing essentially to independence and security. The short and decisive answer to this is to be found in the reciprocity of commerce. It does not enrich one individual or nation at the expense of others, but confers its favours equally on all. We are under no obligations to the Portuguese, the Russians, or any other people with whom we carry on trade. It is not *our* advantage, but *their own*, that they have in view in dealing with us. We give them the full value of all that we import; and they would suffer quite as much inconvenience as we should do were this intercourse put an end to. The independence at which those aspire who would promote it by laying restrictions on commerce, is the independence of the solitary and unsocial savage; it is not an independence productive of strength, but of weakness. "The most flourishing states, at the moment of their highest elevation, when they were closely connected with every part of the civilised world by the golden chains of successful commercial enterprise, were, according to this doctrine, in the most perfect state of absolute dependence. It was not till all these connections were dissolved, and they had sunk in the scale of nations, that their true independence commenced! Such statements carry with them their own refutation. There is a natural dependence of nations upon each other, as there is a natural dependence of

individuals upon each other. Heaven has so ordered it. Some soils, some climates, some situations, are productive exclusively of some peculiar fruits, which cannot elsewhere be profitably produced. Let nations follow this as their guide. In a rich and rising community, the opulent capitalists may be as dependent upon the poor labourers, as the poor labourers upon the opulent capitalists. So it is with nations. The mutual dependence of individuals upon each other knits and binds society together, and leads to the most rapid advancement in wealth, in intelligence, and in every kind of improvement. It is the same, but on a far larger scale, with the mutual dependence of nations. To this alone do we owe all the mighty efforts of commerce; and what lights, what generous feelings, and multiplied means of human happiness, has it not every where spread!" — (*North American Review*, No. 57.)

The principles of commercial freedom, and the injurious influence of restrictive regulations, were set in a very striking point of view by Adam Smith, in his great work; and they have been since repeatedly explained and elucidated. Perhaps, however, the true doctrines upon this subject have seldom been better stated than in the petition presented by the merchants of London to the House of Commons on the 8th of May, 1820. This document afforded a convincing proof of the progress of liberal and enlarged views. It was subscribed by all the principal merchants of the metropolis, who expressed their conviction, that the repeal of every *protective regulation* would be for the public advantage. Such an address, confirming, as it did the conclusions of science, by the approval of the best-informed and most extensive merchants of the world, had a powerful influence over the legislature. It paved the way for the reforms introduced by Mr. Huskisson; and the advantages of which they were found to be productive helped to forward the still greater and more complete reforms carried through Parliament by Sir Robert Peel. These were so very extensive that they left but little for others to accomplish; and that little having been since effected, our commercial policy is of the most liberal description. The time anticipated by the poet has already come,—

> "When free as sea or wind,
> Unbounded Thames shall flow for all mankind,
> Whole nations enter with each swelling tide,
> And seas but join the regions they divide."*

And while this change has been productive of vast advantage to this country, it has weakened the prejudices of others, and made them enter, to some extent at least, on the same enlightened course of policy.

The petition now referred to is too important to be omitted in a work of this sort.† It is as follows:—

"To the Honourable the Commons, &c. The Petition of the Merchants of the City of London,

"Sheweth,

"That foreign commerce is eminently conducive to the wealth and prosperity of a country, by enabling it to import the commodities for the production of which the soil, climate, capital, and industry, of other countries are best calculated, and to export, in payment, those articles for which its own situation is better adapted.

"That freedom from restraint is calculated to give the utmost extension to foreign trade, and the best direction to the capital and industry of the country.

"That the maxim of buying in the cheapest market, and selling in the dearest, which regulates every merchant in his individual dealings, is strictly applicable, as the best rule for the trade of the whole nation.

"That a policy founded on these principles would render the commerce of the world an interchange of mutual advantages, and diffuse an increase of wealth and enjoyments among the inhabitants of each state.

"That, unfortunately, a policy the very reverse of this has been and is more or less adopted and acted upon by the government of this and every other country; each trying to exclude the productions of other countries, with the specious and well-meant design of encouraging its own productions: thus inflicting on the bulk of its subjects, who are consumers, the necessity of submitting to privations in the quantity or quality of commodities; and thus rendering what ought to be the source of mutual benefit and of harmony among states, a constantly recurring occasion of jealousy and hostility.

"That the prevailing prejudices in favour of the protective or restrictive system may be traced to the erroneous supposition that every importation of foreign commodities occasions a diminution or discouragement of our own productions to the same extent: whereas it may be clearly shown, that although the particular description of production which could not stand against unrestrained foreign competition would be dis-

* Pope's Windsor Forest, line 397.
† It was written by Thomas Tooke, Esq., author of the valuable work on Prices.

couraged, yet, as no importation could be continued for any length of time without a corresponding exportation, direct or indirect, there would be an encouragement, for the purpose of that exportation, of some other production to which our situation might be better suited; thus affording at least an equal, and probably a greater, and certainly a more beneficial, employment to our own capital and labour.

"That of the numerous protective and prohibitory duties of our commercial code, it may be proved that, while all operate as a very heavy tax on the community at large, very few are of any ultimate benefit to the classes in whose favour they were originally instituted, and none to the extent of the loss occasioned by them to other classes.

"That among the other evils of the restrictive or protective system, not the least is, that the artificial protection of one branch of industry or source of production against foreign competition, is set up as a ground of claim by other branches for similar protection; so that if the reasoning upon which these restrictive or prohibitory regulations are founded were followed out consistently, it would not stop short of excluding us from all foreign commerce whatsoever. And the same train of argument, which, with corresponding prohibitions and protective duties, should exclude us from foreign trade, might be brought forward to justify the re-enactment of restrictions upon the interchange of productions (unconnected with public revenue) among the kingdoms composing the union, or among the counties of the same kingdom.

"That an investigation of the effects of the restrictive system at this time is peculiarly called for, as it may, in the opinion of your petitioners, lead to a strong presumption, that the distress, which now so generally prevails, is considerably aggravated by that system; and that some relief may be obtained by the earliest practicable removal of such of the restraints as may be shown to be most injurious to the capital and industry of the community, and to be attended with no compensating benefit to the public revenue.

"That a declaration against the anti-commercial principles of our restrictive system is of the more importance at the present juncture; inasmuch as, in several instances of recent occurrence, the merchants and manufacturers of foreign countries have assailed their respective governments with applications for further protective or prohibitory duties and regulations, urging the example and authority of this country, against which they are almost exclusively directed, as a sanction for the policy of such measures. And certainly, if the reasoning upon which our restrictions have been defended is worth any thing, it will apply in behalf of the regulations of foreign states against us. They insist upon our superiority in capital and machinery, as we do upon their comparative exemption from taxation, and with equal foundation.

"That nothing would tend more to counteract the commercial hostility of foreign states, than the adoption of a more enlightened and more conciliatory policy on the part of this country.

"That although, as a matter of mere diplomacy, it may sometimes answer to hold the removal of particular prohibitions, or high duties, as depending upon corresponding concessions by other states in our favour, it does not follow that we should maintain our restrictions in cases where the desired concessions on their part cannot be obtained. Our restrictions would not be the less prejudicial to our own capital and industry, because other governments persisted in preserving impolitic regulations.

"That, upon the whole, the most liberal would prove to be the most politic course on such occasions.

"That independent of the direct benefit to be derived by this country, on every occasion of such concession or relaxation, a great incidental object would be gained, by the recognition of a sound principle or standard, to which all subsequent arrangements might be referred; and by the salutary influence which a promulgation of such just views, by the legislature and by the nation at large, could not fail to have on the policy of other states.

"That in thus declaring, as your petitioners do, their conviction of *the impolicy and injustice of the restrictive system*, and in desiring every practicable relaxation of it, they have in view only such parts of it as are not connected, or are only subordinately so, with the public revenue. As long as the necessity for the present amount of revenue subsists, your petitioners cannot expect so important a branch of it as the customs to be given up, nor to be materially diminished, unless some substitute less objectionable be suggested. But it is *against every restrictive regulation of trade, not essential to the revenue, against all duties merely protective from foreign competition, and against the excess of such duties as are partly for the purpose of revenue, and partly for that of protection*, that the prayer of the present petition is respectfully submitted to the wisdom of parliament.

"May it therefore," &c.

For an account of the doctrines with respect to the *balance of trade*, and the importation and exportation of the precious metals, see the articles BALANCE OF TRADE, and EXCHANGE.

For an account of the articles imported into and exported from Great Britain, see IMPORTS AND EXPORTS.

COMPANIES. In commerce or the arts, a company is a number of persons associated for the purpose of carrying on some commercial or industrious undertaking. When there are only a few individuals associated, it is most commonly called a *copartnery*; the term company being usually applied to large associations, like the East India Company, the Bank of England, the Railway Companies, &c., who conduct their operations by means of agents acting under the orders of a board of directors.

Companies have generally been divided into two great classes — exclusive or joint stock companies, and open and regulated companies.

1. *Exclusive or Joint Stock Companies.* — By an institution of this sort is meant a company having a certain amount of capital, divided into a greater or smaller number of transferable shares, managed for the common advantage of the shareholders by a body of directors chosen by and responsible to them. After the stock of a company of this sort has been subscribed, no one can enter it without previously purchasing one or more shares belonging to some of the existing members. The partners do nothing individually; all their resolutions are taken in common, and are carried into effect by the directors and those whom they employ.

According to the common law of England, all the partners in a joint stock company are jointly and individually liable, to the whole extent of their fortunes, for the debts of the company. They may make arrangements amongst themselves, limiting their obligations with respect to each other; but unless established by an authority competent to set aside the general rule, they are all indefinitely responsible to the public. Parliament sometimes limits the responsibility of the shareholders in joint stock companies established by statute, to the amount of the shares they respectively hold. And the 6 Geo. 4. c. 96. empowers the Crown to grant charters of incorporation by which the members of corporate bodies are made individually liable, to such extent, and subject to such regulations and restrictions, as may be deemed expedient. Hence charters are now frequently granted for the purpose merely of enabling companies to sue and be sued in courts of law, under the names of some of their office-bearers, without in any respect limiting the responsibility of the shareholders to the public. This limitation cannot be implied in a charter any more than in an act of parliament, and is held not to exist unless it be distinctly set forth.

"In a private copartnery, no partner, without the consent of the company, can transfer his share to another person, or introduce a new member into the company. Each member, however, may, upon proper warning, withdraw from the copartnery, and demand payment from them of his share of the common stock. In a joint stock company, on the contrary, no member can demand payment of his share from the company; but each member may, without their consent, transfer his share to another person, and thereby introduce a new member. The value of a share in a joint stock is always the price which it will bring in the market; and this may be either greater or less, in any proportion, than the sum which its owner stands credited for in the stock of the company." — (*Wealth of Nations*, p. 333.)

The law in regard to the formation and constitution of joint stock companies is now principally determined by the 7 & 8 Vict. c. 110.; the 7 & 8 Vict. c. 111. having been passed at the same time to facilitate their dissolution and winding up. The powers given to different associations, though in some respects the same, differ widely in others, according to the special purposes for which they are organised. But it would be idle to attempt to specify in this place the peculiar rules and regulations affecting these institutions. Full information respecting most questions connected with the constitution and working of joint stock companies may, however, be found in Wordsworth's valuable treatise on the law relating to these associations; and to it we beg to refer the reader.

2. *Utility of Joint Stock Companies.* — Whenever the capital required to carry on any undertaking exceeds what may be furnished by an individual, it is indispensable, in order to the prosecution of the undertaking, that an association should be formed. In all those cases, too, in which the chances of success are doubtful, or where a lengthened period must necessarily elapse before an undertaking can be completed, an individual, though ready enough to contribute a small sum in connection with others, would, generally speaking, be very little inclined, even if he had the means, to encounter the whole responsibility of such enterprises. Hence the necessity and advantage of companies or associations. It is to them that we are indebted for those canals and railways by which every part of the country is intersected, for the formation of so many noble docks and warehouses, for the institution of our principal banks and insurance offices, and for many other establishments of great public utility carried on by the combined capital and energies of large bodies and individuals.

3. *Branches of Industry for the Prosecution of which Joint Stock Companies may be advantageously established.* — In order to ensure a rational prospect of success to a com-

pany, the undertaking should admit of being carried on according to a regular systematic plan. The reason of this is sufficiently obvious. The business of a great association must be conducted by factors or agents, and unless it be of such a nature as to admit of their duties being clearly pointed out and defined, the association would cease to have any effectual control over them, and would be, in great measure, at their mercy. An individual who manages his own affairs reaps all the advantage derivable from superior skill, industry, and economy; but the agents, and even directors of joint stock companies, labour, in most cases, entirely or principally for the advantage of others; and cannot, therefore, however conscientious, have the same powerful motives to act with energy, prudence, and economy. "Like," says Adam Smith, "the stewards of a rich man, they are apt to consider attention to small matters as not for their master's honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail more or less in the management of the affairs of such a company." It also not unfrequently happens that they suffer from the bad faith, as well as the carelessness and extravagance of their servants; the latter having in many instances endeavoured to advance their own interests at the expense of their employers. Hence the different success of companies whose business may be conducted according to a nearly uniform system,—such as dock, canal, railway, insurance, and banking companies,—and those whose business does not admit of being reduced to any regular plan, and where much must always be left to the sagacity and enterprise of those employed. All purely commercial companies, trading upon a joint stock, belong to the latter class. Not one of them has ever been able to withstand the competition of private adventurers; they cannot subject the agents they employ to buy and sell commodities in distant countries to any effectual responsibility; and from this circumstance, and the abuses that usually insinuate themselves into every department of their management, no such company has ever succeeded, unless when it has obtained some exclusive privilege, or been protected from competition.

And even with these advantages, such is the negligence, profusion, and peculation inseparable from the management of great commercial companies, that those that have had the monopoly of the most advantageous branches of commerce have rarely been able to keep out of debt. It will be shown in the article EAST INDIA COMPANY, that that association lost by its trade; and that, had it not been for the aid derived from the revenues of India, it would long since have ceased to exist. To buy in one market; to sell with profit in another; to watch over the perpetually occurring variations in the prices, and in the supply and demand of commodities; to suit with dexterity and judgment the quantity and quality of goods to the wants of each market; and to conduct each operation in the best and cheapest manner; requires a degree of unremitting vigilance and attention, which it would be visionary to expect from the directors or servants of a great joint stock association. Hence it has happened, over and over again, that branches of commerce which proved ruinous to companies, have become exceedingly profitable when carried on by individuals.

"The spirit of monopolists," to borrow the just and forcible language of Gibbon, "is narrow, lazy, and oppressive. The work is more costly and less productive than that of independent artists; and the new improvements so eagerly grasped by the competition of freedom, are admitted with slow and sullen reluctance in those proud corporations, above the fear of a rival, and below the confession of an error." (*Memoirs of his own Life, Miscellaneous Works*, i. p. 49. ed. 1814.)

We stated in the first edition of this work that the circumstances now mentioned opposed all but insuperable obstacles to the success of the companies established in this country for the prosecution of mining in America. "This business does not admit of being reduced to a regular routine system. Much must always depend on the skill and probity of the agents employed at the mines; and it must plainly be very difficult, if not quite impossible, for directors resident in London to exercise any effectual *surveillance* over the proceedings of those who are at so great a distance. Hence it is not at all likely that these establishments will ever be so productive to the undertakers, as if they had been managed by the parties themselves." And every one knows that the history of the undertakings has more than verified the truth of these statements.

The Abbé Morellet has given, in a tract published in 1769 (*Examen de la Reponse de M. N.* pp. 35—38.), a list of 55 joint stock companies, for the prosecution of various branches of foreign trade, established in different parts of Europe since 1600, every one of which had failed, though most of them had exclusive privileges. Most of those that have been established since the publication of Morellet's tract have had a similar fate.

But notwithstanding both principle and experience concur in showing how very ill fitted a large association is for the purpose of prosecuting commercial undertakings, there are cases in which they cannot be prosecuted except by associations of this sort, and when it may be expedient to grant them certain peculiar privileges. When, owing either to the disinclination or inability of government to afford protection to those engaged in any

particular department of trade, they are obliged to provide for their own defence and security, it is obviously necessary that they should have power to exclude such individuals as may refuse to submit to the measures, or to bear their due share of the expense, required for the common protection of all. The Russian Company, the East India Company, the Levant or Turkey Company, and most of the other great trading companies which have existed in this country, seem principally to have grown out of a real or supposed necessity of this sort. It was not believed that any safe or advantageous intercourse could be carried on with barbarous countries without the aid of ships of war, factories, interpreters, &c. And as government was not always able or willing to afford this assistance, the traders were formed into companies or associations, and vested with such peculiar privileges as appeared to be necessary for enabling them to prosecute the trade without any extrinsic support. "When," says Smith, "a company of merchants undertake, at their own risk and expense, to establish a new trade with some remote and barbarous nation, it may not be unreasonable to incorporate them into a joint stock company, and to grant them, in case of success, a monopoly of the trade for a certain number of years. It is the easiest and most natural way in which the state can recompense them for hazarding a dangerous and expensive experiment, of which the public is afterwards to reap the benefit. A temporary monopoly of this kind may be vindicated upon the same principles upon which a like monopoly of a new machine is granted to its inventor, and that of a new book to its author. But upon the expiration of the term, the monopoly ought certainly to determine; the forts and garrisons, if it was found necessary to establish any, to be taken into the hands of government, their value to be paid to the company, and the trade to be laid open to all the subjects of the state."—(*Wealth of Nations*, p. 339.)

It may be doubted, however, whether it be really necessary, even in such a case as that now mentioned, to establish *a joint stock company* with peculiar privileges, and whether the same thing might not be more advantageously effected by the establishment of an open or regulated company.

4. *Open or Regulated Companies.*—The affairs of such companies or associations are managed by directors appointed by the members. They do not, however, possess a common or joint stock. Each individual pays a fine upon entering into the company, and most commonly an annual contribution: a duty applicable to the business of the company is also sometimes charged upon the goods imported and exported from and to the countries with which they trade. The sums so collected are applied by the directors to fit out ambassadors, consuls, and such public functionaries as may be required to facilitate commercial dealings, or to build factories, maintain cruisers, &c. The members of such companies trade upon their own stock, and at their own risk. So that when the fine, or sum payable on admission into a regulated company, is moderate, it is impossible for its members to form any combination that would have the effect of raising their profits above the common level; and there is the same keen and close competition amongst them that there is amongst other classes of traders. A regulated company is, in fact, a device for making those engaged in a particular branch of trade bear the public or political expenses incident to it, at the same time that it leaves them to conduct their own business with their own capital, and in their own way.

Should, therefore, government at any time refuse, or be unable to afford, that protection to those engaged in any branch of trade which is necessary to enable them to carry it on, their formation into a regulated company would seem to be the most judicious measure that could be adopted; inasmuch as it would obtain for them that protection which is indispensable, without encroaching on the freedom of individual enterprise.

The African, the Levant, and some other branches of trade, were for a long time conducted by open or regulated companies. These, however, have been abolished: the African Company, by the act 1 & 2 Geo. 4. c. 28.; and the Levant Company, by the act 6 Geo. 4. c. 33. The Russia Company still exists.—(See Russia Company.)

5. *Constitution of Companies.*—When application is made to parliament for an act to incorporate a number of individuals into a joint stock company for the prosecution of any useful undertaking, care should be taken not to concede to them any privileges that may be rendered injurious to the public. If a company be formed for the construction of a dock, a road, or a canal, it may be necessary, in order to stimulate individuals to engage in the undertaking, to give them some peculiar privileges for a certain number of years. But if other persons be permanently hindered from constructing new docks, or opening new lines of communication, a lasting injury may be done to the public. It may be highly expedient to incorporate a company for the purpose of bringing water into a city; but supposing there were no springs in the vicinity, other than those to which this company has acquired a right, they might, unless restrained by the act incorporating them, raise the price of water to an exorbitant height, and make large profits for themselves at the expense and to the injury of the public. In all cases of this sort, and in the case, indeed, of all joint stock companies established for the formation of canals, railways, &c., it would be sound policy not only to limit the rates charged

for their services, or on account of the water, ships, goods, &c. conveyed by their means, but also to limit the dividends, or to fix a *maximum* beyond which they should not be augmented: enacting, that if the rates charged by the company produce more than sufficient to pay the maximum rate of dividend, and to defray the wear and tear of the aqueduct, canal, &c., they should be allowed to reduce them till they only yield this much; and, in the event of their declining to do so, that the whole surplus above paying the dividend shall be applied to purchase up the stock of the association, so that ultimately the charges on account of dividends may be entirely abolished. Had this principle been acted upon when canals first began to be formed in England, the carriage of goods conveyed by some of the most important lines of communication would now have cost almost nothing; and this desirable result might have been accomplished in the way now suggested, without, we believe, diminishing in any degree the number of those undertakings. Probably, however, the better way, in such cases, would be for the legislature to reserve to itself, when it institutes such companies, power periodically to revise their rates of charge, or to purchase up the undertakings. There are few who, at the time they engage in such enterprises, suppose that they will yield more than 10 or 12 per cent.; and vast numbers will always be disposed to engage in them, if there be any reasonable prospect of their yielding this much. Now, when such is the case, is it not the duty of government to provide, in the event of the undertaking becoming in an *unexpected* and *unusual degree profitable*, that the public should derive some advantage from it? This is not a case in which competition can reduce profits to the common level. The best, perhaps the only practicable, line for a canal or railway between any two places will be appropriated by those who are first in the field; who thus, in fact, obtain a natural monopoly of which they cannot be deprived: and hence the advantage of limiting the charges and dividends. Without discouraging enterprise it affords a security that private individuals shall not reap an unusual and unlooked-for profit at the expense of the public.

In all those cases in which companies are formed for the prosecution of undertakings that may be carried on, with equal advantage to the public, by individuals; or where there are no very considerable difficulties to overcome, or risks to encounter; they ought to enjoy no privilege whatever, but should be regarded, in every point of view, as if they were mere individuals.

For accounts of the principal joint stock and regulated companies established in this country, see the articles BANK OF ENGLAND, DOCKS, EAST INDIA COMPANY, INSURANCE, RUSSIA COMPANY, &c. &c.

6. *Companies with Limited Liability.*—These, which are denominated by the French partnerships *en commandite*, may be constituted in a great variety of ways. Thus, the liability may be limited to the amount of the sums which each partner has contributed to the capital of the partnership, or it may extend to some multiple of such sums. The liability of the manager (*Fr. gérant*) of the concern is usually unlimited; but this, of course, may or may not be the case.

It is said that the establishment of such companies would be productive of many advantages. That at present the principle of association is obstructed, and that many important undertakings are neglected from the extreme risk which attaches to joint-stock speculations; and that as the capital of a partnership with limited responsibility would be publicly declared there would be less risk of bankruptcy and fraud in dealing with it than with partnerships as now constituted. We doubt, however, whether these and similar statements are entitled to much, or, indeed, to any weight. There are, as already seen (art. 3.), certain classes of undertakings which admit of being systematically carried on, such as the construction and management of docks, railways, gas and waterworks, banks and insurance offices on a large scale, and other concerns of the same kind, which may be and are advantageously carried on by companies with limited liability. And there can be no good objection, in the event of a company being organised for any such object, to give them a charter, if they require it, limiting the responsibility of the partners to the amount of their shares. But the question now before us does not concern this class of companies, but has relation to others of a totally different description, that is, to partnerships for carrying on some branch or department of manufacturing or agricultural industry, or of domestic or foreign trade. In these cases the cost of articles, the conditions under which they are supplied, the extent of the demand, and a thousand other circumstances, are perpetually changing, so that their production and sale cannot be conducted on a routine system, but require the most vigilant attention to vary and adopt measures suited to emergencies as they arise. Now the question is, will such partnerships be more prudently and skilfully managed by those whose *all* is responsible for their proceedings, or by those whose responsibility is limited to some part (perhaps a small one) of their fortune, and to whom, consequently, their success or failure is a matter of comparative indifference? Such a question evidently admits but of one answer, which is too obvious to require being stated. It is true, no doubt, that notwithstanding the heavy responsibility under which the partners in ordinary associations

or partnerships now act, they too often display an inexcusable degree of foolhardiness. But if parties will do this when everything that they have is staked on the result, what would they not do if they could limit their liabilities and speculate, or it may be, gamble on a great scale without any fear of the result? It is all but certain that, under such circumstances, reckless speculation and bankruptcy would be increased in an extraordinary degree; and that the numbers and the intensity of those mercantile convulsions which are productive of so much misery would be very largely augmented.

But we are assured that such would not be the case, inasmuch as the capital of all societies *en commandite* would be publicly notified! But we take leave to say that such notification would merely operate to deceive and mislead the public. Suppose a partnership begins business with a capital said to amount to 10,000*l.* or 100,000*l.*, what security have we that such capital has been *bonâ fide* paid in and will be really available? And supposing that we have such security, it can be applicable only to the outset of the enterprise. In a year or a couple of years the capital may be wholly dissipated. What is to hinder the partners, if they be so disposed, from conspiring to divide among themselves some 10 or 20 per cent. profit, when, perhaps, they have not made sixpence? And yet the association may, from the ignorance of the public with respect to its real situation, continue to enjoy the same degree of credit that it did at the beginning.

It is true no doubt that it is customary, where companies with limited liability are established, to prohibit the partners or *commanditaires* from taking any share in their management, which the law vests exclusively in the manager or *gèrant*. But the policy of such prohibition, were it made effectual, is very questionable. This, however, is a question into which we need not enter; for every body knows that the probibition is good for nothing, unless it be to make that be done in a secret and underhand manner which would otherwise be done publicly and openly. And it can hardly do this without, in so far, corrupting the parties, and weakening their sense of honour and of moral rectitude.

Let it not be supposed that it is possible to obviate these abuses of partnerships *en commandite* by obliging them to publish an annual balance sheet. Such a return would be worse than useless. Even if a partnership intended to make an honest return, it would frequently make one that was false, from its inability to calculate the debts owing to it at their just value; and if it wished to dress up a return, to make a ricketty or bankrupt concern appear to be flourishing and wealthy, it would have every means and facility for doing so. The fraud might or might not be eventually detected; but if it were, it would not be till it had served its purpose, and enabled a concern, destitute alike of character and stock, to enter into speculations that could hardly fail to ruin many unsuspecting parties.

A system of this sort enables a man to escape from that responsibility which naturally attaches to all his actions, and is the grand security for their being fair and honourable. It tempts him to engage in desperate adventures, of which, if successful, he reaps all the advantage, and of which, if unsuccessful, he eludes most part of the loss. It is not easy to see how such a system can be productive of any good result. Something, perhaps, might be found to say in its favour if individuals were with difficulty found to engage in partnerships accompanied with the usual risks. But there is no such difficulty. On the contrary, every outlet, whatever may be the hazard attending it, that opens any field for the employment of capital with the prospect of even a moderate return, is immediately filled up. Why, then, should we offer such parties a bonus? Why relieve them of their natural responsibility to make them engage in pursuits into which they are ready and willing to engage without any extraordinary stimulus?

But it is said that it is unjust to interfere to hinder A, B, and C, from engaging in a partnership with limited liability; that the terms on which the partnership is to be conducted being declared, everybody is put on his guard; and that there can be no more risk in dealing with it than with any other association. But in cases of this sort justice is identical with public or general utility, and not with any abstract or imagined right. Society is founded on the principle that every man and set of men shall be responsible, in the widest sense of the term, for his or their proceedings. And this principle should be enforced in all cases, unless when it can be clearly shown that the public interests would be promoted by its suspension. But we deny that this has been or can be shown by the advocates for the general introduction of partnerships *en commandite*; for we have seen, 1st, that in all ordinary cases, such partnerships are wholly unnecessary; and, 2nd, that, if organised, they would unavoidably occasion a vast increase of fraud and of reckless speculation. There is, consequently, no ground for their introduction; but, on the contrary, had they been introduced, there are sufficient grounds why they should have been suppressed.

It is sometimes said that by making the manager or *gèrant* act under an unlimited responsibility, we should secure the advantages of both systems, that is, of the present

system of unlimited liability, and of the limited liability which it is proposed to introduce in its stead, or along with it. But it is plain that it would do nothing of the sort. If the security of the public is to be augmented by making the manager indefinitely responsible, that security would, it is obvious, be still further augmented by extending the same indefinite responsibility to all the members of the association. Under the proposed plan the *gèrant* may be a man of straw. He may be, and the probability is, that whenever it is thought desirable, he will be selected, not because he deserves the confidence of the public, but because he may be depended upon for carrying out the secret objects of the association, or of its leaders. Do what you will it is impossible to hinder him from combining with his partners to defraud the public? Provided they keep their own counsel, how is the fraud to be discovered? And supposing it to be ultimately discovered, what advantage will thence result to those who have in the meantime been swindled out of their property?

In dealing with firms or associations as they are now constituted, people trust, or believe they may trust, to the reputation for skill and integrity, and to the presumed wealth of one or more of the parties. Such parties have a character to lose; and as they at the same time act under the heaviest responsibility, the chances are ten to one that they will act discreetly, fairly, and honourably. But a partner in a society *en commandite*, has no such guarantees for his conduct. Instead of being responsible he is all but irresponsible. And it would be contradictory alike of principle and common sense to suppose that the one association should be as carefully and as honestly conducted as the other.

These reasonings might be indefinitely extended, but they have already encroached too much on our limits. And yet though brief, we incline to think that they are enough to show that the establishment of partnerships *en commandite* would be productive of very great disadvantages, unaccompanied by a single countervailing advantage.

7. *Civic Companies, or Corporations.*—Exclusive of the companies previously mentioned, a number of ancient companies or corporations exist in this and most other European countries, the members of which enjoy certain political as well as commercial privileges. When the feudal system began to be subverted by the establishment of good order and regular government in the towns, the inhabitants were divided into certain trades or corporations, by which the magistrates and other functionaries were chosen. The members of these trades, or corporations, partly to enhance the value of their privileges, and partly to provide a resource, in case of adversity, for themselves, acquired or usurped the power of enacting by-laws regulating the admission of new members, and at the same time set about providing a fund for the support of such as accident or misfortune might reduce to a state of indigence. Hence the origin of apprenticeships, the refusal to allow any one not a member of a corporation to carry on any business within the precincts of any town corporate, and the various regulations that had to be submitted to, and the fees that had to be paid by the claimants for inrolment in corporations. For a lengthened period these privileges and regulations were very oppressive. Within the last century, however, their influence has been progressively diminishing. In France, where the abuses inseparable from the system had attained to a very great height, it was entirely swept off by the Revolution: and though corporations still exist in this country, they have been stripped of several of their peculiar franchises; and should now, for the most part, be regarded more, perhaps, in the light of charitable than of political institutions. It would be well, however, were they reduced entirely to the former character; and were the few political and commercial privileges, which they still enjoy, communicated to the rest of the citizens. At their first institution, and for some time after, corporations, considered as political bodies, were probably useful; but such is no longer the case; and in so far as they now possess any special immunities, they tend to obstruct that free competition that is so advantageous.

The following extract from a *Report on the Commerce and Manufactures of the United States*, drawn up by Albert Gallatin, Esq., then secretary to the Treasury, and laid before Congress in 1816, sets the superior advantages resulting from the unrestricted freedom of industry in a very striking point of view. "No cause," says he, "has, perhaps, more promoted in every respect the general improvement of the United States, than the absence of those systems of internal restriction and monopoly which continue to disfigure the state of society in other countries. No laws exist here, directly or indirectly, confining men to a particular occupation or place, or excluding any citizen from any branch he may, at any time, think proper to pursue. Industry is, in every respect, free and unfettered; every species of trade, commerce, and profession, and manufacture, being equally open to all, *without requiring any regular apprenticeship, admission, or licence*. Hence the improvement of America has not been confined to the improvement of her agriculture, and to the rapid formation and settlement of new states in the wilderness; but her citizens have extended their commerce to every part of the globe, and carry on with complete success even those branches for which a monopoly had heretofore been considered essentially necessary.

There is in *Rees's Cyclopædia*, article *Company*, a list of the different Civic Companies belonging to the City of London, in which the periods of their incorporations, and various other particulars with respect to several of them, are specified.

COMPASS (Ger. *Ein Kompass*; Du. *Zeekompass*; Da. *Söekompass*; Sp. *Sjöcompass*; Fr. *Boussole, Compas de mer*; It. *Bussola*; Sp. *Aguja de marear*; Port. *Compasso de marear*; Rus. *Kompass korabelniii*), or mariner's compass, an instrument composed of a needle and card, by which the ship's course is directed. The needle, with

little variation, always points towards the north; and hence the mode of steering by the compass.

The common opinion is that the compass was invented by Flavio Gioia, a citizen of the once famous republic of Amalphi, very near the beginning of the fourteenth century. Dr. Robertson has adopted this opinion, and regrets that contemporary historians furnish no details as to the life of a man to whose genius society is so deeply indebted.—(*Hist. of America*, vol. i. p. 47. 8vo. ed.) But though Gioia may have made improvements on the compass, it has been shown that he has no claim to be considered as its discoverer. Passages have been produced from writers who flourished more than a century before Gioia, in which the polarity of the needle, when touched by the magnet, is distinctly pointed out. Not only, however, had this singular property been discovered, but also its application to the purposes of navigation, long previously to the fourteenth century. Old French writers have been quoted (*Macpherson's Annals of Commerce*, anno 1200; *Rees's Cyclopædia*), that seem fully to establish this fact. But whatever doubts may exist with respect to them, cannot affect the passages which the learned Spanish antiquary, Don Antonio de Capmany (*Questiones Criticas*, p. 73—132.) has given from a work of the famous Raymond Lully (*De Contemplatione*) published in 1272. In one place Lully says, "as the needle, when touched by the magnet, naturally turns to the north" (*sicut acus per naturam vertitur ad septentrionem dum sit tacta a magnete*). This is conclusive as to the author's acquaintance with the polarity of the needle; and the following passage from the same work—"as the nautical needle directs mariners in their navigation" (*sicut acus nautica dirigit marinarios in sua navigatione, &c.*) is no less conclusive as to its being used by sailors in regulating their course. There are no means of ascertaining the mode in which the needle Raymond Lully had in view was made use of. It has been sufficiently established—(see the authorities already referred to, and *Azuni, Dissertation sur l'Origine de la Boussole,*)—that it was usual to float the needle, by means of a straw, on the surface of a basin of water; and Capmany contends that we are indebted to Gioia for the card and the method now followed of suspending the needle; improvements which have given to the compass all its convenience, and a very large portion of its utility. But this part of his *Dissertation*, though equally learned and ingenious, is by no means so satisfactory as the other. It is difficult to conceive how mariners at sea could have availed themselves of a floating needle; but, however this may be, it seems most probable that Gioia had considerably improved the construction of the compass; and that, the Amalphitans having been the first to introduce it to general use, he was, with excusable partiality, represented by them, and subsequently regarded by others, as its inventor.

The statements which have sometimes been put forward in regard to the antiquity of the Chinese compass have been treated with very little respect by some great authorities*; and are much too questionable to warrant any stress being laid on them. The Chinese have never been in the habit of making distant voyages; but had the needle been used in their trading vessels, the Indians, with whom they came in contact, would no doubt have eagerly availed themselves of so valuable an invention; and they would, in all probability, have communicated it to the Arabs. There is, however, no evidence to show that the compass was used by the Indians previously to the voyage of De Gama.† And there are no good grounds for thinking that the Arabs had any knowledge of the instrument, or that it was ever used by them, till after the period when they might have learned it from the Venetians, the Amalphitans, and other European traders. The notion that we are indebted to them for the compass, appears, indeed, to have little to recommend it, except that it began to become known when the Saracens became powerful in the Mediterranean. This, however, is too weak a ground on which to found a claim. And though it be impossible to speak with perfect confidence on such a subject, the fair conclusion seems to be, that the compass is a European invention; that it was discovered in the 12th or 13th century, and brought into use in some of the countries bordering on the Mediterranean.

The reader will not consider these details out of place in a work on commerce, which the compass has done so much to extend. "Its discovery," to borrow the language of Mr. Macpherson, "has given birth to a new æra in the history of commerce and navigation. The former it has extended to every shore of the globe, and increased and multiplied its operations and beneficial effects in a degree which was not conceivable by those who lived in the earlier ages. The latter it has rendered expeditious, and comparatively safe, by enabling the navigator to launch out upon the ocean free from the danger of rocks and shoals. By the use of this noble instrument, the whole world has become one vast commercial commonwealth, the most distant inhabitants of the earth

* Capmany, p. 76. &c. The learned Mr. Forster, who is anything but inclined to underrate the obligations we are under to the Arabs, admits that they were ignorant of the compass.—*Mahomedanism Unveiled*, &c. ii. 223.

† *Azuni*, "*De la Boussole*," pp. 118—122.

are brought together for their mutual advantage, ancient prejudices are obliterated, and mankind are civilised and enlightened."—(Vol. i. p. 366.)

COMPOSITION, in commerce, commonly implies the dividend or sum paid by an insolvent debtor to his creditors, and accepted by them in payment for their debts.

CONEY WOOL (Ger. *Kaninchenwolle;* Du. *Konynhair;* Fr. *Poil de lapin;* It. *Pelo di Caniglio;* Sp. *Conejuna*), the fur of rabbits. This article is extensively used in the hat manufacture; and besides the large supplies raised at home, a great deal is imported. The imports usually range from about 120,000 to about 130,000 skins a year.

CONSTANTINOPLE (Turk. STAMBOUL), a famous city of South-eastern Europe, formerly the metropolis of the Eastern, as it still is of the Turkish Empire, on a triangular point of land, on the European side of the Sea of Marmara (Propontis), at the point where it unites with the Bosphorus, or channel leading to the Black Sea, lat. 41° 0′ 12″ N., lon. 28° 59′ 2″ E. Population variously estimated at from 500,000 to 800,000, but believed, by the best authorities, to be about 650,000. The situation of this renowned city is, in a commercial point of view, one of the finest imaginable. Standing on the narrow straits uniting the Mediterranean and Euxine Seas, she at once commands, and is the *entrepôt* for, the commerce between them. The harbour is most excellent. It consists of an extensive inlet, or arm of the sea, stretching along the north-east side of the city, which it divides from the suburbs of Galata and Pera. It has sufficient depth of water to float the largest ships, and can accommodate more than 1,000 sail. The strong current that sets through the Bosphorus into the sea of Marmara strikes against Seraglio Point—(see Plan); a part of the water, being in consequence forced into the harbour, runs along its south-western side in the direction marked by the arrows—(see Plan), till, arriving at its extremity, it escapes by the opposite side. In the middle the water is still. On leaving the port, it is necessary to keep well over to the northern side; for otherwise the ship might be taken by the current, and driven on Seraglio Point. It may be worth while, however, to remark, that, notwithstanding this inconvenience, the current has been of signal service to the city, by scouring the harbour, and carrying away the filth and ballast by which it must otherwise have been long since choked up. The distance across from Seraglio Point to the opposite suburb of Scutari, on the Asiatic coast, is rather more than an English mile. Within less than $\frac{1}{4}$ of a mile of the latter is a rocky islet, upon which is a tower and light-house, known by the name of the Tower of Leander. Foreigners reside in Galata, Pera, and the suburbs on the eastern side of the harbour; and it is there, consequently, that the principal trade of the place is carried on. The quays are good, and ships lie close alongside.

The Bosphorus, or channel of Constantinople, runs in a N. E. by N. direction about 15 miles, varying in breadth from 1$\frac{1}{4}$ to $\frac{1}{2}$ a mile. It is swept by a rapid current, which it requires a brisk gale to stem, and has throughout a great depth of water. The Hellespont, or strait of the Dardanelles, leading from the Archipelago to the Sea of Marmara, is about 13 leagues in length. Its direction is nearly N. E. Where narrowest, it is little more than a mile across. It also is swept by a strong current, and has deep water throughout.

The subjoined plan of part of Constantinople and its port is copied, without reduction, from the beautiful plan of the city and Bosphorus, drawn and engraved by M. Merzoff Robert of Munich, and published by Mr. Wilde of this city.

Nothing can be more imposing than the appearance of the city when seen from the sea, but on landing the illusion vanishes. The streets are narrow, dark, ill-paved, and irregular. Owing to the want of any effective system of police, and of the most ordinary attention to cleanliness, they are extremely filthy; and are infested with herds of dogs, and also with rats, which perform the functions of scavengers. The houses are mostly built of wood, and fires are very frequent. Most of these happen designedly; the burning of a few hundred houses being deemed the readiest and most effectual means of making the government aware of the public dissatisfaction, and of procuring a change of ministers, or a redress of grievances!

* *Weights and Measures.*—The commercial weights are—176 drams = 1 rottolo; 2·272 rottoli = 1 oke; 6 okes = 1 batman; 7$\frac{1}{2}$ batmans = 1 quintal or cantaro = 124·457 (124$\frac{1}{2}$ very nearly) lbs. avoirdupois = 56·437 kilogrammes = 116·527 lbs. of Hamburg. The quintal of cotton is 45 okes = 127·2 lbs. avoirdupois.

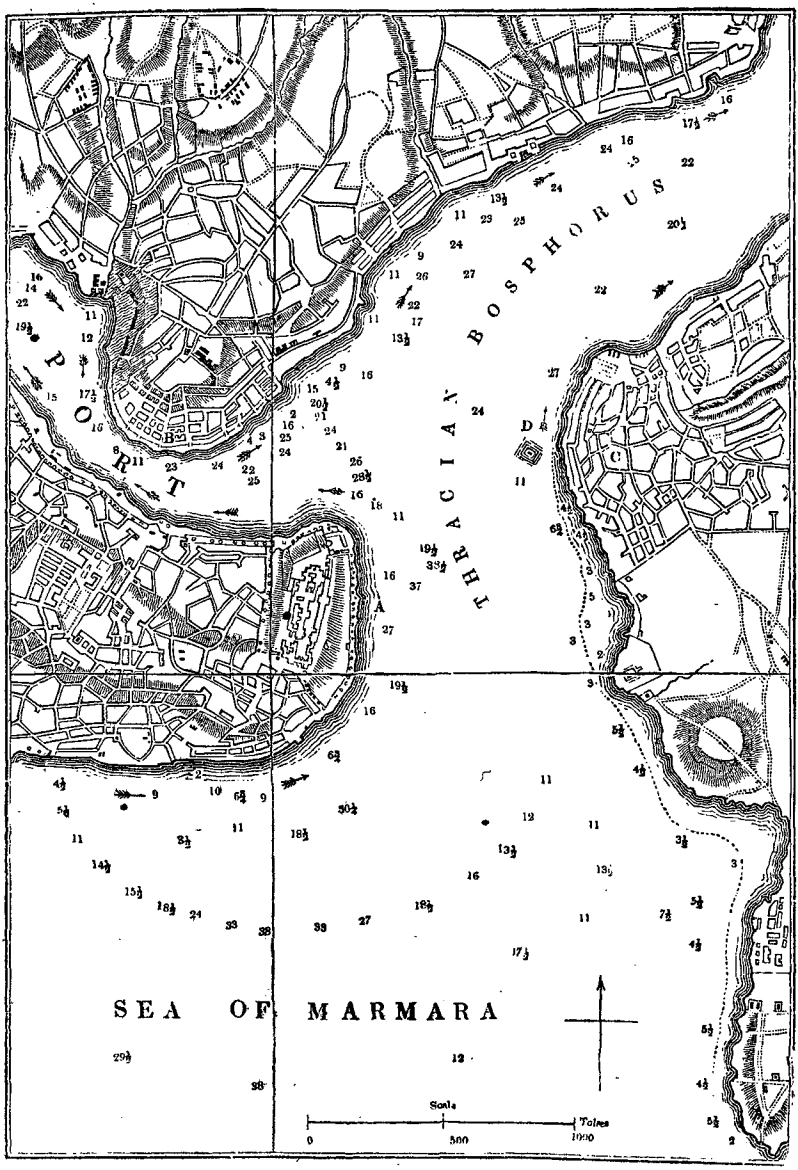
The pik, or pike, is of two sorts, the greater and the less. The greater, called *halebi* or *arschim*, used in the measurement of silks and woollens, is very near 28 inches (27·9). The lesser, called *endeze*, used in the measuring of cottons, carpets, &c. = 27 inches. Hence 100 long piks = 77·498 English yards, and 100 short piks = 75·154 do. But in ordinary commercial affairs, the pik is estimated at $\frac{3}{4}$ of an English yard.

Corn is measured by the *kisloz* or *killow* = 0·941 of a Winchester bushel; 8$\frac{1}{2}$ ki-loz = 1 quarter. The *fortin* = 4 kisloz.

Oil and other liquids are sold by the *alma* or *meter* = 1 gallon 3 pints English wine measure. The alma of oil should weigh 8 okes.—(*Nelkenbrecher* and *Dr. Kelly.*)

The *Port Charges* on account of English vessels in the harbours of the Ottoman empire are fixed by treaty at 300 aspers, neither more nor less.

Money and Banks.—Owing to successive degradations, the value of the Turkish coin has been so much reduced that the piastre, which, previously to 1770, was worth about 2*s.* 6*d.*, is so sunk as to be only worth about 2$\frac{1}{4}$*d.* But the pernicious consequences of this continued tampering with the standard



References to Plan. — A, Seraglio Point; B, Galata; C, Scutari; D, Tower and lighthouse of Leander. The arrows show the direction of the currents. The soundings are in fathoms. N.B. The port is crossed by two bridges of boats, which open in the centre to allow vessels to pass and repass, one joining the city to the suburb of Galata, and the other, farther up, to that of Pera. Vessels entering the port pass the lower bridge after sunset and those leaving it before sunrise. At each of these periods the bridge is kept open for three hours to admit of their ingress and egress. At other times it is shut.

of value were at last discerned by the Turkish authorities, and an attempt has been made to arrest the evil. In this view the old coins were called in and replaced by new ones, issued in 1844, called *Medjidiè*, from the Sultan's name. The designations and values of these coins are given in the following table.

Unluckily, however, the supply of new coins, amounting to only about 200 millions of piastres, was quite inadequate to fill the place of the old coins, and they either circulated at an agio in their favour, or were exported. To obviate the inconveniences of this state of things, *caimés*, or paper notes, were

New Money of Sultan Abdul Medjid.

Coins.	Value in Piastres.	Weight in Grammes.	Purity.	Value in Francs.
Gold: The Juslik, Sarra Juslik (yellow piece) or piece of	100	7·216	·916	22·50
The Ellilik, or piece of	50	3·608	·916	11·25
Piece of 10 piastres	10	0·722	·916	2·25
Piece of 5 piastres	5	0·361	·916	1·12
Silver: The Medjidiè, or piece of	20	24·055	·830	4·553
The Onlik, or piece of	10	12·055	·830	2·276
The Bechlik	5	6·013	·830	1·138
The Jeklik	2	2·405	·830	0·443
Copper: The Bech paras	5 paras	5·362		0·027
The *Bir* para	1 para	1·071		0·005

issued. And to maintain the latter in circulation, and the piastre at a stationary value (108 piastres to the *l.* sterling), the Bank of Constantinople was founded in 1848. But, having failed to accomplish the objects for which she was intended, and incurred a heavy loss, she was wound up in 1853, and the Ottoman Bank established in her stead. The functions of the latter are in part political, and in part commercial. She has a capital of 200 millions of piastres, in shares of 2,000 each; and is bound to withdraw from circulation old coins of the value of 497 millions, and to replace them by new coins; to receive such *caimés* as bear interest (132 millions) at par; and to receive those which do not bear interest (45 millions) at par, to the amount of one-third in the payments made to her. In return for these services she is chartered for 15 years, and is to receive an annual pension of 30 millions, with a bonus of 30 millions at the expiration of the charter. In addition to the functions now specified she transacts all sorts of ordinary banking business.—(See the excellent and instructive work of Ubicini, *Lettres sur la Turquie*, i. pp. 312—325, 2nd ed.)

It would be hazardous to speculate on the future of the Ottoman Bank. Much, of course, must depend on the regular payment of the pension of 30 millions. And that, we should think, was not a little uncertain.

Besides the new monies, the old coins of the late and former sultans, and also foreign coins, continue in circulation. But all large payments are made by the *kitze*, or purse of gold, of 30,000 piastres, and the *kis*, or purse of silver, of 500 ditto. It may be worth while to mention that Ottoman coins are not marked with the effigy of the sovereign, but merely with his cypher, *tewghra*.

Trade, &c. — Owing to the vicious institutions of the Turks, and the disorganised state of the empire, the trade of Constantinople is very far from being so extensive as might be supposed from its situation and population. The imports consist of corn, timber, tallow, and furs, principally from the Black Sea; and of cotton stuffs and yarn, iron, coal, tin, tin plates, woollens, silks, cutlery, watches and jewellery, paper, glass, furniture, indigo, cochineal, &c. from England and other European countries. Corn and coffee are imported from Alexandria; but considerable quantities of Brazil and West India coffee are also imported, particularly in British and American bottoms. Sugar is partly imported from the East, but principally from the West Indies. The exports consist of silk from Brussa, which is by far the most important article, carpets, hides, wool, Angola goats' hair, yellow berries, copper, boxwood, opium, galls, leeches, specie, and a few other articles. But the exports are always very much less than the imports; and ships carrying goods to Constantinople either return in ballast, or get return cargoes at the ports on the Black Sea, or at Smyrna, Salonica, &c., on which places they frequently procure bills at Constantinople. By far the largest proportion of the trade of this city, and of the Levant generally, is in the hands of Greek merchants, who by their superior skill, industry, and knowledge of those with whom they have to deal, have completely distanced their English, French, and other European competitors (denominated Franks). The Armenians only have been able to withstand the competition of the Greeks. Bargains are negotiated by Jew brokers, some of whom are rich.

If we formed an estimate of the trade of Constantinople from the number of vessels by which its port is visited, it would appear to be much greater than it really is. This arises from the circumstance of almost all the vessels passing from the Mediterranean to the Black Sea, and from the latter to the former, calling here, where they sometimes discharge and take on board part of their cargoes. We subjoin

An Account of the Number and Tonnage of the Foreign Ships that entered at, and cleared out from, Constantinople, in 1857, specifying the Countries to which they belonged, and the Number and Tonnage of those belonging to each.

Flags.	Entered.		Cleared.	
	Ships.	Tons.	Ships.	Tons.
American	27	9,230	27	9,230
Belgian	7	2,023	7	2,023
Bremen	7	2,676	6	2,212
Danish	31	5,781	31	5,781
English	1,358	386,775	1,348	384,696
French and Roman	465	150,495	465	150,493
Greek	2,738	461,957	2,715	454,913
Hamburg	1	135	1	135
Ionian	363	53,702	321	50,728
Mecklenburg	59	11,688	60	11,800
Neapolitan	148	40,932	150	40,963
Netherlanders	100	17,676	100	17,676
Norwegian	202	52,854	199	52,140
Austrian, Hanoverian, and Tuscan	1,706	607,480	1,701	647,256
Oldenburgers	4	669	4	669
Prussian	44	18,362	42	18,100
Russian	97	15,558	104	16,544
Sardinian	1,163	244,073	1,163	244,073
Swedish	31	8,570	31	8,570
Spanish	6	2,868	6	2,868
Total	8,557	2,093,502	8,485	2,120,830

Steam Navigation.—Constantinople is now visited by steamers from London, Liverpool, Marseilles, Trieste, Odessa, the Danube, Smyrna, and other places, and its commerce, as well as that of the empire, has, in consequence been materially promoted. The steamers belonging to the *Lloyd Austriaco* at Trieste, and the Danube Steam Company, are said to reflect great credit on these associations.

Commercial Policy of the Turks.—It is singular that as respects commerce, the policy of the Turkish government, whether originating in design or carelessness, is entitled to the highest praise. "No restrictions," says Mr. Thornton, "are laid on commerce, except in the instance of a general prohibition of exporting the articles necessary for the support of human life to foreign countries, especially from the capital, where alone it is rigorously enforced; and this impolitic restraint will no doubt be removed when the Turkish government shall become sensible that what is intended as the means of securing abundance, is, in fact, the sole cause of that scarcity which is sometimes experienced. With this one exception, commerce is perfectly free and unfettered. Every article of foreign or domestic growth or manufacture is conveyed into every port, and over every province, without any interference on the part of the magistrates, after payment of the duties. On this subject I speak from actual experience, and may appeal to every foreign or native merchant in Turkey for its general truth."—(*Present State of Turkey*, vol. i. p. 82.)

The duties on importation are extremely moderate, being only 5 per cent., viz., 3 per cent. on goods when landed, and 2 per cent. on their being admitted to consumption. But the duties on exports of native produce amount to 12 per cent., whereof 9 per cent. is paid when the goods arrive at the port whence they are to be exported, and 3 per cent. on their being shipped.*—(*Ubicini, sur la Turquie*, i. 281.) It is needless to dwell on the impolicy of a general export duty of this amount; and the better plan would be to raise the duty on imports to 10 or 12 per cent., and to reduce the duty on exports to the 3 per cent. paid on embarkation. But despite the 12 per cent. charged on exports, Turkey is entitled, in all that relates to trade, to read a lesson to most European powers; and this she did in a very able manner, in an official paper published in the *Moniteur Ottoman*, in September, 1832. We extract a few paragraphs from this interesting document.

"Good sense, tolerance, and hospitality have long ago done for the Ottoman empire, what the other states of Europe are endeavouring to effect by more or less happy political combinations. Since the throne of the sultans has been elevated at Constantinople, commercial prohibitions have been unknown; they opened all the ports of their empire to the commerce, to the manufactures, to the territorial produce of the Occident, or, to say better, of the whole world. Liberty of commerce has reigned here without limits, as large, as extended as it was possible to be.

"Here every object of exchange is admitted, and circulates without meeting any obstacle other than the payment of an infinitely small portion of the value to the Custom-house. The chimera of a balance of trade never entered into heads sensible enough not to dream of calculating whether there was most profit in buying or selling. Thus the markets of Turkey, supplied from all countries, refusing no objects which mercantile spirit puts into circulation, and imposing no charge on the vessels that transport them, are seldom or never the scenes of those disordered movements occasioned by the sudden deficiency of such or such merchandise, which, exorbitantly raising prices, are the scourges of the lower orders, by unsettling their habits, and by inflicting privations. From the system of restrictions and prohibitions arise those devouring tides and ebbs which sweep away in a day the labour of years, and convert commerce into a career of alarms and perpetual dangers. In Turkey, where this system does not exist, these disastrous effects are unknown.

"The extreme moderation of the duties is the complement of this régime of commercial liberty: and in no portion of the globe are the officers charged with the collection, of more confiding facility for the valuations, and of so decidedly conciliatory a spirit in every transaction regarding commerce.

"Away with the supposition that these facilities granted to strangers are concessions extorted from weakness! The dates of the contracts termed capitulations, which establish the rights actually enjoyed by foreign merchants, recall periods at which the Mussulman power was altogether predominant in Europe. The first capitulation which France obtained was in 1535, from Soliman the Canonist (the Magnificent). The dispositions of these contracts have become antiquated, the fundamental principles remain. Thus, 300 years ago, the sultans, by an act of munificence and of reason, anticipated the most ardent desires of civilised Europe, and proclaimed unlimited freedom of commerce."

Did the policy of Turkey in other respects harmonise with this, she would be one of the most civilised and powerful of nations, instead of being one of the most abject and degraded. Unfortunately, however, this is very far from being the case. Tyranny and insecurity universally prevail. "The cultivator of the soil," says one of her eulogists, "is ever a helpless prey to injustice and oppression. The government agents have to suffer in their turn from the cruelty and rapacity of which they themselves have been guilty; and the manufacturer has to bear his full share of the common insecurity; he is fixed to the spot, and cannot escape the grasp of the local governor. The raw material monopolised by a bey or ayan, may be forced upon him at a higher price than he could purchase it himself, and perhaps of inferior quality; fines may be imposed upon him, he may be taken for forced labour, or troops may be quartered on his workshop."—(*Urquhart on Turkey and its Resources*, p. 139.)

Some vigorous efforts have been made of late years by the Turkish government to reform abuses; but with little or no practical effect. There is, in truth, neither public virtue nor principle in the country to second these efforts. Corruption of every kind is as prevalent as ever; and the Rayas continue to be exposed to every sort of oppression. Though railways have been projected, there are at present (1859) no roads in any part of the empire; and agriculture is everywhere in the most abject condition. Indeed, vast tracts of the most fertile (and of old the most flourishing) districts of Asia Minor are wholly waste and unoccupied; and the evil, instead of diminishing, is continually increasing.† The greater density of population in European Turkey, and whatever

* This 3 per cent. is not unfrequently represented as being the entire duty on exports.

† For an account of Turkish agriculture, manufactures, &c., see Ubicini, *Lettres sur la Turquie*, i. pp. 355—438. Though written with a strong bias in favour of the Turks, this is incomparably the best of the late works on Turkey.

industry is found in it, are due to the energies of the Christian population. And when the latter have been emancipated from the slavery in which they have been long held, by the expulsion of their barbarian task-masters from Europe, the beautiful provinces in which the latter have been so long permitted to encamp will again become the favourite seats of industry and civilisation. But the degradation in which the native inhabitants are involved would have been still more complete, but for the freedom of commerce they have always enjoyed. This has tended to keep alive the seeds of industry, and to countervail to some small extent the destructive influence of oppression and insecurity. Had their intercourse with foreigners been either prohibited, or placed under oppressive restrictions, the barbarism of Turkey would have been completed, and it is difficult to suppose that there could have been anything like wealth or industry in the empire.

Trade of Turkey with England.—The trade between this country and Turkey is of considerable value and importance, though not so much so as is generally supposed. Many of the ships for the Danube, Odessa, Trebizond (cargoes in transit to Persia), and other ports on the Black Sea, clear out for Constantinople; so that the exports to Turkey appear to be a good deal larger than they are in reality. Cotton stuffs and twist are by far the largest articles of export; and next are woollens, iron and steel, coals, refined sugar, hardware and cutlery, machinery, earthenware, &c. Most part of the Turkish establishments for the manufacture of cottons, except those which use English yarn, have been given up. But the great consumption of Turkey consists of home-made fabrics, and hitherto these have not been much interfered with. Most part of the stuffs we send out are what are called plain goods; and if our coarser fabrics should begin generally to supersede those made by the Turkish peasantry, it is not easy to say to what degree the demand for them might be extended.

Of the European states, Austria and Switzerland have been our most formidable rivals in the supply of Turkey with cottons. Their stuffs were, in several respects, well fitted for the Eastern markets; but owing to the difficulty they lay under of getting returns, and the continued and rapid reduction in the price of English cottons, we have gained a decided advantage over them, and are now nearly in the exclusive possession of the market. Cheapness is everywhere the grand desideratum. Though our muslin and chintzes be inferior in fineness to those of the East, and our red dye (a colour in great esteem in Turkey, Persia, &c.) be inferior in brilliancy, these defects are more than balanced by the greater cheapness of our goods: and from Smyrna to Canton, from Madras to Samarcand, we are everywhere supplanting the native fabrics, and laying the foundations of a commerce that will be eminently beneficial to all parties.

Our commerce with Turkey has been considerably facilitated by the reduction of the duties on silks, figs, currants, and oil. Nothing, however, would contribute so much to its extension, as the establishment of order and tranquillity throughout the country. But this, we fear, is beyond the ability of the Ottoman government. The abuses which have reduced the empire to its present state of degradation seem to be inherent in the structure of Turkish society, and to be in harmony with the habits and prejudices of the people. And if such be the case, that reform, which is so much to be wished for, must come from without, and not from within. We subjoin

An Account of the Quantities and Values of the principal Articles of British and Irish Produce and Manufacture exported from the U. K. to Turkey, ex Moldavia and Wallachia, in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apparel, slops, and haberdashery value	- -	- -	- -	- -	28,397	85,015	55,755	34,325
Beer and ale - barrels	12,781	25,969	11,829	316	30,171	95,575	42,779	1,570
Coals, cinders, and culm - tons	225,770	462,549	256,557	208,098	133,725	230,585	124,628	97,069
Copper, wrought, and unwrought cwts.	2,229	4,047	6,965	21,216	15,250	28,251	44,964	143,165
Cottons: entered by the yard - yards	117,024,120	234,117,998	184,973,726	125,027,191	1,797,460	3,389,722	2,614,859	1,811,171
at value - value	- -	- -	- -	- -	4,781	19,315	21,368	15,479
Cotton yarn - lbs.	4,502,488	8,446,792	12,402,444	9,244,152	136,398	315,946	422,046	295,129
Earthenware and porcelain - value	- -	- -	- -	- -	5,731	24,273	29,041	27,381
Glass manufactures - „	- -	- -	- -	- -	11,314	36,066	28,510	12,988
Hardware and cutlery - - cwts.	2,324	8,330	11,212	8,775	15,117	50,678	63,437	55,856
Iron and steel - - - tons	8,300	20,439	16,354	18,286	81,101	187,017	152,394	177,212
Linens, entered by the yard - yards	1,245,570	3,550,771	657,752	469,220	30,885	92,177	23,599	18,208
Machinery: steam engines - value	- -	- -	- -	- -	2,160	3,330	458	19,350
all other sorts - „	- -	- -	- -	- -	12,196	18,660	22,006	31,050
Painters' colours - - - „	- -	- -	- -	- -	5,041	7,777	8,908	27,981
Plate, plated ware, jewellery, &c. „	- -	- -	- -	- -	2,571	5,496	24,762	19,731
Silk manufactures - - - „	- -	- -	- -	- -	3,179	10,376	20,504	20,020
Stationery - - - - „	- -	- -	- -	- -	7,006	36,885	21,770	17,153
Sugar, refined - - - cwts.	16,515	14,149	107,921	14,746	34,064	33,708	271,582	45,880
Tin, unwrought - - - „	6,634	5,006	4,368	4,800	39,269	28,900	28,134	31,560
Tin plates - - - value	- -	- -	- -	- -	10,907	29,796	18,473	25,551
Woollens: entered by the piece - pieces	31,712	38,092	29,322	12,709	66,307	64,679	43,464	21,124
by the yard - yards	482,046	1,024,193	527,081	640,264	22,834	60,075	28,407	40,075
at value - value	- -	- -	- -	- -	14,070	17,607	10,020	8,873
Total value of the above and of all other articles -	- -	- -	- -	- -	2,758,605	5,639,898	4,416,029	3,107,406

N.B.—The stores shipped in government transports in 1854 and 1855 are excluded from the above account. The value of the exports of foreign and colonial produce to Turkey in 1857 amounted to 155,894*l.*, but that was below the average, which may be taken at double that amount.

Account of the Quantities and Computed Values of the Principal Articles imported into the U. K. from Turkey, ex Moldavia and Wallachia, during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Berries, yellow - - cwts.	3,668	4,021	6,751	4,761	12,838	9,416	16,540	10,595
Boxwood - - tons	1,969	1,134	1,715	2,227	18,706	10,776	15,921	21,045
Corn: wheat - - qrs.	156,940	80,688	112,825	11,767	494,361	282,407	301,806	26,156
,, barley - - ,,	71,694	6,412	112,047	56,408	94,992	7,801	156,866	71,519
,, maize - - ,,	55,589	64,325	62,711	100,981	111,178	142,519	100,338	180,196
,, other kinds - - ,,	737	988	19,489	1,610	1,290	1,801	24,546	3,006
Figs - - - cwts.	19,263	38,238	34,794	31,666	43,342	91,294	73,068	63,333
Galls - - - ,,	1,606	3,055	1,723	2,113	7,227	11,609	7,136	10,116
Madder root - - - ,,	77,385	93,755	101,091	134,195	212,809	246,107	303,273	402,585
Oil, or otto, of roses - - lbs.	1,885	943	1,249	1,247	19,603	9,806	14,242	14,047
Opium - - - ,,	76,703	102,373	74,914	125,022	65,197	72,941	58,993	97,934
Raisins - - - cwts.	105,400	93,302	54,421	66,305	158,100	107,297	107,482	163,246
Scammony - - - lbs.	6,172	6,509	10,254	20,702	4,937	6,184	11,066	26,050
Seed: flax and linseed - - qrs.	56,591	102,108	20,016	1,582	173,309	321,640	54,544	4,875
,, millet - - - cwts.	3,675	22,685	1,005	10,388	5,512	34,028	653	3,463
Silk: raw - - - lbs.	213,766	153,892	197,062	216,305	154,090	102,595	159,292	191,721
,, waste, knubs, and husks - cwts.	100	231	504	371	419	1,296	8,466	6,882
Sponge - - - lbs.	170,470	509,445	268,754	283,227	53,209	151,514	147,815	146,696
Tallow - - - cwts.	-	17,239	5,186	7,304	-	37,926	12,316	20,846
Tobacco, unmanufactured - lbs.	3,587,712	589,147	1,168,304	964,498	70,583	12,894	42,600	37,088
Valonia - - - tons	15,295	8,755	18,789	23,161	198,855	121,508	257,409	326,570
Wool, or hair, goats' - - lbs.	1,189,147	2,871,011	2,574,724	2,809,865	113,960	284,111	278,928	339,525
Wool, sheep and lambs' - ,,	1,134,052	604,123	548,295	1,168,172	57,735	22,310	23,417	48,922
Woollen manufactures, carpets and rugs - - sq. yds.	45,861	36,560	33,086	45,365	18,344	14,624	13,234	18,146
Total value of the above and of all other articles - - - -					2,219,298	2,294,571	2,383,029	2,317,232

CONSUL, in commerce, an officer appointed by competent authority to reside in foreign countries, in the view of facilitating and extending the commerce carried on between the subjects of the country which appoints him, and those of the country or place in which he is to reside.

Origin and Appointment of Consuls.— The office of consul appears to have originated in Italy, about the middle of the twelfth century. Soon after this, the French and other Christian nations trading to the Levant began to stipulate for liberty to appoint consuls to reside in the ports frequented by their ships, that they might watch over the interests of their subjects, and judge and determine such differences with respect to commercial affairs as arose amongst them. The practice was gradually extended to other countries; and in the sixteenth century was generally established all over Europe. — (*Martens, Précis du Droit des Gens*, § 147.)

British consuls were formerly appointed by the Crown, upon the recommendation of great trading companies, or of the merchants engaged in the trade with a particular country or place; but they are now directly appointed by government, without requiring any such recommendation, though it, of course, is always attended to when made.

The right of sending consuls to reside in foreign countries depends either upon a tacit or express convention. Hence their powers differ very widely in different states. In some they exercise a very extensive jurisdiction over the subjects of the state which appoints them; but the extent of this jurisdiction is not discretionary, and must, in all cases, be regulated either by an express convention between the state appointing and the state receiving the consul, or by custom. Consuls established in England have no judicial power; and the British government has rarely stipulated with other powers for much judicial authority for its consuls. Turkey, however, is an exception to this remark. English consuls enjoy in that country several peculiar privileges conferred by ancient treaties, and confirmed by that signed at the Dardanelles in 1809. It is there stipulated and agreed upon —

"That if there happen any suit, or other difference or dispute, among the English themselves, *the decision thereof shall be left to their own ambassador or consul*, according to their custom, without the judge or other governors, our slaves, intermeddling therein.

"That if an Englishman, or other subject of that nation, shall be involved in any lawsuit, or other affair connected with law (with a Turk), the judge shall not hear nor decide thereon, until the ambassador, consul, or interpreter shall be present; and all suits exceeding the value of 4000 aspers shall be heard at the Sublime Porte, and nowhere else.

"That the consuls appointed by the English ambassadors in our sacred dominions, for the protection of their merchants, shall never, under any pretence, be imprisoned, nor their houses sealed up, nor themselves sent away; but all suits or differences in which they may be involved, shall be represented to our Sublime Porte, where their ambassador will answer for them.

"That in case any Englishman, or other person subject to that nation, or navigating under its flag, should happen to die in our sacred dominions, our fiscal and other officers shall not, upon pretence of its not being known to whom the property belongs, interpose any opposition or violence, by taking or seizing the effects that may be found at his death, but they shall be delivered up to such Englishman, whoever he may be, to whom the deceased may have left them by his will; and should he have died intestate, then the property shall be delivered up to the English consul, or his representative who may be then present; and in case there be no consul, or consular representative, they shall be registered by the judge, in order to his delivering up the whole thereof, whenever any ship shall be sent by the ambassador to receive them."

Conformably to these capitulations, and the by-laws of the Levant Company, Nos. 39, 40, and 41., the consuls were authorised to administer justice in all cases of contention

amongst British subjects within the Turkish dominions; and they were further authorised to send to England, in safe custody, any British subject resident in Turkey, who should decline their jurisdiction, or appeal from them to the courts of the Grand Signior, or of any other potentate. And the act 6 Geo. 4. c. 33. § 4., for the abolition of the Levant Company, expressly provides for the continuance to the consuls appointed by his Majesty, of the same rights and duties of jurisdiction over British subjects in Turkey, that were enjoyed by the consuls appointed by the Company.

At present, therefore, consuls in Turkey enjoy extensive judicial powers; but owing to the freedom of Turkish commerce, and the simplicity of the regulations under which it is carried on, their other functions, with the exception of furnishing statistical details, Mr. Urquhart, whose opinion as to all that respects Turkey is deservedly of considerable weight, seems to think that the judicial powers enjoyed by the European consuls in that country have been productive of much mischief. Still, however, we doubt whether they could be entirely dispensed with in a country so peculiarly situated. But there can be no doubt that it is highly necessary that the greatest care should be taken in the selection of the individuals to whom such powers are entrusted.

Other states have occasionally given to consuls similar powers to those conceded to them in Turkey. Thus, in the treaty between Sweden and the United States of America, ratified on the 24th of July, 1818, it is stipulated that the consuls appointed by either government to reside within the dominions of the other, or their substitutes, "shall, as such, have the right of acting as judges or arbiters in all cases of differences which may arise between the captains and crews of the vessels of the nation whose affairs are intrusted to their care. The respective governments shall have no right to interfere in these sort of affairs, except in the case of the conduct of the crews disturbing public order and tranquillity in the country in which the vessel may happen to be, or in which the consul of the place may be obliged to call for the intervention and support of the executive power, in order to cause his decision to be respected; it being, however, well understood, that this sort of judgment or arbitration cannot deprive the contending parties of their rights of appealing on their return to the judicial authorities of their country."

Duties of Consuls.—The duties of a consul, even in the confined sense in which they are commonly understood, are important and multifarious. It is his business to be always on the spot, to watch over the commercial interests of the subjects of the state whose servant he is; to be ready to assist them with advice on all doubtful occasions; to see that the conditions in commercial treaties are properly observed; that those he is appointed to protect are subjected to no unnecessary or unjustifiable demands in conducting their business; to represent their grievances to the authorities at the place where they reside, or to the ambassador of the sovereign appointing him at the court on which the consulship depends, or to the government at home; in a word, to exert himself to render the condition of the subjects of the country employing him, within the limits of his consulship, as comfortable, and their transactions as advantageous and secure as possible.

The following more detailed exposition of the *general* duties of a British consul, is taken from Mr. Chitty's work on *Commercial Law*: —

"A British consul, in order to be properly qualified for his employment, should take care to make himself master of the language used by the court and the magistracy of the country where he resides, so as to converse with ease upon subjects relating to his duties. If the common people of the port use another, he must acquire that also, that he may be able to settle little differences without troubling the magistracy of the place for the interposition of their authority; such as accidents happening in the harbour, by the ships of his nation running foul of and doing damage to each other.

"He is to make himself acquainted, if he be not already, with the law of nations and treaties, with the tariff or specification of duties on articles imported or exported, and with all the municipal ordinances and laws.

"He must take especial notice of all prohibitions to prevent the export or import of any articles, as well on the part of the state wherein he resides, as of the government employing him; so that he may admonish all British subjects against carrying on an illicit commerce, to the detriment of the revenues, and in violation of the laws, of either. And it is his duty to attend diligently to this part of his office, in order to prevent smuggling, and consequent hazard of confiscation or detention of ships, and imprisonment of the masters and mariners.—(*Beawes, Lex Merc.* vol. ii. p. 42.)

"It is also his duty to protect from insult or imposition British subjects of every description within his jurisdiction. If redress for injury suffered is not obtained, he is to carry his complaint by memorial to the British minister residing at the court on which the consulship depends. If there be none, he is to address himself directly to the court; and if, in an important case, his complaint be not answered, he is to transmit the memorial to his majesty's secretary of state.—(*Beawes, Warden, &c.*)

"When insult or outrage is offered by a British subject to a native of the place, and the magistrate thereof complains to the consul, he should summon, and in case of disobedience may by armed force bring before him the offender, and order him to give immediate satisfaction; and if he refuse, he resigns him to the civil jurisdiction of the magistrate, or to the military law of the garrison; nevertheless *always acting as counsellor or advocate at his trial*, when there is question of life or property.

"But if a British subject be accused of an offence alleged to have been committed at sea, within the dominion or jurisdiction of his sovereign, it is then the duty of the consul to claim cognizance of the cause for his sovereign, and to require the release of the parties, if detained in prison by the magistracy of the place on any such accusation brought before them, and that all judicial proceedings against them do instantly cease; and he may demand the aid of the power of the country, civil and military, to enable him to secure and put the accused parties on board such British ship as he shall think fit, that they may be conveyed to Great Britain, to be tried by their proper judges. If, contrary to this requisition, the magistrates of the country persist in proceeding to try the offence, the consul should then draw up and transmit a memorial to the British minister at the court of that country; and if that court give an evasive answer, the consul should, if it be a sea offence, apply to the Board of Admiralty at London, stating the case; and upon their representation, the secretary for the proper department will lay the matter before the king, who will cause the ambassador of the foreign state, resident in England, to write to his court abroad, desiring that orders may immediately be given by that government, that all judicial proceedings against the prisoner be stayed, and that he be released.—(See *Case of Horseman and his Crew*, *Beawes*, vol. ii. p. 422.)

"It is the duty also of a British consul to relieve all distressed British mariners, to allow them 6*d.* daily for their support, to send them home in the first British vessels that sail for England, and to keep a regular account of his disbursements, which he is to transmit yearly, or oftener if required, to the Navy Office, attested by two British merchants of the place: this is provided for by positive enactment.—(1 *Geo.* 2. s. 2. c. 14. § 12.) He is also to give free passes to all poor British subjects wishing to return home, directed to the captains of the king's packet boats, or ships of war, requiring them to take them on board.—(See SEAMEN.)

"The consul is not to permit a British merchant ship to leave the port where he resides without his passport, which he is not to grant until the master and crew thereof have satisfied all just demands upon them; and for this purpose he ought to see the governor's pass of a garrisoned town, or the burgomaster's; unless the merchant or factor to whom the ship was consigned will make himself responsible.—(*Beawes*, *Lex Merc.* vol. ii. p. 423.)

"It is also his duty to claim and recover all wrecks, cables and anchors, belonging to British ships, found at sea by fishermen or other persons, to pay the usual salvage, and to communicate a report thereof to the Navy Board.

"The consuls and vice-consuls of his Majesty are, by express enactment (46 Geo. 3. c. 98. § 9.), empowered to administer oaths in all cases respecting quarantine, in like manner as if they were magistrates of the several towns or places where they respectively reside. It is also laid down, that a consul is to attend, if requested, all arbitrations where property is concerned between masters of British ships and the freighters, being inhabitants of the place where he resides."—(*Chitty on Commercial Law*, vol. i. pp. 58—61., and the numerous authorities there quoted.)

Any individual, whether he be a subject of the state by which he is appointed, or of another, may be selected to fill the office of consul, provided he be approved and admitted by the government in whose territory he is to reside. In most instances, however, but not always, consuls are the subjects of the state appointing them.

Much, however, of the peculiar duties of a consul must always depend on the nature of the intercourse with the country to which he is sent, and of the instructions given him. British consuls are regularly supplied with copies of all acts relating to trade and navigation, quarantine, slave trade suppression, emigration, &c., and with the treaties between this and other countries, and must, of course, shape their conduct accordingly. They are strictly forbidden from corresponding with private parties on public matters. We subjoin an extract from the *General Instructions for British Consuls*.

"He will bear in mind that it is his principal duty to protect and promote the lawful trade and trading interests of Great Britain, by every fair and proper means, taking care to conform to the laws and regulations in question; and whilst he is supporting the lawful trade of Great Britain, he will take special notice of all prohibitions with respect to the export or import of specified articles, as well on the part of the state in which he resides, as of the government of Great Britain, so that he may caution all British subjects against carrying on an illicit commerce to the detriment of the revenue, and in violation of the laws and regulations, of either country; and he will not fail to give to this department immediate notice of any attempt to contravene those laws and regulations.

"The consul will give his best advice and assistance, when called upon, to his Majesty's trading subjects, quieting their differences, promoting peace, harmony, and good-will amongst them, and conciliating as much as possible the subjects of the two countries, upon all points of difference which may fall under his cognizance. In the event of any attempt being made to injure British subjects, either in their persons or property, he will uphold their rightful interests, and the privileges secured to them by treaty,

by due representation in the proper official quarter. He will, at the same time, be careful to conduct himself with mildness and moderation in all his transactions with the public authorities, and he will not upon any account urge claims, on behalf of his Majesty's subjects, to which they are not justly and fairly entitled. If redress cannot be obtained from the local administration, or if the matter of complaint be not within their jurisdiction, the consul will apply to his Majesty's consul-general, or to his Majesty's minister, if there be no consul-general in the country wherein he resides, in order that he may make a representation to the higher authorities, or take such other steps in the case as he may think proper; and the consul will pay strict attention to the instructions which he may receive from the minister or consul-general."

Emoluments of Consuls. Prohibition of Trading, &c.—The emoluments of our consuls were, until these few years, principally derived from certain fees, depending on the tonnage, length of the voyages, &c. of the British ships entering and clearing out of the limits of their consulships. But this mode of remunerating them was materially changed by the act of 6 Geo. 4. c. 87. The fees payable under this act — (see *post*) — are but inconsiderable: but the deficiency has been, partly at least, compensated by salaries allowed by government.

At present British consuls are, in some instances, permitted to carry on trade, while in others they are interdicted from having anything to do with it. The principle on which the distinction is made does not seem very obvious. We observe, for example, that the consul at St. Petersburg, who must have a great deal to do, is allowed to trade; while the consul at Odessa, whose duties must be much lighter, is denied this privilege. There is the same distinction between the consuls at Venice and Trieste; the latter, whose duties must be the heavier of the two, being allowed to act as a merchant, while the other is not. If this distinction must be kept up, the preferable plan would seem to be to interdict all consuls resident at the great ports, and those resident at other ports, principally in the character of political agents, from trading; and to permit it to others. The public duties of the former are either quite sufficient wholly to engross their attention, or they are of such a kind as would make it very inexpedient for those employed in them to be occupied in mercantile pursuits; in the case of the smaller class of ports, but little frequented by British ships, and where the consuls have no peculiar political functions to discharge, there is a less urgent necessity for prohibiting them from carrying on business on their own account. At the same time, however, we are clearly of opinion that it would in *all* cases be better not to allow consuls to engage, either directly or indirectly, in any sort of industrious undertaking. The main end and purpose of their institution is the facilitating of commerce with the nation in which they reside; and in furtherance of such object they ought, on all occasions, to communicate the fullest and earliest information in their power touching commercial matters, not only to the government that appoints them, but to such of its subjects as may apply for their advice and assistance. But, however advantageous publicity may be to others, it may in various ways be extremely hostile to the interests of the consul considered in his capacity of a merchant; and, when his own advantage and his public duty are set in opposition, it requires little sagacity to discover which will have the ascendancy. Hence the fair presumption is, that a trading consul will rather endeavour to profit by the peculiar information his situation may enable him to obtain, than to communicate it to others. His interests as a merchant must frequently, also, even when such is not really the case, appear to be in opposition to those of the parties for whose behoof he is said to be appointed; and under such circumstances, his proceedings, however fair, will always be liable to the suspicion of partiality. It is material, also, to observe that mercantile consuls labour under peculiar disadvantages in the obtaining of information. If a consul, not engaged in business, make a proper application to a public functionary, or merchant, for information as to any subject with which they may be acquainted, he will, in most instances, learn all that they know. But it is obvious, on general principles, and we have been assured of the fact by some of the most intelligent officers of the class, that if a trading consul make the same application, the chances are 10 to 1 he will either learn nothing, or nothing that is not false or misleading. The inquiries of the former excite no jealousy, those of the latter invariably do. The former is known to be actuated only by a feeling of liberal curiosity, or by a wish properly to discharge his public duties; but the latter, being engaged in business, gets credit only for selfish and interested motives, and is believed to be seeking the information merely that he may turn it to his own account. A mercantile consul is, therefore, uniformly the object of the suspicions of all parties, both of his countrymen, and of the foreigners amongst whom he resides. Instead of being, as he ought to be, an independent public functionary, he necessarily gets entangled in the cabals and intrigues of those whose differences it is his province to conciliate. He is tempted, also, to engage in smuggling adventures, contrary to his duty, and highly injurious to the character of his nation. And though he should be proof against temptations of this sort, he is, like all other individuals, subject to misfortune and bankruptcy; and may, in this way, bring discredit and embarrassment on the government that appoints him. These reasons seem to be far more than sufficient to vindicate the policy of interdicting consuls from trading. But were it otherwise, it is enough to decide the question to state, that if they be made properly to perform the functions of their office, it will occupy every moment of their time. To the argument in favour of the existing system derived from economical considerations, we do not attach the smallest weight. To attempt to save a few thousand pounds by allowing an important class of public functionaries to engage in avocations inconsistent with their duty, and destructive of their utility, would be something the very reverse of economy.

Cost of the Establishment. Improvements made in it.—We had occasion, in the former edition of this work, to complain of the cost and inadequacy of our consular establishment. But its expense has since been very much, and, in some instances perhaps, too much, reduced; at the same time that measures have been taken for increasing the duties of the consuls, by making them furnish details as to the trade, manufactures, duties, prices, &c., of the districts in which their consulships are situated. Hitherto this important department of what ought to be the peculiar duty of a consul has been most strangely neglected; but if it be properly attended to, it will occupy a large portion of the consul's time, and will be a field for the display of superior talents. Some of the answers made by the consuls to the *Circular Queries* prepared for the former edition of this work were drawn up with great care and intelligence, and reflected much credit on their authors. There were a good many certainly of a very inferior description; but this is not to be wondered at — it being hardly possible for those who have not given a good deal of their time to such subjects, to make a proper reply to queries relating to them. And if the system is to be perfected to the degree of which it is susceptible, the salaries allowed to the consuls ought to be such as to afford a sufficient remuneration for the services of gentlemen of character, familiar with the principles of public law, commerce, and statistics; and such only ought to be nominated to consular situations. We subjoin that part of the *General Instructions for the Consuls* that has reference to statistical inquiries.

"The consul will forward to the secretary of state, in duplicate, so soon as the information he can collect will enable him so to do, but at any rate within a period of 6 months from the date of his arrival at his residence, a general Report on the trade of the place and district, specifying the commodities, as well of the export as import trade, and the countries which supply the latter, together with the increase or decline in late years, and the probable increase or decline to be expected, and the causes in both cases.

He will state the general regulations with respect to trade at the place where he is resident, and their effects. He will give the average market prices within the year of the several articles of export and import, he will particularise what articles, if any, are absolutely prohibited to be imported into the country wherein he resides; what articles are prohibited to be imported from any other places than from the place of their growth or production; whether there be any privileges of importation, and what those privileges are, in favour of ships that are of the built of, or belonging to, the country wherein he resides; whether there be any difference in the duty on goods when imported into that country in a foreign ship, and if so, whether it be general, or applicable only to particular articles; what are the rates of duty payable on goods imported into the said country; whether there be any tonnage duty or other port dues, and what, payable on shipping entering at, or clearing from, the ports of that country; whether there be any (and, if so, what) ports in that country wherein goods may be warehoused on importation, and afterwards exported with or without payment of any duties, and under what regulations."

He is also to transmit an annual statement of the trade with the principal ports of his consulship; and quarterly returns of the prices of corn, &c. Mr. Macgregor's Tariffs have been mostly compiled from these returns.

The following are the provisions of the act 6 Geo. 4. c. 87. with respect to the salaries and charges of consuls: —

Salaries to Consuls. — "Whereas the provision which hath hitherto been made for the maintenance and support of the consuls general and consuls appointed by his Majesty to reside within the dominions of sovereigns and foreign states in amity with his Majesty, is inadequate to the maintenance and support of such consuls general and consuls, and it is expedient to make further and due provisions for that purpose;" it is therefore enacted, that it shall be lawful for his Majesty, by any orders to be issued by the advice of his privy council, to grant to all or any of the consuls general or consuls appointed by his Majesty to reside within any of the dominions of any sovereign or foreign state or power in amity with his Majesty, such reasonable salaries as to his Majesty shall seem meet, and by such advice from time to time to alter, increase, or diminish any such salaries or salary as occasion may require.—(6 *Geo.* 4. c. 87. § 1.)

Terms on which Salaries shall be granted. Leave of Absence.— Such salaries shall be issued and paid to such consuls general and consuls without fee or deduction; provided that all such salaries be granted during his Majesty's pleasure, and not otherwise, and be held and enjoyed by such consuls general and consuls so long only as they shall be actually resident at the places at which they may be so appointed to reside, and discharging the duties of such their offices: provided nevertheless, that in case his Majesty shall, by any order to be for that purpose issued through one of his principal secretaries of state, grant to any such consul general or consul leave of absence from the place to which he may be so appointed, such consul general or consul shall be entitled to receive the whole, or such part as to his Majesty shall seem meet, of the salary accruing during such period of absence.—§ 2.

Salaries in lieu of Fees formerly paid. Consuls not to take other than the Fees hereinafter mentioned.— The salaries so to be granted shall be taken by the consuls general and consuls as a compensation for all salaries heretofore granted, and all fees of office and gratuities heretofore taken by them from the masters or commanders of British vessels, or from any other person, for any duties or services by such consuls general or consuls done or performed for any such persons; and no such consuls general or consuls shall from the 1st of January, 1826, be entitled, on account of anything by him done in the execution of such his office, or for any service by him rendered to any masters or commanders of British vessels, or to any other person in the execution of such his office, to ask or take any fees, recompence, gratuity, compensation, or reward, or any sum of money, save as hereinafter is excepted.—§ 3.

Certain Fees still allowed to be taken.—It shall be lawful for all consuls general and consuls appointed by his Majesty, and resident within the dominions of any sovereign, or any foreign state or power in amity with his Majesty, to accept the several fees particularly mentioned in the tables to this present act annexed, marked with the letters A and B. for the several things and official acts and deeds particularly mentioned in the said schedules; and it shall be lawful for his Majesty, by any orders to be by him made, by the advice of his privy council, from time to time, as occasion may require, to diminish, or wholly to abolish, all or any of the fees aforesaid, and to establish and authorise the payment of any greater or smaller or new or additional fees for the several things mentioned in the said schedules, or for any other thing to be by any such consul general or consul done in the execution of such his office.—§ 4.

Penalty on Consuls demanding more Fees than specified in the Schedule.— In case any consul general or consul appointed by his Majesty as aforesaid shall, by himself or deputy, or by any person authorised thereto in his behalf, ask or accept, for anything by him done in the execution of such his office, or for any service or duty by him rendered or performed in such his office, for any person whomsoever, any other or greater fee or remuneration than is specified in the schedule, or than shall be sanctioned and specified in or by any such order in council, the person so offending shall forfeit and become liable to pay to his Majesty any sum of sterling British money, not exceeding the amount of the salary of such person for 1 year, nor less than the 12th part of such annual salary, at the discretion of the court in which such penalty may be recovered; and shall moreover upon a second conviction for any such offence forfeit such his office, and for ever after become incapable of serving his Majesty in the same or the like capacity.—§ 5.

Table of Fees to be exhibited at Custom-houses.—A printed copy of the tables of fees allowed by this act or which may be sanctioned or allowed by any order to be made in pursuance of this act by his Majesty in council, shall be exhibited in a conspicuous manner, for the inspection of all persons, in the Custom-house in the port of London, and in all other Custom-houses in the several ports and harbours of the U. Kingdom of Great Britain and Ireland; and printed copies thereof shall, by the collector or other chief officer of customs in all such ports and harbours, be delivered gratuitously, and without fee or reward, to every master of any vessel clearing out of any such port or harbour, and demanding a copy thereof.—§ 6.

Table of Fees to be exhibited at Consuls' Offices.— A copy of the schedule or table of fees to this present act annexed, or which may be established and authorised by any such order in council, shall be hung up and exhibited in a conspicuous place in the public offices of all consuls general or consuls appointed by his Majesty, in the foreign places to which they may be so appointed, for the inspection of all persons interested therein; and any consul general or consul omitting or neglecting to exhibit any such copy of the schedules in such his public office, or refusing to permit the same to be inspected by any person interested therein, shall for every such offence forfeit and pay a sum of British sterling money not exceeding one half the amount of the salary of such person for 1 year, nor less than the 12th part of such annual salary, at the discretion of the court in which such penalty may be recovered. —§ 7.

Superannuation. — "And whereas it is expedient that his Majesty should be enabled to grant to the said consuls general and consuls, appointed as aforesaid, allowances in the nature of superannuation or reward for meritorious public services;" it is further enacted, that all the regulations contained in 50 Geo. 3. c. 117., 3 Geo. 4. c. 113., 5 Geo. 4. c. 104., respecting superannuation allowances, are hereby extended to the said consuls general and consuls, so far as such regulations can be applied to the cases of such several persons respectively, as fully to all intents and purposes as if the same were repeated and enacted in this present act. —§ 8.

Allowances during War.—If it shall at any time happen that by reason of any war which may hereafter arise between his Majesty and any sovereign, or foreign state or power, within the dominions of whom

any such consul general or consul shall be appointed to reside, he shall be prevented from residing, and shall in fact cease to reside, at the place to which he may be so appointed, it shall be lawful for his Majesty, by any order to be issued by the advice of his privy council, to grant to any such consul general or consul, who may have served his Majesty in that capacity for any period not less than 3 years, nor more than 10 years next preceding the commencement of any such war, a special allowance not exceeding the proportion of their respective salaries to which such consuls general and consuls would be entitled under the provisions of the said act of 3 Geo. 4., in case the period of their respective service had exceeded 10 years and had not exceeded 15 years: provided that in case any such consul general or consul shall have served in such his office for the space of 10 years and more, it shall be lawful for his Majesty, by any such order in council as aforesaid, to grant to him such a proportion of his salary, which, by the said act is authorised to be granted, as a superannuation allowance, according to the several periods of service exceeding 10 years, in the said act. — § 9.

Commencement. — This act shall take effect from the 1st of January, 1826, except where any other commencement is particularly directed. — § 22.

Tables of Fees allowed to be taken by Consuls General and Consuls, by the preceding Act of 6 Geo. 4. c. 87.

Table A.—Certificate of due landing of goods exported from the United Kingdom	-	2 dollars.
Signature of ship's manifest	-	2 do.
Certificate of origin, when required	-	2 do.
Bill of health, when required	-	2 do.
Signature of muster-roll, when required	-	2 do.
Attestation of a signature, when required	-	1 do.
Administering an oath, when required	-	½ do.
Seal of office, and signature of any other document not specified herein, when required	-	1 do.
Table B.—Bottomry or arbitration bond	-	2 do.
Noting a protest	-	1 do.
Order of survey	-	2 do.
Extending a protest or survey	-	1 do.
Registrations	-	½ dollar.
Visa of passport	-	½ do.
Valuation of goods	-	1 per cent.
Attending sales, ½ per cent. where there has been a charge for valuing; otherwise 1 per cent.		
Attendance out of consular office at a shipwreck, 5 dollars per diem for his personal expenses, over and above his travelling expenses.		
Ditto on opening a will	-	5 dollars.
Management of property of British subjects dying intestate	-	2½ per cent.

The dollars mentioned in the preceding tables are in all cases to be paid by the delivery of dollars, each of which is to be of the value of 4*s.* 6*d.* sterling, and no more, according to the rate of exchange prevailing at the place where such payment is made.

CONTRABAND, in commerce, a commodity prohibited to be exported or imported, bought or sold.

CONTRABAND is also a term applied to designate that class of commodities which neutrals are not allowed to carry during war to a belligerent power. (See NEUTRALITY.)

CONVOY, in navigation, the term applied to designate a ship or ships of war, appointed by government, or by the commander in chief on a particular station, to escort or protect the merchant ships proceeding to certain ports. Convoys are mostly appointed during war; but they are sometimes, also, appointed during peace, for the security of ships navigating seas infested with pirates.

Individuals have not always been left to themselves to judge as to the expediency of sailing with or without convoy. The governments of most maritime states have thought proper, when they were engaged in hostilities, to oblige their subjects to place themselves under an escort of this sort, that the enemy might not be enriched by their capture. Acts to this effect were passed in this country during the American war and the late French war. The last of these acts (43 Geo. 3. c. 57.) enacted, that it should not be lawful for any ship belonging to any of his Majesty's subjects (except as therein provided) to depart from any port or place whatever, unless under such convoy as should be appointed for that purpose. The master was required to use his utmost endeavours to continue with the convoy during the whole voyage, or such part thereof as it should be directed to accompany his ship; and not to separate therefrom without leave of the commander, under very heavy pecuniary penalties. And in case of any ship departing without convoy contrary to the act, or wilfully separating therefrom, all insurances on the ship, cargo, or freight, belonging to the master, or to any other person directing or privy to such departure or separation, were rendered null and void. The customs officers were directed not to allow any ship that ought to sail with convoy to clear out from any place in the U. Kingdom for foreign parts, without requiring from the master, bond with one surety, with condition that the ship should not depart without convoy, nor afterwards desert or wilfully separate from it. The regulations of this act did not extend to ships not requiring to be registered, nor to those licensed to sail without convoy, nor to those engaged in the coasting trade, nor to those belonging to the East India Company, &c.

It is very common, during periods of war, to make *sailing or departing with convoy* a condition in policies of insurance. This, like other warranties in a policy, must be *strictly* performed. And if a ship warranted to sail with convoy, sail without it, the policy becomes void, whether this be imputable to any negligence on the part of the insured, or the refusal of government to appoint a convoy.

There are five things essential to sailing with convoy: viz. *first*, it must be with a regular convoy under an officer appointed by government; *secondly*, it must be from the place of rendezvous appointed by government; *thirdly*, it must be a convoy for the voyage; *fourthly*, the master of the ship must have sailing instructions from the commanding officer of the convoy; and *fifthly*, the ship must depart and continue with the convoy till the end of the voyage, unless separated by necessity.

With respect to the third of these conditions we may observe, that a warranty to sail with convoy generally means a convoy *for the voyage;* and it is not necessary to add the words "for the voyage" to make it so. Neither will the adding of these words in some instances, make the omission of them, in any case, the ground of a different construction. A warranty to sail with convoy does not, however, uniformly mean a convoy that is to accompany the ship insured the entire way from the port of departure to her port of

destination; but such convoy as government may think fit to appoint as a sufficient protection for ships going the voyage insured, whether it be for the whole or only a part of the voyage.

Sailing instructions, referred to in the fourth condition, are written or printed directions delivered by the commanding officer of the convoy to the several masters of the ships under his care, that they may understand and answer signals, and know the place of rendezvous appointed for the fleet in case of dispersion by storm, or by an enemy, &c. These sailing instructions are so very indispensable, that no vessel can have the full protection and benefit of convoy without them; hence, when, through the negligence of the master, they are not obtained, the ship is not said to have sailed with convoy; and a warranty in a policy of insurance to that effect is held not to be complied with. If, however, the master do all in his power to obtain sailing instructions, but is prevented from obtaining them by any insuperable obstacle, as the badness of the weather; or if they be refused by the commander of the convoy; the warranty in the policy is held to be complied with.

For further information as to convoy, see *Abbott on the Law of Shipping*, part iii. c. 3.; *Marshall on Insurance*, book i. c. 9. § 5., and the *Act* 43 *Geo.* 3. c. 57. &c.

COPAIVA. See BALSAM.

COPAL, improperly called gum copal, is a valuable and singular kind of resin, that naturally exudes from different large trees, and is imported partly from America, and partly from the East Indies. The best copal is hard and brittle, in rounded lumps of a moderate size, easily reducible to a fine powder, of a light lemon yellow colour, beautifully transparent, but often, like amber, containing parts of insects and other small extraneous bodies in its substance. Its specific gravity varies from 1·045 to 1·139. It has neither the solubility in water common to gums, nor the solubility in alcohol common to resins, at least in any considerable degree. It may be dissolved by digestion in drying linseed oil, and other volatile menstrua. This solution forms a beautiful transparent varnish, which, when properly applied, and slowly dried, is very hard and very durable. Copal varnish was first discovered in France, and was long known by the name of *vernis martin*. It is applied to snuff-boxes, tea-boards, and other utensils. It preserves and gives lustre to paintings; and contributes to restore the decayed colours of old pictures, by filling up cracks, and rendering the surface capable of reflecting light more uniformly. Copal is liable to be confounded with *gum animé*, when the latter is very clear and good. But it is of importance to distinguish between them, as the animé, though valuable as a varnish, is much less so than the finest copal; the varnish with the former being darker coloured, and not so hard. Besides the external appearance of each, which is pretty distinct to a practised eye, the solubility in alcohol furnishes a useful test, — the animé being readily soluble in this fluid, while the copal is hardly affected by it; copal is also brittle between the teeth, whereas animé softens in the mouth. — (*Rees's Cyclopædia*; *Ure's Dictionary*, &c.)

The imports of gum animé and copal are not distinguished in the custom-house accounts. The entries of both for home consumption amounted, in 1842, to about 983 cwts. The duty was, in the same year, reduced from 6*s.* to 1*s.* a cwt. Copal fetches in the London market from 3*l.* to 3*l.* 10*s.* a cwt.

COPENHAGEN, the capital of Denmark, on the E. coast of the island of Zealand, in the channel of the Baltic called the Sound; lat. 55° 41′ 4″ N., lon. 12° 35′ 46″ E. Population, in 1855, 148,591. It is a well-built, handsome city. In going into Copenhagen, the course is between the buoy on the Stubben Bank to the left, and the buoy on the Middle-grounds, and those in advance of the three Crown batteries on the right, W. S. W. by compass. From the three crowns to the roads the course is S. S. W. The water in the channel is from 6 to 4 fathoms deep; but it is narrow, and the navigation rather difficult. There is no obligation to take a pilot on board; but if a vessel wish for one, she may heave to abreast of the battery, when he will come to her. Vessels not intending to come into harbour bring up in the roads, at from ¼ to ½ mile from shore, in about 4 fathoms, the town bearing S. S. W. In the harbour, within the boom, the water is from 17 to 18 feet deep. Vessels in harbour load and unload alongside the quay. The anchorage in the roads is good and safe.

Money.—Accounts are kept in rixdollars of 6 marcs, or 96 skillings; the rixdollar being formerly worth about 4*s.* 1*d.* sterling. But in 1813, a new monetary system was adopted, according to which the new or *Rigsbank* dollar is worth 2*s.* 3½*d.*, being half the value of the old specie dollar, and ⅔ of the old current dollar. But the money generally used in commercial transactions is bank money. The *par* of exchange, estimated by the Rigsbank dollar, would be 8 dollars 7·6 skillings per pound sterling.

Weights and Measures. — The commercial weights are, 16 pounds = 1 lispound; 20 lispounds = 1 shippound; 100 lbs. = 110½ lbs. avoirdupois = 134 lbs. Troy = 101 lbs. of Amsterdam = 105 of Hamburg.

The liquid measures are, 4 ankers = 1 ahm or ohm; 1½ ahm = 1 hogshead; 2 hogsheads = 1 pipe; 2 pipes = 1 quarter. The anker = 10 (very nearly) English wine gallons. A *fuder* of wine = 950 pots; and 100 pots = 25½ wine gallons.

The dry measures are, 4 viertels = 1 scheffel; 8 scheffels = 1 toende or ton; 12 tons = 1 last = 47⅝ Winchester bushels. The last of oil, butter, herrings, and other oily substances should weigh 224 lbs. nett.

The measure of length is the Rhineland foot = 12⅓ inches very nearly. The Danish ell = 2 feet; 100 ells = 68⅞ English yards.

Trade of Copenhagen.—This is not very considerable. But it, as well as that of the entire kingdom, is rapidly increasing; a consequence mainly of the improvement of

agriculture, occasioned in part by the formation of railways, but far more by the repeal of our corn laws and of the prohibition against importing live stock. These measures, by insuring to the Danes a convenient and advantageous market for all sorts of produce, have been nearly as advantageous to them as to ourselves. Timber, pitch and tar are chiefly imported from Sweden and Norway; flax, hemp, masts, sail-cloth, and cordage, from Russia; West India produce, from the Danish and foreign West India islands; tobacco, from America; wines and brandy, from France: coal, iron and machinery, cotton-twist, hardware, and earthenware, are the principal articles of direct importation from England. Of coal, we sent to Denmark (principally to Copenhagen), in 1857, 472,499 tons, and of iron 36,533 ditto. Owing to the erroneous policy of the Danish government, which has attempted, at a great public loss, to raise and bolster up manufactures, the direct imports of woollens and cottons are inconsiderable. These articles are not, however, prohibited. Down to 1841 they were admitted on condition of their being stamped and put up to auction by the custom-house, which, after retaining 30 per cent. of the gross produce of the sale, paid over the surplus to the importer. In the above years, however, the duty, in imitation of the German plan, was ordered to be assessed, partly according to the description of the goods, and partly according to their weight; so that the existing duty varies on cotton goods, from 3*l.* 15*s.* to 22*l.* 10*s.* per 100 lbs. Danish (equal to 110 lbs. English); and on woollens, from 2*l.* 16*s.* 3*d.* to 14*l.* 1*s.* 3*d.* per 100 lbs. Danish. But, though advantageous in some respects, this change was mischievous in others; for while it facilitated the collection of the duties, and reduced those on the finer descriptions, it added materially to those on the coarser and most essential fabrics. Hence we need not be surprised that there is an extensive illicit importation of these articles by the Elbe and Holstein frontier. The exports consist principally of the produce of the soil, as corn, rape-seed, butter and cheese, beef and pork, horses and cattle, wool, hides and skins, bones, corn-brandy, &c. At an average of the seven years ending with 1839, the annual exports of corn from Denmark were — wheat, 140,989 imp. qrs.; rye, 127,521 do.; barley, 388,068 do.; and oats, 125,986 do. In 1857 we imported from Denmark 287,466 qrs. wheat, 416,733 do. barley, 246,579 do. oats, and 22,264 do. peas and beans. (See Corn Laws.)

In 1856, the import duties in Denmark amounted to 7,041,707 rix-dollars, being about 11 per cent. of the computed value of the imports.

Trade of the U. Kingdom with Denmark.

Account of the Quantities and computed Values of the Principal Articles imported into the U. Kingdom from Denmark in 1856 and 1857.

Articles.		Quantities.		Computed Value.	
		1856.	1857.	1856.	1857.
				£	£
Animals: oxen and bulls	no.	17,094	18,450	299,145	345,937
,, cows	,,	987	1,429	14,558	21,078
,, horses	,,	239	558	5,975	8,950
,, sheep	,,	8,876	12,604	16,421	30,565
Bones	tons.	2,636	3,247	13,509	20,132
Butter	cwts.	12,993	3,810	61,390	19,118
Corn: wheat	qrs.	177,216	287,466	580,344	758,857
,, barley	,,	264,336	416,733	436,155	745,115
,, oats	,,	165,459	246,579	198,551	285,548
,, peas and beans	,,	26,385	22,264	55,806	42,190
,, other kinds	,,	1,200	11,195	2,083	19,219
Hides, not tanned	cwts.	6,477	15,263	20,237	42,234
Oil seed cake	tons.	9,905	11,303	68,183	95,566
Pork, salted	cwts.	10,615	4,036	28,395	10,998
Seeds, rape	qrs.	4,402	20,681	16,012	65,145
,, tares	,,	4,029	4,296	10,022	7,753
Wool, sheep and lambs	lbs.	2,541,587	2,198,215	95,249	121,787
Total value of these and all other articles				2,201,831	2,715,520

Account of the Quantities and declared Values of the Principal Articles of the Produce and Manufacture of the U. Kingdom exported to Denmark in 1856 and 1857.

Articles.		Quantities.		Declared Value.	
		1856.	1857.	1856.	1857.
				£	£
Coals, cinders, and culm	tons.	474,855	472,499	211,567	204,268
Copper, wrought and unwrought	cwts.	3,739	1,132	20,757	6,559
Cottons, entered by the yard	yards.	2,551,564	2,891,317	43,101	48,720
,, at value	value.	-	-	7,219	4,189
Cotton yarn	lbs.	2,647,157	1,583,049	102,913	67,536
Earthenware and porcelain	value.	-	-	16,516	20,036
Fish, herrings	barrels.	19,173	11,877	21,021	17,043
Hardwares and cutlery	cwts.	4,063	4,882	24,413	27,090
Iron, wrought and unwrought, including unwrought steel	tons.	43,102	36,533	305,779	267,295
Linens, entered by the yard	yards.	490,067	696,817	17,629	22,137
Linen yarn	lbs.	224,872	303,394	10,104	13,636
Machinery, steam engines	value.	-	-	4,335	19,126
,, all other sorts	,,	-	-	18,777	25,797
Salt	tons.	20,664	17,972	11,628	7,951
Soda	cwts.	39,417	50,144	12,236	18,072
Woollens, entered by the piece	pieces.	21,609	12,174	33,111	19,566
,, by the yard	yards.	279,278	245,560	17,780	11,680
Total value of these and all other articles				1,054,914	886,760

Account of the Imports and Exports of Denmark in 1857, in Weight and Value.

	Imports.		Exports.	
	Lbs.	*Rix Dalls.*	*Lbs.*	*Rix-Dalls.*
Denmark	1,426,160,834	39,371,113	569,091,795	16,551,241
Holstein	414,753,376	15,163,397	475,614,182	14,388,604
Schleswig	292,571,329	10,123,645	101,370,116	4,334,827
Lubec	19,662,602	441,121	4,101,201	240,131
Total	-	65,132,407	-	35,286,751

Commercial Marine of Denmark, 1st January, 1857.

	Sailing Vessels and Steamers.			*Steamers.*			
Denmark	2,651	vessels, burden	65,909½ lasts.	Denmark	27, burden	1,067½ lasts, and	1,837 horse power.
Schleswig	1,479	,, ,,	27,809¾ ,,	Schleswig	10 ,,	263½ ,,	458 ,,
Holstein	1,229	,, ,,	19,642¾ ,,	Holstein	1 ,,	67 ,,	50 ,,
Total	5,359	,, ,,	113,361¼ ,,	Total	38 ,,	1,397¾ ,,	2,345 ,,

Banks, Banking. — The national bank of Denmark, established in 1818, has its head office in Copenhagen, with branches at Odensee and Flensburg. It issues notes of 100, 50, 20, and 5 rix-dollars, payable in specie on demand, and transacts all sorts of banking business. In 1856, a private joint-stock bank was established, with a capital of 2,000,000 rix-dollars. It is to the credit of the Danish merchants that they passed through the crisis of 1857 with comparatively few failures of any importance.

Colonial Trade. — In the West Indies, the Danes possess the island of St. Croix, which, though small, is fertile and well cultivated. All the ports of Denmark may send vessels thither, and import sugar or other produce, on payment of the duties. St. Croix produced in 1849, 17,711,733 lbs. sugar, and 654,804 gall. rum; but, owing to the dryness of the season, this was a very deficient crop.

Since 1833, when the restrictions on the colonial trade were abolished, St. Croix has sometimes sent considerable quantities of sugar to the U. States. But latterly these have decreased, and the produce is now mostly brought to Denmark. The entire imports of sugar, the foreign as well as colonial, into Copenhagen, amount to about 25,000,000 lbs. a year. The imports of coffee are considerable. In 1856, they amounted to about 15,000,000 lbs. About three-fourths of the trade with the West Indies is engrossed by Copenhagen, and the rest by Flensburg. The settlements of Tranquebar and Serampore in the E. Indies were sold, in 1845, to the E. I. Company.

The trade to India and China, formerly a monopoly in the hands of a joint-stock company, was opened to the public in 1840. Several vessels have since been fitted out for the trade; but it is doubtful, from the want of produce suitable for the Eastern markets, whether it can ever attain to any considerable importance.

Port Charges vary according as the vessel has come from this or the further side of Cape Finisterre, or from the Indian seas; as she is wholly, or only part loaded; and as she clears out with goods that have been *in transitu*, and are for the most part free of duty, or has on board a cargo of native produce subject to duty. On a ship of 300 tons belonging to a privileged nation from this side Cape Finisterre, unloading and loading mixed cargoes in Copenhagen, the different public charges, brokerage, &c., would exceed 60*l.*; and from the further side of Cape Finisterre, the charges were nearly 100*l.*; but as these charges included the Sound duties, which have since been repealed, they will now be proportionally reduced. When a ship is not fully loaded, lastage money and light dues are only charged in proportion to the cargo on board. Lastage money is not charged on ships outward bound, laden with transit goods, as tar, pitch, iron, &c.

Commission on purchases is generally ½ per cent., and on sales, 3 per cent., including 1 per cent. *del credere.*

Credit. — Goods imported into Copenhagen are commonly sold on credit; 3 months is the term generally allowed on most sorts of goods, and in a few instances 6 months. The discount for ready money is 4 per cent. Bankruptcy is of rare occurrence.

Insurance. — Marine assurance is effected, on liberal terms, by a company established in 1746. A good many risks are, however, insured at Amsterdam and Hamburg.

Careening, Ships' Stores, &c. — Copenhagen has good building yards, and is in all respects an eligible place for the repair of ships, and for supplying them with provisions.

General Remarks. — The Danish government exerted itself for a lengthened period to bolster up a manufacturing interest, by laying oppressive duties on most species of manufactured articles. Even under the most favourable circumstances, such conduct, though it may benefit a few individuals, is sure to be productive of great national loss. But in the case of Denmark, the circumstances were such as to render the restrictive system peculiarly injurious. All, or nearly all, the branches of industry carried on in the kingdom were subject to the government of guilds or corporations; no person could engage in any line of business until he was authorised by its peculiar guild; and as the sanction of this body was rarely obtained without a considerable sacrifice, the real effect of the system was to fetter competition and improvement, and to perpetuate monopoly and routine. Even the Danish writers acknowledge that such was the influence of the late regulations. "*Nos ouvriers,*" say they, "*sont chers, travaillent lentement, et souvent mal et sans goût; leur éducation est négligée. On ne les forme point à penser, et l'apprentif suit machinalement ce qu'il voit faire au maître.*"—(*Catteau, Tableau des Etats Danois*, tome ii. p. 260.) But within the last few years this system has been quite changed: Industry has been emancipated from many troublesome regulations, and moderate duties have been substituted for prohibitions. But, however favourably situated in other respects, it would be idle to expect that a country without waterfalls, and without coal, should be able to manufacture cottons, woollens, &c. at so cheap a rate as they may be imported from others enjoying greater natural facilities for their production. The staple business of Denmark, her agricultural and rural economy, has been most materially improved of late years; and, as already seen, her exports of raw produce are now of great value and importance.

COPPER (Ger. *Kupfer*; Du. *Koper*; Da. *Kobber*; Sw. *Kopper*; Fr. *Cuivre*; It. *Rame*; Sp. *Cobre*; Port. *Cobre*; Rus. *Mjed, Krasnoi mjed*; Pol. *Miedz*; Lat. *Cuprum*; Arab. *Nehass*; Sans. *Tamra*), a well-known metal, so called from its having been first discovered, or at least wrought to any extent, in the island of Cyprus. It is of a fine red colour, and has a great deal of brilliancy. Its taste is styptic and nauseous; and the hands, when rubbed for some time on it, acquire a peculiar and disagreeable odour. It is harder than silver; its specific gravity varies according to its state, being,

when quite pure, near 9·000. Its malleability is great; it may be hammered out into leaves so thin as to be blown about by the slightest breeze. Its ductility is also considerable. Its tenacity is so great, that a copper wire 0·078 of an inch in diameter is capable of supporting 302·26 lbs. avoirdupois without breaking. Its liability to oxidation from exposure to air or damp is its greatest defect. The rust with which it is then covered is known by the name of verdigris, and is one of the most active poisons.—(*Thomson's Chemistry.*)

If we except gold and silver, copper seems to have been more early known than any other metal. In the first ages of the world, before the method of working iron was discovered, copper was the principal ingredient in all domestic utensils, and instruments of war. Even now it is applied to so many purposes, as to rank next, in point of utility, to iron.

Alloys of Copper are numerous and of great value. Those of tin are of most importance. Tin added to copper makes it more fusible, less liable to rust, or to be corroded by the air and other common substances, harder, denser, and more sonorous. In these respects the alloy has a real advantage over unmixed copper: but this is in many cases more than counterbalanced by the great brittleness which even a moderate portion of tin imparts; and which is a singular circumstance, considering that both metals are separately very malleable.

Copper alloyed with from 1 to 5 per cent. of tin is rendered harder than before; its colour is yellow, with a cast of red, and its fracture granular: it has considerable malleability. This appears to have been the usual composition of many of the ancient edged tools and weapons, before the method of working iron was brought to perfection. The χαλκος of the Greeks, and, perhaps the *æs* of the Romans, was nothing else. Even their copper coins contain a mixture of tin. The ancients did not, in fact, possess (as has been often contended) any peculiar process for hardening copper, except by adding to it a small quantity of tin. An alloy in which the tin is from 0·1 to ⅛ of the whole is hard, brittle, but still a little malleable, close grained, and yellowish white. When the tin is as much as ¼ of the mass, it is entirely brittle; and continues so in every higher proportion. The yellowness of the alloy is not entirely lost till the tin amounts to 0·3 of the whole.

Copper (or sometimes copper with a little zinc), alloyed with as much tin as will make from about 0·1 to ¼ of the whole, forms an alloy, which is principally employed for bells, brass cannon, bronze statues, and various other purposes. Hence it is called *bronze or bell metal*; and is excellently fitted for the uses to which it is applied, by its hardness, density, sonorousness, and fusibility. For cannon, a lower proportion of tin is commonly used. According to Dr. Watson, the metal employed at Woolwich consists of 100 parts of copper and from 8 to 12 of tin; hence it retains some little malleability, and, therefore, is tougher than it would be with a larger portion of tin. This alloy being more sonorous than iron, brass guns give a louder report than iron guns. A common alloy for bell metal is 80 parts of copper and 20 of tin: some artists add to these ingredients zinc, antimony, and silver, in small proportions; all of which add to the sonorousness of the compound.—(See BELL METAL.)

When, in an alloy of copper and tin, the latter metal amounts to about ⅓ of the mass, the result is a beautiful compound, very hard, of the colour of steel, and susceptible of a very fine polish. It is well adapted for the reflection of light for optical purposes; and is therefore called *speculum metal*. Besides the above ingredients, it usually contains a little arsenic, zinc, or silver. The application of an alloy similar to the above, to the construction of mirrors, is of great antiquity, being mentioned by Pliny; who says, that formerly the best mirrors were reckoned those of Brundusium, of tin and copper mixed (*stanno et ære mistis*).—(*Hist. Nat.* lib. xxxiii. § 9.)

For the alloys of copper with zinc, see the articles BRASS, PINCHBECK. See, also, *Thomson's Chemistry*; *Rees's Cyclopædia*; *Dr. Watson's Chemical Essays*, vol. iv., *&c.*

British Copper Trade.—Great Britain has various copper mines, in Cornwall, Devonshire, Wales, &c., but particularly in the first. Though known long before, the Cornish copper mines were not wrought with much spirit till last century. From 1726 to 1735, they produced at an average about 700 tons a year of pure copper. During the ten years from 1766 to 1775, they produced, at an average, 2,650 tons. In 1798 the produce exceeded 5,000 tons; and it now amounts to from 10,000 to 12,000 tons, worth, at 100*l.* a ton, from 1,000,000*l.* to 1,200,000*l.* sterling. In 1768, the famous mines in the Parys mountains, near Amlwch, in Anglesea, were discovered. The supplies of ore furnished by them were for a long time abundant beyond all precedent; but for many years past the productiveness of the mine has been declining, and it is now almost exhausted. At present the mines of Anglesea, and other parts of Wales, do not furnish 200 tons copper. Those of Devonshire yield above 2,000 tons; the quantity produced in the other parts of England being quite inconsiderable. The Irish mines produce above 900 tons. Those of Scotland never were productive, and have been almost entirely abandoned. Owing to the want of coal in Cornwall, the ores are not smelted on the spot, but are all sent to Swansea; it being found cheaper to carry the ores to the coal than the contrary.

We subjoin an Account compiled by Mr. Robert Hunt of the Mining Record Office, on which every dependence may be placed, of the Produce of Copper Ore and Copper, and of the Value of the Ore in the U. Kingdom in 1857.

	Ore.	Copper.	Value of Ore.
	Tons.	*Tons. Cwts.*	£ *s. d.*
Cornwall and Devonshire - - -	191,798	12,179 18	1,201,270 15 0
Swansea sales, from Irish, Welsh, and other mines -	10,929	1,183 16	126,902 6 6
Purchases by private contract from ditto, ditto -	16,052	4,012 8	232,749 10 0
Total of copper produce for the U. K. - -	218,689	17,375 0	1,560,922 11 6
Mean average market price of copper - -	- -	- -	124 0 0

Account of the Quantities and Values of the different Descriptions of Copper exported from the U. Kingdom during each of the 3 Years ending with 1857.

	Quantities.			Values.		
	1855.	1856.	1857.	1855.	1856.	1857.
	Tons.	*Tons.*	*Tons.*	£	£	£
Copper, in bricks and pigs	5,119	6,096	7,196	585,702	675,224	852,047
Copper, in sheets, nails, &c., including yellow metal	10,432	14,378	13,702	1,266,274	1,661,648	1,167,772
Copper, wrought, of other sorts	1,106	1,430	3,243	152,146	189,181	451,312
Brass, of all sorts	841	959	1,100	106,784	121,206	141,790
	17,498	22,863	25,241	2,110,916	2,648,259	2,813,831

France, the East Indies, Holland, the Hanse Towns, Turkey, Egypt, the U. States, &c., are the great markets for British copper. Thus, in 1857, the value of the exports to France was 676,971*l.*, India, 592,169*l.*, Holland, 247,868*l.*, Hanse Towns, 196,638*l.*, Turkey, 140,631*l.*, Egypt, 153,940*l.*, &c.

In consequence of the greatly increased supplies of copper that have been thus obtained, England, instead of being, as formerly, dependent on foreigners for the greater part of her supplies of this valuable metal, became, previously to 1793, one of the principal markets for the supply of others. And notwithstanding the vastly increased demand for copper during the war for the sheathing of ships and other purposes, the exports continued to increase and the imports to diminish: the greater productiveness of the Cornish mines have sufficed not only to balance the increased demand, but also to make up for the falling off in the supplies from Anglesea.

Foreign Copper.—Copper ores are abundant in Sweden, Russia, Japan, Australia, Chili, Cuba, Colombia, &c. Near Fahlun, in the province of Dalecaria, in Sweden, is the celebrated copper mine of the same name, supposed to have been wrought nearly 1,000 years. For a long time it was extremely productive, yielding, towards the beginning of the seventeenth century, an annual produce of about 8,000,000 lbs. of pure metal; but it has since greatly declined; and it is most probable that at no distant period it will be wholly abandoned.—(*Thomson's Travels in Sweden*, p. 221.) There are copper mines in other parts of Sweden; but the entire produce of copper in that country does not at present exceed from 750 to 800 tons, of a quality inferior to that of England. The produce of the copper mines of Russia has been estimated at 290,000 poods, or 4,661 tons (Eng.) a year.—(*Tegoborski, Forces Productives de la Russie*, i. 300.) The copper mines of Japan are said to be among the richest in the world. The Dutch and Chinese export considerable quantities of their produce, which is spread all over the East, and is regularly quoted in the price currents of Canton, Calcutta, and Singapore. It is uniformly met with in the shape of bars or ingots; and when the copper of S. America is worth in the Canton market from 15 to 16 dollars per picul, that of Japan is worth from 18 to 20 per ditto. Copper the produce of the Persian mines is imported into Bombay and Calcutta from Bushire and Bussorah.

But, in a commercial point of view, the copper mines of Chili, Cuba, Spain, and Australia are, after those of England, by far the most important. The working of the mines of Cuba which had been abandoned for a lengthened period, was resumed a few years ago, principally by an English company, which has been eminently successful. Large quantities both of Chilian and Cuban ore are brought to Swansea to be smelted.

The imports of Copper Ore and *Regulus*, in 1857, were principally derived as follows, viz.:—

From	Ore.	Regulus.	From	Ore.	Regulus.
	Tons.	*Tons.*		*Tons.*	*Tons.*
Chili	21,385	17,910	South Australia	1,839	6
Cuba	16,352		Bolivia	1,569	
Spain	15,030		Algeria	1,390	12
Victoria (Australia)	4,182		Italy	1,358	
British possessions in S. Africa	3,582		France	1,200	542
U. States	3,022	272	Portugal	710	
Peru	2,424	217	Total of the above, and all other places	75,852	19,262
New South Wales	2,174				

There was a very extraordinary increase in the supplies of copper from Australia during the 4 or 5 years preceding the discovery of the gold fields. The produce of the Burra Burra mine, for example, which in 1846 was 6,359½ tons ore, had swelled in 1850 to 18,692 tons. But since then some of the mines have been abandoned, and the progress of the others checked, so that, as seen above, the imports from Victoria in 1857 amounted to only 4,182 tons. Foreign copper imported into this country, and the copper obtained from the smelting of foreign ore, were, previously to 1842, wholly, or almost wholly, re-exported; the duty on the copper ore when it was taken or smelted for home use being so very heavy as to make it be altogether exported in an unwrought state. But in 1842 the duty on copper ores and unwrought copper was very materially reduced; and it was wholly repealed in 1853. Hence the great increase in

the imports of ore for smelting, and the application of the copper thence derived indifferently to home use or exportation.

Copper is in extensive demand all over India; being largely used in the dockyards, in the manufacture of cooking utensils, in alloying spelter and tin, &c. The funeral of every Hindoo brings an accession to the demand, according to his station; the relatives of the deceased giving a brass cup to every Brahmin present at the ceremony: so that 5, 10, 50, 100, 1,000, and sometimes more than 10 times this last number, are dispensed upon such occasions.—(*Bell's Commerce of Bengal.*)

COPPERAS, a term employed by the older chemists, and popularly as synonymous with vitriol. There are three sorts of copperas: the *green*, or sulphate of iron; the *blue*, or sulphate of copper; and the *white*, or sulphate of zinc. Of these, the first is the most important.

Sulphate of iron is distinguished in common by a variety of names, as Martial vitriol, English vitriol, &c. When pure, it is considerably transparent, of a fine bright, though not very deep, grass green colour; and of a nauseous astringent taste, accompanied with a kind of sweetness. Its specific gravity is 1·834. It uniformly reddens the vegetable blues. This salt was well known to the ancients; and is mentioned by Pliny (*Hist. Nat.* lib. xxxiv. § 12.) under the names of *misy*, *sory*, and *calchantum*. It is not made in the direct way, because it can be obtained at less charge from the decomposition of pyrites on a large scale in the neighbourhood of collieries. It exists in two states; one containing oxide of iron, with 0·22 of oxygen, which is of a pale green, not altered by gallic acid, and giving a white precipitate with prussiate of potass. The other, in which the iron is combined with 0·30 of oxygen, is red, not crystallisable, and gives a black precipitate with gallic acid, and a blue with prussiate of potass. In the common sulphate, these two are often mixed in various proportions.

Sulphate of iron is of great importance in the arts. It is a principal ingredient in dyeing; in the manufacture of ink, and of prussian blue: it is also used in tanning, painting, medicine, &c. Sulphuric acid, or oil of vitriol, was formerly manufactured from sulphate of iron.—(See Acids.)

Sulphate of copper, or *blue* vitriol, commonly called Roman or Cyprian vitriol, is of an elegant sapphire blue colour, hard, compact, and semi-transparent; when perfectly crystallised, of a flattish, rhomboidal, decahedral figure; its taste is extremely nauseous, styptic, and acrid; its specific gravity is 2·1943. It is used for various purposes in the arts, and also in medicine.

Sulphate of zinc or *white* vitriol is found native in the mines of Goslar and other places. Sometimes it is met with in transparent pieces, but more commonly in white efflorescences. These are dissolved in water, and crystallised into large irregular masses, somewhat resembling fine sugar, having a sweetish, nauseous, styptic taste. Its specific gravity, when crystallised, is 1·912; when in the state in which it commonly occurs in commerce, it is 1·3275. Sulphate of zinc is prepared in the large way from some varieties of the native sulphuret. The ore is roasted, wetted with water, and exposed to the air. The sulphur attracts oxygen, and is converted into sulphuric acid; and the metal, being at the same time oxidised, combines with the acid. After some time the sulphate is extracted by solution in water; and the solution being evaporated to dryness, the mass is run into moulds. Thus, the white vitriol of the shops generally contains a small portion of iron, and often of copper and lead.—(*Lewis's Mat. Medica; Ure's Dictionary; Rees's Cyclopædia; Thomson's Chemistry*, &c.)

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CORAL (Ger. *Korallen*; Du. *Koraalen*; Fr. *Corail*; It. *Corale*; Sp. and Port. *Coral*; Rus. *Korallü*; Lat *Corallium*; Arab. *Besed*; Pers. *Merjan*; Hind. *Moonga*), a marine production, of which there are several varieties. It was well known to the ancients, but it was reserved for the moderns to discover its real nature. It is, in fact, the nidus or nest of a certain species of vermes, which has the same relation to coral that a snail has to its shell. As an ornament, black coral is most esteemed; but the red is also very highly prized. Coral is found in very great abundance in the Red Sea, the Persian Gulph, in various places in the Mediterranean, on the coast of Sumatra, &c. It grows on rocks, and on any solid submarine body; and it is necessary to its production that it should remain fixed to its place. It has generally a shrub-like appearance. In the Straits of Messina, where a great deal is fished up, it usually grows to nearly a foot in length, and its thickness is about that of the little finger. It requires 8 or 10 years to arrive at its greatest size. The depth at which it is obtained is various—from 10 to 100 fathoms or more; but it seems to be necessary to its production that the rays of the sun should readily penetrate to the place of its habitation. Its value depends upon its size, solidity, and the depth and brilliancy of its colour; and is so very various, that while some of the Sicilian coral sells for 8 or 10 guineas an ounce, other descriptions of it will not fetch 1*s.* a pound. It is highly prized by opulent natives in India, as well as by the fair sex throughout Europe. The inferior or worm-eaten coral is used in some parts of the Madras coast, in the celebration of funeral rites. It is also used medicinally. Besides the fishery in the Straits of Messina already alluded to, there are valuable

fisheries on the shores of Majorca and Minorca, and on the coast of Provence. A good deal of Mediterranean coral is exported to India, which, however, draws the largest portion of its supplies from the Persian Gulph. The produce of the fishery at Messina is stated by Spallanzani (*Travels in the Two Sicilies*, vol. iv. p. 408, &c.) to amount to 12 quintals of 250 lbs. each.

The manner of fishing coral is nearly the same every where. That which is most commonly practised in the Mediterranean is as follows:—Seven or 8 men go in a boat, commanded by the proprietor; the caster throws his net, if we may so call the machine which he uses to tear up the coral from the bottom of the sea; and the rest work the boat, and help to draw in the net. This is composed of two beams of wood tied crosswise, with leads fixed to them to sink them: to these beams is fastened a quantity of hemp, twisted loosely round, and intermingled with some loose netting. In this condition the machine is let down into the sea; and when the coral is pretty strongly entwined in the hemp and nets, they draw it up with a rope, which they unwind according to the depth, and which it sometimes requires half a dozen boats to draw. If this rope happen to break, the fishermen run the hazard of being lost. Before the fishers go to sea, they agree for the price of the coral; and the produce of the fishery is divided, at the end of the season, into 13 parts; of which the proprietor has 4, the caster 2, and the other 6 men 1 each; the thirteenth belongs to the company for payment of boat-hire, &c.—(See *Ainslie's Mat. Indica; Rees's Cyclopædia; Ency. Metrop.; Bell's Com. of Bengal, &c.*)

CORDAGE (Ger. *Tauwerk*; Du. *Touwwerk*; Fr. *Manœuvres, Cordage*; It. *Caolame*; Sp. *Jarcia, Cordaje*), a term used to denote all manner of cords or ropes, how much soever they may differ in size, but especially those used in the rigging of ships. The term *cord* is usually employed to distinguish cordage of small size, that is, of small circumference; *rope*, to distinguish the larger descriptions of cordage; and *cable*, to distinguish the largest of all, or the cordage used in the anchoring of ships.

Cordage may be made of an infinite variety of materials, of every thing, in fact, which is slender, flexible, and moderately tenacious, such as the fibres of various descriptions of vegetables; hair, wool, and silk; leathern thongs, wire, &c. In Europe it has been mostly formed of the fibres of hemp and flax, particularly the former. But in some parts of the East, coir, or the fibres of the husk of the cocoa nut, is extensively used in the manufacture of the larger descriptions of cordage.—(See COIR, &c.)

The best cordage is that, of course, which is made of the best material and in the most approved manner. It must neither be too much nor too little twisted. Ropes consist of more or fewer yarns according to their thickness. At an average the fibres of hemp used in making ropes lose about $\frac{1}{3}$rd part of their length by twisting; but in the case of cables the loss is greater.

Ropes are sometimes made of iron wire; and when properly manufactured they have been found to answer much better than might have been anticipated. Chains are now, also, frequently substituted for various descriptions of ropes; and every body knows that hempen cables have been all but wholly superseded by iron chains.—(See CABLES.)

The use of foreign cordage in English ships was formerly prohibited, except under peculiar circumstances. But this prohibition has latterly been repealed. And our ship-owners and ship-builders may now use either native or foreign cordage, whichever they prefer.

According to Professor Robinson, if you square the circumference of a rope in inches, $\frac{1}{3}$th the product will be the number of tons weight which it will bear. Very little dependence can, however, be placed on a rule of this sort; for the strength of a rope will depend as much on the material of which it is made, and on its make, as on its circumference.—(*Rees' Cyclopædia; Penny Do., &c. &c.*)

CORK (Ger. *Kork*; Du. *Kork, Kurk, Vlothout*; Fr. *Liege*; It. *Sughero, Suvero*; Sp. *Corcho*; Port. *Cortica (de Sovreiro)*; Rus. *Korkowoe derewo*; Lat. *Suber*), the thick and spongy bark of a species of oak (*Quercus Suber* Lin.), abundant in dry mountainous districts in the south of France, and in Spain, Portugal, Italy, and Barbary. The tree grows to the height of 30 feet or more, has a striking resemblance to the *Quercus Ilex*, or evergreen oak, and attains to a great age. After arriving at a certain state of maturity, it periodically sheds its bark; but this valuable product is found to be of a much better quality when it is artificially removed from the tree, which may be effected without any injury to the latter. After a tree has attained to the age of from 26 to 30 years, it may be barked; and the operation may be subsequently repeated once every 8 or 10 years *, the quality of the cork improving with the increasing age of the tree. The bark is taken off in July and August; and trees that are regularly stripped are said to live for 150 years, or more.—(*Poiret, Hist. Philosophique des Plantes*, tom. vii. 419.)

Cork is light, porous, readily compressible, and wonderfully elastic. It may be cut into any sort of figure, and notwithstanding its porosity, is nearly impervious to any common liquor. These qualities make it superior to all other substances for stoppers for bottles, in the manufacture of which it is principally made use of. It is also employed as buoys to float nets, in the construction of life-boats, the making of waterproof shoes, and in various other ways. Before being manufactured into stoppers, the

* Beckmann (vol. ii. p. 115. Eng. ed.) says, that "when the tree is 15 years old, it may be barked, and this can be done successively for 8 years." This erroneous statement having been copied into the article CORK in Rees's Cyclopædia, has thence been transplanted to a multitude of other works.

cork is charred on each side; this makes it contract, lessens its porosity, and consequently fits it the better for cutting off all communication between the external air and the liquid in the bottle. Spanish black is made of calcined cork.

The Greeks and Romans were both well acquainted with cork. They seem also to have occasionally used it as stoppers for vessels (*Cadorum obturamentis*, Plin. Hist. Nat. lib. xvi. cap. 8.); but it was not extensively employed for this purpose till the 17th century, when glass bottles, of which no mention is made before the 15th century, began to be generally introduced. —(*Beckmann's Hist. Invent.* vol. ii. pp. 114—127. Eng. ed.)

The duty on corks ready made is 8*d.* per lb., and on cork squared for rounding 16*s.* a cwt.; but unmanufactured cork is admitted duty free. The quantity entered for home consumption amounts, at an average, to from 40,000 to 50,000 cwts. Its price varies with the variations in its quality, from about 17*l.* to about 50*l.* a ton. The Spanish is the best, and fetches the highest price.

CORN (Ger. *Corn, Getreide;* Du. *Graanen, Koren;* Da. *Korn;* Sw. *Sad, Spannal;* Fr. *Bleds, Grains;* It. *Biade, Grani;* Sp. *Granos;* Rus. *Chljeb;* Pol. *Zboze;* Lat. *Frumentum*), the grain or seed of plants separated from the spica or ear, and used for making bread, &c. Such are wheat, rye, barley, oats, maize, peas, &c.; which see.

CORNELIAN. See CARNELIAN.

CORN LAWS AND CORN TRADE. — From the circumstance of corn forming, in this and most other countries, the principal part of the food of the people, the trade in it, and the laws by which that trade is regulated, are justly looked upon as of the highest importance. But this is not the only circumstance that renders it necessary to enter at some length into the discussion of this subject. Its difficulty is at least equal to its interest. The enactments made at different periods with respect to the corn trade, and the opinions advanced as to their policy, have been so very various and contradictory that it is indispensable to submit them to some examination, and, if possible, to ascertain the *principles* which ought to pervade this department of commercial legislation.

I. HISTORICAL SKETCH OF THE CORN LAWS.
II. PRINCIPLES OF THE CORN LAWS.
III. BRITISH CORN TRADE.
IV. FOREIGN CORN TRADE.

I. HISTORICAL SKETCH OF THE CORN LAWS.

For a long time the regulations with respect to the corn trade were principally intended to promote abundance and low prices. But though the purpose was laudable, the means adopted for accomplishing it had, for the most part, a directly opposite effect. When a country exports corn, it seems, at first sight, as if nothing could do so much to increase her supplies as the prevention of exportation: and even in countries that do not export, its prohibition seems to be a prudent measure, and calculated to prevent the supply from being diminished, upon any emergency, below its natural level. These are the conclusions that immediately suggest themselves upon this subject; and it requires a pretty extensive experience, an attention to facts, and a habit of reasoning upon such topics, to perceive their fallacy. These, however, were altogether wanting when the regulations affecting the corn trade began to be introduced into Great Britain and other countries. They were framed in accordance with what were supposed to be the dictates of common sense; and their object being to procure as large a supply of the prime necessary of life as possible, its exportation was either totally forbidden, or forbidden when the home price was above certain limits.

The principle of absolute prohibition seems to have been steadily acted upon, as far as the turbulence of the period would admit, from the Conquest to the year 1436, in the reign of Henry VI. But at the last-mentioned period an act was passed, authorising the exportation of wheat whenever the home price did not exceed 6*s.* 8*d.* (equal in amount of pure silver to 12*s.* $10\frac{3}{4}$*d.* present money) per quarter, and barley when the home price did not exceed 3*s.* 4*d.* In 1463, an additional benefit was intended to be conferred on agriculture by prohibiting importation until the home price exceeded that at which exportation ceased. But the fluctuating policy of the times prevented these regulations from being carried into full effect; and, indeed, rendered them in a great measure inoperative.

In addition to the restraints laid on exportation, it has been common in most countries to attempt to increase the supply of corn, not only by admitting its unrestrained importation from abroad, but by holding out extraordinary encouragement to the importers. This policy has not, however, been much followed in England. During the 500 years immediately posterior to the Conquest, importation was substantially free; but it was seldom or never promoted by artificial means; and during the last century and a half it has, for the most part, been subjected to severe restrictions.

Besides attempting to lower prices by prohibiting exportation, our ancestors attempted to lower them by proscribing the trade carried on by corn dealers. This most useful class of persons were looked upon with suspicion by every one. The agriculturists concluded that they would be able to sell their produce at higher prices to the consumers, were the corn dealers out of the way: while the consumers concluded that the profits of the dealers were made at their expense; and ascribed the dearths that were then very prevalent entirely to the practices of the dealers, or to their buying up corn and withholding it from market. These notions, which have still a considerable degree of influence, led to various enactments, particularly in the reign of Edward VI., by which the freedom of the internal corn trade was entirely suppressed. The *engrossing* of corn, or the buying of it in one market with intent to sell it again in another, was made an offence punishable by imprisonment and the pillory; and no one was allowed to carry corn from one part to another without a licence, the privilege of granting which was confided by a statute of Elizabeth to the quarter sessions. But as the principles of commerce came to be better understood, the impolicy of these restraints gradually grew more and more obvious. They were considerably modified in 1624; and, in 1663, the engrossing of corn was declared to be legal so long as the price did not exceed 48*s.* a quarter — (15 *Chas.* 2. c. 7.); an act which, as Dr. Smith has justly observed, has, with all its imperfections, done more to promote plenty than any other law in the statute book. In 1773, the last remnant of the *legislative* enactments restraining the freedom of the internal corn dealers, was entirely repealed. But the engrossing of corn has, notwithstanding, been since held to be an offence at common law; and, so late as 1800, a corn dealer was convicted of this imaginary crime. He was not, however, brought up for judgment; and it is not very likely that any similar case will ever again occupy the attention of the courts.

The acts of 1436 and 1463, regulating the prices when exportation was allowed and when importation was to cease, continued, nominally at least, in force till 1562, when the prices at which exportation might take place were extended to 10*s.* for wheat and 6*s.* 8*d.* for barley. But a new principle — that of imposing duties on exportation — was soon after introduced; and, in 1571, it was enacted that wheat might be exported, paying a duty of 2*s.* a quarter, and barley and other grain a duty of 1*s.* 4*d.*, whenever the home price of wheat did not exceed 20*s.* a quarter, and barley and malt 12*s.* At the Restoration, the limit at which exportation might take place was very much extended; but as the duty on exportation was, at the same time, so very high as to be almost prohibitory. the extension was of little or no service to the agriculturists. This view of the matter seems to have been speedily taken by the legislature; for in 1663, the high duties on exportation were taken off, and an *ad valorem* duty imposed in their stead, at the same time that the limit of exportation was extended. In 1670, a still more decided step was taken in favour of agriculture; an act being then passed which extended the exportation price to 53*s.* 4*d.* a quarter for wheat, and other grain in proportion, imposing, at the same time, prohibitory duties on the importation of wheat till the price rose to 53*s.* 4*d.*, and a duty of 8*s.* between that price and 80*s.* But the real effects of this act were not so great as might have been anticipated. The extension of the limit of exportation was rendered comparatively nugatory, in consequence of the continuance of the duties on exportation caused by the necessities of the Crown; while the want of any proper method for the determination of prices went far to nullify the prohibition of importation.

At the accession of William III. a new system was adopted. The interests of agriculture were then looked upon as of paramount importance: and to promote them, not only were the duties on exportation totally abolished, but it was encouraged by the grant of a *bounty* of 5*s.* on every quarter of wheat exported, while the price continued at or below 48*s.*; of 2*s.* 6*d.* on every quarter of barley or malt, while their respective prices did not exceed 24*s.*; and of 3*s.* 6*d.* on every quarter of rye, when its price did not exceed 32*s.* — (1 *Will. & Mary*, c. 12.) A bounty of 2*s.* 6*d.* a quarter was subsequently given upon the exportation of oats and oatmeal, when the price of the former did not exceed 15*s.* a quarter. Importation continued to be regulated by the act of 1670.

Much diversity of opinion has been entertained with respect to the policy of the bounty. That it was intended to raise the price of corn is clear, from the words of the statute, which states, "that the exportation of corn and grain into foreign parts, *when the price thereof is at a low rate in this kingdom*, hath been a great advantage not only to the owners of land, but to the trade of the kingdom in general; therefore," &c. But admitting this to have been its object, it has been contended that the low prices which prevailed during the first half of last century show that its real effect was precisely the reverse; and that, by extending tillage, it contributed to reduce prices. It will be afterwards shown that this could not really be the case; and the fall of prices may be sufficiently accounted for by the improved state of agriculture, the gradual consolidation of farms, the diminution of sheep husbandry, &c., combined with the slow increase of the population. In point of fact, too, prices had begun to give way 30 years before the bounty was

granted; and the fall was equally great in France, where, instead of exportation being encouraged by a bounty, it was almost entirely prohibited; and in most other Continental states. — (For proofs of what is now stated, see the article *Corn Laws*, in the new edition of the *Ency. Brit.*)

The Tables annexed to this article show that, with some few exceptions, there was, during the first 66 years of last century, a large export of corn from England. In 1750, the wheat exported amounted to 947,000 quarters; and the total bounties paid during the 10 years from 1740 to 1751 reached the sum of 1,515,000*l.* But the rapid increase of population subsequently to 1760, and particularly after the peace of Paris, in 1763, when the commerce and manufactures of the country were extended in an unprecedented degree, gradually reduced this excess of exportation, and occasionally, indeed, inclined the balance the other way. This led to several suspensions of the restrictions on importation; and at length, in 1773, a new act was framed, by which foreign wheat was allowed to be imported on paying a nominal duty of 6*d.* whenever the home price was at or above 48*s.* a quarter, and the bounty * and exportation were together to cease when the price was at or above 44*s.* This statute also permitted the importation of corn at any price, duty free, in order to be again exported, provided it were in the mean time lodged under the joint locks of the king and the importer.

The prices when exportation was to cease by this act seem to have been fixed too low; and, as Dr. Smith has observed, there appears a good deal of impropriety in prohibiting exportation altogether the moment it attained the limit when the bounty given to force it was withdrawn; yet, with all these defects, the act of 1773 was a material improvement on the former system, and ought not to have been altered unless to give greater freedom to the trade.

The idea that this law must, when enacted, have been injurious to the agriculturists, seems altogether illusory; the permission to import foreign grain, when the home price rose to a moderate height, certainly prevented their realising exorbitant profits, in dear years, at the expense of the other classes; and prevented an unnatural proportion of the capital of the country from being turned towards agriculture. But as the limit at which importation at a nominal duty was allowed was fixed a good deal above the average price of the reign of George II., it cannot be maintained that it had any tendency to reduce previous prices, which is the only thing that could have discouraged agriculture: and, in fact, no such reduction took place.

It is, indeed, true, that, but for this act, we should not have imported so much foreign grain in the interval between 1773 and 1791. This importation, however, was not a consequence of the decline of agriculture; for it is admitted that every branch of rural economy was more improved in that period than in the whole of the preceding century; but arose entirely from a still more rapid increase of the manufacturing population, and hence, of the effective demand for corn.

By referring to the Tables annexed to this article, it will be seen that, in 1772, the balance on the side of wheat imported amounted to 18,515 quarters; and in 1773, 1774, and 1775, all years of great prosperity, the balance was very much increased. But the loss of a great part of our colonial possessions, the stagnation of commerce, and difficulty of obtaining employment, occasioned by the American war, diminished the consumption; and this, combined with unusually productive harvests, rendered the balance high on the side of exportation, in 1778, 1779, and 1780. In 1783 and 1784 the crops were unusually deficient, and considerable importations took place; but in 1785, 1786, and 1787 the exports again exceeded the imports; and it was not till 1788, when the country had fully recovered from the effects of the American war, and when manufacturing improvements were carried on with extraordinary spirit, that the imports permanently overbalanced the exports.

The growing wealth and commercial prosperity of the country had thus, by increasing the population and enabling individuals to consume additional quantities of food, caused the home supply of corn to fall somewhat short of the demand; but it must not therefore be concluded that agriculture had not at the same time been very greatly meliorated. "The average annual produce of wheat," says Mr. Comber, "at the beginning of the reign of George III. (1760), was about 3,800,000 quarters, of which about 300,000 had been sent out of the kingdom, leaving about 3,500,000 for home consumption. In 1773, the produce of wheat was stated in the House of Commons to be 4,000,000 quarters, of which the whole, and above 100,000 imported, were consumed in the kingdom. In 1796, the consumption was stated by Lord Hawkesbury to be 500,000 quarters per month, or 6,000,000 quarters annually, of which about 180,000 were imported; showing an increased produce in about 20 years of 1,820,000 quarters. It is evident, therefore, not only that no defalcation of produce had taken place in consequence of the cessation of exportation, as has been too lightly assumed from the

* The bounty amounted to 5*s.* on every quarter of wheat; 2*s.* 6*d.* on every quarter of barley; 3*s* 6*d.* on every quarter of rye; and 2*s.* 6*d* on every quarter of oats.

occasional necessity of importation, but that it had increased with the augmentation of our commerce and manufactures."—(*Comber on National Subsistence*, p. 180.)

These estimates are, no doubt, very loose and unsatisfactory; but the fact of a great increase of produce having taken place is unquestionable. In a report by a committee of the House of Commons on the state of the *waste lands*, drawn up in 1797, the number of acts passed for enclosing, and the number of acres enclosed, in the following reigns, are thus stated: —

	Number of Acts.	Number of Acres.
In the reign of Queen Anne -	2	1,439
George I. - -	16	17,960
George II. - -	226	318,778
George III. to 1797 -	1,532	2,804,197

It deserves particular notice, that from 1771 to 1791, both inclusive, the period during which the greater number of these improvements were effected, there was no rise of prices.

The landholders, however, could not but consider the liberty of importation granted by the act of 1773 as injurious to their interests, inasmuch as it prevented prices from rising with the increased demand. A clamour, therefore, was raised against that law; and in addition to this interested feeling, a dread of becoming habitually dependent on foreign supplies, operated on many, and produced a pretty general acquiescence in the act of 1791. By this act, the price when importation could take place from abroad at the low duty of *6d.* was raised to *54s.*; under *54s.* and above *50s.* a middle duty of *2s. 6d.*; and under *50s.* a prohibiting duty of *24s. 3d.* was exigible. The bounty continued as before, and exportation without bounty was allowed to *46s.* It was also enacted, that foreign wheat might be imported, stored under the king's lock, and again exported free of duty; but, if sold for home consumption, it became liable to a warehouse duty of *2s. 6d.* in addition to the ordinary duties payable at the time of sale.

In 1797, the Bank of England obtained an exemption from paying in specie; and the consequent facility of obtaining discounts and getting a command of capital, which this measure occasioned, gave a fresh stimulus to agriculture; the efficacy of which was most powerfully assisted by the scarcity and high prices of 1800 and 1801. Inasmuch, however, as the prices of 1804 would not allow the cultivation of the poor soils, which had been broken up in the dear years, to be continued, a new corn law was loudly called for by the farmers, and passed in 1804. This law imposed a prohibitory duty of *24s. 3d.* per quarter on all wheat imported when the home price was at or below *63s.*; between *63s.* and *66s.* a middle duty of *2s. 6d.* was paid, and above *66s.* a nominal duty of *6d.* The price at which the bounty was allowed on exportation was extended to *50s.*, and exportation without bounty to *54s.* By the act of 1791, the maritime counties of England were divided into 12 districts, importation and exportation being regulated by the particular prices of each; but by the act of 1804 they were regulated, in England, by the *aggregate average* of the maritime districts; and in Scotland by the aggregate average of the 4 maritime districts into which it was divided. The averages were taken 4 times a year, so that the ports could not be open or shut for less than 3 months. This manner of ascertaining prices was, however, modified in the following session; it being then fixed that importation, both in England and Scotland, should be regulated by the average price of the 12 maritime districts of England.

In 1805, the crop was very considerably deficient, and the average price of that year was about *22s.* a quarter above the price at which importation was allowed by the act of 1804. As the depreciation of paper, compared with bullion, was at that time only *four* per cent., the high price of that year must have been principally owing to the new law preventing importation from abroad till the home price was high, and then fettering mercantile operations; and to the formidable obstacles which the war threw in the way of importation. In 1806*, 1807, and 1808, the depreciation of paper was nearly 3 per cent.; and the price of wheat in those years being generally from *66s.* to *75s.*, the importations were but small. From autumn 1808, to spring 1814, the depreciation of the currency was unusually great; and several crops in that interval being likewise deficient, the price of corn, influenced by both causes, rose to a surprising height. At that time no vessel could be laden in any Continental port for England without purchasing a licence, and the freight and insurance were at least 5 times as high as during peace. But the destruction of Napoleon's anti-commercial system, in the autumn of 1813, having increased the facilities of importation, a large quantity of corn was poured into the kingdom; and, in 1814, its *bullion* price fell below the price at which importation was allowed.

* Several impolitic restraints had been for a long time imposed on the free importation and exportation of corn between Great Britain and Ireland, but they were wholly abolished in 1806; and the act of that year (*46 Geo. 3. c. 97.*), establishing a free trade in corn between the 2 great divisions of the empire, was not only a wise and proper measure in itself, but has powerfully contributed to promote the general advantage.

Before this fall of price, a committee of the House of Commons had been appointed to inquire into the state of the laws affecting the corn trade; and recommended in their Report (dated 11th of May, 1813) a very great increase of the prices at which exportation was allowable, and when importation free of duty might take place. This recommendation was not, however, adopted by the House; but the fact of its having been made when the home price was at least 112*s.* a quarter, displayed a surprising solicitude to exclude foreigners from all competition with the home growers.

The wish to lessen the dependence of the country on foreign supplies formed the sole ostensible motive by which the committee of 1813 had been actuated, in proposing an alteration in the act of 1804. But after the fall of price in autumn 1813, and in the early part of 1814, it became obvious, on comparing our previous prices with those of the Continent, that without an alteration of the law in question this dependence would be a good deal increased; that a considerable extent of such poor lands as had been brought into cultivation during the high prices, would be again thrown into pasturage; and that rents would be lowered. These consequences alarmed the landlords and occupiers; and in the early part of the session of 1814, a series of resolutions were voted by the House of Commons, declaring that it was expedient to repeal the bounty, to permit the free exportation of corn whatever might be the home price, and to impose a graduated scale of duties on the importation of foreign corn. Thus, foreign wheat imported when the home price was at or under 64*s.* was to pay a duty of 24*s.*; when at or under 65*s.* a duty of 23*s.*; and so on, till the home price should reach 86*s.*, when the duty was reduced to 1*s.*, at which sum it became stationary. Corn imported from Canada, or from the other British colonies in North America, was to pay half the duties on other corn. As soon as these resolutions had been agreed to, two bills founded on them — one for regulating the importation of foreign corn, and another for the repeal of the bounty, and for permitting unrestricted exportation — were introduced. Very little attention was paid to the last of these bills; but the one imposing fresh duties on importation encountered a very keen opposition. The manufacturers, and every class not directly supported by agriculture, stigmatised it as an unjustifiable attempt artificially to keep up the price of food, and to secure excessive rents and large profits to the landholders and farmers at the expense of the consumers. Meetings were very generally held, and resolutions entered into strongly expressive of this sentiment, and dwelling on the fatal consequences which, it was affirmed, a continuance of the high prices would have on manufactures and commerce. This determined opposition, coupled with the indecision of ministers, and perhaps, too, with an expectation on the part of some of the landholders that prices would rise without any legislative interference, caused the miscarriage of this bill. The other bill, repealing the bounty, and allowing an unlimited freedom of exportation, was passed into a law.

Committees had been appointed in 1814, by both Houses of Parliament, to examine evidence and report on the state of the corn trade; and, in consequence, a number of the most eminent agriculturists were examined. The witnesses were unanimous in this only, — that the protecting prices in the act of 1804 were insufficient to enable the farmers to make good the engagements into which they had subsequently entered, and to continue the cultivation of the inferior lands lately brought under tillage. Some of them thought that 120*s.* should be fixed as the lowest limit at which the importation of wheat free of duty should be allowed: others varied from 90*s.* to 100*s.* — from 80*s.* to 90*s.* — and a few from 70*s.* to 80*s.* The general opinion, however, seemed to be that 80*s.* would suffice; and as prices continued to decline, a set of resolutions founded on this assumption were submitted to the House of Commons by Mr. Robinson, of the Board of Trade (now Lord Ripon); and having been agreed to, a bill founded on them was, after a very violent opposition, carried in both Houses by immense majorities, and finally passed into a law (*55* Geo. 3. c. 26.). According to this act, all sorts of foreign corn, meal, or flour might be imported at all times free of duty into any port of the United Kingdom, in order to be warehoused; but foreign corn was not permitted to be imported for home consumption, except when the average prices of the several sorts of British corn were as follows: viz. wheat, 80*s.* per quarter; rye, peas, and beans, 53*s.*; barley, bear, or bigg, 40*s.*; and oats, 26*s.*: and all importation of corn from any of the British plantations in North America was forbidden, except when the average home prices were at or under — wheat, 67*s.* per quarter; rye, peas, and beans, 44*s.*; barley, bear, or bigg, 33*s.*; and oats, 22*s.*

The agriculturists confidently expected that this act would immediately raise prices, and render them steady at about 80*s.* But, for reasons which will be afterwards stated, these expectations were entirely disappointed; and a more ruinous fluctuation of prices took place during the period it was in existence, than in any previous period of our recent history. In 1821, when prices had sunk very low, a committee of the House of Commons was appointed to inquire into the causes of the depressed state of agriculture, and to report their observations thereon. This committee, after ex-

amining a number of witnesses, drew up a report, which, though not free from error, is a valuable document. It contains a forcible exposition of the pernicious influence of the law of 1815, of which it suggested several important modifications. These, however, were not adopted; and as the low prices, and consequent distress of the agriculturists, continued, the subject was brought under the consideration of parliament in the following year. After a good deal of discussion, a new act was then passed (3 Geo. 4. c. 60.), which enacted, that after prices had risen to the limit of free importation fixed by the act of 1815, that act was to cease and the new statute to come into operation. This statute lowered the prices fixed by the act of 1815, at which importation could take place for home consumption, to the following sums, viz. —

	For corn not of the British Possessions in North America.	For Corn of the British Possessions in North America.
Wheat	70*s.* per quarter.	59*s.* per quarter.
Rye, peas, and beans	46*s.* —	39*s.* —
Barley, bear, or bigg	35*s.* —	30*s.* —
Oats	25*s.* —	20*s.* —

But, in order to prevent any violent oscillation of prices from a large supply of grain being suddenly thrown into the market, it was enacted, that a duty of 17*s.* a quarter should be laid on all wheat imported from foreign countries, during the first 3 months after the opening of the ports, if the price was between 70*s.* and 80*s.* a quarter, and of 12*s.* afterwards; that if the price was between 80*s.* and 85*s.*, the duty should be 10*s.* for the first 3 months, and 5*s.* afterwards; and that if the price should exceed 85*s.*, the duty should be constant at 1*s.*; and proportionally for other sorts of grain.

This act, by preventing importation until the home price rose to 70*s.*, and then loading the quantities imported between that limit and the limit of 85*s.* with heavy duties, was certainly more favourable to the views of the agriculturists than the act of 1815. But, unluckily for them, the prices of no species of corn, except barley, were sufficiently high, while this act existed, to bring it into operation.

In 1825, the first approach was made to a better system, by permitting the importation of wheat from British North America, without reference to the price at home, on payment of a duty of 5*s.* a quarter. But this act was passed with difficulty, and was limited to one year's duration.

Owing to the drought that prevailed during the summer of 1826, there was every prospect that there would be a great deficiency in the crops of that year; and, in order to prevent the disastrous consequences that might have taken place, had importation been prevented until the season was too far advanced for bringing supplies from the great corn markets in the north of Europe, his Majesty was authorised to admit 500,000 quarters of foreign wheat on payment of such duties as the order in council for its importation should declare. And when it was ascertained that the crops of oats, peas, &c. were greatly below an average, ministers issued an order in council, on their own responsibility, on the 1st of September, authorising the immediate importation of oats on payment of a duty of 2*s.* 2*d.* a boll; and of rye, peas, and beans, on payment of a duty of 3*s.* 6*d.* a quarter. A considerable quantity of oats was imported under this order, the timely appearance of which had undoubtedly a very considerable effect in mitigating the pernicious consequences arising from the deficiency of that species of grain. Ministers obtained an indemnity for this order on the subsequent meeting of parliament.

Nothing could more strikingly evince the impolicy of the acts of 1815 and 1822, than the necessity, under which the legislature and government had been placed, of passing the temporary acts and issuing the orders alluded to. The more intelligent portion of the agriculturists began, at length, to perceive that the corn laws were not really calculated to produce the advantages that they had anticipated; and a conviction that increased facilities should be given to importation became general throughout the country. The same conviction made considerable progress in the House of Commons; so much so, that several members who supported the measures adopted in 1815 and 1822, expressed themselves satisfied that the principle of exclusion had been carried too far, and that a more liberal system should be adopted. Ministers having participated in these sentiments, Mr. Canning moved a series of resolutions, as the foundation of a new corn law, on the 1st of March, 1827, to the effect that foreign corn might always be imported, free of duty, in order to be warehoused; and that it should always be admissible for home consumption upon payment of certain duties. Thus, in the instance of wheat, it was resolved that, when the home price was at or above 70*s.* a quarter, the duty should be a fixed one of 1*s.*; and that for every shilling that the price fell below 70*s.* a duty of 2*s.* should be imposed; so that when the price was at 69*s.* the duty on importation was to be 2*s.*, when at 68*s.* the duty was to be 4*s.*, and so on. The limit at which the constant duty of 1*s.* a quarter was to take place in the case of barley was originally fixed at 37*s.*; but it was subsequently raised to 40*s.*, the duty increasing by 1*s.* 6*d.* for every 1*s.* when the price fell below that limit. The

limit at which the constant duty of 1*s.* a quarter was to take place in the case of oats was originally fixed at 28*s.*; but it was subsequently raised to 33*s.*, the duty increasing at the rate of 1*s.* a quarter for every shilling that the price fell below that limit. The duty on colonial wheat was fixed at 6*d.* the quarter when the home price was above 65*s.*; and when the price was under that sum the duty was constant at 5*s.*; the duties on other descriptions of colonial grain were similar. These resolutions were agreed to by a large majority; and a bill founded on them was subsequently carried through the House of Commons. Owing, however, to the change of ministers, which took place in the interim, several peers, originally favourable to the bill, and some, even, who assisted in its preparation, saw reason to become amongst its most violent opponents; and a clause moved by the Duke of Wellington, interdicting all importation of foreign corn until the home price exceeded 66*s.* having been carried in the Lords, ministers gave up the bill, justly considering that such a clause was entirely subversive of its principle.

A new set of resolutions with respect to the corn trade were brought forward in 1828 by Mr. Charles Grant (now Lord Glenelg). They were founded on the same principles as those which had been rejected during the previous session. But the duty was not made to vary equally, as in Mr. Canning's resolutions, with every equal variation of price; it being 23*s.* 8*d.* when the home price was 64*s.* the Imperial quarter; 16*s.* 8*d.* when it was 69*s.*; and 1*s.* only when it was at or above 73*s.* After a good deal of debate, Mr. Grant's resolutions were carried, and embodied in the act 9 Geo. 4. c. 60.

The crops having been deficient in 1829 and 1830, there was a large importation of corn in these years, its average price being at the same time about 65*s.* a quarter. But the crops from 1831 to 1836 having been more than usually abundant, importation almost wholly ceased, and the price of wheat sunk in 1835 to 39*s.* 4*d.* a quarter, being less than it had been in any previous year since 1776. In consequence of this succession of good harvests and low prices, the corn laws ceased for a while to attract any considerable portion of the public attention, and an impression began to gain ground that the improvement of agriculture was so very rapid, that, despite the increase of population and the existence of the corn laws, our prices would fall to about the level of those of the Continent. But the cycle of favourable seasons having terminated in 1837, the crops of that and the succeeding 5 years were considerably deficient: so much so that prices rose in 1839 to 70*s.* 8*d.* a quarter, the importations in that and the three following years being also very large. This increase in the price of corn, combined with the depressed state of the commerce of the country, originating in the pecuniary revulsion in the U. States and other causes, again attracted a great deal of attention to the corn laws; and the oppressive magnitude and injurious operation of the duties were very strongly animadverted upon at public meetings in the manufacturing towns and elsewhere. An association, denominated the Anti-Corn Law League, originally founded in Lancashire, but which subsequently extended its ramifications to most parts of the country, was set on foot for the express purpose of keeping up an incessant agitation against the corn laws, which, in consequence of these concurring circumstances, were assailed with greater bitterness than ever. The importance of the subject at length forced it on the attention of government, and in 1841 ministers, actuated partly by a sense of the mischievous influence of the sliding scale, and partly, also, by a wish to strengthen their declining popularity, brought forward a plan for remodelling the corn laws, by repealing the sliding scale and imposing in its stead a constant duty of 8*s.* a quarter on wheat, and in proportion on other grain. But, having no majority in parliament, ministers were obliged to resort to a dissolution; and their proposal having, notwithstanding its moderation, excited the greatest apprehensions among the agriculturists, without being very warmly supported by the other classes, a new parliament was returned, which gave a decided majority to the opposition. It was, however, felt on all hands to be necessary to make some considerable change in the existing law, and in 1842 a measure was introduced in that view by Sir Robert Peel, which was subsequently passed into a law, 5 Victoria, 2d Sess. c. 14.

Unfortunately, however, this measure, like that by which it was preceded, was bottomed on the principle of making the duties vary with the variations in the price of corn; and though the duties were decidedly less oppressive than those imposed by the 9 Geo. 4. c. 60., still they were in no ordinary degree objectionable, as well from their too great magnitude as from their adding to the natural insecurity of the corn trade, and increasing the chances and severity of fluctuations. It is not, therefore, to be wondered at that the new measure gave but little satisfaction. Instead of being abated, the agitation and clamour against the corn laws continued progressively to gain strength; and the conviction began at the same time gradually to extend itself among many of those by whom these laws had hitherto been supported, that farther modifications would have to be made in them; and that they might be made without inflicting any very serious injury upon agriculture.

This conviction was greatly strengthened by the result of the important changes made by Sir Robert Peel in the tariff in 1842, and more especially by those which had reference to the importation of live cattle and fresh provisions. These had previously been prohibited; but the minister proposed that this prohibition should be repealed, and that their importation should be permitted under reasonable duties. This proposal, when first brought forward, excited the greatest apprehensions among the farmers and graziers, and was followed by an immediate fall in the price of cattle. Happily, however, the measure was carried, and it was speedily discovered that there was no such difference between the prices of cattle of the same quality here and in the adjacent parts of the continent, as had been supposed; and that the fears entertained by the agriculturists of the approaching ruin of the businesses of breeding and grazing were altogether visionary and unfounded. The experience afforded by the reduction and subsequent abolition of the duty on wool was exactly similar. Instead of being injured, the interests of the British sheep farmers have been most materially promoted by these measures; the demand for home-grown wool having been rendered comparatively steady, and its price considerably increased by the powerful stimulus which the change in the duty on foreign wool gave to the woollen manufacture.

In the following year, that is, in 1843, a measure was adopted which made a wide breach in the corn laws. In 1842 the legislature of Canada passed a law imposing a duty of 3*s.* a quarter on all wheat imported into the province, unless from the U. Kingdom, stating in the preamble to this act, that it was passed in the expectation and belief that a corresponding reduction would be made in the duties on wheat and wheat-flour imported into the U. Kingdom from Canada. And conformably to this anticipation, the act 6 & 7 Vict. c. 29., passed in the course of 1843, reduced the duty on wheat imported from Canada to 1*s.* a quarter, and proportionally on wheat-flour. This act met with much opposition from a part of the agricultural interest in this country, who contended that it would lead to the introduction of unlimited supplies of corn from the U. States at a duty of only 4*s.* a quarter, or, allowing for smuggling, at perhaps only half that amount. But experience showed that these anticipations were not likely to be realised; for, though the imports from Canada were materially increased, the obstacles in the way of the importation of corn from the U. States into Canada, and the danger and expense of the voyage from Montreal or Quebec to England, must necessarily have prevented the importation through this channel from ever becoming of much importance. Still, however, the measure was in so far an abandonment of the corn laws; and if we were justified in admitting the produce of the U. States to our markets in this indirect way, it was not easy to discover satisfactory grounds on which to exclude the produce of other states.

The success of the measures adopted in 1842 encouraged Sir Robert Peel to attempt still more considerable changes in 1845, when he totally abolished the customs duties on no fewer than 420 different articles, some of which were of very considerable importance. The measures then adopted were equivalent, in fact, to the virtual abandonment of the protective system; and under such circumstances it could not be expected that the corn laws, on which so serious an inroad had been made by the Canada act, would be able to maintain their place on the statute book for any very lengthened period.

They might, however, have been continued for some time longer, had not the unsatisfactory corn harvest, and the failure of the potato crop of 1845, made it necessary to adopt measures for averting the anticipated deficiency in the supplies of food. Under the critical circumstances in which the population was then believed to be placed, the temporary suspension of the corn laws could hardly have been avoided; but if once suspended, their re-enactment would have been all but impossible, and it was better by at once providing for their repeal to make an end of the system, and of the dissatisfaction and agitation to which it had given birth, than to endeavour to continue it in any modified shape. Such was the view of the matter taken by Sir Robert Peel, and he fortunately succeeded, despite difficulties that none else could have overcome, in carrying the act 9 & 10 Vict. c. 22., for the immediate modification of the corn laws, and for their total repeal at the end of three years, or on the 1st February, 1849. (See *post.*)

II. Principles of the Corn Laws.

1. *Internal Corn Trade.* — It is needless to take up the reader's time by endeavouring to prove by argument the advantage of allowing the free conveyance of corn from one province to another. Every one sees that this is indispensable, not only to the equal distribution of the supplies of food over the country, but to enable the inhabitants of those districts that are best fitted for the raising and fattening of cattle, sheep, &c. to addict themselves to these or other necessary occupations not directly connected with the production of corn. We shall, therefore, confine the few remarks we have to make

on this subject, to the consideration of the influence of the speculations of the corn merchants in buying up corn in anticipation of an advance. Their proceedings in this respect, though of the greatest public utility, have been the principal causes of that odium to which they have been long exposed.

Were the harvests always equally productive, nothing would be gained by storing up supplies of corn; and all that would be necessary would be to distribute the crop equally throughout the country and throughout the year. But such is not the order of nature. The variations in the aggregate produce of a country in different seasons, though not perhaps so great as are commonly supposed, are still very considerable; and experience has shown that two or three unusually luxuriant harvests seldom take place in succession; or that when they do, they are invariably followed by those that are deficient. The speculators in corn anticipate this result. Whenever prices begin to give way in consequence of an unusually luxuriant harvest, speculation is at work. The more opulent farmers withhold either the whole or a part of their produce from market; and the more opulent dealers purchase largely of the corn brought to market, and store it up in expectation of a future advance. And thus, without intending to promote any one's interest but their own, speculators in corn become the benefactors of the public. They provide a reserve stock against those years of scarcity which are sure at no distant period to recur; while, by withdrawing a portion of the redundant supply from immediate consumption, prices are prevented from falling so low as to be injurious to the farmers, or at least are maintained at a higher level than they would otherwise have reached; provident habits are maintained amongst the people; and that waste and extravagance are checked, which always take place in plentiful years, but which would be carried to a much greater extent if the whole produce of an abundant crop were to be consumed within the season.

It is, however, in scarce years that the speculations of the corn merchants are principally advantageous. Even in the richest countries, a very large proportion of the individuals engaged in the business of agriculture are comparatively poor, and are totally without the means of withholding their produce from market, in order to speculate upon any future advance. In consequence the markets are always most abundantly supplied with produce immediately after harvest; and in countries where the merchants engaged in the corn trade are not possessed of large capitals, or where their proceedings are fettered and restricted, there is then, almost invariably, a heavy fall of prices. But as the vast majority of the people buy their food in small quantities, or from day to day, as they want it, their consumption is necessarily extended or contracted according to its price at the time. Their views do not extend to the future; they have no means of judging whether the crop is or is not deficient. They live, as the phrase is, from hand to mouth; and are satisfied if, in the mean time, they obtain abundant supplies at a cheap rate. But it is obvious, that were there nothing to control or counteract this improvidence, the consequence would very often be fatal in the extreme. The crop of one harvest must support the population till the crop of the other harvest has been gathered in; and if that crop should be deficient—if, for instance, it should only be adequate to afford, at the usual rate of consumption, a supply of 9 or 10 months' provisions instead of 12—it is plain that, unless the price were so raised immediately after harvest as to enforce economy, and put, as it were, the whole nation on short allowance, the most dreadful famine would be experienced previously to the ensuing harvest. Those who examine the accounts of the prices of wheat and other grain in England, collected by Bishop Fleetwood and Sir F. M. Eden, will meet with abundant proofs of the accuracy of what has now been stated. In those remote periods when the farmers were generally without the means of withholding their crops from market, and when the trade of a corn dealer was proscribed, the utmost improvidence was exhibited in the consumption of grain. There were then, indeed, very few years in which a considerable scarcity was not experienced immediately before harvest, and many in which there was an absolute famine. The fluctuations of price exceeded every thing of which we can now form an idea; the price of wheat and other grain being 4 or 5 times as high in June and July as in September and October. Thanks, however, to the increase of capital in the hands of the large farmers and dealers, and to the freedom given to the operations of the corn merchants, we are no longer exposed to such ruinous vicissitudes. Whenever the dealers, who, in consequence of their superior means of information, are better acquainted with the real state of the crops than any other class of persons, find the harvest likely to be deficient, they raise the price of the corn they have warehoused, and bid against each other for the corn which the farmers are bringing to market. In consequence of this rise of prices, all ranks and orders, but especially the lower, who are the great consumers of corn, find it indispensable to use greater economy, and to check all improvident and wasteful consumption. Every class being thus immediately put upon short allowance, the pressure of the scarcity is distributed equally throughout the year; and instead of indulging, as was formerly the case, in the same scale of consumption as in seasons of

plenty, until the supply became altogether deficient, and then being exposed without resource to the attacks of famine and pestilence, the speculations of the corn merchants warn us of our danger, and compel us to provide against it.

It is not easy to suppose that these proceedings of the corn merchants should ever be injurious to the public. It has been said that in scarce years they are not disposed to bring the corn they have purchased to market until it has attained an exorbitant price, and that the pressure of the scarcity is thus often very much aggravated; but there is no real ground for any such statement. The immense amount of capital required to store up any considerable quantity of corn, and the waste to which it is liable, render most holders disposed to sell as soon as they can realise a fair profit. In every extensive country in which the corn trade is free, there are infinitely too many persons engaged in it to enable any sort of combination or concert to be formed amongst them; and though it were formed, it could not be maintained for an instant. A large proportion of the farmers and other small holders of corn are always in straitened circumstances, more particularly if a scarce year has not occurred so soon as they expected; and they are consequently anxious to relieve themselves, as soon as prices rise, of a portion of the stock on their hands. Occasionally, indeed, individuals are found, who retain their stocks for too long a period, or until a reaction takes place, and prices begin to decline. But instead of joining in the popular cry against such persons, every one who takes a dispassionate view of the matter will perceive that, inasmuch as their miscalculation must, under the circumstances supposed, be exceedingly injurious to themselves, we have the best security against its being carried to such an extent as to be productive of any material injury or even inconvenience to the public. It should also be borne in mind, that it is rarely, if ever, possible to determine beforehand, when a scarcity is to abate in consequence of new supplies being brought to market; and had it continued a little longer, there would have been no miscalculation on the part of the holders. At all events, it is plain that by declining to bring their corn to market, they preserved a resource on which, in the event of the harvest being longer delayed than usual, or of any unfavourable contingency taking place, the public could have fallen back; so that, instead of deserving abuse, these speculators are most justly entitled to every fair encouragement and protection. A country in which there is no considerable stock of grain in the barnyards of the farmers, or in the warehouses of the merchants, is in the most perilous situation that can easily be imagined, and may be exposed to the severest privations, or even famine. But so long as the sagacity, the miscalculation, or the avarice of merchants and dealers retain a stock of grain in the warehouses, this last extremity cannot take place. By refusing to sell it till it has reached a very high price, they put an effectual stop to all sorts of waste, and husband for the public those supplies which they could not have so frugally husbanded for themselves.

We have already remarked that the last remnant of the shackles imposed by statute on the freedom of the internal corn dealer was abolished in 1773. It is true that engrossing, forestalling, and regrating—(see ENGROSSING, &c.)—are still held to be offences at common law; but there is very little probability of any one being in future made to answer for such ideal offences.

2. *Exportation to foreign Countries.*—The fallacy of the notion so long entertained, that the prevention of exportation was the surest method of increasing plenty at home, is obvious to every one who has reflected upon such subjects. The markets of no country can ever be steadily and plentifully supplied with corn, unless her merchants have power to export the surplus supplies with which they may be occasionally furnished. When a country without the means of exporting grows nearly her own average supplies of corn, an abundant crop, by causing a great overloading of the market, and a heavy fall of price, is as injurious to the farmer as a scarcity. It may be thought, perhaps, that the greater quantity of produce in abundant seasons will compensate for its lower price; but this is not the case. It is uniformly found that variations in the quantity of corn exert a much greater influence over prices, than equal variations in the quantity of almost any thing else offered for sale. Being the principal necessary of life, when the supply of corn happens to be less than ordinary, the mass of the people make very great, though unavailing, exertions, by diminishing their consumption of other and less indispensable articles, to obtain their accustomed supplies of this prime necessary; so that its price rises much more than in proportion to the deficiency. On the other hand, when the supply is unusually large, the consumption is not proportionally extended. In ordinary years, the bulk of the population is about adequately fed; and though the consumption of all classes be somewhat greater in unusually plentiful years, the extension is considerable only among the lowest classes, and in the feeding of horses. Hence it is that the increased supply at market, in such years, goes principally to cause a glut, and consequently a ruinous decline of prices. These statements are corroborated by the widest experience. Whenever there is an inability to export, from whatever cause it may arise, an unusually luxuriant crop is uniformly accompanied by a very heavy fall of

price, and severe agricultural distress; and when two or three such crops happen to follow in succession, the ruin of a large proportion of the farmers is completed.

If the mischiefs resulting from the want of power to export stopped here, they might, though very great, be borne; but they do not stop here. It is idle to suppose that a system ruinous to the producers can be otherwise to the consumers. A glut of the market, occasioned by luxuriant harvests, and the want of power to export, cannot be of long continuance; for, while it continues, it can hardly fail, by distressing all classes of farmers, and causing the ruin of many, to give a check to every species of agricultural improvement, and to lessen the extent of land in tillage. When, therefore, an unfavourable season recurs, the reaction is, for the most part, appalling. The supply, being lessened, not only by the badness of the season, but also by a diminution of the quantity of land in crop, falls very far below an average; and a severe scarcity, if not an absolute famine, is most commonly experienced. It is therefore clear, that if a country would render herself secure against famine and injurious fluctuations of price, she must give every possible facility to exportation in years of unusual plenty. If she act upon a different system,—if her policy make exportation in such years impracticable, or very difficult,—she will infallibly render the bounty of Providence an injury to her agriculturists; and two or three abundant harvests in succession will be the forerunners of scarcity and famine.

3. *Bounty on the Exportation of Corn.*—In great Britain, as already observed, we have not only been allowed to export for a long series of years, but from the Revolution down to 1815 a bounty was given on exportation, whenever the home prices were depressed below certain limits. This policy, however, erred as much on the one hand as a restriction on exportation errs on the other. It causes, it is true, an extension of the demand for corn: but this greater demand is not caused by natural, but by artificial means; it is not a consequence of any really increased demand on the part of the foreigner, but of our furnishing the exporters of corn with a *bonus*, in order that they may sell it abroad below its natural price! To suppose that a proceeding of this sort can be a public advantage, is equivalent to supposing that a shopkeeper may get rich by selling his goods below what they cost. (See Bounty.)

4. *Importation from Foreign Countries.*—If a country were, like Poland or Russia, uniformly in the habit of exporting corn to other countries, a restriction on importation would be of no material consequence; because, though such restriction did not exist, no foreign corn would be imported, unless its ports were so situated as to serve for an *entrepôt*. A restriction on importation is sensibly felt only when it is enforced in a country which, owing to the greater density of its population, the limited extent of its fertile land, or any other cause, would either occasionally or uniformly import. It is familiar to the observation of every one, that a total failure of the crops is a calamity that but rarely occurs in an extensive kingdom; that the weather which is unfavourable to one description of soil, is generally favourable to some other description; and that, except in anomalous cases, the total produce is not very different. But what is thus generally true of single countries, is always true of the world at large. History furnishes no single instance of a universal scarcity; but it is uniformly found, that when the crops in a particular country are unusually deficient, they are proportionally abundant in some other quarter. It is clear, however, that a prohibition of importation excludes the country which enacts it from profiting by this beneficent arrangement. She is thrown entirely on her own resources. Under the circumstances supposed, she has nothing to trust to for relief but the reserves in her warehouses; and should these be inadequate to meet the exigency of the crisis, there are apparently no means by which she can escape experiencing all the evils of scarcity, or, it may be, of famine. A country deprived of the power to import is unable to supply the deficiencies of her harvests by the surplus produce of other countries; so that her inhabitants may starve amidst surrounding plenty, and suffer the extreme of scarcity, when, but for the restrictions on importation, they might enjoy the greatest abundance. If the prohibition be not absolute, but conditional; if, instead of absolutely excluding foreign corn from the home markets, it be merely loaded with a duty, the degree in which such duty will operate to increase the scarcity and dearth will depend on its magnitude. If the duty be constant and moderate, it may not have any very considerable effect in discouraging importation; but if it be fluctuating and heavy, it will, by falsifying the speculations of the merchants, and making a corresponding addition to the price of the corn imported, be proportionally injurious. In whatever degree foreign corn may be excluded in years of deficient crops, to the same extent must prices be artificially raised, and the pressure of the scarcity rendered so much the more severe.

Such would be the disastrous influence of a restriction on importation in a country which, were there no such obstruction in the way, would sometimes import and sometimes export. But its operation would be infinitely more injurious in a country which, under a free system, would uniformly import a portion of her supplies. The restriction

in this case has a twofold operation. By preventing importation from abroad, and forcing the population to depend for subsistence on corn raised at home, it compels recourse to comparatively inferior soils; and thus, by increasing the cost of producing corn above its cost in other countries, adds proportionally to its average price. The causes of fluctuation are, in this way, increased in a geometrical proportion; for, while the prevention of importation exposes the population to the pressure of want whenever the harvest happens to be less productive than usual, it is sure, at the same time, by raising average prices, to hinder exportation in a year of unusual plenty, until the home prices fall ruinously low. It is obvious, therefore, that a restriction of this sort must be alternately destructive of the interests of the consumers and producers. It injures the former by making them pay, at an average, an artificially increased price for their food, and by exposing them to scarcity and famine whenever the home crop proves deficient; and it injures the latter, by depriving them of the power to export in years of unusual plenty, and by overloading the market with produce, which, under a free system, would have met with an advantageous sale abroad.

The principle thus briefly explained, shows the impossibility of permanently keeping up the home prices by means of restrictions on importation, at the same time that it affords a clue by which we may trace the causes of most part of the agricultural distress experienced in this country since the peace. The real object of the Corn Law of 1815 was to keep up the price of corn at about 80*s.* a quarter; but to succeed in this, it was indispensable not only that foreign corn should be excluded when prices were under this limit, but that the markets should never be overloaded with corn produced at home: for it is clear, according to the principle already explained, that if the supply should in ordinary years be sufficient to feed the population, it must, in an unusually abundant year, be more than sufficient for that purpose; and when, in such a case, the surplus is thrown upon the market, it cannot fail, in the event of our average prices being considerably above the level of those of the surrounding countries, to cause a ruinous depression. Now, this was the precise situation of this country at the end of the war. Owing partly to the act of 1804, but far more to the difficulties in the way of importation, and the depreciation of the currency, prices attained to an extraordinary elevation from 1809 to 1814, and gave such a stimulus to agriculture, that we grew, in 1812 and 1813, sufficient corn for our own supply. And, such being the case, it is clear, though our ports had been hermetically sealed against importation from abroad, that the first luxuriant crop must have occasioned a ruinous decline of prices. It is the exclusion, not the introduction, of foreign corn that has caused the occasional distress of the agriculturists since 1815; for it is this exclusion that has forced up the price of corn in this country, in scarce and average years, to an unnatural level, and that, consequently, renders exportation in favourable seasons impossible, without such a fall of prices as is most disastrous to the farmer. It may be mentioned, in proof of what is now stated, that the average price of wheat in England and Wales in 1814 was 74*s.* 4*d.* a quarter, and in 1815 it had fallen to 65*s.* 7*d.* But as these prices would not indemnify the occupiers of the poorest lands brought under tillage during the previous high prices, they were gradually relinquishing their cultivation. A considerable portion of them had been converted into pasture; rents had been generally reduced, and wages had begun to decline; but the legislature having laid additional restrictions on the importation of foreign corn, the operation of this natural principle of adjustment was unfortunately counteracted, and the price of 1816 rose to 78*s.* 6*d.* This rise was, however, insufficient to occasion any new improvement; and as foreign corn was now excluded, and large tracts of bad land had been thrown out of cultivation, the supply was so much diminished that, notwithstanding the increase in the value of money, prices rose in 1817, partly, no doubt, in consequence of the bad harvest of the previous year, to 96*s.* 11*d.*; and in 1818 to 86*s.* 3*d.* These high prices had their natural effect. They revived the drooping spirits of the farmers, who imagined that the Corn Law was, at length, beginning to produce the effects anticipated from it, and that the golden days of 1812, when wheat sold for 126*s.* 6*d.* a quarter, were about to return! But this prosperity carried in its bosom the seeds of future mischief. The increased prices necessarily occasioned a fresh extension of tillage; capital was again applied to the improvement of the soil; and this increase of tillage, conspiring with favourable seasons, and the impossibility of exportation, sunk prices to such a degree, that they fell, in October, 1822, so low as 38*s.* 1*d.*, the average price of that year being only 44*s.* 7*d.*

It is thus demonstrably certain, that the recurrence of periods of distress, similar to those which have been experienced by the agriculturists of this country since the peace, cannot be warded off by restricting or prohibiting importation. A free corn trade is the only system that can give them that security against fluctuations that is so indispensable. The increased importation that necessarily takes place, under a free system, as soon as any considerable deficiency in the crops is apprehended, prevents prices from rising to an oppressive height; while, on the other hand, when the crops are unusually luxuriant,

a ready outlet is found for the surplus in foreign countries, without its occasioning any very heavy fall. To expect to combine steadiness of prices with restrictions on importation, is to expect to reconcile what is contradictory and absurd. The higher the limit at which the importation of foreign corn into a country like England is fixed, the greater is the oscillation of prices. If we would secure for ourselves abundance, and avoid fluctuation, we must renounce all attempts at exclusion, and be ready to deal in corn, as we ought to be in every thing else, on fair and liberal principles.

That the restrictions imposed on the foreign corn trade during the last 20 years should not have been productive of more disastrous consequences than those that have actually resulted from them, is partly and principally to be ascribed to the unparalleled improvement of tillage in Great Britain during that period, and partly, also, to the great increase that has taken place in the imports from Ireland. Previously to 1806, when a perfectly free corn trade between Great Britain and Ireland was for the first time established, the yearly imports did not amount to 400,000 quarters, whereas they now amount to above 3,000,000; and any one who has ever been in Ireland, or is aware of the wretched state of its agriculture, and of the fertility of the soil, must be satisfied that a slight improvement would occasion a great increase in the imports from that country; and it is not improbable that the check that has latterly been given to the pernicious practice of splitting farms, to the potato culture, and consequently to the increase of a pauper population, may eventually lead to material improvements. Hence it is by no means improbable, seeing the fall that has already taken place, that the rapid spread of improvement at home, and the growing imports from Ireland, may, at no distant period, reduce our prices to the level of those of the Continent, and even render us an occasionally exporting country. These, however, are contingent and uncertain results; and supposing them to be ultimately realised, the corn laws, had they been maintained on their old footing, would, in the mean time, have been productive of great inconvenience, and would have materially aggravated the misery inseparable from bad harvests.

Nothing but the great importance of the subject could excuse us for dwelling so long on what is so very plain. To facilitate production, and to make commodities cheaper and more easily obtained, are the grand motives which stimulate the inventive powers, and which lead to the discovery and improvement of machines and processes for saving labour and diminishing cost; and it is plain that no system of commercial legislation deserves to be supported, which does not conspire to promote the same objects: but a restriction on the importation of corn into a country like England, which has made a great comparative advance in population and manufacturing industry, is diametrically opposed to these principles. The density of our population is such, that the exclusion of foreign corn has obliged us to resort to soils of less fertility than those that are under cultivation in the surrounding countries; and, in consequence, our average prices are comparatively high. The impolicy of this conduct is obvious. If we could, by laying out 1000*l.* on the manufacture of cottons or hardware, produce a quantity of these articles that would exchange for 500 quarters of American or Polish wheat; and if the same sum, were it expended in cultivation in this country, would not produce more than 400 quarters; the prevention of importation occasions an obvious sacrifice of 100 out of every 500 quarters consumed in the empire; or, which is the same thing, it occasions an artificial advance of 20 per cent. in the price of corn. We do not mean to say that this statement exactly represents the amount of injury that was inflicted by the late corn laws; but, at all events, it clearly illustrates the principle which they embodied. But though plainly injurious to the public, it may seem, at first sight, as if this system were advantageous to the landlords. The advantage is, however, merely apparent: at bottom there is no real difference between the interests of the landlords and those of the rest of the community. It would be ridiculous, indeed, to imagine for a moment that the landlords could be benefited by a system in which those fluctuations of prices, so subversive of all agricultural prosperity, were inherent; but though these could have been got rid of, the result would have been the same. The prosperity of agriculture must always depend upon, and be determined by, the prosperity of other branches of industry; and any system which, like the corn laws, is injurious to the latter, cannot but be injurious to the former. Instead of being publicly advantageous, high prices are in every case distinctly and completely the reverse. The smaller the sacrifice for which any commodity can be obtained, so much the better. When the labour required to produce, or the money required to purchase, a sufficient supply of corn, is diminished, it is as clear as the sun at noon-day that more labour or money must remain to produce or purchase the other necessaries, conveniences, and amusements of human life, and that the sum of national wealth and comforts must be proportionally augmented. Those who suppose that a rise of prices can ever be a means of improving the condition of a country might, with equal reason, suppose that it would be improved by throwing its best soils out of cultivation, and destroying its most

powerful machines. The opinions of such persons are not only opposed to the plainest and best established principles, but they are opposed to the obvious conclusions of common sense, and the universal experience of mankind.

It would, however, be unjust not to mention that there has always been a large and respectable party amongst the landlords, opposed to all restrictions on the trade in corn, and who have uniformly thought that their interests, being identified with those of the public, would be best promoted by the abolition of restrictions on importation. A protest expressive of this opinion, subscribed by 10 peers, was entered on the Journals of the House of Lords, against the corn law of 1815. It is said to have been written by the late Lord Grenville, distinguished as an enlightened advocate of sound commercial principles. Its reasoning is so clear and satisfactory, that we are sure we shall gratify our readers, as well as strengthen the statements previously made, by laying it before them.

"*Dissentient.*— I. Because we are adverse in principle to all new restraints on commerce. We think it certain that public prosperity is best promoted by leaving uncontrolled the free current of national industry; and we wish rather, by well considered steps, to bring back our commercial legislation to the straight and simple line of wisdom, than to increase the deviation by subjecting additional and extensive branches of the public interest to fresh systems of artificial and injurious restrictions.

"II. Because we think that the great practical rule, of leaving all commerce unfettered, applies *more peculiarly*, and on still stronger grounds of justice as well as policy, to the corn trade than to any other. Irresistible, indeed, must be that necessity which could, in our judgment, authorise the legislature to tamper with the sustenance of the people, and to impede the free purchase of that article on which depends the existence of so large a portion of the community.

"III. Because we think that the expectations of ultimate benefit from this measure are founded on a delusive theory. We cannot persuade ourselves that this law will ever contribute to produce plenty, cheapness, or steadiness of price. So long as it operates at all, its effects must be the opposite of these. *Monopoly is the parent of scarcity, of dearness, and of uncertainty.* To cut off any of the sources of supply, can only tend to lessen its abundance; to close against ourselves the cheapest market for any commodity, must enhance the price at which we purchase it; and to confine the consumer of corn to the produce of his own country, is to refuse to ourselves the benefit of that provision which Providence itself has made for equalising to man the variations of climate and of seasons.

"IV. But whatever may be the future consequences of this law at some distant and uncertain period, we see with pain that these hopes must be purchased at the expense of a great and present evil. To compel the consumer to purchase corn dearer at home than it might be imported from abroad, is the immediate practical effect of this law. In this way alone can it operate. Its present protection, its promised extension of agriculture, must result (if at all) from the profits which it creates by keeping up the price of corn to an artificial level. These future benefits are the consequences expected, but, as we confidently believe, erroneously expected, from giving a bounty to the grower of corn, by a tax levied on its consumer.

"V. Because we think the adoption of any permanent law for such a purpose required the fullest and most laborious investigation. Nor would it have been sufficient for our satisfaction, could we have been convinced of the general policy of a hazardous experiment. A still further inquiry would have been necessary to persuade us that the present moment is fit for its adoption. In such an inquiry we must have had the means of satisfying ourselves what its immediate operation will be, as connected with the various and pressing circumstances of public difficulty and distress with which the country is surrounded: with the state of our circulation and currency, of our agriculture and manufactures, of our internal and *external* commerce, and above all, with the condition and reward of the industrious and labouring classes of our community.

"On all these particulars, as they respect this question, we think that parliament is almost wholly uninformed; on all we see reason for the utmost anxiety and alarm from the operation of this law.

"Lastly. Because, if we could approve of the principle and purpose of this law, we think that no sufficient foundation has been laid for its details. The evidence before us, unsatisfactory and imperfect as it is, seems to us rather to disprove than to support the propriety of the high price adopted as the standard of importation, and the fallacious mode by which that price is to be ascertained. And on all these grounds we are anxious to record our dissent from a measure so precipitate in its course, and, as we fear, so injurious in its consequences."

Attempts have sometimes been made to estimate the pecuniary burden which the restrictions on importation entailed in ordinary years upon the country. This, however, is a subject with respect to which it is not possible to obtain any accurate data. But supposing the total quantity of corn annually produced in Great Britain and Ireland to amount to 50,000,000 quarters, every shilling added to its price by the corn laws was equivalent to a tax on corn of 2,500,000*l.*; and estimating the average rise on all sorts of grain previously to 1846 at 3*s.* a quarter, the total rise would be 7,500,000*l.* So great a quantity of corn is, however, consumed by the agriculturists themselves, as food, in seed, the keep of horses, &c., that not more than a half, perhaps, of the whole quantity produced is brought to market. If we are nearly right in this hypothesis, and in the previous estimates, it will follow that the restrictions cost the classes not engaged in agriculture no less 3,750,000*l.* a year, exclusive of their other pernicious consequences. Of this sum a *fifth*, probably, or 750,000*l.*, went to the landlords as rent; and this is *all* that the agriculturists can be said to have gained by the system, for the additional price received by the farmer on that portion of the produce which is exclusive of rent was no more than the ordinary return for his capital and labour. His profits, indeed, like those of all other capitalists, instead of being increased by this system, was diminished by it; and though, nominally at least, it somewhat increased the rents of the landlords, it is, notwithstanding, abundantly certain that it was any thing but advantageous to them. It would require a far larger sum to have balanced the injury which fluctuations of price occasioned to their tenants, and the

damage done to their estates by over-cropping when prices were high, than all they derived from the restrictions.

5. Duties on Importation.—A duty may be equitably imposed on imported corn, for two objects; that is, either for the sake of revenue, or to balance any excess of taxes laid on the agriculturists over those laid on the other classes.—(See the *Treatise on Taxation* by the Author of this work, 2nd. ed. pp. 193—203.) With respect, however, to a duty imposed for the sake of revenue, it may be doubted whether corn be a proper subject for taxation. At all events, a duty for such an object should be exceedingly moderate. It would be most inexpedient to attempt to add largely to the revenue by laying heavy duties on the prime necessary of life.

If it be really true that agriculture is more heavily taxed than any other branch of industry, the agriculturists are entitled to demand that a duty be laid on foreign corn when imported corresponding to the *excess* of burdens affecting them. It has been doubted, however, whether they are in this predicament. But though the question be not quite free from difficulty, it would be easy to show, were this a proper place for such inquiries, that, owing to the various local and other direct and indirect burdens laid on the land, those occupying it are really subjected to heavier taxes than any other class. It is difficult, or rather, perhaps, impossible to estimate with any degree of precision what the *excess* of taxes laid on the agriculturists beyond those laid on manufacturers and merchants may amount to: but we have elsewhere shown, that if we estimate it as making an addition of *5s.* or *6s.* to the quarter of wheat, we shall probably be beyond the mark.—(*Treatise on Taxation, ubi suprà.*)

When a duty is laid on the importation of foreign corn, for the equitable purpose of countervailing the peculiar duties laid on the corn raised at home, an *equivalent drawback* should be allowed on its exportation. "In allowing this drawback, we are merely returning to the farmer a tax which he has already paid, and which he must have, to place him in a fair state of competition in the foreign market, not only with the foreign producer, but with his own countrymen who are producing other commodities. It is essentially different from a bounty on exportation, in the sense in which the word bounty is usually understood; for by a bounty, is generally meant a tax levied on the people for the purpose of rendering corn unnaturally cheap to the foreign consumer; whereas what I propose is, to sell our corn at the price at which we can really afford to produce it, and not to add to its price a tax which shall induce the foreigner rather to purchase it from some other country, and deprive us of a trade which, under a system of free competition, we might have selected."—(*Ricardo on Protection to Agriculture*, p. 53.)

A duty accompanied with a drawback, as now stated, would not only, under the circumstances supposed, have been an equitable arrangement, but it would have been highly for the advantage of the farmers, without being injurious to any one else. The radical defect, as already shown, of the system followed from 1815 down to 1846, in so far, at least, as respected agriculture, was, that it forced up prices in years when the harvest was deficient, while it left the market to be glutted when it was abundant. But while a constant duty of *5s.* would have secured to the home growers all the increase of price which the regard due to the interests of others should allow them to realise in a bad year, the drawback of *5s.*, by enabling them to export in an unusually plentiful year, would have prevented the markets from being overloaded, and prices from falling to the ruinous extent that they have occasionally done Such a plan would have rendered the businesses of the dealers in and growers of corn comparatively secure; and would, therefore, have provided for the continued prosperity of both. It is surprising the agriculturists did not take this view of the matter. If they were really entitled to a duty on foreign corn, on account of their being more heavily taxed than the other classes of their fellow citizens (and they had no title to it on any other ground), they were also entitled to a corresponding drawback. And it admits of demonstration, that *their* interests, as well as those of the community, would have been better promoted by such a duty and drawback, than they ever could have been by any system of mere duties how high soever they might be carried.

III. British Corn Trade.

1. Quantity of Corn consumed in Great Britain.—Attempts have sometimes been made to estimate the quantity of corn raised in a country, from calculations founded on the number of acres in tillage, and on the average produce per acre; but it is plain that no perfectly accurate account can ever be framed of the extent of land under cultivation. It is perpetually changing from year to year; and the amount of produce varies not only with the differences of seasons, but also with every improvement of agriculture. This method, therefore, is now rarely resorted to, and the growth of corn is generally estimated from the *consumption*. The conclusions deduced from this crite-

rion must indeed be subject to error, as well from variations in the consumption, occasioned by variations in the price of corn, as from the varying extent to which other food is used. But supposing the prices of corn to be reduced to an average, if the consumption of a considerable number of persons, of all ranks and orders, and of all ages and sexes, were accurately determined, we should be able, supposing the census of the population to be nearly correct, to make a pretty close approximation to the total consumption of the country. Mr. Charles Smith, the well-informed and intelligent author of the Tracts on the Corn Trade, made many curious investigations, with a view to discover the mean annual consumption of corn; and reducing it to *the standard of wheat*, he found it to be at the rate of about *a quarter for each individual*, young and old. This estimate has been confirmed by a variety of subsequent researches; and among others, by inquiries made during the scarcity of 1795 and 1796, by the magistrates of Suffolk, in 42 different parishes, in the view of ascertaining the average consumption of each family, which they found to correspond very closely with Mr. Smith's estimate. It is also worthy of remark, that M. Paucton, the intelligent author of the *Metrologie*, estimates the mean annual average consumption in France, when reduced to the standard of wheat, at about 10 bushels for each individual; and as the French consume more bread and less animal food than the English, this estimate affords a strong proof of the correctness of that of Mr. Smith.

Having taken the population of England and Wales in 1765 at 6,000,000, Mr. Smith reckoned the consumers of each kind of grain, the quantity consumed by each individual, and hence, the whole consumed by man, to be as follows:—

Estimated Population of England and Wales.	Average Consumption of each Person.	Consumed by Man. Qrs.
3,750,000 consumers of wheat, at 1 quarter each		3,750,000
739,000 do. of barley, at 1⅝ do.		1,016,125
888,000 do. of rye, at 1¼ do.		999,900
623,000 do. of oats, at 2⅞ do.		1,791,225
Consumed by man		7,556,350
In addition to this, Mr. Smith estimated the wheat distilled, made into starch, &c.		90,000
Barley used in malting, &c.		3,417,000
Rye for hogs, &c.		31,000
Oats for horses, &c.		2,461,500
Total of home consumption		13,555,850
Add excess of exports over imports		398,624
		13,954,474
Add seed (one tenth)		1,395,447
Total growth of all kinds of grain in England and Wales in 1765		15,349,921

This estimate, it will be observed, does not include either Scotland or Ireland; and later inquiries have rendered it probable that Mr. Smith underrated the population of England and Wales by nearly 1,000,000. The most eminent agriculturists seem also to be of opinion that the allowance for seed ought to be stated as high as a *sixth* or a *seventh*.

Mr. Chalmers, availing himself of the information respecting the numbers of the people furnished under the Population Act of 1800, estimated the total consumption of the different kinds of grain in Great Britain at that epoch at 27,185,300 quarters, whereof wheat constituted 7,676,100 quarters. The crops of 1800 and 1801 being unusually deficient, the importation in these years was proportionally great; but excluding these scarcities, the total average excess of all sorts of grain imported from Ireland and foreign countries into Great Britain over the exports had previously amounted to about 1,000,000 quarters, which, deducted from 27,185,300, leaves 26,185,300, to which, if we add *one sixth* as seed, we shall have 30,549,516 quarters as the average growth of Great Britain in 1800.

According to Dr. Colquhoun, the consumption of corn in Great Britain and Ireland, in 1814, amounted to about 35,000,000 quarters. We subjoin his estimate.

Species of Grain.	Estimated Average of the Population of Great Britain and Ireland.	Each Person averaged.	Consumed by Man.	Consumed by Animals.	Used in Beer and Spirits.	Used in various Manufactures.	Total Quarters.
		Quarters.	*Quarters.*	*Quarters.*	*Quarters.*	*Quarters.*	
Wheat	9,000,000	1	9,000,000	- -	- -	170,000	9,170,000
Barley	1,500,000	1¼	1,875,000	210,000	4,250,000	- -	6,335,000
Oats	4,500,000	1½	6,750,000	10,200,000	- -	- -	16,950,000
Rye	500,000	1¼	625,000	59,000	- -	1,000	685,000
Beans and peas	500,000	1	500,000	1,360,000	- -	- -	1,860,000
Totals	16,000,000		18,750,000	11,829,000	4,250,000	171,000	35,000,000

But though this estimate be compiled with greater care, and is entitled to more confidence than most of those put forth by its author, it is in some respects extremely inaccurate. There can, for example, be no manner of doubt that the consumption of oats is underrated by at least 2,250,000 quarters, or by ½ quarter in the quantity assigned to each of the 4,500,000 individuals Dr. Colquhoun supposed were fed on them. And besides underrating the consumption of oats, the learned Dr. has made no allowance for seed, though it be unnecessary to say that the expenditure of corn as seed is as indispensable, and its consumption as effectual, as if it were employed in the feeding of men or of horses. Adding, therefore, to the 37,250,000 quarters which Colquhoun's estimate should have amounted to, 1-6th for seed, we have on his data, 43,458,000 quarters for the total consumption of corn in the U. Kingdom in 1814.

But instead of a population of 16 millions, which is assumed as the basis of the above estimate, the U. Kingdom had, in 1858, a population of above 29,000,000. If, therefore, the estimate of Dr. Colquhoun were accurate, and the consumption, as compared with the population, were about the same as in 1814, it should now amount to above 78,000,000 quarters. But, during the last 30 years, the proportion of wheat used as food has been materially increased; and at present the consumers of barley certainly amount to nothing like 1,500,000 individuals; probably to not more than 500,000. The consumption of oats has, also, increased very materially, partly and principally from the great increase in the number of horses and their better keep, and partly, also, from the increase of population in Ireland; but it is abundantly certain that the expenditure of corn on the lower animals, and in breweries, distilleries, &c., does not now amount to anything like twice the quantity at which it was estimated by Colquhoun.

On the whole, we are inclined to think that the consumption of the various kinds of corn in the U. Kingdom, exclusive of seed, might, in 1858, have been estimated as follows:—

	Qrs.	Total Qrs.
I. Consumed by man:—		
Wheat	16,000,000	
Oats, rye, and maslin (a mixture of rye and wheat)	10,000,000	
Barley for malting, food, &c.	6,000,000	
Beans and peas as meal	1,000,000	
		33,000,000
II. Consumed by the lower animals:—		
Corn (principally oats), beans and peas used in feeding of horses and other animals, in distillation, manufactories, &c.		16,000,000
Total consumed by man and the lower animals, &c.		49,000,000

But it appears from No. VIII. of the subjoined tables that at an average of the 7 years ending with 1858, the annual entries of foreign corn for home consumption were, wheat and wheat flour 4,593,801 quarters, barley 915,982 do.; oats and oatmeal, 1,243,618 do., rye 41,518 do., peas 118,541 do., and beans 359,751 do.; making an aggregate importation of 7,273,211 or 7,000,000 quarters a-year. And, therefore, if from the annual consumption by man and the lower animals, amounting to 49,000,000 quarters, we deduct the above average annual importation, we have 42,000,000 quarters for the portion of such consumption supplied by the native corn of the U. Kingdom; and adding to the latter a reasonable allowance for seed, we have about 50,000,000 quarters for the total average annual growth of all sorts of corn in the U. Kingdom.

The total entries of foreign corn in 1858 amounted to 9,513,276 quarters, being the largest quantity ever entered in any single year, with the exception of 1849. But as this quantity amounts to little more than 1-6th part of the entire corn raised at home, it would seem as if the greatest importation could have but a very slight influence over prices; but it has been already shown that a very large proportion of the corn produced in the empire is never brought to market, but is partly consumed by the agriculturists, and partly used as seed and in the feeding of farm horses, &c. And allowing for this, an importation of 9,000,000 quarters may be supposed to be equal to from 1-4th to 1-3rd part of the corn brought to market in ordinary years, and could not, therefore, fail to have a very powerful influence in alleviating the pressure of scarcity, and in reducing prices. It is also to be observed, that these importations are exclusive of very large importations of Indian corn and meal. In consequence of the all but total failure of the potato crop in Ireland, and its partial failure in Great Britain in 1846, and of the efforts of government to supply the deficit, the imports in 1847, inc. those of Indian corn, afford no fair criterion, or rather no criterion at all, of their probable amount in ordinary years. But the average aggregate imports during each of the last 7 years may, perhaps, represent with tolerable accuracy, their amount for some years to come. On the whole, however, the probability seems to be that they will be increased.

We give (see page 428.) an estimate of the extent of land under the different descriptions of crops in the different divisions of the U. Kingdom; of the average produce per acre of such crops; with their total value, &c.

This estimate has been partly founded on official returns, and is partly conjectural. We doubt, however, whether the former be entitled to the weight that might be supposed to be due to them. As respects England, returns, which are mostly very defective, have been obtained only from 11 counties; and these do not give anything like a fair average of the kingdom. In Scotland the returns are nearly complete. We con-

Account of the Extent of Land in the United Kingdom under the principal Descriptions of Crops; the average Rate of Produce per Acre; the total Produce; the Amount of Seed; the Produce under Deduction of Seed; and the total Value of such Produce.

	Crops.	Acres in Crop.		Produce per Acre.	Total Produce.		Seed (1-7th of Produce).	Produce under Deduction of Seed.		Price per Quarter.	Total Value.	
England.	Wheat	3,500,000		*Quarters.* 3¾	*Quarters.* 13,125,000		*Quarters.* 1,875,000	*Quarters.* 11,250,000		50*s.*	£ 28,125,000 0 0	£ *s.* *d.*
	Barley	1,500,000		4½	6,750,000		964,285	5,785,715		30*s.*	8,678,572 10 0	
	Oats and rye	1,500,000		4½	6,750,000		964,285	5,785,715		20*s.*	5,785,715 0 0	
	Beans and peas	700,000		3½	2,625,000	29,250,000	375,000	2,250,000	25,071,430	30*s.*	3,375,000 0 0	
	Potatoes, turnips, and rape	2,500,000		7*l.* per acre.	- -		- -	- -		- -	31,500,000 0 0	
	Clover	2,000,000										
	Fallow	800,000										
	Hops	50,000		15*l.* per acre.	- -		- -	- -		- -	780,000 0 0	
	Gardens	150,000	12,700,000	15*l.* per acre.	- -		- -	- -		- -	2,250,000 0 0	80,494,287 10 0
Scotland.	Wheat	200,000		*Quarters.* 3½	700,000		100,000	600,000		48*s.*	1,410,000 0 0	
	Barley	230,000		4	920,000		131,428	788,572		28*s.*	1,104,000 10 0	
	Oats	1,000,000		5	5,000,000		714,286	4,285,714		20*s.*	4,285,714 0 0	
	Beans and peas	50,000		3	150,000	6,770,000	21,428	128,572	5,302,858	30*s.*	192,858 0 0	
	Fallow	30,000										
	Potatoes	150,000		7*l.* per acre.	- -		- -	- -		- -	7,280,000 0 0	
	Turnips	440,000										
	Clover	450,000										
	Flax	7,000		15*l.* per acre.	- -		- -	- -		- -	105,000 0 0	
	Gardens	35,000	2,592,000	15*l.* per acre.	- -		- -	- -		- -	525,000 0 0	14,932,572 10 0
Ireland.	Wheat	400,000		*Quarters.* 3	1,200,000		(Seed 1-6th). 200,000	1,000,000		46*s.*	2,300,000 0 0	
	Barley	320,000		3½	1,120,000		186,666	933,333		26*s.*	1,213,332 18 0	
	Oats	2,200,000		5	11,000,000	13,320,000	1,833,333	9,166,667	11,100,000	20*s.*	9,166,667 0 0	
	Potatoes	1,400,000		8*l.* per acre.	- -		- -	- -		- -	11,200,000 0 0	
	Fallow	300,000										
	Flax	150,000		15*l.* per acre.	- -		- -	- -		- -	2,250,000 0 0	
	Gardens	25,000	4,795,000	12*l.* per acre.	- -		- -	- -		- -	300,000 0 0	26,429,999 18 0
	Totals		20,087,000	- -		49,340,000	- -		41,974,288	- -		121,856,859 18 0

fess, however, that we are inclined to doubt whether they have been compiled with due care and attention. Some very competent judges have expressed the conviction, in which we entirely concur, that the extent of land under wheat has been considerably underrated; and few, we apprehend, will be inclined to believe that its produce in Renfrew and Lanark is as great as in East Lothian. The Irish returns are, perhaps, more to be depended upon; but even they are very unsafe guides.

Agricultural Statistics. — Perhaps we may be excused for adding that the advantages to be derived from what are called "Agricultural Statistics" have been ridiculously exaggerated. The extent of land under different crops may be learned with tolerable precision. But it is the merest hallucination to imagine that the produce of any harvest can ever be known with anything approximating to accuracy, till it be thrashed out. Supposing, however, that it were otherwise, and that it was officially announced in September that the wheat crop was, (say) 2,000,000 quarters under an average: The first effect of this announcement would be to raise the price of wheat in every foreign port; and where is the gain to set off against this disadvantage? The return would give no additional security to the speculations of the importers; for, though A. knows that 2,000,000 quarters are required to make up the stated deficiency, he cannot know how much has been or may be ordered by B., C., D., and his 10,000 other competitors here and abroad. The existing system is in all respects preferable. At present the great corn merchants are in the habit of sending intelligent agents through the country to examine into and report on the state of the crops. If they see reason to apprehend an unusual deficiency, their principals purchase accordingly. But they are not such simpletons as to communicate their peculiar information to the public. That might be a very generous, but it would, at the same time, be a very foolish proceeding. And yet this communication of information useful to the foreigner would be the first and principal result of such official statements as to the state of the crops as were of any authority.

Regulations under which the Corn Trade of the U. Kingdom was conducted previously to 1846. — These regulations were embodied in the act 5 Vict. 2. sess. c. 14., some clauses of which still continue in force (see *post*). This act imposed a scale of duties on wheat and other descriptions of corn when imported from a foreign country, which varied inversely according to their prices, being greatest when prices were lowest, and least when prices were highest. (See a Table of the duties in the former editions of this work.)

From the extreme difficulty of forming any thing like correct conclusions in regard to the state of the crops at any given period in an extensive country, and still more of estimating the supply and probable price of corn at any future period, though but a little remote, the risk attending the corn trade is proverbially great. Under such circumstances, if government interfere at all, it should certainly be to lessen such hazards; and, at all events, it should take especial care to do nothing to increase them. Hence, if a duty be imposed on importation, it should be constant, so that its influence may always be estimated beforehand; for if the amount of duty depend on accidental circumstances, or on any thing so fluctuating and incapable of previous estimation as the prices in the home market, it must necessarily, by increasing the hazard of all speculations in corn, tend to augment those inequalities in its supply and price, that should, in as far as possible, be diminished. To show the direct influence of such duties, it may suffice to mention that if, under the above law, a merchant had commissioned a quantity of wheat when the home price was between 64*s.* and 65*s.* a quarter, he would, in the event of the price falling to 60*s.* before the importation took place, have lost 9*s.* a quarter by the transaction, viz. 4*s.* a quarter by the fall of price, and 5*s.* a quarter by an increase of duty.

It may, perhaps, be said that if, on the one hand, the late scale of duties was injurious to the merchant when prices were falling, and when importation was consequently either unnecessary or of less advantage, it was, on the other hand, equally advantageous to him when prices were rising, and when the public interests required that importation should be encouraged: but the prices in the view of the merchant when he gives an order are always such as he supposes will yield a fair profit; and if they rise, this rise will, supposing the trade free or the duty constant, yield such an extra profit as will make him increase his imports to the utmost. If it were possible to devise a system that should diminish the losses incurred in unfavourable speculations, by making a proportional deduction from the profits of such as were unusually successful, something, perhaps, might be found to say in its favour. But the system we acted upon of late years proceeded on quite opposite principles: its effect was not to diminish risks, but to increase them; it added to the loss resulting from an unsuccessful, and to the profit resulting from a successful speculation!

There are other considerations that serve to set the pernicious operation of a fluctuating duty in a still more striking point of view. Should a tract of unfavourable weather occur before harvest, and a deficient crop be anticipated, prices rise, and the duty falls to next to nothing: But now suppose that the weather becomes fine, and

that the anticipations of a short crop are dispelled, and observe what, under such circumstances, is the operation of the sliding-scale. In such a case, prices immediately give way, and, to avoid the consequent increase of duty, every bushel of foreign corn warehoused in the country, and, indeed, in every contiguous foreign port, is forthwith entered for consumption, and thrown upon a falling market! With no duty, or with a fixed duty, merchants distribute the supply of corn according to the best estimate they can form of the real wants and necessities of the people. But the operation of a sliding-scale goes far to exclude such considerations. Besides doubling the hazards of the trade, it tempts merchants, when prices are rising, to hold back, in the expectation of being able to enter their corn at a reduced duty; and when, on the other hand, a fall of prices is anticipated, the market, as already seen, is overloaded, and prices ruinously depressed by the supplies forced upon it to escape the increase of duty! It is thus alternately injurious to the manufacturing and the agricultural classes; entailing the severest privations on the former, by making the importers withhold their corn from market till the price attains to a ruinously high level; and, on the latter, by making the same parties throw it on a market which is already depressed. The extreme low prices of 1821 and 1822, and of 1833, 1834, and 1835, were, no doubt, in part occasioned by the excess of the foreign entries for consumption arising out of the circumstances now mentioned.

Now that our ports are constantly open, supplies, whether of native or of foreign growth, are only furnished when necessary, and are limited by the necessity; and when prices are low, or falling, a large proportion of the imports are warehoused in anticipation of a future rise. But formerly there was no room for consideration or combination; everything had to be done on the moment, and by fits and starts. We might not have brought a bushel of wheat from the Baltic for a year or two; but our prices having risen, and the duty having fallen still more rapidly, we had an instantaneous demand for all the corn that could be had! Not being expected, no provision could be made for meeting such sudden and capricious demands; and prices rose to such a degree as to make our presence in the foreign markets hateful to every one, except the few who might happen to have on hand stocks of corn. It is plain, too, that a commerce conducted in this way could not be carried on by an interchange of goods for corn, as it would have been had the ports been constantly open. We had a demand one year for perhaps ten times the quantity of Polish corn that we required another year; but the Poles could not reciprocate by taking off corresponding quantities of our cottons, woollens, and hardware. Under ordinary circumstances, an increase of imports is always accompanied by a corresponding increase of exports; but, to bring this about, the increase must neither be sudden nor excessive; for, if so, the chances are ten to one that the foreign demand for our products will not increase to an equal extent. Corn is the principal means which the Poles and Russians have of paying for English goods; and, as we frequently shut it wholly out, their imports from England were unavoidably below even the average amount of their exports; so that when we have had an extraordinary demand for corn, the greater part of the excess had to be paid for in bullion; and, instead of being benefited by its occurrence, our commercial and manufacturing interests were deeply injured.

But it is unnecessary to dwell on what is so well known. Fortunately we did not require to import any foreign corn in 1835 and 1836; for no one, either in the Bank of England or out of it, acquainted with the circumstances, can doubt that, had it been then necessary to make the same payments for foreign corn we had to make in 1830 and 1831, and in 1838 and 1839, the Bank must have stopped payments; and a shock would have been given to the credit and financial interests of the country, from which they would not easily have recovered. The severe pressure on the money market in 1839 mainly originated in the same circumstances; and that pressure was productive of far greater loss and inconvenience to the agriculturists than any advantage they gained by the rise of prices in that year.

It must not, however, be supposed, from anything now said, that we mean to state or insinuate that it is possible, by any contrivance, or by the utmost possible degree of freedom, to avert all fluctuations in the supply and price of corn. Any such idea would be alike chimerical and absurd. Variations of the harvests, in so rich and populous a country as Great Britain, must always, and under any circumstances, have a powerful influence over prices, not only here, but also in those foreign markets whence we are in the habit of drawing a portion of our supplies. But it admits of demonstration, that importation without any, or with constant duties, is the best means by which to mitigate the influence of variations of harvests, and to secure the greatest steadiness of price. Under the existing system, the merchants of this and other countries are able to form their plans without the fear of their being overturned by accidental or contingent circumstances; and the fact that we every now and then require a large supply of foreign corn make capitalists, here and elsewhere, warehouse, in abundant years, large supplies, in anticipation of the demand when a deficiency occurs. The merchant has

now to deal only with real wants and necessities; and these it is comparatively easy to provide against.

Besides its mischievous operation in other respects, the late corn law was highly inimical to the public interests from the convenient handle which it afforded for all sorts of agitation, misrepresentation, and abuse. Its deleterious influence was greatly exaggerated; and it seemed to be supposed that its repeal would be a sovereign panacea for all sorts of grievances. But though, for the reasons previously stated, the new system has given us greater steadiness of prices, and has, in consequence, been of much public advantage, its influence in the reduction of prices has not been so great as has been expected, both by the agriculturists and by the other classes. The extraordinarily favourable seasons and productive harvests that prevailed, both in Europe and America, in 1848 and 1849, led to an unusually large importation, and consequently, also, to a considerable fall of prices. But this fall not having been by any means so great as might have been anticipated from the magnitude of the imports, shows that the greater portion, at least, of the latter had been required to meet the increased demand of the country. In 1852, the price of wheat amounted to 40*s.* 9*d.* a quarter; and we incline to think that this will prove to be about the lowest point in the descending scale, and that the probability is that prices will be considerably higher. There must, no doubt, be in all cases much uncertainty in prospective estimates of prices. We are still, however, disposed to abide by our former conclusion, that the probable future average price of wheat in this country, under the new system, may be estimated at about 48*s.* or 50*s.* a quarter; and if so, agriculture will not be affected by the change.

If, however, it should turn out differently, and there should be at any time so very abundant a season in this country and in the north of Europe, as to threaten such a fall of prices as might give a serious shock to the industry of the husbandman, the crisis may be averted or mitigated by some temporary expedient. But it is not very probable that it will be necessary to interpose in this way. Instead of being unfavourable to the agriculturists, they have already gained, and the chances are that they will continue to gain, by the new system; they have greater capital, skill, and industry than those of any other country; and being aware that they must now wholly rely on them to preserve their place in society, and not on custom-house regulations and parliamentary majorities, the continued improvement of agriculture may be confidently expected: and, apart from this powerful stimulus, the existing system has the further advantage that it gives the agriculturists increased security, and identifies their interests in opinion, as well as in fact, with those of the public.

At the same time we are ready to admit that, had it been practicable, we should have preferred seeing this great question settled by the adoption of a measure for opening the ports, under a fixed duty of 5*s.* or 7*s.* a quarter on wheat, accompanied with a corresponding drawback. We make this statement on general grounds, and without any reference to the peculiar burdens that affect the agriculturists, though these should neither be forgotten nor overlooked. It would be easy to show that in scarce years a duty of this amount would fall wholly on the foreigner, without affecting prices, or narrowing importation; while, in years of unusual plenty, the drawback would facilitate exportation, and would, consequently, tend to hinder prices from falling so low as to injure the farmer and obstruct improvement. And in a matter of such immense importance it is the part of a wise government to be cautious how they take any step, of the consequences of which they are not fully assured, or which may expose any great interest to serious vicissitudes. But, even if our limits permitted, it would be to little purpose to insist on these or any similar considerations. The pertinacity with which the agriculturists opposed every approach to a more liberal system roused a spirit which would not be satisfied with anything short of a complete abandonment of restrictions. The time for compromise and arrangement being allowed to go by, government had to deal with an unreasoning necessity: *Cum ventre humano tibi negotium est, nec rationem patitur, nec æquitate mitigatur, nec ulla prece flectitur populus.*—(Seneca, de Brev. Vitæ, c. 18.) What was practicable became of more consequence than what was either just or proper. And even had it been possible to effect an arrangement of the question in the way now stated, the pernicious trade of agitation would most likely have continued to flourish; the object and influence of the duty would have been misrepresented; and neither landlords nor farmers would have felt any confidence in the permanence of the new arrangements. Under these circumstances, their unconditional repeal was, if not really, at all events practically, the best, or rather the only safe course that could be adopted in dealing with the corn laws.

Regulations under which the Corn Trade of the U. Kingdom is now conducted. — These are embodied in the act 9 & 10 Vict. c. 22., of which we subjoin an abstract:—

Duties payable under this Act. — From and after the passing of this act, there shall be levied and paid on all corn, grain, meal, and flour already or hereafter to be imported into the U. Kingdom or the Isle of Man from parts beyond the seas, and entered for home consumption, the duties set forth in the schedule to this act annexed; viz.—

If imported from any Foreign Country.

	s.	d.	
Wheat. — Whenever the average price of wheat, made up and published in the manner required by law, shall be under 48*s.* the duty shall be -	10	0	per qr.
48*s.* and under 49*s.* - - -	9	0	
49*s.* — 50*s.* - -	8	0	
50*s.* — 51*s.* - -	7	0	
51*s.* — 52*s.* - -	6	0	
52*s.* — 53*s.* - -	5	0	
53*s.* and upwards - -	4	0	
Barley, Bear or ***Bigg.*** — Whenever the average price of barley, made up and published in the manner required by law, shall be under 26*s.* the duty shall be - - -	5	0	
26*s.* and under 27*s.* - -	4	6	
27*s.* — 28*s.* - -	4	0	
28*s.* — 29*s.* - -	3	6	
29*s.* — 30*s.* - -	3	0	
30*s.* — 31*s.* - -	2	6	
31*s.* and upwards - - -	2	0	
Oats. — Whenever the average price of oats, made up and published in the manner required by law, shall be under 18*s.* the duty shall be -	4	0	
18*s.* and under 19*s.* - -	3	6	
19*s.* — 20*s.* - -	3	0	
20*s.* — 21*s.* - -	2	6	
21*s.* — 22*s.* - -	2	0	
22*s.* and upwards - - -	1	6	

Rye, Pease, and ***Beans.*** — For every quarter a duty equal in amount to the duty payable on a quarter of barley.

Wheat, Meal, and ***Flour.*** — For every barrel being 196lbs. a duty equal in amount to the duty payable on 38½ gallons of wheat.

Barley Meal. — For every quantity of 217½lbs. a duty equal in amount to the duty payable on a quarter of barley.

Oatmeal and ***Groats.*** — For every quantity of 181¼lbs. a duty equal in amount to the duty payable upon a quarter of oats.

Rye Meal and ***Flour.*** — For every barrel being 196 lbs. a duty equal in amount to the duty payable upon 40 gallons of rye.

Pea Meal and ***Bean Meal.*** — For every quantity of 272lbs. a duty equal in amount to the duty payable on a quarter of peas or beans.

If the produce of and imported from any British Possession out of Europe.

Wheat, barley, bear or bigg, oats, rye, pease, and beans, the duty shall be - - - -	1	0	per qr.
Wheat meal, barley meal, oatmeal, rye meal, pea meal, and bean meal, the duty shall be -	0	4½	per cwt.

But the above duties ceased on the 1st of February, 1849; and on, from, and after the said 1st of February, 1849, the following duties have been charged on corn entered for consumption, viz. —

	s.	d.	
Upon all wheat, barley, bear or bigg, oats, rye, peas, and beans - - -	1	0	per qr.
And so in proportion for a less quantity.			
Upon all wheat meal and flour, barley meal, oatmeal, rye meal and flour, pea meal, and bean meal - - - -	0	4½	per cwt.
And so in proportion for a less quantity.			

Clause 2. enacts that the duties shall be levied pursuant to 8 & 9 Vict. c. 90.

Clause 3. enacts that the duties payable in the Isle of Man shall be levied pursuant to 8 & 9 Vict. c. 94.

Clause 4. enacts that average prices are to continue to be made up according to 5 & 6 Vict. 2 sess. c. 14. (*see below*) and the duties under this act to be regulated thereby.

Clause 5. repeals that part of the 5 & 6 Vict. c. 14. which prohibits the importation into the U. Kingdom for consumption there of any corn ground.

We subjoin an abstract of those parts of the 5 & 6 Vict. 2 sess. c. 14. which are referred to in the above act, and which are yet in force.

Regulations to be observed on shipping Corn from any British Possession out of Europe. — No corn, grain, meal, or flour shall be shipped from any British possession out of Europe as the produce of any such possession until the owner or proprietor or shipper thereof have made and subscribed, before the collector or other chief officer of customs at the port of shipment, a declaration in writing, specifying the quantity of each sort of such corn, grain, meal, or flour, and that the same was the produce of some British possession out of Europe to be named in such declaration, nor until such owner or proprietor or shipper shall have obtained from the collector or other chief officer of the customs of the said port a certificate, under his signature, of the quantity of corn, grain, meal, or flour so declared to be shipped; and before any corn, grain, meal, or flour shall be entered at any port or place in the U. Kingdom as being the produce of any British possession out of Europe, the master of the ship importing the same shall produce and deliver to the collector or other chief officer of customs of the port or place of importation a copy of such declaration, certified to be a true and accurate copy thereof, under the hand of the collector and other chief officer of customs at the port of shipment before whom the same was made, together with the certificate, signed by the said collector or other chief officer of customs, of the quantity of corn so declared to be shipped; and such master shall also make and subscribe, before the collector or other chief officer of customs at the place of importation, a declaration in writing that the several quantities of corn, grain, meal, or flour on board such ship, and proposed to be entered under the authority of such declaration, are the same that are mentioned and referred to in the declaration and certificate produced by him, without any admixture or addition; and if any person shall in any such declaration wilfully and corruptly make any false statement respecting the place of which any such corn, grain, meal, or flour was the produce, or respecting the identity of any such corn, grain, meal, or flour, such person shall forfeit and become liable to pay to her Majesty the sum of 100*l.*, and the corn, grain, meal, or flour to such person belonging on board any such ship shall also be forfeited; and such forfeiture may be sued for, recovered, and applied in the same manner in all respects as any forfeiture incurred under and by virtue of the said act 3 & 4 Will. 4. c. 58.—§ 5.

Accounts of Corn imported, &c. to be published monthly. — The commissioners of customs shall once in each month publish in the London Gazette an account of the total quantity of each sort of corn, grain, meal, and flour respectively imported into the U. Kingdom, and also an account of the total quantity of each sort of corn, grain, meal, and flour upon which duties of importation have been paid in the U. Kingdom during the month next preceding, and of the several rates of duty which shall from time to time during such month have been payable upon each sort of corn, grain, meal, and flour respectively, with an account of the total quantity of each sort of corn, grain, meal, and flour remaining in warehouse at the end of such next preceding month. —§ 7.

Section 8. enacts that if any foreign state subject British vessels, goods, &c. to any higher duties or charges than are levied on the vessels of other countries, &c. her Majesty may prohibit the importation of corn from such state.

Section 9. enacts, that weekly returns of purchases and sales of corn shall be made in the places named in the schedule annexed to the act.

Section 10. gives her Majesty power of appointing a comptroller of corn returns.

Section 11. enacts that the comptroller shall execute his office in person, but that a deputy may be appointed to act in certain cases.

Sections 12. and 13. authorise the Lord Mayor and aldermen to appoint an inspector of corn returns for the city of London, under the same conditions as the general comptroller.

Section 14. authorises the chancellors of the universities of Oxford and Cambridge to appoint and remove inspectors of corn returns for the said city and town.

Section 15. enacts that no person dealing in corn, flour, or malt be appointed inspector or deputy-inspector of corn returns for the cities of London or Oxford, or town of Cambridge.

Section 16. enacts that the appointments of inspectors for London, Oxford, and Cambridge be enrolled.

Dealers in Corn in and near London to deliver in a Declaration to the Lord Mayor, &c.—Every person carrying on trade or business in the city of London, or within 5 miles from the Royal Exchange in the said city, as a corn factor, or as an agent employed in the sale of British corn, and every person who shall sell any British corn within the Corn Exchange in Mark Lane in the said city, or within any other building or place which is or may hereafter be used within the city of London, or within 5 miles from the Royal Exchange in the said city, for such and the like purposes for which the said Corn Exchange in Mark Lane hath been and is used, shall, before he or they shall carry on such trade or business, or sell any corn in manner aforesaid, make and deliver to the Lord Mayor, or one of the aldermen of the city of London, a declaration in the following words; (that is to say,)

"I *A. B.* do declare, that the returns to be by me made, conformably to an act passed in the fifth year of the reign of her Majesty Queen Victoria, intituled [*here set forth the title of this act*], of the quantities and prices of British corn which henceforth shall be by or for me sold or delivered shall, to the best of my knowledge and belief, contain the whole quantity, and no more, of the corn *bonâ fide* sold and delivered by or for me within the periods to which such returns respectively shall refer, with the prices of such corn, and the names of the buyers respectively, and of the persons for whom such corn shall have been sold by me respectively, and to the best of my judgment the said return shall in all respects be conformable to the provisions of the said act."

Which declaration shall be in writing, and shall be subscribed by the person so making the same; and the Lord Mayor or alderman aforesaid of the city of London for the time being shall, and is hereby required to deliver a certificate thereof, under his hand, to the inspector of corn returns for the city of London, to be by him registered in a book to be provided and kept for that purpose.—§ 17.

Dealers in Corn to make Returns to Corn Inspector.—Every corn factor and other person as aforesaid who is herein-before required to make, and who shall have made such declaration as aforesaid, shall, and he or she is hereby required to return or cause to be returned, on Wednesday in each and every week, to the inspector of corn returns for the city of London, an account in writing, signed with his or her own name, or the name of his or her agent duly authorised in that behalf, of the quantities of each sort of British corn by him or her sold during the week ending on and including the next preceding Tuesday, with the prices thereof, and the amount of every parcel, with the total quantity and value of each sort of corn, and by what measure or weight the same was sold, and the names of the buyers thereof, and of the persons for and on behalf of whom such corn was sold; and it shall be lawful for any such inspector of corn returns to deliver to any person making or tendering any such returns a notice in writing requiring him or her to declare and set forth therein where and by whom and in what manner any such British corn was delivered to the purchaser or purchasers thereof: and every person to whom any such notice shall be so delivered shall, and he or she is hereby required to comply therewith, and to declare and set forth in such his or her return, or in a separate statement in writing, the several particulars aforesaid.—§ 18.

Section 19. enacts that the present comptroller, deputy-comptroller, and inspectors of corn returns for London, Oxford and Cambridge continue in office, and that the appointments of the other inspectors of returns shall cease on the 24th day of June next after the passing of this act.

Section 20. enacts that in cities and towns, other than London, Oxford, and Cambridge, officers of excise are to act as corn inspectors, and attend at places appointed.

Section 21. enacts that the commissioners of excise shall make known the place to be appointed for delivering returns of corn purchased.

Section 22. authorises the commissioners of treasury to continue, if they think fit, the present inspectors of corn returns in their offices.

Dealers in Corn in Cities and Towns to make Declaration.—Every person who shall deal in British corn at or within any city or town named in the prefixed list of towns, excepting the city of London, or who shall at or within any such city or town engage in or carry on the trade or business of a corn factor, miller, maltster, brewer, or distiller, or who shall be the owner or proprietor, or part owner or proprietor of any stage coaches, waggons, carts, or other carriages carrying goods or passengers for hire to and from any such city or town, and each and every person who, as a merchant, clerk, agent or otherwise, shall purchase at any such city or town any British corn for sale, or for the sale of meal, flour, malt, or bread made or to be made thereof, shall, before he or she shall so deal in British corn at any such city or town, or shall engage in or carry on any such trade or business as aforesaid, or shall purchase any British corn for any such purpose as aforesaid, at or within any such city or town, make and deliver a declaration in the following words; (that is to say,)

"I *A. B.* do declare, that the returns to be by me made, conformably to the act passed in the fifth year of the reign of her Majesty Queen Victoria, intituled [*here set forth the title of this act*], of the quantities and prices of British corn which henceforward shall by or for me be bought, shall, to the best of my knowledge and belief, contain the whole quantity, and no more, of the British corn *bonâ fide* bought for or by me within the periods to which such returns respectively shall refer, with the prices of such corn and the names of the sellers respectively, and to the best of my judgment the said returns shall in all respects be conformable to the provisions of the said act."

Which declaration shall be in writing, and shall be subscribed with the hand of the person so making the same, and shall by him or her, or by his or her agent, be delivered to the mayor or chief magistrate, or to some justice of the peace for such city or town, or for the county, riding, or division in which the same is situate, who are hereby required to deliver a certificate thereof to the officer of excise acting as inspector of corn returns for such city or town as aforesaid, or to such continuing inspector of corn returns as aforesaid for such city or town (as the case may be), to be by such officer or inspector registered in a book to be provided and kept for that purpose.—§ 23.

Section 24. authorises the inspectors of corn returns to require the above declaration from corn dealers.

Corn Dealers to make Returns in Writing to Inspectors of the Corn bought by them.—All persons who are herein-before required to make and who shall have made such declaration as aforesaid shall, and they are hereby required, on the first market day which shall be holden in each and every week within each and every city or town named in the said schedule hereunto annexed, except the city of London, at or within which they shall respectively deal in corn, or engage in or carry on any such trade or business as aforesaid, or purchase any corn for any such purpose as aforesaid, to return or cause to be returned to the officer of excise acting as inspector of corn returns for such city or town, at the place appointed for receiving such returns, or to the continuing inspector of corn returns for such city or town, or to the inspector of corn returns for the city of Oxford, or the town of Cambridge (as the case may be), an account in writing, signed with their names respectively, of the amount of each and every parcel of each respective sort of British corn so by them respectively bought during the week ending on and including the day next preceding such first market day as aforesaid, with the price thereof, and by what weight or measure the same was so bought by them, with the names of the sellers of each of the said parcels respectively, with the names of the person or persons, if any, other than the person making such return, for or on account of whom the same was so bought and sold; and it shall be lawful for any officer of excise acting as inspector of corn returns, or any continuing inspector of corn returns as aforesaid, to deliver to any person making or tendering any such return a notice in writing requiring him or her to declare and set forth where and by whom and in what manner any such British corn was delivered to him or her; and every person to whom any such notice shall be so delivered shall, and he or she is hereby required to comply therewith, and to declare and set forth in such his or her return, or in a separate statement in writing, the several particulars aforesaid.—§ 25.

Inspectors to enter Returns made to them in a Book, &c.—The inspector of corn returns for the city of London, the city of Oxford, and the town of Cambridge, and every officer of excise acting as inspector of corn returns for the several other cities and towns aforesaid, and every continuing inspector of corn returns for any of such other cities or towns as aforesaid, shall duly and regularly enter in a book, to be by him provided and kept for that purpose, the several accounts of the quantities and prices of corn returned to him by such persons respectively as aforesaid; and every inspector of corn returns for any of the cities and towns enumerated in the said schedule shall in each and every week return to the comptroller of corn returns an account of the weekly quantities and prices of the several sorts of British corn sold in the city of London, or in the city or town for which he shall be or act as inspector, according to the returns so made to him as aforesaid, and in such form as shall be from time to time prescribed and directed by the said comptroller of corn returns; and the said returns shall be so made to the said comptroller by the inspector of corn returns for the city of London on Friday in each week, and by the respective inspectors of corn returns for the city of Oxford and the town of Cambridge, and by the respective officers of excise acting as inspectors of corn returns, and by the respective continuing inspectors of corn returns for the several other cities and towns aforesaid, within three days next after the first market day holden in each and every week in any such city or town.—§ 26.

Section 27. enacts that inspectors shall not include returns until they have ascertained that the persons making them have taken the declaration required.

Average Prices to be made up and published every Week.—The average prices of all British corn, by which the rate and amount of the said duties shall be regulated, shall be made up and computed on Thursday in each week, in manner following; (that is to say,) the said comptroller of corn returns shall on such Thursday in each week, from such returns as shall be received by him during the week next preceding, ending on and including the Saturday in such preceding week, add together the total quantities of each sort of British corn respectively appearing by such returns to have been sold, and the total prices for which the same shall thereby appear to have been sold, and shall divide the amount of such total prices respectively by the amount of such total quantities of each sort of British corn respectively, and the sum produced thereby shall be added to the sums in like manner produced in the 5 weeks immediately preceding the same, and the amount of such sums so added shall be divided by 6, and the sum thereby given shall be deemed and taken to be the aggregate average price of each such sort of British corn respectively, for the purpose of regulating and ascertaining the rate and amount of the said duties; and the said comptroller of corn returns shall cause such aggregate weekly averages to be published in the next succeeding Gazette, and shall on Thursday in each week transmit a certificate of such aggregate average prices of each sort of British corn to the collector or other chief officer of the customs at each of the several ports of the U. Kingdom, and to the said functionary at the port of Douglas in the Isle of Man; and the rate and amount of the duties to be paid under the provisions of this act shall from time to time be regulated and governed at each of the ports of the U. Kingdom by the aggregate average prices of British corn at the time of the entry for home consumption of any corn, grain, meal or flour chargeable with any such duty, as such aggregate average prices shall appear and be stated in the last of such certificates received by the collector or other chief officer of customs at such port.—§ 28.

How Quantities of Corn are to be computed.—In the returns to be made as aforesaid to the comptroller of corn returns, and in the publications to be made from time to time in the London Gazette, and in the certificate to be transmitted to the said comptroller of corn returns to collectors or other chief officers of customs, the quantities of each sort of British corn respectively shall be computed and set forth by, according, and with reference to the imperial standard gallon, as the same is declared and established by the act 5 Geo. 4. cap. 74. amended or altered by the act 6 Geo. 4. cap. 12., and by the act 5 & 6 Will. 4. cap. 63.—§ 29.

Until sufficient Number of Returns are made, Comptroller may use the present Averages.—Until a sufficient number of weekly returns have been received by the said comptroller of corn returns under this act to afford such aggregate average prices of British corn as aforesaid, the weekly average prices of British corn published by him immediately before the passing of this act shall be used and referred to in making such calculations as aforesaid, in such manner as if the same had been made up and taken under this act.—§ 30.

What shall be deemed British Corn.—All corn or grain the produce of the U. Kingdom shall be deemed and taken to be British corn for the purposes of this act.—§ 31.

Any Corn Returns believed fraudulent may be omitted in the Computation.—If the said comptroller of corn returns shall at any time see cause to believe that any return made to any inspector of corn returns is fraudulent or untrue, the said comptroller is hereby required, with all convenient expedition, to lay before the Lords of the Committee of Privy Council (for Trade) a statement of the grounds of such his belief; and if upon consideration of any such statement the said Lords of said Committee shall direct the comptroller to omit any such return in the computation of such aggregate weekly average price, then and in that case, but not otherwise, the said comptroller of corn returns shall be authorised to omit such return in the computation of such aggregate weekly average price.—§ 32.

Section 33. enacts that corn dealers having made the declaration previous to this act shall transmit returns, and comply with the rules hereby required.

Comptroller to issue Directions respecting the Inspection of Books of Inspectors.—The comptroller of corn returns is hereby authorised from time to time, in pursuance of any instructions which he shall receive in that behalf from the Lords of the Committee of Privy Council (for Trade), to issue to the inspectors of corn returns for the city of London, the city of Oxford, and the town of Cambridge respectively, any general or special directions respecting the inspection by any person or persons of the books so directed as aforesaid to be kept by such inspector of corn returns; and no such inspectors for the city of London, the city of Oxford, or the town of Cambridge, shall permit or suffer any person to inspect any such book, or to peruse or transcribe any entry therein, except in compliance with some such general or special directions from the said comptroller of corn returns.—§ 34.

Copy of last Return to be affixed on Market Place on each Market Day.—The inspector of corn returns for every city or town other than the city of London shall and is hereby required, on each and every market day, to put up or cause to be put up in the market place of the city or town for which he shall act as inspector, or if there shall be no market place, then in some other conspicuous place therein near to where the corn market is usually held, a copy of the last return made by him to the comptroller of corn returns, omitting the names of the parties who may have sold and bought the said corn; and every such officer or inspector shall also again put up such account on the market day immediately following that on which it shall first have been put up, in case the same shall from accident or any other cause have been removed, and shall take due care that the same shall remain up for public inspection until a new account for the ensuing week shall have been prepared and set up.—§ 35.

Sections 36, 37, 38. relate to the payment of comptrollers and inspectors.

Section 39. imposes a penalty on corn dealers who do not make declarations or returns.

Section 40. relates to the recovery and application of penalties.

Sections 41, 42. relate to the penalties to be imposed on witnesses for non-attendance, and the punishment to be inflicted on those who make false returns.

Section 43. declares that the act shall not affect the practice of measuring or privileges of the city of London.

Substitution of Wheat Flour or Biscuit for bonded Wheat.—Our readers are, no doubt, generally aware, that of late years efforts were occasionally made in the House of

Commons to get a law enacted authorising the delivery of bonded wheat from the warehouse, on the substitution in its stead of a proportional quantity of wheat flour or biscuit. But this proposal encountered the hostility of the more zealous partisans of the corn laws, principally on the alleged ground that it would open a door to fraud, and lead to the clandestine introduction of large quantities of foreign wheat. In the course, however, of 1842, the project was again introduced by Mr. Gladstone, and, having been supported by government, was passed into a law, *5 & 6* Victoria, cap. 92. It enabled millers, bakers, and others in this country to take advantage of such openings in the home and foreign markets as may offer for the manufacture and sale of flour and biscuit; and to make such changes in the nature of their stocks as may be thought most advantageous. There do not seem to be any very good grounds for thinking that it afforded any considerable facilities for the commission of fraud by the introduction of wheat without a countervailing deposit of flour; but supposing it did, no one was injured by such introduction. We subjoin an abstract of the act now referred to.

Warehoused Wheat to be delivered Duty free upon substituting an equivalent Quantity of Wheat Flour or Biscuit. — Whereas it will be of advantage to the trade and commerce of the country that wheat may be delivered duty-free from the warehouse or from the vessel, upon the deposit in the warehouse, or due exportation therefrom, of an equivalent quantity of wheat flour and biscuit; be it therefore enacted, that it shall be lawful for the principal officer of customs having charge of any warehouse, in which wheat may be warehoused without payment of duty upon the first entry thereof, to deliver any quantity thereof duty-free upon there being deposited in warehouse in lieu thereof fine wheat flour or biscuit, as under.

For every 96 lbs. of kiln-dried wheat, or for every 100 lbs. of wheat not being kiln-dried, not less than 78 lbs. of fine wheat flour, or 68 lbs. of captain's biscuit, or 80 lbs. of biscuit of the standard of the biscuit supplied to her Majesty's navy, or 118 lbs. of common ship's biscuit; and so in proportion for any less quantity than 96 lbs. of kiln-dried wheat, or 100 lbs. of wheat not kiln-dried; such flour or biscuit having been manufactured in the U. Kingdom, or such flour having been duly imported and the duty thereon having been paid —§ 1.

Section 2. enacts that fine wheat flour and biscuit may be deposited in warehouse, and certificate of such deposit granted, to entitle the holder to an equivalent quantity of warehoused wheat duty-free any time within six weeks of the date thereof.

Section 3. enacts that persons making deposits of flour and biscuit be entitled to have equivalent quantities of wheat entered duty-free from the vessel.

Section 4. orders that three days' notice in writing be given to the collector of the quantity of wheat required to be delivered from the warehouse and of the day of delivery.

Section 5. orders that no wheat shall be delivered duty-free until the substituted article has been deposited and the certificate duly examined.

Section 6. enacts that substituted flour and biscuit shall be subject to the warehousing laws, but shall not be taken out for home consumption.

3. Tables showing the Prices of the different Sorts of Grain in Great Britain, the Quantities imported and exported, &c.

1.— Current Prices of Grain, Seeds, &c. per Imperial Quarter, London, 28th March, 1859.

British Grain and Seeds.	Per Quarter.	Foreign Grain and Seeds.	Per Quarter.
	s. *s.*		*s.* *s.*
Wheat, Essex and Kent, white	58 — 48	Wheat, Dantzic, mixed 44*s.*, high ditto 50*s.*, extra	55
,, red	55 — 44	Konigsberg	40 — 45
Norfolk, Lincolnshire, and Yorkshire, red	55 — 43	Rostock, 44*s.*, fine, 48*s.*, old	50
Barley, malting	33	American, white 42*s.*—48*s.*, red	41 — 46
Chevalier	35 — 40	Pomeranian, Mecklenburg, and Uckermark, red	41 — 45
Grinding	24 — 26	Silesian, red 41*s.*—44*s.*, white	42 — 48
Distilling	28 — 29	Danish and Holstein	40 — 48
Malt, Essex, Norfolk, and Suffolk, 52—60, fine	64 — 66	Russian, hard	39 — 39
Kingston, Ware, and town made	64 — 66	French, 41*s.*—42*s.*, white	41 — 44
Brown	50 — 52	St. Petersburg and Riga	38 — 42
Rye	30 — 32	Rhine and Belgium	47
Oats, English, feed	19 — 21	Barley, grinding	21 — 26
Potato	26 — 29	Distilling	27 — 29
Scotch, feed	20 — 24	Oats, Dutch, brew, and Polands	22 — 25
Potato	24 — 28	Feed	20 — 23
Irish, feed, white 20—23, fine	21 — 28	Danish and Swedish, feed	19 — 24
Ditto, black 19—22 ,,	25	Stralsund	21 — 24
Beans, Mazagan	35 — 36	Russian	19 — 22
Ticks	36 — 37	Beans, Friesland and Holstein	35 — 37
Harrow	38 — 40	Konigsberg	35 — 36
Pigeon	40 — 43	Egyptian	32 — 34
Peas, new, white, boilers	40 — 40	Peas, feeding	36 — 37
Maple	42 — 45	Fine boilers	38 — 40
Grey	37 — 38	Indian corn, white	29 — 30
Flour, per sack of 280 lbs., Town, Households, 54*s.*, fine	35 — 40	Yellow	29 — 30
Country	27 — 29	Flour, per sack, French	30 — 32
Households	30 — 31	Spanish	
Norfolk and Suffolk, ex-ship, 26*s.* — 27*s.* 6*d.*		American, per barrel, sour	18 — 23
		Sweet	
Trefoil, new, 19*s.*—22*s.*		Cloverseed, red, 60*s.*—68*s.*, white, 86*s.*—105*s.*	
Tares, Winter, new, per bushel, 0*s.* —0*s.*		Trefoil, 18*s.*—21*s.*	
Mustard seed, per bushel, new, 12*s.*—17*s.*		Hemp-seed, small, 35*s.* per quarter, Dutch, 38*s.*	
brown, 10*s.*—12*s.*		Coriander, per cwt., 16*s.*—18*s.*	
Coriander, per cwt, 14*s.*—16*s.*		Carraways, per cwt., 42*s.*	
Canary, per quarter, 70*s.*—74*s.*		Linseed, per quarter, Baltic, 52*s.* — 56*s.*, Bombay, 58*s.*—60*s.*	
Linseed, per quarter, sowing, 64*s.*		Linseed cake, per ton, 9*l.* 10*s.* to 11*l.*	
crushing, 54*s.*—58*s.*		Rapeseed, Dutch, 62*s.* to 66*s.*	
Linseed Cakes, per ton, 9*l.* 10*s.*—10*l.* 10*s.*		Rape cake, per ton, 5*l.* to 6*l.*	
Rapeseed, per quarter, 68*s.*—72*s.*			
Rape Cake, per ton, 5*l.* 10*s.*—6*l.*			

Imperial Average Prices for the 6 Weeks ending 19th March, 1859.

	Wheat.		Barley.		Oats.		Rye.		Beans.		Peas.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Feb. 12 - - -	40	11	33	6	22	4	31	2	41	2	41	5
Feb. 19 - - -	40	10	34	0	23	1	32	11	42	10	42	3
Feb. 26 - - -	40	5	33	11	22	8	31	0	42	2	41	7
March 5 - - -	40	5	34	0	23	0	33	11	42	2	40	6
March 12 - - -	40	3	34	4	23	3	32	11	41	8	40	8
March 19 - - -	40	1	34	4	23	9	30	4	41	3	40	4
Aggregate average -	40	6	34	0	23	0	32	0	41	11	41	2
Same time last year -	45	3	36	4	23	0	32	10	38	3	40	10

II. Account of the Prices of Middling or Mealing Wheat per Quarter at Windsor Market, as ascertained by the Audit-books of Eton College.

Years.	Prices of Wheat at Windsor, 9 Gallons to the Bushel.			Prices of Wheat reduced to the Winchester Bushel of 8 Gallons.			Average of Ten Years according to the Winchester Bushel of 8 Gallons.		
	£	s.	d.	£	s.	d.	£	s.	d.
1646	2	8	0	2	2	8			
1647	3	13	8	3	5	5⅝			
1648	4	5	0	3	15	6⅜			
1649	4	0	0	3	11	1½			
1650	3	16	8	3	8	1⅝			
1651	3	13	4	3	5	2¼			
1652	2	9	6	2	4	0			
1653	1	15	6	1	11	6⅝			
1654	1	6	0	1	3	1½			
1655	1	13	4	1	9	7½	2	11	7¾
1656	2	3	0	1	18	2⅜			
1657	2	6	8	2	1	5⅜			
1658	3	5	0	2	17	9¾			
1659	3	6	0	2	18	8			
1660	2	16	6	2	10	2⅝			
1661	3	10	0	3	2	2⅝			
1662	3	14	0	3	5	9¼			
1663	2	17	0	2	10	8			
1664	2	0	6	1	16	0			
1665	2	9	4	2	3	10½	2	10	5¾
1666	1	15	0	1	12	0			
1667	1	16	0	1	12	0			
1668	2	0	0	1	15	6⅜			
1669	2	4	4	1	19	5			
1670	2	1	8	1	17	0½			
1671	2	2	0	1	17	4			
1672	2	1	0	1	16	5¼			
1673	2	6	8	2	1	5¾			
1674	3	8	8	3	1	0⅝			
1675	3	4	8	2	17	5⅞	2	0	11⅛
1676	1	18	0	1	13	9¾			
1677	2	2	0	1	17	4			
1678	2	19	0	2	12	5¼			
1679	3	0	0	2	13	4			
1680	2	5	0	2	0	0			
1681	2	6	8	2	1	5⅜			
1682	2	4	0	1	19	1¾			
1683	2	0	0	1	15	6⅜			
1684	2	4	0	1	19	1¾			
1685	2	6	8	2	1	5⅜	2	1	4¼
1686	1	14	0	1	10	2⅜			
1687	1	5	2	1	2	4⅛			
1688	2	6	0	2	0	10⅝			
1689	1	10	0	1	6	8			
1690	1	14	8	1	10	9⅜			
1691	1	14	0	1	10	9⅜			
1692	2	6	8	2	1	5⅜			
1693	3	7	8	3	0	1⅜			
1694	3	4	0	2	16	10⅜			
1695	2	13	0	2	7	1¾	1	19	6⅜
1696	3	11	0	3	3	1¼			
1697	3	0	0	2	13	4			
1698	3	8	4	3	0	9			
1699	3	4	0	2	16	10⅜			
1700	2	0	0	1	15	6⅜			
1701	1	17	8	1	13	5⅜			
1702	1	9	6	1	6	2⅝			
1703	1	16	0	1	12	0			
1704	2	6	6	2	1	4			
1705	1	10	0	1	6	8	2	2	11
1706	1	6	0	1	3	1¼			
1707	1	8	6	1	5	4			
1708	2	1	6	1	16	10⅜			
1709	3	18	6	3	9	9½			
1710	3	18	0	3	9	4			
1711	2	14	0	2	8	0			
1712	2	6	4	2	1	2½			
1713	2	11	0	2	5	4			
1714	2	10	4	2	4	9			
1715	2	3	0	1	18	2⅝	2	4	2¼
1716	2	8	0	2	2	8			
1717	2	5	8	2	0	7½			
1718	1	18	10	1	14	6⅜			
1719	1	15	0	1	11	1½			
1720	1	17	0	1	12	10⅜			
1721	1	17	6	1	13	4			
1722	1	16	0	1	12	0			
1723	1	14	8	1	10	10⅜			
1724	1	17	0	1	12	10⅜			
1725	2	8	6	2	3	1¼	1	15	4⅜
1726	2	6	0	2	0	10⅜			
1727	2	2	0	1	17	4			
1728	2	14	6	2	8	5½			
1729	2	6	10	2	1	7½			
1730	1	16	6	1	12	5½			
1731	1	12	10	1	9	2⅜			
1732	1	6	8	1	3	8¼			
1733	1	8	4	1	5	2¼			
1734	1	18	10	1	14	6⅜			
1735	2	3	0	1	18	2⅝	1	15	2
1736	2	0	4	1	15	10⅛			
1737	1	18	0	1	13	9¼			
1738	1	15	6	1	11	6⅜			
1739	1	18	6	1	14	2⅜			
1740	2	10	8	2	5	1¼			
1741	2	6	8	2	1	5⅜			
1742	1	14	0	1	10	2⅜			
1743	1	4	10	1	2	1			
1744	1	4	10	1	2	1			
1745	1	7	6	1	4	5⅜	1	12	1
1746	1	19	0	1	14	8			
1747	1	14	10	1	10	11⅜			
1748	1	17	0	1	12	10⅜			
1749	1	17	0	1	12	10⅜			
1750	1	12	6	1	8	10⅜			
1751	1	18	6	1	14	2⅜			
1752	2	1	10	1	17	2⅜			
1753	2	4	8	1	19	8⅜			
1754	1	14	8	1	10	9⅜			
1755	1	13	10	1	10	1	1	1	1⅛
1756	2	5	2	2	0	1⅜			
1757	3	0	0	2	13	4			
1758	2	10	0	2	4	5⅜			
1759	1	19	8	1	15	3			
1760	1	16	6	1	12	5½			
1761	1	10	2	1	6	9⅜			
1762	1	19	0	1	14	8			
1763	2	0	8	1	16	1⅜			
1764	2	6	8	2	1	5⅜			
1765	2	14	0	2	8	0	1	19	3½
1766	2	8	6	2	3	1¼			
1767	3	4	6	2	17	4			
1768	3	0	6	2	13	9¾			
1769	2	5	8	2	0	7			
1770	2	9	0	2	3	6⅜			
1771	2	17	0	2	10	8			
1772	3	6	0	2	18	8			
1773	3	6	6	2	19	1½			
1774	3	2	0	2	15	1⅜			
1775	2	17	8	2	11	3¼	2	11	3⅜
1776	2	8	0	2	2	8			
1777	2	15	0	2	8	10⅜			
1778	2	9	6	2	4	0			
1779	2	0	8	1	16	1⅜			
1780	2	8	6	2	3	1½			
1781	2	19	0	2	12	5½			
1782	3	0	6	2	13	9½			
1783	3	1	0	2	14	2⅜			
1784	3	0	6	2	13	9¾			
1785	2	14	0	2	8	0	2	7	8½
1786	2	7	6	2	2	2⅜			
1787	2	11	6	2	5	9⅜			
1788	2	15	6	2	9	4			
1789	3	3	2	2	16	1⅜			
1790	3	3	2	2	16	1⅜			
1791	2	15	6	2	9	4			
1792*	-	-		2	13	0			
1793	-	-		2	15	8			
1794	-	-		2	14	0			
1795	-	-		4	1	6	2	14	3¾
1796	-	-		4	0	2			
1797	-	-		3	2	0			
1798	-	-		2	14	0			
1799	-	-		3	15	8			
1800	-	-		6	7	0			
1801	-	-		6	8	6			
1802	-	-		3	7	2			
1803	-	-		3	0	0			
1804	-	-		3	9	6			
1805	-	-		4	8	0	4	1	2½
1806	-	-		4	3	0			
1807	-	-		3	18	0			
1808	-	-		3	19	2			
1809	-	-		5	6	0			
1810	-	-		5	12	0			
1811	-	-		5	8	0			
1812	-	-		6	8	0			
1813	-	-		6	0	0			
1814	-	-		4	5	0			
1815	-	-		3	16	0	4	17	6
1816	-	-		4	2	0			
1817	-	-		5	16	0			
1818	-	-		4	18	0			
1819	-	-		3	18	0			
1820	-	-		3	16	0			
1821	-	-		3	11	0			
1822	-	-		2	13	0			
1823	-	-		2	17	0			
1824	-	-		3	12	0			
1825	-	-		4	4	0	3	18	8¾
1826	-	-		3	13	0			

The Eton Account of Prices commenced in 1595; the accuracy of the returns in the first years cannot however be so implicitly relied on, as those quoted above.—Bishop Fleetwood and Sir F. M. Eden have collected, with great industry, almost all the existing information respecting the state of prices in England during the last *six hundred* years.

* From this year, inclusive, the account at Eton College has been kept according to the bushel of 8 gallons, under the provision of the act 31 Geo. 3. c. 20. § 82.

III. Account of the Average Prices of British Corn per Imperial Quarter, in England and Wales, since 1775, as ascertained by the Receiver of Corn Returns.

Years.	Wheat.			Barley.			Oats.			Rye.			Beans.			Peas.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1775	2	9	10	1	6	9	0	17	0	1	13	10	1	9	6			
1776	1	19	4	1	0	9	0	15	5	1	7	8	1	7	3			
1777	2	6	11	1	1	1	0	16	1	1	8	10	1	9	4			
1778	2	3	3	1	3	4	0	15	7	1	9	2	1	8	6			
1779	1	14	8	1	0	1	0	14	5	1	4	0	1	4	11			
1780	1	16	9	0	17	6	0	13	2	1	2	10	1	2	10			
1781	2	6	0	0	17	8	0	14	1	1	7	8	1	3	8			
1782	2	9	3	1	3	2	0	15	7	1	9	8	1	6	9			
1783	2	14	3	1	11	3	1	0	5	1	16	9	1	15	11			
1784	2	10	4	1	8	8	0	18	10	1	13	2	1	13	2			
1785	2	3	1	1	4	9	0	17	8	1	8	10	1	11	7			
1786	2	0	0	1	5	1	0	18	6	1	8	0	1	14	2			
1787	2	2	5	1	3	4	0	17	2	1	8	6	1	12	9			
1788	2	6	4	1	2	8	0	16	1	1	8	6	1	8	0			
1789	2	12	9	1	3	6	0	16	6	1	10	9	1	8	0			
1790	2	14	9	1	6	3	0	19	5	1	15	0	1	11	11			
1791	2	8	7	1	6	10	0	18	1	1	12	7	1	11	5	1	13	2
1792	2	3	0	-		-	0	16	9	1	9	10	1	11	7	1	12	4
1793	2	9	3	1	11	1	1	0	6	1	16	2	1	17	6	1	19	11
1794	2	12	3	1	11	9	1	1	3	1	17	5	1	19	3	2	8	5
1795	3	15	2	1	17	5	1	4	5									
1796	3	18	7	1	15	4	1	1	10									
1797	2	13	9	1	7	2	0	16	3									
1798	2	11	10	1	9	0	0	19	5									
1799	3	9	0	1	16	2	1	7	6									
1800	5	13	10	2	19	10	1	19	4									
1801	5	19	6	3	8	6	1	17	0									
1802	3	9	10	1	13	4	1	0	4									
1803	2	18	10	1	5	4	1	1	6									
1804	3	2	3	1	11	0	1	4	3									
1805	4	9	9	2	4	6	1	8	4									
1806	3	19	1	1	18	8	1	7	7									
1807	3	15	4	1	19	4	1	8	4									
1808	4	1	4	-		-	1	13	4									
1809	4	17	4	2	7	0	1	11	5									
1810	5	6	5	2	8	1	1	8	7	2	19	5	2	14	4	2	16	11
1811	4	15	3	2	2	3	1	7	7	2	8	4	2	9	4	2	13	11
1812	6	6	6	3	6	9	2	4	6	3	18	7	3	14	7	3	16	10
1813	5	9	9	2	18	6	1	18	6	3	11	11	3	16	4	4	1	11
1814	3	14	4	1	17	4	1	5	8	2	4	8	2	6	2	2	11	10
1815	3	5	7	1	10	3	1	3	7	1	18	1	1	16	2	1	19	4
1816	3	18	6	1	13	11	1	7	2	2	5	1	1	19	4	1	19	10
1817	4	16	11	2	9	4	1	12	5	2	18	3	2	11	7	2	13	4
1818	4	6	3	2	13	10	1	12	5	2	15	4	3	3	7	3	1	9
1819	3	14	6	2	5	9	1	8	2	2	9	6	2	14	1	2	16	1
1820	3	7	10	1	13	10	1	4	2	2	2	0	2	3	3	2	5	10
1821	2	16	1	1	6	0	0	19	6	1	12	0	1	10	11	1	12	8
1822	2	4	7	1	1	10	0	18	1	1	0	10	1	4	5	1	6	4
1823	2	13	4	1	11	6	1	2	11	1	11	10	1	13	1	1	14	11
1824	3	3	11	1	16	4	1	4	10	2	1	5	2	0	0	2	0	7
1825	3	8	6	2	0	0	1	5	8	2	2	3	2	2	9	2	5	4
1826	2	18	8	1	14	4	1	6	8	2	1	1	2	4	3	2	7	7
1827	2	18	6	1	17	7	1	8	2	2	0	2	2	9	0	2	9	0
1828	3	0	5	1	12	10	1	2	6	1	14	2	1	18	4	2	0	6
1829	3	6	3	1	12	6	1	2	9	1	14	10	1	16	8	1	16	8
1830	3	4	3	1	12	7	1	4	5	1	15	10	1	16	1	1	19	2
1831	3	6	4	1	18	0	1	5	4	2	0	0	1	19	10	2	1	11
1832	2	18	8	1	13	1	1	0	5	1	14	7	1	15	4	1	17	0
1833	2	12	11	1	7	6	0	18	5	1	12	11	1	13	2	1	16	5
1834	2	6	2	1	9	0	1	0	11	1	12	9	1	15	3	1	19	4
1835	1	19	4	1	9	11	1	2	0	1	10	4	1	16	11	1	16	6
1836	2	8	6	1	12	10	1	3	1	1	13	4	1	19	1	1	18	4
1837	2	15	10	1	10	4	1	3	1	1	14	9	1	18	7	1	17	6
1838	3	4	7	1	11	5	1	2	5	1	15	1	1	16	8	1	17	2
1839	3	10	8	1	19	6	1	5	11	2	2	0	2	1	3	2	1	2
1840	3	6	4	1	16	5	1	5	8	1	17	0	2	3	5	2	2	5
1841	3	4	4	1	12	10	1	2	5	1	16	9	1	19	10	2	0	4
1842	2	17	3	1	7	6	0	19	3	1	13	0	1	12	5	1	12	11
1843	2	10	1	1	9	6	0	18	4	1	10	7	1	9	2	1	11	1
1844	2	11	3	1	13	8	1	0	7	1	13	11	1	14	5	1	13	5
1845	2	10	10	1	11	8	1	2	6	1	12	6	1	18	11	1	18	8
1846	2	14	8	1	12	8	1	3	8	1	15	0	1	19	0	1	19	0
1847	3	9	9	2	4	2	1	8	8	2	9	0	2	10	6	2	11	6
1848	2	10	6	1	11	6	1	0	6									
1849	2	4	3	1	7	9	0	17	6	1	5	8	1	10	2	1	11	2
1850	2	0	3	1	3	5	0	16	5	1	3	3	1	6	10	1	7	4
1851	1	18	6	1	4	9	0	18	7	1	5	6	1	8	7	1	7	2
1852	2	0	9	1	8	6	0	19	1	1	9	10	1	12	3	1	10	7
1853	2	13	3	1	13	2 3/8	1	1	0	1	15	0 1/4	2	0	1	1	18	6 1/8
1854	3	12	5	1	16	0	1	7	11	2	5	10	2	7	3 3/8	2	5	7 3/8
1855	3	14	8 3/8	1	14	9	1	7	5 3/8	2	5	8	2	6	6 3/8	2	3	4
1856	3	9	2 1/4	2	1	1 1/4	1	5	2 1/8	2	5	0	2	3	11 1/4	2	1	7 1/2
1857	2	16	4 1/8	2	2	1 1/4	1	5	0 1/4	1	18	3 1/8	2	3	0 1/8	2	1	4
1858	2	4	2 1/4	1	14	8 3/8	1	4	6 1/8	1	12	3 3/8	2	1	11	2	2	11

N.B.—The Imperial bushel contains 2218·192 cubic inches, the Winchester bushel 2150·42 do., the former being about one-thirty-secondth part larger than the latter.—(See BUSHEL, and WEIGHTS and MEASURES.)

IV. Account of the Quantities of Foreign and Colonial Wheat and Wheat Flour, Barley and Barley Meal and Oats and Oatmeal imported into the U. Kingdom, re-exported, and retained for Consumption in each Year from 1800, in Imperial Quarters, down to 1852.

Years.	Wheat, &c.			Barley, &c.			Oats, &c.		
	Imports.	Re-Exports.	Retained for Home Consumption.	Imports.	Re-Exports.	Retained for Home Consumption.	Imports.	Re-Exports.	Retained for Home Consumption.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
1800	1,293,466	4,490		131,055	-		543,133	200	
1801	1,427,460	7,255		114,012	4		583,279	900	
1802	542,571	131,089		8,156	1,344		242,090	2,907	
1803	314,205	54,405		1,103	355		234,942	1,749	
1804	391,264	31,901		9,072	80		500,519	4,220	
1805	837,245	56,559		27,644	2,688		274,156	-	-
1806	205,081	8,956		2,058	370		183,249	760	
1807	363,520	5,583		2,968	3		425,909	-	-
1808	41,910	15,913		4,305	244		34,312	1,118	
1809	394,541	2,737		13,166	1,064		296,335	443	
1810	1,439,977	62,984		17,708	3,614		116,708	654	
1811	188,786	71,315		40,121	23,491		11,696	2,486	
1812	131,615	18,204		39,884	28,942		14,719	5,259	
1813	340,181	-		19,709	-		60,440	-	-
1814	623,760	23,463	623,086	29,580	8,990	26,684	248,050	926	248,035
1815	191,632	56,364	116,382	2,054	1,135	2,148	120,475	119	117,533
1816	209,655	19,672	225,263	14,865	59	14,918	75,277	1,731	76,295
1817	1,064,051	44,000	1,053,942	153,861	3,902	153,867	483,686	560	479,492
1818	1,293,820	17,695	1,606,280	696,290	11	696,250	987,409	36	991,560
1819	472,203	22,543	124,858	573,597	3,201	565,063	585,672	2,141	523,554
1820	585,425	87,326	34,275	28,671	5,251	- -	681,779	3,954	727,115
1821	129,612	193,210	9	13,546	8,617	- -	101,347	13,627	48
1822	43,113	148,254	2	19,048	5,421	23	55,802	14,889	534
1823	15,746	119,735	12,183	11	5,475	9	27,651	13,154	165
1824	82,667	54,051	16,692	26,503	2,538	39,406	488,021	11,214	619,850
1825	381,603	35,094	527,007	425,882	4,117	271,581	206,181	12,006	1,737
1826	576,888	14,225	316,638	278,079	4,676	332,641	1,125,210	9,103	1,186,222
1827	304,205	48,986	576,707	207,966	18,814	259,672	1,741,206	1,229	1,852,355
1828	741,114	74,474	841,947	166,263	4,117	217,545	164,578	6,922	14,574
1829	1,663,341	72,377	1,564,340	277,109	10,303	205,144	540,083	58,694	193,666
1830	1,661,847	54,698	1,702,437	138,650	1,285	52,108	506,089	26,327	900,321
1831	2,305,975	63,673	1,493,256	376,513	642	525,394	622,761	5,623	535,850
1832	447,102	288,190	375,789	95,839	7,822	72,674	28,973	83,879	3,055
1833	297,565	93,767	83,714	85,221	3,210	1,225	23,389	19,544	966
1834	176,322	159,499	64,552	88,562	9,865	11,037	175,026	13,492	55,432
1835	66,905	132,223	27,527	67,796	44,365	136,690	113,187	30,915	175,252
1836	241,742	255,037	30,096	83,483	18,219	110,005	131,466	56,536	96,894
1837	559,942	308,192	244,086	87,793	10,607	47,185	418,884	49,126	332,367
1838	1,371,958	156,105	1,854,455	2,203	19,817	8,192	55,543	56,445	11,007
1839	2,875,427	38,890	2,681,590	579,406	621	589,063	670,513	40,405	855,814
1840	2,132,766	83,547	2,389,731	625,438	4,379	613,084	546,263	36,978	509,129
1841	2,770,647	27,552	2,619,702	264,655	2,115	220,948	130,268	24,391	27,475
1842	3,040,269	66,261	2,977,302	73,535	15,755	49,521	513,406	55,161	293,313
1843	1,064,912	69,560	982,287	179,280	4,445	223,209	87,877	42,107	44,140
1844	1,579,262	76,699	1,921,681	1,019,345	1,042	1,024,322	302,116	25,271	261,498
1845	1,141,837	67,262	813,243	368,554	25,340	297,653	592,409	29,251	584,318
1846	344,142	135,111	2,943,926	374,869	5,619	402,342	796,443	17,594	772,956
1847	4,464,757	185,272	4,612,111	776,122	15,347	782,686	1,742,542	9,587	1,788,121
1848	5,082,231	10,967	2,193,755	1,054,293	3	888,925	971,253	7,822	872,553
1849	1,835,280		5,592,594	1,381,073		1,544,888	1,292,707		1,375,583
1850	4,850,263		4,845,854	1,035,935		1,023,907	1,158,290		1,163,279
1851	5,330,419		5,275,677	839,574		826,390	1,200,136		1,193,566
1852	4,161,502		4,135,576	625,602		624,062	989,578		982,275
1853	6,235,860	125,856	6,111,997	824,083	30	824,053	1,028,933	16,773	1,012,160
1854	4,475,085	102,374	4,370,852	552,994	4,046	548,948	1,015,239	7,402	1,007,837

V. Quantities of Corn, Grain, Meal, and Flour, imported into the U. Kingdom, and entered for Consumption in 1856, 1857, and 1858, showing the Countries whence they were brought, and the Quantities brought from each.

		Imports.			Entries for Consumption.		
		1856.	1857.	1858.	1856.	1857.	1858.
Wheat:—							
Russia	qrs.	759,459	706,375	612,217	765,746	715,734	623,223
Prussia	,,	222,681	866,311	625,978	223,673	869,544	630,585
Denmark	,,	177,216	287,466	299,783	178,658	289,032	301,697
Mecklenburg	,,	62,625	132,462	110,840	62,858	133,200	111,129
Hanse Towns	,,	137,326	231,575	155,295	138,128	234,010	158,747
Turkey and Wallachia and Moldavia	,,	237,496	36,144	200,150	239,651	36,615	202,009
Egypt	,,	534,605	204,256	464,614	538,853	205,145	466,951
United States	,,	1,279,150	650,754	594,614	1,286,374	665,052	597,542
Other countries	,,	662,277	322,634	1,178,168	673,998	326,622	1,182,894
Total	,,	4,072,833	3,437,957	4,241,719	4,107,941	3,475,234	4,275,435
Barley	,,	731,412	1,701,470	1,661,392	735,892	1,720,532	1,672,602
Oats	,,	1,146,843	1,710,299	1,856,281	1,156,790	1,732,004	1,878,315
Peas	,,	86,082	159,899	157,975	86,490	161,896	159,484
Beans	,,	355,213	305,775	412,051	358,853	305,145	466,951
Indian corn, or maize	,,	1,777,813	1,150,785	1,750,825	1,788,212	1,158,752	1,762,920
Wheat meal and flour:—							
Hanse Towns	cwts.	130,013	139,990	167,113	131,906	143,911	169,923
Spain		460,823	17,003	584	466,008	17,191	584
United States	,,	2,892,517	1,464,867	1,764,795	2,929,125	1,439,559	1,780,231
Other countries	,,	486,747	556,288	1,923,635	489,814	561,707	1,939,514
Total	,,	3,970,100	2,178,148	3,856,127	4,016,853	2,212,168	3,890,252
Indian corn meal	,,	7,889	1,092	4,637	7,585	1,095	4,720

VI. An Account of the Quantities of the different Varieties of Corn and Grain, Flour and Meal, imported into the U. Kingdom in 1858, specifying the Countries whence the same were brought, and the Quantities brought from each, in Imperial Quarters.

Countries whence imported.	Wheat and Wheat Flour.	Barley and Barley Meal.	Oats and Oat Meal.	Rye and Rye Meal.	Peas and Pea Meal.	Beans and Bean Meal.	Indian Corn and Meal.	Buck, Wheat, Buck Wheat Meal, and Bigg.	Aggregate of Corn, Grain, Meal, and Flour.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
Russia, northern ports	160,496	2,250	788,586	8,649	4,608	- -	1	- -	963,990
,, southern ports	451,936	325,032	208,919	18,245	3,565	- -	310,695	13	1,318,403
Sweden - -	10,126	50,708	427,886	- -	3,222	275	- -	- -	492,217
Denmark and the Duchies	301,463	310,787	180,164	15,507	26,849	5,290	- -	926	868,986
Prussia - -	629,005	153,404	100,608	42,598	61,622	14,322	- -	- -	1,001,563
Hanse Towns - -	203,041	33,859	22,874	209	6,445	31,194	1,769	54	299,445
Other parts of Germany	159,026	3,466	49,245	- -	65	17,370	- -	42	209,172
Holland - -	82,710	16,970	32,487	1	1,075	14,264	- -	42	147,549
France - -	1,283,465	240,934	3,057	6,936	31	59,228	98,196	3,278	1,695,405
Spain - -	5,564	154	- -	- -	34	2,165	15,228	- -	22,945
Italian States - -	45,279	10,791	6,009	1,155	40	14,454	193,935	- -	269,641
Wallachia and Moldavia	133,574	205,824	4,753	10,067	- -	- -	431,597	- -	783,295
Turkish Dominions, including Syria - -	74,928	217,337	119	2,708	1,101	4,297	162,598	200	463,288
Egypt - -	464,652	47,641	- -	- -	779	198,316	68,982	- -	780,270
British North America	161,609	- -	10,874	6	43,907	- -	1,234	1	217,631
U. States, inc. California	1,098,871	- -	625	1	4,838	- -	396,107	9	1,500,481
Other countries collectively	99,924	14,846	21,739	119	366	50,858	71,556	36	259,424
Total import -	5,343,469	1,661,407	1,857,905	104,177	157,977	412,033	1,752,178	4,559	11,293,705

VII. Account of the Quantities of Wheat and Wheat Flour (stated as Quarters of Wheat) imported into the U. Kingdom during each of the 6 Years ending with 1858, exhibiting the Quantities brought from each Country; and the Annual Average Imports of each of the said 6 Years.

Countries whence imported.	1853.	1854.	1855.	1856.	1857.	1858.	Annual Average Imports during these 6 Years.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
Russia, northern ports -	232,243	21,042	1	474,362	298,821	160,496	261,161
,, southern ports -	818,930	486,305	5	292,020	409,527	451,936	409,787
Sweden - - -	3,643	15,796	35,855	10,708	5,731	10,126	13,643
Denmark, and the Duchies -	294,926	252,304	318,061	178,078	288,714	301,463	272,258
Prussia - - -	1,145,845	675,054	539,885	222,754	869,974	629,005	680,419
Hanse Towns - -	223,914	359,745	254,439	174,472	271,572	203,041	244,530
Other parts of Germany -	185,417	155,558	199,567	71,940	145,871	159,026	152,063
Holland - - -	57,732	33,511	61,597	28,950	45,278	82,710	51,593
France - - -	541,444	205,874	51,358	29,962	150,659	1,283,465	540,457
Spain - - -	105,614	202,103	445,876	181,383	8,604	5,564	157,491
Italian States - -	164,255	106,855	142,609	164,137	9,450	45,279	105,097
Wallachia and Moldavia -	227,143	119,504	9,831	124,671	24,577	133,574	106,517
Turkish Dominions, inc. Syria	251,345	165,366	84,694	152,151	16,359	74,928	123,807
Egypt - - -	357,906	302,308	437,241	534,720	294,236	464,652	385,612
British North America -	167,021	51,016	17,693	198,709	165,960	161,609	127,168
U. States, inc. California -	1,582,641	1,152,170	444,371	2,105,584	1,069,288	1,098,871	1,242,154
Other countries collectively -	56,843	189,996	170,883	262,557	95,884	99,924	146,014
Total import -	6,255,860	4,473,085	3,211,766	5,207,147	4,060,285	5,343,469	4,755,268

VIII. Account showing the Quantities of the different Varieties of Foreign and Colonial Grain entered for Consumption in the U. Kingdom in each of the 18 Years ending with 1858, with the Total Quantities so entered, and the Annual Entries at an Average of the above Period, and of the 7 Years ending with 1858; with a similar Account of Indian Corn and Meal for the 16 and 7 Years ending with 1858.—(Compiled from various *Parl. Papers*.)

Years.	Wheat and Wheat Flour.	Barley and Barley Meal.	Oats and Oat Meal.	Rye and Rye Meal.	Peas and Pea Meal.	Beans and Bean Meal.	Aggregate of the preceding Sorts of Grain and Meal retained for Consumption.	Indian Corn and Meal.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
1841 - -	2,647,808	222,837	27,918	518	152,857	267,697	3,299,635	
1842 - -	2,989,645	49,969	295,457	28,516	80,450	43,279	3,487,296	
1843 - -	990,523	223,543	45,254	2,724	45,383	45,702	1,353,129	10,225
1844 - -	988,515	1,020,766	258,235	28,779	106,375	225,680	2,628,350	38,711
1845 - -	315,615	299,430	587,434	23	81,735	197,919	1,482,156	42,295
1846 - -	2,962,928	404,644	779,442	1,710	181,801	209,874	4,540,399	757,609
1847 - -	4,612,111	782,686	1,788,121	256,155	193,235	476,279	8,105,867	4,022,919
1848 - -	2,193,755	888,925	872,555	55,481	164,771	448,704	4,624,189	1,637,419
1849 - -	5,592,594	1,544,388	1,236,987	259,926	285,092	482,612	9,558,705	2,255,961
1850 - -	4,845,854	1,023,907	1,153,279	93,451	179,738	444,612	7,740,821	1,276,958
1851 - -	5,275,677	826,390	1,193,566	25,002	98,602	318,506	7,735,745	1,808,748
1852 - -	4,135,376	624,062	982,278	9,576	105,517	372,975	6,229,784	1,471,097
1853 - -	6,112,016	824,053	1,012,160	70,869	100,967	349,440	8,469,505	1,546,791
1854 - -	4,370,852	548,918	1,007,857	2,388	108,526	385,031	6,423,582	1,345,313
1855 - -	3,145,232	339,351	1,005,543	247	113,357	341,808	4,945,558	1,216,795
1856 - -	5,089,455	722,984	1,146,864	29,148	84,560	352,480	7,425,449	1,758,151
1857 - -	3,969,743	1,691,435	1,704,399	77,056	159,740	394,712	7,995,845	1,977,472
1858 - -	5,333,956	1,661,081	1,848,247	101,543	157,121	411,548	9,513,276	1,748,854
	65,571,633	13,699,959	17,082,150	1,038,182	2,377,827	5,679,118	105,448,769	22,015,318
Average annual consumption for the 18 years ended 1858.	3,642,869	761,103	949,008	57,677	132,101	315,507	5,858,265	1,375,957
Average annual consumption for the 7 years ended 1858.	4,593,801	915,982	1,243,618	41,518	118,541	359,751	7,273,211	1,452,067

IX. Account of the Quantities of Grain, Flour, Meal, and Malt of Irish Growth, annually imported into Great Britain from Ireland, from 1814 to 1857, both inclusive.

Years.	Wheat and Wheat Flour.	Barley, including Bear or Bigg.	Oats and Oatmeal.	Rye.	Peas.	Beans.	Malt.	Total.
	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.	Qrs.
1814	225,178	16,779	564,010	4	460	5,731	- - -	812,462
1815	189,514	27,108	597,537	207	425	6,571	- - -	821,192
1816	121,631	62,254	683,714	43	239	5,984	- - -	873,865
1817	55,481	26,766	611,117	- -	12	2,275	- - -	695,651
1818	105,179	25,387	1,069,385	4	10	4,768	- - -	1,201,733
1819	153,850	20,311	789,613	2	- -	3,904	- - -	967,680
1820	403,107	87,095	915,251	134	439	8,596	- - -	1,415,722
1821	569,700	82,884	1,162,949	550	2,474	4,959	- - -	1,822,816
1822	403,001	22,532	569,237	353	728	7,255	- - -	1,065,089
1823	400,068	19,274	1,102,487	198	586	5,540	- - -	1,528,153
1824	356,384	44,699	1,225,085	112	756	5,791	1,173	1,631,000
1825	396,018	154,256	1,699,856	220	1,431	11,855	10,826	2,203,962
1826	344,851	61,885	1,303,734	77	1,452	7,190	1,203	1,695,392
1827	403,255	67,791	1,345,267	295	1,282	10,037	572	1,828,460
1828	652,584	84,204	2,075,631	1,124	4,826	7,068	853	2,826,590
1829	519,017	97,140	1,673,628	568	4,435	10,445	2,011	2,307,244
1830	529,717	189,745	1,471,252	414	4,520	19,053	2,820	2,215,521
1831	557,498	185,409	1,655,701	515	4,112	15,029	10,888	2,429,182
1832	790,293	125,639	2,051,867	294	1,915	14,530	8,229	2,990,767
1833	844,211	101,767	1,769,580	166	2,646	19,114	7,017	2,737,441
1834	779,505	217,855	1,769,503	983	2,176	18,771	3,865	2,792,658
1835	661,776	156,249	1,822,767	614	3,447	24,235	10,357	2,679,458
1836	598,757	184,156	2,132,138	483	2,920	17,604	22,214	2,958,272
1837	534,465	187,473	2,274,675	1,016	60	25,630	4,174	3,030,293
1838	542,583	156,467	2,742,807	628	5,252	21,584	5,001	3,474,302
1839	258,551	61,676	1,904,933	2,531	1,484	11,535	2,861	2,243,151
1840	174,439	95,954	2,037,536	122	1,403	14,573	3,456	2,327,782
1841	218,708	75,268	2,467,580	172	855	15,907	4,935	2,855,525
1842	201,998	50,297	2,261,435	76	1,551	19,851	3,046	2,538,254
1843	413,466	110,449	2,648,032	371	1,192	21,529	8,643	3,206,482
1844	440,152	90,656	2,212,708	264	1,091	18,580	8,153	2,801,204
1845	779,113	95,095	2,353,985	165	1,614	12,745	11,144	3,251,901
1846	393,462	92,854	1,311,592	- -	2,227	14,668	11,329	1,826,132
1847	184,924	47,527	705,463	1,498	4,659	29,261	5,256	969,490
1848	504,873	79,885	1,346,568	15	2,572	12,514	6,365	1,952,592
1849	234,680	46,400	1,125,469	414	3,369	22,450	5,181	1,435,963
1850	176,566	40,779	1,075,388	360	4,360	21,551	8,425	1,327,429
1851	95,116	44,479	1,141,976	- -	3,781	25,002	6,431	1,316,785
1852	56,066	107,155	1,650,315	- -	5,318	27,664	8,741	1,853,257
1853	74,197	124,922	1,542,579	600	2,089	22,095	11,998	1,778,480
1854	138,159	81,239	1,818,169	360	1,987	23,157	9,182	2,072,253
1855	171,030	58,628	1,964,655	540	1,734	24,648	4,954	2,226,289
1856	196,765	74,020	1,904,555	709	1,307	28,586	5,821	2,212,061
1857	183,331	-	1,724,438	- -	- -	- -	- -	1,907,769

IV. Foreign Corn Trade.

Polish Corn Trade. — Dantzic has hitherto supplied us with large quantities of the finest wheat, and as it will most probably continue to be one of the principal sources of our imports in time to come, it is of importance to ascertain the cost of wheat in that emporium, and the expense of its importation into this country.

According to the data collected by Mr. Jacob in his report on the agriculture and corn trade of the north of Europe, the ordinary price of wheat at Dantzic free on board would amount to about 40*s.* a quarter, made up as follows: —

	28*s.*	0*d.* per quarter.
Cost of wheat at Warsaw		
Conveyance to the boats, and charges for loading and stowing, and securing it with mats	0	6
Freight to Dantzic	5	0
Loss on the passage by pilfering, rain, &c.	3	0
Expenses at Dantzic in turning, drying, screening, warehousing, and loss of measure	2	0
Profit or commission, as the case may be, to the merchant in Dantzic.	1	6
Cost at Dantzic, exclusive of shipping charges, which amount to about 10*d.* a quarter	40	0

Now, if to this we add 7*s.* or 10*s.* a quarter for the expense of importing the wheat into England, including the profit of the importer, it is plain that it could not, supposing Mr. Jacob's estimate of the cost to be nearly accurate, be sold in London, free of duty, for less than 47*s.* or 50*s.* a quarter.

It has, no doubt, been alleged that the cost of wheat in Dantzic is overrated in the above estimate; and in seasons when there is little or no demand for corn from abroad, this allegation is certainly well founded. But this estimate is not meant to apply to such years, but to those when there is some considerable foreign demand; and whenever this is the case, it will be found, though some of the items which go to make up the cost may vary, that the result is nearly correct; and that there are really no good grounds for supposing that corn could, in the seasons in question, be shipped from Dantzic for less than about 40*s.* a quarter.

In further corroboration of this statement we may mention that owing to the deficient harvest of 1845, the average price of wheat in January, 1846, in Warsaw, exceeded 40*s.* a quarter, and it is stated in a despatch from the consul in that city, that at an average of the twenty years ending with 1845, prices had been as follows, viz.: wheat from 26*s.* 6*d.* to 30*s.* per imp. quarter; barley 17*s.* 10*d.* to 20*s.* 6*d.* per do.; and oats 8*s.* 6*d.* to 10*s.* per do. It is plain, therefore, that Mr. Jacob's estimate of the cost of wheat at Warsaw is but little, if it be in any degree, overstated; and we are well assured that this also is the case with his estimate of the expense of conveying it down the Vistula to Dantzic.

Mr. Grade, of Dantzic, furnished the Agricultural Committee of 1831 with the following Table of the average prices of corn in that city, free on board, in decennial periods from 1770 to 1820.

Average Price from Ten to Ten Years, of the different Species of Corn, free on board, per Quarter, in Sterling Money, at Dantzic.

	Wheat.	Rye.	Barley.	Oats.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
From 1770 to 1779 - - -	33 9	21 8	16 1	11 1
1780 — 1789 - - -	33 10	22 1	17 11	12 4
1790 — 1799 - - -	43 8	26 3	19 3	12 6
1800 — 1809 - - -	60 0	34 10	25 1	13 1
1810 — 1819 - - -	55 4	31 1	26 0	20 4
Aggregate average price of 49 years. -	45 4	27 2	20 10	13 10

It appears from this table, that, at an average of the 20 years ending with 1819, the price of corn in Dantzic was no less than 57*s.* 8*d.* a quarter! But it is to be observed that these prices were powerfully influenced by the scarcity and high price in this country in 1800 and 1801, and by the obstructions which the war threw in the way of agriculture, and of the conveyance of corn to Dantzic. But the prices of wheat at this great emporium have not latterly been subject to any such disturbing influences. The countries whence Dantzic draws her supplies of corn have enjoyed an all but uninterrupted tranquillity during the last 20 or 30 years; and though during some of these years we have made large importations, we have not, in others, brought away a single bushel of corn; so that the average prices of this period may be taken as pretty correctly representing the prices of corn in Dantzic in seasons when the export is rather under a medium.

Account exhibiting the Lowest, the Highest, and the Average Prices of Wheat in Dantzic, in Sterling Money, per Imperial Quarter, in Each of the 11 Years, from 1831 to 1841, both inclusive, with the Averages for the whole Period.

Years.	Lowest Prices ℔ Quarter.	Highest Prices ℔ Quarter.	Average Prices ℔ Quarter.	Years.	Lowest Prices ℔ Quarter.	Highest Prices ℔ Quarter.	Average Prices ℔ Quarter.
	s. *d.*	*s.* *d.*	*s.* *d.*		*s.* *d.*	*s.* *d.*	*s.* *d.*
1831	41 1	51 6	46 3½	1839	31 9	61 1	46 5
1832	32 5	43 7	38 0	1840	39 0	62 9	50 10½
1833	28 5	32 9	30 7	1841	45 9	57 0	51 4½
1834	25 1	29 11	27 6				
1835	21 0½	26 3½	23 8	Average of 11 Years from 1831 to 1841.	30 8¾	45 2	37 11
1836	22 3	35 7	28 11				
1837	24 9	34 8¾	29 8¾				
1838	26 6½	61 9	44 1½				

It appears from this table that the average price of wheat in Dantzic during the 11 years ending with 1841 was 37*s.* 11*d.* a quarter; making, with the addition of 10*d.* a quarter for shipping charges, its average price, free on board, 38*s.* 9*d.* a quarter. Now if to this last sum we add 7*s.* or 10*s.* for the expense of its importation and delivery to the millers in London, it is plain, judging from the experience of these 11 years, that the average cost of Dantzic wheat in England, independent of duty, may be estimated, in round numbers, at from 45*s.* to 49*s.* a quarter.

It is material, however, to bear in mind that no very large quantity could be shipped at the above prices. They represent only average years: and whenever there is any unusual demand for corn, or when from 200,000 to 300,000 quarters are wanted for this country, the price immediately rises, as seen above, to from 45*s.* to 50*s.* a quarter and upwards. During the course of 1846 the average prices of the wheat shipped at Dantzic exceeded 48*s.* a quarter.

That the charges on importation into England, warehousing here, and then delivering to the millers, exclusive of duty and profit, would amount to about 10*s.* a quarter appears from the following statements*:—

Account of the Ordinary Charges on 100 Quarters of Wheat, shipped from Dantzic on Consignment, and landed under Bond in London.—(*Parl. Paper* No. 333. Sess. 1827, p. 28.)

	£ *s.* *d.*	£ *s.* *d.*
One hundred quarters, supposed cost at Dantzic, free on board, 30*s.*	- -	150 0 0
Freight at 5*s.* per quarter, and 10 per cent. - - - -	27 10 0	
Metage ex ship, &c., 6*s.* 6*d.* per last - - - - -	3 5 0	
Lighterage and landing, 9*d.* per quarter - - - -	3 15 0	
Insurance on 180*l.*, including 10 per cent. imaginary profit, at 80*s.* per cent.; policy 5*s.* per cent. - - - - -	7 14 0	
Granary rent and insurance for one week - - - -	0 5 0	
Turning and trimming, about - - - - - -	0 2 0	
Delivering from granary, 3*d.* per quarter - - - -	1 5 0	
Metage, &c., ex granary, 2*s.* per last - - - - -	1 0 0	
Commission on sale, 1*s.* per quarter - - - - -	5 0 0	
Del credere, 1 per cent. on, suppose, 40*s.* - - - -	2 0 0	
		51 16 0
Total cost to importer if sold in bond		201 16 0
Imaginary profit, 10 per cent. -		20 3 6
		221 19 6
Would produce, at 44*s.* 4*d.* per quarter,		£221 13 4

N.B.—Loss on remeasuring not considered.

Freight and insurance are taken in this statement at an average, being sometimes higher and sometimes lower.

* The first was furnished by Messrs. Richard Birkett and Sons to the Lords' Committee of 1827, on the price of foreign corn; the other was obligingly furnished by Mr. Irvine, corn factor, in 1841.

Account of the Ordinary Charges on 100 Quarters of Wheat imported from Dantzic, for Sale on Consignment in London, in May, 1841.

	£	s.	d.	£	s.	d.
One hundred quarters fine high mixed wheat, weighing about 61 lbs. per bushel, would cost 40*s.* per quarter				200	0	0
Sound dues, 6*d.* per quarter	2	10	0			
Freight, at present, 3*s.* 3*d.*, but, on an average, supposed 4*s.* 6*d.*	22	10	0			
Insurance 12*s.* 6*d.* per cent., but on an average, 20*s.* - £2 5 0						
Policy, 2*s.* 6*d.* - - - - - - 0 7 6						
	2	12	6			
Metage and dues ex ship, 6*s.* 8*d.* per ten quarters	3	6	8			
Lighterage and landing, 9*d.*	3	15	0			
Granary rent and fire insurance for three weeks, at 5*s.* per one hundred quarters per week	0	15	0			
Turning and trimming, same period	0	4	6			
Seller's metage ex granary, 2*s.* per ten quarters	1	0	0			
Delivering from granary, 3*d.*	1	5	0			
Commission or factorage on sale, 1*s.* per quarter	5	0	0			
Del credere, 1 per cent. (on 55*s.*), 275*l.*	2	15	0			
				45	13	8
				245	13	8

According to this statement, the cost of importation would be 9*s.* 1½*d.* a quarter; but to this has to be added an allowance for waste, and for profit.

We are well convinced that it is not possible successfully to controvert these statements; and such being the case, we are entitled to say that nothing can be more perfectly unfounded than the notions so prevalent in this country as to the extreme cheapness of corn in Dantzic. The truth is, that no considerable quantity of corn can be derived from her without resorting to Gallicia and other provinces from 500 to 700 miles inland. The corn is thence conveyed to the city in boats suited to the navigation of the rivers; but, owing to the uncertain supply of water in the latter, the communication is sometimes entirely broken off, and it is always very tedious and expensive. In proof of this, we may mention that, in November, 1838, when wheat sold in Dantzic for 41*s.* 6*d.* a quarter, it was selling in Lemberg, the principal corn market of Gallicia, for 15*s.*; the difference, amounting to 26*s.* 6*d.*, being the measure of the cost and risk of conveyance from Lemberg to Dantzic! It is, in fact, quite nugatory to suppose that any large supplies should be furnished by Dantzic, were the shipping price under 30*s.* or 40*s.* But, supposing that we could in ordinary years ship considerable supplies for 34*s.*, still it is pretty obvious it could not be sold in London, with a profit, for less than 45*s.* or 47*s.*, or perhaps, 48*s.* a quarter.

It is difficult to draw any conclusions on which it would be safe to place much reliance as to the supplies of corn that may be obtained from Dantzic, and Prussia generally, now that our ports are constantly open under a nominal duty. Mr. Jacob states that the lengthened period of 166 years ending with 1825 gives an "annual export of wheat and rye of 279,794 quarters." And this surplus may, he thinks, be "fairly considered as the nearest approach that can be made, with existing materials, to what is the usual excess of the produce of bread corn above the consumption of the inhabitants, when no extraordinary circumstances occur to excite or check cultivation."—(*Report*, p. 49.)

But there can be no doubt that Mr. Jacob greatly underrated the capabilities of improvement of the countries traversed by the Vistula, the Bug, &c. And while our ports are open with a duty of 1*s.*, we may, supposing our average prices not to fall below 45*s.* or 55*s.* a quarter, safely reckon upon getting from Dantzic an annual supply of from 250,000 to 350,000 quarters. It should, however, be observed, that Mr. Meek, who visited the N. of Europe in the latter part of 1841 and early in 1842, concurs with Mr. Jacob in thinking it improbable that any considerable increase of exportation would take place from Dantzic under any modification of our corn laws.—(*Parl. Paper*, No. 7. Sess. 1842, p. 31.) But it was difficult to believe that such should be the case. Down to a comparatively late period, owing to the fluctuating and capricious nature of our demand, it proved of little advantage to the Polish cultivators; and but little corn was raised in the expectation of its finding its way to England. But now that our ports are always open it is quite a different matter. The supply of our markets has become an object of importance to the Polish agriculturists, who are endeavouring to extend and improve their tillage, and the means of bringing corn to market. At the same time, it is right to observe that the stimulus given to Polish agriculture, and to the tillage of foreign countries generally, by the change in our corn laws, must wholly depend on the extent of our demand; and if it should, in ordinary seasons, be more limited than is commonly supposed, it will have proportionally less influence. We subjoin an

Account exhibiting the Quantities of the different Varieties of Corn and the Quantities of Flour shipped from Dantzic during each of the Seven Years ending with 1840, with the Prices of Wheat in Dantzic during the same Period.

Years.	Wheat.	Rye.	Barley.	Oats.	Flour.	Average Price of Wheat.
	Qrs.	*Qrs.*	*Qrs.*	*Qrs.*	*Barrels.*	£ s. d.
1834	71,043	24,811	326	1,522	55,863	1 7 6
1835	45,129	13,860	95	2,898	28,392	1 3 8
1836	129,055	70,812	7,517	7,224	58,891	1 8 11
1837	314,601	109,989	2,357	8,085	67,612	1 9 8½
1838	458,140	31,290	2,509	1,206	78,274	2 4 1½
1839	419,055	154,255	65,919	8,379	45,251	2 6 5
1840	496,776	131,880	37,054	2,735	21,809	2 10 10½
Totals	1,934,079	518,195	117,597	31,749	334,092	1 17 10½

For an account of the shipments, &c. of wheat from Dantzic in 1853 and 1854, see DANTZIC.

Quality of Dantzic Wheat.—The price of wheat in Dantzic is usually about 7*s.* a quarter above its average price in Hamburgh, and about 2*s.* above the average of Amsterdam. This difference is entirely owing to the superior quality of the Dantzic wheat. Though small grained, and not so heavy as several other sorts, it is remarkably thin-skinned, and yields the finest flour. Some of the best white, or, as it is technically termed, "high mixed" Dantzic wheat, is superior to the very best English; but the quantity of this sort is but limited, and the average quality of all that is exported from Dantzic is believed to approach very nearly to the average quality of English wheat. Allowing for its superior quality, it will be found that wheat is, speaking generally, always cheaper in Dantzic than in any of the Continental ports nearer to London. There are but few seasons, indeed, in which Dantzic wheat is not largely imported into Amsterdam; and it frequently, also, finds its way into Hamburgh. But it is quite impossible that such should be the case, unless, taking quality and other modifying circumstances into account, it were really cheaper than the native and other wheats met with in these markets. When there is any considerable importation into England, it is of every day occurrence for merchants to order Dantzic wheat in preference to that of Holstein, or of the lower Elbe, though the latter might frequently be put into warehouse here for 18*s.* a quarter less than the former! It is, therefore, quite indispensable, in attempting to draw any inferences in regard to the comparative prices of corn in different countries, to make the requisite allowances for differences of quality. Unless this be done, whatever conclusions may be come to can hardly fail of being false and misleading; and when they happen to be right, they can only be so through the merest accident.

Dantzic being by far the greatest port for the exportation of wheat in the north of Europe, its price in her market may be assumed as the general measure of the price in the other shipping ports. At all events, it is certain, that when Dantzic is exporting, wheat cannot be shipped, taking quality into account, at a cheaper rate from any other place. The importer invariably resorts to what he believes to be, all things considered, the cheapest market; and it is a contradiction and an absurdity to suppose that he should burden himself with a comparatively high freight, and other charges for wheat in Dantzic, provided he could buy an equally good article in so convenient a port as Hamburgh at the same or a lower price. If, therefore, we are right in estimating the lowest price at which wheat may be profitably imported from Dantzic free of duty, in ordinary years, at about 45*s.* or 48*s.*, we may be assured that this is the lowest importation price. The greater cheapness of the imports from other places is apparent only; and is uniformly countervailed by a corresponding inferiority of quality.—(See the articles DANTZIC, KÖNIGSBERG, &c.) We subjoin an

Account of the Quantities, in Imperial Quarters, of the different Varieties of Corn imported into the U. Kingdom from Prussia in each of the 5 Years ending with 1857.

	1853.	1854.	1855.	1856.	1857.
Wheat - - - Imp. qrs.	1,144,702	672,842	536,125	222,681	866,311
Barley - - - ,,	9,076	7,408	1,291	73,887	531,585
Oats - - - ,,	4,079	25,437	28,133	23,225	116,451
Rye - - - ,,	- -	403	- -	17,489	56,894
Peas and beans - - ,,	18,764	22,671	36,325	14,638	147,828

Russian Corn Trade.—Russia exports large quantities of wheat, rye, oats, and meal. The wheat of the Northern provinces is of various qualities; but the greater portion is small-grained, coarse, brown, and badly dressed. The hard, or Kubanka, is the best; it keeps well, and is in considerable demand for mixing with other wheats that are old or stale. Russian oats are thin; but being dried in the straw, they weigh better than could be expected from their appearance, and are reckoned wholesome food. Our imports from Russia in 1839 amounted to 371,693 quarters wheat, 316,823

do. oats, and 14,000 do. rye. But though this was far above the then average importation, it has since been greatly exceeded, principally in consequence of the extraordinary increase of the exports from the Southern provinces. In 1853, for example, we imported 612,432 quarters wheat from Russia, of which 451,926 quarters were from ports on the Black Sea. During the same year we imported from all parts of the empire 997,505 qrs. oats, and 327,282 do. barley.—(The reader will find notices of the N. Russian corn trade under the articles ARCHANGEL, PETERSBURG, and RIGA. For an account of the corn trade of the Black Sea, see *post*, and the articles GALACZ, ODESSA, and TAGANROG.)

Danish Corn Trade.—The export of wheat from Denmark Proper, that is, from Jutland and the islands, especially the latter, has, within these few years, been much increased, and the quality of the grain greatly improved. Considerable quantities of wheat, barley, and other grain, as well as of butter, cheese, beef, &c., are exported from Sleswick and Holstein. But, as already stated, the wheat of the latter is inferior; for, though it looks plump, it is coarse and damp. Kiel is the chief Danish port for shipping corn; but large quantities are also shipped from Holbeck and other ports in the islands. In 1858 we imported from Denmark 301,463 qrs. wheat, 340,787 do. barley, 180,164 do. oats, with considerable quantities of peas and pea-meal, and beans and bean-meal. The quantities and values of the entire corn, flour, beans, &c. exported from Denmark and the Duchies, in 1847, were as follows, viz.—

Articles.	Danish Weights and Measures.	British Weights and Measures.	Value when shipped.
Wheat	442,122 tonder	211,541 qrs.	£318,171
Rye	125,192 —	193,871 —	182,336
Barley	1,106,488 —	529,420 —	373,439
Malt	21,941 —	10,198 —	9,873
Oats	736,378 —	352,334 —	248,527
Buckwheat	116,194 —	55,567 —	78,131
Groats of buckwheat, barley, and oats	9,047,113 lbs.	9,958,815 lbs.	50,890
Flour of barley, wheat, &c.	3,410,960 —	3,751,703 —	11,512
Other flour	3,538,540 —	3,895,140 —	11,943
Pease, beans, and tares	275,631 tonder	131,880 qrs.	170,591
Total	-	-	£1,185,713

Corn Trade of the Elbe, &c.—After Dantzic, Hamburgh is one of the greatest corn markets in the north of Europe, being a depôt for large quantities of Baltic corn and for the produce of the extensive countries traversed by the Elbe. The exports of wheat from Hamburgh amounted, at an average of the 11 years ending with 1841, to 210,871 quarters a year. The price of wheat, as already stated, is frequently less in Hamburgh than in Dantzic; but this lowness of price is altogether ascribable to the inferiority of the Holstein and Hanover wheats, which are generally met with in great abundance in Hamburgh. Wheat from the Upper Elbe is of a better quality. Bohemian wheat is occasionally forwarded by the river to Hamburgh; but the charges attending its conveyance from Prague amount to full 14*s.* a quarter, and prevent its being sent down, except when the price is comparatively high. In 1849, the shipments of wheat from Hamburgh amounted to 286,209 quarters, of which 226,864 were for England. Perhaps we may be able, should our prices average about 47*s.* or 50*s.*, to import in ordinary years from 200,000 to 300,000 quarters of wheat from the countries intersected by the Weser and the Elbe. We subjoin an

Account of the Quantities of Wheat and other Varieties of Corn and Wheat Flour imported from the Hanse Towns (principally from Hamburgh) into the U. Kingdom during each of the 5 Years ending with 1857.

	1853.	1854.	1855.	1856.	1857.
Wheat Imp. qrs.	203,461	315,386	224,818	137,526	231,574
Barley "	35,544	2,190	5,290	155,023	273,291
Oats "	5,271	30,699	17,105	37,184	32,091
Beans "	24,240	29,905	16,916	22,856	22,624
Other kinds "	16,026	17,922	8,291	6,877	5,526
Wheatmeal and flour cwts.	71,586	85,455	105,675	130,013	159,990

Dutch Corn Trade.—Amsterdam is an important depôt for foreign corn, every variety of which may be found there. Only a small part of its consumption is supplied by corn of native growth; so that the prices in it are for the most part dependent on those at which corn may be brought from Dantzic, Kiel, Hamburgh, and other shipping ports. The corn trade of Holland was formerly conducted under a low fixed duty. In 1835, however, a sliding scale of duties, varying inversely according to the fluctuations of the home prices, was adopted. This scale continued in force till 1845, when the potato rot, which made its appearance here as well as in Ireland, occasioned its repeal, and the imposition of fixed duties of 1*s.* 5*d.* per quarter on wheat, 1*s.* 1*d.* per do. on rye, 10*d.* per do. on barley, and 9*d.* per do. on oats. It was provided, in 1847, that this scale should be revised in 1850–51. And its practical operation having been found to be highly

satisfactory, government introduced a bill by which it has been perpetuated. At an average of the 3 years ending with 1850 the prices in the Netherlands were, wheat 36*s.* 11*d.*, rye 23*s.* 10*d.*, barley 18*s.* 4*d.*, oats 12*s.* 10*d.*, and buck-wheat 23*s.* 9*d.* per Imp. quarter.

Rotterdam is a very advantageous port for warehousing foreign corn, being conveniently situated, and the warehouse rent low, not exceeding 2*d.* or 2¼*d.* per quarter per month. We subjoin an

Account of the Quantities of Wheat and of the other Varieties of Corn imported from the Netherlands into the U. K. in each of the 5 Years ending with 1857.

		1853.	1854.	1855.	1856.	1857.
Wheat	Imp. qrs.	57,574	33,226	59,621	28,129	45,034
Barley	,,	54	79	1	18,856	26,928
Oats	,,	82,426	171,125	86,363	210,597	110,458
Beans	,,	28,309	43,610	3,587	23,765	37,145
Other kinds	,,	2,256	2,006	1,529	4,147	1,643

French Corn Trade. — It appears, from the accounts given by Garnier in the last edition of his translation of the *Wealth of Nations*, that the price of the *hectolitre* of wheat in the market of Paris amounted, at an average of the 19 years ending with 1819, to 20 fr. 53 cents. And Chaptal, in his valuable work, *Sur l'Industrie Française* (tom. i. p. 226.) published in 1819, estimated the ordinary average price of wheat throughout France at 18 fr. the hectolitre. But it is seen from the subjoined table that the price of wheat in France, at an average of the half century ending with 1850, amounted to 20 fr. 20 cents the hectolitre, equivalent to 45*s.* 7*d.* the imperial quarter.*

Average Price per Hectolitre of Wheat in France in each Year from 1800 to 1850, both inclusive.

Years.	Fr.	Ct.	Years.	Fr.	Ct.	Years.	Fr.	Ct.	Years.	Fr.	Ct.
1800	21	50	1813	22	58	1826	14	81	1839	22	49
1801	24	39	1814	17	50	1827	18	31	1840	21	98
1802	24	16	1815	19	53	1828	22	03	1841	18	34
1803	18	81	1816	28	31	1829	22	59	1842	19	65
1804	20	18	1817	36	16	1830	21	17	1843	20	17
1805	20	19	1818	24	65	1831	22	09	1844	19	04
1806	20	18	1819	18	42	1832	22	33	1845	18	93
1807	18	60	1820	19	13	1833	16	51	1846	43	86
1808	16	67	1821	17	80	1834	14	72	1847	29	38
1809	15	18	1822	15	89	1835	11	80	1848	16	36
1810	19	61	1823	17	52	1836	16	37	1849	15	25
1811	26	13	1824	16	52	1837	17	47	1850	14	26
1812	34	34	1825	15	74	1838	19	31			

Average price of the entire period, 20 fr. 20 cents the hectolitre.

Owing to the deficient harvest of 1846, prices were occasionally higher in France than in England; and considerable quantities of wheat were taken out of bond in London and other British ports for shipment to France. The various expenses attending the importation of a quarter of French wheat into London and its delivery to the millers may be taken, at a medium, at about 7*s.* a quarter. France had formerly but little surplus produce to dispose of; so that it would have been impossible for us to import any considerable quantity of French corn without occasioning a great advance of price; but, as will be immediately seen, a considerable change has taken place in this respect of late years, and, when the harvests are abundant, France has latterly sent us large supplies.

The mean of the different estimates framed by Vauban, Quesnay, Expilly, Lavoisier, and Arthur Young, gives 61,519,672 septiers, or 32,810,000 quarters, as the total average growth of the different kinds of grain in France.— (*Peuchet, Statistique Élémentaire*, p. 290.) We, however, took occasion formerly to observe (*Supp. to Encyc. Brit.* art. *Corn Laws*) that there could not be a doubt that this estimate was a great deal too low; and the more careful investigations of late French statisticians fully confirm this remark. The annual produce of the harvest of France was lately (1843) estimated, from returns obtained under official authority, at 69,558,000 hectolitres of wheat, and 112,958,000 do. of other sorts of grain; making in all 182,517,000 hectolitres, or 62,740,000 Imp. quarters. Of this quantity it was supposed that about 16 per cent. was consumed as seed, 19 per cent. in the feeding of different species of animals, and 2 per cent. in distilleries and breweries.

The reader will not fail to observe that, according to this statement, the consumption of corn in France, which has a population of about 35,000,000, is not more than equal to that of the U. Kingdom, the population of which may be taken at 29,000,000. And we have no doubt that such is the fact; for, though the consumption of corn in France materially exceeds its proportional consumption in Ireland, it is far below the proportional consumption of Great Britain. The corn expended in this country in the keep of horses and in distilleries would, of itself, suffice to feed a third part of the people of France.

The foreign corn trade of France was regulated till within these few years by a law which forbade exportation, except when the home prices were below certain limits; and which restrained and abso-

* The hectolitre is equal to 2·7512 imperial bushels, and the quarter to 2·82 hectolitres.

lutely forbade importation except when they were above certain other limits. The prices regulating importation and exportation differed in the different districts into which the kingdom was divided. Latterly, however, importation has been at all times allowed under graduated duties, which, like those recently existing in this country, become prohibitory when the prices sink to a certain level. The frontier departments are divided into 4 separate districts, the prices in each district governing the duties on importation into it, so that it sometimes happens that corn warehoused in a particular port, where it is not admissible except under a high duty, has been carried to another port in another district, and admitted at a low duty. An official announcement is usually issued on the last day of each month, of what the duties are to be in each district during the succeeding month. But the law is sometimes suspended for longer or shorter periods; and the probability is that it will, at no distant period, be either repealed or materially modified.

Account of the Quantities of Wheat and Wheat Flour respectively, imported from France into the U. Kingdom during each of the 27 Years ending with 1857.

Years.	Wheat. *Qrs.*	Wheat Flour. *Cwts.*	Years.	Wheat. *Qrs.*	Wheat Flour. *Cwts.*	Years.	Wheat. *Qrs.*	Wheat Flour. *Cwts.*
1831 -	101,076	9,186	1840 -	48,356	1,070	1849 -	451,331	1,006,258
1832 -	476	—	1841 -	147,966	161,071	1850 -	595,355	1,925,175
1833 -	692	—	1842 -	469,707	164,690	1851 -	510,100	2,391,666
1834 -	—	—	1843 -	5,118	48	1852 -	207,751	880,833
1835 -	- -	32	1844 -	44,871	13	1853 -	97,235	854,750
1836 -	- -	14	1845 -	32,133	12,866	1854 -	143,078	219,783
1837 -	746	885	1846 -	71,615	7,558	1855 -	26,159	88,196
1838 -	53,191	26,740	1847 -	144,913	120,212	1856 -	10,007	69,811
1839 -	278,182	115,502	1848 -	216,524	562,202	1857 -	37,178	527,115

The increase in the interval between 1848 and 1853 of the imports of wheat and flour, but more especially the latter, is quite unprecedented. It was occasioned, in part at least, by the superior quality of French flour; for, how singular soever it may appear, the business of grinding corn was then better understood and in a more advanced state in France than in England. This may, perhaps, be accounted for by the mill-stones of La Brie, which are in common use in France, being better suited to their work than those commonly employed in England, and by the greater hardness of the French wheat, and the greater care taken in the sorting of the flour into various qualities. Latterly, however, very great improvements have been effected in the English mills.

But by far the greater part of the extraordinary increase in the imports of French wheat and flour in the period referred to is, no doubt, to be ascribed to the very low prices that then ruled in France. And the regular succession in that country for many years past of cycles of 5 or 6 years of scarcity and abundance, is a very striking phenomenon. In proof of this, we beg to subjoin the following

Account, compiled from Official Documents, of the Excess of the Imports over the Exports, and of the Exports over the Imports, of Wheat into and from France, and of its Price per Hectolitre, in Periods of Scarcity and Abundance, from 1816 to 1856 inc.*

	Excess of Imports over Exports.	Excess of Exports over Imports.	Average Price per Hectolitre.
6 years of scarcity (1816-21) - - - -	6,248,000 *hect.*	- -	26 *fr.* 22 *c.*
6 „ abundance (1822-27) - - - -	- -	1,250,000 *hect.*	15 65
5 „ scarcity (1828-32) - - - -	9,528,000	- -	22 11
5 „ abundance (1833-37) - - - -	- -	945,000	15 83
5 „ medium (1838-42) - - - -	1,126,000	- -	20 88
5 „ scarcity (1843-47) - - - -	18,696,000	- -	25 75
5 „ abundance (1848-52) - - - -	- -	16,237,000	15 45
4 „ scarcity (1853-56) - - - -	20,207,000	- -	27 98
41 years	55,805,000	18,432,000	

Hence, in these 41 years, there have been imported 55,805,000 hectolitres, and exported 18,432,000; leaving an excess of imports of 37,373,000 hectolitres.

Inasmuch, however, as the imports are made when prices are high, and the exports when they are low, the excess of the value of the former over that of the latter is greater than in proportion to the difference of their quantities, and is estimated, for the above period, at 1160 millions fr. And this deficit in the amount of the harvests will not certainly be filled up by clinging to the worst parts of the protective system, that is, by allowing importation, and preventing or fettering exportation, and such like expedients. But it would be speedily got rid of were a really free trade in corn established, and the agriculturists permitted to buy their tools and implements wherever they found them cheapest and of the best quality. No doubt, also, a modification of the existing law of succession would be very desirable; for, in addition to the stimulus which it gives to subdivision, the obstructions which it throws in the way of the consolidation of properties and the increase of farms, make it a formidable barrier to the progress of agriculture.

According to a law passed in November 1858, the bakers in all the principal towns of the empire are bound to keep on hand a stock of grain or flour equal to three months of their ordinary consumption. But it is not to be supposed that an act of this sort

* From the *Revue Commerciale* of Messrs. Conninck of Havre for 1858; a valuable and trustworthy publication.

should be really carried out; it will either fall into desuetude, or degenerate into a mere instrument of abuse.

Spanish Corn Trade.—The exportation of corn from Spain was formerly prohibited under the severest penalties. But in 1820, grain and flour were both allowed to be freely exported; and in 1823, this privilege was extended to all productions (*frutos*), the growth of the soil. There is now, in fact, no obstacle whatever, except the expense of carriage, to the conveyance of corn to the sea-ports, and thence to the foreigner. Owing, however, to the corn-growing provinces being principally situated in the interior, and to the extreme badness of the roads, which renders carriage to the coast both expensive and difficult, the exports are reduced within comparatively narrow limits: the same difficulty of carriage frequently gives rise to very great differences in the prices in markets, in all parts of the country, only a few leagues distant. Were the means of communication improved, and anything like security given to the husbandman, Spain would, in no long time, become one of the principal exporting countries of Europe. Old Castile, Leon, Estremadura, and that part of Andalusia to the south and east of Seville, are among the finest corn countries of Europe, and might be made to yield immense supplies. But owing to the disturbed state of the country, and the want of a market for their produce, they can hardly be said to be at all cultivated. And yet such is their natural fertility, that in good seasons the peasants only reap those fields nearest to the villages!

The imports of wheat and wheat-flour into this country from Spain, in the 5 years ending with 1857, have been

			1853.	1854.	1855.	1856.	1857.
Wheat	-	qrs.	29,781	64,392	201,716	49,719	3,745
Flour	-	cwts.	258,416	481,987	817,558	460,823	17,003

Corn Trade of Odessa.—Odessa, on the Black Sea, is now the principal corn shipping port of S. Europe. Inasmuch, however, as but little of the corn sent from Odessa is raised in the province of Kherson in her neighbourhood, the exports depend in great degree on the price; a comparatively high price being necessary to pay the cost of conveying corn from Podolia and Kief, whence only large supplies can be derived, to the port. The navigation of the Dnieper, which intersects these provinces, and would otherwise be a most important channel of communication, is unluckily interrupted in the lower part of its course by cataracts, so that a very large portion of the corn brought at present to Odessa is conveyed to it in carts drawn by oxen; and the supply depends almost as much on the number of cattle that may be employed for this purpose as on the productiveness of the harvests. A portion, also, though but a small one, of the supplies for Odessa is brought by coasters from the Sea of Azof, and from some of the smaller ports on the Black Sea. It appears from an official statement published in Odessa, that the total quantity of wheat brought to the town in the undermentioned years was—

1834	-	691,000 chets. *	1840	-	680,000 chets.	1845	-	1,981,930 chets.
1835	-	378,700	1841	-	720,372	1846	-	2,124,385
1836	-	878,700	1842	-	863,422	1847	-	2,775,837
1837	-	950,498	1843	-	1,170,245	1848	-	2,059,097
1838	-	1,241,000	1844	-	1,313,300	1849	-	1,714,741
1839	-	1,150,000						

This table shows the extraordinary increase that has taken place in the supplies of corn brought to Odessa. The exports in 1847 amounted to 2,016,672 quarters, being, we believe, the largest quantity of wheat ever shipped in a single season from a single port.

During the three years ending with 1840, the average price of the best Odessa wheat, which, however, is inferior to English, was 34*s.* 6*d.* on the spot; and it is the better samples only that are fitted for distant voyages, and for our markets. Owing to the length and tediousness of the voyage from Odessa, and the risk of the grain heating on the passage, the charges attending its importation, including insurance, &c., amount to from 14*s.* to 15*s.* a quarter. It is plain, therefore, that the Odessa wheat brought to England during the above three years must, speaking generally, have cost the importer about 50*s.* a quarter, exclusive of profit; and, supposing the price of the best wheat in Odessa to be reduced under a system of free intercourse to from 25*s.* to 30*s.* a quarter (its price in 1849), it could not be sold in London for less than from 40*s.* to 45*s.* a quarter. And though in 1853 the imports of wheat from Southern Russia amounted to 818,930 quarters, they are usually much less. In 1857, they were only 409,409 quarters. Constantinople, Genoa, Marseilles, and other Mediterranean ports, are the great markets for the wheat of the Black Sea.

The shipments of grain, other than wheat, from Odessa, are generally but inconsider-

* A chetwert is about 5·8 bushels.

able. In 1847, 240,390 quarters rye were exported. Indian corn is raised in Bessarabia, but not in quantities to admit of any great exportation.

For farther details as to the corn trade of Southern Russia, and of the countries on the Lower Danube, see the articles ODESSA, TAGANROG, and GALACZ.

Both soft and hard wheat are exported from Odessa; but the former, which is by far the most abundant, is only brought to England. Despite the preference given to English wheat in this country, in the Mediterranean Odessa wheat is more esteemed, and fetches a higher price.

The hard wheat brought from the Black Sea comes principally from Taganrog. It is a very fine species of grain, being full 10 per cent. heavier than British wheat, with not more than half the bran: latterly, however, soft wheat is beginning to be exported. The hard wheat is used in Italy for making maccaroni and vermicelli, and things of that sort; very little of it has found its way to England.

The voyage from Odessa to Britain is of uncertain duration, but generally very long. It is essential to the importation of the wheat in a good condition, that it should be made during the winter months. When the voyage is made in summer, unless the wheat be very superior, and be shipped in exceedingly good order, it is almost sure to heat; and has sometimes, indeed, been injured to such a degree as to require to be dug from the hold with pickaxes. Unless, therefore, means be devised for lessening the risk of damage during the voyage, there is little reason to think that Odessa wheat will ever be largely imported in ordinary seasons into Britain.—(See the evidence of J. H. Lander, Esq. and J. Schneider, Esq. before the Lords' Committee of 1827, on the price of foreign corn.) We subjoin a

Statement of the probable Cost of importing 2,000 Chetwerts or 1,453 Quarters of Wheat from Odessa to London.

Charges in London.	£	s.	d.	£	s.	d.	£	s.	d.
Policy duty on 1,200*l.* at ½ per cent.	3	0	0						
Insurance on 1,150*l.* at 2*l.* 2*s.* per cent.	24	3	0						
				27	3	0			
Commission do. ½ per cent.				5	15	0			
Freight on 1,453 quarters wheat at 12*s.* per quarter	871	10	0						
Primage, 10 per cent.	87	3	7						
Gratification	10	10	0						
				969	9	7			
Charterparty, 1*l.*; custom-house entries, 10*s.*				1	10	0			
Metage on ship, at 4*s.* 3½*d.* per last				31	3	7			
Lastage				1	4	2			
Lighterage of 1,453 quarters at 4*d.*				24	4	4			
Landing, wharfage, housing, and delivering, at 9*d.*				54	9	8			
Rent 4 weeks, at 5*s.* per 100 quarters per week				14	10	7			
Metage, &c. ex granary				7	5	0			
				£1,136	15	0			
				Or per quarter			0	15	8

And in addition to the above, the charge for probable damage on the voyage may be estimated at 2*s.* a quarter.
And the factorage in London at 1*s.* per quarter.

American Corn Trade.—The prices of wheat at New York and Philadelphia may be taken, at an average, at from 35*s.* to 40*s.* a quarter; and as the cost of importing a quarter of wheat from the United States into England amounts to from 10*s.* to 12*s.*, it is seen that no considerable supply could be obtained from that quarter, were our prices under 45*s.* or 50*s.* It should also be remarked, that prices in America are usually higher than in the Baltic; so that but little can be brought from the former, except when the demand is sufficient previously to take off the cheaper wheats of the northern ports.

The exports of wheat from the U. States are, however, comparatively trifling; it being in the shape of flour that most part of their exports of that grain are made. The shipments of this important article from Baltimore, Philadelphia, New York, New Orleans, and other ports, have occasionally been very large, though down to 1839 they had been for some years rather decreasing. Occasionally, indeed, considerable quantities of corn and flour have been sent from Europe to the U. States. In 1837, for example, no fewer than 3,921,259 bushels of foreign wheat were imported into the U. States, of which 792,675 bushels were from England. This, however, was a rare instance; and in years like 1847 and 1849, when there was at once an extraordinarily abundant crop in the States, and an unusually large demand and high prices in Europe, the exports are very large. We subjoin an

Account showing the Quantities of Wheat, Wheat-Flour, Indian Corn, and Indian Meal, exported from the U. States during the Year ended the 30th of June, 1858, specifying the Countries to which they were sent, and the Quantities and Values of the Supplies sent to each.

Whither Exported.	Wheat.		Wheat-Flour.		Indian Corn.		Indian Meal.	
	Bushels.	*Dollars.*	*Barrels.*	*Dollars.*	*Bushels.*	*Dollars.*	*Barrels.*	*Dollars.*
Danish West Indies	-	-	29,679	177,360	9,836	7,571	29,550	112,396
England	5,120,896	5,680,398	892,949	4,251,100	2,716,695	1,831,296	1,095	3,118
Scotland	605,701	620,648	159,490	682,967	90,226	63,225	141	424
Ireland	61,603	63,858	9,297	45,115	408,277	270,407		
Canada	2,675,947	2,082,648	326,045	1,681,072	486,999	298,879	5,695	17,665
Other British N. American Possessions	105,945	132,187	491,802	2,618,913	109,841	85,210	57,052	212,543
British West Indies	25,966	34,526	280,608	1,482,115	224,863	179,597	108,936	400,245
British Australia	-	-	64,111	505,486				
Spain on the Atlantic	10,926	15,750	46,491	235,005				
Spain on the Mediterranean	217,455	301,778	193,279	1,078,951				
Cuba	882	942	17,955	105,569	288,784	187,295	1,768	6,448
Hayti	2	3	62,215	388,464				
Mexico	1,477	1,828	24,911	157,845				
Venezuela	16,670	18,834	51,615	326,575	63,915	48,940	1,336	6,468
Brazil	-	-	525,120	3,560,755	53,159	39,824	234	876
Uruguay or Cisplatine Republic	-	-	44,624	265,649				
Argentine Republic	6,499	6,486	21,293	154,990				
Total quantities and values of the above, and of the exports to other countries.	8,926,196	9,061,504	3,512,169	19,328,884	4,766,145	3,259,039	237,637	877,692

And exclusive of the above, considerable quantities of rye and rye meal, pulse, and other grains, ship's bread, &c. were exported in the course of the above year.

It has, however, been doubted, whether this exportation can be maintained. Speaking generally, agriculture is little known as a science in any part of America, and but imperfectly understood as an art; and it could not rationally be expected that it should be otherwise. In all those countries in which, as in the greater part of America, portions of fertile and unoccupied land may be obtained for little more than a nominal price, the invariable practice is, after clearing and breaking up a piece of land, to subject it to a course of continuous cropping; and when it is exhausted, to resort to some other tract of new ground, leaving that which has been abandoned to recover itself by the aid of the *vis medicatrix naturæ!* But in those parts of the Eastern or Atlantic States that have been long settled, and are fully occupied, this scourging system can no longer be advantageously followed; and there, consequently, a better system of agriculture is beginning to be introduced; and a rotation of crops, and the manuring of land, are practised sometimes with more and sometimes with less success. Still, however, it is certain that even in the best farmed districts agriculture is in a very backward state; and, except where the land is naturally of a very superior quality, the produce is scanty indeed, compared with what is obtained in this country. In illustration of what is now stated we beg to subjoin an

Account of the average Produce per Acre of the Corn Crops in the State of New York, as published in a late Report by the "State Agricultural Society," in Contrast with what is believed to be the Produce of similar Crops in this Country.

Produce.	New York.	England.
Wheat - - - - - - - bushels per acre	14	30 or 32
Barley - - - - - - - - - -	16	32
Oats - - - - - - - - - -	26	40
Indian corn - - - - - - - - -	25	none

It results from this statement that the returns per acre are about twice as great in this country as in New York, which has some of the best corn growing land in the Union. In Ohio, which is supposed to be the most productive of all the states, the results are similar, the produce of wheat and barley in it being respectively 15¼ and 24 bushels an acre. It is true, no doubt, that these returns may be increased; but this can only be done, if it be done at all, by the employment of greater capital and skill in the culture of the land. And in the meantime the New York farmers, and those of the other Atlantic States, have to withstand the competition of their neighbours in the newly-formed states on the Mississippi and Missouri, where the best land is subjected to the scourging treatment already referred to. But in these states, though the land be cheap, the produce per acre is, in most cases, very small. In Michigan, for example, it appears, from a return published by the state legislature in 1849, that the average produce of wheat per acre does not exceed 10 and 1-5th bushels, being less than 9 bushels an acre when seed is deducted! It would further appear from the best attainable information on the subject, that if we take the produce of the new states generally at 15 or 16 bushels per imp. acre, we shall not be within, but beyond, the mark. And though it be very difficult and, perhaps, impossible, to anticipate with any degree of confidence what may be the ultimate result of this infertility, or in what degree it may be defeated or modified by future discoveries and improvements, we are, in the meantime, disposed to concur with Mr. Johnston* in thinking that the wheat-producing powers of the U. States have been much exaggerated; but we doubt whether it be possible to exaggerate their capacities for producing Indian corn.

In the course of 25 years from this date the pop. of the Union will most likely amount to or exceed 60,000,000; and what with this enormous increase in the demand for corn, and the abusive treatment to

* See his *Notes on N. America, Agricultural, Economical, and Social*, i. 172., ii. 334., &c.; see, also, Mr. Russell's work on *N. America, its Agriculture and Climate*, pp. 92. 123. 129. 153., &c. The latter is the most important and valuable work that has hitherto appeared on that continent. The statements it embodies with regard to slavery have shed a new and powerful light on all that relates to that momentous and difficult subject.

which the land is subjected, the fears so generally entertained in regard to the injury to be inflicted on the agriculture of Europe, and especially on that of England, by the importation of American corn, have, perhaps, no good foundation. It is not so much, indeed, in the importations of wheat and flour as in those of maize or Indian corn, that the importance of the American supply has latterly been manifested. And these have been mainly occasioned by the failure of the potato crops, and the wretched state to which the pop. dependent on them has been reduced. Very few of those who had been consumers of wheat, barley, or oats, have resorted to Indian corn. And the presumption is that it will rarely be imported in large quantities, except when the potato is deficient, or to supply those who have no means of obtaining the higher-priced varieties of corn.—(See *Geographical Dictionary*, ed. 1851, art. U. STATES.)

All sorts of flour, whether made of wheat, rye, Indian corn, &c., exported from the U. States, must previously be submitted to the inspection of officers appointed for that purpose. The law further directs, that the barrels, in which it is shipped, shall be of certain dimensions, and that each barrel shall contain 196 lbs. of flour, and each half barrel 98 lbs. The inspector, having ascertained that the barrels correspond with the regulations as to size, weights, &c., decides as to the quality of the flour; the first or best sort being branded *Superfine*; the second, *Fine*; the third, *Fine Middlings*; and the fourth, or lowest quality, *Middlings*. Such barrels as are not merchantable are marked *Bad*; and their exportation, as well as the exportation of those deficient in weight, is prohibited. Rye flour is divided into 2 sorts, being either branded *Superfine Rye Flour*, or *Fine Rye Flour*. Maize flour is branded *Indian Meal*; flour made from buck-wheat is branded *B. Meal*. Indian meal may be exported in hhds. of 800 lbs. Flour for home consumption is not subjected to inspection. The inspection must take place at the time and place of exportation, under a penalty of 5 dollars per barrel. Persons altering or counterfeiting marks or brands forfeit 100 dollars; and persons putting fresh flour into barrels already marked or branded, or offering adulterated wheaten flour for sale, forfeit in either case 5 dollars for each barrel.

The fees of branding were reduced in 1832. They amount, in New York, to 3 cents for each hogshead, and 1 cent for each barrel and half barrel of full weight. A fine of 30 cents is levied on every barrel or half barrel below the standard weight, exclusive of 20 cents for every pound that is deficient.

Every barrel of wheaten flour imported is deemed equivalent to 38½ gallons of wheat, and, under the old law, was charged with a corresponding duty.

The usual price of wheat in Canada, when there is a demand for the English market, is about 30*s.* a quarter; and adding to this 10*s.* a quarter for the expenses of carriage and warehousing, it will make its price in Liverpool, when delivered to the consumer, 40*s.*; and being spring wheat, it is not so valuable by 5*s.* a quarter as English wheat.

Mr. Reuss (p. 120.) gives the following *pro formâ* account of the expenses attending the importation of a cargo of 5,000 bushels of wheat from New York, supposing it to cost 1 dol. 12 cents a bushel.

	Dollars.
5,000 bushels, at 1 dol. 12 cents per bushel	5,600·00
Winnowing, measuring, and delivery on board	150·000
Brokerage, ½ per cent.	28·000
Insurance, 6,000 dols. at 1½ per cent.	90·000
	268·00
	5,868·00
Commission, 5 per cent.	293·40
	6,161·40
Exchange, 110 per cent.	£1,260 1 8

	£ s. d.	£ s. d.
Freight, 125 tons at 15*s.* per ton	93 15 0	
Primage, 5 per cent	4 13 9	
	98 8 9	
Entry, officer's fees and city dues	1 10 0	
Metage from the ship at 2*s.* 8*d.* per last of 10 qrs.	6 18 4	
	117 7 1	
Brought forward	117 7 1	1,260 1 8
Petty charges, at 1*s.* per last of 10 qrs.	2 12 0	
Lighterage and porterage to granary, 9*d.* per quarter	19 10 0	
Granary rent and fire insurance, say, 4 weeks at 2*s.* per 100 qrs. per week	2 2 0	
Turning, at 2*s.* per 100 quarters	0 10 6	
Metage and porterage to the granary, at 4*s.* per 100 quarters	10 8 0	
Do. do. from do., at 5*s.* per qr.	11 16 8	
Postage and stamps	1 7 0	
Factorage, 1*s.* per quarter	26 0 0	
Commission, 2½ per cent.		
Guarantee 1 — Interest 1 — } 4½ p. cent.	63 0 11	
		244 4 2
		1,504 5 10

In London.
103·06 quarters, Winchester measure, equal to 100 quarters Imperial.
5,000 bushels, Winchester measure, equal to 604 quarters Imperial measure, costing 49*s.* 9½*d.* per quarter in bond

	1,503 14 2

Inferences from the above Review of Prices.—We may, we think, satisfactorily conclude, from this pretty lengthened review of the state of the foreign corn trade, that now that all restrictions on importation are abolished, the price of foreign wheat of about the same quality as average English wheat will, in ordinary years, be about 45*s.* or 47*s.* a quarter. But supposing it were to fall so low as 40*s.*, it is easy to see that even the latter is a price at which agricultural improvements may be successfully carried on. The price of wheat in England, at an average of the ten years ending with 1820, was no less than 87*s.* 6*d.* a quarter; while its average prices during the ten years, and the five years ending with 1845, were respectively 57*s.* 11*d.* and 54*s.* 9*d.* a quarter. And yet, notwithstanding this tremendous fall of 32*s.* 9*d.* a quarter, an extraordinary improvement has taken place in agriculture since 1820, as is evinced by the fact of rents having risen greatly in the interval, and by our now providing for a very large additional population. And such having been the case, despite a fall of 32*s.* 9*d.*, it was childish to suppose that a farther fall of 12*s.* or even of 15*s.* a quarter in the average price of corn should have any very disastrous influence over agriculture. And in truth and reality improvements of all sorts have been more vigorously prosecuted since the final repeal of the corn laws in 1849 than at any former period. And there is nothing in our present condition, or in that of the countries whence we derive a portion of our supplies, to warrant the expectation that it will be otherwise in time to come.

We feel pretty confident that these statements cannot be successfully controverted. A great deal of uncertainty must, no doubt, always attach to prospective estimates of prices; but in as far as a conclusion may be drawn beforehand on such a subject, the landlords and farmers may dismiss their fears and apprehensions, if they entertain any, of ruin from a free trade in corn. They have triumphantly weathered far

greater difficulties than there is any probability of its entailing upon them. Their prosperity does not depend on restrictive regulations, but is the effect of the fertility of the soil which belongs to them, of the absence of all oppressive feudal privileges, and of the number and wealth of the consumers of their produce. *

COTTON (Ger. *Baumwolle*; Du. *Katoen*, *Boomwol*; Da. *Bomuld*; Sw. *Bomull*; Fr. *Coton*; It. *Cotone*, *Bambagia*; Sp. *Algodon*; Port. *Algodao*; Rus. *Chlobtschataja bumoja*; Pol. *Bawelna*; Lat. *Gossypium*, *Bombax*; Arab. *Kutun*; Sans. *Kapasa*; Hind. *Ruhi*; Malay, *Kapas*), a species of vegetable wool, the produce of the *Gossypium herbaceum*, or cotton shrub, of which there are many varieties. It is found growing naturally in all the tropical regions of Asia, Africa, and America, whence it has been transplanted, and has become a most important object of cultivation, in the southern parts of the U. States, and to some extent also in Europe.

Cotton is distinguished in commerce by its colour, but more especially by the length, strength, and fineness of its fibre. White is usually considered as characteristic of secondary quality. Yellow, or a yellowish tinge, when not the effect of accidental wetting or inclement seasons, is considered as indicating greater fineness.

There are many varieties of raw cotton in the market, their names being principally derived from the places whence they are brought. They are usually classed under the denominations of *long and short stapled*. The best of the first is the *sea-island* cotton, or that brought from the shores of Georgia; but its qualities differ so much that the price of the finest specimens is often three times as great as that of the inferior. The superior samples of Brazil cotton are reckoned among the long-stapled. The cottons of the U. States, with the exception of sea-island, belong to the short-stapled variety, as do those of India.

The estimation in which the principal kinds of cotton wool are held may be learned from the following statement of their prices in Liverpool in different years. The inferiority of Surat cotton is sometimes ascribed to the defective mode in which it is prepared; but a great authority, Mr. Horace H. Wilson, doubts whether it can be grown in India of a better kind.

Statement of the extreme Prices of Cotton Wool at Liverpool, per lb., in 1810, 1830, 1845, 1850, 1855, and 1858.

Cotton.	1810.		1830.		1845.		1850.				1855.				1858.			
	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.	d.
Upland	14¼ @	22½	7 @	7⅞	5 @	5⅞	5⅜ @	7½	6⅞ @	8⅜	5⅞ @	6⅞	5¼ @	7½	5¾ @	6¾	5¼ @	8¼
New Orleans	16⅜	23½	8	9	7	8	5⅞	9	6⅜	10	5⅝	8	5⅜	8⅛	7⅛	4½	9	
Sea Island	26	33	18	20	30	30	9	20	11½	20	8	30	10	34	9½	26	10	30
Pernambuco	23	29	8	9¼	6⅜	8	6½	7½	8¼	9¼	5⅜	7½	6¼	8¼	6⅜	8	8	9¼
Maranham	20	27	7	8⅜	5⅜	6	5⅜	6½	7⅜	9¼	5	7	5⅜	8	6¼	8	7⅛	9¼
Egyptian	12½	19	8½	10	8½	10	6	9	7¼	11	5	10	6	11	6	11½	7	12
Surat	21½	28	5½	6	4	4	3½	5¼	4¼	6⅜	2	4⅜	3	6	5	5¼	3½	6⅜
Demerara			8	10	6	6⅜	5	7	7	9	4½	7⅜	5¾	8¼	6	8	5¼	8

The manufacture of cotton has been carried on in Hindostan from the remotest antiquity. Herodotus mentions (lib. iii. c. 106.) that in India there are wild trees that produce a sort of wool superior to that of sheep, and that the natives dress themselves in cloth made of it. And similar statements are made by Strabo (lib. xv. § 10.), Arrian (*Indic.* c. 16.), and Mela (lib. iii. c. 7.). But though certainly referring to cotton, it is evident that the authors of these statements had no very distinct ideas either in regard to the wool itself or its manufacture. The latter obtained no footing worth mentioning in Europe till last century.

1. *Rise and Progress of the British Cotton Manufacture.*—The rapid growth and prodigious magnitude of the cotton manufacture of Great Britain are, beyond all question, the most extraordinary phenomena in the history of industry. Our command of the finest wool naturally attracted our attention to the woollen manufacture, and paved the way for that superiority in it which we long since attained: but when we undertook the cotton manufacture, we had comparatively few facilities for its prosecution, and had to struggle with the greatest difficulties. The raw material was produced at an immense distance from our shores; and in Hindostan and China the inhabitants had arrived at such perfection in the arts of spinning and weaving, that the lightness and delicacy of their finest cloths emulated the web of the gossamer, and seemed to set competition at defiance. Such, however, has been the influence of the stupendous discoveries and inventions of Hargreaves, Arkwright, Crompton, Cartwright, and others, that we have overcome all these difficulties—that neither the extreme cheapness of labour in Hindostan, nor the excellence to which the natives had attained, has enabled them to withstand the competition of those who buy their cotton; and who, after carrying it

* For farther and full details with respect to the progress of agriculture since the peace, the rise of rent, and the influence of the depreciation of the currency on prices, see *Descriptive and Statistical Account of the British Empire*, 3rd ed. vol. i. pp. 550—557., and pp. 532—584.

5,000 miles to be manufactured, carry back the goods to them. This is the greatest triumph of mechanical genius: and what perhaps is most extraordinary, our superiority is not the late result of a long series of successive discoveries and inventions: on the contrary, it has been accomplished in a very few years. A century has not elapsed since the British cotton manufacture was in its infancy; and it *now* forms the principal business carried on in the country,—affording an advantageous field for the accumulation and employment of millions upon millions of capital, and of thousands upon thousands of workmen! The skill and genius by which these astonishing results have been achieved, have been one of the main sources of our power: they have contributed in no common degree to raise the British nation to the high and conspicuous place she now occupies. Nor is it too much to say that the wealth and energy derived from the cotton manufacture powerfully assisted in carrying us triumphantly through the tremendous struggle with revolutionary France, at the same time that it materially contributes to that strength by which we are able, without difficulty, to sustain burdens that would have crushed our fathers, and could not be supported by any other people.

The precise period when the manufacture was introduced into England is not known; but it is most probable that it was some time in the early part of the 17th century. The first authentic mention of it is made by Lewis Roberts, in his *Treasure of Traffic*, published in 1641, where it is stated, "The town of Manchester, in Lancashire, must be also herein remembered, and worthily for their encouragement commended, who buy the yarne of the Irish in great quantity, and weaving it, returne the same again into Ireland to sell. Neither doth their industry rest here; for they buy cotton wool in London that comes first from Cyprus and Smyrna, and at home worke the same, and perfect it into fustians, vermillions, dimities, and other such stuffes, and then return it to London, where the same is vented and sold, and not seldom sent into foreign parts, who have means, at far easier termes, to provide themselves of the said first materials."—(Orig. ed. p. 32.) It is true, indeed, that mention is frequently made by previous writers, and in acts of the legislature passed at a much earlier period *, of "Manchester cottons," "cotton velvets," "fustians," &c.; but it is certain that these articles were *wholly composed of wool*, and had most probably been denominated cottons from their having been prepared in imitation of some of the cotton fabrics imported from India and Italy.

From the first introduction of the cotton manufacture into Great Britain down to the comparatively late period of 1773, the weft or transverse threads of the web, only, were of cotton; the warp, or longitudinal threads, consisting wholly of linen yarn, principally imported from Germany and Ireland. In the first stage of the manufacture the weavers, dispersed in cottages throughout the country, furnished themselves as well as they could with the warp and weft for their webs, and carried them to market when they were finished: but about 1760 a new system was introduced. The Manchester merchants began about that time to send agents into the country, who employed weavers, whom they supplied with foreign or Irish linen yarn for warp, and with raw cotton, which being carded and spun, by means of a common spindle or distaff, in the weaver's own family, was then used for weft. A system of domestic manufacture was thus established; the junior branches of the family being employed in the carding and spinning of the cotton, while its head was employed in weaving the linen and cotton yarn into cloth. This system, by relieving the weaver from the necessity of providing himself with linen yarn for warp and raw cotton for weft, and of seeking customers for his cloth when finished, and enabling him to prosecute his employment with greater regularity, was an obvious improvement on the system that had been previously followed; but it is at the same time clear that the impossibility of making any considerable division among the different branches of a manufacture so conducted, or of prosecuting them on a large scale, added to the interruption given to the proper business of the weavers, by the necessity of attending to the cultivation of the patches of ground which they generally occupied, opposed invincible obstacles to its progress, so long as it was conducted in this mode.

It appears from the Custom-house returns, that the total quantity of cotton wool annually imported into Great Britain, at an average of the *five* years ending with 1705 amounted to only 1,170,881 lbs. The accounts of the imports of cotton from 1705 to 1770 have been but imperfectly preserved; but until the last half dozen years of that period the manufacture increased very slowly, and was of very trifling amount. Dr. Percival, of Manchester, who had the best means of being accurately informed on the subject, states that the entire value of the cotton goods manufactured in Great Britain, at the accession of George III. in 1760, was estimated to amount to only 200,000*l.* a

* In an act of 5 & 6 Edw. 6. (1552), entitled, for the true making of WOOLLEN cloth, it is ordered, "*That all cottons called Manchester, Lancashire, and Cheshire cottons*, full wrought for sale, shall be in length," &c. This proves incontestably, that what were then called cottons were made wholly of wool.

year, and the number of persons employed was quite inconsiderable: but in 1767, a most ingenious person, James Hargreaves, a carpenter of Blackburn in Lancashire, invented the *spinning jenny*. At first this admirable machine enabled *eight* threads to be spun with the same facility as one; and it was subsequently brought to such perfection, that a little girl was able to work no fewer than from *eighty* to *one hundred and twenty* spindles.

The jenny was applicable only to the spinning of cotton for weft, being unable to give to the yarn that degree of firmness and hardness which is required to the longitudinal threads or warp: but this deficiency was soon after supplied by the introduction of the *spinning-frame*,—that wonderful piece of machinery which spins a vast number of threads of any degree of fineness and hardness, leaving to man merely to feed the machine with cotton, and to join the threads when they happen to break. It is not difficult to understand the principle on which this machine is constructed, and the mode of its operation. It consists of two pairs of rollers, turned by means of machinery. The lower roller of each pair is furrowed or fluted longitudinally, and the upper one is covered with leather, to make them take a hold of the cotton. If there were only one pair of rollers, it is clear that a carding of cotton passed between them would be drawn forward by the revolution of the rollers, but it would merely undergo a certain degree of compression from their action. No sooner, however, has the carding, or *roving* as it is technically termed, begun to pass through the first pair of rollers, than it is received by the second pair which are made to revolve with (as the case may be) 3, 4, or 5 times the velocity of the first pair. By this admirable contrivance, the roving is drawn out into a thread of the desired degree of tenuity; a twist being given to it by the adaptation of the spindle and fly of the common flax-wheel to the machinery.

Such is the principle on which Sir Richard Arkwright constructed his famous spinning frame. It is obvious that it is radically and completely different from the previous methods of spinning, either by the common hand-wheel or distaff, or by the jenny, which is only a modification of the common wheel. Spinning by rollers was an entirely original idea; and it is difficult which to admire most — the profound and fortunate sagacity which led to so great a discovery, or the consummate skill and address by which it was so speedily perfected, and reduced to practice.*

Since the dissolution of Sir Richard Arkwright's patent, in 1785, the progress of discovery and improvement in every department of the manufacture has been most rapid. The *mule-jenny* — so called from its being a compound of the jenny and the spinning frame—invented by Mr. Crompton, and the *power-loom*, invented by the Rev. Mr. Cartwright, are machines that have had the most powerful influence over the manufacture; and in consequence of their introduction, and of innumerable other inventions and improvements, the prices of cotton cloth and yarn have gone on progressively diminishing. But as the demand for cottons has been, owing to their extraordinary cheapness, extended in a still greater degree, the value of the goods produced, and the number of persons employed in the manufacture, are now decidedly greater than at any previous period.

2. *Imports of Cotton Wool. Countries whence it is imported. Prices, Duties, &c.*—The following Tables have been partly taken from official documents, and partly from the accounts of merchants of great experience. We believe they may be relied on as approaching as near to accuracy as it is possible to attain to in such matters.

Cotton Wool imported, exported, and entered for Consumption, from 1820 to 1841.

Years.	Quantity imported.	Quantity exported.	Quantity entered for Consumption.	Years.	Quantity imported.	Quantity exported.	Quantity entered for Consumption.
	Lbs.	*Lbs.*	*Lbs.*		*Lbs.*	*Lbs.*	*Lbs.*
1820	151,672,655	6,024,058	152,829,653	1831	288,674,853	22,308,555	273,219,653
1821	132,536,620	14,589,497	137,401,519	1832	286,852,525	18,027,940	259,421,463
1822	142,857,628	18,267,776	143,428,127	1833	305,656,837	17,565,882	295,682,976
1823	191,402,503	9,318,402	186,311,070	1834	326,875,425	24,161,963	302,935,657
1824	149,380,122	13,299,505	141,038,743	1835	363,702,963	32,779,734	326,407,692
1825	228,005,294	18,004,953	202,546,869	1836	406,959,857	31,739,765	363,684,232
1826	177,607,401	24,474,920	162,889,012	1837	407,286,785	39,722,031	368,415,035
1827	272,448,909	18,134,170	249,804,396	1838	507,850,577	50,644,469	455,036,755
1828	227,760,642	17,396,776	208,987,744	1839	389,396,559	38,738,238	352,000,277
1829	222,767,411	30,289,115	204,097,037	1840	592,488,010	38,673,229	528,142,743
1830	265,964,452	8,534,976	269,616,610	1841	487,992,555	- -	437,093,631

* There is, in the new edition of the *Encyclopædia Britannica*, a pretty full account of the life of Sir Richard Arkwright. The question as to his merit as an original discoverer is still undecided. Recently, however, it has been ascertained that a patent for spinning by rollers, revolving with different degrees of velocity, was taken out by Messrs. Wyatt and Paul, so early as 1738.—(See the *History of the Cotton Manufacture*, by Edward Baines, Esq.) But it does not appear that the inventors had been able to give effect to their happy idea, and all traces of the invention seem to have been lost. The statements in the case printed by Sir Richard Arkwright and his partners in 1782 show that he was aware of the attempts made in the reign of George II. to spin by machinery; but there is no evidence to prove that he was acquainted with the principle on which these attempts had been made, or that he had seen the patent referred to. Undoubtedly, however, the probability seems to be that he had. But, admitting this to be the case, it detracts but little from the substantial merits of Sir Richard Arkwright. If the

Account of the Imports and Exports of Cotton Wool into and from Great Britain, from 1697 to 1819.

Years.	Imports.	Exports.	Years.	Imports.	Exports.	Years.	Imports.	Exports.
1697	1,976,359	—	1785	18,400,384	407,496	1803	53,812,284	1,561,053
1701	1,985,868	—	1786	19,475,099	325,153	1804	61,867,329	505,171
1700 to 1705			1787	23,250,268	1,073,381	1805	59,682,406	804,243
(Average.)	1,170,881	—	1788	20,467,436	855,146	1806	58,176,283	651,867
1710	715,008	—	1789	32,576,023	297,837	1807	74,925,306	2,176,283
1720	1,972,805	—	1790	31,447,605	814,154	1808	43,605,982	1,644,867
1730	1,515,472	—	1791	28,706,675	363,442	1809	92,812,282	4,351,105
1741	1,615,031	—	1792	34,907,197	1,485,465	1810	132,498,933	8,787,109
1751	2,976,610	—	1793	19,440,929	1,171,566	1811	91,576,535	1,266,867
1764	3,870,392	—	1794	24,358,567	1,349,950	1812	63,025,936	1,440,912
1771 to 1775			1795	26,401,340	1,193,737	1813	50,966,000	
(Average.)	4,764,589	—	1796	32,126,357	694,962	1814	60,060,239	6,282,437
1776 to 1785			1797	23,354,371	609,058	1815	99,306,313	6,780,592
(Average.)	6,766,613	—	1798	31,880,611	601,139	1816	93,920,055	7,105,034
1781	5,198,778	96,788	1799	43,579,278	844,671	1817	124,913,968	8,155,442
1782	11,828,039	421,229	1800	56,010,732	4,416,610	1818	177,288,158	15,159,483
1783	9,735,663	177,626	1801	56,004,305	1,860,372	1819	149,739,820	16,622,969
1784	11,432,083	201,845	1802	60,345,600	3,750,180			

Previously to 1790, North America did not supply us with a single pound weight of raw cotton. A little had, indeed, been raised in some of the Southern States, for domestic use, before the revolutionary war, but the quantity was quite inconsiderable. In 1791, it began, for the first time, to be exported; the trifling quantity of 189,316 lbs. having been shipped in the course of that year, and 138,328 lbs. in 1792. Such was the late and feeble beginning of the American cotton trade. There is nothing in the history of industry to compare with its subsequent increase, unless it be the growth of the manufacture in this country.

American cotton, which is of two kinds, is generally known by the names of *sea-island* and *upland*. The first, which is the finest cotton imported into Great Britain, grows on the small sandy islands and along the low sandy shores of Carolina and Virginia. It is long in the staple, of an even silky texture, and is easily separated from the seed. Unluckily, however, it can be raised only in certain situations; so that its quantity is limited, and has not, in fact, been increased since 1805. The upland, of which the supply may be considered as unlimited, though of varying qualities, is all short-stapled; and its separation from the seed is so very difficult, that if it be done by the hand, the cotton is hardly worth the labour. This, however, was the only way in which it could be made available for home use, or exportation, previously to 1793; and had any one then ventured to predict that 10,000,000 lbs. of upland cotton would ever be exported, he would have been looked upon as a visionary dreamer. But the genius of Eli Whitney did for the planters of the Southern States what the genius of Arkwright and Watt did for the manufacturers of England. He invented a machine by which the wool of the upland cotton is separated from the seed with the greatest facility and expedition, and by so doing laid the foundation of a new and most important branch of industry, and doubled the wealth and means of employment of his countrymen! — (*Pitkin's Statistics of the U. States*, p. 109., ed. 1835.) Whitney's invention came into operation in 1793, and in 1794, 1,601,760 lbs. and in 1795, 5,276,300 lbs. of cotton were exported. And so astonishing has been its growth in the interval that the exports of cotton from the United States in 1858 amounted to the prodigious aggregate of 1,118,624,012 lbs.! of which only 12,101,058 lbs. were Sea-Island. The value of this vast quantity is estimated, in the official accounts, at 131,386,661 doll.! being nearly half the entire exports (293,758,279 doll.) of the U. States during the same year.

Account specifying the Quantities of Cotton Wool imported from different Countries into the United Kingdom during the 16 Years ending with 1858, and the Total Quantities imported.

Years.	United States of America.	Brazil.	The Mediterranean.	British Possessions in the E. Indies.	British W. Indies and British Guiana.	Other parts.	All parts.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
1843 - -	574,738,520	18,675,123	9,674,076	65,709,729	1,260,444	3,135,224	673,193,116
1844 - -	517,218,622	21,084,744	12,406,327	88,659,776	1,707,194	5,054,641	646,111,304
1845 - -	626,650,412	20,157,653	14,614,629	58,457,426	1,594,447	725,336	721,979,953
1846 - -	401,945,393	14,746,221	14,278,447	34,540,143	1,201,857	1,140,113	467,856,674
1847 - -	364,599,291	19,966,922	4,814,268	83,954,614	795,953	598,587	474,707,615
1848 - -	600,247,488	19,971,578	7,231,861	84,101,961	640,437	827,036	713,020,161
1849 - -	634,504,050	30,758,133	17,369,843	70,838,515	944,507	1,074,164	755,469,012
1850 - -	493,153,112	30,299,982	18,931,414	118,872,742	228,913	2,090,698	663,576,861
1851 - -	596,638,962	19,539,104	16,960,325	122,626,976	446,529	1,377,653	757,379,749
1852 - -	765,630,544	26,506,144	48,058,640	84,922,452	703,696	3,960,992	929,782,448
1853 - -	658,451,796	24,190,628	28,553,575	181,848,160	350,428	2,184,162	895,378,749
1854 - -	722,154,101	19,703,600	23,503,003	119,856,009	409,110	1,730,081	887,355,904
1855 - -	681,629,424	24,577,952	32,904,153	145,179,216	468,452	6,992,755	891,751,952
1856 - -	780,040,016	24,830,704	34,616,848	180,496,624	462,784	6,459,328	1,023,886,304
1857 - -	654,758,048	29,940,832	24,882,144	250,538,144	1,445,568	7,986,160	969,518,896
1858 - -	825,237,776	18,617,872	58,232,320	132,722,576	367,808	11,148,052	1,031,342,176

idea of spinning by rollers did not spring up spontaneously in his mind, he was, at all events, the first who made it available in practice, and showed how it might be rendered a most prolific source of wealth.

An Account of the Quantity of Cotton exported from the U. States, in each Year, from 1821 to 1858, both inc.; showing its Average Price per lb., and its Gross Value. (*Report on Finances*, p. 329.)

Years.	Exports in lbs.	Average Price per lb.	Total Value.	Years.	Exports in lbs.	Average Price per lb.	Total Value.
		Cents.	*Dolls.*			*Cents.*	*Dolls.*
1821	124,893,405	16·2	20,157,484	1840	743,941,061	8·5	63,870,307
1822	141,675,095	16·6	24,035,058	1841	530,201,100	10·2	54,330,341
1823	173,723,270	11·8	20,445,520	1842	584,717,017	8·1	47,593,464
1824	142,369,663	15·4	21,947,401	1843	792,297,106	6·2	49,119,806
1825	176,149,907	20·9	36,846,649	1844	663,633,455	8·1	54,063,501
1826	204,535,415	12·2	25,025,214	1845	872,865,996	5·92	51,739,643
1827	294,310,115	10	29,359,545	1846	547,558,055	7·81	42,767,341
1828	210,590,463	10·7	22,487,229	1847	527,219,958	10·34	53,115,848
1829	264,337,186	10	26,575,311	1848	814,274,451	7·613	61,998,294
1830	298,459,102	9·9	29,674,883	1849	1,026,602,269	16·4	66,396,967
1831	276,979,784	9·1	25,289,492	1850	635,381,604	11·3	71,984,616
1832	322,815,122	9·8	31,721,682	1851	927,237,089	12·11	112,315,517
1833	324,698,604	11·1	36,191,105	1852	1,095,230,639	8·05	87,965,732
1834	384,717,907	12·8	49,448,402	1853	1,111,570,370	9·85	109,456,404
1835	387,358,992	16·8	64,961,502	1854	987,853,106	9·47	93,596,220
1836	423,631,807	16·8	71,284,925	1855	1,008,424,601	8·74	88,143,844
1837	444,211,537	14·2	63,240,102	1856	1,351,431,701	9·49	128,382,551
1838	595,952,267	10·3	61,556,811	1857	1,048,282,475	12·55	131,575,899
1839	415,624,212	14·8	61,238,982	1858	1,118,624,012	11·70	131,386,661

Account of the Exports of Cotton from the U. States in 1855, 1856, and 1857, specifying the Quantities exported to different Countries, and the Values thereof, in 1857.

	1855.	1855.	1856.	1856.	1857.	1857.
	Bales.	*Value.*	*Bales.*	*Value.*	*Bales.*	*Value.*
Great Britain	1,535,143	$57,616,749	1,98·,789	$85,179,143	1,474,199	$85,101,316
France	470,293	19,035,423	482,254	21,195,516	379,051	22,263,170
Spain	82,198	3,320,134	133021	5,850,517	104,058	6,165,961
Bremen	53,648	2,020,438	103,054	4,238,497	71,165	4,356,418
Sardinia	33,536	1,288,387	39,747	1,596,757	36,7·4	1,967,522
Mexico	25,947	744,519	24,946	628,055	20,269	999,747
Austria	18,132	751,622	40,149	1,724,599	16,157	952,924
Hamburg	18,672	761,572	34,192	1,469,753	22,720	1,311,355
Sweden and Norway	19,365	741,278	37,624	1,652,049	21,593	1,249,042
Belgium	28,858	1,042,434	50,279	2,198,060	24,218	1,420,035
Portugal	-	-	-	-	136	7,712
Holland	11,423	418,433	28,789	1,252,242	21,862	1,283,328
Russia	1,025	48,647	10,585	514,161	69,832	4,267,234
Prussia	-	-	-	-	50	3,574
Two Sicilies	111	4,804	5,060	238,213	1,275	71,806
Denmark	-	-	-	-	2,423	154,655
Other places	8,563	349,414	17,716	644,761	-	-
Total	2,305,403	$88,143,854	2,991,175	$128,382,351	2,265,558	$131,575,859

Though not official, the following statements give, it is believed, a correct view of the produce of the cotton crops in America available for foreign shipments, from 1827-28 down to 1857-58.

Account of the Produce of the Cotton Crops of the U. States in the undermentioned Years, from 1827-8, downwards.

Years.	Total Crop.	Years.	Total Crop.	Years.	Total Crop.
1827-28	bales 712,000	1841-42	bales 1,683,574	1850-51	bales 2,355,257
1830-31	— 1,038,848	1842-43	— 2,378,875	1851-52	— 3,015,029
1834-35	— 1,254,328	1843-44	— 2,030,409	1852-53	— 3,262,882
1835-36	— 1,360,725	1844-45	— 2,394,503	1853-54	— 2,930,027
1836-37	— 1,822,930	1845-46	— 2,100,537	1854-55	— 2,847,595
1837-38	— 1,801,497	1846-47	— 1,778,651	1855-56	— 3,527,845
1838-39	— 1,360,532	1847-48	— 2,347,634	1856-57	— 2,939,519
1839-40	— 2,177,835	1848-49	— 2,728,596	1857-58	— 3,113,962
1840-41	— 1,634,945	1849-50	— 2,096,706		

It was for many years the practice to levy a duty on cotton wool, when imported. The policy of such a duty is, however, very questionable; and it is indispensable that, if imposed at all, it should be kept at a low rate. For a number of years previously to 1831, it amounted (on foreign cotton) to 6 per cent. *ad valorem*; but, in order to make up, in part at least, for the loss of revenue caused by the repeal of the duty on printed cottons (see CALICO), it was raised in that year to *5s.* 10*d.* a cwt. Such a duty would, however, have materially affected the imports of the inferior species of cotton and the price of coarse goods; and being, in consequence, justly objected to, it was reduced in 1833 to *2s.* 11*d.* a cwt. But the imposition of any duty on the raw material of so important a manufacture being deemed objectionable, it was finally abolished in 1845. It had previously produced between 600,000*l.* and 700,000*l.* a-year.

The subjoined table, taken from the carefully compiled and comprehensive annual statement of Messrs. George Holt and Co., eminent cotton brokers of Liverpool, dated 31st of December, 1858, shows in a very striking manner the progress of the manufacture in this country, and the fall in the price of cotton wool. The manufacture declined in 1847, but that was wholly owing to the decrease in the supplies of raw cotton from the U. States in 1846-47, and the consequent rise in its price. (See next page.)

3. *Proportion of Coarse to Fine Goods.*—During the 20 years ending with 1846, the cotton manufacture underwent a singular change in respect of the average fineness of its products. As successive improvements were made in the construction and management of machinery, and in the experience and manual skill of the work-people, the proportion of fine to coarse yarns and fabrics might have been expected to make a corresponding increase, whereas it was, on the contrary, very greatly diminished. During the period referred to the consumption of cotton increased nearly *four-fold*; but

Statement of the Imports into, the Exports from, and of the Consumption, Prices, &c. of Cotton Wool in, Great Britain, in different Years, from 1816 to 1858, both inclusive.

Average Weekly Consumption.	1816.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.	1858.
Upland		2,918	3,713	5,452	5,896	5,346	7,213	4,450	7,809	6,415
Orleans and Alabama	990	1,192	2,442	4,756	7,823	13,851	17,169	15,788	21,919	24,402
Sea Island		409	360	460	354	392	392	529	550	635
Total United States	4,036	4,519	6,515	10,668	14,073	19,592	24,804	20,767	30,278	31,452
Brazil	1,589	2,408	2,502	3,602	2,339	1,141	2,192	3,310	2,198	2,192
Egypt			891	508	446	540	1,0 2	1,542	2,339	1,729
East India	207	1,518	1,096	940	1,069	2,227	1,588	3,385	5,583	6,240
Demerara, West India, &c.	656	534	527	284	421	260	331	121	185	204
Total	6,488	8,979	11,531	16,002	18,318	24,063	30,277	29,125	40,403	41,817
Packages annually consumed	337,100	466,900	599,600	832,100	954,100	1,251,300	1,574,100	1,514,500	2,101,000	2,171,500
Average weight of packages consumed, in lbs.	263	258	278	298	333	367	385	388	399	417
Weekly consumption in packages, average 417 lbs.	5,481	7,617	9,788	13,341	14,996	21,175	27,955	27,099	38,658	41,817
Average weight of packages imported, in lbs.	256	249	270	300	331	365	386	392	396	420
Packages exported	29,300	23,400	72,300	33,400	102,800	119,700	122,800	271,800	316,900	348,700
Lbs. weight annually imported in millions and tenths	93·9	145·9	222·4	261·2	561·7	583·4	716·7	685·6	901·1	1025·5
Lbs. weight consumed, ditto	88·7	120·3	166·8	247·6	318·1	458·9	606·6	588·2	839·1	905·6
Lbs. weight in ports, 31st Dec., ditto	19·2	110·5	107·0	91·4	73·3	162·9	400·8	194·1	177·4	152·1
Lbs. weight in Great Britain, ditto		127·0	115·5	118·8	*89·6	207·0	453·5	231·6	208·9	189·9
Average price per lb. of Uplands in Liverpool	18¼d.	11¼d.	11·6d.	6·9d.	10¼d.	6d.	4·375d.	7¾d.	5⅝d.	6¼d.
Di to, ditto, Pernams	26d.	15¼d.	15·1d.	8¾d.	14·1d.	9¼d.	6·375d.	7⅝d.	7d.	8¼d.
Ditto, ditto, Surats	15½d.	8¼d.	8·9d.	5¼d.	7 4d.	4·625d.	3d.	5⅛d.	3⅝d.	4⅜d.

N.B.—Messrs. Holt and Co. estimate the average weight of the packages imported in 1858 at 4·6 lbs. per bag Upland; 452 lbs. Orleans and Alabama; 330 lbs. Sea Island; 181 lbs. Brazil; 355 lbs. Egyptian; 387 lbs. East Indian; and 180 lbs. West Indian.

the quantity of fine yarn produced (*i. e.*, of yarn above sixty hanks to the pound), instead of keeping pace with the increased consumption of cotton, really underwent a positive and by no means inconsiderable reduction. For a number of years no new establishments for the production of fine yarns were formed; but in Manchester alone about twenty mills that had been employed chiefly or entirely in fine spinning were given up, or devoted to the production of coarse yarns. To some extent, no doubt, the diminution of produce arising from the cause was countervailed by an increase in the speed of the machinery at work; but after making all reasonable allowances on that score, there can be no doubt that the total produce of fine yarn was materially decreased. This conclusion is strengthened by the falling off which took place in the imports of Sea Island cotton, which is used almost exclusively in the production of very fine yarn.

This change in the average fineness of cotton fabrics could not be ascribed to foreign competition, for fine spinning is precisely that branch of the trade in which English cotton-spinners most excel their rivals abroad; and the tariffs of most foreign countries are framed in the view of excluding coarse rather than fine fabrics. It was sometimes attributed to one of those capricious changes of taste and fashion which frequently operate disadvantageously on particular manufacturing pursuits; but it was too long in operation, and proceeded too gradually and uniformly, to be so accounted for; and it is abundantly certain that powerful natural causes must have been in operation, otherwise so extensive an alteration could not have been brought about in the average fineness of the yarn produced. These causes are by no means obvious; but we incline to think that the reduction which has taken place in the price of silk, and still more the prodigious improvements which have been made in various descriptions of worsted fabrics, have had no inconsiderable influence in lessening the demand for fine cottons. The main cause, however, will, no doubt, be found in the great reduction which took place in the price of raw cotton during the ten years ending with 1846, and the consequent greater cheapness of stout and serviceable fabrics. And this conclusion has been fully verified by the circumstances under which the trade has been placed since 1846. The supplies of cotton in 1847 and 1850 were at once deficient in quantity and high-priced. The cost of the heavier fabrics, which contain comparatively large quantities of cotton, consequently rose in a nearly corresponding proportion. The spinners endeavoured to obviate these effects, partly by ceasing to produce some of the coarsest fabrics, and partly by generally increasing the fineness of their yarn; and it is astonishing to what an extent they are thus able to countervail a rise of prices. It is found, in fact, that

an advance of a penny per pound in the price of the material speedily and invariably causes an increase of two or three hanks in the average produce and fineness of the yarn per pound.

4. *Value of the British Cotton Manufacture in* 1857. *Amount of Capital, and Number of Persons employed in it.* — It would be very desirable to be able to form a tolerably accurate estimate of the present value of the cotton manufacture, and of the number of persons employed in its different departments; but the data on which such estimates are founded being necessarily very loose, it is impossible to arrive at anything like precision. Perhaps, however, the following calculations may not be very wide of the mark.

In 1817, Mr. Kennedy, a well-informed manufacturer, in a paper published in the *Manchester Transactions*, estimated the number of persons employed in the *spinning* of cotton in Great Britain at 110,763; the aid they derived from steam engines as equal to the power of 20,768 horses; and the number of spindles in motion at 6,645,833. Mr. Kennedy further estimated the number of hanks of yarn annually produced at 3,987,500,000; and the quantity of coal consumed in their production at 500,479 tons. We subjoin Mr. Kennedy's statement for the year 1817; —

Raw cotton converted into yarn in the U. Kingdom	110,000,000 lbs.	
Loss in spinning estimated at 1¼ oz. per lb.	10,312,500	
Quantity of yarn produced		99,678,500 lbs
Number of hanks, taking the average at 40 per lb.		3,987,500,000
Number of spindles employed, each spindle being supposed to produce 2 hanks per day, at 300 working days in the year		6,645,833
Number of persons employed in spinning, supposing each to produce 120 hanks per day		110,763
Horse power employed, equal in number to		20,768

Four ounces and a half of coal estimated to produce one hank of No. 40.; and 130 lbs. of coal per day equal to one horse power.

But the cotton manufacture has increased immensely since 1817. Mr. Huskisson stated in his place in the House of Commons, in March, 1824, that the total value of the cotton goods and yarn then annually manufactured in Great Britain amounted to 33½ millions sterling! But there can be no manner of doubt that this estimate was greatly overrated; and we do not think we should be warranted in estimating the whole annual value of the products in question in 1857 and 1858 at more than 52 millions sterling. If, indeed, we took the increase in the imports of the raw material as any test of the increase in the value of the manufacture, we should estimate it a great deal higher. But the improvements that have been made in the different processes, and the fall in the price of raw cotton, have had so powerful an influence in reducing the price of the goods brought to market, that, notwithstanding the increase of their quantity, it is probable that their total value has increased but little for a considerable time past.

The average annual quantity of cotton wool imported, after deducting the exports, may be taken at about 850,000,000 lbs. weight. It is supposed, that of this quantity about 100,000,000 lbs. are used in a raw or half manufactured state, leaving a balance of 750,000,000 lbs. for the purposes of manufacturing, the cost of which may be taken, at an average, at 6*d.* per lb. Deducting, therefore, from the total value of the manufactured goods, or 52,000,000*l.*, the value of the raw material, amounting to about 18,750,000*l.*, there remains 33,250,000*l.*; which, of course, forms the fund whence the wages of the persons employed in the various departments of the manufacture, the profits of the capitalists, the sums required to repair the wear and tear of buildings, machinery, &c., the expense of coals, oil, flour for dressing, &c., must all be derived. If, then, we had any means of ascertaining how this fund is distributed, we should be able, by taking the average of wages and profits, to form a pretty accurate estimate of the number of labourers, and the quantity of capital employed. But here, unfortunately, we have only probabilities and analogies to guide us. It may, however, be confidently assumed, in the first place, that in consequence of the extensive employment of highly valuable machinery in all the departments of the cotton manufacture, the proportion which the profits of capital, and the sum to be set aside to replace its wear and tear, bear to the whole value of the manufacture, must be much larger than in almost any other department of industry. We have heard this proportion variously estimated, at from a third to two thirds of the total value of the manufactured goods, exclusive of the raw material; and as the weight of authority seems to be pretty much divided on the subject, we shall take an intermediate proportion. Assuming, therefore, that the profits of the capital employed in the cotton manufacture, the wages of superintendence, &c., the sum required to replace the wear and tear of machinery, buildings, &c., and to furnish flour, coals, &c., amount together to half the value of the manufactured goods, exclusive of the raw material, or to 16,625,000*l.*, a sum of 16,625,000*l.* will remain as the wages of the spinners, weavers, bleachers, &c. engaged in the manufacture; and taking, inasmuch as a large proportion of women, and children under 18 years of age, are employed, the average rate of wages at only 32*l.* a year, we shall have (dividing 16,625,000 by 32) nearly 520,000 as the total number of persons directly employed in the different departments of the manufacture.

We should mistake, however, if we supposed that this number, great as it certainly is, comprised the whole number of persons to whom the cotton manufacture furnishes subsistence, exclusive of the capitalists. Of the sum of 16,625,000*l.* set apart as the profit of the capitalists, and the sum required to furnish coal, and to defray the wear and tear of machinery, &c., a large proportion must annually be laid out in paying the wages of engineers, machine-makers, iron-founders, smiths, joiners, masons, bricklayers, &c. It is not easy to say what this proportion may amount to; but taking it at 3,000,000*l.*, and supposing the rate of wages of each individual to average 50*l.* a year, the total number employed in the various capacities alluded to will be (3,000,000 divided by 50) 60,000; and a sum of 13,625,000*l.* will remain to cover the profits of the capital employed in the various branches of the manufacture, to repair the different parts of the machinery and buildings as they wear out, and to buy coal, flour*, drugs, &c. The account will, therefore, stand as under: —

	£	£
Total value of every description of cotton goods annually manufactured in Great Britain		52,000,000
Raw material, 750,000,000 lbs. at 6*d.* per lb.	£ 18,750,000	
Wages of 520,000 weavers, spinners, bleachers, &c. at 32*l.* a year each	16,625,000	
Wages of 60,000 engineers, machine makers, smiths, masons, joiners, &c. at 50*l.* a year each	3,000,000	
Profits of the manufacturers, wages of superintendence, sums to purchase the materials of machinery, coals, &c.	13,625,000	
		52,000,000

The capital employed may be estimated as follows: —

Capital employed in the purchase of the raw material	4,000,000
Capital employed in payment of wages	8,000,000
Capital vested in spinning-mills, power and hand-looms, workshops, warehouses, stocks on hand, &c.	40,000,000
	£52,000,000

Now, this sum of 52,000,000*l.*, supposing the interest of capital, inclusive of the wages of superintendence, &c., to amount to 10 per cent., will yield a sum of 5,200,000*l.*; which being deducted from the 13,625,000*l.* profits, &c., leaves 8,425,000*l.*, to defray the waste of capital, the flour required for dressing, the coals necessary in the employment of the steam engines, to effect insurances, to purchase printing, dyeing, and bleaching drugs, and to meet all other outgoings.

The aggregate amount of wages, according to the above estimate, is 19,625,000*l.*; but there are not many departments of the business in which wages have to be advanced more than 6 months before the article is sold. We, therefore, incline to think that 8,000,000*l.* is a sufficient (perhaps too great) allowance for the capital employed in the payment of wages.

It may be said by some that this estimate is under, and by others that it is overrated; but we believe it will be found to be nearly correct, though, if any thing, it may, perhaps, be a little in excess. Misled by Mr. Huskisson's authority, we estimated, in a former edition of this work, the value of the cotton stuffs and yarn produced in the United Kingdom in 1834, at 34,000,000*l.*; but farther inquiry has convinced us that that estimate was beyond the mark; and it is to be borne in mind, that though the consumption of raw cotton has vastly increased since 1834, there has been in the interval a very considerable fall in its price, and in the prices of the manufactured articles. The declared value of the cotton goods and yarn exported in 1857 amounted to 39,073,420*l.*; and deducting this sum from the assumed value of the manufacture (52,000,000*l.*), we have 13,000,000*l.* for the value of the cottons consumed at home. And we are inclined to think that this is pretty near the mark. It has been said that the value of the home consumption does not amount to 1-3rd part of the exports; and though, if we refer only to the weight of cotton exported and retained at home, this assertion may be nearly correct, it is to be borne in mind that the great bulk of the goods for home use are of a superior fabric, and more costly than those sent abroad. On the whole, therefore, we are disposed to believe that in estimating the present value of the products of the British cotton manufacture at 52,000,000*l.* a year, which leaves 13,000,000*l.* for the value of those consumed at home, we shall not commit any very serious error; and moderate as this estimate may appear, as compared with others put forth on the same subject†, it strikingly evinces the value and importance of the manufacture.

Allowance being made for old and infirm persons, children, &c., dependent on those actually employed in the various departments of the cotton manufacture, and in the construction, repair, &c. of machinery and buildings required to carry it on, it must furnish, on the above hypothesis, subsistence for from 1,000,000 to 1,200,000 persons!

* This is a much more important item than might be at first supposed. Flour is indispensable in the dressing of webs; and we are well assured that its consumption in this way is not less than 300,000 barrels a year!

† Mr. Bazley, M. P., of Manchester, estimated (in a Paper read before the British Association in 1858) the value of the cottons consumed at home at 24,000,000*l.*, making the entire value of the manufacture 63 or 64 millions. But, despite the deference due to such an authority, we have no doubt that this is a very great exaggeration.

And for this new and most prolific source of wealth we are indebted partly and principally, as already shown, to the extraordinary genius and talent of a few individuals; but, in a great degree, also, to that security of property and freedom of industry which give confidence and energy to all who embark in industrious undertakings, and to that universal diffusion of intelligence which enables those who carry on any work to press every power of nature into their service, and to avail themselves of productive capacities of which a less instructed people would be wholly ignorant.

The effect that the sudden opening of so vast and profitable a field for the employment of capital and labour has had on the population of the different towns of Lancashire and Lanarkshire, the districts where the cotton manufacture is principally carried on, has been most striking. In 1774, for example, the townships of Manchester and Salford were estimated to contain 27,246 inhabitants—a number which was swelled in 1831 to 182,812; the entire population of the *boroughs* of Manchester and Salford having amounted in that year, to 227,808, and in 1851 to 367,232. The population of Preston, in 1780, is said not to have exceeded 6,000; whereas it amounted, in 1851, to 69,542. In like manner, the population of Blackburn increased from 11,980, in 1801, to 46,536, in 1851; that of Bolton increased, in the same period, from 17,416 to 61,171; that of Wigan from 10,989, to 31,941, &c. But the progress of Liverpool is most extraordinary, and can be matched only by the progress of one or two cities in the United States. Liverpool is not properly one of the seats of the cotton manufacture; but she is, notwithstanding, mainly indebted to it for the unparalleled rapidity of her growth. She is the grand emporium of the cotton district—the port where almost all the raw cotton, and the various foreign articles required for the employment and subsistence of the persons engaged in the manufacture, are imported, and whence the finished goods are exported to other countries. She has, therefore, become a place of vast trade, and is now, in that respect, superior even to London. In 1700, according to the best accounts that can be obtained, the population of Liverpool amounted to only 5,145; in 1750 it had increased to 18,450; in 1770 it amounted to 34,050. The cotton manufacture now began rapidly to extend, and, in consequence, the population of Liverpool increased, in 1801, to 77,653; in 1821, to 118,972; in 1831, to 165,175; and in 1851, it amounted to 375,955. The progress of population in Lanarkshire and Renfrewshire has been equally striking. In 1780, the city of Glasgow contained only 42,832 inhabitants; in 1801, that number had increased to 77,385; in 1841 to 274,533; and in 1851 to 347,001.

Though command of power and readiness of access be powerful requisites to the success of most manufactures, the localities in which peculiar businesses are established would seem to depend as much on accident as on anything else. Why, for example, should Manchester be the great seat of the cotton, Birmingham of the hardware, Bradford of the worsted, and Leeds of the cloth trade? We apprehend that no better answer can be given to this question than that, from accidental or inappreciable circumstances, the businesses referred to happened to be early established in these towns, and that their situation having been found to be peculiarly well fitted for the improved processes of later times, they have preserved their early superiority. Had they been situated in districts without coal, or comparatively inaccessible, their early proficiency, though it might have enabled them to struggle for a while with the greater advantages enjoyed by their competitors in other districts, would not have been sufficient to secure their continued lead, or even existence. They must, like the iron works which were formerly carried on in Kent, have been in the end abandoned. But having the good fortune to possess, in addition to early and peculiar skill in their respective trades, all the means and appliances required to secure their farther advancement, their progress has been continuous and extraordinary, and their supremacy is at present more undisputed than at any former period.

Of 2,046 cotton factories which existed in England and Wales in 1856, no fewer than 1,480 were situated in Lancashire; Manchester being the metropolis of the trade. The remaining factories were principally situated in the West Riding of Yorkshire, Cheshire, and Derbyshire.

The cotton trade of Scotland, which at the epoch referred to had 152 factories, is mostly restricted to the counties of Lanark and Renfrew, and that of Ireland (which is trifling) to Antrim. But while the business has of late years been very greatly extended in England, it has been nearly stationary in Scotland, and has fallen off in Ireland, in which, indeed, it never had any considerable footing.

The embroidery of muslins, a branch of the cotton trade which is highly deserving of attention, was commenced in Scotland about 1825, and is almost wholly carried on by Glasgow houses. It is now of much importance, its increase not having been surpassed by that of any other branch of industry, and equalled by very few. In all, about fifty houses are engaged in the trade; and the total sum paid as wages to females

in the Western parts of Scotland, and in Ireland, amounted, very recently, to about 750,000*l.* a year. The embroidery is entirely executed by hand, the attempts to execute it by machinery having failed, or been found to be too expensive. The webs to be embroidered pass between engraved cylinders, driven by steam engines, which mark in faint lines the embroidery to be executed, and they are then sent to agents, who distribute them among the peasantry, who are paid by the piece or job. It is not easy to exaggerate the advantages resulting to the female part of the population from this employment. After being embroidered, the webs are returned to Glasgow, where they are bleached and dressed, and sometimes made up into different articles. A large proportion of the goods are exported to the United States and Canada.

Account of the Official Value of the Cotton Manufactures exported, in different Years, from Great Britain, from 1697 to 1797.

Years.	Official Value of Exports.	Years.	Official Value of Exports.	Years.	Official Value of Exports.
	£		£		£
1697	5,915	1765	248,348	1790	1,662,369
1701	23,253	1766	220,759	1791	1,875,046
1710	5,698	1780	355,060	1792	2,024,368
1720	16,200	1785	864,710	1793	1,733,807
1730	13,524	1786	915,046	1794	2,376,077
1741	20,709	1787	1,101,457	1795	2,433,331
1751	45,986	1788	1,252,240	1796	3,214,020
1764	200,354	1789	1,231,537	1797	2,580,568

5. Exports of Cotton Goods and Yarn. Fall of Prices, &c.— Down to 1750, the exportation of cotton goods, or rather, of goods consisting partially of cotton, was so very inconsiderable that they hardly attracted the least attention from any of our commercial writers. But after the inventions of Arkwright began to come into general operation, the exports increased with unprecedented rapidity. At the commencement of the present century they were nearly as large as the exports of woollens, the produce of the old and staple manufacture of the country. But though the exports of woollen goods has increased considerably since 1800, that of cotton goods and yarn has increased so much more that it is now about *three* times the amount of the other; and constitutes, indeed, above 1-3rd part of the total exports of the U. Kingdom.

Account of the Total Quantities and Declared Values of British Cotton Manufactured Goods, Twist, and Yarn exported from the United Kingdom in each Year from 1820 to 1857, both inclusive.

Years.	Cotton Manufactures.			Cotton Twist and Yarn.		Total Declared Value of Cotton Manufactures, Twist, and Yarn exported.
	Entered by the Yard.		Hosiery, Lace, and Small Wares.	Quantities.	Declared Value.	
	Quantities.	Declared Value.	Declared Value.			
	Yards.	£	£	lbs.	£	£
1820	250,956,541	13,209,000	498,111	23,032,525	2,826,643	16,533,754
1821	266,495,901	13,192,904	625,803	21,205,369	2,305,830	16,122,537
1822	304,479,691	15,853,994	727,712	26,595,468	2,697,590	17,279,256
1823	301,816,254	12,980,644	718,124	27,378,986	2,625,947	16,324,715
1824	344,651,133	14,448,255	866,886	33,605,510	3,135,396	18,450,537
1825	356,466,698	14,233,010	920,260	32,641,604	3,206,729	18,359,999
1826	267,060,534	9,866,623	735,791	42,179,661	3,491,338	14,093,752
1827	365,492,804	12,943,035	1,146,988	44,878,774	3,545,578	17,640,601
1828	365,328,451	12,485,249	1,165,763	50,503,751	3,597,405	17,241,417
1829	402,517,196	12,516,247	1,041,885	61,441,951	3,976,874	17,535,006
1830	444,578,498	14,119,770	1,175,153	64,645,342	4,133,741	19,428,664
1831	421,385,703	12,165,513	1,118,672	63,821,440	3,975,019	17,257,204
1832	461,045,503	11,500,630	1,175,005	75,667,150	4,722,759	17,398,392
1833	496,552,096	12,451,060	1,531,317	70,626,161	4,704,024	18,486,401
1834	555,705,809	14,127,552	1,175,219	76,478,168	5,211,015	20,513,786
1835	557,515,701	15,141,451	1,210,984	83,214,198	5,706,889	22,128,324
1836	637,667,627	17,185,167	1,328,525	88,191,046	6,120,366	24,632,058
1837	531,375,663	12,727,989	912,192	103,455,158	6,955,942	20,596,123
1838	690,077,622	15,554,733	1,161,124	114,596,602	7,431,869	24,147,726
1839	731,450,123	16,378,445	1,313,737	105,686,442	6,858,193	24,550,375
1840	790,631,997	16,302,220	1,265,090	118,470,223	7,101,308	24,668,618
1841	751,125,624	14,985,810	1,246,700	125,726,519	7,266,964	23,499,478
1842	734,098,809	12,887,280	1,020,664	137,466,892	7,771,464	21,679,348
1843	918,640,905	15,168,464	1,085,536	140,321,176	7,793,971	24,047,971
1844	1,046,670,823	17,612,146	1,204,618	138,510,079	6,988,584	25,805,348
1845	1,091,686,069	18,029,808	1,126,288	135,144,865	6,963,235	26,119,331
1846	1,065,466,589	16,701,632	1,016,146	161,892,750	7,882,048	25,599,826
1847	942,540,160	16,207,103	1,168,141	120,270,741	5,957,980	23,333,221
1848	1,096,751,823	15,710,857	1,042,512	135,831,162	5,927,831	22,681,200
1849	1,337,536,116	18,794,964	1,276,082	149,502,981	6,701,089	26,772,135
1850	1,558,132,941	20,520,435	1,343,262	131,370,568	6,383,701	28,257,101
1851	1,545,161,789	22,049,202	1,405,608	151,587,577	6,634,026	30,088,836
1852	1,521,256,914	21,648,458	1,574,974	129,385,924	6,654,655	29,878,087
1853	1,594,591,659	23,901,940	1,995,309	129,190,507	6,805,633	32,792,902
1854	1,692,899,122	23,481,506	1,573,022	147,125,498	6,691,330	31,745,858
1855	1,937,734,025	26,123,477	1,455,262	165,493,598	7,200,395	34,779,141
1856	2,035,274,969	28,521,559	1,682,007	181,495,805	8,092,575	38,232,741
1857	1,984,459,137	28,822,466	1,599,090	175,746,586	8,691,853	39,113,409

Nothing can set in a clearer light than this table the astonishing fall that has taken place in the price of cotton goods since 1820. In that year our exports of wove cotton fabrics amounted to 250,000,000 yards, their declared value being 13,209,000*l.*; whereas in 1856 the exports of wove fabrics had increased to 2,035,000,000 yards, and their declared value to 28,522,000*l.*! It appears, therefore, that while the exports

of wove cottons have increased about 8 times, or 800 per cent., their value has only increased in the ratio of about 13·2 to 28·5, that is, about 216 per cent.: Hence, supposing 100 yards calico to have cost 13*s.* 2*d.* in 1820, 400 yards may now be had for little more than 14*s.*!

This extraordinary fall has been brought about partly by the heavy fall that has taken place in the price of cotton wool, partly by the public taste setting more in favour of coarser fabrics, and partly and principally by the wonderful improvements made in the manufacture. In consequence of these concurring circumstances, cotton goods are now so cheap, that there is hardly an individual so very poor as to be unable to supply himself or herself abundantly with them. This has improved the dress and added to the comfort of the great bulk of the female part of the population, not merely of this, but also of other countries, in a degree and to an extent not easily to be imagined.

It should farther be borne in mind that it is to the fall in the price of its products that the unprecedented extension of the manufacture in this country is to be ascribed. And it is satisfactory to know that, notwithstanding the fall of prices, neither the wages nor profits of those engaged in the business have been diminished, while their numbers have been prodigiously augmented.

The following Table is interesting, from its exhibiting the state of our trade in wrought cottons with the different countries of the world.

An Account of the Quantities and Declared Value of British Cotton, Manufactured Goods, and Yarn, exported from the U. Kingdom, distinguishing the Description of Goods and the various Countries whereto the same were exported, in the Year 1856.

Countries to which Exported.	Cottons, plain and dyed, entered by the Yard.		Hosiery, Lace, and Small Wares.	Cotton Twist and Yarn.		Total Declared Value.
	Yards.	Declared Value.	Declared Value.	Lbs.	Declared Value.	
		£	£		£	£
Russia	1,351,317	30,269	5,812	3,958,008	215,226	251,307
Sweden	1,241,450	25,220	1,687	2,819,494	101,165	128,070
Norway	2,660,089	48,431	2,663	634,960	27,404	78,438
Denmark	2,551,564	43,404	7,219	2,647,157	103,843	155,466
Prussia	57,089	1,584	444	308,139	12,743	14,771
Hanover	2,449,199	51,166	13,015	3,406,610	172,417	236,598
Hanseatic Towns	58,576,522	1,051,069	168,148	49,278,282	2,378,842	3,598,059
Holland	34,837,438	569,139	50,669	31,926,455	1,731,487	2,351,295
Belgium	2,209,467	54,322	51,903	1,736,857	93,441	199,666
Channel Islands	715,202	22,092	2,745	- -	- -	24,837
France	9,529,195	151,960	33,565	125,306	24,796	210,321
Portugal, Azores, and Madeira	51,737,334	632,071	14,672	684,067	28,736	675,479
Spain and the Canary Islands	6,668,846	150,713	8,611	93,015	7,438	166,762
Gibraltar	33,079,099	430,934	19,871	366,762	12,516	463,321
Italy, &c.: Sardinia	17,589,107	251,900	11,198	1,366,739	51,862	314,958
Tuscany	18,333,098	245,775	26,387	4,636,897	135,465	407,627
Papal territories	6,299,458	92,485	4,008	3,532,473	104,818	201,311
Naples and Sicily	18,548,302	286,088	8,668	10,270,018	329,621	624,377
Austrian territories	21,091,516	272,483	8,552	8,038,964	246,298	527,313
Malta and Goza	12,011,241	144,150	5,649	716,965	22,570	172,309
Ionian Islands	12,391,448	157,476	2,340	2,142,503	66,307	226,123
Greece	8,272,529	133,625	1,648	482,989	19,208	154,481
Turkey (including Wallachia and Moldavia)	187,702,697	2,650,298	20,603	13,561,912	422,632	3,093,533
Syria and Palestine	40,917,085	585,201	192	3,609,821	105,957	691,350
Egypt, &c.	50,557,853	618,608	11,923	1,147,048	36,860	667,391
Morocco	7,381,735	98,092	780	- -	- -	98,872
Africa: west coast, River Gambia, &c.	19,620,207	448,951	3,554	- -	- -	452,505
East and south coasts	17,690,473	314,538	18,906	- -	- -	333,444
Ascension and St. Helena	150,452	2,875	503	- -	- -	3,378
Mauritius	10,658,952	146,479	7,190	- -	- -	153,669
British East Indies, including Singapore and Ceylon	477,951,401	5,451,471	57,579	25,244,086	1,175,785	6,684,835
Java (Dutch)	39,429,498	536,707	4,174	658,645	32,532	573,413
Philippine Islands (Spanish)	31,521,894	464,652	16,977	- -	- -	481,629
China, including Hong Kong	112,665,202	1,330,819	3,102	5,775,620	210,294	1,544,215
British North America	32,361,582	485,550	30,617	460,020	18,703	532,930
,, settlements in Australia	26,484,393	560,700	101,774	- -	- -	662,474
,, West Indies	29,197,276	331,870	22,150	- -	- -	404,020
Honduras (British settlements)	11,212,152	137,596	3,053	22,201	1,494	142,147
Spanish West Indies (Cuba, &c.)	19,982,857	311,689	49,057	- -	- -	360,746
Dutch ditto (Curacoa)	816,250	10,769	322	- -	- -	11,091
Danish ditto (St. Thomas)	23,949,675	300,049	17,863	- -	- -	317,912
Hayti	5,456,554	95,122	4,825	- -	- -	99,947
United States of America	207,288,756	3,771,508	540,084	355,137	20,903	4,432,495
Mexico	33,974,015	551,843	26,769	- -	- -	578,612
Central America	16,209,158	195,140	7,044	317,457	12,434	214,618
New Granada	25,482,332	339,604	7,945	- -	- -	347,549
Venezuela	13,724,623	191,909	12,638	- -	- -	204,547
Ecuador	467,338	8,556	148	- -	- -	8,704
Brazil	154,560,760	2,087,788	57,650	- -	- -	2,145,438
Oriental Republic of the Uruguay	12,377,817	178,598	7,584	- -	- -	186,982
Buenos Ayres	27,547,401	384,984	28,033	- -	- -	413,017
Chili	37,236,414	541,742	38,404	114,376	9,516	589,662
Peru	26,969,617	420,528	29,848	- -	- -	450,376
Other countries	- -	- -	- -	1,067,854	56,324	56,324
Total	2,022,625,640	28,441,592	1,680,541	181,565,805	7,988,575	38,110,708

Such being the vast extent and importance of the cotton manufacture, the probability of our preserving our ascendency in it becomes a very interesting topic of inquiry. But it is obvious that a great deal of conjecture must always insinuate itself into our reasonings with respect to the future state of any branch of manufacturing industry. They are all liable to be affected by so many contingent and unforeseen circumstances,

that it is impossible to predicate, with anything like certainty, what may be their condition a few years hence. It is not to be denied that a business which depends in so great a degree on foreign demand, and which may, consequently, be materially influenced, not only by foreign legislation and foreign discoveries and inventions, but also by the mutations of fashion at home and abroad, is in rather a perilous situation; and that those dependent on it must necessarily be exposed to the most trying vicissitudes. These, no doubt, are natural to all businesses of this description; and may not be of a kind to shake the stability of the manufacture, or to endanger our superiority in it, provided they do not disturb tranquillity at home. But when a vast number of persons depend on a manufacture, the privations to which many of them are not unfrequently exposed, and the efforts that are made to inflame their prejudices, by representing their sufferings (which in nine out of ten instances spring from accidental or uncontrollable causes) as the result of vicious legislation, the tyranny or selfishness of their masters, and bad institutions, may easily lead them to commit outrages. And if that feeling of security which has led to the investment of such immense sums in mills and machinery should once be seriously impaired, the fall of the manufacture might be even more rapid than its rise. Anything that tends to keep alive and encourage disaffection and agitation is the bane of every country, but especially of one so deeply engaged in manufactures as this: and while, therefore, it is the bounden duty of government to endeavour, by modifying or suppressing prohibitions, and repealing all unjust or partial laws, to give freedom to industry, and to take away all good cause for agitation, every individual interested in the public welfare should endeavour, by every means in his power, to discourage the efforts of those who, to advance their own unworthy ends, endeavour to keep alive a spirit of discontent among the labouring classes, that cannot fail, in the long run, to be subversive alike of good order, industry, and prosperity.

But, abstracting from the influence of such considerations, and of national struggles and commotions, which can neither be foreseen nor estimated, we do not think that there is anything in our state, or in that of the different commercial and manufacturing countries of the world, that should lead us to anticipate that the gloomy forebodings of those who contend that the cotton manufacture of England has reached its zenith, and that it must now begin to decline, will be realised. The natural capabilities we possess for carrying on the business of manufacturing are, all things considered, decidedly superior to those of any other people. But the superiority to which we have already arrived is, perhaps, the greatest advantage in our favour. Our master manufacturers, engineers, and artisans are more intelligent, skilful, and enterprising, than those of any other country; and the extraordinary inventions they have already made, and their familiarity with all the principles and details of the business, will not only enable them to perfect the processes already in use, but can hardly fail to lead to the discovery of others. Our establishments for spinning, weaving, printing, bleaching, &c. are infinitely more complete and perfect than any that exist elsewhere; the division of labour in them is carried to an incomparably greater extent; the workmen are trained from infancy to industrious habits, and have attained that peculiar dexterity and sleight of hand in the performance of the separate tasks, that can only be acquired by long and unremitting application to the same employment. Why, then, having all these advantages on our side, should we not keep the start we have already gained? Every other people that attempt to set up manufactures must obviously labour under the greatest difficulties as compared with us. Their establishments cannot, at first, be sufficiently large to enable the division of employments to be carried to any considerable extent, at the same time that expertness in manipulation, and in the details of the various processes, can only be attained by slow degrees. It appears, therefore, reasonable to conclude that such new beginners, having to withstand the competition of those who have already arrived at a very high degree of perfection in the art, must be immediately driven out of every market equally accessible to both parties; and that nothing but the aid derived from restrictive regulations and prohibitions will be effectual to prevent the total destruction of their establishments in the countries where they are set up.

6. *Progress of the Manufacture in other Countries.*— But notwithstanding what has now been stated, a notion seems to be spreading abroad, that we shall have no little difficulty in maintaining our ground against the competition of the Americans, Swiss, Austrians, French, &c., and a good deal of evidence upon this subject was taken before the committee of the House of Commons appointed in 1833 to inquire into the state of manufactures, commerce, and shipping. Such apprehensions appear to us to be quite destitute of any real foundation. Provided we have no agitation, that public tranquillity and security in fact and opinion be maintained unimpaired, we need be under no sort of uneasiness as to any competition to which we may be exposed. Duties on imports have forced cotton, woollen, iron, and other manufactures into a premature existence in the

United States; but excepting the coarser fabrics, and those in which the value of the raw material bears a large proportion to the value of the manufactured article, we have nothing to fear from the Americans. Neither has their progress in the manufacture of this description of goods been at all remarkable; for the official accounts published by order of congress show that the value of all descriptions of cotton goods exported from the United States during the year ended the 30th of June, 1858, amounted to only 5,651,504 doll., or about 1,250,000*l.*, of which the raw material most probably amounted to more than a half.

Among the singular statements that have been put forth as to the cotton manufactures of America, one is, that the wages of labour are lower there than here! To dwell on the absurdity of such a statement would be an insult to the reader. But though it were true that wages were as low in Massachusetts as in England, that would afford no real ground for anticipating any formidable competition from America in this department. The price of cottons depends more on the profits of stock than on the wages of labour; and, so far as we know, it has not yet been alleged that the former are lower in America than here. Suppose an English and an American manufacturer have each 100,000*l.* vested in cotton mills, and in the floating stock required to carry on the business; if profits in England be 1 per cent. less than in America, the English manufacturer can afford, *cæteris paribus*, to sell his goods for 1,000*l.* less than the American. We are very far from insinuating or believing that this lowness of profit is an advantage; but whatever may be its influence in other respects, so long as it continues, it gives our manufacturers a decided superiority over those of every other country where profits are higher, in the manufacture and sale of all articles, such as cotton yard and stuffs, principally produced by machinery. It is ludicrous, indeed, to suppose that a half-peopled country like America, possessed of boundless tracts of unoccupied land of the highest degree of fertility, should be able successfully to contend in manufacturing industry with an old settled, fully peopled, and very rich country like Great Britain. The government which encourages such a misdirection of the public capital and industry, and those who suppose it can end in anything else than ruin to the parties, are ignorant of the merest elements of the science of wealth.

The following statement, though not official, is said to represent with considerable accuracy the consumption of cotton in the American manufactures in the following years ending with 1857.

1850	595,269 bales.	1854	715,571 bales.
1851	464,108 —	1855	678,584 —
1852	678,029 —	1856	770,239 —
1853	761,009 —	1857	819,133 —

Little as we have to fear from American, we have still less to fear from Swiss or Saxon competition. America has some advantage over England in the greater cheapness of the raw material; but Switzerland and Saxony, situated almost in the centre of Europe, can only draw their supplies of raw cotton by a distant land carriage by way of Hamburgh, Marseilles, and Genoa; and we have the best authority for affirming, that a bale of cotton may be conveyed at a less expense from Charleston to Manchester, than from Genoa, Amsterdam, or Hamburgh, to Switzerland or Saxony. Switzerland is altogether destitute of coal; all that she does is done by water-power, and that is said to be nearly exhausted. It is not, however, to be wondered at that the Swiss and Saxons should have succeeded in supplying their own markets, and some of those immediately contiguous, with certain species of yarn; or that they should export hosiery and such other articles as they can manufacture on a small scale, in their cottages; but it is idle to suppose that they should ever be able to do much more than this.

It was stated before a committee of the House of Commons, in 1833, that the French cotton manufacture had increased, between 1812 and 1826, in the ratio of 310 per cent., while in England its increase was only 270 per cent. This statement was, we believe, accurate as far as it went; and yet it was eminently calculated, though, no doubt, without being so intended, to mislead. In 1812, and for some years previously, it was hardly possible to import cotton wool into France, and its price was quite excessive. When, therefore, the manufacturers got wool after the return of peace at an ordinary price, it was impossible, seeing that foreign cottons are excluded from France, but that the manufacture should increase with extraordinary rapidity, until the home demand was pretty well supplied. An advance of this sort is assuredly no proof of the capacity of any country to prosecute the manufacture with advantage, or to export cottons without the aid of a bounty. Had the manufacture gone on increasing in the above ratio down to the present time, the circumstance might have justly excited attention; but such has not been the case. No doubt it has made a considerable progress in the interval; but not so much as might have been expected, seeing the increase of wealth and population in France, and seeing also the peculiar facilities which the French enjoy for smuggling cotton stuffs and other prohibited products across the Pyrenees into Spain, where they

are taken off in large quantities. The truth is, that until the French government reduces or repeals the duties on raw cotton, and on foreign iron and other articles indispensable to the cheap construction of cotton factories, it were idle to suppose that the French should be formidable competitors in the production of cottons.

It is supposed by some, that the competition we have to fear from the Continent does not consist so much in the spinning as in the weaving of cotton: and that the probability is, that our exports of yarn will increase, and our exports of manufactured goods diminish. We do not, however, imagine there is much in this. Our power looms are superior to those of any other country; and there is not, in fact, with the exception of the dyes, a single particular connected with the cotton manufacture in which we have not a manifest superiority over the Swiss, Saxons, French, Prussians, and every continental nation. Certainly, however, we are inferior to some of them in the brilliancy and durability of their dyes; and this circumstance has occasioned a considerable demand for German and Swiss printed cottons in many parts of the East, where vivid colours are held in the highest estimation. But even there, the greater cheapness of our goods is proving an overmatch for the greater brilliancy of those of our rivals.

On the whole, therefore, we see no reason to think that the British cotton manufacture has reached, much less passed, its zenith. At the same time, however, it can hardly be necessary to observe, considering the vast importance of the trade, that while, on the one hand, nothing should be left undone that may serve to strengthen its foundations, and to promote its prosperity, on the other, nothing should be attempted that may, by possibility, have an opposite effect. The subsistence of 1,200,000 people is not to be endangered on slight grounds. The abuses even of such a business must be cautiously dealt with, lest, in eradicating them, we shake or disorder the whole fabric. No doubt, however, the state of children employed in the cotton factories called fairly for legislative interference; and we believe that the regulations that have been enacted, carried out, as they have been, under the superintendence of the inspectors, have been productive of much good.

We borrow from the circular of Messrs. Dufay and Co., of Manchester, one of the most valuable published in the empire, the following statements in regard to the cotton trade of this and other countries.

Estimate of the Quantities of Raw Cotton consumed in the chief Manufacturing Countries, from 1836 to 1857 inclusive (in millions of Pounds weight).

Countries.	1836.	1840.	1846.	1850.	1852.	1853.	1854.	1855.	1856.	1857.
Great Britain (millions of lbs.) -	350	473	604	584	745	734	780	835	920	786
Russia, Germany, Holland, & Belgium	57	72	97	133	172	185	190	144	256	209
France - - - - -	118	157	159	142	199	194	201	190	211	179
Spain - - - - -	-	-	-	29	44	42	43	45	48	36
Countries bordering on the Adriatic -	28	28	39	45	55	45	45	34	39	30
United States of North America -	86	111	175	188	237	266	243	236	262	281
Sundries, Mediterranean, &c. -	-	-	-	-	29	58	37	69	56	56
Total - -	639	841	1,074	1,132	1,481	1,503	1,539	1,553	1,795	1,557

It is seen from this table that Great Britain has continued to maintain her customary ascendency in this department with little variation from 1836 down to the present time. In truth and reality, however, our progress has been a good deal greater than it appears to have been from the above statement, for the object of our manufacturers of late years has very generally been to produce better and more valuable goods, leaving to others to produce those of a coarser description, requiring a larger quantity of the raw material in proportion to their value.

Estimate, by Messrs. Dufay & Co., of the Difference in Pounds Sterling of the Sums accruing to the Cotton Manufactures during 1845, 1850, 1852, 1853, 1854, 1855, 1856, and 1857, to pay for the Expenses of Fuel, Machinery, Drugs for Dyeing, Printing, Bleaching, Interest of Capital, and every kind of Wages, Profits, &c., after deducting the actual Cost of the Raw Material.

	1845.	1850.	1852.	1853.	1854.	1855.	1856.	1857.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Cotton consumed in Great Britain -	592,023,222	584,000,000	751,000,000	734,623,000	780,000,000	836,000,000	920,000,000	826,000,000
Waste in spinning this, 1¼ oz. per lb. -	64,752,522	65,875,000	82,140,000	80,349,000	85,312,500	91,437,000	100,625,000	90,342,750
Production of yarns lbs.	527,270,700	520,125,000	668,860,00	654,274,000	694,687,500	744,563,000	819,375,000	735,656,250
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Disposed of as follows: Exported in yarns and thread - -	136,618,643	123,977,000	133,301,864	136,666,000	133,764,100	142,715,500	174,619,900	168,508,200
Ditto in manufactured goods reduced into weight of yarn -	221,032,974	222,956,000	262,585,198	285,116,500	319,383,700	358,578,000	406,206,790	396,051,600
Consumed at home and not otherwise enumerated - - -	169,619,083	173,192,000	272,972,638	232,491,500	241,539,700	243,269,500	238,548,400	171,096,350
As above - lbs.	527,270,700	520,125,000	668,860,000	654,274,000	694,687,500	744,563,000	819,375,000	735,656,250

	1845.	1850.	1852.	1853.	1854.	1855.	1856.	1857.
	at 4¼ ₰ lb. £	at 7⅞ ₰ lb. £	at 5⅝ ₰ lb. £	at 6 ₰ lb. £	at 5⅞ ₰ lb. £	at 5⅝ ₰ lb. £	at 6¼ ₰ lb. £	at 8 ₰ lb. £
Average cost of cotton in each year	10,175,400	17,574,000	16,819,300	18,365,000	18,200,000	19,739,000	23,958,000	26,200,000
Declared value of exports, as per published statements.	£	£	£	£	£	£	£	£
Of thread and yarns	6,988,000	6,820,000	7,161,700	7,449,500	7,216,200	7,785,900	8,652,000	9,200,185
Of manufactured goods	18,816,000	21,432,000	22,795,500	25,259,800	24,428,000	27,025,900	29,632,000	29,912,726
Estimated in the same proportion as the declared value of the exported goods, plus ⅓	19,252,000	22,186,000	31,594,000	24,040,000	24,632,000	24,446,000	23,200,000	17,100,000
Total value of production	45,056,000	50,438,700	61,550,000	56,749,300	56,276,200	59,257,800	61,484,000	56,212,909
Deduct the cost of cotton, as above	10,175,400	17,574,000	16,819,300	18,365,000	18,200,000	19,739,000	23,958,000	26,200,000
Sums remaining to be distributed as stated above	34,880,600	32,864,700	44,730,700	38,384,300	38,076,200	39,518,800	37,526,000	30,012,909

"The progress which our table shows to have taken place in the trade of the country since 1845, is too striking to call for any remarks from us, nor is it necessary again to trace its origin to the salutary changes effected in our commercial code in 1846. We ventured to predict the effects of these changes at the time, and now only hope that the example of England will be followed by our continental neighbours in the adoption, so far as practicable, of those principles of trade which have now fully proved their soundness in the test of a series of years, and which have led in so marked a manner to the prosperity of this country. The commercial treaty recently concluded between Austria and Prussia seems to afford an excellent opportunity for revising and ameliorating their respective tariffs. The latest and surest benefit of unrestricted trade, namely, an increasing home consumption, has now also as incontrovertibly been attained in England. We are no longer afraid of foreign importations, and though there may be articles in which this country cannot compete with neighbouring ones, there are numbers of others produced here which excel foreign productions. We cannot take largely from any country, without sending our commodities in return. If, therefore, French wines, or anything else, be admitted in larger quantities, that is, at a lower duty, an increased trade will be the consequence, whether such reduction be based on reciprocity or not."

In a former circular, Messrs. Dufay and Co. observed that, "Of all the cotton-consuming countries, France has made the least progress in this branch of industry, considering the advantages which an advanced state of science and mechanics afford. Not only in her cotton trade, but also in the increase of her population, France keeps behind other nations; it is well known, also, that the population of that country has been stationary, compared with that of other European states.

"For some time past, we have taken pains to ascertain the number of spindles at work (1845) here and elsewhere, and have great pleasure in submitting the result to our friends. The returns were procured from the trade, as regards Great Britain, and have been carefully collated and revised. The information of the productive power of foreign states has been derived from the best authorities, and well informed quarters. The estimate of the number of spindles at work in the principal foreign cotton manufacturing countries is, according to the latest accounts received from abroad, as follows, viz.:—

"In the States comprised in the German Customs League, viz. —

Saxony	500,000	
Prussia	130,000	
Baden	95,000	together 815,000 spindles.
Wurtemburg	30,000	
Other States	60,000	
In Austria and Italy	1,500,000	
France	3,500,000	
Belgium	420,000	
Switzerland	650,000	
Russia	700,000	
United States of America	2,500,000	
Together	10,085,000	

"The quantity of cotton consumed in 1845 is estimated in round numbers, at 600 millions of lbs.; and it appears that this quantity (after deducting the usual per centage for loss, the cotton used in the raw state, for waddings and other purposes) has been reduced into yarns by 13 millions of mule spindles, and 4½ millions of throstles spindles, in all 17½ millions. Of these —

	Mule Spindles.	Throstles.
Ireland possesses	159,333	56,170
Scotland	1,476,083	253,795
England and Wales	11,364,584	4,190,035
Spindles	13,000,000	4,500,000

"The spinning process is carried to a high degree of perfection in this country. There is very little loss of material in reducing cotton into yarns; the waste of the finer numbers is respun into a second quality, and this process is going on, down to the lowest material. The speed in spinning has been much increased of late years, which accounts for the comparatively small number of spindles required to reduce the large quantity of cotton into yarn. In 1834 about 10,904,000 spindles were requisite to reduce 300 million lbs. of cotton into yarn; at present we require only 17½ millions of spindles to work up double the quantity of cotton. The coarser numbers which are produced now account partly for this, but only in a very small degree."

But since 1845, to which these statements refer, the number of spindles has increased to 30,000,000 or upwards.

7. Statutory Regulations in regard to the Employment of Children in Factories.

No statutory restrictions respecting the employment of children in the mills and factories of the U. Kingdom existed until 1802, when the 42 Geo. 3. was passed for the preservation of the health and morals of apprentices and others employed in cotton and other factories, and directing the local magistrates to report whether the factories

were conducted according to law, and to adopt such sanitary regulations as they might think fit. This act was followed, in 1816, by the act generally called Sir Robert Peel's Act, imposing various regulations on the employment of children in cotton-mills.

Both of these acts were repealed in 1831, by the 1 & 2 Will. 4. c. 39., commonly called Sir John Hobhouse's Act, which provided that, in cotton factories, to which it alone related, no child could legally be employed till it had attained the age of 9 years; and that no person under 18 years should be permitted to remain in the factories more than 12 hours in one day; and that on Saturdays they should only be employed in the factories for 9 hours.

Sir John Hobhouse's Act was repealed in 1833, by the 3 & 4 Will. 4. c. 103.; and this last-mentioned statute, with the 7 & 8 Vict. c. 15., and the 10 & 11 Vict. c. 29. (commonly called the 10 hours act), enact the following provisions relative to persons employed in all processes incident to the manufacture of cotton, wool, hair, silk, flax, hemp, jute or tow, separately or mixed together, or mixed with any other material, or any fabric made thereof, with the exception of factories used solely for the manufacture of lace, hats, or paper, or solely for blenching, dyeing, printing, or calendering.

1. That no person under 18 years of age shall be allowed to work in the night, *i. e.* from ½ past 8 in the evening to ½ past 5 in the morning, nor on Saturday for any purpose after ½ past 4 in the afternoon, the hours to be regulated by a public clock, marked on a notice put up in each factory.
2. That no child under 8 years of age shall be employed, and that no child between 8 and 13 years old shall be employed more than 6 hours and 30 minutes in any one day, unless the dinner-time of the young persons from 13 to 18 years old in the factory shall begin at 1 o'clock; in which case, the children beginning to work in the morning may work for 7 hours; but any child above 11 years of age employed solely in the winding and throwing of silk may work for 10 hours a day. And any occupier of a factory restricting the labour of young persons between 13 and 18 years old to 10 hours a day, may, on certain conditions, employ any child 10 hours on 3 alternate days of every week, provided that such child shall not be employed in any manner in the same or any other factory on 2 successive days.
3. That no child under 13 years of age shall work in the night for any purpose.
4. That every child under 13 years of age must have a surgical certificate of age, and must attend some school, on 5 days of every week for certain specified periods, and obtain a weekly certificate of attendance from the schoolmaster, which may be annulled by the inspector on account of the unfitness of the schoolmaster.
5. That no young person of the age of 13, and under the age of 18, shall be allowed to work for more than 10 hours in any one day, nor more than 58 hours in any one week.
6. That every young person under 16 years of age must have a surgical certificate of his age.
7. That no female above the age of 18 years shall be employed in any factory save for the same time and in the same manner as young persons in factories, *i. e.* for 10 hours in the day and 58 hours in the week, and under the above conditions as to night work, certificates of age not, however, being necessary for females above 18 years of age.
8. That in factories, in which any part of the machinery is moved by water, and time lost by stoppages from want of water or too much water, children or young persons may, under certain conditions, be employed one hour additional, except on Saturday; and that when from the same causes any part of the manufacturing machinery driven by the water-wheel has been during any part of a day stopped, the young persons who would have been employed at such machinery, may under certain conditions recover such lost time during the night following the said day, unless the said day be Saturday.
9. That the inspector of the district, one of the four inspectors appointed under the acts, shall have power to appoint a sufficient number of certifying surgeons to examine the children and young persons, and to give certificates of age to children and young persons under 16 years of age, according to certain forms and directions, but which certificate may be annulled by the inspectors or sub-inspectors appointed under the acts, provided they believe the real age of the persons mentioned in the certificates to be less than that mentioned in them, or provided the certifying surgeon of the district deems such persons to be of deficient health or strength at the time when the certificates are annulled.
10. That not less than 1½ hour shall be allowed every day for meals to every young person, to be taken between ½ past 7 A. M. and ½ past 7 P. M., and 1 hour at least before 3 P. M.: and that no child or young person shall be employed more than 5 hours before 1 P. M. without an interval for meal-time of at least 30 minutes, and that all the young persons shall have the meal-times at the same period of the day.
11. That all children and young persons shall have not fewer than 8 half-holidays in the year, 4 of such half-holidays between 15th March and 1st of October, and that no child or young person shall be allowed to work in any factory on Christmas Day or Good Friday, in England or Ireland, and in Scotland on any day the whole of which is set apart by the Church of Scotland for the observance of the sacramental fast in the parish in which the factory is situated.

The acts embody other regulations respecting the appointment of inspectors to carry out these provisions, &c.: but these, though of importance to the parties interested, by whom they must be carefully attended to, being of little public importance, need not be inserted in this place.

COWHAGE, OR COWITCH (Hind. *Kiwach*), the fruit or bean of a perennial climbing plant (*Dolichos pruriens*, Lin.). It is a native of India, as well as of several other Eastern countries, and of America. The pod is about 4 or 5 inches long, a little curved, and contains from 3 to 5 oval and flattish seeds, the outside is thickly covered with short, bristly, brown hairs, which, if incautiously touched, stick to the skin, and occasion intolerable itching. (*Ainslie's Materia Indica.*)

COWRIES (Ger. *Kauris*; Du. *Kauris*; *Fr. Coris, Cauris, Bouges*; It. *Cori, Porcellane*; Sp. *Bucios Zimbos*) are small shells brought from the Maldives, which pass current as coin in smaller payments in Hindostan, and throughout extensive districts in Africa. They used to be imported into England previously to the abolition of the slave trade, in which they were subsequently employed. They are an article of trade at Bombay. The best are small, clean, and white, having a beautiful gloss; those that are yellow, large, and without lustre, should be rejected. The freight is calculated at 20 cwt. to the ton. — (*Milburn's Orient. Com.*)

CRANBERRIES, OR RED WHORTLEBERRIES, the fruit of a moss plant,

the *Vaccinium oxycoccus* of Linnæus. The berries are globular, about the size of currants; are found in mossy bogs in different parts of Scotland, but not in great numbers: they were once common in Lincolnshire, and the northern parts of Norfolk; but since the bogs have been drained and cultivated, they are rarely met with. Cranberries have a peculiar flavour, and a sharp, acid, agreeable taste; they are easily preserved, and are extensively used in making tarts. They are very abundant in North America, and in the northern parts of Russia; the latter being of a superior quality. We import from 30,000 to 35,000 gallons annually. It is said that some very fine ones have recently been brought from New South Wales.

CRAPE (Fr. *Crêpe*; Ger. *Flohr, Krausflohr*; It. *Espumilla, Soplillo*; Rus. *Flior*; Sp. *Crespon*), a light transparent stuff, in manner of gauze, made of raw silk, gummed and twisted on the mill and woven without crossing. It is principally used in mourning. Crape was originally manufactured in Bologna; but that made in this country is now deemed superior to any made in Italy.

CREAM OF TARTAR. See ARGAL.

CREDIT, the term used to express the trust or confidence placed by one individual in another, when he assigns him money, or other property in loan, or without stipulating for its immediate payment. The party who lends is said to give credit, and the party who borrows to obtain credit.

Origin and Nature of Credit. — In the earlier stages of society, credit is in a great measure unknown. This arises partly from the circumstance of very little capital being then accumulated, and partly from government not having the means, or not being sufficiently careful, to enforce that punctual attention to engagements so indispensable to the existence of confidence and credit. But as society advances, capital is gradually accumulated, and the observance of contracts is enforced by public authority. Credit then begins to grow up. On the one hand, those individuals who have more capital than they can conveniently employ, or who are desirous of withdrawing from business, are disposed to lend, or to transfer, a part or the whole of their capital to others, on condition of their obtaining a certain stipulated premium or interest for its use, and what they consider sufficient security for its repayment; and, on the other hand, there are always individuals to be met with, disposed to borrow, partly (and among merchants principally) in order to extend their business beyond the limits to which they can carry it by means of their own capital, or to purchase commodities on speculation, and partly to defray debts already contracted. These different classes of individuals mutally accommodate each other. Those desirous of being relieved from the fatigues of business find it very convenient to lend their capital to others; while such as are anxious to enlarge their businesses obtain the means of prosecuting them to a greater extent.

It is plain, that to whatever extent the power of the borrower of a quantity of produce or a sum of money, to extend his business, may be increased, that of the lender must be equally diminished. The same portion of capital cannot be employed by two individuals at the same time. If A. transfer his capital to B., he necessarily, by so doing, deprives himself of a power or capacity of production which B. acquires. It is most probable, indeed, that this capital will be more productively employed in the hands of B. than of A.; for the fact of A. having lent it shows that he either had no means of employing it advantageously, or was disinclined to take the trouble; while the fact of B. having borrowed it shows that he conceives he can advantageously employ it, or that he can invest it so as to make it yield an interest to the lender, and a profit to himself. It is obvious, however, that except in so far as credit contributes, in the way now mentioned, to bring capital into the possession of those who, it may be fairly presumed, will employ it most beneficially, it conduces nothing to the increase of wealth.

The most common method of making a loan is by selling commodities on credit, or on condition that they shall be paid for at some future period. The price is increased proportionally to the length of credit given; and if any doubt be entertained with respect to the punctuality or solvency of the buyer, a further sum is added to the price, in order to cover the risk that the seller or lender runs of not receiving payment, or of not receiving it at the stipulated period. This is the usual method of transacting where capital is abundant, and confidence general; and there can be no manner of doubt that the amount of property lent in Great Britain, the Netherlands, and most other commercial countries, in this way, is infinitely greater than all that is lent in every other way.

When produce is sold in the way now described, it is usual for the buyers to give their bills to the sellers for the price, payable at the period when the credit is to expire; and it is in the effects consequent to the negotiation of such bills that much of that magical influence that has sometimes been ascribed to credit is believed to consist. Suppose, to illustrate this, that a paper-maker, A., sells to a printer, B., a quantity of paper, and that he gets his bill for the sum, payable at 12 months after date: B. could not have entered

into the transaction had he been obliged to pay ready money; but A., notwithstanding he has occasion for the money, is enabled, by the facility of negotiating or discounting bills, to give the requisite credit, without disabling himself from prosecuting his business. In a case like this, both parties are said to be supported by credit; and as cases of this sort are exceedingly common, it is contended that half the business of the country is carried on by its means. All, however, that such statements really amount to is, that a large proportion of those engaged in industrious undertakings do not employ their own capital, but that of others. In the case in question, the printer employs the capital of the paper-maker, and the latter employs that of the banker or broker who discounted the bill. This person had most likely the amount in spare cash lying beside him, which he might not well know what to make of; but the individual into whose hands it has now come, will immediately apply it to useful purposes, or to the purchase of the materials, or the payment of the wages of the workmen employed in his establishment. It is next to certain, therefore, that the transaction will have been advantageous. But still it is essential to bear in mind that it will have been so, not because credit is of itself a means of production, or because it can give birth to capital not already in existence; but because, through its agency, capital finds its way into those channels in which it has the best chance of being profitably employed.

The real advantage derived from the use of bills and bank notes as money consists, as has been already shown, in their substituting so cheap a medium of exchange as paper, in the place of one so expensive as gold, and in the facilities which they give to the transacting of commercial affairs. If a banker lend A. a note for 100*l.* or 1,000*l.*, the latter will be able to obtain an equivalent portion of the land or produce of the country in exchange for it; but that land or produce was already in existence. The issue of the note did not give it birth. It was previously in some one's possession; and it will depend wholly on the circumstance of A.'s employing it more or less advantageously than it was previously employed, whether the transaction will, in a public point of view, be profitable or not. On analysing any case of this kind, we shall invariably find that all that the highest degree of credit or confidence can do, is merely to change the distribution of capital — to transfer it from one class to another. These transfers are occasionally, too, productive of injurious results, by bringing capital into the hands of spendthrifts: this, however, is not, except in the case of the credit given by shopkeepers, a very common effect; and there can be no doubt that the vast majority of regular loans are decidedly beneficial.

Abuses of the present Credit System in Great Britain. Means of obviating them. — The previous observations refer rather to the credit given to individuals engaged in business, who mean to employ the capital which they borrow in industrious undertakings, than to that which is given to individuals not so engaged, and who employ the advances made to them in supporting themselves and their families. In neither case is credit of advantage, unless it be granted with due discrimination, and with reference to the character, condition, and prospects of those receiving it. In this country, however, these considerations have been in a great measure lost sight of, in the granting of credit by shopkeepers and tradesmen of all descriptions. Owing to the competition of such persons, their extreme eagerness to secure customers, and the general indolence of opulent persons, which disinclines them to satisfy every small debt when it is contracted, the system of selling upon credit has become almost universal. Few among us think of paying ready money for any thing; seven tenths of the community are in the constant practice of anticipating their incomes; and there is hardly one so bankrupt in character and fortune as to be unable to find grocers, bakers, butchers, tailors, &c. ready to furnish him upon credit with supplies of the articles in which they respectively deal. We look upon this facility of obtaining accommodations as a very great evil. They are not, in one case out of five, of any real advantage to the parties receiving them, while they are productive of very pernicious results. The system tempts very many, and sometimes even the most considerate individuals, to indulge in expenses beyond their means; and thus becomes the most fruitful source of bankruptcy, insolvency, and bad faith. To guarantee themselves from the extraordinary risk to which such proceedings expose them, tradesmen are obliged to advance the price of their goods to a most exorbitant height; so that those who are able, and who really mean to pay the debts they contract, are, in fact, obliged to pay those of the hosts of insolvents and swindlers maintained by the present system. Many tradesmen consider themselves as fortunate, if they recover from two thirds to three fourths of the sums standing in their books, at the distance of several years.

The extraordinary extent to which the credit practice is carried may be learned from the inquiries of the Parliamentary Committee on Small Debts. It appears from them, that hatters, shoemakers, &c. in the metropolis, have often 4,000*l.* and upwards on their books in debts below 10*l.*, and that *five sixths of their book debts are below that sum!* A large proportion of these debts are irrecoverable; but owing to the artificial enhance-

ment of prices, those that are good are sufficient to indemnify the traders for the loss of the bad.

It is not easy, we think, to imagine any system better fitted to generate improvidence and fraud. The vast majority of those who become insolvent, or are imprisoned for debt, consist of labourers, artisans, half-pay officers, clerks in public and other offices, annuitants, &c. — persons whom no prudent shopkeeper would ever allow to get permanently into his debt. The following Table exhibits some of the effects resulting from this system : —

Number of Persons committed for Debt to the several Prisons of the Metropolis in the Year 1842, and the Sums for which they were committed.

	For Sums above 100*l.*	For Sums between 50*l.* and 100*l.*	For Sums between 20*l.* and 20*l.*	For Sums under 20*l.*	Total.	In Custody January 1. 1843.
Queen's Bench prison	132	72	96	160	460	288
Fleet prison	59	23	26	12	120	
Marshalsea prison	2	5	29	70	106	
Whitecross Street prison	183	255	570	1929	2937	399
Horsemonger Lane prison	28	55	127	146	356	74
Total	404	410	848	2317	3979	761

It is time, certainly, that something effectual were done to put an end to such flagrant abuses — to a system that sends 1,929 persons to a single prison for debts under 20*l.* ! We do not mean to say or insinuate that credit may not frequently be given to the labouring classes with the best effects : but it is of its abuse that we complain, — of its being indiscriminately granted to every one ; to those whom it encourages to continue in a course of idleness and profligacy, as well as to those industrious and deserving persons to whom it may occasionally be of the greatest service. To secure the advantages of credit to the public, free from the enormous evils that result from its abuse, is an object of the highest importance ; and few things, we believe, would do so much to secure it, as the taking from creditors the power to arrest and imprison for debt. — (See BANKRUPTCY.)

It was stated in the House of Commons, (19th of February, 1827,) that in the space of 2½ years, 70,000 persons were arrested in and about London, at an expense to the parties, it may be estimated, of between 150,000*l.* and 200,000*l.* ! In 1827, in the metropolis and two adjoining counties, 23,515 warrants to arrest were granted, and 11,317 bailable processes were executed. Hence it may be concluded, that in this single year, within the above limits, no fewer than 12,000 persons were deprived of their liberty, on the mere allegation of others, without any *proof* that they owed them a farthing ! Well might Lord Eldon say that "*the law of arrest is a permission to commit acts of greater oppression and inhumanity than are to be met with in slavery itself,* and that the redress of such a grievance would not be attended with any fatal consequences to the country."

The following Table, which shows that 1,078 persons were committed to Horsemonger Lane prison, in 1842, for debts amounting, in all, to only 2,321*l.* 16*s.* 9¾*d.*, being, at an average, no more than 2*l.* 3*s.* 8¼*d.* each, proves that the discussions which have taken place with respect to the law of arrest and imprisonment, have not, in any material degree, lessened its mischievous operation. Whatever else may be dear in England, the fact that thousands of people are annually imprisoned for such miserable trifles shows that personal liberty is, at all events, abundantly cheap.

A Return from Horsemonger Lane Gaol of the Number of Debtors committed to the said Gaol, on Process out of Courts of Request, during the Year ending 1st of January, 1843 ; stating separately the aggregate Amount of Debts and Costs ; showing, in Classes, the Number confined from One to less than Ten Days, for Ten Days and less than Thirty, Fifty, Seventy, and One Hundred Days ; and stating, also, the Amount paid out of the County or other Rates, for the Maintenance and Support of such Prisoners, as accurately as possible.

Number committed in the year			1,078
Aggregate amount of debts	£	s.	d.
	2,321	16	9¾
costs	618	12	11
Number confined from 1 to less than 10 days			423
for 10 and 30			402
30 - 50			160
50 - 70			44
70 - 100			15
100 days and more			34
Amount paid out of the county rate for the maintenance and support of such prisoners, viz. : —			
For dietary	£	s.	d.
	256	17	0
Proportionate share of expenses of the gaol, for salaries of officers, bedding, fuel, water, rent, &c.	506	3	1

We defy any one to show that the law of arrest and imprisonment has a single good consequence to be placed as a set-off against the evils of which it is productive. Tradesmen depend, as is clearly evinced by the above statements, upon the despotical

power which it puts in their hands, to get them out of scrapes; and believe that the fear of being subjected to arrest will stimulate even the most suspicious portion of their debtors to make payment of their accounts. The records of our prisons, and of our insolvent and other courts, show how miserably these expectations are disappointed. We believe, indeed, that we are warranted in affirming that the more respectable classes of shopkeepers and tradesmen are now generally satisfied that the present system requires some very material modifications. The law of arrest and imprisonment is, in fact, advantageous to none but knaves and swindlers, and the lowest class of attorneys, who frequently buy up small accounts and bills, that they may bring actions upon them, and enrich themselves at the expense of the poor, by the magnitude of their charges. Such oppressive proceedings are a disgrace to a civilised country. Were the law in question repealed, credit would be granted to those only who deserved it; for, generally speaking, tradesmen, supposing they had nothing to trust to but their own discretion, would not deal, except for ready money, with those of whose character and situation they were not perfectly informed; and the difficulty under which all idle and improvident persons would thus be placed of obtaining loans, would do much to wean them from their vicious courses, and to render them industrious and honest. "Those," says Dr. Johnson, "who have made the laws, have apparently considered that every deficiency of payment is the crime of the debtor. But the truth is, that the creditor always shares the act, and often more than shares the guilt, of improper trust. It seldom happens that any man imprisons another but for debts which he suffered to be contracted in hope of advantage to himself, and for bargains in which he proportioned his profit to his own opinion of the hazard; and there is no reason why one should punish another for a contract in which both concurred."

The power of taking goods in execution for debts is also one that requires to be materially modified. At present, the household furniture of every man, and even the *implements used in his trade*, should there be nothing else to lay hold of, may be seized and sold in satisfaction of any petty claim. It seems to us quite clear that some limits should be set to this power; and that such articles as are indispensable either to the subsistence or the business of any poor man ought to be exempted from execution, and, perhaps, distress. The present practice, by stripping its victims of the means of support and employment, drives them to despair, and is productive only of crimes and disorders.

We are glad to observe that there seems to be a growing conviction among mercantile men, of the inconveniences arising from the present practice. A petition against imprisonment for small debts, subscribed by many of the most eminent merchants, manufacturers, bankers, &c. of the city of Glasgow, was presented to the House of Commons in 1833. It contains so brief, and at the same time so forcible, an exposition of the evils resulting from the present system, that we shall take the liberty of laying it before our readers.

"Your petitioners have been long and seriously impressed with the belief that very great evils have arisen and do arise from the imprisonment of debtors in Scotland, especially for small sums.

"The petitioners will not here question the policy of the existing laws which authorise the imprisonment of debtors for considerable sums, nor do they intend to object to the creditor retaining the fullest power over the property and effects of his debtor; but they are humbly of opinion that, in so far as these laws give creditors the power to imprison debtors for small sums, such as for 8*l.* and under, they are not only injurious to the public, and ruinous to the debtor, but even hurtful to the creditor himself.

"It would be a waste of time to dwell upon the hardship of subjecting debtors to imprisonment for small debts, contracted sometimes certainly under circumstances of real distress, but more frequently from the improper use of credit, with which they are too readily supplied. The creditor takes care that his profit shall be commensurate with his risk; and the debtor is induced to purchase freely, and at any price, that which he is not immediately called upon to pay: the creditor coolly and cruelly calculates upon the power which the law has granted him over the person of his debtor if he fail to discharge his debt to him, while the debtor forgets that, by the credit so imprudently afforded him, he is preparing the way for his own ruin, and that of all who have any dependence upon him.

"The total number of debtors imprisoned in the gaol of Glasgow alone, for debts of 8*l.* and under, was, in the year 1830, 353; in 1831, 419; and in 1832, 437; while the whole number of incarcerations in that gaol for sums of every description were, in the year 1830, 557; in 1831, 630; and in 1832, 696; the proportion of sums of 8*l.* and under being nearly two thirds of the whole on the average of these 3 years.

"To remedy these evils, your petitioners humbly submit that means should be adopted for the repeal of the laws at present in force, in so far as they sanction the recovery of small debts by imprisonment, reserving their effect in every other respect; the result of which would be, that credit for small sums would be greatly limited, if not entirely extinguished, and the poorer classes rendered more provident; and by purchasing with money at a cheaper rate what they now buy at an extravagant price, they would be enabled to procure for themselves additional comforts, from the more economical employment of their small incomes.

"May it therefore please your Honourable House to take this matter into your consideration, and to adopt such means as you in your wisdom shall see proper, to prevent the incarceration of debtors for sums under 8*l.*, and thereby remove or greatly mitigate the evils of improvidence on the part of the debtor, and of oppression on the part of the creditor, which necessarily arise under the present system."

So reasonable a proposal, supported by such conclusive statements, could not fail to make a deep impression; and a bill was soon after introduced, and passed into a law, (stat. 6 & 7 Will. 4. cap. 70.) taking away the power of imprisonment in Scotland for debts under 8*l.* 6*s.* 8*d.* over and above interest and expenses, except in cases of fraud. This bill is admitted to have been eminently beneficial; and it is to be hoped that the

advantages of which it has been productive may lead to the extension and general application of its principle.

Propriety of placing all small Debts beyond the Pale of the Law. — The taking away the power of arrest and imprisonment, except in the case of fraudulent bankruptcy, would certainly be a material improvement upon the existing system. But we are satisfied that it does not go far enough; and that by far the most desirable and beneficial reform that could be effected in this department would be *to take away all action for debts under a given sum, as 50l. or 100l.* The only exception to this rule should be in the case of *claims for wages*, or labour done under executory contracts. To prevent the measure from being defeated, no action should be granted on bills under *50l.* or *100l.*, except upon those drawn by or upon regular bankers. This would be a radical change certainly; but we are fully satisfied that it would be highly advantageous to every class of the community, and most of all to labourers, retail dealers, and small tradesmen. It would protect the former from oppression, at the same time that it would tend powerfully to render them more provident and considerate; it would teach the latter to exercise that discretion in the granting of credit which is so very indispensable; and it would be publicly beneficial, by strengthening the moral principle, and making the contraction of debts for small sums, without the means of paying them, at once difficult and disgraceful.

We agree entirely in opinion with those who think that it is to no purpose to attempt to remedy the defects now pointed out, by multiplying courts and other devices for facilitating the speedy recovery of small debts. This is beginning at the wrong end; or rather it is attempting to obviate the influence of one abuse by instituting another. No wise statesman will ever be easily persuaded to fill the country with petty local courts; for these, when not absolutely necessary, are the merest nuisances imaginable; and he would, at all events, exert himself, in the first instance, to do away, in so far as possible, with the circumstances that make individuals resort to them. But it is certain that nine tenths of the cases in county courts originate in questions as to simple contract debts under *50l.*; and were such debts placed, as they ought to be, beyond the pale of the law, the courts would be wholly unnecessary. Our object ought not to be to provide means for enforcing the payment of trifling debts, but *to prevent their contraction.* We believe, indeed, that, instead of lessening, the multiplication of district courts will materially aggravate, all the evils of the present credit system. The belief that they may readily enforce their claims by resorting to them will make shopkeepers and tradesmen still more disposed than at present to give credit, while the unprincipled, the inconsiderate, and the necessitous will eagerly grasp at this increased facility. What there is of caution amongst our retail dealers is in no inconsiderable degree owing to the want of those petty tribunals so many are anxious to have universally established. The more they are increased, the less will caution prevail. But instead of diminishing this virtue, — for such it really is, — it cannot be too much increased. Nothing will ever deter those who ought not to obtain credit from taking it while in their power; but those who give it may be made to exercise greater discretion; they may be made to know that it is a private transaction between themselves and those to whom they grant it; and that in the case of petty debts they have only their own sagacity to look to, such transactions not being cognizable by law. A measure of the sort here proposed would not, as some appear to imagine, annihilate credit. It would, no doubt, annihilate that spurious indiscriminating species of credit, that is as readily granted to the spendthrift and prodigal, as to the frugal and industrious individual; but to the same extent that it deprived the former of the means of obtaining accommodation, it would extend those of the latter. Nothing short of this — nothing but the placing all small debts beyond the pale of the law — will ever fully impress tradesmen with a conviction of the vast advantages that would result to themselves from their withdrawing their confidence from courts and prisons, and preventing every one from getting upon their books, of whose situation and circumstances they are not fully aware; nor will anything else be able completely to eradicate the flagrant abuses inherent in the present credit system, and which have gone far to render it a public nuisance.

One of the worst consequences of the present system is the sort of thraldom in which it keeps thousands of labourers and other individuals, whom the improper facilities for obtaining credit originally led into debt. Such persons dare not leave the shops to which they owe accounts; and they dare neither object to the quality of the goods offered to them, nor to the prices charged. Dr. Johnson has truly observed, that "he that once owes more than he can pay, is often obliged to bribe his creditor to patience by increasing his debt. Worse and worse commodities at a higher and higher price are forced upon him; he is impoverished by compulsive traffic; and at last overwhelmed in the common receptacles of misery by debts which, without his own consent, were accumulated on his head." By taking away all right of action upon small debts, this system of invisible but substantial coercion would be put an end to. The tradesman would

take care who got, in the first instance, upon his books; and instead of forcing articles upon him, would cease to furnish him with any unless he found he was regular in making his payments; while the customer to whom credit was of importance would know that his only chance of obtaining it would depend upon his character and reputation for punctuality. The abuses of the sort now alluded to, that grew out of what has been denominated the truck system, justly occasioned its abolition; but these were trifling compared with those that originate in the bringing of petty debts within the pale of the law.

When the former edition of this work was published we were not aware that it had been previously proposed to take away all action for debts under 50*l.* or 100*l.*; but we have since met with a pamphlet, entitled *Credit Pernicious*, published in 1823, in which this plan is proposed and ably supported. There are also some valuable remarks and observations on the topics now treated of, in the *Treatise on the Police, &c. of the Metropolis*, by the author of the "Cabinet Lawyer," pp. 114—134.

CREW, the company of sailors belonging to any ship or vessel. Formerly no British ship could be navigated except by a crew ¾ths of which were British subjects, besides the master; and every ship of 80 tons burden and upwards had to carry to sea a certain number of apprentices in proportion to her tonnage. But these regulations have been abandoned.—(See NAVIGATION LAWS). The crews of British ships may now consist wholly of Englishmen, or wholly of foreigners, or they may be mixed together in any proportion; and it is no longer necessary to carry to sea a single apprentice. The duties and rights of seamen are explained under the articles SEAMEN and MERCANTILE MARINE ACT in this work. Ready obedience to the lawful orders of their superiors, ability to discharge their duties, and alacrity in their performance, at all times and under the most perilous circumstances, are the distinguishing characteristics of good seamen.

CUBEBS (Ger. *Kubeben*; Fr. *Cubebes*; It. *Cubebi*; Sp. *Cubebas*; Rus. *Kubebü*; Lat. *Piper Cubeba*; Arab. *Kebābeh*; Javan. *Kumunkus*; Hind. *Cubab-chinie*), the produce of a vine or climber extensively grown in Java. It is a small dried fruit, like a pepper-corn, but somewhat longer. Cubebs have a hot, pungent, aromatic, slightly bitter taste; and a fragrant agreeable odour. They should be chosen large, fresh, sound, and the heaviest that can be procured. A duty on their importation, after being reduced in 1842 from 6*d.* to 1*d.* per lb., was repealed in 1845. During the 3 years ending with 1852 the average annual imports and exports of cubebs amounted respectively to 56,945 and 25,993 lbs., leaving about 31,000 lbs. for consumption. Their price in London varied, in Sept. 1853, from 5*l.* 10*s.* to 7*l.* per cwt.

CUCUMBER, a tropical plant, of which there are many varieties, largely cultivated in hothouses in England.

CUDBEAR, a purple or violet coloured powder used in dyeing violet, purple, and crimson, prepared from a species of lichen (*Lichen tartareus* Lin.), or crustaceous moss, growing commonly on limestone rocks in Sweden, Scotland, the north of England, &c. About 130 tons of this lichen are annually exported from Sweden. It commonly sells in the port of London for about 20*l.* per ton; but to prepare it for use it must be washed and dried; and by these operations the weight is commonly diminished a half, and the price, in effect, doubled. Though possessing great beauty and lustre at first, the colours obtained from cudbear are so very fugaceous, that they ought never to be employed but in aid of some other more permanent dye, to which they may give body and vivacity. In this country it is chiefly used to give strength and brilliancy to the blues dyed with indigo, and to produce a saving in that article; it is also used as a *ground* for madder reds, which commonly incline too much to yellow, and are made *rosy* by this addition. The name cudbear was given to this powder by Dr. Cuthbert Gordon, who, having obtained a patent for the preparation, chose in this way to connect it with his own name.—(*Bancroft, Philosophy of Permanent Colours*, vol. i. pp. 300—304.)

CUMMIN SEED (Ger. *Kumin*; Fr. *Cumin*; It. *Comino, Cumino*; Sp. *Comino*; Arab. *Kemun*), the seeds of an annual plant (*Cuminium Cyminum* Lin.), a native of Egypt, but extensively cultivated in Sicily and Malta. They have a strong, peculiar, heavy odour, and a warm, bitterish, disagreeable taste. They are long and slender.

CURRANTS (Fr. *Raisins de Corinthe*; Ger. *Korinthen*; It. *Uve passe di Corinto*; Lat. *Passulæ Corinthiacæ*; Rus. *Korinka, Opoek*; Sp. *Pasas de Corinto*), a small species of grape, largely cultivated in Zante, Cephalonia, and Ithaca, of which islands they form the staple produce; and in the Morea, in the vicinity of Patras. The plant is delicate: and as 6 or 7 years must elapse, after a plantation has been formed, before it begins to produce, its cultivation requires a considerable outlay of capital. The crop is particularly liable to injury from rains in harvest, and is altogether of a very precarious description. After being dried in the sun, the currants are exported packed in large butts. They are in extensive demand in this country; and, when mixed with flour and suet, make a dish that is peculiarly acceptable to the lower classes. But, as if it had been intended

to put them beyond the reach of all but the richest individuals, they were burdened, down to 1834, with the exorbitant duty of 44*s.* 4*d.* a cwt. In that year, however, the duty was reduced a half, or to 22*s.* 2*d.* a cwt., and their importation was in consequence very materially increased. We, however, observed in a former edition of this work that as the price of currants in bond varied from 20*s.* to 35*s.* a cwt., a duty of 22*s.* 2*d.* a cwt. was a great deal too high; and that it was, no doubt, owing to its amount that the consumption of currants was not materially greater. Sir Robert Peel, we are glad to say, took this view of the matter, and reduced the duty on currants, in 1844, to 15*s.* a cwt. The result has been such as had been anticipated. At an average of the 3 years ending with 1842, 183,836 cwts. currants were annually entered for consumption, producing an annual revenue of 212,894*l.* But, at an average of the years 1849 and 1850, no fewer than 419,846 cwts. were entered for consumption, while the annual revenue was increased to 330,241*l.* ! This, therefore, is one of the most memorable instances of the advantage of a judicious reduction of an excessive duty on an article in extensive demand. Besides increasing the comforts of the public and the amount of the revenue, it has given a considerable stimulus to the trade with Greece and the Ionian Islands, currants being the principal product which they have to export.

No abatement of duties is made on account of any damage received by currants.

A Treasury letter of the 30th of March, 1816, directs the following tares to be allowed, with liberty to the merchant and officers to take the actual tare when either party is dissatisfied. Currants in casks from Zante 13 per cent., Leghorn 10 per cent., Trieste 10 per cent.

CUSTOM-HOUSE, the house or office where commodities are entered for importation or exportation; where the duties, bounties, or drawbacks payable or receivable upon such importation or exportation are paid or received; and where ships are cleared out, &c.

For information as to the proceedings necessary at the Custom-house on importing or exporting commodities, see the article IMPORTATION AND EXPORTATION.

The principal British Custom-house is in London; but there are Custom-houses subordinate to the latter in all considerable sea-port towns.

CUSTOMS, are duties charged upon commodities on their being imported into or exported from a country.

Customs duties seem to have existed in every commercial country. The Athenians laid a tax of a fifth on the corn and other merchandise imported from foreign countries, and also on several of the commodities exported from Attica. The *portoria*, or customs payable on the commodities imported into, and exported from, the different ports in the Roman empire, formed a very ancient and important part of the public revenue. The rates at which they were charged were fluctuating and various, and little is now known respecting them. Cicero informs us, that the duties on corn exported from the ports of Sicily were, in his time, 5 per cent. Under the Imperial government, the amount of the *portoria* depended as much on the caprice of the prince as on the real exigencies of the state. Though sometimes diminished, they were never entirely remitted, and were much more frequently increased. Under the Byzantine emperors, they were as high as 12½ per cent.

Customs duties existed in England previously to the Conquest. They appear to have derived their name from having been immemorially or customarily charged on certain articles when conveyed across the principal ferries, bridges, &c. within the kingdom, and on these and other articles of native and foreign produce, when exported from or imported into the kingdom. In 1206, the entire customs revenue of England, including that derived from tolls and fairs, amounted to only 4,958*l.* 7*s.* 3½*d.* ! It is not, therefore, true, as has sometimes been stated, that the king's first claim to the customs was established in the reign of Edward I. But that able and politic prince, by rendering the levy of the old duties more effectual, and procuring the sanction of parliament to the imposition of new duties, was the first who made the customs revenue of any material importance. The duties were, at first, principally laid on wool, woolfels (sheep-skins), and leather when exported. There were also extraordinary duties paid by aliens, which were denominated *parva costuma*, to distinguish them from the former, or *magna costuma*. The duties of tonnage and poundage, of which mention is so frequently made in English history, were customs duties; the first being paid on wine by the tun, and the latter being an *ad valorem* duty of so much a pound on all other merchandise. When these duties were granted to the Crown, they were denominated *subsidies*; and as the duty of poundage had continued for a lengthened period at the rate of 1*s.* a pound, or 5 per cent., a subsidy came, in the language of the customs, to denote an *ad valorem* duty of 5 per cent. The *new subsidy* granted in the reign of William III. was an addition of 5 per cent. to the duties on most imported commodities. — (*Treatise on Taxation*, by the author of this work, 2d. ed. p. 234.)

The various customs duties were collected, for the first time, in a book of rates published in the reign of Charles II.; a new book of rates being again published in the reign of George I. But, exclusive of the duties entered in these two books, many more had been imposed at different times; so that the accumulation of the duties, and the complicated regulations to which they gave rise, were productive of the greatest embarrassment. The evil was increased by the careless manner in which new duties were added to the old; a percentage being sometimes added to the original tax; while at

other times the commodity was estimated by a new standard of bulk, weight, number, or value, and charged with an additional impost, without any reference to the duties formerly imposed. The confusion arising from these sources was still further augmented by the special appropriation of each of the duties, and the consequent necessity of a separate calculation for each. The intricacy and confusion inseparable from such a state of things proved a serious injury to commerce, and led to many frauds and abuses.

The Customs Consolidation Act, introduced by Mr. Pitt in 1787, did much to remedy these inconveniences. The method adopted was, to abolish the existing duties on all articles, and to substitute in their stead one single duty on each article, equivalent to the aggregate of the various duties by which it had previously been loaded. A more simple and uniform system was, at the same time, introduced into the business of the Custom-house. These alterations were productive of the best effects. But the many changes in the customs duties and regulations which took place during the lengthened struggle terminated in 1815, having again introduced a great deal of complexity into the business of the Custom-house, a new consolidation was effected in 1825. The numerous statutes relating to the customs, amounting, including parts of statutes, to about 450, were repealed and compressed into some half dozen statutes of a reasonable bulk, and drawn up with a commendable degree of perspicuity.

The numerous reforms effected by Sir Robert Peel occasioned further changes. And these, and the various reforms effected by the present Chancellor of the Exchequer (Mr. Gladstone), made it necessary again to consolidate the Customs laws. This was accomplished by the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107. This statute, which was drawn up under the direction of James Wilson, Esq., Secretary to the Treasury, is at once brief, comprehensive, and so clear as to be level to the comprehension of those least acquainted with such matters. It comprises the whole law respecting the importation, exportation, warehousing, smuggling, &c., of goods, with the regulations to be observed in the coasting and colonial trades, &c. This, however, is only a part of its merit: for, besides condensing and simplifying the various customs laws, it has introduced some most important improvements. It has, for instance, made an end, in so far at least as the customs is concerned, of the unjust regulation which, by exempting the Crown from the payment of costs, obliged a party in a suit with the commissioners, even when successful, to pay his own expenses. It also relieves all goods seized, on the allegation of their not having paid the proper duty, from seizure on the importer depositing the amount claimed by the Customs, till the point is inquired into and properly decided, when, if the Customs are found to have made an overcharge, a corresponding part of the sum deposited is to be returned to the merchant, with interest at the rate of 5 per cent., and the expenses of suit. The act further provides that an importer who considers himself aggrieved by a decision of the Board of Customs, may, if he choose, have the case inquired into in open court before a Commissioner, where he may meet the officer making the accusation face to face, and learn by examination and otherwise the nature of the evidence by which it is supported, and the real facts of the case. The Commissioner who conducts an inquiry of this sort reports the evidence so taken to the Board, who may, thereupon, confirm or modify their decision; it being optional with the merchant either to abide by it or to carry the case before a competent tribunal. And in the event of the duty or penalty claimed being under 100*l.*, or of the case being of a simple kind, it may be tried before magistrates, county courts, and other inferior tribunals, so that the public will no longer be debarred from asserting their rights by the heavy expense attending trials in the Exchequer Court and at the assizes. The most important portions of this statute are given under the various heads to which it refers. (See COASTING TRADE, COLONIES AND COLONY TRADE, IMPORTATION AND EXPORTATION, SMUGGLING, &c.) But every merchant will do well to supply himself with the statute; and to make its provisions the subject of careful study.

Customs duties, like all duties on particular commodities, though advanced in the first instance by the merchant, are ultimately paid by those by whom they are consumed. When a government lays a duty on the foreign commodities which enter its ports, the duty falls entirely on such of its own subjects as purchase these commodities; for the foreigners would cease supplying its markets with them, if they did not get the full price of the commodities, exclusive of the tax; and, for the same reason, when a government lays a duty on the commodities which its subjects are about to export, the duty does not fall on them, but on the foreigners by whom they are bought. If, therefore, it were possible for a country to raise a sufficient revenue by laying duties on exported commodities, such revenue would be wholly derived from others, and it would be totally relieved from the burden of taxation, except in so far as duties might be imposed by

foreigners on the goods it imports from them. Care, however, must be taken, in imposing duties on exportation, not to lay them on commodities that may be produced at the same, or nearly the same, cost by foreigners; for the effect of the duty would then be to make the market be supplied by others, and to put an entire stop to their exportation. But in the event of a country possessing any decided natural or acquired advantage in the production of any sort of commodities, a duty on their exportation would seem to be the most unexceptionable of all taxes. If the Chinese chose to act on this principle, and had the power, they might derive a considerable revenue from a duty on exported teas, which would fall entirely on the English and other foreigners who buy them. The coal and tin, and perhaps, also, some of the manufactured goods produced in this country, seem to be in this predicament.

The revenue derived from the customs duties in 1590, in the reign of Elizabeth, amounted to no more than 50,000*l.* In 1613, it had increased to 148,075*l.*; of which no less than 109,572*l.* were collected in London. In 1660, at the Restoration, the customs produced 421,582*l.*; and at the Revolution, in 1688, they produced 781,987*l.* During the reigns of William III. and Anne, the customs revenue was considerably augmented, the nett payments into the exchequer in 1712 being 1,315,423*l.* During the war terminated by the peace of Paris in 1763, the nett produce of the customs revenue of Great Britain amounted to nearly 2,000,000*l.* In 1792, it amounted to 4,407,000*l.* In 1815, at the close of the war, it amounted to 11,360,000*l.*; and last year (1852) it amounted to 20,048,744*l.* 11*s.* 4*d.*, and including Ireland, to 22,137,120*l.* 1*s.* 11*d.*

Astonishing, however, as the increase of the customs revenue has certainly been, it is not quite so great as it appears. Formerly the duties on some considerable articles, such as sugar, brandy, wine, &c. imported from abroad, were divided partly into customs duties charged on their importation, and partly into excise duties on their being taken into consumption. But these duties have since been wholly transferred to the customs; the facilities afforded, by means of the warehousing system, for paying the duties in the way most convenient for the merchant, having obviated the necessity of dividing them into different portions.

It will be seen from various articles in this work—(see BRANDY, GENEVA, SMUGGLING, TEA, TOBACCO, &c.)—that the exorbitant amount of the duties which have been laid on various articles imported from abroad leads to much smuggling and fraud; and requires, besides, an extraordinary expense in many departments of the customs service, which might be avoided were these duties reduced within more reasonable limits. This, however, is the business of government, and not of those intrusted with the management of the customs; and it would be unjust to the latter not to mention that this department has been essentially improved, during the last forty years, in respect of economy, whatever may be thought of its efficiency. The following extracts from a letter to the Right Hon. H. Goulburn, ascribed to a late chairman of the Board of Customs (R. B. Dean, Esq.), give a brief but satisfactory view of the improvements that have been effected:—

"As regards the department of customs in 1792, the principal officers engaged in the receipt of the duties in the port of London were patent officers.

"The first Earl of Liverpool was collector inwards.

"The late Duke of Manchester, collector outwards.

"The Duke of Newcastle, and afterwards the Earl of Guilford, comptroller inwards and outwards.

"Lord Stowell, surveyor of subsidies and petty customs.

"These noblemen took no part in the official duties, but merely exercised the right of appointing deputies and clerks.

"Both principals and deputies were remunerated by fees. The patentees received the fees denominated patent, and the deputies retained the fees called the fees of usage for their own use. In addition to these fees, both deputies and clerks received fees for despatch.

"The same system prevailed throughout the whole department. The salaries of the officers were nominal; and the principal proportion of all official income was derived from fees. These fees were constantly varying both in rate and amount, and formed a continual source of dispute and complaint between the merchant and the officer.

"This system (after having been repeatedly objected to by various commissions of inquiry, and finally by the committee of finance in 1797,) was put an end to in the year 1812, by the act 51 Geo. 3. c. 71., by which all patent offices and fees were abolished, and compensation allowances granted to the patent officers, and fixed salaries established.

"The additional salaries granted under this arrangement amounted to about 200,000*l.*, and the temporary compensation allowances to about 40,000*l.* per annum.

"The fees abolished, and from which the public were relieved, amounted to about 160,000*l.* per annum.

"In addition to the amount of fees from which the public were relieved, various allowances made by the Crown to officers for quarantine, coal poundage, poundage on seizures, and many other incidental allowances, which did not appear on the establishment, were also abolished, and the salaries of every officer placed at one view upon the establishment.

"The effect of these salutary measures has been to give a great apparent increase to officers' salaries since 1791; and, upon a mere comparison of the establishment of 1792 with 1830, without the above explanation, it would appear that the pay of the officers had been most materially augmented, whereas, in point of fact, the difference is in the mode of payment; and the incomes of the officers at the present period (as compared with 1792) are in general less; and, consequently, the public are less taxed for the performance of the same duty *now* than in 1792.

"In the year 1792, the warehousing system had not been established. Officers were admitted at all ages, and there was no system of classification or promotion. The officers at the out-ports and in London were generally appointed through local influence; and were too often persons who had failed in trade, or had been in menial service, and who regarded their situations rather as a comfortable provision for their families than as offices for which efficient services were required. The superintendence and powers of the Board were cramped and interfered with by circumstances and considerations which prevented the enforcement of wholesome regulation. The whole system was so imperfect, so far back only as 1818, that a special commission was appointed to inquire into the department; and, upon the recommendation of that commission, various regulations have been adopted.

"The age of admission has been limited; a system of classification and promotion of officers, and a graduated scale of salaries, established throughout the whole department; and, by this means, local interference in the promotion of officers has been abolished; the attendance of officers increased, regulated, and strictly enforced; holidays reduced from 46 in the year to 3, viz. Good Friday, the King's birthday, and Christmas day; useless oaths, and bonds and forms of documents of various kinds, discontinued; increased facility and dispatch afforded to the merchants' business; the accounts kept in the different offices, and returns of all kind, revised, simplified, and reduced; and various minor regulations of detail established; the whole machinery of the department remodelled, and adapted to the trade and commerce of the country.

"In Ireland, the number of officers employed at all the ports, in the year ended the 5th of January, 1830, and the salaries and charges, did not much exceed the number and expense at the port of Dublin alone in 1818; and within the space of 11 years, nearly two thirds of the officers employed at the ports in Ireland have been discontinued; the number having been, in 1818, 1755; in 1829, 544; and an annual reduction in salaries and charges has been effected to the extent of 173,724*l.*; the amount having been, in 1818, 285,115*l.*; in 1829, 111,391*l.* (103,813*l.* of that amount having been reduced between the years 1823 and 1828), upon an expenditure of 285,115*l.*; and the receipts were nearly equal, in 1827, to those of 1818 and 1823, notwithstanding the total repeal of the cross Channel duties, amounting to about 340,000*l.* per annum, subsequent to the latter period.

"Influence is no longer allowed to prevail; and in many cases which have recently occurred, and in which the patronage of government might have been fairly exercised, it has been at once abandoned, in order to give way to arrangements by which the services of some very intelligent and highly respectable officers, whose offices had been abolished, could be again rendered available with a material saving to the public.

"By an order from the Lords of the Treasury, of the 20th of February, 1830, the salaries of the commissioners, and of other officers, have been prospectively reduced, and directions given to revise the whole establishment in the spirit of that order, with a view to every possible reduction."

Defects and Improvement of the Customs Establishment. — The above are great improvements, and reflect credit alike on the government and the Board of Customs. But the latter has, notwithstanding, been less efficient than might have been expected. A few years ago it was found that extensive frauds had been carried on in the port of London for a lengthened period, in the entry of silks, gloves, and other highly taxed articles, through the connivance of the customs officers. The origin, no doubt, of these, as of most similar frauds, may be traced to the exorbitancy of the then existing duties, and to the consequent temptation which they held out to smuggling on the part of the importers and the corruption of the officers. But, admitting this, it is, at the same time, abundantly clear that had anything like an efficient supervision and check been exercised by the commissioners and their superior officers, these frauds could not have been carried on so long, or to such an extent. The commissioners could not but be aware that frauds of no common magnitude were taking place in the entry of goods in the Thames. Private parties had assured them that such was the case; and, independently of this, the fact must have been established to the conviction of every reasonable person by comparing the accounts given by the French custom-house of the exportation of silks, gloves, &c. from France for England, with the entries of the same in our customs returns. And it was the duty of the commissioners, on seeing this extraordinary discrepancy, to have themselves immediately entered into a searching inquiry into its origin, and not to have devolved that duty on others, or waited till the frauds were discovered by the confessions of some of those engaged in carrying them on.

We hope it will not be supposed, from anything now stated, that we have any wish to extenuate the guilt of the officers who participate in the plunder of the revenue; but, how much and how deservedly soever we may blame them, we need not be surprised, considering their situation in life, the smallness of their salaries, and the carelessness of their superiors, that they should sometimes yield to the powerful temptations to which they are exposed.

In 1851 the Commissioners of Customs were so ill-advised as to institute numerous actions, some of them of a very paltry description, against two of the principal London Dock Companies. We mentioned in the last edition of this work, that it was most probable that these actions, even if the Commissioners were successful, would do little more than establish some irregularity or neglect of duty on the part of the Dock Companies, whose interests, in as far as the collection of the revenue is concerned, are, in effect, identical with those of the government. The result has more than justified these anticipations. The proceedings against the Companies, which were of a most vexatious, costly, and oppressive character, terminated in their substantial acquittal. The irregularities (for they amounted to nothing more) of which they were convicted, were venial in the extreme, and, in truth, quite unworthy of public notice.

This, however, is a case in which good was educed out of evil. The extraordinary proceedings now referred to, coupled with the delays and other annoyances experienced by merchants in transacting business with the Customs, rendered that department extremely unpopular. A very general demand was in consequence made for an effectual reform of the practices followed in the Custom-house, and for a reconstruction of the Board. The subject was carefully investigated by a committee of the House of Commons. And we are glad to be able to say that the most important object, or the simplification of the business conducted by the Customs, and the placing it on a more equitable footing, was in great measure effected by the Consolidation Act to which we have already referred. The Board was not, indeed, amended. But there are fewer Commissioners now than formerly, so that the responsibility attaching to each is increased, though the general opinion seems to be that they are still too numerous. It is believed that in future, when new Commissioners are appointed, they will be selected, more frequently than hitherto, from among the officers of the establishment, and the mercantile body. And this, it is probable, notwithstanding the contrary opinion of the Commissioners, would be an improvement.

The smuggling that is still carried on is principally occasioned by the high duties on tea (now in course of being reduced), tobacco, especially the latter, and a few other articles. The coast guard, and the preventive water guard, costing together about 450,000*l.* or 500,000*l.* a year, might be dispensed with, were the duties now referred to adequately reduced.*

In Scotland, separate Custom-houses seem to be multiplied to a useless extent. It is true that some years ago a very considerable change for the better was effected in the Scotch Customs department; but it is still susceptible of, and should be subjected to, great curtailment. Why should a collector, comptroller, clerks, &c. be employed to transact business that in many instances would not afford half employment for a single officer?

The reader will find, in the accounts of most imported articles of any consequence given in this work, statements of the customs duty paid on their importation. It may be useful, however, to have them all brought together in one point of view, as in the following Table.

An Account of the Gross and Nett Produce of the Customs Revenue of the U. Kingdom, distinguishing between Great Britain and Ireland, in the Year ended 31st March, 1858; showing the Amount collected on each Article usually contributing 100*l.* or more to the Annual Revenue of the U. Kingdom.

List of Articles.	Gross Receipt.			Nett Produce.		
	Great Britain.	Ireland.	United Kingdom.	Great Britain.	Ireland.	United Kingdom.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Almonds, not bitter	4,717 1 5	75 0 5	4,792 1 8	4,696 14 7	67 0 9	4,763 15 4
Apples, raw	4,885 12 8	2 14 9	4,888 7 5	4,816 4 8	1 12 8	4,847 17 4
Baskets	2,576 5 2	0 1 8	2,576 6 10	2,571 9 11	0 1 8	2,571 11 7
Beer, spruce	2,768 11 1	- - -	2,768 11 1	2,752 11 7	- - -	2,752 11 7
Books	5,308 15 11	37 16 7	5,346 12 6	5,276 7 10	37 16 7	5,314 4 5
Boots, shoes and calashes	4,130 7 0	1 2 3	4,131 9 3	4,118 18 5	1 2 5	4,120 0 8
Boot fronts	3,724 9 6	- - -	3,724 9 6	3,717 17 1	- - -	3,717 17 1
Bronze, manufactures of, or of metal bronzed or lacquered	1,541 0 0	1 1 11	1,542 1 11	1,537 6 9	1 1 11	1,538 8 8
Butter	103,318 16 9	8 4 3	103,557 1 0	102,996 5 2	8 4 5	103,004 9 5
Caoutchouc, manufactures of	8,539 9 6	- - -	8,539 9 6	8,518 3 10	- - -	8,518 3 10
Cheese	48,511 14 0	0 0 5	48,511 14 5	48,315 8 11	0 0 5	48,315 9 4
China, porcelain and earthenware	2,869 13 9	2 13 5	2,863 7 2	2,832 9 8	2 9 6	2,834 19 2
Clocks	7,890 3 0	9 19 0	7,900 2 0	7,869 5 8	9 19 0	7,879 4 8
Cloves	2,170 6 6	25 10 4	2,195 16 10	2,165 10 8	25 10 4	2,191 1 0
Cocoa, cocoa husks and shells, and chocolate	11,785 0 4	567 14 3	12,352 14 7	11,780 12 0	545 0 2	12,325 12 2
Coffee	472,082 6 1	11,110 9 7	483,222 15 8	470,271 12 1	11,137 4 8	481,408 16 9
Corks, ready made	7,476 12 3	34 6 6	7,510 18 9	7,457 4 9	22 13 6	7,479 18 3
Corn, meal and flour	419,558 6 7	71,170 1 1	490,728 7 8	415,240 7 5	70,785 12 9	486,026 0 2
Cotton manufactures, wholly or in part made up	1,458 3 3	0 5 6	1,458 8 9	1,446 3 8	0 5 6	1,446 9 2
Currants	229,289 3 4	672 5 7	229,961 8 11	228,493 1 11	672 5 7	229,165 7 6
Dates	4,328 11 7	0 2 6	4,328 14 1	4,327 13 8	0 2 6	4,327 16 2
Eggs	21,412 17 7	- - -	21,412 17 7	21,377 2 10	- - -	21,377 2 10
Embroidery and needlework	9,310 1 3	2 3 5	9,312 4 8	9,272 9 5	2 3 5	9,274 12 10
Figs	30,749 0 6	444 7 4	31,193 7 10	30,624 17 10	437 13 11	31,062 11 9
Flowers, artificial	19,350 3 2	13 9 3	19,365 12 5	19,335 3 8	13 9 3	19,348 12 11
Ginger, dry	2,840 10 2	0 0 9	2,840 10 11	2,827 16 4	0 0 9	2,827 17 1
preserved	765 9 5	1 15 10	765 5 3	760 7 2	1 15 10	762 3 0
Glass, of all sorts	4,373 15 8	- - -	4,373 15 8	4,336 5 9	- - -	4,336 5 9
Gloves, of leather	49,701 5 0	0 14 8	49,701 19 8	49,651 4 7	0 14 8	49,651 19 3
Hair, or goats' wool, manufactures of	1,131 13 2	- - -	1,131 13 2	1,112 17 2	- - -	1,112 17 2
Hats or bonnets of straw	813 6 5	- - -	813 6 5	810 17 0	- - -	810 17 0
Hops	44,467 8 11	- - -	44,467 8 11	44,439 16 6	- - -	44,439 16 6
Iron and steel, wrought	1,331 16 11	7 9 1	1,339 6 0	1,309 17 8	7 9 1	1,317 6 9
Lace, and articles thereof	3,633 12 8	- - -	3,633 12 8	3,631 7 11	- - -	3,631 7 11
Linens	775 8 7	0 5 0	775 13 7	770 11 7	0 5 0	776 16 7
Liquorice juice and paste	8,904 3 5	222 5 11	9,126 9 4	8,885 2 1	221 4 5	9,106 6 6

* This is an estimate only. The expense of the coast guard is now provided for in the Navy Estimates, where it is mixed up with the charge for the naval coast volunteers.

List of Articles.	Gross Receipt.			Nett Produce.		
	Great Britain.	Ireland.	United Kingdom.	Great Britain.	Ireland.	United Kingdom.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Lucifers	2,325 13 11	0 17 5	2,326 11 4	2,302 3 5	0 17 5	2,303 0 10
Mace	1,304 13 7	- -	1,304 13 7	1,304 12 7	- -	1,304 12 7
Musical instruments	9,503 19 6	27 10 0	9,531 9 6	9,428 17 11	27 10 0	9,456 7 11
Nutmegs	9,853 15 4	21 19 0	9,875 14 4	9,820 2 10	21 19 0	9,842 1 10
Nuts: small nuts	8,510 1 8	- -	8,510 1 8	8,503 16 8	- -	8,503 16 8
walnuts	2,870 8 4	17 15 0	2,888 3 4	2,857 12 2	17 14 6	2,875 6 8
Oil, chemical, essential and perfumed, of all sorts	9,409 0 6	15 1 3	9,424 1 9	9,356 4 11	15 1 3	9,371 6 2
Oil cloth	1,014 8 4	- -	1,014 8 4	1,001 18 5	- -	1,001 18 5
Opera glasses, and all marine and race glasses, not being telescopes	2,323 0 6	0 5 0	2,323 5 6	2,322 15 6	0 5 0	2,323 0 6
Opium	3,057 5 4	- -	3,057 5 4	3,054 4 4	- -	3,054 4 4
Oranges and lemons	31,503 19 3	490 8 0	31,994 7 3	31,400 10 0	480 16 6	31,881 6 6
Paper: printed, painted or stained paper hangings, and flock paper	2,956 18 3	87 6 6	3,044 4 9	2,947 8 3	87 6 6	3,034 14 9
Paper of other sorts	7,809 10 4	61 0 11	7,870 11 3	7,799 0 8	60 3 5	7,859 4 1
of the manufacture of the Isle of Man and the Channel Islands	355 14 4	- -	355 14 4	355 14 4	- -	355 14 4
Pepper	91,559 19 9	4,951 14 6	96,511 14 3	91,373 3 2	4,944 11 10	96,317 15 0
Pimento	1,300 4 3	0 4 10	1,300 9 1	1,299 7 6	0 4 10	1,299 12 4
Plate, gold and silver	2,765 14 2	7 12 6	2,773 6 8	2,718 8 4	7 12 6	2,726 0 10
Plating of all kinds	12,614 19 11	- -	12,614 19 11	12,584 11 6	- -	12,584 11 6
Plums, dried or preserved, French plums and prunelloes	2,009 1 4	56 6 4	2,065 7 8	1,971 15 3	51 17 2	2,023 12 5
Prunes	3,253 2 8	13 12 2	3,266 14 10	3,219 7 8	12 19 3	3,232 6 11
Raisins	94,252 13 6	2,306 6 5	96,558 19 11	93,935 16 7	2,240 18 5	96,176 15 0
Rice	28,765 18 6	10 7 7	28,776 6 1	28,694 5 9	10 7 7	28,704 13 4
in the husk	676 4 2	9 7 6	685 11 8	668 14 2	9 7 6	678 1 8
Sago	2,341 13 1	- -	2,341 13 1	2,302 10 4	- -	2,302 10 4
Seeds, caraway	2,556 17 9	222 4 5	2,779 2 2	2,546 17 9	221 10 0	2,768 7 9
Silk manufactures	231,787 15 8	14 5 7	231,802 1 3	231,475 18 3	14 5 7	231,190 3 10
Spirits, colonial and foreign:						
Rum	1,351,170 0 5	30,870 2 9	1,382,040 3 2	1,350,823 6 10	30,869 3 9	1,381,692 10 7
Brandy	849,088 15 8	33,775 4 7	882,864 0 3	848,508 7 2	33,629 0 11	882,137 8 1
Geneva	17,143 18 7	2,299 0 3	19,442 18 10	17,109 9 5	2,292 4 10	19,401 14 3
Of other sorts	15,791 8 9	830 1 10	16,621 10 7	15,703 12 9	827 15 7	16,531 8 4
Succades and confectionery, including all fruits and vegetables preserved in sugar	2,399 18 10	16 13 4	2,416 12 2	2,386 1 8	15 9 6	2,401 11 2
Sugar, unrefined	5,034,343 0 5	238,918 2 6	5,273,261 2 11	4,880,357 12 7	238,721 4 10	5,119,078 17 5
refined and sugar candy	248,819 18 10	35,423 12 5	284,243 11 3	248,064 0 1	35,182 0 1	283,246 0 2
cane juice	12,130 5 0	- -	12,130 5 0	12,129 19 10	- -	12,129 19 10
molasses	173,677 6 8	36 1 9	173,713 8 5	173,325 15 3	36 1 9	173,361 17 0
Tallow	76,003 6 8	1,305 15 2	77,309 1 10	75,118 19 11	1,302 15 1	76,721 15 0
Tea	4,696,349 14 6	765,381 18 11	5,461,731 13 5	4,694,347 6 6	765,151 11 7	5,459,498 18 1
Tobacco and snuff	4,445,982 11 6	848,167 15 0	5,294,055 6 6	4,424,310 15 0	848,160 9 3	5,272,471 5 1
Toys	3,564 18 3	0 2 4	3,565 0 7	3,537 13 6	0 2 3	3,537 15 9
Watches	14,448 12 6	- -	14,448 12 6	14,425 10 6	- -	14,425 10 6
Wine	1,700,862 14 6	159,019 18 0	1,859,882 12 6	1,575,455 2 9	158,274 2 7	1,733,729 5 4
Wood and Timber:						
Firewood	5,822 10 0	0 9 0	5,822 19 0	5,772 16 3	0 8 0	5,773 4 3
Lathwood	7,027 8 11	444 5 5	7,471 14 4	6,874 15 8	424 9 8	7,299 5 4
Spars or poles	1,502 9 4	24 14 10	1,527 4 2	1,484 15 1	23 12 7	1,508 7 8
Deals, battens, &c., sawn or split	335,636 5 6	13,234 16 5	348,871 1 11	332,682 1 6	13,113 19 1	345,796 0 7
Timber, not sawn or split, or otherwise dressed	208,100 3 4	13,964 12 8	222,064 16 0	206,359 16 0	13,834 10 4	220,194 6 4
Woollen manufactures, wholly or in part made up	1,669 5 5	0 11 5	1,669 16 10	1,658 6 5	0 11 5	1,658 17 10
Yarn woollen and worsted	1,569 3 5	- -	1,569 3 5	1,559 5 8	- -	1,559 5 8
All other articles	67,744 0 9	520 3 2	68,264 3 11	67,051 12 10	511 17 2	67,563 10 0
Aggregate of receipt on imported merchandise	21,385,945 14 2	2,236,990 7 9	23,622,936 1 11	21,064,970 10 0	2,234,599 19 7	23,299,570 9 7
Deduct, sums already brought to account as a portion of the customs revenue of the preceding year, ended 31st March, 1857, being so much of the duties on tea and other articles included in the foregoing statement, as was paid by way of deposit, before the close of that year	106,398 10 9	- -	106,398 10 9	106,398 10 9	- -	106,398 10 9
	21,279,547 3 5	2,236,990 7 9	23,516,537 11 2	20,958,571 19 3	2,234,599 19 7	23,193,171 18 10
Duties collected at the Isle of Man	27,854 5 0	- -	27,854 5 0	27,831 12 0	- -	27,831 12 0
Rents of legal quays, warehouse rents, &c.	10,890 15 1	8,917 3 1	19,807 18 2	10,810 12 11	8,909 15 1	19,720 8 0
Proceeds of goods sold for the duties, &c.	22,439 5 8	162 3 5	22,601 9 1	18,332 5 9	161 13 5	18,493 19 2
Received from the corporation of Manchester, in repayment of the expenses of the customs establishment of that place	421 0 10	- -	421 0 10	421 0 10	- -	421 0 10
Fees received under Merchant Shipping Act, Part 2	1,847 19 7	120 9 4	1,968 8 11	1,834 9 7	120 9 4	1,954 18 11
Proceeds of sale of old stores, &c.	11,083 17 1	1,034 11 9	12,118 8 10	10,687 17 10	999 17 3	11,687 15 1
Excess of deposits received from merchants beyond the amount returned within the year	2,461 3 9	- -	2,461 3 9	2,461 3 9	- -	2,461 3 9
Total revenue of customs	21,356,545 10 5	2,247,224 15 4	23,603,770 5 9	21,030,951 1 11	2,244,791 14 8	23,275,742 16 7

During the same year the expense of collecting the Customs revenue, ex. the land guard and preventive water guard, amounted to 843,757*l*.

N. B. The Board of Customs have issued two Annual Reports on the state of the

Customs Department, which embody a great deal of useful information. The first Report, which gives an account of the history and progress of the department, is especially interesting.

An Account, showing the Gross Receipt and Nett Produce of the Customs Revenue of the United Kingdom in each Year from 1807 to 1858, with the Charges of Collection thereon, and the Rate per Cent. of Collection on the Gross Receipt and Nett Produce respectively.

Years.	Gross Receipt.	Nett Produce, after deducting drawbacks, &c.	Charges of Collection.	Rate per Cent. of Collection.	
				On Gross Receipt.	On the Nett Prod.
	£	£	£	£ s. d.	£ s. d.
1807	15,091,731	12,720,373	1,020,341	6 15 3	8 0 5
1808	14,584,004	12,897,798	1,093,748	7 10 0	8 9 7
1809	16,941,989	14,714,670	1,230,277	7 5 3	8 7 2
1810	16,886,655	14,287,417	1,320,233	7 16 4	9 4 9
1811	15,110,158	13,135,674	1,405,165	9 5 9	10 13 8
1812	16,030,756	14,351,771	1,462,606	9 2 6	10 3 10
1813	16,922,891	14,477,989	1,625,543	9 12 1	11 4 7
1814	17,025,253	15,025,691	1,641,117	9 12 9	10 18 5
1815	16,623,971	14,330,390	1,689,010	10 3 2	11 15 9
1816	14,043,215	11,891,563	1,729,874	12 6 4	14 10 11
1817	15,366,675	13,745,987	1,696,159	10 1 2	11 12 3
1818	15,946,776	13,628,584	1,606,738	10 12 9	12 9 0
1819	14,734,562	12,790,273	1,699,095	10 19 6	13 5 8
1820	14,100,521	11,969,390	1,591,743	10 9 10	13 6 0
1821	14,789,705	12,654,524	1,594,825	10 0 1	12 12 1
1822	14,384,711	12,923,420	1,547,487	10 15 2	11 19 6
1823	15,504,869	13,966,154	1,567,779	10 2 3	11 4 6
1824	15,491,159	13,554,033	1,469,196	9 8 9	10 15 9
1825	20,367,655	18,845,258	1,504,703	7 7 9	7 18 10
1826	20,582,925	19,562,973	1,537,408	7 9 4	7 17 2
1827	21,009,053	19,939,393	1,490,170	7 1 10	7 9 6
1828	20,608,711	19,417,184	1,454,009	7 1 1	7 9 9
1829	20,571,837	19,298,326	1,375,575	6 13 9	7 2 6
1830	21,084,525	19,527,101	1,295,189	6 2 10	6 12 8
1831	19,645,940	18,367,074	1,317,826	6 14 2	7 4 3
1832	19,684,574	18,167,881	1,376,365	6 19 10	7 9 1
1833	18,575,183	17,809,353	1,386,261	7 9 3	7 15 8
1834	21,118,920	20,108,703	1,338,923	6 6 9	6 13 2
1835	23,148,899	22,146,018	1,356,725	5 17 2	6 2 6
1836	23,959,037	23,045,668	1,311,467	5 9 6	5 13 10
1837	22,907,616	22,065,119	1,294,818	5 13 0	5 17 4
1838	23,210,881	22,365,340	1,300,807	5 12 1	5 16 4
1839	23,508,681	23,184,082	1,290,672	5 9 9	5 11 4
1840	23,657,943	23,341,813	1,286,353	5 8 9	5 10 3
1841	23,821,486	23,515,375	1,266,519	5 6 4	5 7 9
1842	22,774,315	22,523,513	1,254,590	5 10 2	5 11 5
1843	22,850,169	22,647,200	1,254,136	5 9 9	5 10 9
1844	24,277,477	24,107,348	1,264,996	5 4 2	5 4 11
1845	22,907,578	21,706,197	1,278,944	5 16 4	5 18 0
1846	22,611,708	22,278,317	1,264,275	5 11 10	5 13 6
1847	21,824,010	21,655,662	1,304,173	5 19 6	6 0 5
1848	22,785,942	22,593,977	1,312,709	5 15 3	5 16 2
1849	22,483,956	22,268,864	1,301,727	5 15 9	5 16 11
1850	22,194,142	22,019,784	1,283,805	5 15 8	5 16 7
1851	22,375,662	22,197,075	1,290,756	5 15 4	5 16 4
1852	22,312,514	22,137,120	1,268,422	5 13 8	5 14 7
1853	22,737,284	22,515,913	1,302,721	5 14 7	5 15 9
Years ended 31st March					
1855	22,245,118	21,991,675	1,256,135	5 12 11	5 14 5
1856	23,481,818	23,213,797	1,315,150	5 12 0	5 13 3
1857	23,959,628	23,488,136	1,107,554	4 12 5	4 14 8
1858	23,603,770	23,275,743	843,753	3 11 5	3 12 5

Summary Account, showing the Amount of Revenue collected by the Customs in London, Liverpool, and the Outports of England, Scotland, and Ireland respectively in the Years ended 31st December 1856 and 1857; showing also the gross Number of Officers on the Establishment, with the gross Amount of their Salaries and Day Pay.

Ports.	Revenue.		Establishment.			
			Number of Officers.		Salaries and Day Pay.	
	1856.	1857.	1856.	1857.	1856.	1857.
	£	£	£	£	£	£
London	12,287,519	11,465,989	2,167	2,179	508,845	510,290
Liverpool	3,824,177	3,621,409	935	932	106,639	106,207
Ports in England	3,707,410	3,692,808	1,620	1,645	166,362	167,818
Ports in Scotland	2,118,379	2,021,093	540	532	57,707	56,448
Ports in Ireland	2,278,148	2,152,072	451	434	47,688	45,997
Total	24,215,633	22,956,371	5,713	5,722	687,241	686,760

The following clauses of the Customs Consolidation Act, the 16 & 17 Vict. c. 107., refer to the appointment of customs officers.

Appointment of Officers.—It shall be lawful for the Commissioners of the Treasury, or, under their authority, the Commissioners of Customs, to appoint proper persons for the management and collection of the customs, and the performance of all duties connected therewith, under the control and direction of the Commissioners of Customs, and to grant to such persons such salaries or allowances, or to permit them to receive such emoluments for executing the duties of their respective offices, as may be proper, and to require of such persons such securities for their good conduct as the said Commissioners of the Customs shall deem necessary; and such persons shall hold their offices during the pleasure of the Commissioners of the Treasury or of the Commissioners of Customs; and all salaries or allowances granted to any officer or other person in the service of the customs shall be paid without any deduction on account of any duties imposed by any act of parliament, unless expressly charged thereon; and when any sum of money shall have been or shall be granted annually or otherwise to any person who has been or shall have been employed in the service of the customs as a superannuation allowance upon the retirement of such person from such service, or as a compensation for past services, it shall not be lawful for the grantee of such allowance or compensation to assign or dispose of the same to any person or persons whomsoever, and any such assignment or disposition shall be void to all intents and purposes, and shall not be enforced in any court of law or equity.—§ 1.

Persons employed on Service of the Customs shall be deemed Officers for such Service.—Every person employed on any duty or service relating to the customs, trade, or navigation, either in the U. K., the

Channel Islands, or any of H. Majesty's possessions abroad, by the orders or with the concurrence of the Commissioners of Customs (whether previously or subsequently expressed), shall be deemed to be the officer for that duty or service; and every act required by law to be done by or with any particular officer nominated for such purpose, if done by or with any person appointed by the Commissioners of Customs to act for such particular officer, shall be deemed to be done by or with such particular officer; and every act required by law to be done at any particular place within any port, if done at any place within such port appointed by the Commissioners of Customs for such purpose, shall be deemed to be done at the particular place so required by law; and all commissions, deputations, and appointments granted to any officers of the customs in force at the commencement of this act shall continue in force as if the same had been granted under the authority of this act, and all bonds or other securities which shall have been given by or for any such officers and their respective sureties for good conduct or otherwise shall remain in full force. — § 2.

Clause 3rd enacts that any officer taking fee or reward not authorized by law shall be dismissed.

Declaration on Admission to Office. — Every person who shall be appointed to any office or employment in the customs, under the control and direction of the Commissioners of Customs, shall on his admission thereto make the following declaration: —

'I *A. B.* do declare, that I will be true and faithful in the execution, to the best of my knowledge and power, of the trust committed to my charge and inspection in the service of H. Majesty's Customs; and that I will not require, take or receive any fee, perquisite, gratuity, or reward, whether pecuniary or of any sort or description whatever, either directly or indirectly, for any service, act, duty, matter, or thing done or performed or to be done or performed in the execution or discharge of any of the duties of my office or employment, on any account whatever, other than my salary and what is or shall be allowed me by law, or by any special order of the Commissioners of H. Majesty's Treasury, or the Commissioners of H. Majesty's Customs for the time being.'—§ 4.

Hours of Attendance, &c. — The Commissioners of the Treasury may, by their warrant from time to time appoint the hours of attendance of the commissioners and officers of customs, and of other persons in the customs service, at their proper offices and places of employment; and the Commissioners of Customs may appoint the times during such hours at which any particular parts of the duties of any such officers and other persons shall be performed. — § 5.

Holidays. — No day shall be kept as a public holiday by the customs except Christmas Day and Good Friday, and such other days as may be appointed to be kept as such by proclamation, and, so far as regards Scotland, such days as shall be appointed to be so kept by authority of the General Assembly, and also such days as shall have been or may be appointed for the celebration of the birthdays of H. Majesty and her successors, and such days shall be kept as public holidays by the officers and servants of the dock companies in the U. K. — § 6.

Officers of Customs not to serve in public Offices. — No commissioner, officer, clerk, or other person acting in the management or collection of the customs shall be compelled to serve in the militia, or on any jury or inquest, or to assume the office of a mayor or sheriff, or to act in any corporate, parochial, or other public office. — § 7.

Office of Inspector General of Imports and Exports. — The office of inspector general of imports and exports was established in 1696. The accounts of the trade and navigation of the country, annually laid before parliament, are furnished by this office; and from the ability of the officers, and the improved manner in which these accounts are now made out, they have become of great public importance. Their accuracy must, of course, depend on the accuracy of the entries; but as respects articles on which the duties are reasonable, or low, and in which, consequently, there is no great temptation to clandestine importation, they may be regarded as nearly accurate. It is now usual to give statements of the quantities of the principal articles, exported and imported, as well as of their declared or real values; which is a great improvement.

CUTLERY, a term used to designate all manner of sharp and cutting instruments made of iron or steel, as knives, forks, scissors, razors, shears, scythes, &c. Sheffield is the principal seat of the cutlery manufacture; but the few knives and other articles made in London are said to be of superior quality.

The act 59 Geo. 3. c. 7. gives the manufacturers of cutlery made of *wrought* steel, the privilege of marking or stamping them with the figure of a hammer; and prohibits the manufacturers of any articles of cutlery, edge tools, or hardware, *cast or formed in a mould*, or manufactured otherwise than by means of a hammer, from marking or impressing upon them the figure of a hammer, or any symbol or device resembling it, on pain of forfeiting all such articles, and 5*l.* for every dozen. A penalty of 10*l.* per dozen, exclusive of forfeiture, is also imposed upon every person having articles of cutlery in his possession for the purpose of sale, marked with the words *London* or *London made*, unless the article so marked have been really manufactured within the city of London, or a distance of 20 miles from it.

Cutlery is included in the customs returns under the same head as hardware, which comprises stoves, fenders, fire-irons, with a long list of other articles. The declared value of the exports of both descriptions of articles, which has rapidly increased, amounted in 1857 to 4,016,230*l.*

CYPRESS, a forest tree of which there are many varieties, the species denominated the evergreen cypress (*Cupressus sempervirens*) and the white cedar (*Cupressus Thyoides*) being the most celebrated.

The cypress is indigenous to the southern parts of Europe, to several parts of Asia, and to America. It grows to a great size, and is a most valuable species of timber. It is never attacked by worms; and exceeds all other trees, even the cedar, in durability. Hence the Athenians, when desirous to preserve the remains of their heroes and other great men, had them enclosed in cypress coffins; and hence, also, the external covering of the Egyptian mummies is made of the same enduring material. The cypress is said to live to a great age; and this circumstance, combined with its thick dark green foliage, has made it be regarded as the emblem of death and the grave.

In his *Geography and History of the Western States of America*, Mr. Timothy Flint has given the following account of the cypress trees found in the southern parts of the valley of the Mississippi:—"These noble trees rear their straight columns from a large cone-shaped buttress, whose circumference at the ground is, perhaps, 3 times that of the regular shaft of the tree. This cone rises from 6 to 10 feet, with a regular and sharp taper, and from the apex of the cone towers the perpendicular column, with little taper after it has left the cone, from 60 to 80 feet clear shaft. Very near the top it begins to throw out multitudes of horizontal branches, which interlace with those of the adjoining trees, and, when bare of leaves, have an air of desolation and death, more easily felt than described. In the season of vegetation the leaves are short, fine, and of a verdure so deep as almost to seem brown, giving an indescribable air of funeral solemnity to this singular tree. A cypress forest, when viewed from the adjacent hills, with its numberless interlaced arms covered with this dark brown foliage, has the aspect of a scaffolding of verdure in the air. It grows, too, in deep and sickly swamps, the haunts of fever, mosquitoes, moccassin snakes, alligators, and all loathsome and ferocious animals, that congregate far from the abodes of man, and seem to make common cause with nature against him. The cypress loves the deepest, most gloomy, inaccessible swamps; and south of 33° is generally found covered with sable festoons of long moss, hanging, like shrouds of mourning wreaths, almost to the ground. It seems to flourish best when water covers its roots for half the year. Unpromising as are the places and circumstances of its growth, no tree of the country where it is found is so extensively useful. It is free from knots, is easily wrought, and makes excellent planks, shingles, and timber of all sorts. It is very durable, and incomparably the most valuable tree in the southern country of this valley."—(Vol. i. p. 62.)

D.

DAMAGED GOODS, in the language of the customs, are goods, subject to duties, that have received some injury either in the voyage home or in the bonded warehouses.

It is enacted by the 16 & 17 Vict. c. 107., that no claim for any abatement of duty in respect of any goods imported into the U. K., shall be allowed on account of damage, unless such claim be made on the first examination thereof, and in such form and manner as the commissioners of customs shall direct, nor unless it be proved to the satisfaction of the commissioners of customs or their officers, that such damage was sustained after such goods had been shipped in the importing ship, and before the landing thereof in the U. K.; and all goods derelict, jetsam, flotsam, and wreck brought or coming into the U. K., and all droits of admiralty sold in the U. K., shall at all times be subject to the same duties as goods of the like kind on importation into the same part of the U. K. are subject to, unless it shall be shown to the satisfaction of the commissioners of customs, that such goods are the growth, produce, or manufacture of any country or place, by virtue whereof the same may be entitled to be admitted at less than the foreign duty, or duty free, or that the same, if liable to duty, are entitled to an abatement in respect of such damage; and the damage sustained by such goods, whether so imported or derelict, jetsam, flotsam, or wreck as aforesaid, shall be assessed by the officers of the customs, if competent thereto, but if not, or if the commissioners of customs, or the collector or comptroller of the port into which the same shall be imported or brought as aforesaid, shall entertain any doubt as to the amount of such damage, they may call upon two indifferent merchants to examine the goods, and certify to what extent, in their judgment, the same are lessened in value by such damage, whereupon the officers of the customs may make an abatement not exceeding $\frac{3}{4}$ths of the duty originally chargeable thereon, but no allowance shall be made for damage on cocculus indicus, nux vomica, rice, guinea grains, lemons, spirits, corn, grain, meal and flour, opium, sugar, cocoa, oranges, tea, coffee, pepper, tobacco, currants, raisins, wine, and figs.—§ 76.

DAMAR, a kind of indurated pitch or turpentine exuding spontaneously from various trees indigenous to most of the Indian islands. Different trees produce different species of resin, which are designated according to their colour and consistence. "One is called *Damar-batu* in Malay, or *Damar-selo* in Javanese, which means hard or stony rosin; and another in common use, *Damar-Puteh*, or white rosin, which is softer. The trees which produce the damar yield it in amazing quantity, and generally without the necessity of making incisions. It exudes through the bark; and is either found adhering to the trunk or branches in large lumps, or in masses on the ground under the trees. As these often grow near the sea-side, or on the banks of rivers, the damar is frequently floated away, and collected in distant places as drift. It is exported in large quantities to Bengal and China; and is used for all the purposes to which we apply pitch, but principally in paying the bottoms of ships. By a previous arrangement, almost any quantity may be procured at Borneo, at the low rate of $\frac{1}{2}$ dollar per picul."—(*Crawfurd, East. Archip.* vol. i. p. 455., vol. iii. p. 420.)

DAMASK (Ger. *Damasten Tafelzeug*; Du. *Damaskwerk*; Fr. *Venise, Damas*; It. *Tela damaschina*; Sp. *Tela adamascada*; Rus. *Kamtschatnüä salffthi*), a species of table linen.—(See LINEN.)

DANTZIC, one of the principal emporiums of the north of Europe, in West Prussia, lat. 54° 20′ 48″ N., lon. 18° 38′ E. Population, in 1855, 63,461. It is

situated on the left or western bank of the Vistula, about 4 miles from its embouchure. The harbour, Neufahrwasser, at the mouth of the river, is defended on each side by pretty strong forts. The town is traversed by the small river Motlau, which has been rendered navigable for vessels drawing 8 or 9 feet water.

Roads, Port, &c.—The road or bay of Dantzic is covered on the west side by a long, narrow, low, sandy tongue of land, extending from Reserhoft Point (on which is a light-house), in lat. 54° 50½', lon. 8° 23' 15", upwards of 20 miles in an E. by S. direction having the small town of Heela, or Heel, near its termination. A light-house, elevated 123 feet (Eng.) above the level of the sea, has been erected within about ¼ a mile of the extremity of this point. The flashes of the light, which is a revolving one, succeed each other every ½ minute. Dantzic lies about S. ¼ W. from the Heel; its port being distant about 4 leagues. There is good anchorage in the roads for ships of any burden; but they are exposed, except immediately under the Heel, to the north and north-easterly winds. There are harbour lights at the entrance to the port. All ships entering the Vistula must heave to about a mile off the port, and take a pilot on board; and pilots must always be employed in moving ships in the harbour, or in going up and down the river. The usual depth of water at the mouth of the river is from 12 to 13 feet (Eng.); in the harbour, from 13 to 14 feet; at the confluence of the Motlau with the Vistula, from 9 to 9½ feet; and in town, from 8 to 9 feet. Moles have been erected on both sides of the entrance to the harbour: that on the eastern side, which is most exposed, is constructed of granite, but is not yet completed; the other is partly of stone and partly of timber.

Trade of Dantzic.—Next to Petersburg and Stettin, Dantzic is the most important commercial city in the N. of Europe. It owes its distinction in this respect to its situation; the Vistula, with its important tributaries the Bug, Narew, &c., giving it the command of a great internal navigation, and rendering it the *entrepôt* where the surplus products of West Prussia, Poland as far as Hungary, and part of Lithuania, are exchanged for those imported from the foreigner. The exports of wheat from Dantzic are generally greater than from any other port, Odessa excepted. There are four sorts of wheat distinguished here; viz., *white, high-mixed, mixed* and *red*, according as the white or red predominates. The quality of Dantzic wheat is for the most part excellent; for, though small in the berry, and not so heavy as many other sorts, it is remarkably thin skinned, and yields the finest flour. The white Polish wheat exported here is the best in the Baltic. Rye is also very superior, being both clean and heavy; the exports are considerable. The exports of barley and oats are comparatively inconsiderable, and the qualities but indifferent. Very fine white peas are exported. Next to grain, timber is the most important article of export from Dantzic, but latterly the supply has been diminishing, and the quality is said not to be so good as formerly.—(*Meek.*) The principal supply of fir timber, masts, &c., is brought by the River Narew, which, with its branches, rises in Old Prussia and Lithuania, and falls into the Bug near the confluence of the latter with the Vistula. Oak planks, staves, &c., are brought down from the higher parts of the Vistula, and the tributary streams of Dunajetz, Wieprez, &c. Salted pork, weed ashes, linseed and rapeseed, mats, bones, zinc, spruce beer, feathers, &c., are also exported.

The imports consist principally of iron and steel, herrings, wine, sugar, coffee, cotton and cotton yarns; spices, salt, coal, tobacco, dyewoods, spirits, rice, &c.; but their value is seldom more than half that of the exports.

Account of the Exports of Grain from Dantzic in 1857:—

Wheat	337,031 quarters.	Peas and beans	31,205 quarters.
Rye	132,692 ,,	Linseed	6,534 ,,
Barley	25,370 ,,	Rapeseed	13,980 ,,
Oats	8,716 ,,		

Prices fluctuated a good deal throughout the year, but in general they were very high, those of wheat being estimated at an average at from 45*s.* to 60*s.* a quarter.

Exports of Wood from Dantzic to different Countries in 1857.

Wood Articles.	To Britain.	To France.	To Holland, Belgium, &c.	Stock on December 31st.
Pieces of square fir timber, full-sized	138,818	17,489	19,080	110,970
,, small-sized fir timber	9,895	7,270	6,429	49,871
Fir deck deals, deals, and deal-ends	67,791	42,957	266,096	
Pieces of oak timber and crooks	18,674	6,948	5,043	82,807
,, plank and ends	44,473	53,534	12,108	48,961
Sleepers and sleeper logs	472,585	. .	153,079	
Fathoms of lathwood	4,792			
Masts and spars	347	1,708	1,308	
Shocks of oak staves	10,036	4,315	3,776	6,837
Pieces of roundwood fir timber	. .	. .	. .	206,849
,, whitewood	. .	. .	. .	15,527

The value of the wood exported in 1857 may be estimated at from 550,000*l.* to 575,000*l.*

The merchants of Dantzic are but little given to speculation; and the value of the imports into the city seldom exceeds half the value of the exports.

In addition to the royal or government bank, mentioned in a subsequent part of this article, a private joint stock bank was established in 1857.

Shipping.—In 1857 there arrived at Dantzic 1,888 ships, of which 318 were British; but many of the vessels arriving at the port were of very small burden. Some large

and fine ships are built at Dantzic. In 1856 there were upon the stocks 11 sailing ships and 2 screw steamers. Steamers from Hull and London arrive here almost every week; and steamers are now to be found in all the navigable parts of the Vistula. We avail ourselves of this opportunity to lay before the reader the following details with respect to the mercantile marine of this and other Prussian ports.

Prussian mercantile Navy, 1st January, 1858.

Ports.	Steamers.			Sailing Vessels.		Total.	
	Number of Vessels.	Horse Power.	Tonnage in Lasts.	Number of Vessels.	Tonnage in Lasts.	Number of Vessels.	Tonnage in Lasts.
Dantzic	8	.	685	112	31,051	120	31,736
Stettin	29	1,556	2,303	161	26,730	190	29,033
Memel	5	260	239	80	18,523	85	18,762
Stralsund	1	.	36	137	18,569½	138	18,605½
Barth	.	.	.	129	16,727	129	16,727
Griefswald	.	.	.	45	6,700	45	6,700
Uckermunde	.	.	.	38	6,632	38	6,632
Swinemunde	.	.	.	41	5,623	41	5,623
Wolgast	2	150	215	33	4,622	35	4,837
Colberg	.	.	.	23	5,564	23	4,564
Konigsberg	6	191	191	21	3,711	27	3,902
Rugenwalde	.	.	.	25	3,510	25	3,510
Stolf	.	.	.	43	3,447	43	3,447
Duisburg (Rhine)	.	.	.	3	1,832½	3	1,832½
Andam	.	.	.	11	1,436	11	1,436
Elbing	9	.	293	4	1,071	13	1,364
Other Ports	3	.	920	23	3,677	26	4,597
Total	63	.	4,882	929	158,426	992	163,308

Duties on Pilotage and Police Passports at Dantzic.

Duties.	Prussian and privileged Foreign Flags.			Foreign Flags not privileged.		
Pilotage Duties.	th.	sil.	pf.	th.	sil.	pf.
Vessel drawing 6 feet water and under	1	15	0	2	0	0
Ditto 7 ditto - -	2	15	0	3	0	0
Ditto 8 ditto - -	3	0	0	3	15	0
Ditto 9 ditto - -	3	15	0	4	0	0
Ditto 10 ditto - -	4	0	0	5	0	0

Duties.	Prussian and privileged Foreign Flags.			Foreign Flags not privileged.		
Police Passport Taxes.	th.	sil.	pf.	th.	sil.	pf.
Vessel of 25 lasts, 50 tons and under	1	10	0	1	25	0
Ditto 50 — 100 — - -	1	17	6	2	0	0
Ditto 100 — 200 — - -	1	25	0	2	5	0
Ditto 200 — 400 — - -	2	7	6	3	5	0
Ditto above 400 lasts - -	3	5	0	4	15	0

Money. — Accounts used formerly to be wholly kept in guldens, guilders, or florins of 30 groschen. The rixdollar = 3 florins = 90 groschen = 270 schillings = 1,620 pfennings. The florin or guilder = 9*d.* sterling, and the rixdollar = 2*s.* 5*d.* A new system was, however, introduced into all parts of the Prussian dominions, conformably to the decrees of the 30th of September, 1821, and of the 22nd of June, 1823.

The Cologne mark (containing 3,609 Eng. grains) is the weight at present used in the Prussian mint in weighing the precious metals. The fineness of the coins is not determined, as previously, by carats or loths, but the mark is divided for this purpose into 288 grains. Accounts are now kept in the public offices in thalers or dollars (R.), silver groschen, and pfennings: 1 dol. = 30 sil. gr. = 12 pf.

The only silver monies now coined are dollars and ½ dollar pieces; but smaller coins are in circulation, of former coinages. The Prussian silver coins have ½ of alloy; and as the mark is coined into 14 dollars, each should contain 257·68 Eng. grains pure silver, and be worth about 2*s.* 11½*d.* sterling; but the assays do not always strictly coincide with the mint valuation.

The gold coins are Frederick d'ors, double, single, and half pieces. The mark of 288 grains, having 260 grains of fine gold, is coined into 35 Fred. d'ors. The Fred. d'or is worth from 5 dol. 18 sil. gr. to 5 dol. 22 sil. gr. according to the demand.

Weights and Measures.—The commercial weights are,

32 Loths = 1 Ounce.
16 Ounces = 1 Pound.
16½ Pounds = 1 Lispound.
20 Pounds = 1 Small stone.
33 Pounds = 1 Large stone.

110 lbs. = 1 centner; 3 centners = 1 shippound (330 lbs.); 100 lbs. of Dantzic = 105·3 lbs. avoirdupois = 46·85 kilog. = 94·7 lbs. of Amsterdam = 96·6 lbs. of Hamburg.

The liquid measures are, for beer,

5 Quarts = 1 Anker.
4 Ankers = 1 Ahm.
1½ Ahm = 1 Hhd.
2 Hhds. = 1 Both.
2 Both = 1 Fuder.
2 Fuder = 1 Last = 620·4 Eng. wine gallons.

In wine measure, which is less than beer measure, the ahm = 59⅜ Eng. gallons. The pipe = 2 ahms.

The last of corn = 5⅓ malters = 60 scheffels = 240 viertels = 960 metzen; and weighs 4,680 lbs. Dantzic weight in rye. The scheffel = ·547 of a hectolitre = 1·552 Winchester bushel. Hence the last of 60 scheffels = 11 quarters 3 bushels; the last of 56½ scheffels = 10 quarters 7 bushels.

The Dantzic foot = 11·3 Eng. inches, or 100 Dantzic feet = 94·16 Eng. feet. The ell is 2 feet Dantzic measure. The Rhineland or Prussian foot = ·3138 French metres, or 12·356 Eng. inches: hence 100 Prussian = 102·8 English feet. The Prussian or Berlin ell has 25½ Prussian inches = 26·256 Eng. ditto. 100 Berlin ells = 72·93 Eng. yards; and 137·142 Berlin ells = 100 Eng. yards. 14½ Prussian miles are equal to 15 geographical miles.

Oak planks, deals, and pipe staves are sold by the schock of 60 pieces; wheat, rye, &c. are sold by the last of 56½ scheffels. —(*Kelly's Cambist; Nelkenbrecher, Manual Universal.*)

Corn Trade of Dantzic.—The reader will find under the head Corn Laws and Corn Trade (p. 440, &c.), a pretty full account of the Polish corn trade. But the importance of the subject will excuse our giving a few additional details. Grain is almost wholly brought to Dantzic by water, in flat-bottomed boats suited to the navigation of the Vistula, Bug, &c. Mr. Consul Gibson estimated the expense of the conveyance of wheat and rye hither, including the duty at Thorn and the charges of turning on the river, till put into the granary, as follows: —

	Per Imp. qr.	
	s.	*d.*
From the upper provinces on the Bug, a distance of from 700 to 500 miles - - -	9	2 to 7 10
From the provinces of Cracow, Sendomir, and Lublin, 550 to 350 miles - - -	6	6 - 5 4
From Warsaw and its neighbourhood, about 240 miles - - - - -	4	9 - 3 11
From Wlaclaweck and its neighbourhood, about 140 miles - - - -	4	2 to 3 5
From Grandentz, a distance of about 70 miles, no duty at Thorn, and when not turned on the river - - - - -	0	10 - 0 9

N.B. — These are the ordinary charges; but they are higher when there is any unusual demand for exportation.

The Bug has many windings, and its navigation, which is tedious and uncertain, can only be attempted in the spring, when the water is high. It is the same, though in a less degree, with some of the rivers that fall into the Vistula before it reaches Warsaw; and towards Cracow the Vistula itself is frequently

unnavigable, especially in dry seasons, except in spring, and after the midsummer rains, when the snow melts on the Carpathian mountains. The navigation of the Polish rivers in some seasons is more than usually bad. The corn from the upper provinces does not reach Dantzic till from 2 to 4 months later than usual, and is burdened with a very heavy additional expense. In fact, the supplies of grain at Dantzic depend quite as much on the abundance of water in the rivers, or on their easy navigation in summer, as on the goodness of the harvests.

"There are," says Mr. Jacob, "two modes of conveying wheat to Dantzic by the Vistula. That which grows near the lower parts of the river, comprehending Polish Russia, and part of the province of Plock, and of Masovia, in the kingdom of Poland, which is generally of an inferior quality, is conveyed in covered boats, with shifting boards that protect the cargo from the rain, but not from pilfering. These vessels are long, and draw about 15 inches water, and bring about 150 quarters of wheat. They are not, however, so well calculated for the upper parts of the river. From Cracow, where the Vistula first becomes navigable, to below the junction of the Bug with that stream, the wheat is mostly conveyed to Dantzic in open flats. These are constructed on the banks, in seasons of leisure, on spots far from the ordinary reach of the water, but which, when the rains of autumn, or the melted snow of the Carpathian mountains in the spring, fill and overflow the river, are easily floated.

"Barges of this description are about 75 feet long, and 20 broad, with a depth of 2½ feet. They are made of fir, rudely put together, fastened with wooden treenails, the corners dovetailed and secured with slight iron clamps, — the only iron employed in their construction.

"A large tree, the length of the vessel, runs along the bottom, to which the timbers are secured. This roughly cut keelson rises 9 or 10 inches from the floor, and hurdles are laid on it, which extend to the sides. They are covered with mats made of rye-straw, and serve the purpose of dunnage; leaving below a space in which the water that leaks through the sides and bottom is received. The bulk is kept from the sides and ends of the barge by a similar plan. The water which these ill-constructed and imperfectly caulked vessels receive, is dipped out at the end and sides of the bulk of wheat.

"Vessels of this description draw from 10 to 12 inches water, and yet they frequently get aground in descending the river. The cargoes usually consist of from 180 to 200 quarters of wheat.

"The wheat is thrown on the mats, piled as high as the gunwale, and left uncovered, exposed to all the inclemencies of the weather, and to the pilfering of the crew. During the passage, the barge is carried along by the force of the stream, oars being merely used at the head and stern, to steer clear of the sand banks, which are numerous and shifting, and to direct the vessel in passing under the several bridges. These vessels are conducted by 6 or 7 men. A small boat precedes, with a man in it, who is employed sounding, in order to avoid the shifting shoals. This mode of navigating is necessarily very slow; and during the progress of it, which lasts several weeks, and even months, the rain, if any fall, soon causes the wheat to grow, and the vessel assumes the appearance of a floating meadow. The shooting of the fibres soon forms a thick mat, and prevents the rain from penetrating more than an inch or two. The main bulk is protected by this kind of covering, and, when that is thrown aside, is found in tolerable condition.

"The vessels are broken up at Dantzic, and usually sell for about ⅓ of their original cost. The men who conduct them return on foot.

"When the cargo arrives at Dantzic or Elbing, all but the grown surface is thrown on the land, spread abroad, exposed to the sun, and frequently turned over, till any slight moisture it may have imbibed is dried. If a shower of rain falls, as well as during the night, the heaps of wheat on the shore are thrown together in the form of a steep roof of a house, that the rain may run off, and are covered with a linen cloth. It is thus frequently a long time after the wheat has reached Dantzic, before it is fit to be placed in the warehouses.

"The warehouses (*speichers*) are very well adapted for storing corn. They consist generally of 7 stories, 3 of which are in the roof. The floors are about 9 feet asunder. Each of them is divided by perpendicular partitions, the whole length, about 4 feet high, by which different parcels are kept distinct from each other. Thus the floors have 2 divisions, each of them capable of storing from 150 to 200 quarters of wheat, and leaving sufficient space for turning and screening it. There are abundance of windows on each floor, which are always thrown open in dry weather to ventilate the corn. It is usually turned over 3 times a week. The men who perform the operation throw it with their shovels as high as they can, and thus the grains are separated from each other, and exposed to the drying influence of the air.

"The whole of the corn warehouses now left (for many were burnt during the siege of 1814) are capable of storing 500,000 quarters of wheat, supposing the quarters to be large enough to fill each of the 2 divisions of the floors with a separate heap; but as of late years it has come down from Poland in smaller parcels than formerly, and of more various qualities, which must of necessity be kept distinct, the present stock of about 280,000 quarters is found to occupy nearly the whole of those warehouses which are in repair, or are advantageously situated for loading the ships. Ships are loaded by gangs of porters, with great despatch, who will complete a cargo of 500 quarters in about 3 or 4 hours." — (*First Report.*)

Mr. Meek gives, in his excellent Report on the Prices of Corn and other Articles in the N. of Europe, the following details with respect to Dantzic: —

"Wheat of moderate quality in ordinary seasons cannot be brought from Poland and delivered at Dantzic at less than 35*s.* per quarter, and that only when no excitement exists in the foreign markets. Some time since a very large accumulation of grain had in the course of several years taken place in the granaries at Dantzic; but the great export which has occurred during the last 3 or 4 years has so reduced the magazines, that the stock at the close of the present season (1841) was not expected to exceed from 80,000 to 100,000 quarters. The demand has been so great during the last 2 or 3 years, that every effort has been made to collect in Poland all the supplies that were available, and to bring them to Dantzic for exportation. If the corn trade in England was so modified as to be constantly open at a moderate duty, it is not likely, under such circumstances, that shipments of wheat from Dantzic would materially exceed that of the last 2 or 3 years. Not more than 5,000 quarters are consumed annually in Dantzic, by a population of 60,000 persons, the people generally preferring and living upon rye bread. Of the corn exported from Dantzic, one-third comes from that part of Poland which belongs to Prussia, and the remaining two-thirds from the Russian territory. Apprehensions were expressed here, as in other places, of the competition of Odessa and America, in the event of any material reduction of the duty on corn in England. The party making the observation, who is a leading corn merchant in Dantzic, said he had at that moment a cargo of Odessa corn in London which stood him in 49*s.* per quarter, and that he could purchase there Odessa wheat of similar quality at 48*s.* per quarter. The same apprehensions were expressed by others as to Odessa, exports from which place having already been largely made to Italy and other parts of the Mediterranean; and recently, it was added, several cargoes had been shipped to England. On pressing one of the most intelligent merchants in Dantzic to state what price was paid to the landed proprietor or farmer in Poland for a quarter of wheat on the estate where it was grown, or at the nearest market to that estate, he replied, that it was generally bought by the Jews upon the estates from the landowners or their agents, and afterwards sold by the former to the merchants at Dantzic, deliverable at Dantzic; that in some instances the princes and great landowners sent their own commissioners to Dantzic to effect sales to the merchants; that a Russian prince, who had 10,000 serfs, had acted upon the principle very recently; that under such circumstances it would not be right to take less than 35*s.* per quarter, as the price at which wheat, when there was a fair average crop, could be delivered at Dantzic, from which, deducting 12*s.* per quarter for the expense of bringing it from the place of growth to Dantzic, including waste, which is generally very considerable, cost of the boats, which are broken up and sold for a trifle compared with their original cost (amounting, perhaps, to 400 or 500 thalers, whereas they are only sold for about 40), the expense of the peasants and other persons navi-

gating them for a voyage, sometimes of 3 or 4 months, and returning back to Poland on foot, there would be left 23*s.* per quarter, as the price paid to the proprietor at the place of growth; out of which he had to bear the expense of cultivation, to pay the interest and redeem the capital of any mortgage which might exist, the residue being what would remain for rent and interest of capital embarked in the soil. He added, that this was generally considered as an average estimate of the expenses; but that they would vary a little, dependent upon the distance, either greater or less, from which the corn was brought. A considerable quantity of bones are exported from Dantzic to Great Britain, many of which are collected and sent down from Cracow. Complaint was made to the Consul by the merchant chiefly employed in this trade, that a heavy transit duty of 2*s.* per cwt. had recently been levied for the nominal purpose of repaving the turnpike road, that it was a heavy tax in proportion to the value, and that a representation from England was alone necessary to obtain its repeal.

"Of the timber and staves shipped at Dantzic, nearly the whole comes from Russian Poland. Prussian timber is becoming scarce; and even that from the Russian territory, that is of good quality, is much reduced, and has of late not been so good as formerly. This is owing, principally, to most of the good timber that could be conveniently got afloat having been felled. There is, it is said, but little of good quality now to be had without going much farther back from the shipping places, which the discouragement given by the present timber duties prevents. It will hence be obvious, that whenever any alteration takes place either in the corn trade or timber duties, Russia will be much more benefited than Prussia, so far as relates to the export of corn and timber from Dantzic."

Timber Trade, Brack.—Fir timber is usually brought down in its natural state, and is squared into logs, or sawn into planks, in winter, when the labourers cannot be otherwise employed. The staves shipped here are carefully assorted, and are reckoned superior to those of America.

The expenses of the water conveyance of squared timber, including duty at Thorn, are—

	Per piece.	
	s. d.	*s. d.*
From the Bug	from about 6 0	to 5 9
Wieprez (above Warsaw)	- 4 6	- 4 4
Vistula (above do.)	- 3 0	- 2 4

Being higher when the demand is unusually great, or when hands are scarce.

At Dantzic, as well as at Petersburg (which see), Riga, and several other Baltic ports, sworn inspectors (*brackers*) are appointed by authority to examine certain articles intended for exportation, and to classify them according to their qualities. Staves and timber of all sorts, with the exception of pine wood, is subjected to the brack. Prime quality is branded *Krohn* or *Crown*; second-quality, *Brack*; and the third or lowest quality, *Bracks Brack*. All unmerchantable articles are rejected by the brackers, and are not allowed to be exported.

The gauge for crown pipe staves, which the bracker has always in his hand, is 4½ inches broad, 1¼ thick, and 64 inches in length, which they must be at least; but they are expected to be larger in every respect.

Pipe staves are from 64 to 68 inches long; 6, 5, and 4½ at least, broad; and from 1½ to 3 inches thick.

Brandy staves are at least 54 to 58 inches long, as thick and broad as pipe staves.

Hogshead staves are 42 to 45 inches long, as thick and broad as pipe staves, all English measure.

The quality is ascertained by marks, to distinguish each sort, as follows:—

Crown pipe staves, stamped at the end, K.
— brack, in the middle, I.
— bracks brack, II.
Hogshead crown, at the end, O K.
— brack, in the middle, I.
— bracks brack, II.
Brandy hogshead crown, at the end, B K.
— brack, in the middle, ⋈.
— bracks brack, ⋈⋈.

Oak planks are assorted in the same manner. Crown plank is marked in the middle, C. Brack, in the end and middle, B. Bracks brack, B B.

To distinguish 1¼ from 2, and 2½ from 3 inches, the 1¼ are marked with I, and 2½ ⋈.

At the end, in rough strokes, with coloured paint, brack is yellow I; bracks brack, white II; crown, red III.

Ashes are subjected to the brack. The calcined are opened and the crust taken off; others are not examined unless there be any suspicion of their quality, or the staves of the hogshead be supposed to be too thick. Every cask of potashes is opened.

Shipping Charges and Duties.

Charges upon the Shipment of 1000 Quarters of Corn at Dantzic in English Money.

	£ *s. d.*
Metage in granary	- 5 0 0
Delivery	- 1 4 6
Porterage down	- 9 0 0
Meters' fee	- 2 0 0
Town dues	- 3 15 0
Lighterage	- 10 0 0
Expenses to the roads	- 2 10 0
	£33 9 6

Exclusive of commission, 2 per cent.

The above are the charges if bought and shipped from the granary; but if bought and warehoused previously to shipping, the following additional charges are incurred:—

Metage from craft.

Porterage up, meters' fees, and town dues, are the same.

Additional.

Granary rent - 3*d.*
Labourers - - 6
Turning - - 7½
} per last of 10½ quarters per month.
Screening - -

Exclusive of insurance against fire.

Charges on the Shipment of—

	R. s. gr.	
Pearlashes	about 0 10 per shippound of 330 lbs	
Weed ashes	— 0 6 — barrel	do.
Fir timber	— 0 10 — load.	
On Deck deals, Short deals, Deal ends	*R. s. gr.* about 0 25½ per load.	
Lathwood	— 1 0 — fathom.	
Clapboards	— 2 0 — shock of 60 pieces	
Oak plank, Oak ends	— 1 10 — load	
Staves	— 45 10 — mille pipe.	
Black or spruce beer	0 7½ — last of 11 kegs.	
Feathers	— 2 0 — 100 lbs.	

N.B.—The Prussian pound is about 3½ per cent. heavier than the English pound. The expenses of sending goods down are taken at about an average rate; but if the whole or the greater part of the cargo were loaded in the Fairwater or roads, the expenses would be somewhat more.

Port Charges.—The charges on a ship of 200 lasts, or about 300 tons burden, are—

	R. s. g. ng.
Harbour money	- 88 26 8
Ditto in gold (say in Fred. d'ors, reckoned at 5 r., in which this must be paid)	- 14 6 8
River money	- 0 0 0
Commercial contribution	- 3 10 0
Expedition expenses	- 13 10 0
Captain's allowance for expenses on shore	- 16 20 0
Tracking the ship into the harbour (Fairwater)	- 2 0 0
Ballast money, &c.	- 10 24 0
Pilot to the ballast wharf	- 4 0 0
Ditto moving the ship in Fairwater	- 2 15 0
Police passport	- 3 5 0
Clearing the vessel in and out	- 16 20 0
Making 25*l.* 6*s.* 6*d.* sterling, at the exchange of 6 r. 28 s. gr.	- 175 17 4

The charges on the ships of all countries having reciprocity treaties with Prussia (which is generally the case) are the same, only Dantzic captains receive no allowance for shore expenses. River or stream money is only paid by vessels that bring goods to town, or load in the Motlau (above the blockhouse): if a ship remain in the Fairwater or Vistula, the river money is levied on the craft carrying the goods, and falls on the latter.

Dantzic is a favourable place for ships careening and repairing, and for obtaining supplies of all sorts of sea stores at a reasonable rate.

There belonged to the port in 1842, 80 ships, measuring 14,886 lasts. They are employed in foreign trade. The port has no fishery, and no coasting trade worth mentioning. The wages of Dantzic seamen vary from 30*s.* to 32*s.* per man per month.

Custom-house Regulations.—The shipmaster must, within 24 hours after arrival in port, make a declaration of the cargo on board, and of the ship's provisions, and he incurs a severe penalty if the declaration do not prove correct. The ship's hatches (if goods are on board) are sealed on arrival, and an additional declaration is accepted before they are unsealed; but no *later* declaration, supplementary or explanatory of the first, and no submitting the goods to investigation by the officers, is received or allowed. If the shipmaster be unable to make a complete declaration on arrival, a Custom-house officer is put on board, who remains until the ship is unloaded, at an expense to her of about 2*s.* per day and night. The cargo can only be discharged in presence of a customs officer.

The shipmaster, and not the receiver of the goods, is made responsible, if the *contents* of the packages do not correspond with his declaration; and he is only exonerated from this by solemnly averring, on making the declaration, that the contents are unknown to him. An evident mistake or oversight is treated as rigorously as an intentional fraud.

On commencing to *load*, the shipmaster receives a blank loading list, in which he must daily note the articles he takes on board, or he is liable to fine; but this regulation is not very rigidly enforced. On clearing out, this list is compared with the goods entered by the vessel, when the sea passport is given.

Ballast can be discharged only at stated places, on pain of the shipmaster being fined.

It is material, however, to observe, that the whole Custom-house business of the shipmaster is conducted by Custom-house brokers, so that he is never at a loss, being informed by the one he selects what he has to do. Alterations are frequently made in the Custom-house regulations.

The shipmaster receives, on arrival, from the pilot commodore, a copy of the harbour regulations, in his own language, with instructions how to act as to ballast.

Warehousing.—Such goods as pay a higher duty than ½ a dollar per centner (about 1*s.* 5½*d.* for about 113 lbs. English) may be placed in the king's stores (nowhere else), and remain there for 2 years without payment of duty. No allowance is made for waste or damage in these stores. Other goods, not capable of being changed, may be placed in private stores, under the king's lock; but not elsewhere, without permission. No rent is charged for goods in the king's stores, during the first 3 months; afterwards about 1½*d.* monthly rent is charged for the first, and about 3*d.* monthly for the second year, per centner of about 113 lbs. English.

In private warehouses, the monthly rent for 10 quarters of wheat or other grain is from about 3½*d.* to 7*d.*, or more, according as warehouse room is abundant or otherwise. Other goods do not usually pay by the piece, but part of a store is hired for them, and the rent generally comes somewhat higher in proportion.

The cost of rent and turning grain is from 1*s.* 2*d.* to 1*s.* 6*d.* monthly, for 10 quarters, according to the season of the year and other circumstances; but more when granary room is scarce, and wages high.

Banking Establishments.—There is none such here, excepting a branch of the Royal or Government Bank of Berlin. This was founded partly in the view of receiving deposits of money under litigation in the courts of the province; monies the property of minors and charitable institutions, the former until disposable or placed on good security; and monies belonging to individuals not merchants, and at times, also, those of the latter. Interest is paid on such deposits as follows: viz.—

3 per cent. on sums belonging to minors.
2½ do. do. charitable institutions,
churches, and sums deposited by the courts of justice, and
2 do. all other deposits.

The principal is demandable at pleasure, unless otherwise stipulated. The bank makes advances on grain and some other kinds of goods at 5 per cent. interest; discounts bills with 3 signatures, not having more than 2 months to run, at 6 per cent., and sometimes, when money is plenty, at a lower rate. It also makes advances at 4 per cent. on deposits of Fred. d'ors and certain foreign monies; and it occasionally buys bills for account of, and sells bills on, the Berlin bank. It does not issue notes. The amount of its capital is not fixed; but government guarantees its transactions. It is relieved from the payment of postage on money, and it is not required to use the stamps fixed by law, on bills for its deposit transactions, but only those of 10 s. gr. (about 11¾*d.*); while individuals must use stamps for such bills of 5 s. gr. for every 400 r., of not longer date than 3 months, and for every 200 r. of longer date.

On negotiable bills, however, the bank must use the stamps fixed by law, say of 5 s. gr. (about 5¾*d.*) for sums of 50 dol. to 400 dol., and at the same rate for every additional sum between 100 dol. and 400 dol.

Bills from and on foreign places, negotiated at Dantzic, are not subject to the stamp duty.

The affairs of the bank are not made public. Being a government concern, there are no dividends. It is not supposed to be very profitable, at least in the present circumscribed state of trade, although enjoying the advantages of exemption from postage of monies, and paying less stamp duty. It is true, however, that the direct advantage of the lower stamp duty is enjoyed by the borrower.

Credit, Brokerage, &c.—Very few goods are consigned from abroad for sale, for such consignments rarely turn to good account. Imports are seldom sold for cash, but generally a 1, 2, and 3 months' credit, or longer. The discount allowed for cash payments, when sold on time, is usually 6 per cent., but it varies according as money is plentiful or otherwise.

Any person, being a burgher of the town (which any one of good character may become), may transact business as a commission merchant or factor; but brokers must be chosen by the elders of the Corporation of Merchants, approved by the regency of the province, and sworn in by the magistracy of the town.

The usual rates of commission are—

3 per cent. on wood articles } exported,
2 do. other goods }
2 do. goods imported,

with from 1 to 2 per cent. on do. for *del credere*, or guarantee of debts.

The corn factor receives r. 1·7 (about 4*s.* 9*d.* sterling) per last (of 60 scheffels) of all grain, from the buyer, and 1 per cent. from the seller.

The rates of brokerage are—

12½ s. gr. (nearly 1*s.* 2½*d*) per 100*l.*
7½ — (— 8·7*d.*) per 100*l.*
3¾ — (— 4·3*d.*) per 100 r.
1 per mille for bills on Berlin, Warsaw, and Paris.
½ per cent. on monies placed at interest, for a period not less than 6 months, from the borrower, and
1 per mille from the lender.
1 per mille usually for short discounts, from both parties.
1 per cent. on the actual or the computed amount of transactions in public funds, from both parties.
½ per cent. usually (sometimes more or less) for merchandise.

On grain for exportation, the brokerage is recently fixed at 1 per cent., to be paid by the seller, the buyer refunding to him 5 s. gr. per last of 36½ scheffels.

Burghers, being merchants, may act as brokers, without direct authority, in the purchase from, and sale of goods to, Poles, receiving ½ per cent. on goods bought, and 1 to 2 per cent. on goods sold, according to circumstances.

Bankruptcies are not of frequent occurrence here. Their most prevalent sources at present are speculations in grain. Bankrupts cannot obtain a discharge except by private composition, without which they always remain responsible to each individual creditor, who can attach them at any time, if he can show that they possess property, although their affairs have been settled by judicial authority. This, and the tediousness of settlements in court, make both debtor and creditor desirous of settling by composition; and hence few insolvents are made bankrupt by their affairs being brought into court. It is to be observed, that creditors, having claims by bills in force, must by law be paid to the full, before those with only book claims receive any thing; but to avoid the tardiness of the court, bill creditors here generally agree to let book creditors receive half as much in composition as they themselves get. It is, however, difficult to arrange a composition, as each creditor can make his own terms; and those who hold out, generally get more, at least privately, than the ostensible rate of composition offered by the debtor.

If a private composition cannot be effected, and the insolvent is regularly made bankrupt, by his affairs being put into court, the law prescribes that, if a small portion of the creditors will not accept the dividend with which the greater portion are satisfied, the latter can require the former to consent, or become responsible for the estate producing as much finally; but so many objections may be made, that this compulsive measure is very seldom resorted to. A private composition is, however, generally preferred by all parties, more particularly by the debtor, as being the only means by which he can become entirely free, and get a general discharge.

Honest bankrupts, whose affairs are brought into court, may be freed from personal arrest by faithfully delivering up all their property. Dishonest ones, upon conviction, are punished by being sent to the House of Correction; but they often escape punishment, from the too great laxity in enforcing the laws in criminal matters.

The creditors of a bankrupt estate brought into court, rank under 8 different classes, each prior class enjoying a precedency of claim over those following, to the full amount. The, two most considerable classes, in general, are the 6th and 7th, the former being that of the bill, the latter that of the book, creditors.

Tares, &c.—The duties are in general payable on the gross weight; a fixed allowance being made, in many cases, according to the packages; in others, there is no allowance. The tariff specifies the particular regulations on this point. The tare on goods in single sacks is 4 lbs. per centner (about 113 lbs. English), it being left to the option of the receiver to have the nett weight ascertained.

In trade there are fixed rates of tare only on the following goods; viz.

Potashes, 6 per cent., when sold by a merchant.

Dyewood, ground, 8 to 11 per bale.			
Currants	14 per cent.	-	- in whole butts.
——	16 —	-	- half do.
——	18 —	-	- ¼ and ⅛th do.
Figs and raisins	10 —	-	- casks.
Olive oil	16 —	-	- whole and half butts.
——	18 to 20 —	-	- ¼ and ⅛th.
——	16 —	-	- pipes.

Seed oil, latterly the tare is ascertained.
Pepper, English, in double bags, 7 lbs.
Danish, in bags and mats, 11 lbs.
Orange and lemon peel, 6 per cent., or tare ascertained.
Rice from England or Hamburg, the tare as on the casks, less 2 lbs. per cask on that from England, and in proportion to the weight on that from Hamburg. Danish should give 10 per cent. tare, but the buyers are in general not satisfied with this.
Tallow, 10 per cent., or nett tare.
Tea, Danish bohea, 78 lbs. if in linen and mats.
— 24 lbs. in chests above 100 lbs.
— 22 lbs. — of about 80 lbs.
Most frequently the tare is ascertained.
Vitriol, 10 per cent.
Raw sugar, 12 to 16 per cent., according to the size of the chests.
Candied sugar, tare by invoice, adding in that proportion for the difference in the weight usually heavier.
Syrup in whole casks, 10 per cent.
— in ½ ditto, and barrels, 12 per cent.

On the sale of imports, 1 per cent. on the nett weight (called good weight) is allowed in favour of the buyer.

Insurance.—There are no insurance companies nor private insurers here; but there are agents of insurance companies in Hamburg for ships, and of those of London and other places for houses and lives.

Wages of common Labourers in Dantzic vary from 9*d.* to 11*d.* a day, and those of carpenters, masons, &c., from 1*s.* 6*d.* to 2*s.* Wages in all the large Prussian towns are higher than in the small towns of the country, from the price of flour, bread, and butchers' meat being higher in them. This is occasioned partly by the latter being subject to *octrois* or excise duties on entering the great towns, from which the country districts and smaller towns are exempted. The king receives ⅔ of these duties, and the towns the other ⅓. This duty is a great obstacle to the free intercourse of the country.

(We have derived these details from different sources, but principally from *Consular Returns*; *Meek's Report*; and information supplied by the Prussian Government.)

DATES (Ger. *Datteln*; Fr. *Dattes*; It. *Datteri*; Sp. *Datiles*), the fruit of the palm tree (*Phœnix dactylifera* Lin.). This tree is abundant in Egypt, Barbary, Arabia, Persia, and the adjacent countries, particularly on the confines of the desert, and wherever there is sufficient moisture. It is a tall majestic tree; and repeated references are made to it in the sacred writings (Ecclus. xiv. 14.), and in the Koran. Mohammed, in one of his sayings, beautifully compares the upright and generous man to the palm tree. "He stands erect before his Lord; in his every action he follows the impulse received from above, and his whole life is devoted to the welfare of his fellow-creatures." But the veneration in which the palm tree is held in the East is to be ascribed more to its utility than to its beauty. Dates form the principal part of the subsistence of the inhabitants of many parts of Arabia and Barbary, and they are held in the highest estimation wherever they are met with. "They are," says Burckhardt,

"by far the most essential article of food for the lower classes of Medina; their harvest is expected with as much anxiety, and attended with as much general rejoicing, as the vintage in the south of Europe; and if the crop fails, which often happens, as those trees are seldom known to produce abundantly for 3 or 4 successive years, or is eaten up by the locusts, universal gloom overspreads the population, as if a famine were apprehended."—(*Travels in Arabia*, vol. ii. p. 214.)

There is an endless variety of dates. Generally, however, they may be described as being somewhat in the shape of an acorn, but usually larger, consisting of a thick fleshy substance, including and freely separating from an oblong stone or kernel, having a furrow on the one side. Their taste is agreeably sweet, accompanied with a slight astringency. The new fruit is called by the Arabs *rutab*. When the dates are allowed to remain on the tree till they are quite ripe, and have become soft and of a high red colour, they are formed into a hard solid paste or cake called *adjoue*. This is formed by pressing the ripe dates forcibly into large baskets, each containing about 2 cwt. "In this state," says Burckhardt, "the Bedouins export the adjoue: in the market it is cut out of the basket, and sold by the pound. It forms part of the daily food of all classes of people; in travelling it is dissolved in water, and thus affords a sweet and refreshing drink. During the monsoon, the ships from the Persian Gulph bring adjoue from Bussorah to Djidda for sale in small baskets weighing about 10 lbs. each: this kind is preferred to every other. Ships bound from Arabia for India take with them a considerable quantity of adjoue, which is readily disposed of amongst the Mohammedans of Hindostan."—(*Travels in Arabia*, vol. i. p. 57.)

The Arabians and Egyptians use the leaves of the tree in the preparation of bags and baskets; the boughs, the outer and inner bark of the trunk, and the fleshy substance at the root of the leaves, where they spring from the trunk, have all their respective uses; and besides this, the kernels of the fruit, notwithstanding their hardness, are used as food for cattle; they are soaked for two days in water, when they become softened, and are given to camels, cows, and sheep, instead of barley: they are said to be much more nutritive than that grain. There are shops at Medina in which nothing else is sold but date kernels; and the beggars are continually employed in all the main streets in picking up those that are thrown away.—(*Burckhardt*, vol. ii. p. 212.)

All the refinements of Arabian cookery are exhausted in the preparation of dates; and the Arabs say that a good housewife will daily supply her lord, for a month, with a dish of dates differently dressed.

Palm trees are raised by shoots; and Dr. Shaw mentions that they arrive at their vigour in about 30 years, and continue so 70 years afterwards, bearing yearly 15 or 20 clusters of dates, each of them weighing 15 or 20 lbs.: after this period, they begin to decline.—(*Travels in the Levant*, p. 142. 4to ed.)

The best dates imported into Great Britain are said to come from Tunis, but they are most commonly brought from Smyrna and Alexandria. They should be chosen large, softish, not much wrinkled, of a reddish yellow colour on the outside, with a whitish membrane betwixt the flesh and the stone. Those that are dry and hard are of little value.

DEALS, OR DEAL BOARDS (Ger. *Dielen*; Du. *Deelen*; Da. *Dæler*; Sw. *Tiljor*; Fr. *Planches minces*; It. *Tavole, Piane*; Rus. *Dorshi*; Pol. *Tarcice*), a thin kind of fir planks, much used in carpentry: they are formed by sawing the trunk of a tree into longitudinal divisions, of greater or less thickness, according to the purposes they are intended to serve. They are imported from Dantzic, Petersburg, Narva, and many other ports in the Baltic, and from North America; but those from Christiania, the capital of Norway, are the best, and bring the highest price. They are distinguishable from those produced in the contiguous provinces of Norway; their superiority has been said to depend principally on their being more perfectly sawed; but it really depends on the greater care with which the sap-wood and other defective portions of the timber are cut away, and on the quality of the timber.

A Russian standard deal is 12 feet long, 11 inches wide, and 1½ inch thick; 400 feet of 1½ inch plank make a load.

A Christiania standard deal is 11 feet long, 9 inches wide, and 1¼ inch thick. There is another standard of Norway deals at Dram, 10 feet long, 9 inches wide, and 1¼ inch thick.—(See CHRISTIANIA.)

DEBENTURE, a term used at the Custom-house to signify the *certificate* subscribed by the customs officers, and given to the exporter of goods on which a drawback is allowed, bearing that the exporter has complied with the required regulations, and that he is entitled to such drawback.

It is enacted by the 16 & 17 Vict. cap. 107., that the person entitled to any drawback on any goods duly exported, or his agent authorised by him for that purpose, shall make and subscribe a declaration upon the debenture that the goods mentioned therein have been actually exported, and have not been relanded, and are not intended to be relanded, in any part of the U. Kingdom, and that such person at the time of entry and shipping was and continued to be entitled to the drawback thereon, and the name of such person shall be stated in the debenture, which shall then be delivered to such person or his agent, and the receipt of such person on the debenture, countersigned by the holder of such debenture, if the same shall have been transferred in the meantime, shall be the discharge for such drawback when paid.—§ 131.

No debenture for any drawback allowed upon the exportation of any goods shall be paid after the expiration of 2 years from the date of the shipment of such goods.—§ 132.

For these and the other clauses in the act relating to debentures, see IMPORTATION AND EXPORTATION.

A stamp duty is laid on debentures of 1*s.* when the drawback to be received does not exceed 10*l.*; of 2*s.* 6*d.* when it exceeds 10*l.* and does not exceed 50*l.*; and of 5*s.* whenever it exceeds 50*l.*

DELFT, OR DELF (Ger. *Fayence, Unachtes Porzellan*; Du. *Delfs porcelyn*; Fr. *Faience*), a coarse species of porcelain originally manufactured at Delft, whence its name. It is now rarely used in this country.

DEMURRAGE, in commercial navigation, is an allowance made to the master or owners of a ship by the freighter, for detaining her in port longer than the period agreed upon for her sailing. It is usually stipulated in charterparties and bills of lading, that a certain number of days, called running or working days, shall be allowed for receiving or discharging the cargo, and that the freighter may detain the vessel for a further specified time, or as long as he pleases, on payment of so much *per diem* for such over-time. When the contract of affreightment expressly stipulates that so many

days shall be allowed for discharging or receiving the cargo, and so many more for over-time, such limitation is interpreted as an express stipulation on the part of the freighter, that the vessel shall in no event be detained longer, and that if detained he will be liable for demurrage. This holds even in cases where the delay is not occasioned by any fault on the freighter's part, but is inevitable. If, for example, a ship be detained, owing to the crowded state of the port, for a longer time than is allowed by the contract, demurrage is due; and it is no defence to an action for demurrage, that it arose from port regulations, or even from the unlawful acts of the Custom-house officers. Demurrage is not, however, claimable for a delay occasioned by the hostile detention of the ship, or the hostile occupation of the intended port; nor is it claimable for any delay wilfully occasioned by the master, or owners, or crew of the vessel. The claim for demurrage ceases as soon as the ship is cleared out and ready for sailing, though she should be detained by adverse winds, or tempestuous weather. — (*Chitty's Commercial Law*, vol. iii. pp. 426 — 431.)

DENARIUS, a Roman coin, estimated by Dr. Arbuthnot to have been worth 7$\frac{2}{4}$*d.*; but its value differed at different periods.

DENIER, a small French coin, of which there were 12 to a sol.

DIAMOND (Ger. Du. Da. and Fr. *Diamant*; Sw. *Demant*, *Diamant*; It. Sp. and Port. *Diamante*; Rus. *Almas*; Pol. *Dyamant*; Lat. *Adamas*; Hind. *Hira*), a precious stone which has been known from the remotest ages. Pliny has described it (*Hist. Nat.* lib. 37. § 4.); but his account is, in many respects, inaccurate. It has been found in different parts of India and in Borneo; but not hitherto except within the tropics. At present, however, and for many years past, Europe has been entirely dependent on Brazil for supplies of diamonds. The diamond is the most beautiful and most valuable of precious stones. Its most common colours are white and gray of various shades. It occurs also red, blue, brown, yellow, and green. The colours are commonly pale. It is always crystallised, but sometimes so imperfectly that it might pass for amorphous. It is the hardest body in nature. External lustre from splendid to glimmering; internal always splendid. It is brittle; its specific gravity is 3·5. When rubbed, it becomes positively electric, even before it has been cut by the lapidary, which is not the case with any other gem. — (*Thomson's Chemistry.*)

According to Mr. Milburn (*Orient. Com.*), the colour should be perfectly crystalline, resembling a drop of clear spring water, in the middle of which you will perceive a strong light playing with a great deal of spirit. If the coat be smooth and bright, with a little tincture of green in it, it is not the worse, and seldom proves bad; but if there be a mixture of yellow with the green, then beware of it — it is a soft, greasy stone, and will prove bad.

Tests of Diamonds. Cutting, &c. — To ascertain whether any specimen is a true diamond or not, a fine file may be used; and if the surface of the stone be the least abraded or scratched by its action, it is not a diamond. The difference will also appear upon close examination without this instrument; the rays of light easily pass through other gems, but in the diamond they are refracted to the surface, which occasions its superior brilliancy. If the specimen under examination be very minute, it may be placed between 2 half-crowns, or other flat metallic surfaces, and pressed with the thumb and finger: if a diamond, it will not be injured; but if otherwise, it will break and fall to powder. On account of the extreme hardness of the diamond, the art of cutting and polishing it was for a long time unknown in Europe. But, in 1456, a young man of the name of Louis Berghen, a native of Bruges, is said to have constructed a polishing wheel for the purpose, which was fed with diamond powder instead of *corundum*, which the Chinese and Hindoos had been long accustomed to employ. Berghen was led to this discovery by observing the action produced by rubbing 2 rough diamonds together. Diamonds are cut into brilliants and rose diamonds: the former being, for the most part, made out of the octahedral crystals, and the latter from the spheroidal varieties. — (*Joyce's Practical Mineralogy*; *Rees's Cyclopædia*, *&c.*)

"*Commercial Value of Diamonds.* — In the great or wholesale trade there is but little fluctuation in the price of those diamonds which may be termed *stones in general demand*. I will begin with brilliants from 1 grain to 2$\frac{3}{4}$ grains each. — Such brilliants, double cut, and what may be termed fine, are worth from 7*l.* to 8*l.* per carat. Needy sellers may take 10 per cent. less for cash; but this is the general average price for a lot of 10, 20, or 50 carats of well-made stones, if the quality be good.

"Brilliants, from 2 grains to 3, may be bought in lots, at from 7*l.* 7*s.* to 8*l.* per carat. It is to be understood, that diamonds in a lot are never all quite free from faults; hence there may arise a difference of 10 per cent. in the price. Stones of 3 grains, if fine and perfect, are always in demand, at 8*l.* or 9*l.* per carat.

"Brilliants, from 3 grains to 4, if very fine and well proportioned, are worth from 8*l.* to 9*l.* per carat. Those of a carat each, if very fine and well selected, are worth 9*l.* or 10*l.* Three years ago I offered 12*l.* each for 8; and could not obtain them.

"Brilliants, from 5 grains to 6, if pure, are worth from 13*l.* to 14*l.*; if perfectly fine, and of the full weight of 6 grains, they are worth from 17*l.* to 18*l.* each: I have, for such, paid 20*l.*

"Brilliants, of 2 carats each, are worth from 27*l.* to 30*l.* Stones of this weight, if well proportioned, are considered of a fine size, and well calculated for pins, or the centre of clusters; indeed, well proportioned diamonds, from 6 grains to 2 carats each, are always in demand, and are retailed at from 20*l.* to 35*l.* each, according to their degree of perfection, or as the retailer may think fit to charge them.

"For brilliants of 3 carats, if fine and well formed, from 70*l.* to 80*l.* may be obtained. Stones of this size, and larger, are more liable to capricious fluctuations of price than the smaller ones before named, being chiefly required for the centre stones of saleable necklaces.

"Brilliants of 4 carats, if fine, are worth from 100*l.* to 130*l.* I have sold stones, single cut, a little *off colour*, of this weight, at 80 guineas. I possessed one of 17 grains, perfectly white, having a surface as large as that of a 7 carat stone ought to be; it was, consequently, very thin, but being much in request, on account of its great *spread*, or surface, it was sold for 160*l.*

"Brilliants of 5 carats are not frequently met with in general trade, and are valuable in price; as the dealers exact more if they know that such stones are wanted, than they would in the regular course of business. The prices may be said to vary from 180*l.* to 200*l.*

"Brilliants of 6 carats, as before stated, are not common; they are suitable for centre stones of expensive necklaces, and single stone rings; if perfect and well shaped, they sell for 230*l.* to 250*l.* or more.

"For estimating the value of peculiarly fine diamonds, there is no fixed standard. Rough diamonds, selected as fine, and well formed for cutting, may be estimated as follows:—Square the weight of the stone, multiply the product by 2, and the result will be the value in pounds sterling. Brilliants, if fine, may be estimated by squaring the weight in carats, and multiplying the product by 8, which will give the amount in pounds sterling.

"As a very large property, both in this kingdom and in other countries of Europe, is vested in diamonds, it may be interesting to be informed, that not only the price of these gems has for several years been, upon the whole, gradually rising, but that it is likely to continue on the advance. At the present time, indeed, and for the last few years, there has been a dull sale of diamonds in England, nor did the coronation occasion a demand worth notice; but on the Continent the trade has been steady, and rough diamonds have been constantly rising in price. That this advance will be progressive may be assumed from the fact, that the best diamond ground now known, the Serro do Frio in Brazil, has assuredly passed the zenith of its prosperity. I went over the greater part of what is yet reserved, and still remains to be worked, and I conceive that there would be no difficulty in calculating the length of time in which the present number of workmen may reduce it to a state of exhaustion, like that of the far-famed Golconda. The average annual produce of future years may be estimated by the amount obtained from that portion which has been already worked. Brazil may be said to furnish Europe with 25,000 or 30,000 carats *per annum* of rough diamonds, which, if reduced to brilliants, may make an influx into the market of 8,000 or 9,000 carats annually."—(*Mawe's Treatise on Diamonds*, 2nd ed. pp. 9—14. and p. 60.)

The latter part of this statement must now (1859) be very materially modified.—In 1845 one of the most productive diamond-fields, of which we have any authentic account, was discovered at Paraguassu, about 130 miles W. from Bahia in Brazil. And such has been the influence of this discovery, that an industrious population of above 120,000 has been collected in the neighbourhood, which, from very little better than a desert, has become a flourishing district. It is difficult to acquire any accurate information in regard to the supplies of diamonds furnished by this new ground; but it is believed that the value of those exported from Bahia, to which they are mostly sent, may be safely estimated at from 550,000*l.* to 600,000*l.* a year, or upwards.—(*See Abstract Reports of Ministers and Consuls, &c.*, No. 6, p. 23.)

The rule stated by Mr. Mawe, and adopted by the jewellers, for estimating the value of diamonds (multiply the square of the weight in carats by 2, and the product is the value in pounds sterling,) can only hold in the case of those that are of a small size, or do not weigh more than 20 carats. The value of the largest diamonds, which are exceedingly rare, (*non nisi regibus et iis admodum paucis cognitus*, Pliny,) can, it is clear, depend upon nothing but the competition of the purchasers. The diamond belonging to the Emperor of Brazil is the largest in the world. It is still uncut, and weighs 1,680 carats; so that, according to the jewellers' rule, it must be worth the enormous sum of 5,644,800*l.*! It may, however, be doubted, whether his Imperial Majesty would have any disinclination to part with it for the odd sum of 644,800*l.* The famous diamond belonging to the Emperor of Russia, which the jewellers tell us is worth 4,804,000*l.*, did not cost 150,000*l.*

Diamonds are not used exclusively as articles of ornament or luxury. They are frequently employed with great advantage in the arts. "Bad, discoloured diamonds," says Mr. Mawe, "are sold to break into powder, and may be said to have a more extensive sale than brilliants, with all their captivating beauty. In many operations of art they are indispensable; the fine cameo and intaglio owe their perfection to the diamond, with which alone they can be engraved. The beauty of the onyx would yet remain dormant, had not the unrivalled power of the diamond been called forth to the artist's assistance. The carnelian, the agate, or cairngorm, cannot be engraved by any other substance; every crest or letter cut upon hard stone is indebted to the diamond. This is not all; for without it, blocks of crystal could not be cut into slices for spectacles, agate for snuff-boxes, &c."

Diamonds may be landed without report, entry, or warrant.—(3 & 4 *Will.* 4. c. 52 § 2.)

The carat grain used in weighing diamonds is different from the Troy grain, 5 diamond grains being only equal to 4 Troy grains.

DIAPER (Ger. *Drell*; Du. *Drel*; Fr. *Linge ouvré*; It. *Teli tessuta a opere*; Sp. *Manteles alemaniscas*; Rus. *Salfetotsschnoe*), a sort of fine flowered linen, commonly used for table-cloths, napkins, &c., brought to the highest perfection in the manufactories in the north of Ireland, in Germany, and Scotland.

DICE (Ger. *Würfel*; Du. *Taarlingen*; Fr. *Dés* (*à jouer*); It. *Dadi*; Sp. *Dados*; Rus. *Kosti*) cubical pieces of bone or ivory, marked with dots on each of their sides from 1 to 6, according to the number of the face.

The regulations as to the manufacture and sale of dice are the same as those with respect to CARDS (which see). Every pair of dice is to pay a duty of 20*s.* All pieces of ivory, bone, or other matter used in any game, having letters, figures, spots, or other marks denoting any chance, marked thereon, to be adjudged dice; and if more than 6 chances are signified on any one piece, then such piece to be charged with the full duty of a pair of dice.—(9 *Geo.* 4. c. 18.)

DIMITY (Fr. *Basin*; It. *Dobletto*; Sp. *Dimite*), a species of cross-barred stuff entirely composed of cotton, similar in fabric to fustian.

DISCOUNT, an allowance paid on account of the immediate advance of a sum of money not due till some future period. It is usually said to be of two kinds; viz. discount of bills, and discount of goods; but they are essentially the same.

When a bill of exchange is presented at a bankers for discount, it is the practice to calculate the simple interest for the time the bill has to run, including the days of grace, which interest is called the *discount*; and this being deducted from the amount of the bill, the balance is paid over to the presenter of the bill. This is the method followed by the Bank of England, the London and provincial bankers, and by commercial men in general. But it is, notwithstanding, inaccurate. The true discount of any sum for any given time is such a sum as will in that time amount to the interest of the sum to be discounted. Thus, if interest be *five* per cent., the proper discount to be received for the immediate advance of 100*l.* due 12 months hence is not 5*l.*, but 4*l.* 15*s.* 2¼*d.*; for this sum will, at the end of the year, amount to 5*l.*, which is what the 100*l.* would have produced. Those, therefore, who employ their money in discounting, make somewhat more than the ordinary rate of interest upon it; for a person discounting 100*l.* due at the end of a year, advances, supposing interest to be 5*l.* per cent., only 95*l.*; so that, as this 95*l.* produces 100*l.* at the period in question, the interest received has really been 5*l.* 5*s.* 3*d.* per cent.

The rule for calculating discount on correct principles is as follows:—

As the amount of 100*l.* for the given rate and time
Is to the given sum or debt;
So is 100*l.* to the present worth, or
So is the interest of 100*l.* for the given time
To the discount of the given sum.

Mr. Smart has calculated, on this principle, a Table of the discount of 1*l.* for any number of days, at 2, 2½, 3, 3½, &c. to 10 per cent., to 8 decimal places. But the simple interest of the sum being the only thing looked to in practice, such Tables are hardly ever referred to.

Bills in the highest credit are discounted on the lowest terms; the discount increasing according to the suspicions entertained of the punctuality or solvency of the parties subscribing the bills. During the war, the rate of interest, or, which is the same thing, of discount, was comparatively high; but since 1818, the rate of discount upon good bills has seldom been above 4, and has often been as low as 3 and even 2½ per cent.

Discount on merchandise takes place when, after making a purchase of goods at a fixed term of credit, the buyer finds means to make his payment before the expiration of that term, receiving from the seller a discount or allowance, which is commonly a good deal above the current rate of interest. The discount on goods varies, of course, according to the interest of money. During the late war, the loans to government were so large, and the facility of investing money was such, that the discount on goods was often as high as 5 per cent. for 6, and 10 per cent. for 12 months. Now, however, the discount on goods has fallen, with the fall in the rate of interest, to 7 or 7½ per cent. for 12 months: being about double the current interest arising from funded property, or the discount of good mercantile bills.

Long credits and discounts upon goods have, for a lengthened period, been usual in England. This arose from a variety of causes, but principally, perhaps, from the magnitude of our exports to the U. States, Russia, and other countries where there is a great demand for capital: but in whatever causes it originated, it has latterly been carried to what seems to be an injurious extent.—(See CREDIT.) In France and Germany, the manufacturers, in general bare of capital, are obliged to stipulate with the merchants for short credits. In Holland the *usage* of the exporting merchants has been to pay either in ready money, or at so short a date as to put discounting out of the question, the manufacturer setting at once the lowest price on his goods.

DIVI DIVI, the commercial name of the pod of the *Cæsalpinia coriaria*, a leguminous plant, found in low marshy situations in the north parts of South America, principally in Venezuela and New Granada, and in some parts of the West Indies. It is used both for dyeing and tanning, but chiefly for the latter purpose. The pod is from 2 to 3 inches in length by ¾ inch in breadth, and when in perfection is of a rich brown colour. It contains a few small seeds, but the only valuable portion is a resinous matter of a bright yellow colour, easily pulverised, which lies betwixt the outer skin and the husk that encloses the seed, and contains a large quantity of tannin. The imports in 1856, amounted to 4,186 tons, and in 1857 to 3,153 do., worth from 10*l.* to 11*l.* per ton. By far the greater portion is imported into Liverpool.

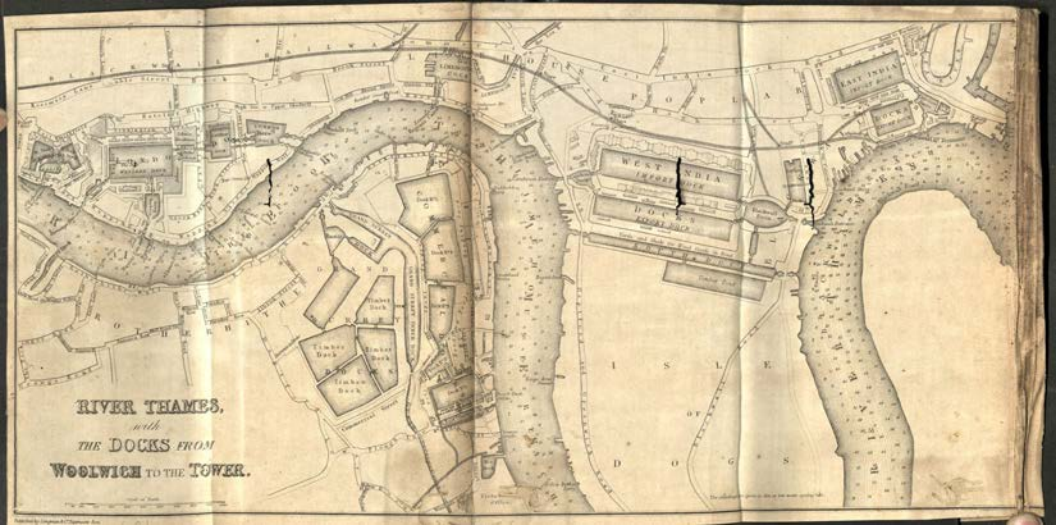
Maracaibo, Rio de la Hache, and Savanilla, are almost the only places whence this article is imported. That brought from Maracaibo is the best, that from Savanilla the most inferior.

Divi Divi is used by dyers, not for the colouring principle which it contains, but for its strong astringent qualities as a mordant. For this purpose it is at present used to some extent instead of sumach, which is scarce and dear, and hence the recent high price of the article.

In tanning it accelerates the process, and imparts to the leather a clean and healthy appearance.—(*Private information.*)

DIVIDEND, the name given to the payment made to creditors out of the estate of a bankrupt, and to the annual interest payable upon the national debt, and other public funds.

DJIDDA, a town of Arabia, on the Red Sea, about 21 miles from Mecca, of which it is the sea-port, in lat. 21° 29′ N., lon. 39° 14′ E. It is well built; the streets are unpaved, but spacious and airy; the houses high, and constructed, for the most part, of madrepores and other marine fossils. The supply of water is scanty, and its quality indifferent. Small vessels approach close to the quays; but large vessels are obliged to anchor in the roads, about 2 miles off, loading and unloading by means of lighters. The entrance to the roads is difficult, and should not be attempted without a pilot. Djidda is a place of considerable commercial importance. It is the *entrepôt* in which is centred the greater part of the commerce between India, Egypt, and Arabia. Many of its merchants possess large capitals; some of them as much as from 150,000*l.* to 200,000*l.* The trade in coffee brought from Mocha, and other ports in Yemen, is the most considerable, but it is said also to be the most hazardous. The returns are principally made in cash. The trade with India and the Gulph of Persia is safer than the coffee trade, and is very considerable. Djidda has also a good deal of intercourse with the ports of Cosseir, Souakin, and Massouah, on the opposite coast of the Red Sea. The imports from the last two principally consist of slaves, gold, tobacco, dhourra or barley, hides, butter (of which immense quantities are made use of in Arabia), mats, &c.; in return for which the Africans receive Indian goods suitable for their markets, dresses and ornaments for their women, dates (which are not produced in any part of Nubia), iron, &c. The principal article of import from Cosseir is wheat; and not only Djidda, but the whole Hedjaz, or Holy Land of Arabia, is almost entirely dependent upon Egypt for corn. Coffee is the principal article sent in return. Business is transacted at Djidda with ease and expedition. The number of ships belonging to the port is estimated at 250. Owing to the scarcity of timber, none of them are built at Djidda; those belonging to it being either purchased at Bombay or Muscat, or at Mocha, Hodeida, or Suez. For a considerable period each year, before and after the feast of Ramadhan, when pilgrims come from all quarters to visit Mecca, the town is thronged with strangers, and a great deal of mercantile business is transacted. Djidda is at present, and has been for a number of years under the government of the pacha of Egypt. The *moneys*, *weights*, and *measures* of the latter country (for which see ALEXANDRIA), are now generally used in Djidda, the commerce of which has been much improved and extended in consequence


RIVER THAMES,
with
THE DOCKS FROM
WOOLWICH TO THE TOWER.
Timber Dock
Timber Dock
Timber Dock
Timber Dock
WEST INDIA IMPORT DOCK
WEST INDIA EXPORT DOCK
EAST INDIA IMPORT DOCK
EAST INDIA EXPORT DOCK
I S L E
O F
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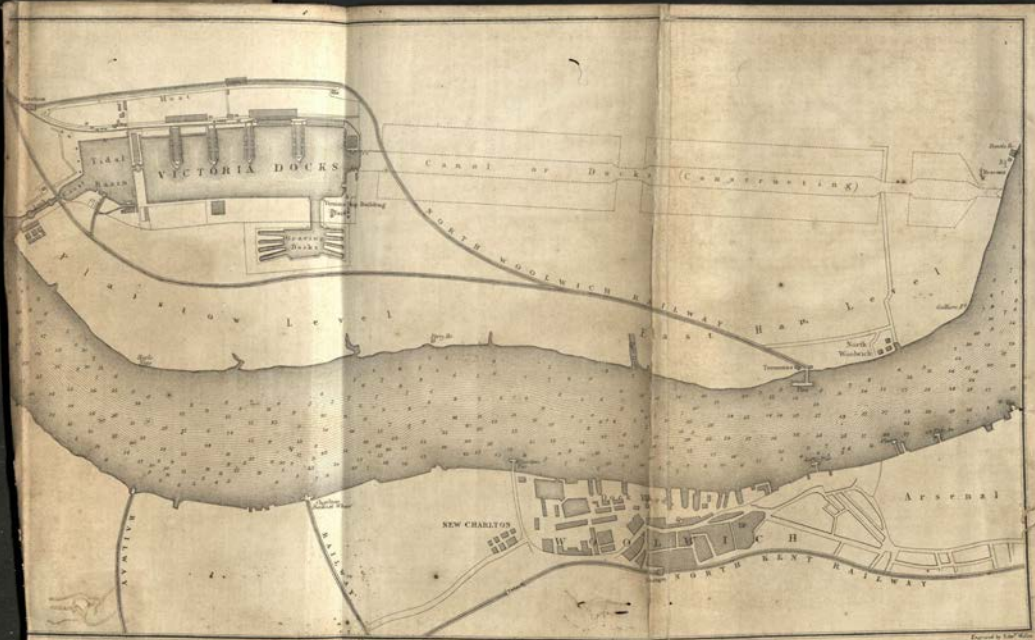

Tidal Basin
VICTORIA DOCKS
Canal or Docks (Constructing)
Bracing Docks
NORTH WOOLWICH RAILWAY
Flatstow Level
East Ham Level
North Woolwich
Arsenal
NEW CHARLTON
WOOLWICH
NORTH KENT RAILWAY
RAILWAY

of the comparative security and good order enforced by the pacha. — (We have gleaned these details from the different works of Burckhardt, particularly from his *Travels in Arabia*, vol. i. pp. 1—100.)

DOCKS are artificial basins for the reception of ships. The term has been supposed by some to be derived from the Greek δεκομαι, to receive; but it is obviously no other than the Teutonic *dock*, originally perhaps derived from *dekken*, to cover, enclose, or protect.

Docks are of two sorts — *wet* and *dry*. Wet docks are generally constructed with gates to retain the water. Ships are admitted at high water; and the gates being shut, they are kept constantly afloat. A dry dock is intended for the building, repairing, or examination of ships. The ships to be repaired or examined are admitted into it at high water; and the water either ebbs out with the receding sea, or is pumped out after the gates are shut.

Utility of Docks. — The construction of wet docks has done much to facilitate and promote navigation. A large vessel, particularly if loaded, could not be allowed to come to the ground, or to lie on the beach, without sustaining considerable injury, and perhaps being destroyed; and even the smaller class of vessels are apt to be strained, and otherwise hurt, if they are left dry, unless the ground be very soft. Hence, when large vessels have to be loaded or unloaded where there are no docks, and where the water close to the shore or quay is not sufficiently deep, the work can only be carried on during a particular period of each tide; it being necessary, in order to keep the vessel afloat, that she should leave the shore with the ebbing tide. Attempts have sometimes been made to obviate this inconvenience, by running jetties or piers to such a distance into the sea, that there might always be a sufficient depth of water at their heads: but this can only be done in peculiar situations; and it requires that the ship's position should be frequently changed. It is in most cases, too, impossible properly to protect the cargoes of ships loading or unloading at quays, or on the beach, from depredation. Previously to the construction of the wet docks on the Thames, the property annually pillaged from ships was estimated to amount to 500,000*l.* a year, though this is probably much exaggerated.

I. Docks on the Thames.

1. *East and West India Docks.*
2. *London Docks.*
3. *St. Katherine's Docks.*
4. *Commercial Docks.*
5. *Victoria Docks.*
6. *London Port Dues. — Charges on Account of Lights, Pilotage, &c. in the Thames. — Shipping, &c. of London.*

II. Southampton Docks, Shipping, etc.
III. Liverpool and Birkenhead Docks, Shipping, etc.
IV. Bristol Docks, Shipping, etc.
V. Hull Docks, Shipping, etc.
VI. Glasgow Docks, Shipping, etc.
VII. Dundee Docks, Shipping, etc.
VIII. Leith Docks, Shipping, etc.

I. Docks on the Thames.

It is singular that notwithstanding the obvious utility of wet docks, and the vast trade of the metropolis, there was no establishment of this sort on the N. side of the Thames* till nearly a century after a wet dock had been constructed at Liverpool. The inconvenience arising from the crowded state of the river, at the periods when fleets of merchantmen were accustomed to arrive, the insufficient accommodation afforded by the legal quays and sufferance wharfs, the necessity under which many ships were placed of unloading in the river into lighters, and the insecurity and loss of property thence arising, had been long felt as almost intolerable grievances: but so powerful was the opposition to any change, made by the private wharfingers and others interested in the then existing order of things, that it was not till 1793 that a plan was projected for making wet docks, on anything like an adequate scale, for the port of London; and six years more elapsed before the act for the construction of the West India Docks was passed.

1. *West India Docks, now conjoined with the East India Docks.* — The West India Docks were the first, and continue to be the most extensive, of the great warehousing establishments formed in the port of London. Their construction commenced in February, 1800, and they were partially opened in August, 1802. They stretch across the isthmus joining the Isle of Dogs to the Middlesex side of the Thames. They originally consisted of an Import and Export Dock, each communicating, by means of locks, with a basin of 5 or 6 acres in extent at the end next Blackwall, and with another of more than 2 acres at the end next Limehouse: both of these basins communicate with the Thames. To these works were added, in 1829, the South Dock, formerly

* The Commercial Dock appears to have been opened so early as 1660.—See *post.*

the City Canal, which runs parallel to the Export Dock. This canal was intended to facilitate navigation, by enabling ships to avoid the circuitous course round the Isle of Dogs. It was, however, but little used for that purpose, and is now appropriated to the wood trade, for the greater accommodation of which a pond of 19 acres has been formed on the south side for the reception of bonded timber. The Export Dock, or that appropriated for ships loading outwards, is about 870 yards in length, by 135 in width; so that its area is near 25 acres: the North or Import Dock, or that appropriated for ships entering to discharge, is of the same length as the Export Dock, and 166 yards wide; so that it contains nearly 30 acres. The South Dock, which is appropriated both to import and export vessels, is 1,183 yards long, with an entrance to the river at each end; both the locks, as well as that into the Blackwall Basin, being 45 feet wide, are large enough to admit ships of 1,200 tons burden. At the highest tides, the depth of water in the docks is 24 feet; and the whole will contain, with ease, 600 vessels of from 250 to 500 tons. The separation of the homeward bound ships, which is of the utmost importance for preventing plunder, and giving additional security to the revenue and the merchant, was, for the first time, adopted in this establishment. The Import and Export Docks are parallel to each other, being divided by a range of warehouses, principally appropriated to the reception of rum, brandy, and other spirituous liquors. There are smaller warehouses and sheds on the quays of the Export and South Docks, for the reception of goods sent down for exportation. The warehouses for imported goods are on the four quays of the Import Dock. They are well contrived, and of great extent, being calculated to contain 160,000 hhds. of sugar, exclusive of coffee and other produce. There have been deposited, at the same time, upon the quays, under the sheds and in the warehouses belonging to these docks, 148,563 hhds. of sugar, 70,875 casks and 433,648 bags of coffee, 35,158 puncheons of rum and pipes of Madeira wine, 14,021 logs of mahogany, 21,350 tons of logwood, &c. The whole area occupied by the docks, warehouses, &c. includes about 295 acres; and the most effectual precautions are adopted for the prevention of fire and pilfering.

This spacious and magnificent establishment was formed by subscription, the property being vested in the West India Dock Company, the affairs of which were managed by 21 directors as a body corporate.

The West India Docks proved a very successful undertaking, and have been highly beneficial to the original shareholders as well as to the trade of the port. All West India ships frequenting the Thames were obliged to use them for a period of 20 years from their completion. The dividend on the Company's stock was limited to 10 per cent.; and after making dividends to the full amount, with the exception of the first half year, they had in 1819 an accumulated fund of near 400,000*l*. But they then diminished their charges, at the suggestion of a committee of the House of Commons; and having been since still more considerably reduced, the surplus has been absorbed. The nearest dock-gate is at Limehouse, and the other about ¼ mile farther from town.

The East India Docks, united with those now described in 1838, are situated at Blackwall, about 3½ miles from the Exchange, and were originally intended for the accommodation of ships employed by the East India Company, or in the East Indian trade; but they are now open to vessels from all parts. There are 2 docks; 1 for ships unloading inwards, and 1 for those loading outwards. The Import Dock contains about 18 acres, and the Export Dock about 9 acres. The entrance basin, which connects the docks with the river, contains about 2¾ acres: the length of the entrance lock is 210 feet, the width of the gates 48 feet clear. The depth of water in the East India Docks is never less than 23 feet; so that they can accommodate ships of greater burden than any other establishment on the river. There is attached to them a splendid quay fronting the river, nearly 700 feet in length, with water sufficient at all times of the tide to float the largest steam ships: and the Export Dock is furnished with a machine for masting and dismasting the largest ships.

Exclusive of the magnificent warehouses attached to the West India Docks, the East and West India Dock Company possess the East India warehouses in Billiter Street, Fenchurch Street, Jewry Street, and Crutched Friars; in which they warehouse and show tea, indigo, silk, drugs, spices, &c.

These docks have railway communications both with the N. London line and with the Blackwall line.

The capital of both establishments, or of the United Company, amounts to 2,065,668*l*., the dividend on which is at present 6 per cent. The management is vested in a board of 32 directors. The consolidation of the establishment was advantageous to the shareholders by reducing the expense of management, and to the public by giving a greater choice of accommodation to vessels frequenting the docks.

The inconvenience of the distance at which these docks are situated from the Exchange has been in a great degree obviated by the opening of the railway to Blackwall, and by the exhibition of samples in the Company's upper warehouses. Still, however, the charge on account of cartage is a little heavier on goods warehoused at the docks of this company than on those warehoused farther up the river. But, on the other hand, ships entering the East India or West India Docks avoid a considerable extent of troublesome, if not dangerous navigation, that must be undertaken by those bound for the London and St. Katherine's Docks.

Rules and Regulations to be observed, and Rates to be paid, by Shipping in the East and West India Docks.

Regulations for Shipping to be observed by Masters, Pilots, and other Persons having the charge of Ships, Vessels, Lighters, or Craft, coming into, lying in, and going out of, the East and West India Docks, pursuant to Act 2nd W. IV. cap. 52.

The Company's Moorings. — The moorings in the river, within 200 yards of each of the entrances at Blackwall, and that into Limehouse Basin, and within 150 yards of the Limehouse entrance of the South Dock, are reserved for the exclusive use of vessels entering into, or which have recently come out of the docks.

Pilots must not attempt to place ships inside the buoys, if other ships have previously brought up, but bring them to their berths in due succession on the outside, unless they shall be expressly ordered by the dock master to take a berth inside the tier for the convenience of docking.

Vessels about to enter and leave the Docks. Signals. — A *blue* flag will be kept flying at each entrance the whole time proper for docking and undocking; at high-water mark, the flag will be struck, after which no pilot must steer his vessel in, unless directed so to do by the dock master.

Preparing ships for admission. — No time should be lost in getting the anchors properly secured and stowed, sails furled, quarter boats lowered down, guns unloaded, gunpowder put out.

All ships are required to send down top-gallant yards and strike top gallant masts, and to have their jib and mizen booms rigged close in, bomkins, martingales and all outriggers unshipped, and the yard well topped up whenever ordered by the dock master.

Order of admission. — The dock masters have, under the Dock Acts, full powers to direct the mooring, unmooring, moving, or removing all ships, vessels, or craft, within the Company's limits, and will direct the docking of vessels generally in the order in which they arrive; but if any vessel shall attempt to gain admittance contrary to the directions given by the dock master, the owner, and the master, pilot, or other person in charge, must be responsible for all consequences.

Entering. — The ship must be ready to send good and sufficient warps to each pier, when directed by the dock master.

When within the piers, proper ropes will be handed on board when requisite to guide and check the vessel through the lock: the vessel must be hauled a-head by her own warps, and they are on no account to be cast off, unless ordered by the dock master.

Every pilot must bring his boat into the basin, or South Dock, as it is a most essential part of his duty to moor the ship.

Vessels about to leave the Docks. — Export vessels should be hauled down in sufficient time to be at the River Locks, at Blackwall, at low water; to prevent inconvenience during the time that other vessels are requiring admission, which must have the preference.

Vessels can only be let out after high water, upon the special request of the officers in charge of them.

Ships going into the river must use their own ropes, as they are out of the dock master's charge when clear of the outer gates.

Ships' Boats. — The Company take no charge of ships' boats, and are not responsible for them; it therefore rests with the owner of the ship to take such measures as will ensure their safety.

Discharging. — Two true copies of the manifest of the cargo must be delivered into the General Office, at the Dock House, in Billiter-square, within 12 hours after every vessel shall enter the docks, or after the cargo shall have been reported at the Custom House, which shall first happen. Penalty for refusal or neglect, any sum not exceeding five pounds. — 2nd W. IV. cap. 52, sec. 84.

No ships can be allowed to break bulk until their cargoes are duly entered.

All baggage or presents should be sent as promptly as possible to the baggage warehouse, where an authority from the master for the delivery thereof must be lodged.

Packages of bullion or specie (whether cargo or private property) must be delivered by the captain, under his own responsibility.

The delivery of goods overside will also rest with the master, and he must take such steps as he may think necessary to protect his owners in respect to their freight.

Eastern and Western Import, and Export Docks, the Basins, and South Dock. — All vessels entering or lying in these docks and basins continue in charge of the masters and owners.

It is the duty of the pilots, or officers and crews, to transport their respective vessels, except otherwise provided for by the table of rates, under their own responsibility, to or from the river, and to or from any part of the docks or basins, as directed by the dock master.

Light ships on entering from the river must be provided with sufficient hands to dock and transport them, and should move in due time into the dock; otherwise they will be removed by the dock master, and the owners charged with the expense.

Ships taking in cargoes will be moored at the quays in due rotation. Light ships not taking in goods must be moored in either of the docks or basins, as the dock masters may judge convenient.

While ships are lying at or moving to or from the quay, all out riggers should be got in and made snug; and sails are by no means to be loose while so moving or after day-light.

No ship must be removed from her berth without notice being given to the dock master, and his assent as to the time of removal being obtained.

Craft must be fastened to the ships from which they are receiving, or to which they may be delivering goods.

Convenient receptacles on the quays are provided, wherein all dust, ashes, and other refuse-matters are to be deposited, and which shall be cleared by the person appointed by the Company, and by no one else.

No vessel can be permitted to take in ballast after day-light, or before day-break.

Ships' provisions or stores cannot be permitted to pass the gates without an order signed by the captain or owner.

Neither caulking nor plumbers' work can be allowed without special permission, to be obtained from the principal of police.

Fire and Candle. — Special licences will be granted to use fire and candle in all the docks and basins, on application to the principal of the police, made by the master or owner of the vessel, specifying the names and capacity of the persons in charge of the ship, and engaging to be responsible for their attention to the regulations.

Every such licence will express the place in which fire may be kept, and the circumstances under which it may be used: upon the slightest infringement of the conditions the penalty prescribed by law will be rigidly enforced.

Opening and shutting the Gates. — The gates will be opened at 6 o'clock in the morning, and shut at 8 o'clock in the evening, from the 1st of March to the 10th of November; and from the 11th of November to the last day of February, opened at 7 in the morning and shut at 7 in the evening.

Captains and chief mates may be furnished with tickets upon applying at the police office, at the Eastern or Western Import Dock, which will entitle them to admission till 9 o'clock, p. m. But no person whatever can be allowed to go out after the hour for closing the gates.

Hours of Attendance. — The hours of attendance are, from 1st March to 31st October inclusive, 8 in the morning to 4 in the afternoon; from 1st November to the last day of February, inclusive, 9 in the morning to 4 in the afternoon; and there is to be no intermission of business during these hours.

No holidays are kept, except Sundays, Christmas Day, Good Friday, Fast Days appointed by Royal Proclamation, and the King's or Queen's Birth Days.

Tonnage Rates.

Sailing Vessels inwards discharged by the Company.

For docking, mooring, and removing within the docks and basins, unloading the cargo, and the use of the docks, for 4 weeks from the final discharge: * — viz.

	₰ ton reg. s. d.
Laden with sugar, otherwise than after-mentioned, or other goods packed in bales, bags, baskets, serons, casks, cases, chests or similar packages, (except oil direct from the fisheries, tallow, or ashes), metal, in pigs, bars, rods, plates, or similar pieces, wood in billets, such as dye woods †	1 6
And in addition, for every load or ton of blue gum wood, and the like; or oil in iron tanks	0 6
Laden with chests of sugar, 5 cwt. and upwards, including ship's cooperage	2 0
Laden entirely, or in part, with hhds. and tierces of sugar or molasses from the West Indies, including ship's cooperage	2 6
Laden with mahogany, cedar, or other furniture wood in logs or planks	2 6
Laden entirely with hemp or goods in bulk, or oil direct from the fisheries	1 9
And in addition for every ton of oil in tanks	0 6
Laden entirely with tallow	1 3
Laden with mixed cargoes, tallow, ashes or goods in bulk.	
For every ton of hemp	2 0
For every ton of tallow or ashes	1 3
For every ton in bulk, except guano	1 9
The total number of tons charged not to exceed the register tonnage.	
Laden with wood, the growth of the North of Europe, or the North American colonies, viz.	
Entirely with deals, staves, lath, or firewood	1 9
Entirely, or in part, with timber	1 9
And, in addition, for every load of hardwood or masts	0 6
For every load of pine or fir timber	0 3
Laden with timber from Africa, or the East Indies, or like timber cargoes	3 0
And, in addition, for every load discharged over side	1 0
Laden with guano	1 9

Sailing Vessels inward discharged by their own Crews.

For the use of the docks ‡ for any period from the date of entrance, not exceeding the undermentioned —

If from Hambro', Bremen, Embden, and the Mediterranean	6 weeks
If from any other port or place	4 weeks

	₰ ton reg. s. d.
Arriving from any port or place not otherwise specified	0 9
Arriving from any port in the United Kingdom, or European port outside the Baltic, between the North Cape and Ushant §	0 6
Delivering part of a cargo, and not remaining beyond one week per ton delivered	0 6

Exceptions.

Sloops and craft coastwise, with bricks, and vessels with broken granite, or paving stones, not remaining beyond one week	0 3

* The use of the docks is allowed from the date of entrance, for 6 weeks for vessels from Hambro', Bremen, Embden, or the Mediterranean, and 4 weeks for vessels laden with guano; and when the discharge by the Company of any vessel is postponed by desire of the owners, 6 weeks only are allowed free of rent.

† The expense of labour incurred, and of materials broken or injured in the discharge of cutch or gambier and other packages when they adhere together, will be charged in addition.

‡ The expense of mooring, unmooring, and removing, is not included.

§ If such vessels load outwards, 3d. per ton additional will be charged.

	℔ ton reg. s. d.
Colliers entering to await the sale of their cargoes, not remaining beyond two weeks - - -	0 3

Other vessels than colliers, coastwise, on landing goods in the docks equal to one-third of their register tonnage, to be exempted from payment of the tonnage rate, but rent to commence after one clear day from the final landing of the goods.

Vessels entirely corn laden, discharged in the docks, in lieu of tonnage rate, not remaining beyond two weeks,

	£ s. d.
If under 50 tons register each	1 1 0
If 50 and „ 100 „ „ „	1 11 6
100 „ „ 150 „ „ „	2 2 0
150 „ „ 200 „ „ „	3 3 0
200 „ „ 250 „ „ „	4 4 0
250 „ „ 300 „ „ „	5 5 0
300 „ „ 350 „ „ „	6 6 0
350 „ „ 400 „ „ „	7 7 0
400 „ „ 450 „ „ „	8 8 0
450 „ „ 500 „ „ „	9 9 0

and £2 2s. for every additional 50 tons register or less.

If corn vessels quit without unloading, rent to commence after one clear day from the date of entrance.

Vessels two-thirds laden with corn will be charged the usual tonnage rates on the other part of their cargoes, in proportion to their register tonnage.

If vessels to which the above exceptions apply load outwards, they will be charged the usual rate of 9*d.* per ton register.

Sailing Vessels outwards, or light Vessels, other than Steam Vessels.

	℔ ton reg. s. d.
Entering to load or lay up, not having discharged their import cargoes in the docks,	
The use of the docks for any period not exceeding 4 weeks from the date of entering * - - -	0 9

Vessels entering to load from the Import Warehouses only.

	℔ ton on the gross weight shipped. s. d.
For the use of the dock for one week - - -	0 6

The number of tons charged not to exceed the register tonnage.

Exceptions.

Vessels under 100 tons register loading corn or deals, fir timber, and like wood goods, and ships, from the Export or South Docks, which will be allowed to load without any addition to the rate to which they may be liable for the use of the docks.

Steam Vessels.

	℔ ton reg. s. d.
Entering to lay up, or to repair or fit their machinery.	
For the use of the docks for any period not exceeding 4 weeks from the date of entering - - -	1 6
Charges for getting out, landing, lifting, or shipping boilers and heavy machinery †:—	
Pieces under 2 tons each - - - per ton	5 0
2 tons, and not exceeding 5 tons each - ditto	6 6
Above 5 tons, and not exceeding 10 tons each ditto	7 6
Exceeding 10 tons each - - - ditto	10 0
Rent, per week, for boilers, funnels, cylinders, and the like - - - - - - ditto	0 3
Ditto for plates, shafts, and other gearing - ditto	0 1

Vessels entering only to adjust Compasses.

Steam vessels - - - - - -	0 6
Sailing vessels - - - - - -	0 4

Not to remain beyond one week; continuing beyond that period to pay the full rates on light vessels.

Dock Rent.

For remaining over the periods specified:—	
Sailing vessels - - - - per week	0 1
Steam vessels lying up, repairing, or fitting machinery	0 4

All vessels which re-enter after having been out for repair, will be allowed their privilege without reckoning the time they remained out.

For the more expeditious discharge of vessels unloaded by the Company ‡ every assistance may be obtained in clearing the decks, or stiffening them; coopering water casks and shipping them, when filled. Should the Company's moveable machinery be desired for such purpose, it will be lent upon application to the superintendent. The following charges will be made for such services:

	s. d.
For labourers hired to work under the direction of the commanding officer of the ship, each man per day, of the regulated hours of attendance - -	3 6

And not less than ½ day to be charged. Overtime will be charged in proportion.

Articles loaded, shipped, or struck down by the dock cranes or jiggers, under 2 tons - - - per ton	1 0
2 tons, and under 5 tons - - - - - „	1 8

and not less than one ton to be charged.

The use of the Floating Engine for washing ships, including the attendance of the man in charge, per day - - - - - - - - -	20 0

And not less than one day to be charged.

* The expense of mooring, unmooring, and removing, is not included.

† If the Company are required to find the slings and to sling, an additional charge of 10*s.* per cent. on value will be made on pieces 2 tons and upwards.

They do not undertake to lift or ship any weight exceeding 20 tons.

‡ Where inconvenient and unnecessary delay occurs in discharging or loading of ships, vessels, lighters, or craft, it shall be lawful for the Company to cause to be employed a sufficient number of fit and proper persons, and to make a reasonable charge for the same upon the owner or owners, consignee or consignees. — Sec. 94.

Whenever assistance is required for moving within the docks, it will be furnished by the dock master on the following terms, viz.:—

	s. d.
A boat with warp and two hands - -	10 0
A boat with warp and four hands - -	15 0

And for every additional hand employed, either on board, or in the boats, 6*d.* per hour.

The warps are only lent in aid of the ship's warps.

Water from the East London Water Works.

Supplied filtered, and delivered on board -	per ton 1 0
Unfiltered, from the tank - - -	„ 0 10

Table of Charges for Masting or Dismasting at the Mast-building.

	Main Mast.	Fore Mast.	Mizen Mast.	Bowsprit.
For ships of	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1,000 to 1,500 tons	9 0 0	8 2 0	3 12 0	4 10 0
800 — 1,000 —	6 15 0	6 6 0	3 3 0	3 12 0
650 — 800 —	4 0 0	3 12 0	2 0 0	2 0 0
500 — 650 —	3 4 0	2 16 0	1 12 0	1 12 0
300 — 500 —	2 12 6	2 5 0	1 6 3	1 6 3
under 300 —	1 17 6	1 13 9	1 2 6	1 2 6

For putting on or taking off Tops.

	Main.	Fore.	Mizen.
For ships of	£ s. d.	£ s. d.	£ s. d.
1,000 to 1,500 tons -	0 15 0	0 15 0	0 10 0
800 — 1,000 — -	0 10 0	0 10 0	0 5 0
500 — 800 — -	0 7 6	0 7 6	0 5 0
under 500 — -	in proportion.		

The prices of the above table are for each operation, which includes the use of masting-falls and slings.

Freight Books. — Abstract of cargoes, for the purpose of making up freight accounts, is supplied, on application at the Dock-house, Billiter-square, at the following charges:—

	s. d.
Each abstract, containing the weights, measurement, or quantities, of 10 marks or parcels, or under -	2 0
of 11 to 20, ditto - - - -	3 6

Upwards of 20, each mark or parcel, 2*d.*; but not to exceed 10*s.* 6*d.*, including an abstract of the certificates of damage.

Rates and Charges must be paid before the vessels leave the docks, either at the docks, or at the Dock-house in London.

Regulations, &c., regarding Merchandise.

No ship is allowed to break bulk until her cargo is duly entered; it is therefore important that consignees should give directions for the entry of their respective consignments at the Custom-house, as soon as the ship is reported.

Baggage and presents may be cleared at the baggage warehouses, after examination by the revenue.

Particular attention is necessary to the regularity of the indorsements of bills of lading, as the Company's officers cannot pass any bill on which the authority from the shipper to the holder is not deduced by a complete and accurate chain of indorsement.

Every bill of lading should be specially indorsed, so as to clearly designate the party to whose order the contents are to be delivered.

In all cases of informality in bills of lading from want of indorsement, &c., or of their being lost, application must be made to the court by letter, stating the circumstances, and enclosing any documents which will show the title to the goods: in every such case the applicant must engage to indemnify the Company, by bond or otherwise, as the court may direct.

When bills of lading are produced, which are at variance with the manifest as to the original consignee, the Company will not pass any delivery order founded thereon, until three clear days shall have elapsed.

The delivery of goods afloat will be the act of the captain or officer in charge of the vessel.

No order can be received until the manifest of the cargo, duly certified by the captain, has been deposited at the Dock-house; the orders of the importers of all goods intrusted to the East and West India Dock Company's management may then be passed.

When parties holding orders for delivery from the quays, wish the goods housed in their own names, or in the names of other parties, they must lodge the order indorsed to that effect, and warrants will be granted accordingly.

All merchandise warehoused under the care of the Company, is deliverable by warrant; but in the ordinary course of business, Muscovado sugar, wood (excepting ebony and dye wood from the East Indies), goods imported in bulk, and sundry other articles, according to custom, are deliverable by cheques, sub-orders. Warrants, however, will be granted at the desire of the proprietor, for any article warehoused in packages, or for the whole quantity of a bulk, as imported, or for any allotment of such bulk, on payment of the expense of separating it into distinct and corresponding parcels.

That the course of business may be fully understood, the attention of importers and purchasers of produce is particularly requested to the following memoranda:—

Warrants for goods which are usually sold without lotting, will be made out for such quantities as have been found generally convenient to the importers.

For goods which are lotted, made merchantable, &c., the warrants will be made out as soon as the operations are performed. When directions from the importer are required, notice will be given on the landing accounts, or otherwise.

The first warrants or cheques will be issued to the order of the importers, or their assigns, (provided there is no stop upon the goods for freight or otherwise), upon payment of the prime rates, or landing charges.

Such payments must include all charges incurred to the time of passing the order or issuing the warrants, or cheques, excepting rent; charges accruing subsequently, and the rent, must be paid by the holders of the warrants before delivery of the goods. The proprietors of goods may, however, clear the rent and incidental charges to any desired date, and have new warrants or cheques accordingly.

Weight or gauge notes, corresponding to the warrants, will be furnished, when required, at the charge of two-pence each.

The landing and consolidated rates are received at the Dock-house; rent and extra charges by the receivers at the docks, at the clearing office at Fenchurch street warehouse, and at the Billiter-street and Jewry-street warehouses, in whichever place the goods may be lodged.

When the assignment or removal of part of the goods only is intended, the warrants or cheques should be divided at the Dockhouse, in London, as hereafter provided. * If the delivery of the whole of the contents is directed, and the goods are not removed within two days, a new warrant or cheque, for the remainder of the parcel, must be taken out.

When the holders of warrants or cheques are desirous of assigning part of their contents, without delivery, re-weighing, re-housing, &c., new documents will be given in exchange, on lodging the originals, duly indorsed. The indorsement should specially direct the manner in which the contents are to be divided, and state the names of the parties in whose favour the warrants or cheques are to be issued, in the following form: — "Please to divide the within" or, when part is to be delivered, "Deliver to Bearer [state how many packages], and grant new _____ one for [state how many packages] in favour of _____ one for," &c.

Warrants may be exchanged or divided, without assigning the goods when desired by the holder, at the same rate of charge.

The original warrant granted to the importer is not charged for, but the charges for dividing or issuing new documents, or transferring, are —

For each warrant or transfer,

	d.		d.
1 or 2 packages or quantities	1	26 to 30	8
3 or 4	2	31 to 35	9
5 to 7	3	36 to 40	10
8 to 10	4	41 to 45	11
11 to 15	5	46 and upwards	12
16 to 20	6	Goods in bulk per ton	2
21 to 25	7	For every new cheque granted	2

If from the nature of the contract between the seller and buyer, re-weighing, &c., may be necessary, new warrants, if desired, will be issued on depositing the warrants, indorsed with directions to that effect, containing the landing weights and re-weights, as soon as the operations are completed.

When any alterations, such as re-packing, &c., are to be made (except when preparatory to immediate delivery), the warrants must be lodged; and others representing the goods correctly, issued in the same manner.

In the case of casks of liquids used to fill up others, the warrant must be lodged, and the proprietor may either have a new warrant for the remainder, or it may be delivered (if not required to be used again in the same way) to his order.

The warrants must likewise be lodged, on giving notices to wit; but if immediate shipment is not intended, new warrants will be issued as soon as the casks are re-filled.

In the four last-mentioned cases, the charges for performing the operations include the expense of the new warrants.

When warrants or cheques are lost or mislaid, the Company require that they should be advertised in the Public Ledger, the paper containing the advertisement, and an engagement to indemnify the Company by bond or otherwise, to be enclosed with the application for duplicates. The new documents will not be issued (unless the original shall be found and delivered up) until seven clear days shall have elapsed from the date of notice by advertisement. Upon notice of the loss, the goods will be stopped, and the original documents on no account be acted upon, unless first presented at the secretary's office.

Irregularities in the indorsements lessen the security of the proprietors of goods, and render the documents incomplete as authorities. The attention of the holders is therefore particularly called to that point, to prevent the impediments which must otherwise arise to the regular despatch of business. But they must not attempt to remove such impediments by indorsing any warrant, order, or cheque, without due authority.

* If the quantity to be assigned must be weighed or measured, to separate it from the bulk, the division cannot be made until the whole quantity has been re-weighed or re-measured.

Forms on which persons may be authorised to sign for others, may by obtained in the general office at the Dock-house; and as no signature but that of the party named on the warrant, delivery order, or cheque, can be acted upon, when goods are made deliverable to order, persons so authorised should adhere to the following form: —

"For (Name or Firm).
(Signature of the person authorised)."

Deposit Accounts. — To facilitate passing orders, and paying the charges due upon goods, the Company will open deposit accounts, upon request from the merchants, with such deposits as they think proper; when the balance is reduced below ten pounds, a further deposit must be made, ten pounds being the smallest sum which can be received at a time.

Parties having deposit accounts with the Company, must transmit a note of advice on the proper form with each deposit, and it will be necessary that they should invariably state on their orders or warrants whom the charges are to be paid by, thus: —

"Charges to the (date) to our account," (Signature.)

Or "Charges to be paid by the holder," (Signature.)

By opening such accounts the business of merchants with the Company, particularly where goods are upon rent, is much facilitated. The proper forms and pass books may be obtained on application at the Dock-house.

Orders for extra work. — The charges for re-packing, or preparing for exportation, and all work not comprised in these tables, will be fixed from time to time, with reference to the cost of labour and materials. No such work, however, can be done, but by the order of the proprietors of the goods, or parties duly authorised by them.

The charges under this head must be paid by the parties giving the order, or clearing the goods.

Goods prepared for Shipment. — When goods housed in the Import warehouses are prepared for shipment, and are not taken away within the fixed number of days, they will be re-housed at the expense of the proprietor, and the charge for such re-housal, and any additional rent which may have accrued, must be paid before delivery.

The time allowed to elapse before re-housing, or re-stowing, is as follows: — Mahogany and other measured wood, 4 clear working days; Dye-woods, and all other goods, 7 clear working days: when the export vessel loads in the docks, the time will be extended to the date of her departure.

Schedule of Rates on Goods Inwards.

The Landing Rate is charged upon the gross weight, and includes landing, wharfage, weighing or gauging, and housing, or piling on the quays, or loading therefrom, original warrants, accounts of landing weights, tales, or gauges, and strengths of spirits, surveying and furnishing certificates of damage. Goods not intended to be warehoused will be allowed four clear days from the final weighing of the parcel for removal, in default of which they will be housed or piled. If intended for immediate trans-shipment, they may remain on the quay, subject to the same regulations as goods prepared for shipment, paying rent as if housed at landing.

The Prime or Consolidated Rate includes all expenses for landing, wharfage, weighing or gauging at landing; coopering, or mending for housing; marking, sampling, housing, weighing for actual delivery and delivering; furnishing landing and delivery weights, tales, or gauges and strengths; surveying and furnishing certificates of damage, and rent for twelve weeks from the date of the ship's commencement of discharge, excepting where it is otherwise stated. It is charged upon the net weight, and on all goods to which it is affixed, unless notice be given previous to the final weighing or gauging by the importers of their desire to have them placed under the landing rate.

The Rates for

Re-weighing,	when not otherwise specified,	1-3rd of landing rate.
Re-housing,	do.	do.
Unpiling,	do.	do.
Repiling,	do.	do.
Unhousing or unpiling & loading,	do.	do.
Wharfage and shipping,	do.	2-3rds of landing rate.
Unloading and housing or piling,	do.	do.
Unhousing or unpiling, Wharfage and shipping,	do.	the same as the landing-rate.

The Warehouse Rent is chargeable on the gross weight, from the date of the ship's breaking bulk, or from first landing from craft.

A week's rent will be charged for any fraction of a week.

Before transfer by the Company, or delivery of any goods can take place, the charges on the quantity to be transferred or delivered must be paid.

Rates on Goods Inwards.

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week	Rent. Quantities, &c.
	Per	s. d.	s. d.	s. d. Per
Agates - - package	-	1 6	0 3	
Alkali, Scotch - ton	-	4 6	0 3	
Alkanet root - cwt.	-	0 6	1 0	ton
Almonds, in large casks or serons - - ton	-	4 6	0 4	
boxes or barrels - cwt.	-	0 6	2 0	100 boxes
			1 3	100 half boxes
			0 3	cask 3½ cwt. and under 5 cwt.
			0 2	barrel 2½ cwt. and under 3½ cwt.
			0 1	½ ditto 1½ cwt. and under 2½ cwt.
			0 0½	¼ ditto under 1½ cwt.
shell - -	Per cwt.	-	0 9	0 2 large bale
				0 1½ ordinary bale
				0 1 ½ bale
Aloes, in gourds	cwt.	-	0 4½	} 0 0½
in chests or casks	cwt.	-	0 4	
Alum - -	ton	-	3 6	0 3
Alva marina in bales press packed - ton		-	3 0	0 4
in bags not press-packed, ton		-	5 0	0 6
Amber and beads package		-	1	0 1 box or case
rough - - ton		-	5 0	0 7
Ambergris, in boxes or kegs package		-	1 6	0 3

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	Per s. d.	s. d.	s. d.	*Per*
Amethysts, case or package	-	1 6	3	
Anchors. See *Iron*.				
Anchovies - cwt.	-	0 9	4 2	100 casks under 1 cwt. each
			2 6	100 barrels
			1 3	100 kegs
Angelica root - ton	-	5 0	0 5	hogsheads
			0 2	tierce
			0 1	barrel
Annotto, in casks ton	-	7 0	0 7	
mats, small chests, or baskets - cwt.	-	1 7½	4 2	100 small packages
Antimony - cwt.	-	0 3	0 4	ton
ore - - ton	-	3 6	0 2	
When loose, filling and weighing, on rehousing or delivery, 2s. per ton.				
Apples - hogshead	-	1 6	0 3	
tierce	-	1 0	0 1½	
box, basket, or barrel	-	0 6	0 0½	
Arangoes - chest	-	1 6	0 2	
box	-	1 6	0 1	
Argol - - ton	-	5 0	0 4	ton, in casks
			2 6	100 bags or cases, 2 cwt. and under 4 cwt. each
			1 6	100 bags under 2 cwt. each
Arrowroot in casks cwt.	1 0	0 4½	0 7	ton
tins, boxes, chests, singly or *otherwise* - cwt.	1 6	0 4½	0 7	ton
Arsenic - - cwt.	-	0 3	0 4	ton
Assafœtida - cwt.	-	0 6	0 0½	
Ashes - - ton	-	3 0	0 3	ton, from Black Sea
			0 2	cask, from other parts of Russia
			0 0½	cask, from America
unhousing, wharfage, and shipping, 2s. per ton.				
Asphaltum, medicinal ton	-	5 0	0 6	
rough, loose, or in casks ton	-	3 0	0 2	under cover
			0 1	not under cover
filling and weighing, loose, at rehousing or delivery, 2s. per ton.				
Asses or mules, landing and wharfage - each	-	3 0	- -	

Unhousing, Wharfage, and Shipping.
s. d.
1 6
0 6
0 1½
0 4

Bacon - - hogshead	-	2 0	0 3	
bale	-	0 6	0 1	
side	-	0 2½	0 0½	
middles, 3 cwt. tierce	-	0 8½	0 1	
ditto, 1 to 2 cwt. cask	-	0 6	0 0½	
Baggage, examined on the quay, packages not exceeding 15 in. square, or 28 lb. weight, gross package	0 6	-	0 0½	
under 2 cwt., - do.	1 0	-	0 0½	
2 cwt. and upwards, do.	1 6	-	0 1½	
examined within the warehouse, packages not exceeding 15 in. square, or 28 lbs. weight, gross package	1 6	-	0 0	
Above 28 lbs. and under 1 cwt. - package	2 6	-	0 1	
1 cwt. and under 2 cwt. package	3 0	-	0 2	
2 cwt. and upwards, do.	3 6	-	0 3	
Bags, empty - score	-	0 4	0 0½	
from corn vessels — same as mats.				
Balsam, in jars, bottles, or canisters, single, or in cases cwt.	-	1 1½	0 0	jar, bottle, or canister
			0 1	case of 5 do. or under
			0 1½	do. of 6 do. & under 10
			0 2	do. of 10 do. & under 15
casks - - cwt.	-	0 6	0 2	cask, 5 cwt. & upwards
			0 1	do. 2 cwt. & under 5 cwt.
			0 1	do. under 2 cwt.
A separate charge will be made for cooper's attendance at landing & delivery, except on Canada.				
Bamboo canes. See *Canes*.				
Barilla, loose - ton	-	3 6	0 2	
filling and weighing on rehousing or delivery, 2s. per ton.				
Unhousing, wharfage, and shipping, 3s. per ton.				
Barrels, casks, chests, mats, or bags - ton	-	3 3	0 2	
Unhousing, wharfage, and shipping, 2s. 6d. per ton.				
Bark, Jesuits' or Peruvian, cwt.	-	1 0	0 7	ton
Elutheria or Cascarilla, cwt.	-	0 9	1 3	ton
Oak, or tanners', in bags or loose - ton	-	5 0	0 4	
Filling and weighing on rehousing or delivery, 2s. per ton.				

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	Per s. d.	s. d.	s. d.	*Per*
Bark—*continued*.				
cases about 1½ cwt. cwt.	-	0 6	0 1	case
casks - - ton	-	3 0	0 4	
Baskets, bale, three-quarter bale or half bale -	-	6 0	1 0	
large bundle	-	1 0	0 1	
small bundle	-	0 6	0 0½	
Rent to commence after three days from final landing.				
Beads, jet, or other kinds, except amber, coral, and cornelian - package	-	1 6	0 1	
Beans, for human food, bag	-	0 4½	2 6	100
Beef and pork - tierce	-	0 8½	0 0½	
	-	0 5½	3 0	100
tub, kit, or half-barrel	-	0 3½	2 0	100
Beer, spruce - barrel	-	0 9	0 0½	
firkin	-	0 3	1 6	100
keg	-	0 1½	0 9	100
Bees' wax. See *Wax*.				
Benjamin. See *Gum*.				
Berries, juniper, yellow or bay - - ton	-	5 0	0 4	
Betel nuts - - ton	-	5 0	0 4	
Biscuits - - cwt.	-	0 3	0 0½	
Black lead - - ton	-	3 9	0 3	
Blankets - - bale	-	1 0	0 1	
Block tin. See *Tin*.				
Bones, loose and bags ton	-	5 0	0 3	
Loose, weighing on board, 3s. per ton				
casks - - ton	-	3 0	0 3	
Books - - cwt.	-	1 0	0 5	chest
			0 2	bale or box
Boots and shoes - hogshead	-	1 6	0 3	
case or tierce	-	1 0	0 2	
Boracic acid ton	-	5 0	0 4	
Borax, rough or refined - ton	-	5 0	0 10	
Brandied fruit, case - 3 doz.	-	0 9	0 1½	
ditto - - 2 doz.	-	0 6	0 1	
Brass - - ton	-	5 0	0 2	
Brea, or white pitch ton	-	4 6	0 4	
Brimstone, loose - ton	-	3 6	0 2	
Filling and weighing on rehousing or delivery, 2s. per ton.				
Unhousing, wharfage, and shipping, 3s. per ton.				
in casks, cases, or baskets ton	-	3 3	0 3	ton, in casks, or rough
			0 6	ton, in roll or refined
Unhousing, wharfage, and shipping, 2s. 6d. per ton.				
Bristles, in packages - ton	-	7 0	0 6	
Bronze - - case	-	1 6	0 2	
box	-	1 0	0 1	
Bugles - - ton	-	5 0	0 9	
Bullion - cask or case	-	1 6	-	
small package	-	1 0	-	
parcel not exceeding 5*l*. in value	-	0 6	-	
Burr stones. See *Stone*.				
Butter, foreign.				
Friesland, or Holstein,— landing, wharfage, housing or loading, and furnishing landing weights to the importer - ¼ cask	-	0 3	4 0	100
	-	0 3	2 0	100
Loading from the warehouse, 1d. per cask.				
Weighing on delivery, if required, and furnishing delivery weights to the buyer, ½d. per cask.				
Embden or Holland,— landing, wharfage, housing or loading, and furnishing landing weights, firkin	-	0 3	2 0	100
Loading from the warehouse, ¼d. per firkin.				
Weighing on delivery, when required, ¾d. per firkin.				
Irish - score firkins	-	3 0	2 0	100
Weighing on delivery, cask or firkin, 1d.				
Unhousing, wharfage, and shipping, cask or firkin, 1½d.				
Cables, chain - - ton	-	5 0	0 3	
hempen - - ton	-	10 0	0 4	
coir - - ton	-	12 6	0 5	
Calicoes - - bale	-	1 3	0 1½	
Cambric - - package	-	2 6	0 4	
Camels' hair - - cwt.	-	0 10½	0 2	bale or case
Camphor - - cwt.	1 8	0 6	0 0½	
Cane juice. See *Molasses*.				
Canella alba - cwt.	1 8	0 6	0 0½	
Canes, common rattan, 1000	2 0	1 3	0 1	
split rattans cwt.	1 3	0 6	0 10	ton
Other than common rattans, being of the diameter of ⅜ of an inch and upwards at the centre of the first joint from the head - - 1000	7 2	3 0	0 2	

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
Canes—*continued.* Per				
Being less than ¾ of an inch, &c. - 1000	6 4	3 0	0 1	Per
reed, 25 in a bundle, 100 bundles.	-	6 3	1 6	
reed, 60 in a bundle, 100 bundles	-	12 6	3 0	
Cantharides - cwt.	-	1 0	0 6	case or cask, 3 cwt. and upwards
			0 4	case or cask, 4 cwt. and under 8 cwt.
			0 5	case or cask, under 4 cwt.
Caoutchouc. See *In. Rubber.*				
Capers - - cwt.	-	0 3	0 6	butt
			0 4	puncheon
			0 3	hogshead
			0 1	barrel
Laying up to gauge a separate charge.				
Cardamoms - cwt.	-	0 6	0 1½	chest
			1 3	ton, in bags
Cards, playing - case	-	1 6	0 2	chest
			0 1	box
small ditto	-	1 0	0 1	
Carpets, 70 square yards and upwards - - bale	-	2 0	0 4	
under 70 sq. yds. ballot	-	1 4½	0 2	
Cashew nuts - cwt.	-	0 6	0 0½	
Cassia buds - - cwt.	1 6	0 6	0 0½	
Cassia fistula - cwt.	-	0 6	0 0½	
Cassia lignea - cwt.	1 6	0 6	0 0½	
Castor seed - - cwt.	-	0 3	0 0¾	
Castor oil. See *Oil.*				
Castorum, keg or small box	-	1 0	0 1	
Catlings - case or chest	-	1 0	0 2	
Caviare - package	-	0 6	0 1	
Chairs - - each	-	0 3	0 0¼	
case containing 12	-	1 6	0 3	
case containing 6	-	1 0	0 2	
Chaises or carriages, with 4 wheels - each	-	10 6	1 6	
2 wheels - each	-	7 6	1 0	
Chalk, French - ton	-	5 0	0 6	
Charcoal, animal - ton	-	3 6	0 3	
Chassum - - bale	-	1 6	0 1	
Cheese - - ton	-	4 0	1 0	
tubs or cases - cwt.	-	0 6	0 1	tub or case
			1 6	100 small ditto
Chekang - - cwt.	-	1 0	0 0¾	
Chestnuts - - bushel	-	0 2½	4 0	100 sacks
			2 0	100 bags
			4 2	100 barrels
Chicoree, under 1½ cwt. case or cask	-	0 6	0 0½	
1½ and under 3 cwt. case or cask	-	0 9	0 0½	
3 cwt. and under 5 cwt. case or cask	-	1 0	0 1	
5 cwt. & above, case or cask	-	1 6	0 2	
Chillies - - cwt.	-	0 6	0 7	ton
China root - - cwt.	-	0 6	0 0⅜	
China ware - case	-	1 6	0 3	
small case	-	1 0	0 2	
box	-	1 0	0 1	
Chiranga root - cwt.	-	1 0	0 0¾	
Chirayita - - cwt.	-	0 8½	0 3	case or cask
Chocolate - - cwt.	-	1 0	0 0½	package under 56 lbs.
			0 1	do. 56 lb. and do. 1 cwt.
			0 1½	do. 1 cwt. do. 2 do.
			0 2	do. 2 do. do. 3 do.
			0 2½	do. 3 do. do. 4 do.
			0 3	do. 4 do. do. 5 do.
Cinnabar - - cwt.	-	2 4	0 0½	
Citron, in salt - pipe	-	1 6	0 4	
hogshead	-	1 0	0 3	
Cooper's attendance and laying up to gauge in addition, candied. See *Succades.*				
Clay figures - - case	-	1 6	0 2	
middling case	-	1 0	0 1½	
small case	-	0 9	0 1	
Clocks, wooden - chest	-	2 0	0 2	
French, containing 2, case	-	2 6	0 2	
1, case	-	1 6	0 1	
Cloth, woollen, case or large bale	-	2 0	0 3	
ordin. do. from 8 to 12 pcs.	-	1 6	0 2	
small do. under 8 pieces	-	1 0	0 1½	
Clover and lucerne seed, in bags - - ton	-	3 9	0 3½	
casks - - ton	-	4 6		
Cloves, in chests - cwt.	2 3	0 3½	0 6	ton
bags or mats - cwt.	1 6	0 8½		
Coaches. See *Chaises, &c.*				
Cobalt - - ton	-	5 0	0 5	
Cochineal dust - cwt.	-	-	0 0½	
Cocoa, in casks - cwt.	1 2	0 6	0 6	ton
bags - - cwt.	0 10	0 6		
Cocoa nuts - 100	-	1 6	0 3	
Cocque de perle - chest	-	1 0	0 2	
Cocculus indicus - cwt.	-	0 6	0 0⅜	
Cod fish. See *Fish.*				
Codilla of hemp or flax, ton when sold from landing scale to importer - ton	-	6 0	0 6	
to buyer - ton	-	5 0		
	-	1 0		

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
Per	s. d.	s. d.	s. d.	Per
Codilla of hemp or flax				
Landing loose, 2s. 9d. extra per ton.				
When housed, weighing, 2s. per ton; loading, 5s. per ton.				
Unhousing, wharfage, and shipping, 5s. per ton.				
Coffee, casks and cases cwt.	1 2	0 6		
bales - - cwt.	0 10	0 6	0 6	ton
bags bulked - cwt.	0 10	0 6		
bags not bulked - cwt.	0 8½	0 6		
Coir, unwrought, press-packed - - ton	-	3 0	0 4	
Rope, under 6 in. in girth ton.	-	6 3	0 4	
Yarn - - ton	-	5 0		
Cables. See *Cables.*				
Cola shells - ton	-	5 0	0 3	
Coloquintida - cwt.	-	0 10½	0 5	cask or case, 3 cwt. and upwards
			0 2	cask or case, 1 cwt. and under 3 cwt.
			0 1	do. under 1 cwt.
Colours, painters', —				
9 cwt. and above - cask	-	2 6	0 2	
6 and under 9 cwt. - cask	-	2 0	0 2	
3 do. 6 cwt. - cask	-	1 6	0 1½	
1 do. 3 cwt. - cask	-	1 0	0 1	
under 1 cwt. - cask	-	0 6	0 0½	
Columbo root - cwt.	-	0 4½	0 0⅜	
Copper, copper ore, and copper nails - ton	-	5 0	0 2	
Wharfage and shipping copper slabs, when piled on the quay, 5s. 4d. per ton.				
Copperas - - ton	-	5 0	0 6	
Coquilla nuts - 1000	-	1 0	0 0½	
Coral, fragments - cwt.	-	0 7½	0 3	case or cask
beads - case or chest	-	1 6	0 2	
box	-	1 0	0 1	
Coraza nuts - cwt.	-	0 6	0 10	ton
Cordage, hempen, under 6 inches - ton	-	5 0	0 4	
Cordials. See *Spirits* and *Wine.*				
Cork - - ton	-	8 0	1 0	
Unhousing, wharfage, and shipping, 6s. per ton.				
manufactured - cwt.	-	1 6	0 1	
Corn, See *Grain.*				
Cornelians and beads, chest or box	-	1 6	0 2	chest
Corpse - - each	-	15 0	0 1	box
Cortex winteranus - cwt.	1 6	0 6	0 0½	
Cotton piece goods - bale	-	1 3	0 1½	
box or case	-	1 0	0 1½	
trunk	-	0 9	0 1	
other cotton goods, large case	-	2 6	0 4	
middling case or bale	-	1 6	0 2	
box or small case	-	1 0	0 1½	
Cotton wool, press-packed - ton	-	3 6	0 5	ton
not press-packed - cwt.	-	0 4½	0 6	ton
West India, press-packed - cwt.	0 9			
not press-packed - cwt.	0 0			
Cotton yarn or thread, cwt.	-	0 5½	0 1	bale
			0 0½	ballot
fringe - case, about 5 cwt.	-	2 0	0 2	
do. 10 cwt.	-	4 0	0 4	
Couhage - - cwt.	-	0 6	0 0½	
Cowries - - ton	-	5 0	0 3	
Cows, landing and wharfage each	-	10 0		
Cranberries - hogshead	-	1 0	0 1½	
barrel	-	0 9	0 1	
keg	-	0 6		
Laying up to gauge, a separate charge.				
Cream of tartar - ton	-	5 0	0 6	
Crystal beads - package	-	1 6	0 2	
rough - - ton	-	5 0	0 7	
Cubebs - - cwt.	-	0 6	0 0⅜	
Cubic nitre, if housed - ton	-	4 0	0 5	
If delivered from the quay, by land	-	5 0		
by water	-	5 4		
Unhousing, wharfage, and shipping, 5s. per ton.				
Weighing or loading, or unpiling, or repiling, 1s. 8d. per ton.				
				Unhousing and Loading.
				s. d.
Currants,				
25 cwt and upwards, butt	-	4 6	0 6	1 0
15 and under 25 cwt. butt	-	3 6	0 4	0 8
9 do. 15 do. pipe	-	2 3	0 3	0 6
5 do. 9 do. carot.	-	1 6	0 2	0 4
2½ do. 5 do. barrel	-	0 9	0 0½	0 2
under 2½ cwt. half-barrel	-	0 6	0 0½	0 2
Cutch. See *Terra Japonica,* page 503.				

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	Per	*s. d.*	*s. d.*	*Per*
Dates, 3 cwt. and upwards cask or case	-	1 6	0 1½	
2 and under 3 cwt. do.	-	1 0	0 1	
1 do. 2 do. do.	-	0 9	0 0¾	
under 1 cwt. do.	-	0 6	0 0½	
Deer, landing and wharfage each	-	5 0		
Divi divi - - ton	-	4 6	0 3	
Filling and weighing, on rehousing or delivery, 2*s.* per ton.				
Dragons' blood - cwt.	-	0 6	0 0½	
Dripstones - - each	-	0 9	0 0½	
Drugs, not otherwise enumerated - cwt.	-	0 9	0 0¾	
Dye flower - - ton	-	5 0	0 6	
Earth, Fullers' - - ton	-	3 9	0 4	
Eau de Cologne, 450 bottles and above, case	-	1 6	0 4	
200 under 450 bottles, case	-	1 0	0 2	
do. 200 do. case	-	0 6	0 1	
Eggs - - - box	-	0 6	0 1	
Elephants' teeth - cwt.	-	0 10½	0 1	
Emery stone. See *Stone.*				

	Landing Rate.	Rent Per Week.	Unhousing and Loading.	Unhousing, Wharfage, and Shipping.
	s. d.	*s. d.*	*s. d.*	*s. d.*
Essences and essential oils, Case under 56 lbs. - gross	0 9	0 0¾	0 3	0 9
56 under 84lbs. gross	1 0	1 0	0 4	1 0
84 do. 112lbs. gross	1 2	1 0	0 5	1 3
112 do. 168lbs. gross	1 6	2 0	0 7	1 9
168 do. 224lbs. gross	1 9	3 0	0 8	2 0
Extract from oak bark, cwt. -	0 3	0 1½	cask, above 4 cwt.	
		0 1	do. 4 cwt. and under	
Rhatania or Jesuits' bark, cwt. -	0 9	0 1		
Fans - - - - case	1 6	0 1½		
box	1 0	0 1		
Feathers, bed - - cwt.	0 10½	0 3	bale, 3 to 5 cwt.	
		0 2	do. from Ireland.	
		0 2	bag, 2 cwt. and under 3 cwt.	
		0 1½	do. 1½ cwt. and under 2 cwt.	
		0 1	small bale	
Ostrich and Paddy bird, package	1 6	0 2		
Vulture, above 2 cwt., bale or cask	2 6	0 3		
above 56lbs. and not exceeding 2 cwt. bale or cask	1 6	0 2		
not exceed. 56lbs - bag	0 6	0 0½		
Figs, 3 qrs. to 1½ cwt., chest	0 3	2 0	100	0 0½ each
about 56 lbs. ¼-chest	0 3	1 3	100	
¼-chests or drums, about 28 lbs. - score	2 6			
½, ¼, or ⅛ drums or tapnets - score	1 6	1 5	ton	0 6 score
Fish, Cod, dried - ton	4 6	0 4		
In packages, unhousing, wharfage and shipping, 3*s.* per ton.				
herrings or mackerel, tierce	1 0	3 0	100	
barrel	0 6	1 6	100	
Roes - - - barrel	0 9	3 0	100	
Salmon - - tierce	0 6	5 0	100	
kit	0 1½	1 6	100	
Stock or sturgeon - 1000	6 0	0 4	1000 stock	
		1 0	100 kegs sturgeon	
		2 6	100 barrels	
not otherwise described, tierce	1 0	5 0	100	
barrel	0 6	2 6	100	
box	0 3	1 6	100	
Flax - - - ton	5 0	0 5		
If sold from landing-scale to importer - ton	3 6			
to buyer - ton	1 6			
Landing loose extra.				
Baltic - 2*s.* 6*d.* ton				
New Zealand, 3*s.* 6*d.* ton				
Unhousing, wharfage, and shipping, 4*s.* 6*d.* per ton.				
Flour, including delivery, by land or wafer - ton	4 9	0 2¼		
Repiling 1*s.* per ton.				
Weighing on delivery, if required, per barrel, sack, or chest, 1*d.*; per ½-barrel, or ¼-chest, ½*d.*				
Weighing on board, for trans-shipment, 2*s.* ton.				
Flowers, artificial - case	1 0	0 1		
box	0 9	0 0½		
Flower Roots. See *Roots.*				
Frankincense - cwt.	0 8½	0 0½		
Fruits. See each kind.				
Furniture, very large pckge.	4 6	0 4		

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	Per	*s. d.*	*s. d.*	*Per*
Furniture, ordinary package	-	3 0	0 3	
middling package	-	2 0	0 2	
intermediate package	-	1 0	0 1½	
small package	-	0 6	0 1	
Furs. See *Skins.*				
Galangal - - cwt.	-	0 6	0 0½	
Galbanum - - cwt.	-	0 6	0 0½	
Galls - - - cwt.	-	0 3	0 0¼	
Gamboge - - cwt.	-	0 6	0 0½	
Gentianroot - - cwt.	-	0 3	0 0½	
Ginger, West India and African, casks - cwt.	1 4	0 6	0 6	ton
bags - - cwt.	1 0	0 5	0 6	ton
East India, bags and pockets - - cwt.	0 10	0 5	0 6	ton
cases - - - cwt.	1 4	0 6	0 6	ton
Preserved. See *Succades.*				
Ginseng root - - cwt.	-	0 6	0 1	barrel
Glass - - cask or chest	-	1 6	0 3	
case or box	-	1 0	0 3	case
			0 1	box
window, or plate, not exceeding 540 in. superficies, package, 60 lbs. net and under - -	-	0 6	0 0½	
above 60 lbs and not exceeding 112 lbs. net -	-	0 9	0 0¾	
„ 112 lbs. „ 168 lbs. net	-	1 0	0 1	
„ 168 lbs. „ 224 lbs. net	-	1 3	0 2	
„ 224 lbs. „ 336 lbs. net	-	1 6	0 3	
utensils, 2½ cwt. to 4 cwt. cask or case	-	2 0	0 3	
1 cwt. and under 2½ cwt. cask or case	-	1 6	0 2	
under 1 cwt. cask or case	-	1 0	0 1	
Glue - - - - ton	-	5 0	0 4	
Goats' hair or beards. See *Wool.*				
Grain and seed, viz.—				
Wheat, barley, rye, maize and other heavy grain; peas, horse or pigeon beans, tares, linseed, &c.				Wheat, rye, maize, and other heavy grain, except barley, peas, horse or pigeon beans, tares 4*s.* 9*d.* per 100 qrs., not including insurance from fire.
Landing, wharfage, housing and delivering - qr.	-	0 9		Barley, do. do. 4*s.* 5*d.* Linseed and E. India oil seeds, do. do. 5*s.* 10*d.*
Oats and other light grain: Landing, wharfage, housing and delivering - qr.	-	0 8	3 10	100 qrs., not including insurance from fire
Working out and delivering into craft,				
Wheat, barley, rye, beans, peas, seed, &c., 5*d.* qr.				
Oats and malt only, 2½*d.* qr.				
Granilla - - cwt.	2 9	0 9	0 0½	
Grapes - - box	-	0 6	5 0	100
jar	-	0 3	2 6	100
Grease - - ton	-	5 0	0 3	
Greaves - - ton	-	4 6	0 3	
Ground nuts in the shell ton	-	4 6	0 3	
Filling and weighing, on rehousing or delivery, 2*s.* per ton.				
Guinea grains - cwt.	-	0 6	0 10	ton
Gum, not otherwise enumerated, loose, or in packages - ton	-	6 0	0 6	
Gutta Percha - cwt.	-	0 6	0 6	ton
Hair, horse, ox, or cow cwt.	-	0 6	0 2	bale 5 cwt. and upwards
			0 1½	bale 3 cwt. and under 5 cwt.
			0 1	bale, case, or box, under 3 cwt.
			0 0½	loose, per cwt.
human - - cwt.	-	1 0	0 2	bale
pigs - - cwt.	-	0 4½	0 1	bale, 2 to 4 cwt.
			0 0½	bale under 2 cwt.

	Unhousing, Wharfage, and Shipping.
	s. d.
Hams - - hogshead	1 6
tierce	0 8
barrel or basket	0 4
case	
small case	
loose, 100	
Hartall - - ton	
Hats, Leghorn - 10 doz.	
chip - tub of 80 doz.	
beaver or silk - large case	
middling case	
small case	
linings - - small case	
Hellebore root - cwt.	
Hemp - - ton	
if sold from landing scale to importer - ton	
to buyer - ton	

	Rent. Per Week.	Rent. Quantities, &c.
	s. d.	*Per*
Hams - - hogshead	0 3	
tierce	0 1	
barrel or basket	0 1	
case	0 2	
small case	0 0½	
loose, 100	2 1	
Hartall - - ton	0 4	
Hats, Leghorn - 10 doz.	0 1	10 doz.
	0 2	middling case or
	0 4	large case or pa
chip - tub of 80 doz.	0 2	
beaver or silk - large case	0 3	
middling case	0 2	
small case	0 1	
linings - - small case	0 1	
Hellebore root - cwt.	0 0½	
Hemp - - ton	0 5	
if sold from landing scale to importer - ton	0 5	
to buyer - ton	0 5	

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.	Weighing* Unpiling, Repiling, Rehousing, or Loading.		Unhousing Wharfage, and Shipping.	
					Per	s. d.	Per	s. d.
Hemp—*continued.* Per Landing loose extra per ton 2*s.* 6*d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*	*Per*				
When housed, weighing, per ton 2*s.*; loading per ton 2*s.*								
Unhousing, wharfage, and shipping 4*s.* per ton.								
press-packed - ton	-	4 0	0 4					
East India do. - ton	-	3 6	0 3					
loose - ton	-	6 0	0 6					
Herrings. See *Fish.*								
Hides, wet salted, landed loose, and requiring to be tied up - - 100	25 0*	-						
* Including landing, wharfage, housing, taring, tying up each, including cord, and weighing for delivery.								
landed in bundles, or loose, not requiring tying up - - 100	*12 6	-						
* Including landing, wharfage, housing, taring, and weighing for delivery.								
horse, Hambro', dry, loose 100	-	5 6	0 8		100	2 6	100	7 6
Not otherwise enumerated dry or dry salted, loose 100	-	4 9	0 6		100	2 1	100	6 3
Wet salted, loose 100	-	9 6	0 10		100	4 2	100	12 6
ox, cow, or buffalo, wet salted, loose - 100	-	9 6	0 10		100	4 2	100	12 6
ditto do., with short horns 100	-	12 6	2 0		doz.	0 8	100	16 8
Other hides (not enumerated), dry or dry salted, loose, averaging more than 22 lbs. each - 100	-	9 3	0 10		100	4 2	100	12 6
12 lbs, and not exceeding 22 lbs. - - 100	-	6 9	0 8		100	3 0	100	9 0
7 lbs. and under 12 lbs. 100	-	4 6	0 6		100	2 1	100	6 3
under 7 lbs. - 100	-	3 0	0 4		150	2 1	100	4 2
in bales under 4 cwt. bale	-	1 0	0 1		bale	0 5	bale	1 3
4 cwt. & under 6 cwt. bale	-	1 1½	0 2		bale	0 6	bale	1 6
6 cwt. ditto 10 cwt. bale	-	2 3	0 3		bale	1 0	bale	3 0
10 cwt. ditto 15 cwt. bale	-	3 0	0 4		bale	1 4	bale	4 0
15 cwt. ditto 20 cwt. bale	-	4 0	0 5		bale	1 6	bale	4 6
20 cwt. ditto 25 cwt. bale	-	5 0	0 6		bale	2 0	bale	6 0
25 cwt. ditto 30 cwt. bale	-	6 0	0 7		bale	2 6	bale	7 6
In casks, landing rate and rent the same as in bales.								
losh - bale or chest	-	1 6	0 3		chest or bale	0 8	chest or bale	2 0
				*Any weighing chargeable to the importer is to be charged at the rate of one-third of the landing rate; but this rule is not to apply to any other operation, or to any weighing or re-weighing, under any other circumstances.				
Hide cuttings, tanners' waste or clippings, in bales ton	-	3 6	0 6					
loose - - ton		5 0	0 10					
loose, wet salted, if of small value - ton	-	-	0 6					
Hones - - cwt.	-	0 3	0 1	cask, 3 to 5 cwt.				
Honey, jars - cwt.	-	0 6	0 0½	keg or jar				
barrels and kegs cwt.	-	0 4½	0 1	barrel				
larger casks - cwt.	-	0 3	0 6	ton				
Cooper's attendance in addition, on crude or wild honey.								
Hoofs - - cwt.	-	0 4½	0 4	ton				
Hops - - cwt.	-	0 4½	0 2	bag				
			0 1	pocket				
Horns, ox, cow, and buffalo, loose - - cwt.	-	*0 7½	0 6	ton				
Unhousing, wharfage, and shipping, per cwt. 6*d.*								
in packages - cwt.	-	0 6	0 6	ton				
tips and plates, loose cwt.	-	0 7½	0 4	ton				
Unhousing, wharfage, and shipping, per cwt. 6*d.*								
in packages - cwt.	-	0 6	0 4	ton				
hart, stag, or deer, loose cwt.	-	*0 7½	0 10	ton				
in packages - cwt.	-	0 6	0 10	ton				
shavings and waste cwt.	-	0 3	0 4	ton				
* Including counting at landing.								
Horses, wharfage - each	-	6 3						
Jalap - - cwt.	-	0 10½	0 1	bale, about 3 cwt.				
			0 0½	bale, about 1½ cwt.				
Iceland moss. See *Moss.*								

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
India rubber, in blocks or in packages containing bottles - - cwt.	-	0 6	0 0½	
loose, in bottles or small pieces - cwt.	-	1 0	0 1	
Indigo (not East India) cwt.	1 6	0 9	0 1	seron
East India.				
Landing; comprising landing, wharfage, weighing gross, and delivery from the quay at the docks, 3*s.* per chest.				
Landing and housing; comprising landing, wharfage, weighing gross, housing, and delivery, 4*s.* per chest.				
Management; applicable to goods worked and shown for sale, comprising every operation incidental thereto, importers' first samples if ordered before the chests are nailed down, and delivery, when raised. 12*s.* 6*d.* per chest; when not raised, 10*s.* per chest.				
Rent, per week, 1½*d.* per chest.				
Ink, China - cwt.	-	2 0	0 1	
Inkle - - cwt.	-	1 0	0 1½	case
			0 ½	box or keg
Ipecacuanha - cwt.	-	0 10½	0 0½	
Iron, bar and rod, consolidated rate, 5*s.* per ton; comprising landing, wharfage, weighing, sorting at landing, and delivering.				
Lighterage, if done by the Company, 1*s.* 6*d.* per ton.				
Rent, from date of breaking bulk - - -	-	-	0 1	ton
Weighing on board for transhipment, 2*s.* per ton.				
ore - - ton	-	3 0	2 0	
old - - ton	-	3 4	0 2	
Anchors, cannon, steam engines, and other heavy machinery, in parts, boilers, cylinders, &c., brought either by land or water.*				* An additional charge of 10*s.* per cent. will be made on pieces of 2 tons and upwards. The company do not undertake to lift any weight exceeding 20 tons.
pieces under 2 tons - ton	-	5 0	0 3	per ton for boilers, funnels, cylinders, and the like
2 tons and not exceeding 5 tons - - ton	-	6 6		
above 5 tons and not exceeding 10 tons - ton	-	7 6	0 1	per ton for plates, shafts, and other gearing, anchors, and cannon.
exceeding 10 tons - ton		10 0		
manufactures or packages, not otherwise described ton	-	5 0	0 2	
Isinglass - - cwt.	-	0 10½	0 0½	
Ivory - - cwt.	-	0 10½	0 1	
scrap - - cwt.	-	0 6	0 10	ton
Junk, or old rope - ton	-	3 6	0 3	
Jute, press-packed - ton	-	3 6	0 3	
Kelp - - ton	-	3 6	0 2	
Filling and weighing on re-housing or delivery, 2*s.* per ton.				
Knives, package under 2 cwt.	-	1 0	0 0¾	
2 cwt. and under 4 cwt.	-	1 6	0 1	
4 cwt. and under 6 cwt.	-	2 0	0 1½	
Kowrie gum - ton	-	6 0	0 6	casks or cases
			0 4	bags
Lac dye and lac lake.				
Landing; comprising landing, wharfage, weighing, and furnishing landing weights, and loading or housing, per chest, 2 cwt. and under, 9*d.*; above 2 cwt. to 4 cwt., 1*s.*; above 4 cwt. to 6 cwt., 1*s.* 3*d.*				
Management; comprising landing, wharfage, housing, weighing, stripping, opening, sorting, sampling, taring, raising, repairing, yetaring, refilling, nailing down, hooping and marking, providing chests for overtakers, reweighing, lotting, and piling away, in chests, per cwt. gross, 1*s.* 8*d.*				
Rent, per week, per ton gross, 7½*d.*				
Delivery, by land or water, as per rates				

Goods imported.	Prime Rate Nett.	Landing Rate Nett.	Rent. Per Week.	Rent. Quantities, &c.
	Per	s. d.	s. d.	*Per*
Lace - case or box	-	2 6	0 6	
Lacquered ware - large case	-	2 6	0 3	
chest	-	1 6	0 2	
box	-	1 0	0 1	
Lard - bladder	-	0 0½	0 6	100 bladders
Lavender flowers - cwt.	-	0 6	0 0½	
Lead - ton		2 6	0 1	
Unpiling, wharfage, and shipping, 1s. 8d. per ton.				
Weighing the whole on board for transhipment, 1s. per ton.				
old and ore - ton	-	3 0	0 2	
black - ton	-	3 9	0 3	
white - ton	-	5 0	0 4	
Leather, foreign, tanned ton	-	5 0	0 9	
Irish, tanned, bale under 1 cwt.	-	0 9	0 0¾	
bale 1 cwt. and under 2 cwt.	-	1 0	0 1	
bale 2 do. do. 4 cwt.	-	1 6	0 1½	
small or middling crate	-	2 0	0 1½	
large crate	-	2 6	0 2	
Leeches - - package	-	1 6	0 1	
Lemon. See *Oranges.*				
Peel. See *Orange Peel.*				
Limes - - barrel	-	0 8½	0 1	
Lime juice - 100 gallons	-	2 1	0 5	puncheon
Laying up to gauge, and coopers' attendance at landing & delivery, form a separate charge.			0 3	hogshead
			0 2	barrel
Linen, sample box, not accompanied by original package - box	-	0 6	0 1	
German - - bale	-	2 3	0 4	
½-bale	-	1 3	0 2	
¼-bale	-	0 8½	0 1	
loose, or bags - roll	-	0 1½	1 0	100
chests	-	2 6	0 4	
½-chest	-	1 3	0 2	
¼-chest	-	0 8½	0 1	
Russia - - bale	-	1 2¼	0 2	
boarded bale or ½-bale, containing 10 pieces	-	0 9	0 1	
¼ bale	-	0 7½	0 1	
crash - - bale	-	1 2¼	0 3	
½-bale	-	0 9	0 2	
¼ bale	-	0 7½	0 1	
sail cloth - bolt or roll	-	0 1½	1 0	100
mats, containing 2 pieces each	-	0 3	2 0	100
Irish - case or bale	-	1 6	0 3	
box or bundle	-	0 9	0 2	
Linen yarn. See *Yarn.*				
Linseed. See *Grain.*				
cakes - - ton	-	3 6	0 3	
Weighing on board for overside delivery 1s. per ton.				
Liquorice - - ton	-	6 3	0 1	case or barrel
root, loose or bales - ton	-	10 0	1 0	loose
			0 1	bale under 2 cwt.
Maccaroni. See *Vermicelli.*				
Mace - - cwt.	3 0	1 0	0 0¾	
Madder - - ton	-	3 4½	0 6	
roots - - cwt.	-	0 4½	0 2	bale, 5 cwt. and upwards
			0 1½	bale, 3½ cwt. and under 5 cwt.
			0 1	bale, under 3½ cwt.
Maiden hair - bale	-	1 0	0 2	
Manganese ore - ton	-	3 6	0 3	
Filling and weighing on rehousing or delivery, 2s. per ton.				
Manna - - cwt.	-	0 10½	0 1	chest or cask
Marbles - - ton	-	5 0	0 4	
Marble baths - each	-	6 0	0 6	
mortars - - ton	-	5 0	0 6	
sculptured works of art, and slabs, according to size and value -	-	-	0 3	case
			0 2	small case
rough, cases - cwt.	-	0 6	0 2	case
blocks, 4 tons and under ton	-	6 0	0 3	
above 4 tons, and not exceeding 10 tons ton	-	10 0	0 3	
above 10 tons - ton	-	20 0	0 3	
Mastic. See *Gum.*				
Matches - - bale	-	0 6	0 0½	
Mats (bass) - - 100	-	1 8½	0 6	100 bundles
Indian - - chests	-	1 0	0 2	
box	-	0 9	0 1	
East India and China, mat, 50 sq. feet & under each	-	0 0¾	0 1	score
above 50 to 100 feet —	-	0 1½	0 1½	—
100 „ 200 „ —	-	0 3	0 2	—
200 „ 250 „ —	-	0 4½	0 2½	—
250 „ 300 „ —	-	0 6	0 3	—

Delivered into undecked craft per ton of 25 palms, or 12 cubic feet.	Wharfage and Shipping.
s. d.	s. d.
3 0	4 6
5 0	7 6
10 0	15 0

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	Per	s. d.	s. d.	*Per*
Mats—*continued.*				
300 „ 350 „ —	-	0 7½	0 3½	score
350 „ 400 „ —	-	0 9	0 4	—
400 „ 450 „ —	-	0 10½	0 5	—
450 „ 500 „ —	-	1 0	0 6	—
500 „ 600 „ —	-	1 3	0 0½	each
600 „ 700 „ —	-	1 6	0 0¾	—
700 „ 850 „ —	-	1 9	0 0¾	—
850 „ 1000 „ —	-	2 0	0 0¾	—
1000 „ 1250 „ —	-	2 3	0 0¾	—
1250 „ 1500 „ —	-	2 6	0 1	—
1500 „ 1750 „ —	-	2 9	0 1	—
1750 „ 2000 „ —	-	3 0	0 1½	—
Mats or bags, from corn or seed vessels bundle of 10	-	0 3	0 7½	100 bundles
loose - - score	-	0 5½	1 0	1000
Meal, including delivery ton	-	4 9	0 2½	ton, if not cleared within 14 days from breaking bulk
Weighing for delivery, 1d. per sack or barrel.				
Melons - - basket	-	0 8	0 1	
Melting pots - cask	-	4 0	0 4	
Minerals (specimens) - case	-	1 0	0 2	
Mohair yarn - cwt	-	0 7½	0 1	bale
Molasses and cane juice cwt.	0 6	0 3	0 4½	ton
Money. See *Bullion.*				
Moss, rock or Iceland - ton	-	7 6	0 9	
Mother o'-pearl, shells - ton	-	6 9	0 4	
ware - - chest	-	1 6	0 2	
box	-	1 0	0 1	
Mules, landing and wharfage each	-	3 0		
Munjeet, bales - cwt.	-	0 4½	0 2	bale, 5 cwt. and upwards
			0 1½	bale, 3½ cwt. and under 5 cwt.
			0 1	bale, under 3½ cwt.
bundles - - cwt.	-	0 7½	0 0½	
Musical instruments - case	-	3 0	0 3	
box	-	1 6	0 2	
Musk - - chest	-	1 6	0 2	
box	-	1 0	0 1	
Muslins - - bale	-	1 3	0 1½	
Myrabolans - - cwt.	-	0 3	0 4	ton
Myrrh - - cwt.	-	0 6	0 0½	
Nails - - cwt.	-	0 3	0 0½	barrel or bag
Nanari - - cwt.	-	1 0	0 0½	seron, above 1 cwt.
			0 0½	seron, 1 cwt. under
Nankeen - - chest		1 3	0 1	
Natron - - ton	-	3 6	0 3	
Filling and weighing, on rehousing or delivery, 2s. per ton.				
Nickel, metallic, refined, and oxide of - - ton	-	7 6	0 3	
arsenate of, in lumps, unrefined - - ton	-	5 0	0 4	
Nitrate of soda. See *Cubic Nitre.*				
Nutmegs - - cwt.	1 6	0 6	0 0½	
Nuts, Pistachio - cwt.	-	0 6	0 0½	
Other European - bushel	-	0 2½	0 0½	100 sacks
		4	0 1	100 bushels, loose
bag	-	0 4½	2 0	100 bags
barrel	-	0 4½	0 1	
Castania - - bushel	-	0 2½	1 0	100 bushels
ground.				
palm - - cwt.	-	0 3	0 6	ton
Nux vomica - - cwt.	-	0 4½	0 0½	
Oakum - - ton	-	5 0	0 4	
Oatmeal. See *Meal.*				
Ochre - - ton	-	3 9	0 4	
Oil, bay - - cask	-	1 0	0 1	
castor - - cwt.	-	0 6	0 8	ton
chemical, 1 cwt. and upwards - package	-	2 0	0 4	
under 1 cwt. - package	-	1 6	0 2	
rhodium - - package	-	1 6	0 3	
olive, large jars - cwt.	-	0 6	0 6	each
common jars - cwt.	-	0 8½	0 3	each
half jars - cwt.	-	0 8½	0 2	each
			0 0½	gallon jar
case, containing 30 quart bottles - - case	-	1 0	0 1½	
salad, half chest of 30 flasks	-	0 6	0 2½	score half chests
palm or cocoa nut, casks not above 30 cwt. ton	-	3 9	0 4	
casks above 30 cwt. ton	-	4 6		
in iron tanks - ton	-	6 0		
seed, duppers, canisters, and like packages cwt.	-	0 6	0 0½	

		Olive or seed, in casks.	Fish, not Newfoundland	Fish, Newfoundland
		s. d.	s. d.	s. d.
Landing, wharfage, and laying up to gauge - - -	per ton of 252 gallons.	4 6	3 0	3 0
Loading or housing - -		1 6	1 6	1 2
Unhousing and loading -		1 6	1 6	1 6
Unhousing, wharfage, and shipping, or wharfage, and shipping -		4 6	3 0	3 0
Cooper's attendance, if delivered from quay -		2 0	2 0	2 0
ditto if housed, additional		1 0	1 0	1 0
Searching and filling up to order		1 0	1 0	1 0
*Rent per week -		0 6	0 4	0 4

* Fourteen days are allowed from the final landing, free of rent, to clear the oil from the quay; if not cleared from the quay within that time, rent

Goods Imported.	Prime Rate Nett.	Landing Rate Gross	Rent. Per Week.	Rent. Quantities, &c.
	Per	*s. d.*	*s. d.*	*Per*
Oil cake - - ton	-	3 6	0 3	
Weighing on board for overside delivery 1*s.* per ton				
Old rope. See *Junk.*				
Olibanum. See *Gum.*				
Olives, about 12 gal. ½ bar.	-	0 4	0 1	
6 gal. ¼ bar.	-	0 3	0 0½	
2½ gal. keg	-	0 2½	0 0½	
about 5 quarts keg - score	-	1 6	0 2	
3 pint jars - score	-	0 9	0 1	
large packages - gallon	-	0 0½	0 1	tierce
laying up to guage in addition			0 2	barrel, 30 gallons
			0 1	half-barrel
Onions - - bushel	-	0 6	0 1	basket or barrel
Opium - - cwt.	-	0 10½	0 1½	chest under 3 cwt.
Oranges and lemons chest	-	0 7½	0 1	
box	-	0 5½	0 0½	
case	-	1 0	0 1½	
buds - - cwt.	-	0 4½	0 3	hogshead
			0 2	tierce
peel - - cwt.	-	0 6	0 0½	
trees - large package	-	2 6	0 4	
small package	-	1 6	0 2	
flowers, in pickle, about 10 gallons - cask	-	0 6	0 0½	
flower water, 11 to 15 gallons - - case	-	1 6	0 1	
Orchilla weed - cwt.	-	0 5½	0 0½	
extract of - cwt.	-	0 6	0 2	hogshead
			0 1	tierce
			0 0½	barrel
Orpiment - - ton	-	5 0	0 4	
Orrice root - cwt.	-	0 3	0 3	hogshead
			0 2	tierce
			0 1	barrel or seron
Orsidew - - package	-	1 6	0 3	large case
			0 2	small do.
Ostrich feathers - package	-	1 6	0 2	
Otto of roses - package	-	2 6	} 0 4	
middling package	-	1 6		
small package	-	1 0		
Oxen, landing and wharfage each	-	10 0	-	
Paddy, in bags - ton	-	3 9	0 3	
landing, wharfage, and shipping, 3*s.* 9*d.* per ton.				
in bulk - - quarter	-	0 10	0 1	
working out and delivering into craft, 3*d.* per quarter				
Palmetto thatch - cwt.	-	0 6	0 10	ton, loose
			0 6	ton, packages
Paper - - cwt.	-	0 6	0 0½	
hanging - case	-	1 6	0 3	
rice, under 14 lbs., case or box	-	0 3	0 0½	
Pearl barley - barrel	-	0 6	0 0½	
bag or keg	-	0 3	0 0¼	
Peas - tierce or barrel	-	0 9	0 1	
bag	-	0 4½	2 6	100
in bulk. See *Grain.*				
Pellitory root - cwt.	-	0 6	0 0½	
Pepper, bags unsifted - cwt.	0 6	0 3	0 6	on
including ordinary sifting and bagging - cwt.	2 3	-	0 1	bag of 317 lbs.
long or cayenne - cwt.	0 10	0 6	0 7	on
Pianofortes - each	-	4 6	0 6	
Piasaba - - ton	-	5 0	0 4	
Pickles - dozen bottles	-	0 2½	0 0½	
casks - - gallon	-	0 0¾	0 4	ordinary butt, pipe, or puncheon
			0 2	hogshead
			0 1	barrel
			0 0½	half barrel, or quarter-cask
			0 0½	quarter barrel, or keg
Laying up to guage, a separate charge.				
large bottles or jars, under 2 gallons - gallon	-	0 1½	0 0½	bottle or jar
2 and under 5 do. gallon	-	0 1	0 0½	bottle or jar
5 and upwards - gallon	-	0 0¾	0 0½	bottle or jar
Pictures - bale or case	-	4 6	0 6	
middling bale or case	-	3 0	0 4	
small bale or case	-	1 6	0 3	
Extra sizes, according to dimensions and contents.				
Piece goods, not otherwise rated - - bale	-	1 3	0 1½	
Pill boxes, in vats - large	-	4 6	0 6	
small	-	3 0	0 4	
Pimento, casks - cwt.	1 4	0 6	} 0 6	ton
bags - - cwt.	1 0	0 6		
Pink root - - cwt.	-	0 6	0 2	bale
Pipe bowls, earthenware, case	-	1 0	0 1	
Pitch - - ton	-	2 6	3 0	100 barrels
Burgundy - cwt.	-	0 6	0 0½	
Plaster of Paris - ton	-	3 0	0 2	
Plums, Portugal, boxes, doz.	-	0 9	1 0	100
French. See *Prunes.*				
Pomegranate peel - cwt.	-	0 6	0 0¾	
Porcelain - - case	-	1 6	0 3	
small case or box	-	1 0	0 2	

will be charged from the date of breaking bulk, and if it remain after the expiration of one calendar month from the commencement of the ship's discharge, it will be housed.

Goods Imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.	Unhousing and Loading	Weighing.	Unhousing and Loading.
	Per	*s. d.*	*s. d.*	*Per*	*s. d.*	*s. d.*	*s. d.*
Pork, middles. 3 cwt. tierce	-	0 8½	0 1				
Ditto, 1 to 2 cwt. - cask	-	0 6	0 0½				
Potash See *Ashes.*							
Potatoes - - ton	-	3 6	0 3				
Presents, examined on the quay:—packages of small value, and not exceeding 15 in. square, or 28 lbs. gross weight - package	0 6	-	0 0½				
above do. and under 1 cwt. package	1 0	-	0 0½				
1 cwt. and under 2 cwt. package	1 6	-	0 0¾				
2 cwt. & upwards, package	3 0	-	0 1½				
examined within the warehouse:—packages of small value, and not exceeding 15 in. square, or 28 lbs. gross weight, package	1 6	-	0 0½				
above do. and under 1 cwt. package	2 6	-	0 1				
1 cwt. and under 2 cwt. package	4 0	-	0 2				
2 cwt. & upwards, package	5 0	-	0 3				
Preserves. See *Succades.*							
Prints, engravings, large case	-	1 6	0 2				
middling case	-	1 0	0 1				
small case	-	0 6	0 0½				
Prunes, or French plums,— above 7 cwt., hhd. or pun.	-	1 6	0 2				
above 5 and not exceeding 7 cwt. barrel	-	1 0	0 1½				
above 2 and not exceeding 5 cwt. half-barrel	-	0 9	0 1				
2 cwt. and under, qr.-barrel	-	0 6	0 0¾				
about 1 cwt. - chest	-	0 4½	2 0	100	0 1	chest	
56 lbs. half-chest	-	0 3	1 3	100	0 6	score	
18 lbs. quarter-chest	-	0 1½	1 0	100			
1 cwt. containing boxes or cartoons case	-	0 6	0 1		0 2		
Prussiate of potash - ton	-	4 6	0 4				
Pumice stone. See *Stone.*							
Puree - - chest	-	1 6	0 1				
Pyrolignate of lead - ton	-	5 0	0 5				
Quicksilver, bottles - bottle	-	0 3	0 0½				
small case	-	0 6	0 0½				
Quills - - vat	-	4 6	0 4				
small vat	-	3 0	} 0 3				
case	-	2 0					
hogshead or barrel	-	1 6					
bale	-	0 6	0 2				
Quinine, sulphate of, cases without internal packages - - cwt.	-	2 0	0 1				
Radix contrayervæ - cwt.	-	0 9	0 2	case			
Radix senekæ - cwt.	-	0 10½	0 0½				
Rags - - ton	-	3 0	0 3				
If sold from landing scale to the importer - -	-	2 0	-				
to the buyer - -	-	1 0	-				
Raisins, 12 to 20 cwt butt	-	3 0	0 4			1 0	0 8
9 and under 12 cwt. pipe	-	2 3	0 3			0 9	0 6
5 & under 9 cwt. carotel	-	1 6	0 2			0 6	0 4
2½ to 4½ cwt. - barrel	-	0 9	0 0½			0 3	0 2
1½ and under 2½ cwt. half-barrel	-	0 6	0 0½			0 2	0 2
under 1½ cwt. - quarter-barrel	-	0 3	2 0	100		1 0	0 0½
Denia and Valencia, boxes, score	-	2 6	1 3	,,		0 8	0 6
half and quarter-boxes score	-	1 6	1 0	,,		0 6	0 6
frails or baskets - score	-	1 8	1 0	,,		0 6	0 5
half and quarter-frails or baskets - score	-	1 0	1 0	,,		0 4	0 4
Malaga, boxes - score	-	2 0	1 0	,,		0 8	0 6
half and quarter-boxes score	-	1 6	0 10	,,		0 8	0 6
Smyrna, drums - score	-	2 6	1 0	,,		0 10	0 6
half and quarter-drums score	-	1 6	1 0	,,		0 6	0 6
cases, 1 cwt. - score	-	5 0	2 6	,,		0 10	1 0
,, 56 lbs. - score	-	2 6	1 3	,,		0 8	0 9
,, 28 lbs. - score	-	1 6	1 0	,,		0 6	0 6
Cape, under 3 cwt. cask	-	0 9	0 0¾			0 2	0 2
3 cwt. to 5 cwt. cask	-	1 6	0 2			0 4	0 4
boxes, about 60 lbs., score	-	3 0	0 4			0 10	0 9
Rape cake - ton	-	3 6	0 3				
Weighing on board for overside delivery, 1*s.* per ton.							
Rattans, common. See *Canes.*							
Rhatania root - cwt.	-	0 10½	0 0½				
Extract - - cwt.	-	0 9	0 1				
Rhubarb - - cwt.	-	0 10½	0 0½				
East India - chest	5 0	-	-				

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	s. d.	s. d.	s. d.	Per
Rhubarb—*continued.* Per And including starting into bulk, raising, repairing, retaring, nailing down, re-weighing and piling away.				
Rice, casks - ton	9 2	5 0	0 4	
bags - - ton	7 9	5 0	0 3	
When landed for transit—landing, wharfage, and shipping 3d. per cwt.				
Roots, flower large case	-	1 6	0 1	
small case	-	1 0		
Madder. See *Madder.*				
Rhatania. See *Rhatania.*				
Sassafras. See *Sassafras Root.*				
Winters - - cwt.	-	0 9	0 2	cask or case
Rosin - - ton	-	2 6	0 6	ton, loose
			3 0	100 barrels
Rope, old. See *Junk.*				
Rugs - - bale	-	1 6	0 3	
half-bale	-	1 0	0 1	
small case	-	0 6	0 1½	
Rushes - - load	-	1 6	0 3	
for polishing - bundle weighing in addition, 6d. per load.	-	0 1½	1 0	100 bundles
Rye, ergot of - cwt.	-	0 6	0 0	
Sac, saturni - cwt.	-	0 3	0 3½	chest
Safflower - - ton	14 6	5 0	0 6	
Saffron - - cwt.	-	2 0	0 2	bale or case
Sago and sago flour ton	-	7 6	0 3	ton, bags
			0 4	ton, boxes
Sal ammoniac - ton	-	5 0	0 6	
Salmon. See *Fish.*				
Salop - - package	-	1 6	0 2	
Saltpetre - - ton	-	5 0	2 3	
Samples, which by law are exempted from duty, free.				
Saphora - - package	-	0 6	0 1	
Sarsaparilla - cwt.	3 0	1 3	0 1	
Re-weighing and re-stowing bales, 4 cwt. and upwards, 1s. 6d.				
3 cwt. & under 4 cwt. 1s.				
2 cwt. & under 3 cwt. 9d.				
1 cwt. & under 2 cwt. 6d.				
Under 1 cwt. 3d.				
Sassafras, bark or root, cwt.	-	0 9	0 2	case or cask
			0 1	barrel
Scaleboards 100 bundles	-	3 0	0 4	
Scammony - cwt.	-	3 0	0 0½	drum
Sea-horse and sea-cow teeth cwt.	-	0 10½	0 1	
Seeds, agricultural, or not otherwise rated, bags,	-	3 9	0 3½	
ton	-	4 6		
chests or casks - ton	-	4 6		
forest nuts or acorns, barrel	-	0 9	0 1	
Seed, medicinal - cwt.	-	0 4½	0 0	ton
Senna - - cwt.	-	0 4½	0 0⅜	
Shawls, other than cotton, small box or bale, each	-	2 0	0 1½	
large box or bale, each	-	3 0	0 2	
Shaya root, press-packed, ton	-	4 0	0 4	
Shellac. See *Management Rates.*				
Shot - - ton	-	3 0	0 1½	
Shrub. Same as *Rum.*				
Shurf - - ton	-	5 0	0 2	
Silk, raw or thrown cwt.	-	1 0	0 2	bale, 2 cwt. & upwards
			0 1½	bale, under 2 cwt.
Raw or thrown, from East Indies or China. See *Management Rates.*				
manufactured, 1 cwt. and under 2 cwt., - bale or case	-	1 6	0 1	
under 1 cwt. bale or case	-	1 0		
waste, 6 cwt. and upwards - - bale	-	3 0	0 1½	
4 cwt. and under 6 cwt. bale		2 6	0 1	
2 cwt. and under 4 cwt. bale	-	1 6	0 1	
1 cwt. and under 2 cwt. bale	-	0 9	0 0½	
Chassum. See *Chassum.*				
ribbons - - case	-	2 0	0 1	
worm gut - case	-	1 0	0 1	
Skins, beaver - pipe	-	2 0	0 3	
pun.	-	1 6	0 2	

Goods imported.	Weighing*, Unpiling, Repiling, Rehousing or Loading.	Unhousing, Wharfage, and Shipping.
	Per	Per
Skins—*continued.* Per	s. d.	s. d.
calf and kip, 4 cwt. and upwards - bale	1	1½	0	1½	0	6	1	0
2 cwt. and under 4 cwt. bale	0	9	0	1	0	4	1	0
under 2 cwt. - bale	0	6	0	0½	0	3	0	9
calf, wet salted, loose, 100	2	3	per 120		per 100		per 100	
dry, or dry salted, loose, 100	2	0	0	4	0	8½	2	9
			per 120		per 100		per 100	
Kip, wet salted, loose, 100	-	4	6	per 120	per 100		per 100	
dry, or dry salted, loose, 100	-	3	0	0	5	2	1	4	2
				per 120	per 150		per 100	
mogadore, dry salted, loose dozen	-	0	3	0	0½			
camelion - small bale	-	0	6	0	0½			
carpincho - 100	-	4	2	0	6			
cat or Fitch, cask or case	-	1	6	0	3			
Chinchilli, bale, cask, or case	-	1	6	0	3			
deer or elk,								
puncheon, hhd. or bale	-	1	6	0	2			
case	-	1	0	0	1			
pack or bundle	-	0	9	0	0½			
loose - - 120	-	3	0	0	4			
dog fish - - bale	-	0	9	0	1			
furs, large bale, case or cask	-	1	6	0	6			
middling bale, case or cask	-	1	0	0	3			
small bale, case, or cask	-	0	9	0	2			
Goat, Cape and East India. See *Sheep and Goat.*								
Trieste, bale about 8 cwt.	-	2	0	0	3			
Hambro'. bale 100 skins and under - -	-	1	0	0	1			
bale above 100 skins	-	1	6	0	1½			
Goat, Mogadore or Turkey,								
above 100 skins, bale	-	1	6	0	2	120 skins		
above 60 to 100 skins, bale	-	0	9	0	2	120 skins		
above 30 to 60 skins, bale	-	0	6	0	2	120 skins		
30 and under - bale	-	0	3	0	2	120 skins		
loose - dozen	-	0	2	0	3	120 skins		
Hare and Coney, 1000 skins - bale	-	2	0	0	4			
500 skins and under 1000 - - bale	-	1	6	0	3			
Under 500 skins, bale	-	1	0	0	2			
large cask	-	2	0	0	6			
middling cask	-	1	6	0	4			
small cask	-	1	0	0	3			
Kangaroo - dozen	-	0	0½	0	2	bale		
loose - -				0	2	120		
Kid or lamb, hhd. pun. or bale	-	1	6	0	3			
tierce	-	1	0	0	2			
barrel	-	0	6	0	1			
large bundle	-	1	0	0	2			
ordinary bundle	-	0	9	0	1			
small bundle	-	0	6	0	1			
loose - - dozen	-	0	1	0	3	per 120		
Leopard, lion and tiger, each	-	0	1½	0	0½			
Nutria - hogshead	-	1	6	0	4			
barrel	-	1	0	0	1			
About 150 dozen skins, bale	-	1	6	0	4			
About 100 dozen skins, bale	-	1	0	0	3			
About 50 dozen skins, bale	-	0	9	0	2			
Opossum, about 50 skins, bundle	-	0	6	0	1			
Otter, about 100, bale or box	-	1	0	0	1			
Quebec or Hudson's Bay, case, bale, or puncheon	-	1	6	0	3			
large bundle	-	1	0	0	2			
ordinary bundle	-	0	9	0	1			
small bundle, or keg	-	0	6	0	1			
Seal - - pipe	-	2	0	0	3			
puncheon or hogshead barrel	-	1	0	0	2			
loose - - 120	-	1	0	0	1			
South Seas, wigs, 120	-	1	6	0	3			
middling - 120	-	1	9	0	6			
smalls or pups - 120	-	1	9	0	4			
Greenland or Newfoundland, loose - - 120	-	1	6	0	3			
Sheep, Hambro', bale	-	1	6	0	2			
sheep and goat, Cape, 100 skins & upwds. bale	-	1	6	0	2			
75 and under 100 bale	-	1	1½	0	1½			
50 and under 75 bale	-	0	9	0	1			
25 and under 50 bale	-	0	4½	0	0½			
15 and under 25 bale	-	0	3	0	0½			
under 15 - bale	-	0	1½	0	0½			
dry or dry-salted, loose 100	-	1	6	0	3			
				per 120	per 100		per 100	
wet-salted, loose - 100	-	2	3	0	4		3	1½
				per 120	per 100		per 100	

Goods imported.	Weighing*, Unpiling, Repiling, Rehousing or Loading.	Unhousing, Wharfage, and Shipping.
	Per	Per
Skins—*continued.* Per	s. d.	s. d.
Weighing*, Unpiling, Repiling, Rehousing or Loading.	0 6	1 0
Unhousing, Wharfage, and Shipping.		0 6

* Any weighing chargeable to the Importer is to be charged at the rate of one-third of the Landing Rate; but this rule is not to apply to any other operation, or to any weighing, or reweighing, under any other circumstances.

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	s. d.	s. d.	s. d.	Per
Skins—*continued* Per				
East India,				
200 skins and under bale	-	1 6	0 2	
above 200 & not exc. 400 bale	-	2 0	0 3	
above 400 & not exc. 600 bale	-	3 0	0 4	
above 600 & not exc. 800 bale	-	4 0	0 5	
above 800 & not exc. 1000 bale	-	5 0	0 6	
loose - - 120	-	1 0	0 2	
small calf, Russia, 100 skins - - bundle	-	1 9	0 1½	
squirrel, about 2000 bale	-	1 6	0 1½	
squirrel tails, about 100,000 bale	-	2 0	0 2	
swan, 150 skins - bale	-	1 6	0 2	
100 skins - bale	-	1 0	0 1	
vicunia, loose - 120	-	1 6	0 3	
Slate pencils - ton	-	3 4½	0 3	
Slates, in frames, and pencils, under 1 cwt. - case	-	1 0	0 1	
1 and under 2½ cwt. case	-	1 6	0 2	
2½ and under 5 cwt. case	-	2 0	0 3	
Smalts - - ton	-	5 0	0 1	
Snake root - - cwt.	-	0 10½	0 0½	
Soap - - cwt.	-	0 6	0 1	case
Soda - - ton	-	3 0	0 4	
Soy - - chest	-	1 0	0 2	
casks - - gallon	-	0 1	0 5	puncheon
Laying up to gauge, an additional charge.			0 3	hhd.
			0 2	barrel
			0 1½	quarter-cask
			0 1	half quarter-cask
jars, 6 gallons and upwards each	-	0 9	0 1	
under 6 gallons - each	-	0 6	0 0½	
Spectacles - - case	-	1 0	0 1	
Spelter - - ton	-	3 0	0 1	loose
			0 2	ton, casks
Weighing on board, ton, 1*s.* 8*d.*				
Wharfage and shipping, 2*s.* per ton, when piled on the quay.				
Speeches. See *Hide Cuttings*.				
Sponge - - cwt.	-	0 9	0 10	ton, bales press-packed
			0 3	cask, case, or bale, 1 cwt. or upwards
			0 2	cask, case, or bale, under 1½ cwt.
Squills, loose - ton	-	5 0	0 3	
dried, about 4 cwt. - case	-	1 6	0 1½	
,, 2 cwt. - case	-	1 0	0 1	
bags - cwt.	-	0 6	0 0½	bag
Starch - - ton	-	5 0	0 6	
Stavesacre - - cwt.	-	0 6	0 0½	
Steel - - ton	-	4 6	0 2	
Weighing on board for overside delivery, kegs, ton, 2*s.*				
Sticklac. See *Lac.*				
Sticks, walking, other than canes - - 1000	-	3 0	0 2	
Stock-fish. See *Fish.*				
Stone burr - each	-	0 1½	0 9	100
emery - - ton	-	3 6	0 1	
Filling and weighing on rehousing or delivery, 2*s.* per ton.				
lithographic - ton	-	5 0	0 6	
pumice, loose - ton	-	7 6	0 8	loose
			0 4	bricks
in casks - ton	-	5 0	0 6	
Turkey, or hones - cwt.	-	0 3	0 1	cask, 3 to 5 cwt.
Stores, ships', warehoused, gross, under 28 lb. package	0 6	-	0 0¼	package
28 lbs. and under 2 cwt. package	1 0	-	0 0½	package
2 cwt. and upwards cwt.	1 6	-	0 1	package
liquids, casks, 20 gallons and upwards - gallon	0 1	-	0 5	tun
Straw, manufactured,—				
under 1 cwt. - case	-	0 8	0 0½	
1 cwt. & under 2 cwt. case	-	1 0	0 1	
2 cwt. & under 3 cwt. case	-	1 6	0 1½	
3 cwt. & under 4 cwt. case	-	1 9	0 2	
4 cwt. and upwards - case	-	2 0	0 2	
unmanufactured,—				
1 cwt. & under 2 cwt. case	-	1 0	0 2	
2 cwt. & under 3 cwt. case	-	1 6	0 3	
3 cwt. and upwards case	-	2 0	0 4	
Sturgeon. See *Fish.*				
Succades, under 28 lb. gross package	0 6	0 3		
28 lb. and under 56 lb. gross - package	0 9	0 4½		
56 lb. and upwards gross, and not containing 1 cwt. nett - package	1 0	0 6	0 0½	cwt.
containing 1 cwt. nett and upwards - cwt.	1 0	0 6		
Sugar, casks - ton	10 6	5 0		
baskets - - ton	9 0	5 0	0 5	ton
chests, 5 cwt. or above ton	9 0	5 0		
chests, under 5 cwt. - ton	7 9	5 0	0 4	ton

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	s. d.	s. d.	s. d.	Per
Sugar—*continued.* Per				
mats, or bags - ton	7 6	5 0	0 4	
candy - - cwt.	-	0 4½	0 0½	
Sulphate of potash - ton	-	3 0	0 3	
Sulphate of zinc - ton	-	5 0	0 5	
Sumach - - ton	-	3 9	0 2	
Sunn, press-packed - ton	-	3 6	0 3	
Sweepwasher's dirt - ton	-	4 6	0 3	
Filling and weighing, on rehousing or delivery, per ton, 2*s.*				
Tallow, casks, 5 cwt. and upwards - ton	-	3 6		
sold from the landing scale, to the importer - ton	-	2 4	0 3	
to the buyer - ton	-	1 2		
Unhousing, wharfage, and shipping, 2*s.* 6*d.* per ton.				
Wharfage and shipping, 2*s.* 4*d.* per ton.				
casks or cases under 5 cwt. ton	-	5 0	0 6	
Unhousing, wharfage, and shipping, 3*s.* 6*d.* per ton.				
skins - - ton	-	3 9	0 3	
packages not otherwise described, or blocks under 5 cwt. - - ton	-	5 0	0 6	
Tamarinds. See *Succades.*				
dry - - cwt.	1 0	0 6	0 0½	
Tanners' waste. See *Hide Cuttings.*				
Tapes - - bale	-	1 6	0 2	
Tapioca - - cwt.	-	0 8½	0 0½	barrel
			0 6	ton, bags
Tar - (32 gallons) barrel	-	0 3	3 0	100
Tares See *Grain.*				
Tea. See *post.*				
Terra, japonica - ton	-	5 0		
sienna - - ton	-	5 0	0 3	
verde - - ton	-	5 0		
umbra or pozzolano - ton	-	3 6		
Pozzolano, weighing on board, 1*s.* per ton.				
Thread - - bale		1 6	6 2	
Thread, cotton. See *Cotton, thread.*				
Tin - - - ton	-	4 0	0 2	
ore - - - ton	-	5 0	0 4	
Weighing on board for transhipment, per ton, 2*s.*				
Tincal - - ton		5 0	0 10	
Tongues - 3 cwt. tierce	-	0 8¼	0 1	
1 to 2 cwt. cask	-	0 6	0 0½	
loose - - dozen	-	0 3	0 0½	
about 2 dozen - bale	-	0 6	0 1	
rein deer, 12 dozen - case	-	1 6	0 1½	
6 dozen - - case	-	1 0	0 1	
2 dozen - - case	-	0 6	0 0½	
Tonquin beans, chests under 1 cwt. - - chest	-	1 6	0 1½	
casks - - cwt.	-	1 0	0 1	
Tortoiseshell - cwt.	-	1 0	0 2	case
			0 1	small box
			0 1	cwt. in cask
Tow, in bales - cwt.	-	0 4½	0 2	bale, 6 cwt. and upwards
			0 1½	bale, above 4 cwt. and under 6 cwt.
			0 1	bale, 4 cwt. and under
			0 5	ton, loose
Toys - large case or vat	-	4 6	0 6	
middling case or vat	-	3 0	0 4	
small case or vat	-	2 0	0 3	
Turmeric - - cwt.	1 0	0 3	0 4	ton
Turpentine - - ton	-	2 6	3 6	100 tierces
			3 0	100 barrels
			5 0	100 casks, from France
Delivery, by land or water, 1*s.* 8*d.* per ton.				
Scio - - cwt.	-	0 6	0 0½	
Twine - - cwt.	-	0 4½	0 1	mat or bundle
Valerian - - bale	-	1 6	0 2	
Valonia - - ton	-	4 6	0 3	
Filling and weighing on rehousing or delivery, 2*s.* per ton.				
Vanelloes - case or canister	-	1 6	0 1½	
Verdigris - - ton	-	5 0	0 6	
Vermicelli, case under 1 cwt. - cwt.	-	1 0	0 6	case, 6 cwt. and upwards
1 and under 3 cwt. cwt.	-	1 0	0 4	case, 4 cwt. and under 6 cwt.
3 cwt. and upwards cwt.	-	0 4½	0 2	case, 2 cwt. and under 4 cwt.
			0 1	case, 56 lbs. and under 2 cwt.
			0 0½	box, under 56 lbs.
Vermilion - cwt.	-	2 4	0 0½	
Vinegar - 100 gallons	-	2 1	0 4	puncheon
Cooper's attendance, and laying up to gauge in addition.			0 2	hogshd., tierce, or barrel
			0 1½	quarter-cask
Vulture feathers. See *Feathers.*				
Walnuts - bushel	-	0 2½	4 0	100 sacks
			2 0	100 bags
Wanghees. See *Canes.*				

Three working days, from the last day of weighing at the landing-scale, are allowed to clear tallow from the quay: when not so cleared, rent is charged from the date of the ship breaking bulk.

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	s. d.	*s. d.*	*s. d.*	*Per*
Water, mineral, *Per*				
baskets or cases 12 bottles	-	0 3	0 0	
in bulk - 12 bottles	-	0 2½	0 0½	
Wax, bees' and vegetable, ton	-	5 0	0 6	
sealing - - cwt.	-	0 9	0 1	
Weld - - - ton	-	7 6	0 9	
Whalebone - - ton	-	7 6	0 4	
fins, from Newfoundland, ton	-	7 6	0 6	
Whetstones - - cwt.	-	0 3	0 1½	cask, 3 or 5 cwt.
			0 0½	cask or case about 1 cwt.
Whisk for brooms, 100 bundles	-	3 0	0 3	
loose - - 1000	-	3 0	0 4	
bale	-	1 10½	0 3	
half-bale	-	1 0	0 1½	
quarter-bale	-	0 9	0 1	
one-eighth bale	-	0 6	0 0½	
Manufactured - 100	-	1 6	0 2	
Wine. See *post.*				
Wire, iron - - cwt.	-	0 4½	0 0½	
plated or gilt - cwt.	-	0 8½	0 0½	
Woad - - - ton	-	7 6	0 9	
Wood goods. See the separate Table.				
Wool, sheep, or lambs'. The prime rate * includes landing, wharfage, housing, but not delivering, 12 weeks' rent from the date of the ship's breaking bulk, landing weights, &c., and also mending at landing, tarring, sampling, lotting, unpiling for show, showing, repiling, mending, filling in, re-weighing, and any other usual operations performed by order of the importer.				* This rate does not apply to wool from Turkey and the Levant, unless ordered by the importer.
German, about 4 cwt bale	5 0			
cwt.	-	0 4½	0 1½	bale, 5 cwt. and under 7½ cwt.
Unhousing and delivery by land or water, and mending at delivery, under the prime rate, per bale of about 4 cwt. 1*d.*			0 1	bale, 3½ cwt. and under 5 cwt.
			0 2½	bale, 1½ cwt. and under 3½ cwt.
			0 0½	bale, 56 lbs. and under 1½ cwt.
			0 0½	bale under 56 lbs.
Spanish, about 2 cwt. bale	4 0	-	0 1	bale, 1½ cwt. and under 2½ cwt.
half-bale	3 0	-	0 0½	bale, under 1½ cwt.
cwt.	-	0 4½		
Unhousing and delivery				

Goods imported.	Prime Rate Nett.	Landing Rate Gross.	Rent. Per Week.	Rent. Quantities, &c.
	s. d.	*s. d.*	*s. d.*	*Per*
Wool—*continued.* *Per*				
by land or water, per bale of about 2 cwt., 6*d.* per half bale, 4*d.*				
Virginia - - cwt.	-	0 4½	0 3	bale
Not otherwise enumerated - - cwt.	-	0 4½		
under 56 lbs. - bale	1 0	-	0 0½	
56 lbs. and under 1 cwt. bale	1 6	-	0 0½	
cwt. qr. cwt. qr.				
1 0 and under 1 2, bale	2 6	-	0 0½	
1 2 — 3 2, bale	4 0	-	0 0¾	
3 2 — 5 0, bale	5 0	-	0 1	
5 0 — 7 2, bale	6 0	-	0 1½	
7 2 — 10 0, bale	7 0	-	0 2	
10 0 — 12 2, bale	8 0	-	0 2½	
12 2 — 15 0, bale	9 0	-	0 3	
Unhousing and delivering by land or water, and mending at delivery, under the prime rate.				
under 1 cwt. - bale 1*d.*				
cwt. qr. cwt. qr. *s. d.*				
1 0 and under 1 2 bale 0 6				
1 2 and under 3 2 bale 0 8				
3 2 and under 5 0 bale 1 0				
5 0 and under 7 2 bale 1 3				
7 2 and under 10 0 bale 1 6				
10 0 and under 12 2 bale 1 9				
12 2 and under 15 0 bale 2 0				
Under the landing rate, by land, as above; additional if shipped, 3*d.* per cwt.				
Coney - - cwt.	-	0 6	0 2	bale, 2 cwt. and upwards
			0 1	bale, under 2 cwt.
Goats' - - cwt.	-	0 6	0 2	bale, 2 cwt. and upwards
			0 1	bale, under 2 cwt.
1 cwt. under 2 cwt., bale	2 6			
2 cwt. under 4 cwt., bale	4 0			
Unhousing and delivering by land or water, and mending at delivery, under the prime rate.				
1 cwt. and under 2 cwt., bale 6*d.*				
2 cwt. and under 4 cwt., bale 8*d.*				
Hair or beards - cwt.	-	0 10½	0 2	case
Woollen cloth. See *Cloth.*				
Yarn, in vats, not above 20 cwt. - - ton	-	5 0	0 4	
above 20 cwt. - ton	-	5 3		
in bales - - cwt.	-	0 4½	0 6	ton
Zaffres - - ton	-	5 0	0 5	
Zinc. See *Spelter.*				

East India and China Silk.—Raw and Thrown.

Rates.	Bales. 150 lb. and under 200 lb. gross.	Bales. 104 lb. gross and under 150 lb.	Bales. Above 84 lb. and under 104 lb. gross.
East India.	*s. d.*	*s. d.*	*s. d.*
Landing; comprising landing, wharfage, weighing, furnishing landing weights, and delivery from the quay at the docks - -	1 6	1 0	0 9
Note.—If the silk is not cleared from the quay the same day it is landed, it will be housed for security, and the landing and housing rate will attach.			
Landing and Housing; comprising landing, wharfage, weighing, furnishing landing weights, housing, and delivery - -	2 8	2 0	1 6
Note.—Sampling or inspection, or taring for customs, may take place on silk subject to this rate, on payment of the respective charges, but should any further operations be required, the management rate will attach.			

Rates.	Bales. 150 lb. and under 200 lb. gross.	Bales. 104 lb. gross and under 150 lb.	Bales. Above 84 lb. and under 104 lb. gross.
Bengal Silk.	*s. d.*	*s. d.*	*s. d.*
Management; comprising landing, wharfage, weighing and furnishing landing weights, housing, stripping, taring, new bags and repacking, including unpiling and repiling, first inspection, or first sampling, by importer or his agent, marking, re-weighing, and delivery -	8 6	7 6	6 6
Rent, per week - -	0 1½	0 1½	0 1½

Rates.	Bales. 104 lb. gross and upwards.	Bales. Under 104 lb. gross.
China Silk.	*s. d.*	*s. d.*
Management; comprising landing, wharfage, weighing and furnishing landing weights, housing, stripping, taring, new bags and repacking, including unpiling and repiling, first inspection, or first sampling, by importer or his agent, marking, re-weighing and delivery -	7 6	6 6
Rent, per week - -	0 1½	0 1½

TEA.

Rates, per Package.	80 lbs. and under 130 lbs. gross.	60 lb. and under 80 lb. gross.	45 lb. and under 60 lb. gross.	35 lb. and under 45 lb. gross.	15 lb. and under 35 lb. gross.	Under 15 lb. gross.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Landing and housing; comprising landing, wharfage, housing, separating into chops, weighing, taring, furnishing landing weights, examining and turning out and in for damage, mending, laying down for private inspection, lotting, nailing down, placing in delivery pile, and delivery by land . . per package	2 6	2 1	1 10	1 8	1 0	0 5
Management; comprising the same operations as the landing and housing rate; also laying down for public sale, attendance whilst on show, extra warehouse-room, and any other operations consequent thereon - per package	3 0	2 6	2 0	1 9	1 1	0 6
Rent, per week . . . per package	0 0½	0 0½	0 0½	0 0½	0 0½	0 0½

RATES AND CHARGES ON RUM.

Landing Rate includes landing, wharfage, gauging, housing, or delivering from the quay, original warrants and accounts of gauges and strengths, as ascertained by the revenue, surveying and furnishing certificate of damage. Rum, not intended to be warehoused, will be allowed 4 clear days from the final gauging of the parcel for removal. If intended for immediate transhipment, it may remain on the quay 7 clear days from that period, and when the export vessel loads in the docks, until the date of her departure, paying rent and cooper's attendance as if housed at landing.

The Prime or Consolidated Rate includes all expenses for landing, wharfage, gauging, coopering for housing, marking, sampling, housing and delivery, furnishing gauges and strengths, as ascertained by the revenue, surveying and furnishing certificate of damage, and rent and cooper's care and attendance for 12 weeks from the ship's commencement of discharge. It is charged in all cases, unless notice be given by the importers, to place the goods under the Landing Rate.

	Prime Rate.	Landing Rate.	Rent per Week.
	s. d.	s. d.	s. d.
Rum per 100 galls.	10 0	*3 6	0 8 . leager 0 6 . butt 0 4 { half-butt, pipe, punch } 0 2 . hhd. 0 1½ barrel or quarter-cask
			For cooper's care and attendance per week. { leager, butt, half-butt, pipe or punch. } 0 0½
			Ditto { hhd., brl. or quarter-cask } 0 0½

* Includes delivery from the quay, either by land or water.

*** When rum is imported in casks made of proper oak, the company engages to be responsible for deficiencies in measure, which shall exceed one gallon per cask for each year or fraction of a year the goods remain in charge; but the company will not be answerable for deficiencies arising from the casks being made of other and inefficient material.

The Rates for

Unhousing and loading . . one-third of Landing Rate.
Wharfage and shipping . . two-thirds of Landing Rate.
Unloading and housing . . ditto
Unhousing, wharfage and shipping . . . . same as the Landing Rate.

Rent is chargeable from the date of the ship breaking bulk, or from the first landing from craft.

Before transfer by the company, or delivery, the charges on the quantity to be transferred or delivered must be paid.

Cooperage and Extra Charges on Rum.

Sampling, first and second, with vial, 1s. per cask.
Ditto ditto without vial, 6d. per cask.
Driving, 9d. per pun. or pipe; 6d. per hhd., barrel, or quarter-cask.
Taking off tins and re-tinning, 4d. per cask.
Starting bungs and re-bunging, 2d. per cask.
Measuring, 2s. per pun.; 1s. 6d. per hhd.
Filling up, not exceeding 5 gallons, 3d. per cask.
Overdrawing, 3d. per cask.
Racking, 9d. per pun. or hhd.
Lead patches, 6d. each.
Tins, plain, 1d. each.
Tins, marked, 2d. each.
New chimes, 6d. each.
Bung, or shive, 1d. each.
Tapeing and resealing, complete, 1s. per cask.
Ditto ditto across the bung only 4d. per cask.
Breaking out, and restowing, 1s. per pun.
Marking, with scribing-iron or ink, 1s. per cask.
Ditto with paint, 3d. per cask.
Ditto with branding-iron, 4d. per cask.
Ditto direction, with paint or cutting-in, 6d. per cask.

	New Heads, Per Head.	Iron Hoops, Per Hoop.	
	Rum.	New.	Old.
	s. d.	s. d.	s. d.
Puncheon (110 gallons and under) -	2 9	0 8	0 4
Half-butt - -	2 9	0 8	0 4
Hogshead - -	2 6	0 8	0 4
Quarter-cask - -	2 2	0 4	0 2
Half-quarter-cask -	2 2	0 4	0 2

No fee, perquisite, or reward, is to be taken by the company's officers or servants, other than their salary or wages. Penalty, forfeiture of the sum taken and 5*l.* for each offence.

2. *London Docks.* — These were the next undertaking of this sort set on foot in the Thames. They are situated in the parishes of St. George in the East, Wapping, and Shadwell, and were principally intended for the reception of ships laden with wine, brandy, tobacco, and rice. The western dock has a water area of above 20 acres, with a commodious jetty in the centre, 800 ft. in length; and the water area of the new or eastern dock covers about 7 acres. The tobacco dock, which lies between the above, and exceeds 1 acre in extent, is particularly adapted for the reception of tobacco ships. The warehouses are capacious and magnificent. The great tobacco warehouse, on the north side of the tobacco dock, is the largest, finest, and most convenient building of its sort in the world. It is fitted to contain 24,000 hhds. of tobacco, and covers the immense space of near *five* acres! This warehouse is wholly under the management of the officers of customs. The vaults, under the tobacco and other warehouses, include an area of the vast extent of about 18¼ acres, and, after allowing for gangways, &c., have stowage for 66,000 pipes of wine and spirits! These docks were opened in 1805. All ships bound for the Thames, laden with wine, brandy, tobacco, and rice (except ships from the East and West Indies), were obliged to unload in them for the space of 21 years: but this monopoly expired in January, 1826; and the use of the docks has since been optional. Hydraulic machinery is now in use alongside the quays and in many of the warehouses, and is being generally applied throughout the docks.

The entrances to the London Docks were formerly by the basins at Hermitage and Wapping. But in 1832 another entrance was effected by a basin constructed at Shadwell, about 3-4ths of a mile lower down the river than the Wapping entrance. And last year

(1858) this basin was farther enlarged so as to include a water area of above 6 acres; and it was then, also, furnished with a second, or new entrance lock, 350 ft. in length, and 60 ft. in width, having at spring tides a depth of 28 ft. water over the cill of the dock gates. This additional basin has been a most material improvement; for while it has rendered the docks more easily accessible to all sorts of ships, the new entrance lock admits those of the largest burden.

The Company's premises include, in all, a space of about 100 acres. The stock amounts at present (1859) to 4,910,393*l.* A considerable portion of this vast sum was required for the purchase of the houses that occupied the site of the docks.

Regulations regarding Shipping in the London Docks.

Lodgment of Manifest.—Every master of a ship is required to deliver at the superintendent's office, within twelve hours after the arrival of the vessel in the docks, or reporting at the custom-house (which shall first happen), a true copy of the manifest or report of the cargo, signed by himself.

Discharge of Vessels.—Vessels are not to break bulk without the permission of the superintendent, until entries have been passed for the whole of the cargo.

On application of the master, the Company will pass a warehousing entry for such goods as the owners or consignees may have neglected or refused to enter, or order lodged with the customs officer on board the vessel, within forty-eight hours from the date of the report.

No persons are allowed to work on board vessels, on the quays, or in the warehouses, unless engaged by the Company, without permission in writing from the superintendent (stowers of cargoes outward, excepted); but labourers may be hired of the Company, to work under the direction and responsibility of the master of the ship, the charge being 3*s.* 6*d.* per day for each man. In cases where the number of men employed is not sufficient for the timely discharge of the cargo, additional hands are provided by the Company at the expense of the vessel.

The decks are to be speedily cleared of such articles as impede the discharge of the vessel; and the master, mate, or some person duly authorised by the owner, is to remain on board during the unloading, which, it is understood, is performed under their direction.

Stops for Freight.—Goods landed will be retained for freight on due notice being given in writing by the owner, master, or other person interested therein. For such goods, transfer orders will not be received, nor warrants granted, until the stop has been withdrawn, or the freight deposited with the Company.

No stop for freight can be received after an order for transfer of the goods has been lodged, or a warrant granted for them.

Goods delivered into craft, to be landed elsewhere, cannot be detained for freight.

Vessels leaving the Docks for Repairs are not charged rent for the period they are absent; nor is any charge made for ballast, chalk, slate, or flints, received from or delivered into craft.

Abstracts of Cargoes, for the purpose of making up freight accounts, are supplied on application to the superintendent, at the following charge, viz.:—

		s.	*d.*
If the goods have	10 marks or under - -	2	0
„	11 to 20 marks - -	3	6
„	21 and upwards, 2*d.* each mark or parcel, but the total charge not to exceed 10*s.* 6*d.*, including an abstract of certificates of damage.		

Steam Boats are furnished by the Company inwards from Gravesend, in certain cases, to vessels (not laden with guano, hides, corn, timber, or provisions, and only to those vessels with nitrate of soda, when two-thirds or more of the cargo is to be landed) proceeding to these docks, arriving from North and South America, the West India Islands, the Cape of Good Hope, and all ports to the eastward thereof, on application to the secretary, the superintendent, or the agent of the Company; and also to such vessels outward bound, as far as Blackwall, being of the burden of 275 tons register, or upwards, and which have discharged their cargoes in the docks.

Vessels are only allowed to pass from the western to the eastern dock between the undermentioned hours, except in cases of emergency, notice of which must be given to the dock-master:—

From 15th February to 14th October - 8 till 5 o'clock.
„ 15th October to 14th February - 8 „ 4 „

Tonnage Rates on Sailing Vessels and Screw Steamers.

First Class.—Vessels from any port in the United Kingdom, Isle of Man, Jersey, Guernsey, Alderney, Sark, or other European ports outside the Baltic, between the North Cape and Ushant (Hamburg, Bremen, and Embden excepted, see *second class*), with liberty to reload for any port in this class, 6*d.* per register ton; rent, after 4 weeks from the date of entering the dock, if discharged by the crew of the vessel; from the date of final discharge, if discharged by the Dock Company, 1*d.* per register ton per week; or, if with part of a cargo, for every ton of goods delivered above 21 tons, 6*d.*; rent, after 1 week from date of entrance, 1*d.* per register ton per week.

Vessels loading for any of those ports, not having discharged their cargoes in the docks, 6*d.* per register ton; rent, after 4 weeks from date of entrance, 1*d.* per register ton per week.

Second Class.—Vessels from Hamburg, Bremen, and Embden, with liberty to reload for any port in this class, 6*d.* per register ton; rent, after 6 weeks from date of entrance, 1*d.* per register ton per week.

Vessels loading for any of those ports, not having discharged their cargoes in the docks, 6*d.* per register ton; rent, after 4 weeks from date of entrance, 1*d.* per register ton per week.

Third Class.—Vessels from Spain, Portugal, or France, laden with wine or brandy, or from any port in the Mediterranean, with liberty to reload for any port, 9*d.* per register ton; rent, after 6 weeks from date of entrance, 1*d.* per register ton per week.

Fourth Class.—Vessels from all other ports or places whatsoever (with the exception of those hereafter enumerated), with liberty to reload for any port, 9*d.* per register ton; rent, after 4 weeks from date of entrance, if the cargo be discharged by the crew; from date of final discharge if the cargo be discharged by the Dock Company, 1*d.* per register ton per week.

Vessels loading for any ports or places in the third or fourth classes, not having discharged their cargoes in the docks, 9*d.* per register ton; rent, after 4 weeks from date of entrance, 1*d.* per register ton per week.

Paddle-wheel Steam Vessels.—Steam vessels, 2*s.* per register ton; rent, after 4 weeks from date of entrance, 4*d.* per register ton per week.

Exceptions.

Vessels from any port in the United Kingdom, which land one third (or more) of their cargoes, will be admitted into the docks free of dues, with liberty to remain 24 hours after the final discharge; rent, after the expiration of that period, 1*d.* per register ton per week. Should the vessel load outwards, the usual tonnage rates, according to the port of destination, are charged.

Vessels from Spain or Portugal, with cargoes of wool, and cork, with liberty to reload for any port, 6*d.* per register ton; rent, after 3 weeks from date of entrance, 1*d.* per register ton per week.

Vessels to or from the southern whale fisheries, 1*s.* per register ton; all delivered into craft, 6*d.* per ton; rent, after 6 weeks from date of entrance, 1*d.* per register ton per week.

Vessels delivering part of their cargoes, not being equal in weight to their register tonnage:—

First or second class, 6*d.* per ton of goods landed.
Third or fourth class, 9*d.* „ „

Rent, after 1 week from date of entrance, 1*d.* per register ton per week.

Vessels loading part of their cargoes, above 21 tons:—

First or second class, 6*d.* per ton of goods taken on board.
Third or fourth class, 9*d.* „ „

Rent, after 1 week from date of entrance, 1*d.* per register ton per week.

Light vessels to lie up, on entering, 6*d.* for every register ton of the vessel; rent, after 4 weeks from date of entrance, 1*d.* per register ton per week.

Vessels which enter the docks to lie up, and afterwards load out, pay dues according to their port of destination.

Vessels wholly corn laden are exempt from tonnage rates, but are charged for docking and undocking as under:—

			£	*s.*	*d.*
If under 50 tons register	- -	-	1	1	0
If 50 and under 100 ditto	- -	-	1	11	6
100 „ 150 „	- -	-	2	2	0
150 „ 200 „	- -	-	3	3	0
200 „ 250 „	- -	-	4	4	0
250 „ 300 „	- -	-	5	5	0
300 „ 350 „	- -	-	6	6	0
350 „ 400 „	- -	-	7	7	0
400 „ 450 „	- -	-	8	8	0
450 „ 500 „	- -	-	9	9	0

and 2*l.* 2*s.* for every additional 50 tons register, or less; rent, after 14 days from date of entrance, 1*d.* per register ton per week; or, in the event of the vessel quitting the docks without unloading, rent, after 1 clear day from date of entrance, 1*d.* per register ton per week.

Vessels two-thirds laden with corn are charged tonnage rate on the proportion the remainder of the cargo bears to the register tonnage, in addition to the charge for docking and undocking. Should the vessel, in either of the above cases, load outwards, the usual tonnage rates, according to the port of destination, are charged.

Vessels leaving the dock after having discharged the corn, and subsequently return to load, the usual tonnage rates according to port of destination are charged. The charge for docking and undocking previously paid is not to be disturbed.

Vessels coal laden: if the coals are to be landed, for docking and undocking, 21*s.*; for every ton of coals landed, 6*d.*; if the coals are to be transhipped, 6*d.* for every ton of coals delivered*, with liberty to remain in the docks 24 hours after the final discharge of the cargo; rent, after the expiration of that period, 1*d.* per register ton per week.

NOTE.—Vessels are not permitted to leave the docks until the tonnage dues and other expenses have been paid; for which purpose the register must be produced at the superintendent's office, if the ship be British—or a certificate of admeasurement by the proper officer of the customs, if foreign—when a pass will be granted, which must be lodged with the dock-master on the vessel leaving the docks.

Rates for Discharging Cargoes when landed by the Company.

Cargoes, consisting either in the whole or in part of hogsheads or tierces of sugar or molasses, from the West Indies (including ship-cooperage), 1*s.* 9*d.* per register ton.

* No charge made on any quantity exceeding the register tonnage.

Cargoes consisting of sugar in chests of 5 cwt. and upwards (including ship-cooperage), 1s. 3d. per register ton.

Cargoes consisting of sugar in bags, mats, or chests under 5 cwt., or other goods (not being marble, tallow, hemp, ashes, corn, wood goods, pitch, tar, hay, or straw) contained in casks, bales, serons, chests, cases, bags, baskets, mats, bundles, or similar packages; also spelter or metal pigs, bars, rods, plates, &c. 9d. per register ton.

NOTICE.—Whereas packages of cutch have been found to adhere together, so as to cause extraordinary labour and expense in discharging the same, beyond that which would otherwise have been incurred had the packages continued separate, the extra expense for breaking it out, when it shall be found to be so adhering, will be charged to the ship over and above the rates to which the vessel would be otherwise liable, viz., the labour at 3s. 6d. per day per man, and the cost of repairing the implements used.

Cargoes consisting of mahogany, or other large wood in logs, 1s. 9d. per register ton.

Blue gum wood, or large timber, or oil in iron tanks, additional for every load or ton delivered, 6d.

Cargoes consisting of hemp only, or merchandise in bulk, 1s. per register ton.

Cargoes consisting of tallow only, 6d. per register ton.

Mixed cargoes: of hemp, 1s. 3d. per ton; tallow, 6d. per ditto; ashes, 6d. per ditto.

Mixed cargoes, the part which is in bulk, 1s. per ton.

No charge made for excess beyond the register tonnage.

NOTE.—The above work is performed under the direction of the master or chief officer, and vessels which discharge the whole, or the greater part of their cargoes into lighters, will be subject to such rates as shall be agreed upon between the shipowners or masters and the Company.

Regulations regarding Goods, and the Rates and Charges thereon.

Rent is charged on goods from the day on which the importing vessel breaks bulk, or from the first landing from craft.

Bills of Lading must be produced, in all cases, when goods have been landed by the Company (under the authority of the 114 and 116 secs. of the act 9 Geo. 4. c. 116), for want of entry by the importer, before they can be delivered to any party claiming the same; as also, when goods have been landed from places to the eastward of the Cape of Good Hope, with the exception of Van Diemen's Land and New South Wales.

Orders for Transfer or Delivery (the forms of which may be obtained at the superintendent's office), unless the goods are to be delivered from the landing scale, cannot be accepted until the goods have been landed.

Neither can such orders be received, until the charges on the goods composing the whole of the mark or parcel have been paid.

Orders for delivery cannot be acted upon unless signed by the party in whose name the goods stand in the Company's books, or by a person duly authorised in writing, under the hand of the principal, to sign them; and should any interlineation, erasure, or alteration have been made in an order, it can only be accepted with the name or initials of the party set against such alteration.

Receivers of Charges.—The only persons authorised to receive money, are, the collectors at the superintendent's office; the warehouse-keeper at the tobacco warehouse; and the warehouse-keepers at the eastern dock; except for consolidated rates, which may be paid at the London Dock House, in New Bank Buildings.

Deposit Accounts may be opened at the superintendent's office.

If an order does not specify the party by whom the charges due at the date thereof, or of the transfer, are to be paid, the amount will be placed to the deposit account of the party transferring.

Warrants and Transfers.—Warrants for goods in general are issued on written application at the dock in favour of such person as the party in whose name they stand in the Company's books may direct. The first are issued free of expense; on all subsequent warrants and transfers the charges are as follows:—

For each warrant or transfer containing	s.	d.
1 or 2 packages	0	1
3 — 4 „	0	2
5 to 7 „	0	3
8 — 10 „	0	4
11 — 15 „	0	5
16 — 20 „	0	6
21 — 25 „	0	7
26 — 30 „	0	8
31 — 35 „	0	9
36 — 40 „	0	10
41 — 45 „	0	11
46 and upwards	1	0
Goods in bulk, per ton	0	9
For every new cheque granted	0	2

The contents of one warrant may be divided into others for smaller quantities, at the will of the holder.

Application for duplicate warrants, in consequence of the originals being lost or mislaid, must be addressed to the secretary, at the London Dock House, in New Bank Buildings, who will make known the conditions on which they will be granted.

Weight Notes are issued at any time on or before the day of prompt, on authority in writing, entitling the holder to inspect and sample the goods; the charge is 2d. each.

Weights of Goods.—Duplicates are furnished on certain conditions, on reasonable cause for requiring them being assigned.

Samples.—When samples are required which can only be taken after the goods have been turned out of the packages, that operation will be performed without more specific directions from the owner.

When brokers are to inspect or sample goods, the authority of their principals must be registered at the superintendent's office.

Second Samples.—Orders for second samples, if the goods are for "exportation only," are issued at the superintendent's office, the proprietor paying the customs duty thereon.

Empty Casks and Packages, if not removed from the dock within 7 days from the date of their becoming empty, are sent to the Company's stores, and sold by the Company. The proceeds are paid to the owner, after deducting the sale charges *and other expenses, provided the same be claimed within* 12 months from the day of sale.

Goods which pay Duty on the Delivery Weight.—The customs duties for home consumption upon the following articles bonded, are chargeable only on the delivery weight: viz., tobacco, sugar, currants, figs, raisins, mahogany, hams, and cheese; and on the delivery gauge of wines, and the gauge and strengths of spirits. No duties are charged on deficiencies of bonded goods exported from the warehouses, vaults, &c., in the docks.

Cases in which the Company are not Liable.—The Company are not liable for deficiencies arising from natural causes; nor for any loss or injury sustained whilst goods are on board a vessel or craft; or in the breaking out, or slinging of the same on board; or when they are received into a ship by lighters, or discharged into lighters, unless the whole of the work of loading and discharging shall be executed by their servants; nor for any deficiencies or losses whatever, unless ascertained previously to the goods being removed from the dock premises.

Tares. — The warehouse-keepers will, on application in writing, attend the customs officer to settle allowances for tares; whenever this business is to be performed by the merchant or his clerk, an early appointment for that purpose should be made with the officer.

Goods worked for Sale.—The Company will proceed to the working for sale of all goods which require to be put in a merchantable state, immediately on their being landed, unless notice to the contrary be given by the owner or consignee.

Goods withdrawn from sale after being shown will be subject to an extra charge on being again shown.

When goods are prepared for shipment, and not taken away within the under-mentioned periods, they will be re-stowed at the expense of the proprietor:—

Dye wood	7 days.
Mahogany and other furniture or measured wood	4 „
Other goods	3 „

Memoranda.

The wicket gates at the north-west principal entrance, at Wapping, and at the eastern dock, are open for foot passengers, as under:—

		Open.	*Shut.*
From 1 Feb.	to last day of Feb.	7 o'clock.	6 o'clock.
1 March	„ 21 May	6 „	7 „
22 May	„ 21 August	6 „	8 „
22 Aug.	„ 21 September	6 „	7 „
22 Sept.	„ 20 October	6 „	6 „
21 Oct.	„ 30 November	7 „	6 „
1 Dec.	„ 31 January	7 „	5 „

The hours for the commencement of business, and opening and closing the barrier gate, are:—

		Open.	*Shut.*
From 1 March	to 31 October,	8 o'clock.	4 o'clock.
1 Nov.	„ last day of February	9 „	4 „

Visitors on Sundays or public holidays are admitted only under special circumstances.

A register book for ships inwards is placed in the superintendent's office for the use of merchants and others, in which are alphabetically arranged the names of vessels; where from, and where stationed; which also contains the particulars of ships' loading.

Letters and papers on dock business are conveyed hourly from the dock house to the dock.

The Company have also provided a letter box at the Commercial Sale Rooms in Mincing Lane, in which such papers may be deposited; from whence they will be conveyed at 11 o'clock, 1 o'clock, and 3 o'clock. This latter arrangement being entirely for the accommodation of the public, the Company are not responsible for letters, &c., so forwarded.

The London Docks contain 40 acres of water; and 13,165 feet of quay and jetty frontage; with four entrances from the river, of the following widths, viz., Hermitage and Wapping, 40 feet; Shadwell, 45 feet; and Shadwell new entrance, 60 feet; where the depth of water, at spring tides, is 28 feet.

Besides a numerous night watch, a floating fire engine is kept in constant readiness, which can be immediately set at work, and raises water at the rate of 200 gallons per minute.

3. *St. Katharine's Docks.* — The Company for the construction of these docks was incorporated by the act 6 Geo. 4. c. 105 (local), and they were partially opened on the 25th of October, 1828. They are situated immediately below the Tower, and are consequently the most contiguous of any to the city, the Custom-house, and other places where business is transacted. The capital stock amounts to 1,939,800*l.*; but an additional sum of about 700,000*l.* has been borrowed on the security of the rates, for the completion of the works and the purchase of extensive uptown warehouses, and of a freehold property with a river frontage from the Tower to the corner of Lower East Smithfield. A portion of this property has been appropriated to a steam packet wharf, where

passengers embark and land without the aid or risk of boat conveyance. The purchase of the numerous houses that stood upon the ground occupied by the docks proved, as in the case of the London Docks, a heavy item of expense. The space included within the outer wall is about 24 acres, nearly 11 of which are water. There are 2 docks communicating by a basin. The lock leading from the river is 180 feet long, and 45 broad; it is so constructed that ships of upwards of 600 tons burden may pass in and out 3 hours before high-water, so that outward-bound ships have the opportunity of reaching Blackwall before the tide begins to recede. Ships of upwards of 1,000 tons register are docked and undocked without difficulty. Vessels are also docked and undocked by night as well as by day,—an advantage peculiar to this establishment. A clear channel of not less than 300 feet in width is at all times kept in the pool; and vessels drawing 22 feet water may lie afloat at low water at the principal buoy off the dock entrance. The warehouses and vaults are upon a very large scale; far more so than one might be disposed to infer from the extent of water. The warehouses are well contrived and commodious, and owing to their being built partly on pillars (within which what is called the quay work of the other docks is transacted), close to the water's edge, goods are hoisted direct from the hold of the vessel, without its being necessary to land them on quays; so that in this way a saving of room, time, and labour is effected. The dividend on the company's stock is at present (1859) 4½ per cent.

The regulations to be observed by vessels using the St. Katharine's Docks are similar to those enforced in the East and West India and London Docks, to which we beg to refer.

4. *Commercial Docks.*—In addition to the docks already described, which are all on the north side of the river, there are on the south side the Commercial Docks, in the parish of Rotherhithe, in Surrey.

A portion of these docks appears to have existed so long ago as 1660, and consequently many years prior to the formation of any other wet dock in the British empire. It then bore the name of the Howland Great Wet Dock. At a later period it was called the Greenland Dock, being expressly prepared for the accommodation of Greenland whaling vessels. It was not until 1807 that it received its present title, and that the existing Commercial Dock Company was established. Large additions were at that time made to these docks, and they now cover a greater surface than any others belonging to the port of London.

They are adapted chiefly for the reception of vessels laden with timber, deals, and wood articles in general, corn, iron, tar, guano, and other bulky commodities. But by an act obtained in 1851 (14 & 15 Vict. c. 43.) the company acquired the privilege of landing and warehousing, if sanctioned by the customs, nearly every description of goods. Under the authority of this act, the company purchased the adjoining East Country Docks, and have made such alterations and improvements upon them as were required by the increasing trade of the port of London, and the greater size of the ships by which it is frequented. The docks, with their appurtenances, comprise an extent of about 120 acres, of which 70 acres are water. The entrance to the New South Dock from the river is 27 feet below Trinity *datum* over the cill of the gate and throughout the dock. The lock, which is 220 feet in length by 48 feet in width, has at neaps, or lowest tides, 22 feet water, admitting at spring tides vessels drawing more than 26 feet, which may at all times lie alongside the quays. Vessels of 1800 tons register have been received into this dock.

The number and tonnage of the vessels which entered the Commercial Docks last year (1858) were as follows, viz.

559 wood-laden	238,445	tons.
591 corn-laden	143,319	,,
49 variously laden	10,166	,,
23 light-laden	9,540	,,
1,222 ships	401,470	,,

A railway, laid round the docks, communicates with the various railways in the south of England, affording every facility for the transmission of guano, grain, timber, and other goods to the southern counties, and conversely. The company have large warehouses, with granaries sufficient for the storage of above 120,000 quarters of corn.

The timber ponds attached to the docks will float above 50,000 loads of timber, while the yards will hold about 4,000,000 pieces of deal, and staves *ad libitum*.

The company's stock at present (1859) amounts to 514,410*l.*, yielding a dividend of 5 per cent. The entire establishment is in a very efficient state, and does credit to the managers.

5. *The Victoria London Docks* are situated in the Plaistow marshes, on the N. side of the Thames, immediately below the East and West India docks. They comprise a half-tide basin of 16 acres, an inner dock of 74 acres, and a portion (12 acres) of the canal intended to intersect the eastern lands of the Company. The depth of water varies from 24 feet 6 inches to 26 feet 6 inches. The entrance from the Thames is at Bow Creek, by means of a lock 320 feet in length, 28 feet in depth, and 80 feet in width. There

are 6 jetties, on 5 of which are extensive warehouses. There are also several large warehouses on the N. side of the dock, one of which having an area of 4 acres of flooring is appropriated to the storage of tobacco. There are also sheds capable of containing upwards of 100,000 tons of guano; the entire London trade in this article being now carried on in these docks. A branch of the Eastern Counties Railway is brought into the docks, so that goods can be conveyed by means of this, the North-Western, and other railways, without change of carriage, from the ship's side to any part of the kingdom.

The Company's estate comprises about 650 acres of land, extending from Bow Creek to Gallion's Reach, a distance of nearly 3 miles. It is intended to continue the 74 acres dock by a wide canal through 450 acres of land to the eastward of the present dock, and to employ the water frontage on each side of the canal in providing various kinds of accommodation for shipping and trade, such as dry docks, warehouses, premises for steam ship companies, &c. &c. There have already been constructed by the Thames Graving Dock Company, on the south side of the 74 acre dock, graving docks on an entirely novel principle, in which ships are raised by hydraulic power on pontoons, floated into bays in shallow water, and there examined and repaired. Among the advantages of this plan are being able to accommodate a considerable number of ships at once, and the practicability of these docks being resorted to by shipping without the necessity for passing into the river, and irrespective of the state of the tide.

The Victoria Dock Company are owners of the steelyard warehouses in Upper Thames Street; and the lessees are occupiers of extensive warehouses in Royal Mint Street, which, being connected with the Blackwall Railway, communicate by railway with all parts of the kingdom.

The Company was created by act of parliament in 1850. By this and subsequent acts it is authorised to raise a share capital of 1,200,000*l.*, and to borrow 399,000*l.*, making its total powers of raising money 1,599,000*l.* Of the 1,200,000*l.* of capital, 800,000*l.* has been paid up in full, and converted into consolidated stock; and a farther issue of 100,000*l.* has been made, and is now (1859) in course of being called up. The entire expenditure of the Company on 31st of December, 1858, for land, works, and other purposes, amounted to about 1,000,000*l.*

The undertaking is leased to Messrs. Peto, Betts, and Brassey for 21 years from January, 1855, they paying as rent 5 per cent. on all capital up to 700,000*l.*, and 6 per cent. on all beyond that amount; also 2000*l.* per annum for the expenses of the Company's offices and management, with half the profits which may arise from the working of the undertaking after payment of rent. The lessees are bound to lodge security to the extent of 150,000*l.*, for the performance of the provisions of the lease.

The accounts for the half year ending 31st of December, 1858, showed that the nett earnings were fully sufficient to pay the rent as well as the interest of the lessees' capital employed in the business. The shareholders have hitherto received dividends at the rate of 5 per cent. per annum, and are hereafter to receive at the rate of 5¼ per cent. per annum. Owing to the comparatively low cost of construction the rates of charge upon the ships and cargoes accommodated at these docks are remarkably low.

The following statement shows the rapid progress of the business of the Victoria Docks since their opening in November, 1855.

Numbers and Tonnage of Ships which entered the Victoria Docks, for Years ending 31st December

1856	-	-	-	-	1541 ships	-	-	-	-	500,463 tons.
1857	-	-	-	-	1722 „	-	-	-	-	594,773 „
1858	-	-	-	-	2420 „	-	-	-	-	849,360 „

6. *London Port Dues; Charges on account of Lights, Pilotage, &c., in the Thames; Shipping, &c. of London.*

It is highly desirable that expert pilots, brilliant lights, and every other means that it is possible to devise, should be afforded to render navigation safe and expeditious. But to secure these advantages, it is indispensable that the charges on their account should be moderate. If they be otherwise, navigators are not unfrequently tempted to resort to what are less expensive, though less secure, channels. This principle has not, however obvious, been always kept sufficiently in view either in this or in other countries. During the latter years of the war, and down to 1825, the charges on account of docks, lights, pilotage, &c. on ships in the Thames, and most other British ports, were exceedingly heavy, and would, no doubt, had they been maintained, have materially injured our commerce. Instead, also, of encouraging the resort of foreign ships to our ports, a contrary policy was adopted; the charges laid on them being usually about double those laid on British ships. This regulation was intended to promote the employment of the latter; but, as it led to reprisals in other countries, its real influence is believed to have been quite different; while, by driving away

foreigners, it injured the trade of the country, and prevented our ports from becoming, what they are so well fitted to be, the emporiums of the world. We are glad, however, to have to state that the circumstances now alluded to have been materially, or rather wholly, changed within the last 20 or 30 years. In 1825, the various dock monopolies expired; and a very great reduction has since been made in the charges on account of the docks, which, as already seen, are now very moderate indeed.

Exclusive of the dock duties, certain *port* or *tonnage duties* were imposed on ships frequenting the port of London, by the acts 39 Geo. 3. c. 69., 43 Geo. 3. c. 124., &c. partly to pay the harbour-masters, provide mooring chains, &c., and partly to create a fund for the improvement of the port, and in particular for defraying the cost of making a navigable canal across the Isle of Dogs. But this canal having been sold (*antè*, p. 492.) for 120,000*l.* to the West India Dock Company, under the 10 Geo. 4. c. 130., and the sums advanced by the public for the improvement of the port having been repaid, it was judiciously resolved to reduce the port duties to the lowest rates capable of defraying the necessary expenses. This was effected by the 4 & 5 Will. 4. c. 32., which imposes the following tonnage duties on vessels in the port: —

	Per Ton. *d.*
1*st Class.*—For every ship or other vessel trading coastwise between the port of London or any port or place in Great Britain, Ireland, the Orkneys, Shetland, or the Western Islands of Scotland, there shall be paid for every voyage in and out of the said port	½
2*d Class.*—For every ship, &c., entering inwards or clearing outwards from or to Denmark, Norway, or Lapland (on this side of the North Cape), or from Holstein, Hamburg, Bremen, or any other part of Germany bordering on or near the Germanic Ocean, or from or to Holland, or any other of the United Provinces, or Brabant, Antwerp, Flanders, or any other part of the Netherlands, or from or to France, (within Ushant,) Guernsey, Jersey, Alderney, Sark, or the Isle of Man, there shall be paid for every, &c., as above	½
3*d Class.*—For every ship, &c. entering inwards or clearing outwards from or to Lapland (beyond the North Cape), Finland, Russia (without or within the Baltic Sea,) Livonia, Courland, Poland, Prussia, Sweden, or any other country or place within the Baltic Sea, there shall be paid for every, &c., as above	½
4*th Class.*—For every ship, &c., entering inwards on clearing outwards from or to France (between Ushant and Spain, Portugal, Spain (without the Mediterranean) or any of the Azores, Madeira, or Canary Islands, or any of the U. States of America, or of the British colonies or provinces in N. America or Florida, there shall be paid for every, &c., as above	½
5*th Class.*—For every ship, &c., entering inwards or clearing outwards from or to Greenland, Gibraltar, France, or Spain, (within the Mediterranean), or any country, island, port, or place within or bordering on or near the Mediterranean or Adriatic Sea, or from the West Indies, Louisiana, Mexico, S. America, Africa, East India, China or any other country, island, port, or place within or bordering on or near the Pacific Ocean, or from any other country, island, port or place whatsoever, to the southward of 25° of north latitude, there shall be paid, &c., as above	½

Exemptions.—Ships of war, and ships the property of H. M. or any of the royal family.—Any vessel coming to or going coastwise from the port of London, or to any part of Great Britain, unless such vessel shall exceed 45 tons.—Any vessel bringing corn coastwise, the principal part of whose cargo shall consist of corn.—Any fishing smacks, lobster and oyster boats, or vessels for passengers.—Any vessel or craft navigating the Thames above and below London Bridge, as far as Gravesend only.—Any vessel entering inwards or outwards in ballast.

Owing to the distance of London from the sea, and the rather intricate navigation at the mouth of the river, the charges on account of lights and pilotage must necessarily be pretty heavy. They have, however, been very materially reduced of late years. The charges on account of the lights under the management of the Trinity House have been diminished, in almost every instance, as much as a half, and sometimes even more, since 1823.—(See LIGHT-HOUSES.) The practice of imposing discriminating light and pilotage dues on foreign vessels is still kept up; but owing to the general establishment of reciprocity treaties with foreign powers, the grievance thence arising has become rather nominal than real, and at present affects very few of the foreign vessels coming to our ports. For the rates of pilotage, see art. PILOTAGE.

The oppressive and troublesome charges in the port of London, imposed on alien goods under the names of package, scavage, &c. —(see PACKAGE) — were put an end to in 1833. At present, therefore, we believe we are warranted in affirming that, considering its distance from the sea, the public charges on shipping in the port of London are quite as reasonable as in any other port of the empire, or of the world. But we are inclined to think that further reductions may still be effected, particularly in the article pilotage.

The following statement shows the nature and amount of the various charges that are at present (1839) incurred by vessels in the port of London: —

Account of Charges that were paid on a Ship of about 480 Tons (from China) entering and departing the Port of London laden both ways, every thing being conducted with strict Economy, and excluding any Charge on account of extraordinary Despatch or superior Accommodation; and that would be paid by a Ship of 1000 Tons under the like Circumstances.

Inward.	480 Ton Ship. £ *s.* *d.*	1000 Ton Ship. £ *s.* *d.*
Reporting at Custom-house	3 3 0	3 3 0
Tonnage duty, ¾*d.* per ton, and entry, 5*s.*	1 15 0	3 7 6
Pilotage, 15 feet, Downs to Gravesend (less ¼ if towed by steam)	9 6 0	(20 ft.) 17 18 0
— — Gravesend to London (Do.)	4 3 0	,, 7 17 0
— putting pilot on board in Downs, and pilotage from Dungeness	3 12 0	,, 4 14 6
Waterman assisting with boats, &c.	1 10 0	2 0 0
Towage from Mouse to Gravesend	(as per agreement)	(as per agreement)
Trinity lights dues, 2⅝*d.* per ton, plus ½*d.* per ton, and {3*s.* 9*d.* per vessel 480 tons; 4*s.* 6*d.* do. 1000 do.	6 8 9	13 4 11
Ramsgate dues ¾*d.* per ton	0 15 0	1 11 3
Dock dues, 9*d.* per ton: discharging tea, 9*d.* per ton	36 0 0	75 0 0
	66 12 9	128 18 2
Outward.		
Entering ship out at Custom-house	1 1 0	1 1 0
Tonnage duty, ¾*d.* per ton, and entry, 5*s.*	1 15 0	3 7 6
Trinity lights dues, 2⅝*d.* per ton, plus ½*d.* per ton, and {3*s.* 9*d.* per vessel 480 tons; 4*s.* 6*d.* do 1000 do.	6 8 9	13 4 11
Ramsgate dues, ¾*d.* per ton	0 15 0	1 11 3
Pilotage, London to Downs, 15 feet	11 4 0	(20 feet) 20 18 0
Landing pilot	(as per agreement)	(as per agreement)
Towage (depending on distance)	do.	do.
Clearing out and victualling bill	3 3 0	*5 5 0
Stevedore, 1*s.* 1*d.* per ton, taken on board	26 0 0	54 3 4
	40 6 9	99 11 0

MEM.—The charge for tonnage entry is usually 5*s.*

Dock rent after 4 weeks, from date of entrance if the cargo be discharged by crew, and from final date of discharge, if the cargo be discharged by the dock company, 1*d.* per register ton per week.

Dock rates, tonnage rate, 9*d.* per register ton.

Discharging cargo, 9*d.* per register ton.

(No charge made for excess above register tonnage.)

Dover dues are 1½*d.* per ton, but only on vessels under 300 tons register, and the Ramsgate dues, under 300 tons, 1½*d.* per ton.

Lights.—Should the vessel call at Southampton, an extra charge is made of ½*d.* per ton; if at Plymouth, ¼*d.* per ton. There is also a charge on each ship varying from 1*s.* to 9*s.* according to the tonnage, inwards only.

Charges on a Vessel of 500 Tons Register, entering the Port of London in Ballast, and leaving in same State, being in Dock a Fortnight.

	£ s. d.		£ s. d.
Reporting at Custom-house	1 1 0	Dock dues, 9d. per ton. Victoria Dock, 1d. per ton per week; Comm. and Lond. ditto, 6d. ditto, if from north of Europe; and all others, 9d. per ton.	
Pilotage, say 11 ft. { Downs to Gravesend 6 16 0; Putting pilot on board (including pilotage from Dungeness to the Downs) 3 12 0; Gravesend to London 2 10 0 }	12 18 0	Ballast (same as on board on entering).	
		Pilotage, { London to Downs, 11 feet, 8l. 2s. outwards; Landing pilot, as per agreement. }	8 2 0
Waterman	1 19 0	Towage (per agreement).	
Ramsgate harbour dues, ¾d. per ton	0 15 8	Ramsgate harbour dues, ¾d. per ton	0 15 8
Towage (per agreement).		Clearing out	1 1 0
	£16 4 8		£9 18 8

Pilotage subject to reduction of ½ if towed by steam.

Charges for Ballast. (See article BALLAST.)

	Per ton.		Per ton.
Common ballast delivered in the river	1s. 3d.	Heaving ballast with port	3d.
Do. do. docks	1s. 7d.	Do. without port	5½d.
Washed ballast do. do.	2s. 10d.	Trimming ballast (as per agreement).	
Do. do. river	2s. 6d.	Discharging do., (according to description of ballast).	

The following tabular statements will serve to illustrate the progress of the foreign trade and navigation of London:—

An Account of the Number and Tonnage of Vessels entering the Port of London from Foreign Parts, with Cargoes and in Ballast, distinguishing between British and Foreign Ships, in the undermentioned Years, from 1700 to 1858, inclusive.

Years.	British.		Foreign.		Years.	British.		Foreign.	
	Ships.	*Tons.*	*Ships.*	*Tons.*		*Ships.*	*Tons.*	*Ships.*	*Tons.*
1700	859	80,040	496	76,993	1842	4,767	1,002,453	1,640	241,468
1750	1,493	198,023	184	36,346	1843	4,589	1,022,550	1,633	295,121
1790	2,254	431,890	1,116	149,205	1844	4,741	1,008,463	2,144	353,346
1791	2,184	419,374	1,256	149,053	1845	5,123	1,109,387	2,439	393,104
1792	2,489	451,188	1,186	152,243	1846	5,228	1,134,646	2,483	391,531
1793	2,548	478,105	1,195	177,019	1847	6,271	1,436,986	3,152	494,791
War.					1848	6,489	1,387,060	3,078	432,111
1814-19	No Returns			1,225,857	1849	6,925	1,445,319	3,017	445,205
1820	3,564	655,239	856	122,619	1850	6,499	1,376,714	3,415	523,254
1825	3,989	785,565	1,743	302,122	1851	6,593	1,449,353	3,748	720,969
1830	3,910	744,229	1,268	207,500	1852	6,028	1,389,711	3,958	770,446
1835	3,780	740,255	1,057	188,893	1853	6,261	1,524,219	5,502	1,069,894
1836	3,815	772,016	1,465	255,875	1854	6,151	1,651,234	4,792	1,013,589
1837	4,079	821,788	1,547	240,135	1855	5,745	1,538,497	4,025	892,089
1838	4,266	893,525	1,727	277,902	1856	6,164	1,699,423	3,758	945,860
1839	4,480	988,867	2,375	357,163	1857	6,570	1,808,854	4,189	1,025,253
1840	4,547	954,660	2,221	354,456	1858	6,804	1,888,261	4,368	1,073,048
1841	4,642	999,259	1,999	317,608					

Amount of Shipping, &c., belonging to the Port of London.—According to the official accounts, there belonged to this port on the 31st December, 1857, 2,496 sailing vessels; of these 1,830 of the aggregate burden of 671,136 tons, were respectively above 50 tons register, while 666, of the aggregate burden of 22,878 tons, were respectively under 50 tons register. There then also belonged to the port 502 steam vessels of the burden of 165,126 tons. The crews of these ships, including steamers, amounted to above 30,000 men and boys! In 1819, the gross customs duty collected in the port of London, amounted to 7,749,463*l.*; in 1832, it amounted to 9,434,854*l.*; and in 1858, it had increased to 11,465,988*l.*! Excepting in New York and Liverpool, so vast an amount of shipping and commerce was never previously concentrated in any single port. London may be truly said to be *universi orbis terrarum emporium*. May her prosperity be as lasting as it is great!

Account of the Quantities and Values of the Principal Articles, the Produce of the U. Kingdom, exported from London in 1857.

Articles.	Quantities.	Value.	Articles.	Quantities.	Value.
Apparel and slops		£1,463,025	Metals, *continued*:—		
Beer and ale - barrels	318,647	1,165,353	Steel unwrought - tons	2,764	£73,415
Butter - cwts.	9,756	51,570	Copper unwrought - cwts.	33,465	208,736
Candles, stearine - lbs.	4,660,500	232,899	Part wrought and unwrought - ,,	153,240	962,939
Cheese - cwts.	11,005	46,548	Lead: ore, pig, rolled sheet and shot - tons	12,201	302,675
Coals, cinders and culm - tons	89,360	85,793	Tin unwrought - cwts.	25,409	171,394
Cotton Manufactures:			Plates - - -	-	230,170
Calicoes, cambrics, and muslins, fustians and mixed stuffs - yards	263,967,348	3,714,766	Oil seed - - - gallons	1,664,065	292,182
All other kinds - - -	-	297,590	Painters' colours - - -	-	220,280
Cotton yarn - lbs.	8,013,411	456,225	Salt - - - tons	8,325	11,199
Earthenware and porcelain -	-	223,781	Silk manufactures - - -	-	421,334
Fish, herrings - barrels	8,019	9,863	Thrown, twist and yarn - lbs.	538,002	462,131
Glass of all kinds - -	-	380,308	Soap - - - cwts.	35,969	63,701
Haberdashery and millinery - -	-	1,195,268	Soda - - - ,,	125,724	69,738
Hardwares and cutlery - cwts.	154,213	805,047	Spirits - - - gallons	2,996,292	448,777
Leather, tanned, unwrought ,,	18,313	208,049	Stationery - - -	-	463,978
,, wrought - lbs.	4,514,957	1,007,564	Sugar (British refined) - cwts.	111,895	356,841
,, Saddlery and harness -	-	152,266	Wool, sheep and lambs - lbs.	8,830,328	607,904
Linen manufactures:—			Woollen and worsted manufactures:—		
Cloths of all kinds and cambrics - yards	15,712,471	471,562	Woollens - - pieces	337,566	895,421
All other kinds - - -	-	10,123	Worsted and mixed stuffs yards	6,807,355	466,636
Linen yarn - lbs.	4,677,510	267,089	All other kinds - - -	-	154,904
Machinery, steam engines - -	-	310,464	Woollen and worsted yarn including yarn mixed with other materials - lbs.	138,955	20,968
Other sorts - - -	-	578,848	All other articles - - -	-	5,726,491
Metals:—					
Iron: pig, bar, wire and cast - - tons	119,871	1,110,420	Total declared real value - -	-	£27,832,348
Wrought of all kinds - ,,	60,677	957,515			

Account of the Quantities of the Principal Articles imported into London in 1857.

Principal Articles.	Quantities.	Principal Articles.	Quantities.
Animals, living:		Provisions:	
Oxen, bulls, and cows - number	41,635	Bacon and hams - - cwts.	107,916
Sheep and lambs - - ,,	161,543	Beef, salted - - ,,	69,369
Bones - - - tons	9,584	Butter - - ,,	337,147
Cocoa - - - lbs.	5,406,773	Cheese - - ,,	180,496
Coffee - - - ,,	49,821,233	Eggs - - - cubic feet	215,270
Corn:		Seed:	
Wheat - - - quarters	630,878	Flaxseed and linseed - - quarters	235,976
Barley - - - ,,	568,851	Rape seed - - ,,	110,459
Oats - - - ,,	1,418,514	Silk, raw - - - lbs.	6,898,052
Peas - - - ,,	32,779	,, thrown - - - ,,	374,018
Beans - - - ,,	62,476	Spices:	
Indian corn or maize - ,,	31,664	Pepper - - - ,,	4,615,009
Wheat meal and flour - cwts.	458,779	Pimento - - - cwts.	25,495
Dyes and dyeing stuffs:		Sugar:	
Cochineal - - - ,,	7,984	,, 2nd quality - - ,,	2,324,757
Indigo - - - ,,	61,305	,, 3rd quality - - ,,	2,324,996
Madder and madder root - ,,	17,694	,, refined, and sugar candy - ,,	127,000
Fruits:		,, molasses - - ,,	295,080
Currants - - - ,,	227,575	Tallow - - - ,,	814,750
Lemons and oranges - bushels	366,481	Tea - - - lbs.	54,709,008
Raisins - - - cwts.	212,066	Tobacco:	
Guano - - - tons	182,096	Stemmed - - - ,,	3,674,219
Hemp - - - cwts.	260,082	Unstemmed - - - ,,	16,817,673
Jute and other vegetable substances of the nature of hemp ,,	193,287	Manufactured, cigars and snuff ,,	851,654
Hides:		Wine, foreign countries - - gallons	6,471,451
Dry - - - ,,	251,152	Wood and timber:	
Wet - - - ,,	265,904	Of British possessions - loads	31,651
Tanned, curried, or dressed (except Russian hides) - lbs.	3,039,865	Foreign - - ,,	172,376
Oil:		Deals, battens, boards, &c., sawn or split:	
Palm - - - cwts.	147,148	Of British possessions - ,,	178,885
Cocoa-nut - - - ,,	194,700	Foreign - - ,,	212,292
Oil seed cakes - - tons	46,212	Staves - - - ,,	49,508
		Wool, sheep and lambs' - - lbs.	69,961,286
		Alpaca and llama - - ,,	153,903

The value of the imports into the port of London in ordinary years considerably exceeds double the value of the exports.

Account of the Number and Tonnage of British and Foreign Ships which arrived with Cargoes and in Ballast at the Port of London in 1857, specifying the Countries whence they arrived, and the Number and Tonnage of the Ships from each.

Countries whence Arrived.	British.						Foreign.					
	With Cargoes.		In Ballast.		Total.		With Cargoes.		In Ballast.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Foreign, Russia:												
Northern ports	547	131,962	.	.	547	131,962	418	77,845	.	.	418	77,845
Southern ports	78	27,835	.	.	78	27,835	81	28,752	.	.	81	28,752
Sweden	128	20,462	.	.	128	20,462	509	111,281	.	.	509	111,281
Norway	2	256	.	.	2	256	207	66,304	.	.	207	66,304
Denmark	96	22,299	1	76	97	22,375	555	44,817	.	.	555	44,817
Prussia	398	75,531	.	.	397	75,531	409	80,142	.	.	409	80,142
Germany	208	74,889	6	2,846	214	77,735	347	58,014	7	2,607	354	60,621
Holland	509	150,830	16	6,000	525	156,830	316	47,249	5	3,484	321	50,733
Java	7	3,319	.	.	7	3,319	4	2,195	.	.	4	2,195
Belgium	411	79,878	11	6,416	422	86,294	134	36,112	5	6,571	139	42,683
France	865	173,160	136	12,766	1,001	185,926	334	27,674	7	3,534	341	31,008
Pondicherry	3	1,652	.	.	3	1,652						
Portugal, Azores, and Madeira	263	39,388	.	.	263	39,388	34	6 717	.	.	34	6,717
Spain and Canaries	245	39,701	2	1,761	247	41,462	52	7,921	4	468	56	8,389
Philippine Islands	8	4,034	.	.	8	4,034	6	4,128	.	.	6	4,128
Italian States	154	23,504	1	332	155	23,836	56	11,783	1	720	57	12,503
Greece	58	10,515	.	.	58	10,515	2	230	.	.	2	230
Turkey	55	15,836	.	.	55	15,836	16	3,514	.	.	16	3,514
Wallachia and Moldavia	38	7,110	.	.	38	7,110	15	3,684	.	.	15	3,684
Syria	3	815	.	.	3	815	2	325	.	.	2	325
Egypt	26	8,331	.	.	26	8,331	18	6,104	.	.	18	6,104
Morocco	44	6,462	.	.	44	6,462						
United States	30	23,571	.	.	30	23,571	159	129,450	.	.	159	129,450
Cuba and For. W. Indies	70	20,553	.	.	70	20,553	115	33,536	.	.	115	33,536
Central and S. America	199	101,813	.	.	199	101,813	129	71,917	.	.	129	71,917
China (ex. Hong Kong)	65	43,087	.	.	65	43,087	11	8,670	.	.	11	8,670
Siam	1	284	.	.	1	284						
E. Coast of Africa	1	347	.	.	1	347						
W. Coast of Africa, For. Poss.	27	6,072	.	.	27	6,072	9	2,157	.	.	9	2,157
S. Sea Islands	1	177	.	.	1	177						
Other islands	1	319	.	.	1	319						
Whale Fisheries	3	917	.	.	3	917						
	4,542	1,111,909	175	50,197	4,717	1,145,106	3,938	870,501	29	17,181	3,967	887,685
British Possessions, Channel Islands	585	71,984	5	344	590	72,328						
Heligoland	.	.	1	133	1	133						
Gibraltar and Malta	7	2,094	6	4,097	13	6,191	1	220	.	.	1	220
Ionian Islands	9	1,337	.	.	9	1,337	1	120	.	.	1	120
Possessions in Africa	166	52,257	.	.	166	52,257	7	2,198	.	.	7	2,198
E. Indies, Hong Kong, and Australia	490	328,518	.	.	490	328,548	49	36,662	.	.	49	36,662
N. American Colonies	190	85,518	2	1,257	192	86,775	143	90,731	.	.	143	90,731
West Indies	389	114,859	2	1,213	391	116,072	21	7,637	.	.	21	7,637
Falkland Islands	1	107	.	.	1	107						
	1,837	656,704	16	7,044	1,853	663,748	222	137,568	.	.	222	137,568
Grand Total	6,379	1,771,613	191	57,241	6,570	1,808,854	4,160	1,008,069	29	17,184	4,189	1,025,253

Arrivals and Clearances Coastwise of Sailing and Steam Vessels at the Port of London in 1857.

	Sailing Vessels.		Steam Vessels.		Total.	
	Vessels.	*Tons.*	*Vessels.*	*Tons.*	*Vessels.*	*Tons.*
Arrivals - -	15,529	2,141,295	2,461	855,311	17,990	2,996,606
Clearances - -	7,034	474,243	1,692	551,852	8,726	1,026,095
Total - -	22,563	2,615,538	4,153	1,407,163	26,716	4,022,701

II. Southampton Docks, Shipping, &c.

Southampton, at the embouchure of the Itchen, on the E. side of the large inlet of the sea called Southampton Water, opposite to the Isle of Wight, lat. 50° 53′ 59″ N., long. 1° 24′ W., may be regarded as one of the outports of the metropolis. It is situated about 70 miles (direct distance) W. S. W. from London, the journey between them being performed by means of the South-Western Railway, in from 2 to 3 hours. Southampton Water affords secure anchorage in all weathers to any number of the largest merchant ships, being completely protected from the seas that would otherwise be thrown in by south-easterly gales by the Isle of Wight, its natural breakwater. Ships resorting to this port, or anchoring in Spithead roads, or in the channel between the Isle of Wight and the mainland, may get to sea, in almost every wind, with comparative facility. Hence it is usual for ships from London bound for the Mediterranean, India, the West Indies, or America, to touch at Cowes, opposite to Southampton Water, to take on board passengers, who thus avoid the lengthened and difficult navigation round by the Forelands and Beachy Head, at the same time that they are all but certain of being immediately able to proceed on their voyage; and hence, also, Southampton has now become the central station of the West India Mail Packet Company, of the steamers for Lisbon and Alexandria, &c. Latterly, also, the great natural advantages of its situation have been, and are in the course of being, most materially improved. The channel of the Itchen has been deepened; and docks connected with it have been, and are to be, constructed on a large scale, and with every suitable accommodation by the dock company incorporated in 1836.

The docks are excavated on a tongue of land comprising about 175 acres, close to the terminus of the South-Western Railway. The first consists of an open dock or basin containing 16 acres water area. It has a depth of 18 feet at low water springs, the average rise of the tide being 13 feet; its quay-frontage extends to 3,300 feet, and it is surrounded by extensive bonded warehouses, vaults, sheds, and cellars.

The 2nd or close dock (the 1st of a series intended to comprise 3 others of still larger dimensions), contains a water area of 10 acres, with an average permanent depth of 28 feet water. It is surrounded, like the open dock, by bonded warehouses, sheds, vaults, and numerous cranes. Waggons, on lines from the adjacent railway terminus, run to and from the quays, alongside which the ships are berthed. In the open dock there are powerful shears tested to the weight of 50 tons for the shifting of boilers or other heavy machinery, for masting ships, &c.

Attached to the wet docks are three large graving or dry docks of the following dimensions, viz.:—

1. 450 feet in length, 80 feet gates, and 25 feet depth of water over blocks.
2. 344 feet in length, 66 feet gates, and 18 feet depth of water over blocks.
3. 250 feet in length, 51 feet gates, and 13 feet depth of water over blocks.

Large ships of from 1,000 tons in the smallest, up to 5,000 tons in the largest of these docks can be docked and undocked with a facility unknown in most other ports. This is owing to the 2½ hours' duration of high water which is peculiar to Southampton.

Four steam engines are employed in pumping out the water from these graving docks.

The charges for docking and undocking are fixed by a tariff varying from 2*l.* for vessels of 1,000 tons, to 10*l.* for vessels of 5,000 tons. Smaller vessels from 5*l.* for 150 tons, and so in proportion.

These rates include pumping, use of stages, shores, shore-ropes, sawpits, smithy, and pitch furnace. But in addition to the above rates, ships are charged with rent for each working-day at the rate of 1*l.* for the first 100 tons, and 2*s.* per day for each progressive 50 tons beyond.

Southampton is distant by rail from London 80 miles, and from Birmingham 140, Manchester 216, and Liverpool 229, by way of Basingstoke, Reading, Oxford, Banbury, and Warwick. By the Coast line of railway it is distant from Portsmouth 16 miles, Brighton 60, and from Dorchester (to the west) 60 miles.

By sea it is distant from Havre 102 miles; and by means of a combination with the Havre and Paris Railway, a system of through rates has been introduced, by which all the towns on the continent connected by railway with Paris may send goods to Southampton for transhipment, or for the supply of the London and Birmingham markets.

This, as already noticed, is the point of departure and arrival of the packet ships belonging to the steam companies which carry on the mail packet service, and the general trade with the Cape, Ceylon, the East Indies, and China; with Australia, America, including the West Indies and Brazil; and with the Peninsula, Mediterranean, Constantinople, and the Levant generally.

A new service by steam has recently been opened with Hamburg, New York, and the Havannah. And Southampton is daily becoming of more importance as a great continental *entrepôt*. In 1857 the declared value of the exports from Southampton amounted to 2,065,045*l.*; the customs revenue for the same year collected at the port being 86,689*l.*

The rates and charges which the dock company levy are generally a modification of those of the principal docks of the port of London.

Vessels Inwards.			Vessels Outwards. Vessels not having discharged their Cargoes in Dock, but loading outwards.		
Arriving from	℔ Ton. Register.	Privilege.	Sailing for	℔ Ton Register.	Privilege.
1*st Class.*—Any port of the United Kingdom, Isle of Man, Jersey, Guernsey, and their dependencies, or European ports outside the Baltic, between the North Cape and the Straits of Gibraltar - -	6*d.*	Use of the docks for 1 week from date of entrance, with liberty to load outwards.	1*st Class.*—Any port of the United Kingdom, Isle of Man, Jersey, Guernsey, and their dependencies, or European ports outside the Baltic, between the North Cape and the Straits of Gibraltar -	6*d.*	Use of the docks for 1 week from date of entrance, with liberty to load outwards.
2*nd Class.*—Any other port -	9*d.*		2*nd Class.*—Any other port -	9*d.*	

Rent, for every class, after the expiration of the privilege, 1*d.* ℔ register ton ℔ week; and any time under three days will be charged as half a week.

Emigrant ships 4*d.* per register ton, and will be entitled to 4 weeks' privilege.

Rates for discharging Cargoes by the Company.	Per Ton Register.
	s. d.
Cargoes, consisting in the whole or in part of sugar in hogsheads or tierces, including ship-cooperage	1 9
Cargoes, consisting of sugar in chests of 6 cwt. and upwards, including ship-cooperage	1 3
Cargoes, consisting of sugar in bags, mats or chests under 6 cwts., coffee, cotton, rice, tea, saltpetre, silk, hides, tobacco, wool; flax, hemp or jute, press-packed; tallow, resin, turpentine, ashes, grain and seeds of all kinds, or other goods, contained in casks, bales, serons, chests, cases, bags, baskets, or similar packages; also copper, copper ore, spelter, steel, iron, lead, or other metal in pigs, bars, rods, plates, &c.	1 6
Cargoes, consisting of oil, wine, or spirits	0 9
— — flax and hemp, or of bones, alkalis and goods, in bulk	0 9
— — grain, and all description of seeds and seed cake, in bulk	1 0
— — deals, planks, staves, and wood, in billets	0 9
Blue gum wood, or large timber, additional for every load delivered	1 0
if partly of hardwood or masts, then — — — 0s. 6d.	
— pine or fir timber — — — 0 6	
Oil, in iron tanks — — — ton — 0 3	
Cargoes, consisting of guano, including filling into bags or baskets in ship's hold, and sewing bags or baskets — 0 6	

NOTE.—Vessels which discharge the whole or the greater part of their cargoes into lighters will be subject to such rates as shall be agreed upon between the ship owners and the company.

Separating such articles as cutch, India rubber, &c., in an adhesive state, will be charged for extra.

No charge upon excess of cargo landed beyond the ship's register tonnage.

When vessels are discharged by their own crews, labourers to assist may be hired of the company to work on board, at the rate of 3s. 6d. per day for each man; but they shall be under the directions and responsibility of the captains or representatives of the owners of vessels, both or either

The dues levied by the corporation of Southampton on shipping are 2d. per ton each voyage, and 5s. for each ship above 100 tons. Ballast (of fine dry gravel) 1s. 3d. per ton.

There are efficient boats belonging to a steam tug company, whose rates are very moderate.

The pilotage, under a sub-commission of the Trinity Board, from any place within the Isle of Wight to Southampton, is,

	s. d.
Vessels drawing 17 feet and under, per foot	2 0
Vessels drawing more than 17 feet, per foot which with 5s. from outside amounts to 7s., and 8s. per foot of ship's draft.	3 0

From Southampton to sea.

Vessels 17 feet and under	6 0
17 and not above 20	7 0
More than 20	9 0

There are no town dues whatever on merchandise.

Aggregate Amount of Tonnage which entered the Southampton Docks in 1858.

	Tons.		Tons.
From		From Brought forward	171,609
West Indies	49,099	Cape of Good Hope	5,411
South of Spain and Mediterranean, viz.,		Black Sea	1,111
Alexandria 49,950—		Australia	19,162
Peninsula 20,276—	70,226	France	40,156
America	27,618	Jersey and Guernsey	42,526
East Indies (direct)	3,165	Coasters	71,154
Brazil	20,798	Colliers	63,242
Madeira	673		
Carried forward	171,609	Total	414,351

III. LIVERPOOL AND BIRKENHEAD DOCKS, SHIPPING, &c.

The rapid rise of the port of Liverpool to its present consequence, though no doubt principally owing, like that of the town itself, to the astonishing increase of manufactures and population in the extensive district of which it is the grand emporium, is also, in part, owing to the facilities that have been given to navigation and commerce by the construction of its wet and dry docks. The entrance to the æstuary of the Mersey is a good deal encumbered with sand banks, and the channel is crossed by a bar, which, however, has at low water spring tides, where deepest, 11 feet water; and as the tide rises 21 ft. at neap, and 31 ft. at spring tides, there is water for the largest ships; the channels, too, being well indicated by lighthouses and light ships, and marked with buoys, there is no difficulty in making the port. In fact, since the opening of the Victoria and Queen's Channels, vessels of the largest size cross the bar at quarter flood.

But the land around being low, ships in the river are exposed to risk from gales of wind; and to obviate this inconvenience, and to facilitate their loading and unloading, the docks have been constructed, which constitute the great glory of the town. The second wet dock in the British empire was constructed here under an act (8 Ann. c. 12.) passed in 1709, and another about half a century after, since which period, and especially of late years, many new docks and basins have been constructed, some of which are on a very magnificent scale, with entrances capable of admitting ships requiring a width of 100 feet, and furnished with all sorts of conveniences. The water area of the docks in use in 1858 amounted in all to 212⅓ acres, and that of the basins to 23¼ ditto. The quay space is of the enormous extent of above 16 miles. The dry docks include an area of more than 20 acres.

The docks are defended on the side next the river by a sea-wall above 5 miles in length, which, if we take into account the difficulties attending its formation, will be found to be one of the greatest works of modern times. It averages 11 feet in thickness, and 40 feet in height from the foundations: all the more modern part being faced with Scotch granite. Every precaution is taken to prevent the accumulation of mud in the docks by the use of steam dredging-machines; and strict rules, enforced by a vigilant police force, are established to maintain good order, and prevent fire and depredation.

The docks are all constructed on property belonging to the "Mersey Docks and Harbour Board," in whom is vested the dock estate, which is managed solely for the

THE RIVERS MERSEY AND DEE
ADJACENT COUNTRY, &c.

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benefit of the public. To secure this result, the Board consists of 28 members, of whom 24 are chosen by parties who pay at least 10*l.* each a year dock dues, and who must themselves pay 25*l.* each of said dues. The other 4 members are nominated by the Conservators of the Mersey, that is, by the First Lord of the Admiralty, the Chancellor of the Duchy of Lancaster, and the Chief Commissioner of Woods and Forests for the time being. There were in 1858, 1451 dock-rate payers on the register; and they only have a voice in the administration of the dock affairs. (*Baines' Liverpool in* 1859, p. 79.) Whenever there is any considerable surplus revenue, after providing for current expenses and the interest of money borrowed, it is applied to the reduction of the dock rates. The bonding and other warehouses do not, however, generally belong to the dock estate, but are, for the most part, private property. Most of them are in the immediate vicinity of the docks, but some are at a considerable distance; and there is not in this respect the same accommodation, or, in some cases, the same security against fire and depredation, in the Liverpool as in the London docks, where the warehouses being built along the dock-quays, goods are loaded and unloaded with the greatest possible facility, and are subsequently under efficient protection. But in this respect there has latterly been a great improvement. For the numerous and destructive fires which formerly took place in private warehouses have led to the adoption of certain stringent rules for their management, which have proved so effectual that no fire of any consequence has occurred for several years, and that the premium of insurance on goods lodged in warehouses conducted according to the established regulations has been reduced from 35*s.* per cent. per annum, to 4*s.* per cent. on certified warehouses under private management, and to 3*s.* 6*d.* per cent. on dock warehouses.

And in addition to those belonging to private parties, warehouses belonging to the dock trust, on the London plan, have been built round the quays of the Albert Dock, Stanley Dock, New Wapping Dock, &c. All the dock quays have open sheds for the temporary deposit of goods alongside the ships, some of which are really magnificent structures. And besides these, there are, also, upon some of the dock quays, as in the Prince's Dock, Nelson Dock, &c., what are termed transit sheds, of one story, substantially built, and perfectly secured, into which ships can be discharged with unusual rapidity; the goods being removed to the proper warehouses at convenience.

Loading and Unloading of Ships.—In London this is effected by the servants of the different dock companies, whereas in Liverpool, except where the London system is introduced, it is effected by other parties under a plan introduced by the 9 & 10 Vict. c. 109., which has been found to answer entremely well. The owner of the ship, or the master in his behalf, unloads the cargo. And as the labour to accomplish this object depends on a variety of circumstances, such as the nature of the cargo, the magnitude of the ship, her proximity to the quay, &c., the charge is regulated accordingly. The practice is for the shipowner or master to make a special agreement with a master porter, or lumper (as he is commonly called) to execute the work. There are, however, in certain trades certain standard rates to which the terms in agreements usually approach. Thus, a Calcutta general cargo of 750 tons would be discharged for about 20*l.*; a tea cargo from China, of similar extent, for 16*l.* to 18*l.*; cotton (from U. States), 12*s.* per 100 bales; guano 6*d.* per ton, &c. &c. After the goods are delivered from the ship it is the duty of the principal consignee of the cargo, or if he decline, the second and so on, and failing them, of the shipowner, to receive them on the quay, and to dispose of them in the warehouse or otherwise as may be necessary. The work so undertaken is paid for according to a fixed and moderate tariff.

Charges at the Port of Liverpool, inwards and outwards, on a Ship of 500 Tons Register.

From the United States, and Westward generally.	£	s.	d.
Inwards.			
Pilotage, 17 ft. at 9*s.*	7	15	0
Row boat hire in the river, and warping into dock	1	5	0
Lights, 6¾*d.* per ton	11	19	7
Dock dues, 1*s.* 4¾*d.* per ton	34	7	6
Discharging cargo, if a mixed, or general one, about (according to agreement)	20	0	0
	75	5	1
Outwards.			
Loading cargo, supposing ship to carry 750 tons (rates from 11*d.* and 1*s.* per ton), say at 1*s.* per ton	37	10	0
Lights, 6¾*d.* per ton	11	19	7
Pilotage, 17 ft. at 4*s.*	3	8	0
Clearance	1	1	0
	53	18	7

From India, and Eastward generally.	£	s.	d.
Inwards.			
Pilotage, 17 ft. at 9*s.*	7	13	0
Row boat hire in the river, and warping into dock	1	5	0
Lights, 6¾*d.* per ton	13	0	5
Dock dues, 1*s.* 4¾*d.* per ton	34	7	6
Discharging cargo	20	0	0
	76	5	11
Outwards.			
Loading cargo, supposing ship to carry 750 tons, at say 1*s.* per ton	37	10	0
Lights, 6¾*d.* per ton	13	0	5
Pilotage, 17 ft. at 4*s.*	3	8	0
Clearance	1	1	0
	54	19	5

N.B. If steam is employed in docking, the charge is 2*l.* Steam tug hire outwards to sea (optional) 14*l.* 14*s.* There is no extra charge for dock dues until after *four* months from the ship's arrival. Thereafter the charge is 2*d.* per ton per month.

Ballast.—The descriptions of ballast most commonly in use, and adopted respectively, according to the nature of the cargo, are.

Stone ballast, costing generally about 2*s.* 6*d.* per ton
Copper dross " " 5*s.* 6*d.* "
Iron kentledge " at present 3*l.* and 3*l.* 5*s.* p. ton,
} laid down at the ship's side,

but fluctuating, of course, with the price of iron; and the charge for loading (including trimming in the ship's hold), and also for landing, is about 8*d.* per ton, each way; in, and from, "ordinary ships in a proper berth."

When a ship comes to port in ballast, she gets comparatively little for either stone ballast or copper dross. Indeed when the supply of the former is plentiful, which it frequently is from so many cotton ships frequenting the port, the dealers will hardly take it away for nothing.

Vessels discharging in the Albert, Stanley, or New Wapping Docks, are supplied by the Dock Trustees with the *temporary* use of iron kentledge, on the following terms; viz.—

For the first 2 weeks, including shipping and receiving back, 1*s.* per ton.
And for every week thereafter, 2*d.* additional.
Any *deficiency* to be paid for at the rate of 5*l.* per ton.

There is commonly so ample a supply of dry stone ballast here, that *sand* ballast is *hardly ever* used, except by coasters, who load and unload it themselves.

Birkenhead. — Vast as is the accommodation afforded by the docks of Liverpool, it has been greatly increased by the works undertaken at Birkenhead. The latter is situated in the co. Chester, on the West side of the Mersey, directly opposite to and about 1,200 yards distant from Liverpool, of which it should be regarded as a suburb, or as forming an integral and important portion. Its population, which amounted in 1841 to 8,233, had increased in 1851 to 24,285. This increase appears to have taken place partly in consequence of the docks and other works commenced there, and partly in anticipation of their progress. And it is not to be denied that from the contiguity of Birkenhead to Liverpool, and from the nature of the soil, it offered many advantages for the construction of docks. Wallasey Pool, a creek or inlet of the sea, extending over about 130 acres, has been formed into 2 gigantic wet docks or floats — one containing above 52 and the other above 59 acres, with various subsidiary docks and basins, embracing, in all, a water area of above 121 acres, with a quay space, which may hereafter be made available, extending to between 5 and 6 miles. Here, also, warehouses, with their appurtenances, planned on approved principles, and calculated to afford every facility for the loading and unloading of ships, the safe stowage of their cargoes, &c. have been in part constructed. The accompanying plan gives a good idea of the extent and character of these works. They appear, however, to have been set about without due consideration; and it is doubtful whether they will ever be completed on their original plan. The accommodation on the Liverpool side of the river might have been made adequate for the shipping frequenting the port, which is naturally drawn to it from its being the great seat of business. It is almost needless to add that the parties by whom the works at Birkenhead were undertaken were heavy losers by the speculation. The works were for some years at a stand-still; and they were not brought into their present state till after they had been purchased by the Liverpool corporation and included in the Dock trust.

Commerce.—Though extraordinary, the rise of Liverpool has not, perhaps, been quite so rapid as has been represented. In the reign of Henry VIII., she is noticed by Leland as a place to which merchants resorted because of her moderate customs, and as being a great mart for Irish yarn. At a later period she is described by Camden, as being "the most convenient and frequented passage to Ireland;" and "more celebrated for her beauty and populousness than for her antiquity."—(*Gough's Camden*, iii. 376. ed. 1806.) She was once joined for fiscal purposes with Chester, but she had more trade than the latter, and could not have been correctly described as "the little creek of Liverpool." In 1709, she had about 8,000 inhabitants, and 84 ships, of the burden of 5,789 tons; and in that year, as already seen, she applied for and obtained an Act for the construction of a wet dock. Since then her progress in commerce, and in the accumulation of wealth and population, has been quite extraordinary. It is not, however, difficult to discover the causes of the all but apparently miraculous progress of Liverpool. Much must be ascribed to the enterprise, sagacity, and persevering industry of her merchants; but she is, no doubt, mainly indebted for her rise and the vast magnitude of her commerce to her fortunate position, and, above all, to the increase of manufactures in Manchester and other towns in the contiguous district of Lancashire and W. Yorkshire.

The situation of Liverpool necessarily renders her a principal seat of the trade between Great Britain and Ireland; and as the population and trade of the latter increased, it could not fail proportionally to increase the trade of this port. The gradual filling up of the Dee, and the consequent decline of Chester as a harbour, has also proved of no little advantage to Liverpool, by rendering her the great mart for the salt of Nantwich, and other places in Cheshire, the exportation of which to foreign parts employs a great amount of shipping. Unquestionably, however, Liverpool would never have attained to half her present size or importance, but for the cotton manufacture. But being the port through which Manchester, Oldham, Bury, Bolton, Ashton, and other great seats of manufacture, could most conveniently obtain supplies of the raw material, and export their manufactured products, she has increased with every increase in this great department of industry; and it is no exaggeration to affirm, that the creative influence of the wonderful inventions and discoveries of Hargreaves, Arkwright, Crompton, Cartwright, and the other founders and improvers of the cotton manufacture, has been, though not so direct, quite as powerful in the docks and warehouses of Liverpool as in the mills of Manchester. She, also, exports large quantities of iron from the mining districts of Staffordshire and Wales, of earthenware from the Potteries, and of coal from the adjoining coal districts.

Four-fifths of the trade between the U K. and the U. States centres in Liverpool;

and she has a large share of the trade with South America and the West Indies. She also carries on a considerable trade with the East Indies and China, though in this department she is surpassed by London. Indeed the ships and products of Liverpool are to be found in every port, in every part of the world accessible to merchantmen.

In her earlier days, Liverpool took an active part in privateering, and was also largely connected with the slave trade from the Bight of Biafra. But the estimate formed of that trade previously to 1807 was very different from what it is now; and Liverpool has made the best reparation possible for the part she took in it; for she established in its stead, and has followed up, with zeal and perseverance, the trade in palm-oil, till it has become of the first importance. In proof of this statement it is enough to say that in 1858 no fewer than 42,740 tons palm oil, worth about 1,700,000*l.*, were imported from the W. coast of Africa into the U. Kingdom; and that of these 30,150 tons were imported into Liverpool, 26,060 being supplied by the countries round the Bight of Biafra! We are glad to have an opportunity of mentioning a circumstance of this sort, not so much because of the credit which it reflects on the enterprising merchants by whom the trade has been established, as because it will, if anything can, introduce civilisation among the blacks, and impress them with a just sense of the advantages of industry and commerce.

Account of the Entries and Tonnage of Ships in the Liverpool Docks, and of the Amount of Dock Dues in each Year since 1810.

Years.	No. of Vessels.	Tonnage.	Dock Dues. £ s. d.	Years.	No. of Vessels.	Tonnage.	Dock Dues. £ s. d.
1810	6,729	734,391	65,782 1 0	1835	13,941	1,786,426	198,637 18 9
1811	5,616	611,190	54,752 18 5	1836	14,939	1,947,613	221,994 10 9
1812	4,599	446,788	44,103 7 11	1837	15,038	1,938,984	173,853 10 1
1813	5,341	547,426	50,177 13 2	1838	14,820	2,026,206	146,290 5 11
1814	5,706	548,957	59,741 2 4	1839	15,445	2,158,691	156,555 1 6
1815	6,440	709,819	76,915 8 8	1840	15,998	2,445,708	178,196 14 0
1816	6,888	754,243	92,646 10 9	1841	16,108	2,425,461	175,506 8 5
1817	6,079	653,425	75,889 16 4	1842	16,458	2,425,319	177,251 15 5
1818	6,779	754,690	98,538 8 3	1843	16,606	2,445,278	188,286 2 1
1819	7,849	867,318	110,197 1 8	1844	18,411	2,652,712	185,164 1 11
1820	7,276	805,033	94,412 11 10	1845	20,521	3,016,531	223,247 4 5
1821	7,810	859,848	94,556 9 1	1846	19,951	3,096,444	213,423 16 2
1822	8,156	892,902	102,405 17 4	1847	20,889	3,551,539	244,455 14 7
1823	8,916	1,010,819	115,785 1 6	1848*	20,311	3,284,963	197,617 16 10
1824	10,001	1,180,914	130,911 11 6	1849	20,733	3,639,146	224,224 19 0
1825	10,857	1,223,820	128,691 19 8	1850†	20,457	3,536,337	211,743 7 7
1826	9,601	1,228,318	131,000 19 0	1851	21,071	3,757,666	235,527 6 2
1827	9,592	1,225,313	131,472 14 3	1852	21,473	3,912,506	246,686 5 8
1828	10,703	1,311,111	141,369 15 7	1853	20,490	3,889,981	256,702 5 7
1829	11,383	1,387,957	147,327 4 11	1854	22,030	4,316,583	298,078 8 8
1830	11,214	1,411,964	151,359 15 4	1855	20,024	4,096,160	261,661 12 4
1831	12,537	1,592,436	183,455 4 3	1856	20,836	4,320,618	326,801 7 10
1832	12,928	1,540,057	170,087 6 11	1857	22,032	4,645,562	374,295 8 0
1833	12,964	1,590,461	182,980 16 4	1858	21,352	4,441,943	347,899 10 8
1834	13,144	1,692,870	191,729 17 8				

* Dues reduced on cotton and various other articles to the extent of 40,000*l.* per annum.
† The chief cause of the falling off this year is the short supply of cotton, about 750,000 bales.
N.B.—The calculated reduction of the Dock Rates, which took place on the 25th of September, 1836, was about 38½ per cent. They were then entirely taken off arriving coastwise or from Ireland.
1st December, 1844.—A reduction of 33 per cent. was made in the Tonnage Dues on East India Voyages, of 18 per cent. on the aggregate Foreign Dues.
A reduction in the Dock Dues, amounting to 40,000*l.*, was made in 1848.

It is extremely difficult, or rather, we should say, quite impossible to form any correct estimate of the total amount of the trade of Liverpool. In 1857 the real or declared value of the produce and manufactures of the U. Kingdom exported from the port to foreign parts amounted to 55,173,756*l.*, as seen in the following statement.

Account of the Quantities and Values of the Principal Articles of British and Irish Produce exported from Liverpool in 1857, with the total Value of the Exports, and the Amount of Customs' Duty collected at the Port in the same Year.

Principal Articles.	Quantities.	Values. £	Principal Articles.	Quantities.	Values. £
Apparel and slops		481,919	*Metals—continued*		
Beer and ale - barrels	65,927	250,856	Steel, unwrought - tons	13,732	469,508
Butter - - cwts.	73,546	366,931	Copper, unwrought - cwts.	35,519	198,844
Candles, stearine - - lbs.	881,026	44,053	,, part wrought, and wrought - —	149,274	948,135
Cheese - - - cwts.	11,923	47,203	Lead—ore, pig, rolled, sheet, and shot - - tons	5,136	129,831
Coals, cinders, and culm - tons	615,794	302,761	Tin—unwrought and in plates - - - cwts.	13,717	1,298,951
Cotton manufactures:			Oil, seed - - gallons	285,035	48,227
Calicoes, cambrics, and muslins; fustians and mixed stuffs - yards	1,453,265,692	20,455,190	Painters' colours - -		84,303
All other kinds - -		887,891	Salt - - - tons	577,735	285,536
Cotton yarn - - - lbs.	52,077,443	2,049,442	Silk manufactures - - -		856,613
Earthenware and porcelain - -		1,052,590	,, thrown, twist, and yarn lbs.	28,504	23,500
Fish, herrings - barrels	3,755	4,115	Soap and soda - - cwts.	802,158	489,581
Glass of all kinds - -		191,631	Spirits - - - gallons	417,766	70,203
Haberdashery and millinery -		2,126,715	Stationery - - -		154,514
Hardware and cutlery - cwts.	503,713	2,542,576	Sugar (British refined) - cwts.	2,081	5,803
Leather: tanned, unwrought —	11,968	80,020	Wool, sheep and lambs' - lbs.	1,354,401	56,457
,, wrought - - lbs.	3,024,081	574,446	Woollen and worsted manufactures:		
Saddlery and harness - -		118,503	Woollens, worsteds, and mixed stuffs { pieces / yards	1,929,711 / 52,503,085	6,319,870
Linen manufactures:			All other kinds - - -		365,879
Cloths of all kinds, and cambrics - - yards	91,344,031	2,840,991	Woollen and worsted yarn, including yarn mixed with other materials - lbs.	397,082	49,703
All other kinds - -		183,626	All other articles - - -		2,881,430
Linen yarn - - lbs.	7,020,291	366,868			
Machinery: steam engines and other sorts - - -		1,096,757	Total - - -		55,173,756
Metals:			Customs duty in same year		3,621,109
Iron—pig, bar, wire, and cast - tons	275,060	2,576,095			
,, wrought of all kinds	132,541	1,861,008			

Liverpool is the greatest port, not in the U. Kingdom only, but in the world, for the shipment of emigrants. We subjoin a

Return showing the Number and Destination of the Emigrants from Liverpool in 1856, 1857, and 1858.

Countries for which Emigrants sailed.	1856.	1857.	1858.
United States	96,666	106,867	51,721
Central and South America	237	199	2 8
North American colonies	7,805	9,855	5,078
East Indies, Cape of Good Hope, &c.	88	89	2,221
Australian colonies	22,709	38,596	22,013
West Indian colonies	53	41	35
Total	127,558	155,647	81,326

Statement of Imports and Stocks of certain Articles of Foreign Produce at Liverpool, for the Years 1857 and 1858.

Articles.	Packages and Quantities.	Imports.		Stocks. 31st December.	
		1857.	1858.	1857.	1858.
Ashes, American	barrels	14,600	17,900	2,200	Pot. 5,926
				1,280	Prl. 1,520
Brimstone	tons	12,200	17,150	985	3,520
Cassia lignea	cases	2,000	2,115	none.	1,500
Cocoa	brls. and bags	7,160	7,170	500	1,000
Curch	bags, &c.	2,000	4,400	-	300
Dyewoods: Fustic	tons	26,700	18,000	6,750	4,455
Fustic	ditto	8,400	6,900	2,000	600
Lima and Nic. wood	ditto	5,300	3,100	1,700	1,000
Gambier	bales	56,565	32,328	- -	12,000
Ginger: East India	bags and pkts.	4,150	1,180	2,000	3,000
African	ditto	3,901	3,175		
Gum, Arabic	cases	9,600	5,460	2,500	2,700
Hemp: Manilla	bales	11,870	25,115	- -	10,500
Bombay	ditto	12,000	8,150	-	1,150
Indigo, East India	chests	1,600	910	150	300
Jute	bales	159,100	117,650	40,000	20,000
Lac dye	chests	650	285	620	400
Shell	ditto, &c.	1,700	1,235	600	450
Lard	tons	7,400	4,130	1,100	1,000
Madder roots	bales, &c.	32,400	34,100	5,750	3,500
Nitrate of soda	bags	138,400	166,700	49,000	49,000
Olive oil	tuns	7,900	9,865	1,700	1,865
Palm oil	tons	30,050	26,270	3,170	3,920
Pepper	bags and pkts	9,360	21,145	5,400	10,000
Pimento	bags	4,270	3,950	4,500	4,000
Pearl sago	cases	14,000	20,560	- -	13,000
Sago flower	bags	57,000	75,680	- -	30,000
Saltpetre	bags	82,500	71,150	10,600	3,100
Sumac	ditto	98,900	83,550	29,000	10,600
Tar	barrels	65,400	11,300	16,500	7,000
Tallow, European	casks	10,360	12,980	1,500	5,250
Other sorts	casks, &c.	16,900	11,500	800	1,200
Tincal borax	boxes, &c.	3,490	550	2,100	500
Tobacco	hhds.	12,000	19,200	9,550	15,389
Turmeric	bags	10,500	4,850	- -	2,850
Turpentine	barrels	15,300	16,900	none.	3,000
Hair (horse)	bales	823	1,000	123	78
,,	bags	317	800	25	325
Hides—ox and cow:					
River Plate, Rio Grande (wet salted)		275,914	209,664	70,859	44,814
Valparaiso, &c. (dried)		5,617	31,516	8,680	550
Brazil, N. America, W. Indies		111,577	71,540	30,750	20,673
New South Wales		81,112	9,176	39,422	none.
Kips, East India		300,150	265,000	85,000	58,000
Horse hides		111,657	87,188	69,182	38,567
Wool	bales	188,847	148,883	cannot be correctly ascertained.	

For accounts of cotton, sugar, molasses, coffee, rum, rice, tea, &c., see the Tables following.

Liverpool is become a great corn market. She is particularly well situated for carrying on the trade with the U. States and British N. America, as well as that with Ireland. The imports of corn, &c., into Liverpool during each of the 3 Years ending with 1858 were:—

	Wheat.	Barley.	Malt.	Oats.	Beans.	Pease.	In. Corn.	Oatmeal.	Flour.	
	qrs.	*qrs.*	*qrs.*	*qrs.*	*qrs.*	*qrs.*	*qrs.*	*loads.*	*sacks.*	*brls.*
1856	1,381,652	33,341	21,520	199,620	96,691	96,076	906,823	254,999	232,268	1,255,697
1857	778,083	65,677	27,302	198,912	85,899	22,723	499,559	250,988	137,087	586,961
1858	974,691	65,002	32,385	217,561	131,559	27,025	585,713	709,278	238,959	850,907

Salt.—The importance of the trade in salt, as a means of providing freight for the vessels which leave Liverpool, is obvious from the following statement.

Exports of Salt from Liverpool in 1858.

	Tons.
To the United States	222,857
British North America	82,482
West Indies and South America	6,466
Africa	15,503
East Indies	69,540
Australia	7,430
Prussia	28,197
Russia	41,751
Other Baltic ports	5,533
North seaports	12,859
France	199
Carried forward	490,580

			Tons.
Brought forward			490,580
Coastwise. To England		31,011	
Scotland		34,301	
Ireland		14,606	
			79 918
Total in 1858			570,498
,, 1857			594,442
,, 1856			745,705
,, 1855			592,624
,, 1854			446,247
Average of 5 years			589,905
Rock salt exported to Holland and Belgium in 1858			43,973
Average of 5 years, 1854 to 1858			45,810

The imports of Wool into Liverpool, from 1851 to 1858 inclusive, have been as follows, viz.: —

	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
	bales.	*bales.*	*bales.*	*bales.*	*bales.*	*bales.*	*bales.*	*bales.*
Foreign - - -	75,695	72,275	107,764	80,844	111,253	137,756	178,185	138,850
Scotland - - -	10,254	10,150	8,429	5,384	6,548	5,605	6,669	5,220
Ireland - - -	4,691	3,997	3,833	2,360	1,389	3,141	2,662	2,210
Coastwise - - -	1,889	1,934	883	489	980	993	1,331	2,603
	92,529	88,356	120,909	89,577	120,370	147,495	188,847	148,883

The timber trade of Liverpool is, also, very extensive. The Brunswick Dock is almost entirely devoted to the timber trade; and in 1858 it was entered by 200,663 tons shipping.

Statement of Imports, Deliveries for Home Use, Coastwise (in Bond), and for Export, at Liverpool, of the following Articles, in 1856, 1857, and 1858.

	Sugar.			Molasses.		Coffee.		Rum.		Rice.	Tea.
	B. P. W. India.	Bengal.	Total of the foregoing and all sorts.	British Plan.	Foreign.	B. P. W. I. and Ceylon.	Foreign.	British Plan. Puns.	Foreign Puns.	Tons.	Lbs.
Imported in 1856 - - - tons	17,840	18,555	76,000	3,330	11,100	1,045	2,165	11,655	1,320	68,465	15,070,710
1857 - - - —	17,668	15,765	87,370	4,550	13,080	1,850	1,900	11,130	800	78,500	9,967,394
1858 - - - —	20,320	13,360	89,100	7,750	10,050	1,415	1,185	12,450	300	88,000	7,341,072
Home use in 1856 - - - —	20,657	10,362	67,014	3,650	10,780	900	730	7,240	- -	35,500	6,564,500
1857 - - - —	15,027	11,480	66,555	3,035	10,920	1,325	500	7,200	- -	39,940	6,377,600
1858 - - - —	20,550	11,175	75,440	8,100	10,100	1,350	340	7,400	- -	54,700	6,666,295
Coastwise in 1856 (in Bond) - - —	1,795	2,708	6,494	10	95	135	375	2,085	- -	- -	4,698,440
1857 - - - —	1,491	3,736	10,075	200	85	255	200	1,330	- -	- -	3,435,300
1858 - - - —	1,810	2,575	9,125	130	400	190	150	1,600	- -	- -	2,931,554
Export in 1856 - - - —	7	2,396	1,608	10	- -	20	1,310	6,950		16,925	1,185,800
1857 - - - —	- -	857	1,608	-	- -	120	600	3,500		21,110	1,761 900
1858 - - - —	50	180	1,005	- -	- -	130	1,480	2,500		28,900	1,117,785
Stock - 1856 (in Bond) 31st Dec. —	1,190	6,157	13,583	1,435		1,000		3,600		32,540	9,805,259
1857 - - - —	4,400	5,850	22,900	4,530		1,750		5,500		50,000	8,204,657
1858 - - - —	2,310	5,280	26,430	3,600		820		4,750		58,000	4,912,850

The vast preponderance of Liverpool in the cotton trade is obvious from the following statement taken from the comprehensive and valuable table published by Messrs. Geo. Holt and Co., cotton brokers.

Account of the Quantities (in Packages) of the different Species of Cotton Wool imported into Great Britain from 1848 to 1858, both inclusive; specifying the whole Quantity imported into Liverpool.

Descriptions of Cotton.	1848.	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
	Packages.	*Packages.*	*Packages.*	*Packages.*	*Packages.*	*Packages.*	*Packages.*	*Packages.*	*Packages.*	*Packages.*	*Packages.*
American -	1,375,400	1,477,700	1,184,200	1,393,700	1,789,100	1,532,000	1,665,300	1,625,600	1,758,300	1,482,000	1,863,300
Brazil - -	100,200	163,800	171,800	108,700	144,200	152,400	106,900	134,700	121,600	168,900	106,200
Egyptian - -	29,000	72,600	79,700	67,400	189,900	105,400	81,100	114,800	115,000	75,900	105,600
East India -	227,500	182,200	307,900	328,800	221,500	485,500	308,300	396,100	463,000	680,500	361,000
W. India, &c. -	7,900	9,100	5,700	4,900	12,600	9,100	10,400	8,900	11,400	11,300	6,500
Total imports into Great Britain	1,740,000	1,905,400	1,749,300	1,903,500	2,357,300	2,264,200	2,172,500	2,278,100	2,468,200	2,418,600	2,442,600
Total imports into Liverpool	1,568,000	1,732,700	1,573,100	1,748,946	2,205,700	2,028,400	2,065,700	2,142,700	2,308,700	2,250,500	2,334,500

The mercantile marine of Liverpool is inferior only to that of New York. There belonged to the port on the 31st of December, 1857, 2,393 ships, of which 2,136 were sailing vessels of the aggregate burden of 874,235 tons, manned by about 25,000 seamen, and 203 steamers of the aggregate burden of 61,838 tons. On the 31st of December, 1858, the agg. burden of the shipping of Liverpool had increased to 953,955 tons.

The gross customs revenue of Liverpool amounted in 1857 to 3,626,409*l.*, while that of London, in the same year, amounted to 11,465,988*l.* But it would be an unpardonable error to suppose that the trade of the metropolis exceeded that of Liverpool in this proportion. Cotton wool, and other raw materials for manufactures, on which no duty is paid, form the principal part of the foreign imports of Liverpool; whereas London imports comparatively few of these articles, her trade being principally in articles of direct consumption, as sugar, tea, coffee, wines, &c., on which high duties are paid. This circumstance accounts for the comparatively large amount of the customs revenue received in the latter. There cannot, indeed, be any doubt that the foreign trade of Liverpool is now considerably greater than that of London. Her exports, as already seen, amounted in 1857 to 55,173,756*l.*, whereas the exports from London during the same year amounted to only 42,824,879*l.*

Lines of Packets. — Few things have conduced more to the progress of the trade of Liverpool, and we may add, of the empire, than the establishment of a regular communication, by means of packet ships, between this great emporium and other British and foreign ports. These sail to almost all parts of the world. There are no fewer than three great lines of steam packets which maintain a regular intercourse with New York, Boston, Philadelphia, and other parts in the United States, and with Halifax in Nova Scotia, and Quebec. The rates of passage in the steamers vary, of course, according to the accommodation required; but in general they may be taken at from 21*l.* or 22*l.* to 26*l.* for the 1st, and at 16*l.* or 18*l.* for the 2nd, cabin to New York direct. The charge to Halifax is a little less. Steerage passengers in steamers to New York pay from 7*l.* 7*s.* to 8*l.* 8*s.*; and goods carried by them pay about 3*l.* 3*s.* per ton measurement. It is not too much to say, that these lines comprise the finest mercantile steam fleet in the world, and perform their voyages with surprising regularity.

But notwithstanding the numbers and the magnitude of the steam-ships employed in the American trade, its increase has been such that it continues to afford employment to numerous extensive lines of sailing packets. The ships of some of these lines sail regularly twice a week, or oftener if required,

for New York; and those of others sail at stated periods for Baltimore, Philadelphia, and New Orleans. These, which are first-class ships varying from 800 to 1600 tons burden, are all American built and owned. They are mostly resorted to by steerage passengers, who are carried to New York for from 3*l.* to 4*l.* But they are, also, not unfrequently preferred to the steam packets by the highest class of passengers. The cost of a cabin passage to New York by the best sailing packets varies from 18*l.* to 20*l.* or 21*l.*

N. B.—It may be stated generally, that for first cabin passengers everything is furnished, excepting wines, spirits, and malt liquors, which, however, may be had on board. This is also commonly the case with second cabin passengers.

For intermediate and steerage passengers, the ship provides provisions, &c. according to a given scale, not necessarily that indicated by the Passengers' Act, but varying according to circumstances, and forming part of the bargain for the passage. What is lacking the passengers must supply themselves; and they have also to find their own beds and bedding.

Exclusive of the North American lines, there are lines of steam-packets to South America, Australia, and other remote parts; and to the Baltic, Hamburgh, Rotterdam, Antwerp, Havre, and Bordeaux; to Oporto, Lisbon, and Cadiz; the east and south coasts of Spain and France, and the shores of Italy, and generally of the Mediterranean; touching at the Piræus, Constantinople, Syra, Smyrna, Alexandria, &c. And in addition to the regular traders, all descriptions of vessels, some of them of very large size, are constantly arriving at and leaving the port from and for all parts, whether near or remote. The trade with America, however, greatly exceeds that with any other quarter; and next to the British the flag of the United States is by far the most prevalent on the Mersey, and in the docks of Liverpool.

It may almost be said that the channel is bridged over by lines of steam-packets from Liverpool to Londonderry, Belfast, Dublin, Waterford, Cork, and other Irish ports; while other lines maintain a constant intercourse with the Clyde, Bristol, London, &c. And in addition to the steamers the channel trade affords employment to an immense number of the smaller class of sailing vessels.

Account of the Number and Tonnage of British and Foreign Ships that cleared out with Cargoes and in Ballast from the Port of Liverpool in 1857, specifying the Countries for which they sailed, and the Number for each.

Countries for which Departed.	British.						Foreign.					
	With Cargoes.		In Ballast.		Total.		With Cargoes.		In Ballast.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Foreign:—												
Russia	113	22,171	2	393	115	22,564	171	25,882	3	662	174	26,544
Sweden	-	-	-	-	-	-	4	1,439	1	392	5	1,831
Norway	8	1,134	-	-	8	1,134	22	3,068	5	1,839	27	4,907
Denmark	3	340	-	-	3	340	94	12,758	1	700	95	13,458
Prussia	28	4,142	-	-	28	4,142	99	25,469	-	-	99	25,469
Germany	28	9,330	1	215	29	9,545	51	4,980	4	937	55	5,917
Holland	158	32,264	-	-	158	32,264	17	2,401	-	-	17	2,401
Java	2	940	-	-	2	940	14	7,970	-	-	14	7,970
Belgium	7	831	-	-	7	831	110	19,287	-	-	110	19,287
France	203	48,494	4	3,256	207	51,750	33	5,216	1	180	34	5,396
Portugal, Azores, and Madeira	96	24,740	22	2,166	118	26,906	24	3,180	-	-	24	3,180
Cape Verd Islands	2	1,647	-	-	2	1,647						
Spain and Canaries	97	14,440	5	1,633	102	16,073	73	24,504	2	2,578	75	27,082
Philippine Islands	3	1,156	-	-	3	1,156	11	4,976	-	-	11	4,976
Fernando Po	5	1,126	1	70	6	1,196						
Italian States	161	67,088	-	-	161	67,088	89	20,995	-	-	89	20,995
Greece	2	352	-	-	2	352						
Turkey	64	30,112	-	-	64	30,112	17	4,010	1	186	18	4,196
Wallachia and Moldavia	14	2,293	-	-	14	2,293						
Syria	6	2,504	-	-	6	2,504						
Egypt	27	16,240	2	2,059	29	18,299	6	2,016	-	-	6	2,016
Tunis	3	653	-	-	3	653						
Morocco	1	147	-	-	1	147						
United States	207	200,528	4	3,366	211	203,894	618	713,384	13	11,316	631	724,700
Cuba and For. W. Indies	55	14,296	3	1,163	58	15,459	145	38,567	2	1,008	147	39,575
Central & Southern America	483	148,078	5	4,984	488	153,062	104	34,585	5	6,096	109	40,681
China (ex. Hong Kong)	15	10,741	1	1,019	16	11,760	1	1,064	-	-	1	1,061
Birman empire	1	388	-	-	1	388						
Sandwich Islands	2	782	-	-	2	782	4	1,165	-	-	4	1,165
W. Coast of Africa, foreign possessions	70	31,750	-	-	70	31,750	16	2,986	-	-	16	2,986
Ports on the Red Sea	2	1,351	-	-	2	1,351						
Arabia	1	612	1	71	2	683						
Persia	1	346	-	-	1	346						
	1,868	690,999	51	20,395	1,919	711,392	1,703	969,902	38	25,894	1,741	995,796
British possessions:—												
Channel Islands	31	2,581	1	137	32	2,718						
Gibraltar and Malta	97	32,062	5	5,014	102	37,076	13	4,719	-	-	13	4,719
Ionian Islands	11	4,037	-	-	11	4,037	3	1,481	-	-	3	1,481
Possessions in Africa	51	21,216	3	1,514	54	22,750	2	877	1	175	3	1,052
E. Indies, Hong Kong, and Australian colonies	412	372,169	11	10,856	423	383,025	94	98,151	-	-	94	98,151
Aden	25	19,937	-	-	25	19,937	2	1,564	-	-	2	1,564
N. American colonies	401	174,896	36	27,487	437	202,383	14	9,547	3	1,236	17	10,783
West Indies	117	35,113	3	1,029	120	36,142	7	2,966	-	-	7	2,966
	1,145	662,011	59	46,037	1,204	708,048	135	19,305	4	1,411	139	120,716
Total	3,013	1,353,010	110	66,430	3,123	1,419,440	1,838	1,089,207	42	27,305	1,880	1,116,512

Arrivals and Clearances Coastwise of Sailing and Steam Vessels at the Port of Liverpool in 1857.

	Sailing Vessels.		Steam Vessels.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Arrivals	6,010	482,688	3,667	1,030,522	9,677	1,513,210
Clearances	6,878	467,330	3,631	1,017,476	10,509	1,484,806
Total	12,888	950,018	7,298	2,047,998	20,186	2,998,016

Of the above, about a half are supposed to be engaged in the Irish trade.

Dock Dues on Ships.—All Vessels entering inwards, or clearing outwards, at the port of Liverpool, pay for Dock Rates and Harbour Lights.

	Tonnage, per Ton.		Harbour Lights, per Ton.		Total.	
	s.	*d.*	*s.*	*d.*	*s.*	*d.*
Class 1.—Between St. David's Head and Carlisle, including the island of Anglesea	0	2½	0	0⅜	0	2⅞
Between Carlisle and the Mull of Galloway, including the Isle of Man	0	2½	0	0⅜	0	3⅛
Class 2.—Between the Mull of Galloway and Duncan's Bay Head, including the Orkney Isles, and all the islands on the western coast of Scotland, and between St. David's Head and the Land's End, including the Scilly Islands, and the east coast of Ireland, from Cape Clear to Malling Head	0	4½	0	0⅜	0	4⅞
Class 3.—All the parts of the east and southern coasts of Great Britain, between Duncan's Bay Head and the Land's End, including the islands of Shetland, and all parts of the west coast of Ireland, from Cape Clear to Malling Head, including the islands on that coast	0	5½	0	0⅜	0	6½
Class 4.—All parts of Europe to the northward of Cape Finisterre, and to the westward of the North Cape, and without the Cattegat and Baltic Sea, and including the islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland	0	10	0	1½	0	11½
Class 5.—All parts within the Cattegat and Baltic, including the whole of Sweden, the White Sea, and all parts to the eastward of the North Cape, all parts in Europe, to the southward of Cape Finisterre, without the Mediterranean, Newfoundland, Greenland, Davis' Straits, Canaries, Western Islands, Madeira, and Azores	1	1½	0	1½	1	2⅝
Class 6.—All parts on the east coast of North America, the West Indies, the east coast of South America, to the northward of the Rio la Plata inclusive; all parts of the west coast of Africa, and islands to the northward of the Cape of Good Hope, and all parts within the Mediterranean, including the Adriatic; the Black Sea, and Archipelago, the islands of St. Helena, Ascension, and the Cape de Verde islands	1	4½	0	1½	1	6
Class 7.—All parts in South America, to the southward of the Rio la Plata, the Pacific Ocean, in Africa and Asia, to the eastward of the Cape of Good Hope	1	4½	0	1½	1	6

All vessels arriving at or clearing from the said port are to pay the said rates from or for the most distant port or place from or for which they shall trade; but vessels arriving from any parts in ballast do not pay dockage on entering inwards; and should such vessels proceed to sea again in ballast then only one half of the Dock rates are due, with the whole of the lights; but taking a cargo outwards subjects such vessels to full Dock dues.

N.B.—New vessels built in Liverpool are subject only to half the above rates on the first outward clearance.

Floating Light at the Entrance of the River Mersey.—Towards this light, the following rates are payable:—

All vessels sailing to or from Liverpool, to any port or place between Duncan's Bay Head and the Land's End, on the west side of Great Britain, and between Malling Head and Cape Clear on the east side of Ireland, ¼*d.* per ton.

All vessels sailing to or from Liverpool to any port or place between Duncan's Bay Head and the Land's End, on the east and southern coast of Great Britain, and between Malling Head and Cape Clear on the west coast of Ireland, ½*d.* per ton.

All vessels sailing to or from Liverpool to any port or place not being within the United Kingdom of Great Britain and Ireland, or the adjacent islands to the northward of the Cape of Good Hope, and the northward of Cape Horn, ¼*d.* per ton.

All vessels sailing to and from Liverpool to any port or place to the eastward of the Cape of Good Hope and the westward of Cape Horn, 1*d.* per ton.

N.B. In the day time, from sunrise to sunset, a blue flag, with the letters N W. in white will be hoisted at the main-mast head, and in thick and foggy weather, either by night or day, a bell will be kept constantly ringing to prevent vessels from running foul of the light-vessel.

Dock Regulations. Extracts from Acts of Parliament.—Any owner or master, or any person having the command, agency, or consignment of any vessel chargeable with dock duties, refusing to pay the same, is liable to have such vessel or goods seized.

Any person throwing any ballast or rubbish from out of any vessel upon any of the quays, &c., shall immediately cart or carry away the same: penalty 40*s.*

Every ship shall, before she comes within any of the piers, take down all her sails: penalty 5*l.*

Any person having the charge of any vessel in any of the Docks, refusing to remove the same, after 24 hours' notice in writing, shall forfeit 20*l.*, and pay the expenses of removal by the water bailiff.

Any person having the command of any vessel moored in the river, refusing to remove the same, when ordered by the water bailiff, shall forfeit 20*l.*

The master or other person having the command of any vessel from which any cannon or gun shall be fired whilst in the port, shall forfeit 10*l.*

Any person making payment of dock duties, who refuses to answer such questions as shall be put to him by the collector, or give a false or untrue answer, shall forfeit 10*l.*

Any master, &c., evading payment of the duties, shall forfeit and pay double the duties evaded; and by 53 Geo. 3. a sum of 20*l.* in addition thereto.

Whenever it shall be necessary, for the purpose of cleaning or repairing the Docks, to remove the vessels lying therein, the master, mate, or other person taking the command of such vessel, shall, within 3 days after notice given, remove such ship from such dock, on pain of forfeiting 10*l.*

Any master, &c. refusing to moor and remove the same in docks, according to the direction of the dock-master, will forfeit 5*l.*, together with the costs of removal by the dock master.

Any master, &c. acting contrary to the direction of the dock-master, will forfeit 20*l.*

Any master, &c. entering and giving false information of the draught of water of any ship to any of the dock-masters, shall forfeit 20*l.*

Any master, &c. bringing the same into the entrance basins, when a signal is hoisted on the pier, at the entrance of such basin, signifying that such dock is full of vessels, will forfeit 20*l.*

Any master, &c. bringing his vessel into any of the docks, contrary to the directions of the dock-master, will forfeit 20*l.*

Every master, or other person, damaging any of the dock-gates, bridges, piers, quays, &c. is liable to have the ship seized, and sold to compensate for damage done.

Any person opening or shutting any of the dock gates, sluices, or clews, is liable to forfeit 100*l.*; or opening or shutting any drawbridge, 20*l.*

Any owner, &c. leaving gunpowder, pitch, tar, &c., or combustible matter of any *kind*, on the quays of the docks, &c., or upon the deck of any vessel lying in any of the docks, for above 48 hours after passing the Custom-house officers, is liable to a penalty of 5*s.* an hour; on neglecting to watch such goods in the night time, to a penalty of 5*l.*

Any master, or other person, having the command of any ship, suffering any fire, candles, or lamp to be lighted and burning, on board: penalty 10*l.*

N.B.—Certain docks frequented by coasters and foreign ships, the crews of which live on board, are exempted from the operation of this clause.

Any owner, &c. landing, or causing to be landed and laid, any pumps, boats, anchors, cables, limestones, &c., or other things whatsoever, upon any of the dock quays, shall within 48 hours wholly remove the same from off such quay, or shall forfeit 5*s.* per hour above the 48.

Any person wilfully cutting, damaging, or destroying any cables &c., by which any vessel in the river or in any of the docks shall be fastened: penalty 50*l.*

Any person damaging or breaking any lamp, &c. set up near the docks: penalty for each lamp, 5*l.*

Any master, or other person, having the command of any vessel about which any offence shall have been committed, in relation to any of the docks, &c., is liable to the penalty imposed for such offence.

Any owner or master of any ship or vessel giving or offering a bribe to any officer employed in pursuance of the dock acts: penalty 20*l.*

Any owner, consignee, or master of any vessel arriving and departing in ballast without payment of dock duties, is liable to a sum equal to double the amount of dock duty which should have been paid, and the master liable to the penalty of 20*l.* in addition.

Every master, &c. wilfully throwing, casting, or putting any earth, stones, rubbish, &c. out of any ship, &c. into any part of the port: penalty 50*l.*

Any owner, &c. of any vessel laid up for sale, or which shall not be actually employed for two months, not removing the same within 24 hours' notice in writing from the harbour-master, or left on board: penalty 5*l.*, and costs of removal.

Any person discharging timber in any dock without having obtained the consent in writing of the chairman or deputy

chairman of the dock committee, or of some justice of the peace: penalty 10*l.*

Any person having consent, not removing the same therefrom within 24 hours, liable to a fine of 5*s.* an hour.

Any person damaging any ship, &c. in any of the docks, &c. or in the river, and refusing to make compensation, liable to have his goods, or the tackle of the ship, &c. doing the damage, seized.

Any justice of the peace for the county of Chester or borough of Liverpool, upon complaint made to them, may summon persons to appear before him, and may fix the amount to be paid to boatmen, and persons finding and taking possession of anchors, &c. in any part of the port of Liverpool.

Any person throwing, casting, or emptying any ballast, ashes, &c. out of any ship, &c. into the river Mersey, the Rock or Horse Channel, or Formby Channel, to the eastward of the Floating Light, or from any of the piers into the docks or basins, or into the river Mersey: penalty 10*l.*

That every vessel laden with a cargo consisting solely of limestones, paving stones, flintstones, gravel, and chalk, shall be charged tonnage rates as if coming in ballast.

Every owner or master, &c. of any vessel arriving at or departing from the said port, shall produce to the collector, upon demand, at the time of making entry, all books, accounts, &c. in relation to such vessel, or which show the weights and quantities of the goods, &c. In case of dispute, such owner, &c. shall produce a statement in writing, to be verified by oath, and showing the actual weights and quantities of such goods, &c. or the accuracy of the said books, &c.

In case the master, &c. of any vessel from which rubbish, ballast, dirt, or other refuse of any kind shall be landed, shall permit or suffer the same to be so landed, or laid within 3 yards from the margin of any such dock or basin, or of the river Mersey, and shall not cause such rubbish, &c. to be wholly removed from off such quays, &c. within 24 hours after the same shall be so landed or laid: penalty 5*l.*

Any owner, &c. of any boat or vessel permitting gunpowder, exceeding 10 pounds in weight, to be brought into any of the docks or basins, or any vessel or boat lying therein, without the previous consent in writing of a justice of the peace of the borough of Liverpool: penalty 100*l.*

That upon due proof on oath, to the satisfaction of any justice of the peace of the borough of Liverpool, or county of Lancaster, that any dealer in marine stores, within the said borough, or Toxteth Park, shall have been guilty of receiving stolen goods, or purchasing or receiving, &c., every such person shall forfeit 20*l.* for the first offence, 50*l.* for the second offence; and after conviction for such second offence, shall not carry on business as such dealer in marine stores within 200 yards from the margin or side of any dock or basin (exclusive of 40 yards prohibited by a former act) on pain of forfeiting the sum of 10*l.* for every day, he, she, or they shall carry on such trade or business.

In case any person or persons giving or accepting any bribe to or from any water-bailiff, harbour-master, &c. give information thereof, he or they shall be excused from the penalty of 20*l.* imposed by the 51 Geo. 3. for such offence, provided such information be given before any proceeding for punishing the said offence shall have commenced, or any information laid before any justice of the peace against such person in respect of the same.

Justices of the peace may, upon complaint made, summon parties and ascertain and award the amount of recompence, for any services rendered by boatmen, &c. to vessels in the said docks or basins, and in case of non-payment, may levy the sum so awarded by distress.

PILOTAGE RULES AND REGULATIONS.

Any person acting as a pilot in the port of Liverpool, without a licence, to forfeit 20*l.*

Pilots refusing to conduct ships, or assist ships in distress, to forfeit 10*l.* and lose their licence.

No coasting vessel, inward or outward bound, of the burthen of 100 tons or upwards, (unless she be in ballast,) is to refuse a pilot, as the master or owner, &c., must pay the full pilotage, if one is offered. No vessel is deemed a coaster, unless she has been six months in that trade, or sailed from Liverpool on a coasting voyage.

Masters of vessels forcibly taking pilots beyond the limits of the port, shall pay a forfeit not exceeding 20*l.*, nor less than 5*l.*

Pilots misbehaving to have their licence recalled, and if they act afterwards, to be liable to the same penalties as if they were not pilots.

That the master or commander of any ship or vessel inward-bound to the port of Liverpool, which shall be liable to pay pilotage, shall, on coming within the pilots' stations, display and keep flying the usual signal for a pilot to come on board, and every master or commander who shall omit so to do, shall forfeit and pay any sum not exceeding 5*l.*

Masters of vessels inward or outward bound refusing to take the first pilot who offers, to be liable to full pilotage.

Reward for pilots assisting ships in distress to be settled by the pilot committee.

Compensation to be made to pilots for taking vessels out of port which have been forced back, to be fixed by the committee.

Every master to give the pilot a true account of the draught of his ship, and pilot authorised to admeasure.

No pilot to be allowed to lay a vessel aground, without a written order from the master or owner. Penalty 5*l.*

Every master sending a pilot to take charge of a vessel exceeding that for which he is licensed, excepting in cases of necessity, shall be fined in a sum not exceeding 5*l.*

Second-class pilots are limited to vessels not exceeding 500 tons, and 15 feet draught of water.

Third-class pilots, formerly 12 feet, are limited to pilot vessels not exceeding 200 tons old measurement, without a reference to the draught of water such vessel may draw.

In consequence of a practice now too prevalent, it appears that persons not licensed, but representing themselves as such, are in the habit of taking charge of vessels as pilots: it is earnestly recommended that masters of vessels demand of all persons so representing themselves as pilots to take charge of vessels, to produce their licence, which is only in force twelve months from the date of such licence.

When it blows so strong as to prevent the pilots boarding a vessel with their small boat, the vessel should be steered with the wind on the quarter, the yards braced by, when the large boat sheers under the lee quarter, and the pilot jumps on board.

Stations of the Pilot-boats.—The boat having the turn to board displays a red and white flag at the masthead by day, and green and white lights horizontal, not less than 10 feet apart, by night, the white light on the bow, and green in the waist, and the other boats a green light only.

The two western boats cruise off Point Lynas, and as far to the westward as the Middle Mouse, and to the eastward until Priestholm Island bears S.S.W. by compass.

The third western boat cruises to the eastward of Point Lynas, to board any vessels that may pass the first and second boats, until the west end of Great Ormshead bears S.S.W. by compass.

The fourth western boat cruises from the west end of Great Ormshead, and eastward until the west end of the bar land bears S.S.W. by compass.

The fifth, or first Hoylake boat, cruises to the westward, so as to keep sight of the Northwest Lightship from the deck.

The sixth, or second Hoylake boat, to board vessels after they pass the line of the Northwest Lightship and Point of Air, when the first boat is not within a reasonable distance, and after high water to take pilots from vessels outward-bound.

The seventh boat follows outward-bound vessels, to receive their pilots and bring them to port.

Rates of Pilotage for British Vessels trading to Foreign Ports.

INWARD.	Per foot. s.	d.
From the length of the west end of the Great Ormshead, bearing S. by W., or before Penman Bachan be shut in with the Great Ormshead, at the rate of -	9	0
From the eastward of the Great Ormshead, as above -	8	0
From the only house now on Great Hilbre Island, bearing S.S.W. by the compass, or shall be piloted from the road of Hoylake only, or from the buoy of the Fair way in Formby Channel - - - -	4	0
OUTWARD.		
Whether through the Rock or Formby Channel - -	4	0

No British vessel, trading to foreign parts, inward or outward bound, is to refuse a pilot; but if such vessel has passed the Brazil buoy in the Rock Channel, or the Middle Patch buoy in Formby Channel, or if a pilot-boat falls in with a vessel in the narrow of the channels in stormy weather, that she cannot board her without imminent danger, the pilot shall then lead the way, and in either case be entitled to such pilotage as shall be awarded by the committee at their next meeting.

For Alien Ships and Vessels.

INWARD.	s.	d.
From the length of the Great Ormshead, as above, at the rate of - - - -	12	0
From the eastward of Great Ormshead, as above -	11	0
From the only house now on Great Hilbre Island, bearing S.S.W. by the compass, or shall be piloted from the road of Hoylake only, or from the buoy of the Fair Way in Formby Channel - - - -	5	6
OUTWARD.		
Whether through the Rock or Formby Channels -	7	0

An alien vessel, inward or outward bound, is not to refuse a pilot, as circumstances are described for English-foreign vessels, as above.

For Coasting Vessels, and those trading to and from Ireland, the Islands of Faro or Ferro, Jersey, Guernsey, Alderney, Sark, and Man.

INWARD.	s.	d.
From the length of the Great Ormshead, as above, at the rate of - - - -	4	6
From the eastward of the Great Ormshead, as above -	4	0
From the only house now on Great Hilbre Island, bearing S.S.W. by the compass, or shall be piloted from the road of Hoylake only, or from the buoy of the Fair Way in Formby Channel - - - -	2	0
OUTWARD.		
Whether through the Rock or Formby Channel -	2	0

No vessel to pay for less than eight feet of water, nor any vessel to pay for odd inches under half a foot.

EXTRA PAY.	Per day £	s.	d.
For every day of attendance whilst in the river, except the day of going to sea with such ships or vessels as shall be outward bound, and the day of returning from sea and the day of docking for such as shall be inward bound - - - - -		5	0
And if the attendance of a pilot-boat be requested -		42	0

Notwithstanding the pilot or the boat be not employed a whole day, to be paid for a day.

For docking or for transporting a vessel from dock to dock, 20*s.*; to or from Birkenhead, 30*s.*; to or from Garston, 40*s.* for each vessel.

N.B.—The pilot committee recommend to the merchants, &c., that when a pilot conducts a ship or vessel into the port to their satisfaction, the same pilot be employed to take the said vessel out again; but if he should be absent on duty, that one belonging to the same boat be employed.

The Liverpool Pilots' Committee.—This board, composed of some of the first shipowners of the port, formerly acted under a special act of parliament, but since January, 1859, they are under the Consolidated Mersey Docks and Harbour Act; and their proceedings are submitted weekly, for confirmation, to the general board of the Mersey Docks and Harbour.

Liverpool Life Boats.—The dock trustees have established five life-boat stations, viz. at Liverpool, on Waterloo pierhead, 2 boats; Magazines, 2 boats; Hoylake, 2 boats (Hoylake, 1 boat, Hilbre Island, 1 boat); Point of Air, 2 boats; Formby, 1 boat. The crews of the Liverpool and Magazines boats consist of a master and 10 men each, the boats on the other stations have a master and 12 men. The entire establishment is well conducted and efficient.

Dock Rates to be paid on the Principal Goods, Wares, and Merchandise, imported into the Port of Liverpool from Foreign Countries, or British Colonies, Plantations, or Settlements; or brought Coastwise from Ports or Places in the U. Kingdom, inc. the Islands of Jersey, Guernsey, Alderney, Sark, and Man; or exported from the said Port to Foreign Countries and British Colonies, Plantations, or Settlements.

Articles.	Inwards. Foreign.	Inwards. Coastwise.	Outwards. Foreign Goods.	Outwards. British or Irish Goods.
	s. d.	s. d.	s. d.	s. d.
Annato . . cwt.	0 2½	0 1½	0 0⅜	0 0
Apples . . bushel	0 0⅜	0 0⅛	0 0½	0 0½
Ashes: barilla . ton	1 1½	0 6⅜	0 4½	0 0
pearl and pot . —	1 6	0 9	0 6	0 0
Bacon . . —	1 6	0 9	0 6	0 6
Bark: Augustura . cwt.	0 4½	0 2½	0 1½	0 0⅜
oak . . ton	1 1½	0 6⅜	0 4½	0 0
Beef and pork . barrel	0 2⅜	0 1½	0 0⅜	0 0
Bonedust . . ton	0 9	0 4½	0 3	0 3⅜
Brass . . cwt.	0 1½	0 0⅜	0 0⅜	0 0⅜
Brimstone . . ton	1 1½	0 6⅜	0 4½	0 0
Butter . cask or firkin	0 0⅜	0 0⅛	0 0⅜	0 0⅛
half firkin or keg	0 0⅛	0 0⅛	0 0⅜	0 0⅛
Cattle: asses and mules, each	0 4½	0 2⅜	0 4½	0 4½
bulls, cows, and oxen —	0 4½	0 2⅜	0 4½	0 4½
calves . . —	0 2⅛	0 1⅛	0 2⅛	0 2⅛
horses . . —	0 9	0 4½	0 9	0 9
lambs and sheep . —	0 0⅜	0 0⅛	0 0⅜	0 0
swine . . —	0 0⅜	0 0⅛	0 0⅜	0 0
Cheese . . ton	0 9	0 4½	0 3	0 3
Coals . . loose, ton	0 3	0 1½	0 0	0 1½
Cocoa nut oil . . —	1 6	0 9	0 6	0 0
Coffee . . —	1 6	0 9	0 6	0 0
Coir . . —	1 6	0 9	0 6	0 0
Copper: barilla and regulus, —	1 0	0 6	0 4	0 0
ore . . —	0 6	0 3	0 2	0 2
Cork . . —	1 6	0 9	0 6	0 0
Corn: barley, bere, and big. quarter	0 2⅜	0 1⅛	0 0⅜	0 0⅜
barley meal . ton	1 6	0 9	0 6	0 6
beans . . quarter	0 2⅛	0 1⅛	0 0⅜	0 0⅜
barley, pearl and shell ton	1 6	0 9	0 6	0 6
corn, Indian . quarter	0 2⅛	0 1⅛	0 0⅜	0 0
meal . . ton	1 6	0 9	0 6	0 6
lentils . . quarter	0 2⅛	0 1⅛	0 0⅜	0 0⅜
malt . . —	0 3	0 1⅜	0 0⅜	0 0⅜
oats . . —	0 1⅜	0 0⅜	0 0⅜	0 0⅜
oatmeal . . ton	1 6	0 9	0 6	0 6
peas . . quarter	0 2⅛	0 1⅛	0 0⅜	0 0⅜
rye . . —	0 2⅛	0 1⅛	0 0⅜	0 0⅜
tares . . —	0 2⅛	0 1⅛	0 0⅜	0 0⅜
wheat . . —	0 3	0 1⅜	0 0⅜	0 0⅜
flour . . barrel	0 2	0 1	0 0⅜	0 0
in bags . cwt.	0 1⅛	0 0⅜	0 0⅜	0 0
Cotton wool: from U. States, bale	0 6	0 0	0 0	0 0
from S. America, Brazil, —	0 3	0 0	0 0	0 0
from Demerara, Berbice, Laguayra, Peru, Carthagena, bale	0 4	0 0	0 0	0 0
from Egypt . —	0 3	0 0	0 0	0 0
from East Indies—Surat, Bengal . —	0 4	0 0	0 0	0 0
from W. Indies—Nassau Barbadoes . —				
Twist, thread, and yarn, cwt.	0 3	0 1½	0 1	0 0
Earthenware . load	2 2½	1 1⅜	0 9	0 9
crate or other package	0 3	0 1⅜	0 1⅜	0 1⅜
Eggs . . 1200	0 4½	0 2⅛	0 1⅜	0 1⅜
Flax, rough . ton	1 6	0 9	0 6	0 6
Guano . . —	0 9	0 4½	0 3	0 0
Gutta percha . cwt.	0 2⅜	0 1⅛	0 0⅜	0 0
Hardware . . bundle	0 1⅜	0 0⅜	0 0⅜	0 0⅜
keg	0 1⅜	0 0⅜	0 0⅜	0 0⅜
all other packages	0 4⅜	0 2⅛	0 2⅛	0 2⅛
Hides: dry . . cwt.	0 2⅜	0 1⅜	0 0⅜	0 0⅜
wet . . —	0 1⅜	0 0⅜	0 0⅜	0 0⅜
Indigo . . —	0 9	0 4½	0 3	0 0
Iron, viz.:—				
bar, bolt, or rod . ton	0 9	0 4½	0 6	0 3⅜
broken or old . —	0 6⅜	0 3⅜	0 3	0 1⅝
cast or pig . —	0 4½	0 2⅛	0 3	0 1⅝
kentledge . —	0 4½	0 2⅛	0 1½	0 1⅜
hoop and sheet . —	1 1⅜	0 6⅜	0 6	0 3⅜
plate and sheet . box	0 0⅜	0 0⅛	0 0⅜	0 0⅛
ore . . ton	0 3	0 1⅜	0 1⅜	0 1⅜
wire . . —	1 6	0 9	0 6	0 6
cask	0 0	0 0	0 0	0 0
wrought . ton	1 6	0 9	0 6	0 6

Articles.	Inwards. Foreign.	Inwards. Coastwise.	Outwards. Foreign Goods.	Outwards. British or Irish Goods.
	s. d.	s. d.	s. d.	s. d.
Ivory . . cwt.	0 4½	0 2⅛	0 1⅜	0 0
Lac: gum and stick —	0 2⅛	0 1⅛	0 0⅜	0 0
seed and shell —	0 2⅛	0 1⅛	0 0⅜	0 0
Lard . . —	1 6	0 9	0 6	0 0
Lead and lead ore . ton	0 9	0 4½	0 6	0 6
Leather, tanned . cwt.	0 2⅛	0 1⅛	0 0⅜	0 0⅜
Machinery (loose) . ton	1 6	0 9	0 6	0 6
Madder . . —	1 6	0 9	0 6	0 0
roots . . —	1 1⅛	0 6⅜	0 4½	0 0
Molasses . . —	1 1⅛	0 6⅜	0 4½	0 0
cask or puncheon	0 0	0 0	0 0	0 3
Oil: cocoa nut . tun	1 6	0 9	0 6	0 0
linseed and olive . —	1 3⅜	0 10⅛	0 6⅜	0 0
palm . . —	1 1⅜	0 6⅜	0 4½	0 0
ground nut . —	1 6	0 9	0 6	0 0
Opium . . cwt.	0 2⅛	0 1⅛	0 0⅜	0 0
Paddy or rice in the husk, quarter	0 2⅛	0 1⅛	0 0⅜	0 0
Quicksilver . package	0 2⅛	0 1⅛	0 0⅜	0 0
Rice . . ton	1 1⅛	0 6⅜	0 4½	0 0
Saltpetre . . —	1 1⅛	0 6⅜	0 4½	0 0
firkin	0 0	0 0	0 0	0 0⅛
Seeds for expressing oil therefrom ton	1 6	0 9	0 6	0 0
Seed, flax or linseed . quarter	0 2⅛	0 1⅜	0 0⅜	0 0
Silk: organzine or crape package	0 9	0 4½	0 2⅛	0 2⅛
raw or thrown . 100 lbs.	0 9	0 4½	0 3	0 0
waste . . —	0 3	0 1½	0 0⅜	0 0
manufactured . package	0 9	0 4½	0 2⅛	0 2⅛
Silver ore . . ton	1 6	0 9	0 6	0 0
Skins: kip and calf, dry, cwt.	0 2⅛	0 1⅛	0 0⅜	0 0⅛
wet, —	0 1⅛	0 0⅛	0 0⅛	0 0⅛
Soap . . ton	1 6	0 9	0 6	0 6
Spirits . . 100 gals.	0 7⅛	0 3⅜	0 0	0 0
pipe	0 0	0 0	0 4½	0 4½
puncheon	0 0	0 0	0 3	0 3
hhd.	0 0	0 0	0 1⅛	0 1⅛
Sponge . . cwt.	0 4½	0 2⅛	0 1⅜	0 0
Stationery . package	0 3	0 1⅜	0 2⅛	0 2⅛
Steel . . ton	1 1⅛	0 6⅜	0 4½	0 4½
Sugar . . —	1 6	0 9	0 6	0 0
refined . hhd.	0 0	0 0	0 0	0 3⅜
tierce	0 0	0 0	0 0	0 2⅛
barrel	0 0	0 0	0 0	0 1⅜
puncheon	0 0	0 0	0 0	0 3
candy . . cwt.	0 1⅜	0 0⅜	0 0⅜	0 0
refined, loose outwards ton	0 0	0 0	0 0	0 9
Tallow . . —	1 6	0 9	0 6	0 0
Tapioca . . cwt.	0 2⅛	0 1⅛	0 0⅜	0 0
Tar . . barrel	0 1⅜	0 0⅜	0 0⅜	0 0
Tea . . 100 lbs.	0 2⅛	0 1⅛	0 0⅜	0 0
Tin: of all kinds ton	1 6	0 9	0 6	0 0
barilla —	1 0	0 6	0 4	0 0
Tobacco and stalks cwt.	0 0⅜	0 0⅛	0 0⅛	0 0⅛
Tow . . ton	0 9	0 4½	0 3	0 3
Twist, cotton, or yarn . cwt.	0 3	0 1⅜	0 1	0 1
Walnuts . . bushel	0 0⅜	0 0⅛	0 0⅜	0 0⅛
Wine . . tun	1 8½	0 10⅜	0 6⅜	0 0
bottled . barrel	0 0	0 0	0 1⅜	0 1⅜
6-dozen case, each	0 0	0 0	0 0	0 1⅛
3-dozen case, —	0 0	0 0	0 0	0 0⅜
cask	0 0	0 0	0 3	0 3
hhd.	0 0	0 0	0 3⅜	0 3⅜
puncheon	0 0	0 0	0 3	0 3
tierce	0 0	0 0	0 2⅛	0 2⅛
Wood: mahogany . ton	1 0	0 6	0 4	0 0
timber, viz. fir . load	0 6⅜	0 3⅜	0 2⅛	0 0
teak or oak —	0 9	0 4½	0 3	0 0
pine . . —	0 6⅜	0 3⅜	0 2⅛	0 0
all other timber . —	0 6⅜	0 3	0 2⅛	0 0
wainscot logs —	1 1⅛	0 6⅜	0 4½	0 0
Wool . . ton	2 0	1 0	0 8	0 0
East India —	1 6	0 9	0 6	0 0
Woollens . . package	0 9	0 4½	0 2⅜	0 2⅛
piece	0 0⅜	0 0⅛	0 0	0 0
Zinc or spelter . ton	1 6	0 9	0 6	0 0

N.B.—Books containing a complete list of the articles charged with dock rates, may be had at the docks for a mere trifle.

In compiling this article we have derived considerable assistance from the elaborate work of Mr. Thomas Baines, entitled a "History of the Commerce and Town of Liverpool," published in 1852; and from "Liverpool in 1859," a smaller but very useful work of the same author. But we have been indebted for the most valuable part of our information to communications obligingly sent us by some of the most intelligent merchants belonging to the town.

IV. Bristol Docks, Shipping, etc.

The great rise of tides in the Bristol Channel, and in the river Avon, on which Bristol is situated in lat. 51° 27′ 6″ N. long. 2° 35′ 28″ W., enables the largest ships to come up to the town. To obviate the risks and damage to which they were formerly exposed by grounding at ebb tide, a floating harbour equivalent to a dock,

was commenced in 1804 and finished in 1809, by changing the channel of the river. It extends about 3 miles, from the entrance at Rownham, to the dam at Templemeads, occupying the old bed of the Avon, and the bed of that branch of the Frome that lies between St. Augustine and St. Stephen's quays, and cost, in all, a very large sum. The present extent of quay frontage is 6000 feet, but the limits admit of any further extension that an increased trade may require. There are two half-tide basins for the temporary accommodation of vessels entering or leaving; one at Rownham for large ships, the other below the iron bridge at Bedminster, for vessels under 500 tons. There are several capacious graving-docks, and ship-building is carried on to some extent; the Great Western and Great Britain steam-ships, with the Severn, the Avon, and others of inferior dimensions having been built in the port. The tide in the Avon sets with great rapidity, especially between the high precipitous rocks of Clifton and Leigh, which seem rent asunder to admit its passage. In Kingroad the rise at springs is 44 feet, and at neaps above 23 feet: at the gates of the floating harbour it rises from 30 to 33 feet. Previously to the completion, in 1849, of the new lock or entrance to Cumberland basin, Rownham, vessels occasionally loaded and unloaded in Kingroad, at the mouth of the river, by means of lighters. But the entrance to the basin is now of dimensions sufficient to admit steamers and other ships of the largest class. The port and other dues, which it was formerly imperative to levy on all vessels frequenting the port, whether they entered the new harbour or not, may now be remitted at the discretion of the town council, to those that do not avail themselves of the latter.

Bristol early possessed, and continues to enjoy, a large share of the trade with the West Indies. Among her foreign imports the most important are colonial products, sugar, tea, tobacco, timber, grain of all sorts, flour, wine, brandy, tallow, fruits, wool, hemp, dye stuffs, oil, hides, &c. The exports consist principally of the produce of the various manufactures of the city, comprising refined sugar, brass and copper articles, spirits, glass, earthenware, &c., with salt, iron, coals, and culm, the produce of the neighbourhood; and cotton, linen, and woollen goods. Bristol carries on an extensive and growing trade with Ireland, from which she imports corn, butter, bacon, potatoes, cattle, horses, sheep, pigs, salmon, &c. She sends in return, tea, raw and refined sugar, cheese, wrought iron, tin plates, copper, glass, woollens, leather, &c. The imports, coastwise, consist mostly of iron, tin, coal, salt, agricultural produce, and foreign produce, brought from other ports under bond. The exports are chiefly foreign and colonial produce (especially groceries, spirits, and wines), and the various manufactures of the city. A steam communication for the conveyance of goods and passengers to Ireland was established in 1826, and has led to a great increase of the trade with that part of the empire. Bristol had the honour of being the first port in the empire to establish a regular communication by steam with the U. States. The first voyage by the Great Western steam-ship was performed in 1838.

The decline in the comparative importance of Bristol, as a trading emporium, has been chiefly manifested by contrasting her progress with that of Liverpool. The average customs duties of Bristol for the seven years ending with 1757, amounted to 155,189*l.*; those of Liverpool for the same period, to 51,136*l.* In 1784, the customs of Bristol had risen to 334,909*l.*, a great increase; but those of Liverpool had advanced, in the same year, to 648,684*l.*; and in 1846, while the customs duties of the former amounted to 919,149*l.*, those of the latter amounted to 3,622,057*l.* One of the chief causes that have been commonly assigned for this comparative slowness of progress is the excess of local taxation; the town and harbour dues having been much heavier than those of any other of the larger ports.

There can, however, be no doubt that too much stress has been laid upon this circumstance in accounting for the slower progress of the trade of this port. The real causes of the rapid rise of Liverpool, Glasgow, and some other sea-port towns is to be found, not in the lowness of their port charges, or in any peculiar advantages they individually enjoy, but in their having become the ports of the great manufacturing districts. The extraordinary growth of Liverpool is a consequence of the still more extraordinary growth of the cotton manufacture. Her rise has been dependent upon, and consequent to, the rise of Manchester, Bolton, Blackburn, &c. Still, however, it is not to be denied that the trade of Bristol was seriously injured by the high charges that were formerly imposed on the shipping frequenting her port. But that grievance, after having been mitigated by various reductions effected since 1835, has at length been wholly obviated; and the charges on shipping in the Avon are now remarkable for their moderation. This important reform took place in 1848, under the local act 11 & 12 Vict. c. 43 (30 June, 1848), which transferred the property of the docks from the former dock company to the citizens, and vested their management in the common council of the city. In consequence of this change, and of the reduction of the rates by which it has been followed, ships that formerly paid 2*s.* and 3*s.* per ton of dock dues now pay 1*s.* 2*d.* per do.; while those that paid 1*s.* now pay 7*d.*; and those that paid 8*d.* and 6*d.* now pay 5*d.* It is of importance, too, to observe that all former charges on ships and goods outwards have been wholly abolished; so that, as regards exports, Bristol is now an absolutely free port. And we are glad to have to state that, in consequence of these and other changes, the trade of the port, as shown by the annexed tables, has greatly increased.

DOCK RATES AND DUES ON SHIPPING ENTERING THE PORT OF BRISTOL, THOSE LEAVING THE SAME BEING FREE OF ALL PORT CHARGES.

Dock Dues.

	£	s.	d.
For every vessel trading from Africa, Honduras, Surinam, and other ports in South America, the U. States of America, the East and West Indies, all the ports within the Straits of Gibraltar, the Southern Whale Fishery, the British Colonies, Portugal, Prussia, Russia, Spain, without the Straits, and Sweden, per ton	0	1	2
For every vessel trading from Flanders, France, without the Straits, Germany, Guernsey, Holland, Jersey, Norway, Poland, and Zealand, per ton	0	0	7
For every vessel trading from Ireland, the Isle of Man, Scotland, or as a coaster, not including vessels from Cardiff, Newport, and other ports to the eastward of the Holms, per ton	0	0	5
For every vessel from Cardiff, Newport, or any other port to the eastward of the Holms (not being vessels one third part of the lading of which shall consist of coal, scroff, iron, tin, tin plates, grain, copper, bricks, stone, coal-tar, slate, bark, timber, or wood), as follows:—			
If such vessel shall be under 40 tons burthen, for each voyage	0	7	6
If such vessel shall be 40 tons burthen, and under 75 tons, for each voyage	0	12	6
If such vessel be 75 tons burthen, and under 100 tons, for each voyage	0	16	0
If such vessel shall be 100 tons burthen or upwards, for each voyage	1	1	0
For every vessel from Cardiff, Newport, or any other port to the eastward of the Holms, one third part of the lading of which shall consist of coal, scroff, iron, tin, tin plates, grain, copper, bricks, stone, coal-tar, slate, bark, timber, or wood, as follows:—			
If such vessel shall not exceed 75 tons burthen, for each voyage	0	5	0
If such vessel shall exceed 75 tons burthen, for each voyage	0	7	6

N. B. — There are no dock rates or other port charges payable on vessels leaving the port of Bristol. And a vessel having once paid the dock dues on entering the port may remain for an indefinite period in the floating harbour without any further charge.

Anchorage and Moorage chargeable only on Vessels coming from Ports to the westward of the Holms.

	Anchorage and Moorage. s.	d.
All *coasting vessels*, from ports to the westward of the Holms, not exceeding 40 tons burthen, each voyage	0	9
Ditto, at and above 40 tons, ditto	1	6

	Anchorage each. s.	d.	Moorage per ton. s.	d.
All *other vessels*, not being coasters,				
— under 30 tons	2	6	0	0½
— above 30 and under 100 tons	5	0	0	0½
— above 100 tons	5	0	0	1

Mayor's Dues payable only by Vessels coming from Places westward of the Holms to the Port of Bristol and payable by such Vessels not more than Three Times within the Space of Twelve Calendar Months.

	@ voyage. s.	d.
60 tons and under 100 tons, each vessel	5	0
100 — 150 —	10	0
150 — 200 —	15	0
200 — 250 —	30	0
250 and upwards	40	0

Quay Warden's Fees.

	s.	d.
Vessels above 60 tons	5	0
— under —	2	6
Boat, traw, or barge	0	4

Whether from eastward or westward of Holms.

The docks and quays in Bristol are not enclosed. The warehouses, whether bonded or otherwise, are all private property; they are for the most part close to the quays, and are all easy of access.

The following is an Account of the various Port and other Charges which would be incurred by a Ship of 500 Tons bringing a Cargo to Bristol; the *Dock Dues* being taken at the *highest Rate*, viz.: —

	£	s.	d.	£	s.	d.
Pilotage from Lundy to Kingroad	7	7	0			
— from Kingroad to Basin	1	10	0			
Assistant pilot	0	10	0			
5 men at 5*s.* 9*d.* each, 18*s.* 9*d.*; and boat, 3*s.*	1	1	9			
Haven master	0	4	0			
				10	12	9
Steam-tug from Kingroad to Basin, 5*d.* per ton				10	8	4
Lights				5	13	10
Anchorage 5*s.*, moorage 1*d.* per ton, 41*s.* 8*d.*				2	6	8
Mayor's dues 10*s.*, quay warden's fees 5*s.*				2	5	0
Dock dues, 1*s.* 2*d.* per ton				29	3	4
(From the nearer ports only 7*d.* per ton.)						
Electric telegraph from Pill, 1*s.* to 5*s.* per message.				0	0	0
				60	9	11

The charge for labour discharging is from 3*s.* to 3*s.* 6*d.* per day, that for cooperage depends on the condition of the cargo.

The charge for landing and weighing is 7½*d.* for sugar and most other kinds of goods when the public cranes are used.

Outwards. — No port charges except lights and pilotage, which are the same as *inwards*.

Produce of the Dock Dues on Tonnage and Goods at Bristol, during each of the following Years, ending the 30th of April.

Years.	Tonnage Rates. £	s.	d.	Rates on Goods. £	s.	d.	Totals. £	s.	d.
1836	14,478	18	8	7,452	18	6	21,931	17	2
1840	17,999	7	2	7,536	9	4	25,535	16	6
1845	18,552	3	2	7,631	16	10	26,184	0	0
1846	19,822	5	10	8,214	2	5	28,036	8	3
1847	19,768	7	0	9,015	15	10	28,784	2	10
1848	21,025	6	2	8,659	15	2	29,685	1	4
1849	19,145	6	6	9,553	19	2	*28,699	5	8
1850	12,088	1	10	8,905	1	9	20,993	3	7
1851	12,794	8	6	9,870	12	6	22,665	1	0
1852	12,047	5	0	8,947	17	11	20,995	2	11
1853	12,891	17	6	7,444	17	8	20,266	15	2
1854	15,092	1	0	9,141	15	7	24,143	16	7
1855	13,012	19	0	8,433	8	4	21,446	7	4
1856	12,780	13	8	8,113	16	5	20,894	10	1
1857	17,047	10	0	10,264	18	1	27,312	8	1
1858	17,763	3	11	11,029	16	4	28,793	0	3

* The dock dues in the last 6 months of the year ending 30th April 1849 were at the reduced rates.

Account of the Number of Ships and their Tonnage, distinguishing between British and Foreign, which have entered inwards at Bristol (exclusive of coasters), during each of the following Years, ending the 5th January.

Years.	British. Ships.	Tons.	Foreign. Ships.	Tons.	Total. Ships.	Tons.
1836	288	54,070	27	4,914	315	58,984
1840	396	79,851	116	12,982	512	92,833
1845	346	72,532	56	9,382	402	81,914
1850	480	108,823	169	22,424	649	131,247
1851	464	99,434	264	38,208	728	137,642
1854	434	96,714	231	42,868	665	139,582
1853	423	90,675	208	44,064	631	134,739
1854	432	95,201	344	78,933	776	174,134
1855	440	109,745	205	50,661	645	160,406
Years ending 31st December.						
1855	400	87,505	170	41,511	570	129,016
1856	439	106,670	231	65,389	670	172,059
1857	406	98,975	284	86,787	690	185,762
1858	452	105,372	394	93,747	846	199,119

There belonged to Bristol, 1st January 1858, 237 sailing vessels of above 50 tons each, of the agg. burden of 70,696 tons; 181 small do. agg. burden 5,292 tons; and 36 steamers of the agg. burden of 3,811 tons.

Account of the Number of coasting Vessels and their Tonnage, distinguishing those employed between G. Britain and Ireland, from other Coasters which have entered inwards at Bristol during the following Years, ending 5th January.

Years.	Between G. Britain and Ireland. Ships.	Tons.	Other Coasters. Ships.	Tons.	Total. Ships.	Tons.
1836	613	95,947	5,149	296,565	5,762	392,512
1840	429	76,714	4,707	218,849	5,136	295,563
1845	547	88,668	6,229	288,511	6,776	476,979
1850	438	99,156	6,176	333,593	6,614	428,749
1851	388	86,157	6,061	328,340	6,449	414,997
1852	339	75,754	5,754	313,722	6,093	389,476
1853	352	74,145	5,406	303,602	5,758	377,747
1854	422	84,114	4,480	267,259	4,902	351,373
1855	472	99,599	4,510	295,219	4,982	394,618
Years ending 31st December.						
1855	457	94,691	4,753	305,896	5,210	400,587
1856	483	96,569	4,646	277,114	5,129	375,683
1857	559	108,802	4,446	257,377	5,005	366,179
1858	614	118,000	5,135	304,048	5,749	422,048

Declared Value of the Exports of British and Irish Produce and Manufactures from, with the Customs Duties at the Port of Bristol, during each of the following Years, ending 5th Jan.

Years.	Exports. £	s.	d.	Duties. £	s.	d.
1836	253,697	11	3	1,177,687	3	7
1840	417,101	0	0	1,089,475	0	0
1845	176,148	18	0	1,007,832	0	0
1846	150,883	19	6	919,149	0	0
1847	161,559	4	8	911,514	0	0
1848	167,481	11	7	1,004,789	0	0
1849	147,044	17	10	1,036,733	0	0
1850	221,964	17	10	1,043,319	0	0
1851	262,486	3	11	1,051,891	0	0
1852	275,599	0	0	1,100,695	0	0
1853	307,710	0	0	1,020,250	0	0
1854	659,745	0	0	1,194,066	0	0
1855	632,674	0	0	1,288,387	0	0
Years ending 31st December.						
1855	583,173	0	0	1,112,462	0	0
1856	465,853	0	0	1,202,930	0	0
1857	556,814	0	0	1,211,035	0	0
1858	421,512	0	0	1,295,559	0	0

PILOTAGE.

To every licensed pilot who navigates a ship or vessel from Lundy Island to Kingroad.

	£	s.	d.
For his pilotage of such vessel, if under 100 tons reg. burthen	3	3	0
If 100 tons and under 200	4	4	0
If 200 — 300	5	5	0
If 300 tons and upwards	6	6	0
From Combe to Kingroad.			
If such vessel be under 100 tons reg.	2	2	0
If 100 tons and under 200	2	16	0
If 200 — 300	3	10	0
If 300 tons and upwards	4	4	0
From Minehead to Kingroad.			
If such vessel be under 100 tons reg.	1	1	0
If 100 tons and under 200	1	8	0
If 200 — 300	1	15	0
If 300 and upwards	2	2	0
From the Holms to Kingroad.			
If such vessel be under 100 tons reg.	0	10	0
If 100 tons and under 200	0	14	6
If 200 — 300	0	17	6
If 300 and upwards	1	1	0

Every pilot who unmoors or carries a ship or vessel under 100 tons reg., from any part of the river Avon, and moors her in Cumberland or Bathurst Basin, or who unmoors or carries such a ship or vessel from either of those basins, and moors her in, or proceeds with her down the said river, shall be entitled to the following pilotage: —

	£	s.	d.
If such vessel be under 40 tons reg.	0	4	0
If 40 tons and under 60	0	5	0
If 60 — 80	0	7	6
If 80 — 100	0	10	0

Every pilot who unmoors or carries a ship from Portshead, Kingroad, Hungroad, or Broad Pill, and moors her in Cumberland or Bathurst Basin, and who unmoors or carries a vessel from either of those basins and moors her in Portshead, Hungroad, Broad Pill, or Kingroad, or any other of such places, or proceeds with her on her voyage, shall be entitled to the following pilotage: —

	£	s.	d.
If such vessel be under 100 tons reg.	0	10	0
If 100 tons and under 200	0	15	0
If 200 — 300	1	0	0
If 300 and upwards	1	5	0

(We are indebted for this valuable information, with respect to Bristol, to the kindness of Edward Hinton, Esq., the intelligent Secretary to the Docks.)

V. Hull Docks, Shipping, &c.

There are five docks in Hull, occupying, with their basins, a water area of 49¼ acres; viz.:—

		A.	R.	P.	£
Old Dock. Opened for business	1778	Area, 10	1	11	Cost, 84,310
Humber Dock - -	1809	9	3	24	235,086
Junction Dock - -	1829	6	0	5	165,033
Railway Dock - -	1846	2	3	9	120,782
Victoria Dock - -	1850	20	1	3	455,357

A timber pond of 9 acres was constructed in 1853. A considerable quantity of shipping is also accommodated within that part of the river Hull that constitutes the old harbour, which may be computed at 10 acres of tidal water. The quays round the docks are spacious, and are entirely surrounded with warehouses and deal yards. Hull is the principal *entrepôt* of the Baltic timber trade on the east coast of G. Britain, and ranks as the third port in the kingdom, the value of her exports being inferior only to those from Liverpool and London; although from the circumstance of her staple articles of import being subject to low duties or altogether free, her customs revenue is smaller than that of less important ports. In 1857 her exports amounted to 15,785,813*l.*, and the customs revenue to 312,628*l.*

The following Tables exhibit the principal features and progress of the Trade of Hull, during the 15 Years ending with 1858.

Year.	Tonnage of Shipping (ex. River Craft.)	Amount of Dock Duties paid.	Value of British Produce exported.	Amount of Customs' Revenue.	Year.	Tonnage of Shipping (ex River Craft).	Amount of Dock Duties paid.	Value of British Produce exported.	Amount of Customs' Revenue.
1843	653,309	£30,115	£10,131,418	£660,192	1851	827,994	£38,266	£10,309,261	£353,623
1844	761,788	38,934	10,507,367	525,418	1852	799,866	34,961	9,915,414	324,819
1845	710,038	36,945	10,798,338	607,963	1853	888,056	36,122		351,299
1846	779,985	37,990	10,575,870	487,135	1854	850,229	32,930	From 10 or 12	392,212
1847	833,039	39,684	9,531,944	453,755	1855	782,411	28,440	to 15 millions.	283,242
1848	813,908	38,925	8,185,959	436,820	1856	1,076,787	40,223		305,587
1849	790,831	38,894	9,721,412	399,512	1857	1,083,637	40,478	15,785,813	312,628
1850	811,710	39,069	10,366,610	384,400	1858	1,086,697	40,815		284,666

Tonnage of Steam Vessels (exclusive of River Steamers) frequenting the Port of Hull, from the Year 1838.

Year.	Tonnage of Steam Vessels on Foreign Voyages.	Tonnage of Steam Vessels employed Coastwise.	Total.	Year.	Tonnage of Steam Vessels on Foreign Voyages.	Tonnage of Steam Vessels employed Coastwise.	Total.
1838	38,515	137,364	175,879	1849	123,657	108,536	232,193
1839	48,568	134,922	183,490	1850	182,134	112,754	294,888
1840	42,929	131,903	174,832	1851	200,808	106,160	306,968
1841	46,745	122,742	169,487	1852	193,958	111,363	305,021
1842	56,711	122,225	178,936	1853	184,943	112,639	297,582
1843	58,083	126,804	184,887	1854	207,435	96,971	304,406
1844	63,248	150,842	199,090	1855	241,421	97,947	339,368
1845	67,760	132,907	200,667	1856	369,509	120,162	489,671
1846	85,305	125,404	210,709	1857	415,493	159,934	575,427
1847	102,794	131,226	234,010	1858	424,284	162,000	586,284
1848	98,659	123,970	222,629				

Shipping.—There belonged to the port on the 1st January 1858, 458 sailing vessels, whereof 287, of the aggregate burden of 10,371 tons, did not, and 171 of the aggregate burden of 40,622 tons, did exceed 50 tons each. At the same date there also belonged to the port 62 steamers, whereof 11 of the aggregate burden of 277 tons, did not, and 51 of the aggregate burden of 15,636 tons, did exceed 50 tons each.

Dock and Harbour Dues payable to the Hull Dock Company, viz.:—

For every Ship or Vessel trading between the Port of Kingston-upon-Hull and the undermentioned Ports and Places.	Per Registered Ton.	For every Ship or Vessel trading between the Port of Kingston-upon-Hull and the undermentioned Ports and Places.	Per Registered Ton.
	s. *d.*		*s.* *d.*
Any port to the northward of Yarmouth, in Norfolk, or any port to the southward of the Holy Island:		Any port or place in the Baltic seas, and all other ports or places above the Sound -	1 0
So much of the above rates as applies to Tetney Haven, Louth, and Hedon - - -	Abolished	Any island, or port or place in Europe, to the eastward of Ushant, without the Straits of Gibraltar - - - - -	1 0
Great Grimsby - - - - -	0 1	Every port or place in the West Indies, North or South America, Africa, Greenland, or any place to the eastward of the North Cape of Norway. All places within the straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not hereinbefore named - - - -	1 4½
All other ports comprised within the above limits - - - - -	0 2		
Any port or place between the North Foreland and Shetland, on the east side of England, except as above - - - - -	0 3		
Any other port or place in Great Britain, not before described - - - -	0 5	Every port or place in the East Indies, Australia, all islands and places in the Pacific Ocean, the North and South Pacific Oceans, the Great Southern Ocean, the Indian Ocean, and all other places in Africa, Asia, or America to the eastward of the Cape of Good Hope, and to the westward of Cape Horn - - - -	1 4½
Any port or place in Denmark, Sweden, or Norway, below Elsinore, or any port or place in Germany, Holland, Flanders, France, to the eastward of Ushant, Ireland, the islands of Guernsey and Jersey - - -	0 6		

For every foreign ship or vessel (belonging to a State *not* in reciprocity with Great Britain), coming to or going with merchandise from any of the above-named ports or places, double the rates, tonnage, or duties before-mentioned, unless the said ships belong to British owners.

N.B. One-half of the foregoing rates will be remitted under the following circumstances, upon application in writing being made to the directors, and they are satisfied that each case is *bonâ fide*, and such as calls for a mitigation thereof, viz.:—

1. Vessels taking refuge during winter, or in case of war, in the port, and entering any of the docks and basins of the Company, and not loading or discharging any part of their cargo other than stores.

2. Vessels not bound to Hull, but which may put into the port in distress, leaky or requiring repairs, and enter into any of the docks or basins, but have not taken on board any additional cargo (other than stores), or discharged any portion of their cargo within the said docks or basins.

Ships driven into port by stress of weather, or an enemy, are not liable to rates or duties unless they make use of the docks or basins.

Dock rent on vessels, payable only after 10 months occupancy of the dock,—one half penny per registered ton per week.

Wharfage rates fixed at a scale, being at an average about 40 per cent. below the rates levied at the docks in London, are charged only on such goods as actually pass over the dock quays either inwards or

outwards; and such rates are payable *once* only in respect of the same goods, if in their original state. No charge accrues on goods put overside into craft, unless for labour actually performed; and all work on board ship or upon the quays may be performed either by the company or the merchants, as the latter may elect. No charge is made for river craft or lighters using the docks.

Depth of water. — The access to the docks is either from the river Hull, or from the river Humber. The lock from the Humber into the Victoria dock is capable of admitting at spring tide, vessels drawing 28 feet, and at neap tides 22 feet. The width of entrance is 60 feet.

The Water Bailiff dues hitherto payable to the corporation of Hull, on certain goods imported and exported, were all permanently abolished on the 21st March, 1853.

DUES PAYABLE TO THE CORPORATION OF HULL.

On Vessels entering inwards and outwards.

Anchorage. — Alien vessels under 100 tons burden, 1*s.* 6*d.*; 100 and under 200 tons, 2*s.*; 200 and upwards, 3*s.*

Jettage.—Under 100 tons, 13*s.* 6*d.*; if loads out more, 3*s.* 6*d.*; 100 and under 200 tons, 17*s.*; if loads out more, 5*s.*; 200 tons and upwards, 1*l.*; if loads out more, 7*s.*

Hostage. — For each pound sterling of the freight inwards, 2*d.*; and among the officers, per ship, 3*s.*

Ballast. — For each ton taken outwards, 2*d.*

Freemen are exempt from anchorage, but freemen, as well as non-freemen, pay jettage. The charge for jettage is not made unless with goods landed or taken in at Hull, or within the harbour.

British ships pay no hostage, and nothing for ballast.

	Anchorage.	Jettage. In.	Jettage. Out.
	s. *d.*	*s.* *d.*	*s.* *d.*
British vessels under 45 tons burden	1 0	1 6	1 0
— 40 and not 45	1 0	2 0	1 0
— 45 — 50	1 6	2 0	1 6
— 50 — 100	1 6	2 6	2 6
— 100 — 150	2 0	3 6	3 6
— 150 — 200	2 0	4 6	4 0
— 200 — 250	2 6	5 0	5 0
— 250 — 300	2 6	6 0	6 0
— 300 and upwards	2 6	6 0	6 6

Dues payable to the Corporation of Trinity House.

Rates of Sea Pilotage for Ships and Vessels belonging to Subjects of Great Britain.

	Summer Rate, 31 March to 30 Sept.	Winter Rate, 30 Sept. to 31 March.
	£ *s.* *d.*	£ *s.* *d.*
From Humber to Downs -	0 10 0	0 12 6
— — Nore - -	0 8 0	0 10 6
— — Yarmouth - -	0 5 0	0 6 6
— — Bridlington -	0 3 0	0 4 0
— — Stockton / Sunderland / Shields -	0 7 0	0 6 6
— — Leith - -	0 8 0	0 10 6

Ships and vessels belonging to aliens to pay 2*s.* 6*d.* per foot in addition to the above rate.

Ships and vessels drawing less than 10 feet water to pay for 10 feet.

Buoyage. — British vessels under 20 tons, 2*s.*; 20 tons and under, 30, 2*s.* 6*d.*; and 6*d.* additional for every 10 tons. Foreign vessels under 65 tons, 11*s.*; 65 tons and under 135, 14*s.*; 135 tons and under 170, 17*s.*; 170 tons and under 180, 1*l.*; and 1*s.* additional for every 10 tons.

Primage Rates. — The old primage rates of 3*d.* per ton weight or measurement of 40 cubic feet, payable to the Trinity House at Hull, upon all goods imported and exported have been reduced to 2*d.* per ton, with the exception of the following articles; viz, coal, coke, cotton, chalkstone, and salt, the primage upon which is now only 1*d.* per ton.

Dues payable to the Pilot Commissioners at Hull.

Sand ballast 1*s.* 2*d.* per ton, stone ballast 1*s.* 10*d.* do.

RATES OF RIVER PILOTAGE AT HULL.

From or to	To or from	Per Foot.
		s. *d.*
The distance at sea where the North Ness of Dimlington bears west-south-west, to the northward of Kilnsea North Cliff.	Hawke Roads or Grimsby Roads - - -	2 6
	Whitebooth Roads -	3 6
	The port of Kingston-upon-Hull - -	5 0
The distance at sea where Kilnsea North Cliff bears west-north west to the northward of the New Sand Buoy or the Floating Light Vessel at the entrance of the River Humber.	Hawke Roads or Grimsby Roads - - -	1 6
	Whitebooth Roads -	2 6
	The port of Kingston-upon-Hull - -	4 0
The said new Sand Buoy on the Floating Light	Hawke Roads or Grimsby Roads - - -	1 0

From or to	To or from	Per Foot.
		s. *d.*
Vessel at the entrance of the River Humber, to the eastward of the point where the Spurn High Lighthouse bears north-east.	Whitebooth Roads -	2 0
	The port of Kingston-upon-Hull - -	3 6
	Outwards, with cargo -	4 0
	„ in ballast -	2 8
The Spurn High Lighthouse bearing north-east.	Hawke Roads or Grimsby Roads - - -	1 0
	Whitebooth Roads -	2 0
	The port of Kingston-upon-Hull -	3 6
The Hawke Roads, the buoy of the Burcome or Grimsby Roads.	Whitebooth Roads -	1 6
Whitebooth Roads.	The port of Kingston-upon-Hull - -	2 6
	The port of Kingston-upon-Hull -	1 6

Berthage.

	s. *d.*
Vessels drawing 13 feet water and upwards - -	9 0
Vessels drawing 10 feet water and upwards, and not exceeding 13 feet - - - -	7 0
Vessels drawing under 10 feet water - -	4 0

For detention on board Vessels performing Quarantine.

Vessels having British registers, or the owners subjects of the Queen of Great Britain - *s.* *d.* 5 0 per diem.

Vessels belonging to aliens - - - 7 0 per diem.

Exclusive of the day on which the vessel shall enter into quarantine, and of the day of her release therefrom.

For attendance on board Vessels at anchor in any of the Roadsteads of the Humber.

For every day of 24 hours' attendance - 5*s.* per diem.

Part of a day's attendance, same as for a whole day.

Masters of vessels from foreign ports who have passed an examination by the Hull Marine Board are not required to employ pilots; and vessels coastwise are under no restriction whatever to engage pilots.

The steam tugs are the property of private parties, who charge rates according to agreement.

N. B. The port charges of Hull have been reduced in the aggregate about 18,000*l.* per annum. We have much pleasure in making this fact known, inasmuch as they have been thought high, which is not the case now, whatever it may have been formerly.

The commerce of Hull depends principally on her advantageous situation, and the judicious arrangements of her extensive docks. She is the principal emporium of the large and fertile counties on the æstuary of the Humber, and of those traversed by the numerous and important rivers, including the Trent, Don, Ouse, &c., that have their embouchure in it. The natural facilities for internal communication thus enjoyed by Hull have been greatly extended by artificial means. She is now united partly by rivers and canals, and also by a chain of railways with Manchester, Liverpool, Sheffield, Leeds, Bradford, and the manufacturing districts on the west; London, and the southern parts of England; the Midland Districts; and Bridlington, Scarbro', &c. on the east. A railway has also been constructed between Hull and the agricultural district of Holderness. She has become not merely the principal port for the East and West Ridings of

Yorkshire, but also for a considerable portion of the trade carried on between Lancashire and the northern parts of Europe. Indeed, much of the Baltic trade that once proceeded by the circuitous route of the English Channel or north about to Liverpool, now stops short at Hull, and finds its way by the more certain and expeditious accommodation of the railways across the country. A regular and very frequent intercourse (with Hamburg almost daily) is kept up by steam packets with Hamburg, Rotterdam, Antwerp, Amsterdam, Gottenburg, St. Petersburg, and other continental ports; and with London, Leith, Aberdeen, Newcastle, and other coasting ports. The great articles of export are cotton stuffs, and twist; woollen goods and woollen yarn; iron, and hardware; linens, and linen yarn; earthenware; machinery, and millwork; coals, salt, and more recently raw cotton brought from Liverpool and Manchester, principally for shipment to Petersburg and the N. of Europe.

Account of the Quantities and Declared Values of the Principal Articles the Produce of the U. Kingdom exported from Hull in 1857.

Articles.		Quantities.	Value.	Articles.		Quantities.	Value.
Apparel and slops	-	-	£2,918	Steel, unwrought	tons	5,228	£180,232
Beer and ale	barrels	495	1,726	Copper, unwrought	cwts.	3,790	22,928
Butter	cwts.	7	42	,, part unwrought and wrought	,,	26,445	145,650
Candles, stearine	lbs.	47	3	Lead: ore, pig, rolled, sheet and shot	tons	511	12,622
Cheese	cwts.	464	1,763	Tin: unwrought	cwts.	159	1,097
Coals, cinders and culm	tons	140,414	71,803	,, plates	,,	-	20,332
Cotton manufactures: —				Oil seed	gallons	1,861,892	285,166
Calicoes, cambrics and muslins, fustians and mixed stuffs	yards	87,840,263	1,637,298	Painters' colours	-	-	35,456
All other kinds	-	-	247,848	Salt	tons	20,471	17,126
Cotton yarn	lbs.	92,685,923	5,020,506	Silk manufactures: —			382,162
Earthenware and porcelain	-	-	78,268	Thrown, twist, and yarn	lbs.	218,334	157,167
Fish, herrings	barrels	242	311	Soap	cwts.	35	66
Glass of all kinds	-	-	5,376	Soda	,,	6,909	4,120
Haberdashery and millinery	-	-	63,726	Spirits	gallons	118	20
Hardwares and cutlery	cwts.	97,926	501,140	Stationery	-	-	25,988
Leather, tanned, unwrought	,,	1,367	15,972	Sugar (British refined)	cwts.	-	-
,, wrought	lbs.	24,821	3,669	Wool: sheep and lambs'	lbs.	1,846,223	143,100
,, saddlery & harness	-	-	458	Woollen and worsted manufactures: —			
Linen manufactures: —				Woollens	pieces	838,354	1,160,476
Cloths of all kinds and cambrics	yards	4,412,826	181,571	Worsted and mixed stuffs	yards	7,614,254	480,838
All other kinds	-	-	122,403	All other kinds	-	-	20,450
Linen yarn	lbs.	11,354,436	709,398	Woollen and worsted yarn, including yarn mixed with other materials	lbs.	18,692,614	1,995,226
Machinery, steam engines	-	-	133,946	All other articles	-	-	262,524
,, other sorts	-	-	802,209				
Metals, iron: pig, bar, wire and cast	tons	29,087	334,470	Total declared real value	-	-	£ 15,758,813
,, wrought of all kinds	,,	30,843	469,191				

Account of the Quantities of the Principal Articles imported into Hull during each of the 7 Years ending with 1858.

Goods.		1852.	1853.	1854.	1855.	1856.	1857.	1858.
Wheat	qrs.	45,171	221,446	208,175	118,461	202,214	286,174	261,527
Barley	—	86,041	89,173	72,906	27,089	159,820	250,682	214,363
Oats	—	26,325	24,136	24,245	36,059	42,045	99,350	61,135
Peas	—	11,515	6,440	9,710	9,018	4,736	21,004	25,821
Beans	—	52,592	69,369	62,109	42,050	69,756	65,956	55,451
Tares	—	1,403	3,393	6,046	11,166	4,406	7,824	3,149
Linseed	—	298,950	455,000	305,610	235,300	501,021	487,582	375,285
Rape seed	lasts	2,778	2,758	6,147	1,404	1,690	6,100	2,412
Clover seed	tons	2,137	3,080	1,200	2,500	2,200	1,800	744
Oil seed cakes	—	8,103	6,410	9,306	10,249	9,547	14,261	5,930
Cattle bones	—	17,275	12,900	15,706	12,158	16,200	10,297	16,908
Flax	—	15,654	15,895	12,271	14,909	15,895	19,466	17,913
Hemp	—	2,165	4,043	2,240	3,228	4,043	2,959	6,504
Iron	—	22,128	30,656	30,910	22,334	32,390	38,000	19,490
Timber	loads	22,653	39,605	50,083	32,000	50,793	34,227	35,437
Deals	—	142,397	203,970	145,056	64,902	195,912	120,343	120,300
Staves	—	2,791	5,914	2,056	3,324	4,831	4,732	4,900
Tar	barrels	-	-	11,069	18,511	22,531	26,818	17,527

The staple imports are timber, deals, grain, and seeds, sheep's wool, tallow, hemp, flax, hides, iron in bars, green fruit, bones, madder, bark, turpentine, cattle, sugar, &c. The rise of Goole and Grimsby has not affected the commerce of Hull at all to the extent anticipated, and her superior facilities for trade and navigation will always ensure her a decided superiority over the other ports of the Humber. Hull used to be very largely engaged in the northern whale fishery, having had, in 1818 and 1819, as many as 64 ships engaged in the trade. Subsequently, however, it rapidly declined, and from 1836 to 1845 only one ship was sent out! It has since partially revived; and for some years past, from 10 to 12 or 14 ships proceed annually from Hull to Greenland and Davis Straits. But the business is one of extreme hazard; and it is generally believed that, on the whole, the losses on the trade have fully countervailed the gains. The steam navigation of the port is greatly on the increase as seen in the previous table; and many iron steamers and sailing vessels continue to be added to the shipping of the port. These, with the reductions in the dock rates and port charges, the increased facilities afforded for the shipment and warehousing of goods, and the intimate communications with the interior of the kingdom, and even with foreign countries, have given an extraordinary impulse to the trade of the port, and this, no doubt, will be maintained and increased if the peace of Europe should happily be preserved.

It is believed by many that the trade of the town and the well-being of its inhabitants would be much promoted by purchasing up the docks from their present proprietors, and placing them under trust for the benefit of the town, as at Liverpool and Bristol; and this, we are assured, might be accomplished with but little difficulty. (We are indebted for most part of the foregoing information to the obliging kindness of Mr. Huffam, the able secretary to the docks.)

VI. Glasgow Docks, Shipping, &c.

Glasgow, the commercial capital of Scotland, on both sides the Clyde, lat. (Observatory) 55° 51′ 32″ N., long. 4° 17′ W., is indebted for her present greatness to her advantageous situation on a fine river, in one of the richest coal and mineral districts of the empire. Originally, however, the Clyde was much encumbered by fords and shallows, and for a lengthened period it served rather to excite and disappoint expectation, than to confer any real commercial advantage on the city. In 1662, after several other schemes had failed, the magistrates of Glasgow purchased the ground on which Port Glasgow (16 miles lower down the river) now stands, where they formed a harbour and a graving dock, the first work of its kind in Scotland. For a considerable period the intercourse between Glasgow and its newly acquired port was principally carried on by land carriage; but from 1665 attempts were every now and then made to deepen the river. In 1688 a quay was formed at the Broomielaw; but even so late as 1775 no vessel drawing 6 ft. water could reach Glasgow, except at spring tides. At length, however, a plan, proposed in 1769 by Mr. Golburn, engineer of Chester, for deepening the river to 7 ft. at neap tides, was adopted, since which time by the continued use of numerous dredging machines a depth of from 16 to 19 ft. water at high water neaps has been obtained. In the year ending the 30th June, 1858, 23 ships drawing 18 ft. water, and 13 drawing 19 ft. came safely to the Broomielaw, while one of the largest steam vessels afloat, the Persia, of 3,600 tons burthen, was launched in 1855 into the river about 1 mile below Glasgow, and came up to the harbour to receive its machinery. The work of deepening and straightening the river is still vigorously prosecuted. Six dredging machines and two diving bells are in constant employment. The river for 7 m. below the city, is very much widened and forms nearly a straight line; the sloping banks, formed of whinstone, being constructed in imitation of ashlar. The accommodation for shipping at the Broomielaw, or harbour, is now, also, very greatly extended. It comprises about 60 acres water. The quays extend about 2½ m. in length, are amply furnished with sheds for goods, cranes, and other appliances for working a first-rate harbour. Among its 19 cranes, 4 of which are wrought by steam power, there is one lately erected which may be well termed gigantic, being capable of easily lifting 60 tons. The quay has the important advantage of being directly connected, by means of the General Terminus Line, with the various railways that centre in the city. The parliamentary trustees for managing the river have, also, acquired ground N. of the harbour, on which they have power to construct docks. They may, likewise, construct a basin on the S. side.

The total expenditure on the river and harbour, inc. works, purchases of ground, &c. down to 1858, was 2,817,188*l.*, of which about 1,764,800*l.* has been raised as revenue.

The influence of these improvements on the shipping and trade of Glasgow has been most striking. At present, a greater number of sailing vessels and of steamers belong to Glasgow than to any other Scotch port, and the harbour is constantly crowded with ships from foreign parts, coasting vessels, and steamers. The steam-packets belonging to the Clyde that sail to New York, London, Liverpool, Dublin and Belfast, are amongst the finest vessels of their class in the empire. In all, there belonged to Glasgow, on the 31st December, 1858, 640 vessels, of the aggregate burden of 228,873 tons.

Revenue of the Clyde Trustees in the Years ending 30th June,

	£	s.	d.		£	s.	d.
1846	51,198	12	2	1852	76,077	9	4
1847	59,017	2	9	1853	77,919	13	6
1848	60,621	8	1	1857	82,797	10	7
1849	59,054	14	1	1858	78,183	17	6
1850	64,243	14	11				

Abstract Account of the Total Number of Arrivals of Sailing and Steam Vessels at the Harbour of Glasgow, Foreign and Coastwise, for the Year ending 30th June, 1858.

Vessels' Tonnage.	Number of Sailing Vessels.	Number of Steam Vessels.	Vessels' Tonnage.	Number of Sailing Vessels.	Number of Steam Vessels.
Under 40	2,458	3,069	Brought forward	5,256	12,422
40 to 60	1,579	1,050	350 to 400	48	29
60 — 80	438	4,094	400 — 450	31	78
80 —100	194	2,177	450 — 500	35	73
100 —150	167	675	500 — 600	47	1
150 —200	133	437	600 — 700	31	1
200 —250	153	506	700 — 800	26	5
250 —300	72	189	800 — 900	14	1
300 —350	62	445	900 and upwards	20	30
Carried forward	5,256	12,422	Total	5,506	12,640

Abstract of the Coastwise and Foreign Trade, Inwards and Outwards, at the Harbour of Glasgow, for the Year ending 30th June, 1858.

	Inwards.						Outwards.					
	Number.			Tonnage.			Number.			Tonnage.		
	Coastwise.	Foreign.	Total.	Coastwise.	Foreign.	Total.	Coastwise.	Foreign.	Total.	Coastwise.	Foreign.	Total.
Sailing vessels .	2,908	393	3,301	163,553	109,120	272,673	4,468	723	5,191	205,304	213,172	418,476
Steam ditto .	12,576	64	12,640	1,084,517	29,010	1,113,527	12,576	64	12,640	1,084 517	29,010	1,113,527
Total . .	15,484	457	15,941	1,248,070	138,130	1,386,200	17,044	787	17,831	1,289,821	242,182	1,532,003

Number of Sailing Vessels drawing 6 feet of water and upwards which arrived at the Harbour of Glasgow during 1858.

Feet	6	7	8	9	10	11	12	13	14	15	16	17	18	19
No	457	418	527	538	412	217	167	95	73	46	32	45	23	13

Revenue of Clyde Trust for the year ending 30th June, 1858	£78,783	17	6
Total expenditure, interest, feu duties, &c.	75,958	5	5
Leaving a surplus revenue of . .	2,825	12	1
Total expenditure on new works and improvements	64,724	8	4
Less surplus revenue, and other items	2,825	12	1
Excess of expenditure on the year	61,898	16	3
Total debt due by the Trust at 30th June, 1858	£1,070,355	1	1

Abstract of goods imported and exported for year ending June 30th, 1858.

Imported.—Coastwise, 345,132. Foreign, 135,403. Total, 480,535 tons.

Exported.—Coastwise, 442,044. Foreign, 232,219. Total, 674,263.

Harbour Dues.—Rates on vessels, on each time of entering, or using or departing from the river or harbour:—

1. On all vessels, except as after-mentioned, arriving at or departing from the harbour, from or to any place in the United Kingdom of Great Britain and Ireland, per register ton, 1½*d.* inwards, 1½*d.* outwards.

2. On all steam-vessels arriving at or departing from the harbour, from or to any place within a line drawn from east to west across the Channel at Pladda, per register ton, ¾*d.* inwards, ¾*d.* outwards.

3. On all vessels arriving at or departing from the harbour, from or to any place out of the United Kingdom of Great Britain and Ireland, per register ton, 4*d.* inwards, 4*d.* outwards.

4. On all vessels that shall remain in the harbour over and above the first 24 lawful days, per register ton, per week, 1*d.*

5. On all vessels entering or departing from any of the wet docks or tidal basins, when constructed, in addition to the harbour rates, per register ton, 6*d.* inwards, 6*d.* outwards.

6. On all vessels that shall remain in any of the wet docks or basins over and above the first 24 lawful days, per register ton per week, 2*d.*

7. On all vessels entering or using the river, not liable for the above rates, and not trading with cargo liable for rates under schedule (H), per register ton, 6*d.*—Provided that the last mentioned charge shall not extend to any vessels the goods in which are exempted from rates by this Act.

8. On all vessels entering or using the trustees' basin at Bowling, having previously been regularly trading on the river, per register ton, per week, ½*d.*

9. On all other vessels entering or using the said basin, per register ton per week, 2*d.*

Vessels proceeding *empty* for a cargo, or returning empty having discharged a cargo to or from any place beyond the limits of the harbour, shall not be liable to pay any rates for the empty trip, under article 7.

Vessels passing to or from any place on the River Clyde above Hutchesontown Bridge, through that portion of the river which is embraced within the limits of the harbour, shall not be liable for any of the rates specified in this schedule, unless they shall use any of the said docks or tidal basins, or any of the quays or other works constructed by the trustees on the banks of the river, within the limits of the harbour, or unless they shall take in or discharge their cargo or any part thereof within the said limits, or shall remain therein longer than may be necessary for passing through the same.

Rates for use of Ordinary Cranes.

	s.	d.
Each hogshead of sugar and hoists, not exceeding 12 cwt.	0	3
Ditto ditto from 12 to 15 ,,	0	4
Ditto ditto from 15 to 20 ,,	0	6
Each ton of hemp	0	6
Ditto mahogany and other timber rated in the first column of schedule (H) at 2*s.* per ton . .	0	6
Ditto other timber	0	4
Ditto marble.	1	0

Rates for Weighing.

	s.	d.
Each cart, waggon, or other carriage load or weigh not exceeding 12 cwt.	0	1
Ditto ditto ditto exceeding 12 cwt.	0	2

Weighing duties to be paid by the owners, shippers, or importers of goods, if required by the collector or other officer appointed by the trustees for ascertaining the rates, provided the weight specified by the owner, shipper, or importer of the goods, be found less than the real weight, but if equal to, or greater than, the real weight, the weighing duties are not to be exitible.

Weighing duties for coals to be paid only when weighed on the application of the owner or shipper.

Rates for the use of Planks, Stages, and Rhones.

	s.	d.
1. For planks or stages for loading or discharging vessels: for each plank or stage, per week .	1	0
2. For rhones: for each waggon of coal loaded therewith	0	1

One shilling extra on each cargo for removing the rhone to and from the vessel.

Rates for use of Water.

	s.	d.
For the supply of water to vessels entering and using the harbour or docks . . . . . per puncheon	0	8

But rates shall not be leviable unless water shall be actually supplied to vessels.

Rates for the use of Cranes, capable of lifting Ten Tons and upwards, putting in or taking out of Vessels old or new Machinery:—

				£	s.	d.
For each hoist, not exceeding 1 ton . . .				0	0	6
Ditto	exceeding 1 ton and not exceed.	2 tons		0	1	0
Ditto	ditto 2	ditto	3 tons	0	2	0
Ditto	ditto 3	ditto	4 tons	0	5	0
Ditto	ditto 4	ditto	5 tons	0	10	0
Ditto	ditto 5	ditto	6 tons	0	15	0
Ditto	ditto 6	ditto	8 tons	1	0	0
Ditto	ditto 8	ditto	10 tons	1	10	0
Ditto	ditto 10	ditto	12 tons	2	0	0
Ditto	ditto 12	ditto	15 tons	3	0	0
Ditto	ditto 15	ditto	20 tons	5	0	0
Ditto	ditto 20	ditto	25 tons	7	10	0
Ditto	ditto 25	ditto	30 tons	10	0	0
Ditto	ditto 30	ditto	35 tons	12	10	0
Ditto	ditto 35	ditto	40 tons	15	0	0
Ditto	ditto 40	ditto	45 tons	17	10	0
Ditto	ditto 45	ditto	50 tons	20	0	0
Ditto	ditto 50	ditto	60 tons	25	0	0

All necessary use of the crane, from the lifting of a piece of machinery off its carriage until stowed or adjusted in the vessel, or from the lifting of a piece of machinery from the vessel until placed on its carriage, shall be included in one hoist.

Putting on board machinery, engines and boilers, including fitting up, when the vessel is new and fitted out for the first time, per horse power of engine as per contract, 2*s.* 6*d.*; or per ton, 3*s.*

Taking out boilers and machinery for repairs, per horse power of engine, as per contract, 2*s.*; or per ton, 3*s.* 6*d.*

Putting on board boilers and machinery after being repaired, including fitting up, per horse power of engine as per contract, 1*s.* 6*d.*; or per ton, 2*s.*

Putting in or taking out boilers, per horse power of engine, as per contract, 1*s.*; or per ton, 3*s.*

The above rates to be charged per horse power of engine, or per ton, in the option of the trustees.

General repairs or jobbing, not included in the above, to be charged at the rate per day of 5*l.* 5*s.*

In addition to the rates for cranes, specified in this schedule, 6*d.* per hour to be paid for wages to cranemen attending while the crane is being worked.

Ballast.—The Clyde trustees remove ballast from vessels on either side the harbour, at a rate not exceeding 1*s.* per ton, and supply clean stone ballast at 1*s.* per ton.

The River Clyde is divided into three stages, and the following are the Tonnage Dues exigible upon each, viz.:—

The first stage extends from Hutcheson's Bridge to the Old Ferry at Renfrew, being about 600 yards to the east of the present ferry, and the dues on goods carried or conveyed thereon are two-thirds of the tonnage dues exigible by the trustees.

The second stage extends from the Old Ferry at Renfrew to the Mouth of Dalmuir Burn; and the dues exigible thereon are one-sixth of the tonnage dues; and

The third stage extends from Dalmuir Burn to Newark Castle; and the dues exigible thereon are one-sixth part of the tonnage dues.

Charges on a Ship of 500 Tons Register arriving at Glasgow with Cotton, and clearing out laden with Iron.

	Rates.	Foreign. £	Coasting. £
In with cotton.			
Harbour dues on ship	4d. F. and 1½d. C.	8 6 8	3 2 6
Tonnage dues on 300 tons cotton	1s. F. and 1s. 6d. C.	30 0 0	22 10 0
Lumpers' charges for unloading cargo	6d. per ton	7 10 0	same
Northern lights	4 4/16 and 6d. per 50 tons	9 2 1	0 0 0
Clyde lights	1d. per ton	2 1 8	1 0 10
Towing ship	9d. per ton	18 15 0	same
Piloting do.	2s. per ft. (water)	1 10 0	same
Planks and stages		0 15 0	same
Discharging and removing ballast, say 100 tons	1s. per ton	5 0 0	same
		83 0 5	
Norr.—Vessels of more than 15 feet water are charged, in towing and piloting, as drawing 15 feet.			
Out with pig iron.			
Harbour dues on ship	4d. F. and 1½d. C.	8 6 8	3 2 6
Tonnage dues on 700 tons pig iron	9d. F. and 9d. C.	26 5 0	same
Lumpers' charges for loading do.	8d. per ton	23 6 8	same
Northern lights	4 4/16 & 6d. p. 50 tons	9 2 1	0 0 0
Clyde lights	1d. per ton	2 1 8	1 0 10
Towing ship	9d. per ton	18 15 0	same
Piloting do.	2s. per ft. (water)	1 10 0	same
Planks and stages		0 15 0	same
Supplying ship with water		0 12 0	same
		90 14 1	
Norr.—If bar or rod iron the charges would be as follows:— Tonnage dues on 700 tons at 1s. 6d. F. and C., 52l. 10s. Lumpers' charges loading ditto at 10d. F. and C., 29l. 5s. 4d.			

Charges for Lights from the Clyde.

America and West Indies by North.	By South.
9l. 2s. 1d. . . . 4 4/16 and 6d. per 50 tons if from a port south of Cape Cod.	21l. 6s. 10d. . . . 10 2/16 and 6d. per 50 tons.
9l. 7s. 3d. . . . 4 6/16 and ditto if from a port north of Cape Cod.	

The charges for unloading and taking in a cargo is per agreement with licensed lumpers or porters who ply on the quay for hire. There are no fixed rates, but the following charges may be considered pretty near the mark: unloading cotton about 6d. per ton, and for taking in iron, 9d. per ton. The other items of charge of a public kind affecting the ship are, towing up and down the river, planks and stages for discharging and loading the cargoes, supplying the ship with water and the removal of ballast if any on board, and ships loaded with cotton usually have ballast.

Entrance to the River.—As a guide to mariners it may be mentioned that vessels of 19 feet draught of water can arrive at the harbour of Glasgow, and that vessels drawing 17 feet are considered regular traders. Vessels drawing 15 to 16 feet may always arrive and depart without touching the bottom. At the entrance to the river vessels are placed under the charge of pilots acquainted with the channel, which is well marked with beacons and buoys. A ship on reaching the mouth of the river at Newark had best commence ascending as soon after half-flood as possible. There are no particular usages connected with the harbour of Glasgow beyond those adopted in most other rivers and harbours. Lights are permitted in the harbour from 6 A.M. to 10 P.M.

Glasgow may be said to be *cosmopolitan* in her commerce and manufactures, uniting within herself the businesses and trades of almost every other town and city in the U.K. Hence it follows that while one branch of manufacture or trade may be dull, another may be prosperous, and accordingly Glasgow seldom feels any of those general depressions which so frequently occur in places which have only one or two branches of manufacture or commerce. The great industrial occupations of Glasgow are its cotton spinning and weaving; its collieries and iron manufactures; its iron ship building and machine making, and its chemical, porcelain, and glass manufactures. According to Dr. Strang the consumption of raw cotton in Glasgow in 1854 was above 1,900 bales per week, of from 430 to 440 lbs. each, and the number of power looms dependent on Glasgow was from 26,000 to 27,000, producing daily about 700,000 yards cloth. In the west of Scotland, of which Glasgow is the central mart, there were, in 1854, 6,448,000 tons of coals drawn from the pits, of which 2,152,800 tons were consumed in the manufacture of pig iron, 367,200 in the conversion of pig iron into malleable iron, making in all, 2,250,000 tons used in connection with the manufacture of iron, while 926,221 tons were shipped, and 148,312 tons sent beyond the boundaries by railways, leaving for the manufacturing consumption and domestic use of the Glasgow district 2,853,427 tons. The produce of pig iron in the counties of Lanark and Ayr, in 1854, amounted to 717,600 tons, 122,684 tons of which were shipped direct to foreign countries, 294,194 tons were sent coastwise from the Clyde, Port Dundas and the western ports of the Clyde æstuary, while 22,865 tons were sent away by railways, and 171,360 tons were converted into malleable iron, leaving the remaining 106,497 tons for foundry and other purposes of the district. Malleable iron during the same year was manufactured to the extent of 122,400 tons. The value of the whole coal and iron businesses to the district in 1854 may be reckoned at about 4,872,000*l.*, of which 1,973,000*l.* was paid in wages to 33,900 persons. In 1859, the quantity of pig iron produced is greater while the malleable remains stationary. As to iron ship building and marine engine making it may be stated that in 1853-54, 266 vessels were

made or contracted for, including both steam and sailing, having an aggregate tonnage of 168,000, for which also marine engines were being made or had been made of 29,000 horse power. The average of these vessels being 630 tons involved the large outlay of nearly four millions sterling. In 1858 there were launched 60 iron vessels of 40,522 tons, and there are now (1859) building 34 of 18,463 tons. The chemical products of Glasgow are multifarious, consisting of sulphuric, muriatic, nitric, and acetic acids and their various salts; bleaching powder, soda, soap, cudbear, bichromate of potash, sugar of lead, iodine, salts of ammonia, alum, prussiate of potash, naphtha, pitch, oil, animal charcoal, bone tar, cream of tartar, &c., &c. The works of St. Rollox, situated in the north-east quarter of Glasgow, constitute perhaps the largest chemical establishment in the world. They cover about 12 acres of ground, employ above 1000 men, consuming annually about 20,000 tons of common salt, and 80,000 tons of coal, and producing of soda, bleaching powder, sulphuric acid, soap, &c., about 25,000 tons. The lofty chimneys of St. Rollox are among the curiosities of the city, one of them being 450 feet high, 50 feet diameter at the base, and 14 feet at top. There are eight large potteries engaged in the manufacture of all kinds of china, porcelain, Parian, and other ware, four flint glass manufactories, and twelve bottlehouses. The total produce of the business, which employs 2000 people, may be fairly estimated at 120,000*l.*, while the quantity exported in 1854 from the Clyde amounted to 4,931,166 pieces. In the flint glass manufactories of Glasgow there were produced in 1854 about 1,640,000 lbs. of finished goods, the quantity exported being 2,262 cwt. The twelve bottlehouses produced 15 millions of bottles, nearly half of which were exported from the Clyde. In the manufacture of tobacco pipes 600 persons are employed, who work up 2,740 tons of clay, and who daily manufacture, finish, and pack about 2,700 gross pipes. The rapid progress which these industrial pursuits have made in Glasgow may be chiefly attributed to the demand which the foreign trade of the Clyde has created for bulky freight.

Accounts of the Custom Duties collected at Glasgow, and of the Number and Tonnage of the Ships belonging to the Port in the undermentioned Years.

Years ended Jan. 5.	Duties.			No. of Ships.	Tonnage.
	£	s.	d.		
1798	125	13	0½		
1806	1,523	7	11½		
1815	8,300	4	3½	59	4,829
1820	11,000	6	9	85	6,604
1830	59,013	17	5	233	40,978
1840	468,974	12	2	351	71,878
1850	640,568	7	9	507	137,909
1859	803,356	18	1	640	228,813

Glasgow now ranks as the 4th exporting port in the empire, being in this respect surpassed only by Liverpool, London, and Hull.

Account of the Quantities and Values of the Principal Articles, the Produce and Manufacture of the United Kingdom, exported from Glasgow in 1857.

Articles.		Quantities.	Value.	Articles.		Quantities.	Value.
			£				£
Apparel and slops			56,193	Metals: wrought of all kinds	tons	5,351	82,795
Beer and ale	barrels	31,163	116,772	steel unwrought	,,	7	163
Butter	cwt.	2,017	11,077	copper unwrought	cwts.	5	30
Candles, stearine	lbs.	1,031	60	part wrought and wrought	,,	3,537	21,858
Cheese	cwts.	1,086	4,396	lead: ore, pig, rolled, sheet, and shot	tons	351	8,795
Coals, cinders, and culm	tons	56,187	27,295	tin unwrought	cwts.	50	367
Cotton manufactures:—				plates			1,712
Calicoes, cambrics and muslins, fustians and mixed stuffs	yards.	105,801,054	1,880,424	Oil seed	gallons	37,333	6,950
all other kinds	,,		103,335	Painters' colours			19,472
Cotton yarn	lbs.	3,883,880	271,185	Salt	tons	172	235
Earthenware and porcelain			55,059	Silk manufactures			16,540
Fish, herrings	barrels	1,470	2,204	thrown, twist and yarn	lbs.	621	500
Glass of all kinds			45,955	Soap	cwts.	917	1,504
Haberdashery and millinery			215,572	Soda	,,	65,086	35,923
Hardwares and cutlery	cwts.	3,031	15,175	Spirits	gallons	883,022	148,486
Leather, tanned, unwrought,	,,	657	8,175	Stationery			55,058
wrought	lbs.	46,714	12,300	Sugar (British refined)	cwts.	2,986	6,603
saddlery and harness			7,903	Woollen and worsted manufactures:			
Linen manufactures:—				woollens	pieces	29,287	67,938
cloths of all kinds and cambrics	yards	14,521,725	416,452	worsted and mixed stuffs, all other kinds	yards	4,416,505	184,870
all other kinds			18,750				77,039
Linen yarn	lbs.	44,485	2,145	Woollen and worsted yarn, including yarn mixed with other materials	lbs.	12,878	1,615
Machinery, steam engines			103,910	All other articles			288,351
other sorts			136,785	Total declared value			5,103,518
Metals: iron, pig, bar, wire, and cast	tons	329,189	569,416				

The value of the exports from Greenock during the same year amounted to 502,899*l.* Those from Port Glasgow are comparatively inconsiderable.

Population.—If the foregoing figures give some idea of the rapid advance of Glasgow as a commercial and manufacturing city, the following table of its progressive population during the present century will render this more apparent.

Years.	Males.	Females.	Total.	Total Increase each Census.	Increase per Cent.
1801	- -	- -	83,769		
1811	- -	- -	110,460	26,691	31·865
1821	68,119	78,934	147,013	36,563	33·11
1831	93,724	108,702	202,426	55,383	37·66
1841	133,313	147,369	280,682	78,256	38·22
1851	163,731	183,270	347,001	66,319	23·62

In 1859 the estimated population of Glasgow and its sub urbs is about 440,000, having been nearly quintupled in 50 years!

We are indebted for most part of the previous details to our learned friend Dr. Strang, Chamberlain of the city of Glasgow.

VII. Dundee Docks, Shipping, &c.

Dundee, on the N. side of the Frith of Tay, lat. 56° 28′ N., long. 2° 57′ 30″ W., 9 miles W. from Buttonness Point (on which there are two first-class light-houses, with *fixed* lights), has increased with extraordinary rapidity since the peace of 1815, and is now become the principal seat of the British linen manufacture, and has a very extensive trade. Down to 1815, the harbour was on a humble scale, and adapted only to a very limited commerce. Only one small pier existed. But in the year referred to, an act was obtained for separating the harbour from the other branches of the burgh revenue, for constructing an entirely new harbour, on a scale commensurate with the growing importance of the place, and for investing the management in a board of commissioners. Additional acts were obtained in 1830 and 1836; and the result of the measures thus set on foot has been, that Dundee can already boast of the completion of two wet docks, King William's, of 6¼, Earl Grey's, of 5¼, and of a tide harbour, of 4¾ acres, connected with them. The breadth of the lock of the former, to which is attached a splendid graving dock, is 40 feet; and that of the latter, which is fitted to admit steamers, 55 feet. A crane, reaching 28 feet from the face of the quay wall on which it is placed, and capable of raising 30 tons, is erected at this dock, so that every facility is afforded for taking out and putting in the boilers &c. of the largest steam vessels. There is also a Morton slip attached to the tide harbour, on which three vessels may be placed at once. The vessels are hauled up by a steam-engine of 16 horse power: a ship of 800 tons may be placed on the slip; one of the Dundee steamers, the Perth, weighing, without her boilers, 596 tons, was lately repaired on it.

A wet dock of 14½ acres is now being constructed, the lock of which will be 60 feet. The harbour plan also embraces another wet dock of 9½ acres, and the tide harbour between these docks will be of the extent of 11 acres. The quays are wide and spacious, affording berthage for above 65 vessels; and there are extensive and convenient carpenters' and other yards for ship building. The accommodation for the building and repairing of vessels is not surpassed in any port of the kingdom.

The expenditure on these great works up to May, 1858, was as follows: —

Total expenditure to May, 1858 - - - - - -			£834,809 17 9
Total shore dues, &c. collected to May, 1858 - -	£662,902 1 11		
Amount of debt at May, 1858 - - - -	171,907 15 10		
Total income to May, 1858 - - - - - -			£834,809 17 9

The shore dues in 1765 yielded 126*l.*; 1775, 140*l.* 5*s.*; 1785, 490*l.*; 1795, 965*l.*; 1805, 1,272*l.* 10*s.*; 1814, 1,701*l.* 10*s.* 3*d.* Their amount in the following years is seen in the Table next page.

It is essential also to bear in mind, that while the income has rapidly increased, the rates of charge have been very considerably reduced. The customs revenue in the undermentioned years has been: —

Years.	Revenue.	Years.	Revenue.
1792 - -	£6,341 17 4	1850 - -	£65,183 10 3
1833 - -	48,647 12 1	1855 - -	57,894 11 1
1837 - -	76,150 1 3	1856 - -	56,678 5 2
1840 - -	63,346 8 9	1857 - -	59,084 1 6
1845 - -	46,325 0 0	1858 - -	53,392 18 6

The amount of customs duties does not, however, afford anything like a true criterion of the extent of the trade of the port, as flax and hemp, the chief articles of import from foreign countries, are not subject to any duty. The greater part of the sugar used in Dundee being either refined or of the sort called crushed lump, which is partially refined, there is scarcely any revenue derived from sugar, there being no refineries here, and no direct importation of raw sugar. When there was a duty on foreign corn, a considerable sum was received at this port, but now that the duty is only 1*s* per quarter, the sum received from that source is very small.

An Account of the Dundee Harbour Revenue from May, 1822, to May, 1858.

Periods.	Shore Dues.				Miscellaneous.							Total Revenue.
	Scale by which levied.	Collected by the Trustees.	Received under Lease.	Total Shore Dues.	Rental.	Graving Dock Dues.	Patent Slip Dues.	Shed Dues.	Crane Dues.	Sundries.	Total Miscellaneous.	
		£	£	£	£	£	£	£	£	£	£	£
1822-23	67½	7,145	-	7,145	162	327	-	-	-	13	502	7,647
1825-26	75	-	8,055	8,055	302	324	-	-	-	468	1,094	9,149
1830-31	100	10,599	-	10,599	346	483	-	-	76	-	905	11,504
1835-36	85	12,774	-	12,774	764	444	-	-	119	317	1,644	14,418
1840-41	100	15,360	-	15,360	1,541	588	334	182	992	685	3,522	18,882
1845-46	110	22,210	-	22,210	1,291	709	392	230	139	480	3,171	25,381
1850-51	120	19,876	-	19,876	1,989	701	220	197	154	621	3,882	23,758
1855-56	133⅓	17,457	-	17,457	1,739	765	352	134	263	1,070	4,323	21,780
1856-57	112½	22,885	-	22,885	1,779	643	297	151	197	1,167	4,254	27,119
1857-58	112½	20,592	-	20,592	1,847	864	431	208	239	1,214	4,803	25,395

Account of the Principal Imports into and Exports from Dundee in 1857 and 1858.

Articles.	Imports.		Articles.	Exports.	
	1857.	1858.		1857.	1858.
Flax - - tons	29,656	27,289	Osnaburgs - - pieces	7,069	9,414
,, Codilla - - —	6,123	6,064	Sheetings - - —	99,025	120,827
Hemp - - —	913	810	Bagging - - —	7,773	9,096
,, Codilla - - —	23	28	Sail cloth - - —	195,166	79,551
Jute - - —	15,459	6,358	Sacking - - —	137,691	188,438
Lime - - bolls	35,975	29,343	Dowlas - - —	8,551	9,487
Coals, Scotch - - tons	13,363	10,874	Sundries - - —	43,488	37,679
,, English - - —	159,154	160,991	Total - - —	398,763	454,492
Timber - - loads	20,699	23,433			
Iron - - tons	1,230	39			
Guano - - —	2,355	4,261	Yarn - - cwts.	90,298	92,489
Tar - - barrels	3,512	2,680	Grain :		
Whale blubber - - tuns	658	148	Wheat - - qrs.	2,382	3,522
,, bone - - cwts.	790	201	Barley - - —	776	4,044
Flour - - sacks	763	7,305	Oats - - —	662	1,524
Wheat - - qrs.	57,789	23,612	Pease - - —	15	
Tares - - —	133	154	Cattle - - no.	236	155
Pease - - —	520	414			
Oats - - —	5,758	2,549			
Barley - - —	1,153	42			

Statement of the Number of Vessels and their Tonnage which entered the Harbour in 1857 and 1858.

Description.	Vessels.		Tonnage.	
	1857.	1858.	1857.	1858.
Vessels from foreign ports belonging to Dundee - -	95	141	20,961	33,768
,, ,, not belonging to Dundee -	446	342	65,626	55,379
,, coasting belonging to Dundee - -	1,459	1,572	152,164	154,006
,, not ,, ,, ,, - -	451	285	27,699	16,463
in the River Tay trade ,, ,, - -	655	599	24,886	24,055
Total - - -	3,136	2,939	291,336	283,671

There belonged to the port, on the 1st January, 1858, 18 sailing vessels of less, and 251 of more than 50 tons, the agg. burden of the former being 633, and of the latter 49,844 tons; there then, also, belonged to the port 9 steamers, agg. burden, 1,852 tons. Latterly there has been a considerable extension of the carrying trade by steam from this port. Besides steamers to London and Hull weekly, there are regular sailing ships during the season to Hamburg and St. Petersburg, and two large screw steamers have this year (1859) been fitted out for Davis' Straits and the Greenland seas.

Table showing the Size and Berthage of the Docks finished and projected at Dundee.

Name of Dock.	Acres.	Berthage in Feet.	Depth of Water.		Remarks.
			Springs.	Neaps.	
			ft. in.	ft. in.	
Earl Grey's dock - -	5½	2,645	18 8	13 6	These tides are an average of 8 years.
King William's dock - -	6½	2,555	16 2	11 0	
Victoria dock - -	14½	3,550	18 8	13 6	The south wall of this dock is finished, the rest partly so.
Projected dock (east) - -	9½	2,645	18 8	13 6	
West tide harbour - -	4½	1,580	18 8	13 6	
East tide harbour - -	11	2,010	18 8	13 6	Considerably advanced, and when it is finished it will contain 2490 ft. berthage.
Graving dock* - -	270 feet in length, 70 feet wide at top of walls, 35 feet at bottom.				
Patent slip* - -	600 feet in length, capable of taking up a ship of 800 tons, worked by an engine of 16 horse power.				
Width of entrance—K.W.D. -	40 feet length of lock, 160 feet betwixt the gates.				
Ditto E. G. D. -	55 do. 215 do				
Ditto Vic. D. -	60 feet,—not finished.				

* The Graving dock and Patent slip are capable of taking 3 vessels on each at one time, each vessel being 350 tons.

The docks are accommodated with three sheds, having 15,400 sq. ft. of floor, and seven cranes.

The Pilotage of the River Tay and Harbour of Dundee is under the jurisdiction of a board composed jointly of the trustees of the harbour of Dundee and the corporation of the fraternity of masters and seamen of Dundee. Certain rates of pilotage are exigible under the Dundee harbour acts, but the pilotage is not compulsory. The establishment has two pilot cutters, with necessary tenders, and one of the cutters is always at sea, cruising outside the buoy of Tay, unless driven in by stress of weather. There is a pilot master at the port with an ordinary staff of 15 licensed pilots.

Statement of Tonnage Dues on Vessels entering the Harbour of Dundee.

Vessels, &c.	Rates. Inwards.		Outwards.	
	s.	d.	s.	d.
1. For all vessels navigating to the southward of the Tropic of Capricorn, per register ton	1	6	1	0
2. Between the Equator and the Tropic of Capricorn	1	3	1	0
3. Between the Tropic of Cancer and the Equator	1	0	1	0
4. To or from any port in North America, Greenland, Davis' Straits Fisheries, and all within the Straits of Gibraltar	0	10	0	10
5. To or from any port in Europe to the north of Drontheim, in Norway, and to or from the Azores, Madeira, or Teneriffe Islands, and the west coast of Africa, between the Tropic of Cancer, and the Straits of Gibraltar	0	9	0	9
6. To or from any port on the coast of Europe, between Gibraltar and Drontheim in Norway, including both these ports, and all ports in the Baltic	0	8	0	8
7. For all vessels navigating outwards to foreign ports, loaded in whole, or in part, with coals only, per ton register In cases where it shall be shown to the satisfaction of the trustees, or their receiver of rates, that coals for export have been put on board of any such vessel equal in the number of tons to two-third parts of the vessel's registered tonnage, other goods or articles may be put on board at the last-mentioned tonnage rate.			0	6
8. To or from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys	0	3	0	3
9. All vessels loaded with coals, lime, or manure only, from any port in Great Britain, &c., excepting Scotland	0	2	0	2
10. All vessels loaded with coals, lime, or manure only, from any port in Scotland	0	1½	0	1½
11. All vessels employed in the River Tay, carrying goods and entering the precincts of the port or harbour of Dundee	0	1½	0	1½
12. All steam vessels from any port in Great Britain, or places enumerated in No. 8, carrying passengers and their luggage exclusively	0	2	0	2
13. All vessels employed in the River Tay, carrying passengers and their luggage exclusively, and vessels trading from the harbour, or carrying passengers to any part within the precincts	0	1	0	1
14. All steam vessels carrying goods and passengers, to pay the same rates as sailing vessels.				

(From information communicated by our esteemed friend George Duncan, Esq., late M.P. for Dundee.)

VIII. Leith Docks, Shipping, etc.

Leith, which may be called the port of Edinburgh, has 3 wet docks, containing about 15 acres of water room. Two of these were constructed several years ago for the accommodation of the vessels ordinarily frequenting the port. The other, which has been recently finished, is intended for the use of steamers. It has also, or shortly will have, 3 dry docks; 2 on a small scale being already constructed, and 1 of larger dimensions being in the course of formation.

These docks have cost large sums; and owing to the harbour drying at low water, large sums have, also, been expended in the extension of the old, and the formation of a new pier. The former consisting partly of stone, and partly of stone and wood intermixed, is of very great length; and the new, or western pier, which is nearly parallel to the other, is also of great length, and has a landing stage near its extremity, and a railway. The object in carrying out the piers was to form a harbour which, at their extremity, should have water sufficient to enable vessels to come to the landing stage at all times of the tide. But this object has not been fully attained; and though it had, we should have been inclined to regard the outlay upon it as little better than thrown away. The truth is, that the docks and new harbour at Leith are entirely misplaced. Instead of being where they are, the docks should have been constructed at Trinity or Granton, about ¾ or 1 m. W. from Leith, being, however, nearer to it than the extremity of the new pier. And a deep water harbour, accessible at all times, having been already constructed at Granton, the outlay on the extension of the piers at Leith seems not a little preposterous.

The harbour at Granton has been formed by the Duke of Buccleugh. A pier, constructed in the most approved manner, projects into the sea about 1700 feet. It is shaped like a T with its head to the N., and has harbours and landing places on both sides. It has been open for some years; but hitherto it has been principally resorted to by steamers. The duke has, also, constructed a breakwater, which adds much to the security of the shipping.

The commerce of Leith, from its being the port of Edinburgh, is very considerable, and has been slowly but steadily improving. It carries on a limited trade with Australia, the E. and W. Indies, the Mediterranean, Canada, and the United States; but its chief foreign trade is with Holland and the N. of Europe. The principal articles of export consist of linen manufactures and linen yarn, brought from Fifeshire and Dundee; cottons and cotton yarn from Lanarkshire; iron from the latter; with woollens and worsteds, coal, salt-fish, ale, spirits, &c. And as the port is now about to be connected by branches with the leading railway lines that centre in Edinburgh, a considerable extension of its trade may be anticipated. The leading articles of import consist of corn and timber; flax and hemp; hides, guano, and provisions; sugar and other colonial products; wool, wine, spirits, dye stuffs, &c. With regard to its domestic trade, there are companies, which have vessels trading with London; and other companies have vessels trading with Hull, Newcastle, Liverpool, Greenock, Glasgow, Aberdeen, Montrose, Wick, Orkney, Shetland, Dundee, Stirling, &c. The communication with London is kept up by first class steamers that sail twice a week during the entire year, but

more vessels sail in summer than in winter. There is also a communication by steam with Newcastle and Hull twice a week; with Stirling twice a day; the opposite coast of Fife several times a day; and a regular communication with every important place on the E. of Scotland, from Lerwick in Shetland, and Kirkwall in Orkney, to Berwick-upon-Tweed. The steamers sail some from Leith and some from Granton. Leith formerly sent 8 or 10 vessels to the Greenland whale fishery, but such has been the decline of the business that she no longer sends a single ship. We subjoin an

Account of the Quantities and Values of the Principal Articles, the Produce and Manufacture of the U. Kingdom exported from Leith, in 1857.

Articles.		Quantity.	Value.
Apparel and slops			£2,719
Beer and ale	barrels	3,851	14,533
Butter	cwts.	11	50
Candles, stearine	lbs.	3,900	195
Cheese	cwts.	53	171
Coals, cinders and culm	tons	27,955	26,470
Cotton manufactures:—			
Calicoes, cambrics, and muslins, fustians and mixed stuffs	yards	2,405,602	48,658
All other kinds	,,	4	1,210
Cotton yarn	lbs.	586,950	28,087
Earthenware and porcelain			1,151
Fish, herrings	barrels	22,132	33,314
Glass of all kinds			2,535
Haberdashery and millinery			3,873
Hardwares and cutlery	cwts.	192	1,510
Leather: tanned, unwrought	,,	4	23
wrought	lbs.	1,918	280
saddlery and harness			470
Linen manufactures:—			
Cloths of all kinds, and cambrics	yards	3,110,510	103,518
All other kinds			594
Linen yarn	lbs.	3,402,697	161,558
Machinery: steam engines			20,989
other sorts			14,099
Metals:—			
Iron: pig, bar, wire and cast	tons	43,600	168,986
Metals, *continued*—			
Wrought, of all kinds	tons	858	£10,331
Copper, wrought and unwrought	cwts.	14	80
Lead, ore, pig, rolled, sheet and shot	tons	43	1,197
Tin: unwrought	cwts.	24	103
plates			15
Oil seed	gallons	17	5
Painters' colours			3,719
Salt	tons	46	159
Silk manufactures			973
thrown, twist and yarn	lbs.	2,262	1,667
Soap	cwts.	3	8
Soda	,,	1,525	761
Spirits	gallons	103,928	16,579
Stationery			1,511
Wool, sheep and lambs'	lbs.	8,879	804
Woollens	pieces	663	2,585
Worsted and mixed stuffs	yards	175,641	16,869
All other kinds			5,470
Woollen and worsted yarn, including yarn mixed with other materials	lbs.	349,664	44,908
All other articles			87,675
Total declared value			£ 830,532

The customs duty on goods imported during the same year amounted to 486,646*l*. In 1856 it amounted to 493,817*l*.

There belonged to Leith on the 1st Jan. 1858, 77 vessels of 50 tons and upwards, and 73 of less than 50 tons, the aggregate burden of the former being 19,152 tons, and of the latter 2,218 tons, exclusive of 25 large and 14 small steamers.

Account of the British and Foreign Ships which cleared out from Leith with Cargoes and in Ballast in 1857, Specifying the Countries for which they cleared, and the Number and Tonnage of those cleared for each.

Foreign Countries.	British.						Foreign.					
	Laden.		Ballast.		Total.		Laden.		Ballast.		Total.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
Russia:												
Northern Ports	9	3,243	7	1,302	16	4,545	4	697	11	1,912	15	2,609
Southern Ports	.	.	1	547	1	547						
Sweden	.	.	1	92	1	92	1	149	3	513	4	662
Norway	.	.	1	415	1	415	17	1,554	4	781	21	2,335
Denmark	10	1,290	.	.	10	1,290	71	6,362	.	.	71	6,362
Prussia	61	16,843	2	798	63	17,641	28	3,766	.	.	28	3,766
Germany	60	19,355	1	256	61	19,611	21	3,104	.	.	21	3,104
Holland	61	9,800	.	.	61	9,800	7	540	.	.	7	540
Belgium	1	62	.	.	1	62	2	67	.	.	2	67
France	14	1,094	.	.	14	1,094	3	388	.	.	3	388
Portugal	2	620	.	.	2	620						
Spain	8	1,266	1	147	9	1,413	5	719	.	.	5	719
Italian States	.	.	.	.	.	.	8	973	1	171	9	1,144
Turkey	2	1,094	.	.	2	1,094	.	.	.	.	.	.
United States	.	.	.	.	.	.	1	568	.	.	1	568
Cuba and For. W. Indies	3	611	.	.	3	811	8	2,007	.	.	8	2,007
Central and S. America	3	836	.	.	3	836	6	1,018	.	.	6	1,018
Amboyna	.	.	.	.	.	.	1	643	.	.	1	643
	234	56,314	14	3,557	248	59,871	185	22,555	19	3,377	202	25,932
British Possessions.												
Channel Islands	.	.	.	.	.	.	.	.	.	.	.	.
East Indies and Australia	1	105	.	.	1	105	.	.	.	.	.	.
N. American Colonies	9	3,475	.	.	9	3,475	2	1,253	.	.	2	1,253
West Indies	11	5,781	.	.	11	5,781						
	2	350	.	.	2	350						
	23	9,711	.	.	23	9,711	2	1,253	.	.	2	1,253
Total	257	66,025	14	3,557	271	69,582	185	23,808	19	3,377	204	27,185

Dock Rates on Vessels, per Register Ton.

	s.	d.
All vessels from Asia or Africa, to the east of the Cape of Good Hope, including the Cape, or from S. America	1	5
From West Indies, West Coast of Africa, Cape de Verde Islands, or Greenland and Davis' Straits fisheries	1	5
From within Straits of Gibraltar, or from N. America	1	2
From the Baltic all above the Sound, Onega, Archangel, Jersey, or Guernsey, Portugal, France, and Spain, without the Straits of Gibraltar, Newfoundland, Madeira, and Western Islands	1	0
From Norway, Sweden, Denmark, Holstein, Hamburg, Bremen, Holland, and Flanders, that is, without the Baltic, and no farther south than Dunkirk	0	10
From ports in Great Britain and Ireland other than those mentioned below	0	8
From ports between Buchanness and Eyemouth, including the Firth of Forth, the Great Canal and the River Clyde, as far down as Greenock	0	5
All vessels entirely loaded with coals, either for wholesale or retail, and which are excluded from the docks —from ports in England	0	6
Ditto ditto from ports in Scotland	0	4
All steam vessels from ports in the Firth of Forth, as far as Anstruther on the north, and North Berwick on the south, carrying passengers and their luggage exclusively	0	0½
Note.—On all vessels arriving light, or in ballast to load coals, stones, cotton, pig iron, or street manure, the charge reduced during the pleasure of the commission, to	0	4

Rates of Pilotage for Leith Harbour, as fixed by the Commissioners, and approved by the Trinity House and Board of Trade.

	s.	d.
For a vessel drawing not more than 7 feet of water .	5	10
Above 7 and not above 8 feet	8	0
8 9	9	9
9 10	11	8
10 11	13	9
11 12	16	0
12 13	19	6

And for every foot or part of a foot above 13, an additional charge of 1*s.* 6*d.*

Extra Attendance.—For each 24 hours extra attendance on board, when requested by the master, to the master-pilot 2*s.* and to each of the boatmen 1*s.*

Pilot Boats and Crews.

	s.	d.
For vessels from foreign ports, under 70 tons .	4	0
Ditto from ditto, of 70 and not exceeding 120 tons	5	0
Ditto from ditto, exceed. 120 and not exceed. 250 .	6	0
Ditto from ditto, exceeding 250 tons . . .	9	0

Coasting vessels of any size which require to take a pilot boat, or employ such, to be charged only 2*s.* 6*d.* for boat's and men's attendance, besides the pilotage.

The rates of pilotage, &c., outwards are one-half of those inwards.

Where a vessel takes a steam tug, either in or out, the pilotage and charges for pilot boats and crews shall be one-third less than the rates above specified.

DOG (Fr. *Chien*; Ger. *Hund*; It. *Cane*; Lat. *Canis familiaris*). Of this quadruped, emphatically styled "the friend and companion of man," there is a vast number of varieties. But to attempt to give any description of an animal so well known would be quite out of place in a work of this kind; and we mention it for the purpose principally of laying the following account before our readers, with a remark or two with respect to Asiatic dogs.

An Account of the Number of Dogs entered, and for which Duty was paid in Great Britain, in the Year 1851; distinguishing the Number of Packs of Hounds, and the Number of each Description of Dog, the Rate of Duty on each, and the aggregate Amount paid.

Description of Dogs.	Rates of Duty. £	s.	d.	Total Number.	Amount of Duty. £	s.	d.
Greyhounds, &c. - - - - -	1	0	0	11,964	11,964	0	0
Pointers, hounds, setter dogs, spaniels, terriers, or lurchers, or where the person keeps two or more - - - -	0	14	0	105,134	73,593	16	0
Dogs, not being greyhounds, hounds, &c., and the person keeping one only - - - - - -	0	8	0	172,211	68,884	8	0
Total number of dogs, exclusive of packs of hounds - -	-		-	289,309	154,442	4	0
Packs of hounds compounded for - - - -	-		-	85	5,060	0	0

In 1855 the duty on dogs was equalised and fixed at 12*s.* each, without regard to denomination or breed. It was at the same time provided (16 & 17 Vict. c. 90), that no person shall be charged more than 3*l.* 12*s.* in one year for hounds, and 9*l.* for greyhounds, how many soever of these animals he may keep (a limitation for which it is not easy to discover any sufficient reason); and that shepherds' dogs kept *bonâ fide* for herding sheep and cattle shall be exempted from duty.

In 1857, the total number of 332,056 dogs were charged with the duty of 12*s.*, which, consequently, produced 198,921*l.*

Cuvier, the great French naturalist, says, "The dog is the most complete, the most remarkable, and the most useful conquest ever made by man: every species has become our property; each individual is altogether devoted to his master, assumes his manners, knows and defends his goods, and remains attached to him until death; and all this proceeds neither from want nor constraint, but solely from true gratitude and real friendship. The swiftness, the strength, and the scent of the dog have created for man a powerful ally against other animals, and were, perhaps, necessary to the establishment of society. He is the only animal which has followed man through every region of the earth."

It is singular, however, that neither Cuvier, nor any one of those by whom his statements have been copied, should have mentioned that this account is applicable only to Europe. All Mohammedan nations regard the dog as impure, and will not touch it without an ablution. The same is also the case with the Hindoos. From the Hellespont to the confines of Cochin-China, dogs are unappropriated, and have no master. They prowl about the towns and villages; and though they are naturally more familiar, they are in no respect more domesticated, than the carrion crows, kites, vultures, &c., which assist them in performing the functions of scavengers. In China and Cochin-China, the dog is eaten as food; its flesh being, with the exception of that of the hog, the most common in their markets.

The unnecessary multiplication of dogs, particularly in large cities, is a very great nuisance: coming, as they often do, into the possession of those who are without the means of providing for them, they are frequently left to wander about in the streets; and from ill usage, want of food and of proper attention, are apt, during hot weather, to become rabid. In several places the nuisance has attained to a formidable height; and it is singular, considering the numerous fatal occurrences that have taken place, that no efforts should have been made to have it abated. It has grown to its present excess, partly from too many exemptions having been granted from the duty, and partly from a want of care in its collection. The number of the former has now been lessened; and besides more rigidly enforcing the latter, it would be proper to enact that all dogs found wandering in the streets without masters should be impounded.

DOWN (Ger. *Dunen, Flaumfedern*; Du. *Dons*; Fr. *Duvet*; It. *Penna matta, Piumini*; Sp. *Flojel, Plumazo*; Rus. *Puch*; Lat. *Plumæ*), the fine feathers from the breasts of several birds, particularly those of the duck kind. That of the eider duck is the most valuable. These birds pluck it from their breasts and line their nests with it.

Mr. Pennant says that it is so very elastic, that a quantity of it weighing only $\frac{3}{4}$ of an ounce, more than fills the crown of the largest hat. That found in the nest is most valued, and termed *live down*; it is much more elastic than that plucked from the dead bird, which is comparatively little esteemed. The eider duck is found on the western islands of Scotland, but the down is principally imported from Norway and Ireland.

DRAGON'S BLOOD. See BALSAM.

DRAWBACK, a term used in commerce to signify the remitting or paying back of the duties previously paid on a commodity on its being exported.

A drawback is a device resorted to for enabling a commodity affected by taxes to be exported and sold in the foreign market on the same terms as if it had not been taxed at all. It differs in this from a bounty, — that the latter enables a commodity to be sold abroad for *less* than its natural cost, whereas a drawback enables it to be sold exactly at its natural cost. Drawbacks, as Dr. Smith has observed, "do not occasion the exportation of a greater quantity of goods than would have been exported had no duty been imposed. They do not tend to turn towards any particular employment a greater share of the capital of the country than would go to that employment of its own accord, but only to hinder the duty from driving away any part of that share to other employments. They tend not to overturn that balance which naturally establishes itself among all the various employments of the society; but to hinder it from being overturned by the duty. They tend not to destroy, but to preserve, what it is in most cases advantageous to preserve — the natural division and distribution of labour in the society."—(p. 221.)

Were it not for the system of drawbacks, it would be impossible, unless when a country enjoyed some very peculiar facilities of production, to export any commodity that was more heavily taxed at home than abroad. But the drawback obviates this difficulty, and enables merchants to export commodities loaded at home with heavy duties, and to sell them in the foreign market on the same terms as those fetched from countries where they are not taxed.

Most foreign articles imported into this country may be warehoused for subsequent exportation. In this case they pay no duties on being imported: and, of course, get no drawback on their subsequent exportation.

Sometimes a drawback exceeds the duty or duties laid on the article; and in such cases the *excess* forms a real bounty of that amount, and should be so considered.

The Act 16 & 17 Vict. c. 107. has the following clauses in relation to drawbacks: —

No drawback of excise shall be allowed upon any goods cleared for exportation, unless the person intending to claim such drawback have given due notice to the officer of excise, and have produced to the searcher, at the time of clearing such goods, a proper document under the hand of the officer of excise, containing the description of such goods; and if such goods be found to correspond with the particulars of the goods contained in such document, and be duly shipped and exported, the searcher shall, if required, certify such shipment upon such document, and shall transmit the same to the officer of excise. — § 122.

No drawback to be allowed upon the exportation of any goods entered for drawback or as stores which shall be of less value than the amount of the drawback claimed; and all such goods so entered shall be forfeited, and the person who caused such goods to be entered shall forfeit the sum of 200*l*., or treble the amount of drawback claimed in such case, at the election of the Commissioners of Customs. — § 123.

No drawback to be allowed on any tobacco not wholly manufactured from tobacco on which the duty on importation shall have been paid, nor on any tobacco mixed with dirt, rubbish, or other substance; and every person who shall enter or ship, or cause to be entered or shipped, any tobacco contrary hereto, shall, over and above all other penalties which he may thereby incur, forfeit treble the amount of the drawback sought to be obtained, or 200*l*., at the election of the Commissioners of Customs, and all such tobacco shall be forfeited.—§ 124.

If any goods which have been cleared to be exported for any drawback be not duly exported to parts beyond seas, or be unshipped or relanded in any part of the U. K. (such goods not having been duly relanded or discharged as short-shipped under the care of the proper officers), or be carried to any of the Channel Islands (not having been duly entered, cleared, and shipped to be exported or carried direct to such islands), the same shall be forfeited, together with any ship, boat, or craft which may have been used in so unshipping, relanding, landing, or carrying such goods from the ship in which the same were shipped for exportation; and the master of such ship, and any person by whom or by whose orders or means such goods shall have been so unshipped, relanded, landed, or carried, or who shall aid, assist, or be concerned therein, shall forfeit a sum equal to treble the value of such goods, or a penalty of 100*l*., at the election of the Commissioners of Customs. — § 135.

(See DEBENTURE and IMPORTATION AND EXPORTATION.)

DUBBER, a leathern vessel, bottle, or jar, used in India to hold oil, ghee, &c. Barrels, as already observed — (see BARRELS) — are entirely a European invention. Liquids, in Eastern countries, are for the most part packed for exportation in leathern vessels. Dubbers are made of thin untanned goat skins; and are of all sizes, from a quart up to nearly a barrel.

DUNDEE, DOCKS, SHIPPING, &c. See p. 533.

DUNNAGE, in commercial navigation, loose wood, consisting of pieces of timber, boughs of trees, faggots, &c, laid in the bottom and against the sides of the ship's hold, either, 1st, by raising the cargo when she is loaded with heavy goods, to prevent her from becoming too stiff — (see BALLAST); or, 2d, to prevent the cargo, should it be

susceptible of damage by water, from being injured in the event of her becoming leaky. A ship is not reckoned seaworthy unless she be provided with proper and sufficient dunnage.—(*Falconer's Marine Dictionary; Abbott (Lord Tenterden) on the Law of Shipping*, part iii. c. 3.)

DYES AND DYE STUFFS: materials that afford different colours, which the dyer extracts and imparts to other articles.

Mankind in their rudest as well as their most advanced state admire certain colours in preference to others; and when their clothes, or other things, do not naturally possess the colours which they prefer, they endeavour to have them supplied artificially. And hence the art of dyeing has been in use from the remotest ages. We may safely suppose that at first it would be practised in a very rude manner, by immersing the linens, woollens, cottons, or other articles to be dyed, in a solution of the colouring matter, or by some such simple process. But, though sometimes very brilliant, the colours imparted in this inartificial manner, are, for the most part, of the most fugitive description. And yet it is sufficiently certain that a lengthened period must have elapsed, and many trials have taken place, before the happy, and, most probably, accidental discovery was made of fixing colours, or rendering them permanent, by the use of mordants. (Goguet, *de l' Origine des Loix*, &c. i. 130. Eng. trans; and *Bancroft on Colours*, i. Introd.) In modern times the arts of dyeing and calico printing have been greatly improved, and their products are now as remarkable for their cheapness as for their splendour.

We have given notices of the following articles under their respective heads; but it may be interesting to have their imports brought together in one point of view.

Account of the Quantities of the Principal Dyes and Dyeing Stuffs imported into the U. Kingdom during each of the 3 Years ending with 1858.

	1856.	1857.	1858.		1856.	1857.	1858.
Annatto - cwts.	4,990	3,720		Logwood - tons	38,880	39,568	26,189
Brazil-wood - tons	2,335	3,330		Madder and madder			
Cochineal - cwts.	13,123	22,792	22,237	root - cwts.	321,416	403,058	321,580
Cutch - tons	1,689	2,597	2,248	Nicaragua-wood tons	3,795	2,676	
Galls - cwts.	5,149	8,080		Shumac - ,,	18,658	18,909	11,904
Garancine - ,,	25,342	30,998	42,700	Terra Japonica ,,	6,817	8,430	8,057
Indigo - ,,	81,514	68,243	66,198	Turmeric - ,,	367	2,023	
Lac dye - ,,	10,975	12,196	11,639	Valonia - ,,	22,733	24,025	19,572

E.

EARNEST, in commercial law, is the sum advanced by the buyer of goods in order to bind the seller to the terms of the agreement. It is enacted by the 17th section of the famous Statute of Frauds, 29 Cha. II. c. 3., that "no contract for the sale of any goods, wares, and merchandises, for the prices of 10*l.* sterling or upwards, shall be allowed to be good, except the buyer shall accept part of the goods so sold, and actually receive the same, or give something in *earnest* to bind the bargain, or in part payment, or that some note or memorandum in writing of the said bargain be made and signed by the parties to be charged by such contract, or their agents thereunto lawfully authorised."

As to what amounts to sufficient earnest, Blackstone lays it down, that "if any part of the price is paid down, if it is but a penny, or any portion of the goods is delivered by way of earnest, it is binding." To constitute earnest, the thing must be given as a token of ratification of the contract, and it should be expressly stated so by the giver.—(*Chitty's Commercial Law*, vol. iii. p. 289.)

EARTHENWARE (Ger. *Irdene Waaren*; Du. *Aardegoed*; Fr. *Vaisselle de terre, Poterie*; It. *Stoviglie, Terraglie*; Sp. *Loza de barro*; Rus. *Gorschetschnüe passodü*; Pol. *Glinianæ naczynia*), or crockery, as it is sometimes termed, comprises every sort of household utensil made of clay hardened in the fire. Its manufacture is, in England, of very considerable importance; and the improvements that have been made in it since the middle of last century have contributed powerfully to its extension, and have added greatly to the comfort and convenience of all classes.

"There is scarcely," it has been well observed, "any manufacture which is so interesting to contemplate in its gradual improvement and extension as that of earthenware, presenting, as it does, so beautiful a union of science and art, in furnishing us with the comforts and ornaments of civilised life. Chemistry administers her part, by investigating the several species of earths, and ascertaining as well their most appropriate combinations as the respective degrees of heat which the several compositions require. Art has studied the designs of antiquity, and produced from them vessels even more exquisite in form than the models by which they have been suggested. The ware has been provided in such gradations of quality as to suit every station from the highest to the lowest. It is to be seen in every country, and almost in every house, through the whole extent of America, in many parts of Asia, and in most of the countries of Europe. At home

it has superseded the less cleanly vessels of pewter and of wood, and, by its cheapness, has been brought within the means of our poorest housekeepers. Formed from substances originally of no value, the fabrication has induced labour of such various classes, and created skill of such various degrees, that nearly the whole value of the annual produce may be considered as an addition made to the mass of national wealth. The abundance of the ware exhibited in every dwelling-house is sufficient evidence of the vast augmentation of the manufacture, which is also demonstrated by the rapid increase of the population in the districts where the potteries have been established.—(*Quarterly Review.*)

For the great and rapid extension of the manufacture we are chiefly indebted to the late Mr. Josiah Wedgwood, whose original and inventive genius enabled him to make many most important discoveries in the art; and who was equally successful in bringing his inventions into use. The principal seat of the manufacture is in Staffordshire, where there is a district denominated the Potteries, comprising a number of villages, and a population which is supposed to amount, at this moment, to above 85,000, by far the greater portion of which is engaged in the manufacture. There are no authentic accounts of the population of this district in 1760, when Mr. Wedgwood began his discoveries; but the general opinion is, that it did not at that time exceed 20,000. The village of Etruria, in the Potteries, was built by Mr. Wedgwood. The manufacture has been carried on at Burslem, in the same district, for several centuries.

The canals by which Staffordshire is intersected have done much to accelerate the progress of the manufacture. Pipe-clay from Dorsetshire and Devonshire, and flints from Kent, are conveyed by water carriage to the places where the clay and coal abound; and the finished goods are conveyed by the same means to the great shipping ports, whence they are distributed over most parts of the globe.

It is estimated that the value of the various sorts of earthenware produced at the Potteries may amount to about 2,000,000*l.* a-year; and that the earthenware produced at Worcester, Derby, and other parts of the country, may amount to about 1,000,000*l.* more; making the whole value of the manufacture 3,000,000*l.* a-year. The consumption of gold at the Potteries is about 1200*l.* a-week, and of coal about 13,000 tons a-week.

The earthenware manufacture has increased considerably since 1814, but it is not possible to state the exact ratio. The prices of the different sorts of earthenware are said to have fallen 25 per cent. during the last 20 years. Wages have not fallen in the same proportion; but we are assured that a workman can, at the present day, produce about *four* times the quantity he did in 1790. We subjoin an

Account of the Value of the Earthenware exported from the U. Kingdom in 1857, specifying the Countries to which it was principally sent, and the Values sent to each.

Countries to which exported.	Value.	Countries to which exported.	Value.
	£		£
Russia	31,357	British East Indies	57,142
Hanse Towns	53,376	Australia	142,121
Holland	32,600	British North America	85,156
Java	29,989		
Cuba	51,795	Total value of the above and of the exports to all other countries	1,492,436
United States	507,376		
Brazil	102,672		

The above account sets the preponderance of the U. States as a market for earthenware in a very striking point of view. We have been assured that it is necessary to add ¼ to the declared value of the exports, to get their true value.

EAST INDIA COMPANY, a famous association, originally established for prosecuting the trade between England and India, which they acquired a right to carry on exclusively. Since the middle of last century, however, the Company's political have become of more importance than their commercial concerns.

East Indies, a popular geographical term not very well defined, but generally understood to signify the continents and islands to the east and south of the river Indus, as far as the borders of China, including Timor and the Moluccas, but excluding the Philippine Islands, New Guinea, and New Holland: China and the Philippine Islands were, however, included within the limits of the East India Company's peculiar privileges.

I. East India Company (Historical Sketch of).
II. East Indies (State of Society in, growing Demand for English Goods, Trade, Colonisation, etc.).
III. East Indies (Extent, Population, Military Force, Revenue, etc. of British).

I. East India Company (Historical Sketch of).

The persevering efforts of the Portuguese to discover a route to India, by sailing round Africa, were crowned with success in 1497. And it may appear singular, that, notwithstanding the exaggerated accounts that had been prevalent in Europe, from the remotest antiquity, with respect to the wealth of India, and the importance to which the commerce with it had raised the Phœnicians and Egyptians in antiquity, the Venetians in the middle ages, and which it was then seen to confer on the Portuguese, the latter should have been allowed to monopolise it for nearly a century after it had been turned into a channel accessible to every nation. But the prejudices by which the people of most European states were actuated in the sixteenth century, and the peculiar circumstances under which they were placed, hindered them from embarking with that alacrity and ardour that might have been expected in this new commercial career.

Soon after the Portuguese began to prosecute their discoveries along the coast of Africa, they applied to the pope for a bull, securing to them the exclusive right to and possession of all countries occupied by infidels, they either had discovered, or might discover, to the south of Cape Non, on the west coast of Africa, in 27° 54′ north latitude: and the pontiff, desirous to display, and at the same time to extend, his power, immediately issued a bull to this effect. Nor, preposterous as a proceeding of this sort would now appear, did any one then doubt that the pope had a right to issue such a bull, and that all states and empires were bound to obey it. In consequence, the Portuguese were, for a lengthened period, allowed to prosecute their conquests in India without the interference of any other European power. And it was not till a considerable period after the beginning of the war, which the blind and brutal bigotry of Philip II. kindled in the Low Countries, that the Dutch navigators began to display their flag on the Eastern Ocean, and laid the foundations of their Indian empire.

The desire to comply with the injunctions in the pope's bull, and to avoid coming into collision, first with the Portuguese, and subsequently with the Spaniards, who had conquered Portugal in 1580, seems to have been the principal cause that led the English to make repeated attempts, in the reigns of Henry VIII. and Edward VI., and the early part of the reign of Elizabeth, to discover a route to India by a north-west or north-east passage; channels from which the Portuguese would have had no pretence for excluding them. But these attempts having proved unsuccessful, and the pope's bull having ceased to be of any effect in this country, the English merchants and navigators resolved to be no longer deterred by the imaginary rights of the Portuguese from directly entering upon what was then reckoned by far the most lucrative and advantageous branch of commerce. Captain Stephens, who performed the voyage in 1582, was the first Englishman who sailed to India by the Cape of Good Hope. The voyage of the famous Sir Francis Drake contributed greatly to diffuse a spirit of naval enterprise, and to render the English better acquainted with the newly opened route to India. But the voyage of the celebrated Mr. Thomas Cavendish was, in the latter respect, the most important. Cavendish sailed from England in a little squadron, fitted out at his own expense, in July, 1586; and having explored the greater part of the Indian Ocean, as far as the Philippine Islands, and carefully observed the most important and characteristic features of the people and countries which he visited, returned to England, after a prosperous navigation, in September, 1588. Perhaps, however, nothing contributed so much to inspire the English with a desire to embark in the Indian trade, as the captures that were made, about this period, from the Spaniards. A Portuguese East India ship, or carrack, captured by Sir Francis Drake, during his expedition to the coast of Spain, inflamed the cupidity of the merchants by the richness of her cargo, at the same time that the papers found on board gave specific information respecting the traffic in which she had been engaged. A still more important capture, of the same sort, was made in 1593. An armament, fitted out for the East Indies by Sir Walter Raleigh, and commanded by Sir John Borroughs, fell in, near the Azores, with the largest of all the Portuguese carracks, a ship of 1,600 tons burden, carrying 700 men and 36 brass cannon; and, after an obstinate conflict, carried her into Dartmouth. She was the largest vessel that had been seen in England; and her cargo, consisting of gold, spices, calicoes, silks, pearls, drugs, porcelain, ivory, &c., excited the ardour of the English to engage in so opulent a commerce.

In consequence of these and other concurring causes, an association was formed in London, in 1599, for prosecuting the trade to India. The adventurers applied to the queen for a charter of incorporation, and also for power to exclude all other English subjects, who had not obtained a licence from them, from carrying on any species of traffic beyond the Cape of Good Hope or the Straits of Magellan. As exclusive companies were then very generally looked upon as the best instruments for prosecuting most branches of commerce and industry, the adventurers seem to have had little difficulty in obtaining their charter, which was dated the 31st of December, 1660. The corporation was entitled "The Governor and Company of Merchants of London trading into the East Indies:" the first governor (Thomas Smythe, Esq.) and 24 directors were nominated in the charter; but power was given to the Company to elect a deputy governor, and, in future, to elect their governor and directors, and such other office-bearers as they might think fit to appoint. They were empowered to make by-laws; to inflict punishments, either corporal or pecuniary, provided such punishments were in accordance with the laws of England; to export all sorts of goods free of duty for 4 years; and to export foreign coin, or bullion, to the amount of 30,000*l.* a year, 6,000*l.* of the same being previously coined at the mint; but they were obliged to import, within 6 months after the completion of every voyage, except the first, the same quantity of silver, gold, and foreign coin that they had exported. The duration of the charter was limited to a period of 15 years; but with and under the condition that, if it were not found for the public advantage, it might be cancelled at any time upon 2

years' notice being given. Such was the origin of the British East India Company,—the most celebrated commercial association of ancient or modern times, and which has now extended its sway over the whole of the Mogul empire.

It might have been expected that, after the charter was obtained, considerable eagerness would have been manifested to engage in the trade. But such was not the case. Notwithstanding the earnest calls and threats of the directors, many of the adventurers could not be induced to come forward to pay their proportion of the charges incident to the fitting out of the first expedition. And as the directors seem either to have wanted power to enforce their resolutions, or thought it better not to exercise it, they formed a subordinate association, consisting of such members of the Company as were really willing to defray the cost of the voyage, and to bear all the risks and losses attending it, on condition of their having the exclusive right to whatever profits might arise from it. And it was by such subordinate associations that the trade was conducted during the first 13 years of the Company's existence.

The first expedition to India, the cost of which amounted, ships and cargoes included, to 69,091*l.*, consisted of 5 ships, the largest being 600 and the smaller 130 tons burden. The goods put on board were principally bullion, iron, tin, broad cloths, cutlery, glass, &c. The chief command was intrusted to Captain James Lancaster, who had already been in India. They set sail from Torbay on the 13th of February, 1601. Being very imperfectly acquainted with the seas and countries they were to visit, they did not arrive at their destination, Acheen in Sumatra, till the 5th of June, 1602. But though tedious, the voyage was, on the whole, uncommonly prosperous. Lancaster entered into commercial treaties with the kings of Acheen and Bantam; and having taken on board a valuable cargo of pepper and other produce, he was fortunate enough, in his way home, to fall in with and capture, in concert with a Dutch vessel, a Portuguese carrack of 900 tons burden, richly laden. Lancaster returned to the Downs on the 11th of September, 1603.—(*Modern Universal History*, vol. x. p. 16.; *Macpherson's Commerce of the European Powers with India*, p. 81.)

But notwithstanding the favourable result of this voyage, the expeditions fitted out in the years immediately following, though sometimes consisting of larger ships, were not, at an average, materially increased. In 1612, Captain Best obtained from the court at Delhi several considerable privileges; and, amongst others, that of establishing a factory at Surat; which city was, henceforth, looked upon as the principal British station in the west of India, till the acquisition of Bombay.

In establishing factories in India, the English only followed the example of the Portuguese and Dutch. It was contended, that they were necessary to serve as *depôts* for the goods collected in the country for exportation to Europe, as well as for those imported into India, in the event of their not meeting with a ready market on the arrival of the ships. Such establishments, it was admitted, are not required in civilised countries; but the peculiar and unsettled state of India was said to render them indispensable there. Whatever weight may be attached to this statement, it is obvious that factories formed for such purposes could hardly fail of speedily degenerating into a species of forts. The security of the valuable property deposited in them furnished a specious pretext for putting them in a condition to withstand an attack; while the agents, clerks, warehousemen, &c. formed a sort of garrison. Possessing such strong holds, the Europeans were early emboldened to act in a manner quite inconsistent with their character as merchants, and but a very short time elapsed before they began to form schemes for monopolising the commerce of particular districts, and acquiring territorial dominion.

Though the Company met with several heavy losses during the earlier part of their traffic with India, from shipwrecks and other unforeseen accidents, and still more from the hostility of the Dutch, yet, on the whole, the trade was decidedly profitable. There can, however, be little doubt, that their gains, at this early period, have been very much exaggerated. During the first 13 years, they are said to have amounted to 132 per cent. But then it should be borne in mind, as Mr. Grant has justly stated, that the voyages were seldom accomplished in less than 30 months, and sometimes extended to 3 or 4 years: and it should further be remarked, that, on the arrival of the ships at home, the cargoes were disposed of at long credits of 18 months or 2 years; and that it was frequently even 6 or 7 years before the concerns of a single voyage were finally adjusted.—(*Sketch of the History of the Company*, p. 13.) When these circumstances are taken into view, it will immediately be seen that the Company's profits were not, really, by any means so great as has been represented. It may not, however, be uninstructive to remark, that the principal complaint that was then made against the Company did not proceed so much on the circumstance of its charter excluding the public from any share in an advantageous traffic, as in its authorising the Company to export gold and silver of the value of 30,000*l.* a year. It is true that the charter stipulated that the Company should import an equal quantity of gold and silver within 6 months of the termination of every voyage: but the enemies of the Company contended that this condition was not complied

with; and that it was, besides, highly injurious to the public interest, and *contrary to all principle*, to allow gold and silver to be sent out of the kingdom. The merchants and others interested in the support of the Company could not controvert the reasoning of their opponents, without openly impugning the ancient policy of absolutely preventing the exportation of the precious metals. They did not, however, venture to contend, if the idea really occurred to them, that the exportation of bullion to the East was advantageous, on the broad ground of the commodities purchased by it being of greater value in England. But they contended that the exportation of bullion to India was advantageous, because the commodities thence imported were chiefly re-exported to other countries from which a much greater quantity of bullion was obtained than had been required to pay for them in India. Mr. Thomas Mun, a director of the East India Company, and the ablest of its early advocates, ingeniously compares the operations of the merchant in conducting a trade carried on by the exportation of gold and silver to the seed time and harvest of agriculture. "If we only behold," says he, "the actions of the husbandman in the seed time, when he casteth away much good corn into the ground, we shall account him rather a madman than a husbandman. But when we consider his labours in the narvest, which is the end of his endeavours, we find the worth and plentiful increase of his actions." — (*Treasure by Foreign Trade*, p. 50. ed. 1664.)

We may here remark, that what has been called the *mercantile system* of political economy, or that system which measures the progress of a country in the career of wealth by the supposed balance of payments in its favour, or by the estimated excess of the value of its exports over that of its imports, appears to have originated in the excuses now set up for the exportation of bullion. Previously to this epoch, the policy of prohibiting the exportation of bullion had been universally admitted; but it now began to be pretty generally allowed, that its exportation might be productive of advantage, provided it occasioned the subsequent exportation of a greater amount of raw or manufactured products to countries whence bullion was obtained for them. This, when compared with the previously existing prejudice — for it hardly deserves the name of system — which wholly interdicted the exportation of gold and silver, must be allowed to be a considerable step in the progress to sounder opinions. The maxim, *ce n'est que le premier pas qui coute*, was strikingly verified on this occasion. The advocates of the East India Company began gradually to assume a higher tone, and, at length, boldly contended that bullion was nothing but a commodity, and that its exportation should be rendered as free as that of any thing else. Nor were these opinions confined to the partners of the East India Company. They were gradually communicated to others; and many eminent merchants were taught to look with suspicion on several of the previously received dogmas with respect to commerce, and were, in consequence, led to acquire more correct and comprehensive views. The new ideas ultimately made their way into the House of Commons; and, in 1663, the statutes prohibiting the exportation of foreign coin and bullion were repealed, and full liberty given to the East India Company and to private traders to export them in unlimited quantities.

But the objection to the East India Company, or rather the East India trade, on the ground of its causing the exportation of gold and silver, admitted of a more direct and conclusive, if not a more ingenious reply. How compendious soever the ancient intercourse with India by the Red Sea and the Mediterranean, it was unavoidably attended with a good deal of expense. The productions of the remote parts of Asia, brought to Ceylon, or the ports on the Malabar coast, by the natives, were there put on board the ships which arrived from the Arabic gulph. At Berenice they were landed, and carried by camels 250 miles to the banks of the Nile. They were there again embarked, and conveyed down the river to Alexandria, whence they were despatched to different markets. The addition to the price of goods by such a multiplicity of operations must have been considerable; more especially as the price charged on each operation was fixed by monopolists, subject to no competition or control. Pliny says, that the cost of the Arabian and Indian products brought to Rome when he flourished (A. D. 70), was increased a hundred fold by the expenses of transit — (*Hist. Nat.* lib. vi. c. 23.); but there can be little or no doubt that this is to be regarded as a rhetorical exaggeration. — (See *antè*, p. 19.) There are good grounds for thinking that the less bulky sorts of Eastern products, such as silk, spices, balsams, precious stones, &c., which were those principally made use of at Rome, might, supposing there were no political obstacles in the way, be conveyed from most parts of India to the ports on the Mediterranean by way of Egypt, at a decidedly cheaper rate than they could be conveyed to them by the Cape of Good Hope.

But at the period when the latter route to India began to be frequented, Syria, Egypt, &c. were occupied by Turks and Mamelukes; barbarians who despised commerce and navigation, and were, at the same time, extremely jealous of strangers, especially of Christians or infidels. The price of the commodities obtained through the intervention of such persons was necessarily very much enhanced; and the discovery of

the route by the Cape of Good Hope was, consequently, of the utmost importance; for, by putting an end to the monopoly enjoyed by the Turks and Mamelukes, it introduced, for the first time, something like competition into the Indian trade, and enabled the western parts of Europe to obtain supplies of Indian products for about a third part of what they had previously cost. Mr. Mun, in a tract published in 1621, estimates the quantity of Indian commodities imported into Europe, and their cost when bought in Aleppo and in India, as follows: —

Cost of Indian commodities consumed in Europe when bought in Aleppo (or Alexandria).

	£	s.	d.
6,000,000 lbs. pepper cost, with charges, &c. at Aleppo 2s. per lb.	600,000	0	0
450,000 lbs. cloves, at 4s. 9d.	106,875	10	0
150,000 lbs. mace, at 4s. 9d.	35,626	0	0
400,000 lbs. nutmegs, at 2s. 4d.	46,666	2	4
350,000 lbs. indigo, at 4s. 4d.	75,833	6	8
1,000,000 lbs. Persian raw silk, at 12s.	600,000	0	0
	£1,465,000	19	0

But the same quantities of the same commodities cost, when bought in the East Indies, according to Mr. Mun, as follows: —

	£	s.	d.
6,000,000 lbs. pepper, at 2½d. per lb.	62,500	0	0
450,000 lbs. cloves, at 9d.	16,875	0	0
150,000 lbs. mace, at 8d.	5,000	0	0
400,000 lbs. nutmegs, at 4d.	6,666	13	4
350,000 lbs. indigo, at 1s. 2d.	20,416	12	4
1,000,000 lbs. raw silk, at 8s.	400,000	0	0
	£511,458	5	8

Which being deducted from the former, leaves a balance of 953,542*l.* 13*s.* 4*d.* And supposing that the statements made by Mr. Mun are correct, and that allowance is made for the difference between the freight from Aleppo and India, the result would indicate the saving which the discovery of the route by the Cape of Good Hope occasioned in the purchase of the above-mentioned articles. — (*A Discourse of Trade from England to the East Indies*, by T. M., original ed. p. 10. This tract, which is very scarce, is reprinted in Purchas's Pilgrims.)

In the same publication (p. 37.), Mr. Mun informs us that, from the beginning of the Company's trade to July, 1620, they had sent 79 ships to India; of which 34 had come home safely and richly laden, 4 had been worn out by long service in India, 2 had been lost in careening, 6 had been lost by the perils of the sea, and 12 had been captured by the Dutch. Mr. Mun further states, that the exports to India, since the formation of the Company, had amounted to 840,376*l.*; that the produce brought from India had cost 356,288*l.*, and had produced here the enormous sum of 1,914,600*l.*; that the quarrels with the Dutch had occasioned a loss of 84,088*l.*; and that the stock of the Company, in ships, goods in India, &c., amounted to 400,000*l.*

The hostility of the Dutch, to which Mr. Mun has here alluded, was long a very formidable obstacle to the Company's success. The Dutch early endeavoured to obtain the exclusive possession of the spice trade, and were not at all scrupulous about the means by which they attempted to bring about this their favourite object. The English, on their part, naturally exerted themselves to obtain a share of so valuable a commerce; and as neither party was disposed to abandon its views and pretensions, the most violent animosities grew up between them. In this state of things, it would be ridiculous to suppose that unjustifiable acts were not committed by the one party as well as the other; though the worst act of the English appears venial, when compared with the conduct of the Dutch in the massacre at Amboyna, in 1622. While, however, the Dutch Company was vigorously supported by the government at home, the English Company met with no efficient assistance from the feeble and vacillating policy of James and Charles. The Dutch either despised their remonstrances, or defeated them by an apparent compliance; so that no real reparation was obtained for the outrages they had committed. During the civil war, Indian affairs were necessarily lost sight of: and the Dutch continued, until the ascendancy of the republican party had been established, to reign triumphant in the East, where the English commerce was nearly annihilated.

But notwithstanding their depressed condition, the Company's servants in India laid the foundation, during the period in question, of the settlements at Madras and in Bengal. Permission to build Fort St. George was obtained from the native authorities in 1640. In 1658, Madras was raised to the station of a presidency. In 1645, the Company began to establish factories in Bengal; the principal of which was at Hooghly. These were, for a lengthened period, subordinate to the presidency at Madras.

No sooner, however, had the civil wars terminated, than the arms and councils of Cromwell retrieved the situation of our affairs in India. The war which broke out between the long parliament and the Dutch, in 1652, was eminently injurious to the latter. In the treaty of peace, concluded in 1654, it was stipulated that indemnification

should be made by the Dutch for the losses and injuries sustained by the English merchants and factors in India. The 27th article bears, "that the Lords, the states-general of the United Provinces, shall take care that justice be done upon those who were partakers or accomplices in the massacre of the English at Amboyna, as the republic of England is pleased to term that fact, provided any of them be living." A commission was at the same time appointed, conformably to another article of the treaty, to inquire into the reciprocal claims which the subjects of the contracting parties had upon each other for losses sustained in India, Brazil, &c.; and, upon their decision, the Dutch paid the sum of 85,000*l.* to the East India Company, and 3,615*l.* to the heirs or executors of the sufferers at Amboyna. — (*Bruce's Annals*, vol. i. p. 489.)

The charter under which the East India Company prosecuted their exclusive trade to India, being merely a grant from the Crown, and not ratified by any act of parliament, was understood by the merchants to be at an end when Charles I. was deposed. They were confirmed in this view of the matter, from the circumstance of Charles having himself granted, in 1635, a charter to Sir William Courten and others, authorising them to trade with those parts of India with which the Company had not established any regular intercourse. The reasons alleged in justification of this measure, by the Crown, were, that "the East India Company had neglected to establish fortified factories, or seats of trade, to which the king's subjects could resort with safety; that they had consulted their own interests only, without any regard to the king's revenue; and in general, that they had broken the condition on which their charter and exclusive privileges had been granted to them."—(*Rym. Fœdera*, vol. xx. p. 146.)

Courten's association, for the foundation of which such satisfactory reasons had been assigned, continued to trade with India during the remainder of Charles's reign; and no sooner had the arms of the Commonwealth forced the Dutch to desist from their depredations, and to make reparation for the injuries they had inflicted on the English in India, than private adventurers engaged in great numbers in the Indian trade, and carried it on with a zeal, economy, and success, that monopoly can never expect to rival. It is stated in a little work, entitled *Britannia Languens*, published in 1680, the author of which has evidently been a well-informed and intelligent person, that during the years 1653, 1654, 1655, and 1656, when the trade to India was open, the private traders imported East India commodities in such large quantities, and sold them at such reduced prices, that they not only fully supplied the British markets, but had even come into successful competition with the Dutch in the market of Amsterdam, "and very much sunk the actions (shares) of the Dutch East India Company."—(p. 132.) This circumstance naturally excited the greatest apprehensions on the part of the Dutch Company; for, besides the danger that they now ran of being deprived, by the active competition of the English merchants, of a considerable part of the trade which they had previously enjoyed, they could hardly expect that, if the trade were thrown open in England, the monopoly would be allowed to continue in Holland. A striking proof of what is now stated is to be found in a letter in the third volume of *Thurlow's State Papers*, dated at the Hague, the 15th of January, 1654, where it is said, that "the merchants of Amsterdam have advice that the Lord Protector intends to dissolve the East India Company at London, and to declare the navigation and commerce of the East Indies free and open: which doth cause great jealousy at Amsterdam, *as a thing that will very much prejudice the East India Company in Holland.*"

Feeling that it was impossible to contend with the private adventurers under a system of fair competition, the moment the treaty with the Dutch had been concluded, the Company began to solicit a renewal of their charter; but in this they were not only opposed by the free traders, but by a part of themselves. To understand how this happened, it may be proper to mention that Courten's association, the origin of which has been already noticed, had begun, in 1648, to found a colony in Assuda, an island near Madagascar. The Company, alarmed at this project, applied to the council of state to prevent its being carried into effect; and the council, without entering on the question of either party's rights, recommended them to form a union; which was accordingly effected in 1649. But the union was, for a considerable time, rather nominal than real; and when the Dutch war had been put an end to, most of those holders of the Company's stock who had belonged to Courten's association joined in petitioning the council of state that the trade might in future be carried on, not by a joint stock, but by a *regulated* company; so that each individual engaging in it might be allowed to employ his own stock, servants, and shipping, in whatever way he might conceive most for his own advantage. — (*Petition of Adventurers*, 17th of Nov. 1656; *Bruce's Annals*, vol. i. p. 518.)

This proposal was obviously most reasonable. The Company had always founded their claim to a monopoly of the trade on the alleged ground of its being necessary to maintain forts, factories, and ships of war in India; and that as this was not done by government, it could only be done by a Company. But, by forming the traders with India into a regulated company, they might have been subjected to whatever rules were

considered most advisable; and such special duties might have been laid on the commodities they exported and imported, as would have sufficed to defray the public expenses required for carrying on the trade, at the same time that the inestimable advantages of free competition would have been secured; each individual trader being left at liberty to conduct his enterprises, subject only to a few general regulations, in his own way and for his own advantage. — (See COMPANIES.)

But notwithstanding the efforts of the petitioners, and the success that was clearly proved to have attended the operations of the private traders, the Company succeeded in obtaining a renewal of their charter from Cromwell in 1657. Charles II. confirmed this charter in 1661; and at the same time conferred on them the power of making peace or war with any power or people *not of the Christian religion*; of establishing fortifications, garrisons, and colonies; of exporting ammunition and stores to their settlements duty free; of seizing and sending to England such British subjects as should be found trading to India without their leave; and of exercising civil and criminal jurisdiction in their settlements, according to the laws of England. Still, however, as this charter was not fully confirmed by any act of parliament, it did not prevent traders, or interlopers as they were termed, from appearing within the limits of the Company's territories. The energy of private commerce, which, to use the words of Mr. Orme, "sees its drift with eagles' eyes," formed associations at the risk of trying the consequence at law, being safe at the outset, and during the voyage, since the Company were not authorised to stop or seize the ships of those who thus attempted to come into competition with them. Hence their monopoly was by no means complete; and it was not till after the Revolution, and when a free system of government had been established at home, that, by a singular contradiction, the authority of parliament was interposed to enable the Company wholly to engross the trade with the East.

In addition to the losses arising from this source, the Company's trade suffered severely, during the reign of Charles II., from the hostilities that were then waged with the Dutch, and from the confusion and disorders caused by contests among the native princes; but in 1668 the Company obtained a very valuable acquisition in the island of Bombay. Charles II. acquired this island as a part of the marriage portion of his wife, Catharine of Portugal; and it was now made over to the Company, on condition of their not selling or alienating it to any persons whatever, except such as were subjects of the British crown. They were allowed to legislate for their new possession; but it was enjoined that their laws should be consonant to reason, and "as near as might be" agreeable to the practice of England. They were authorised to maintain their dominion by force of arms; and the natives of Bombay were declared to have the same liberties as natural-born subjects. The Company's western presidency was soon after transferred from Surat to Bombay.

In 1664, the French East India Company was formed; and 10 years afterwards they laid the foundation of their settlement at Pondicherry.

But the reign of Charles II. is chiefly memorable in the Company's annals, from its being the æra of the commencement of the tea trade. The first notice of tea in the Company's records is found in a despatch, addressed to their agent at Bantam, dated 24th of January, 1667-8, in which he is desired to send home 100 lbs. of tea, "the best he can get."— (*Bruce's Annals*, vol. ii. p. 210.) Such was the late and feeble beginning of the tea trade; a branch of commerce that has long been of vast importance to the British nation; and without which, it is more than probable that the East India Company would long since have ceased to exist, at least as a mercantile body.

In 1677, the Company obtained a fresh renewal of their charter; receiving at the same time an indemnity for all past misuse of their privileges, and authority to establish a mint at Bombay.

During the greater part of the reigns of Charles II. and James II. the Company's affairs at home were principally managed by the celebrated Sir Josiah Child, the ablest commercial writer of the time; and in India, by his brother, Sir John Child. In 1681, Sir Josiah published an apology for the Company, under the signature of Φιλοπατρις — "A Treatise wherein is demonstrated that the East India Trade is the most National of all Foreign Trades:" in which, besides endeavouring to vindicate the Company from the objections that had been made against it, he gives an account of its state at the time. From this account it appears that the Company consisted of 556 partners; that they had from 35 to 36 ships, of from 775 to 100 tons, employed in the trade between England and India, and from port to port in India — (p. 23.); that the customs duties upon the trade amounted to about 60,000*l.* a year; and that the value of the exports, "in lead, tin, cloth, and stuffs, and other commodities of the production and manufacture of England," amounted to about 60,000*l.* or 70,000*l.* a year. Sir Josiah seems to have been struck, as he well might, by the inconsiderable amount of the trade; and he therefore dwells on the advantages of which it was indirectly productive, in enabling us to obtain supplies of raw silk, pepper, &c. at a much lower price than they would otherwise have fetched.

But this, though true, proved nothing in favour of the Company; it being an admitted fact, that those articles were furnished at a still lower price by the interlopers or private traders.

Sir Josiah Child was one of the first who projected the formation of a territorial empire in India. But the expedition fitted out in 1686, in the view of accomplishing this purpose, proved unsuccessful; and the Company were glad to accept peace on the terms offered by the Mogul. Sir John Child, having died during the course of these transactions, was succeeded in the principal management of the Company's affairs in India by Mr. Vaux. On the appointment of the latter, Sir Josiah Child, to whom he owed his advancement, exhorted him to act with vigour, and to carry whatever instructions he might receive from home into immediate effect. Mr. Vaux returned for answer, that he should endeavour to acquit himself with integrity and justice, and that he would make the laws of his country the rule of his conduct. Sir Josiah Child's answer to this letter is curious: — "He told Mr. Vaux roundly that he expected his orders were to be his rules, and not the laws of England, which were a heap of nonsense, compiled by a few ignorant country gentlemen, who hardly knew how to make laws for the good government of their own private families, much less for the regulating of companies and foreign commerce." — (*Hamilton's New Account of the East Indies*, vol. i. p. 232.)

During the latter part of the reign of Charles II. and that of his successor, the number of private adventurers, or interlopers, in the Indian trade, increased in an unusual degree. The Company vigorously exerted themselves in defence of what they conceived to be their rights; and the question with respect to the validity of the powers conferred on them by their charter was at length brought to issue, by a prosecution carried on at their instance against Mr. Thomas Sandys, for trading to the East Indies without their licence. Judgment was given in favour of the Company in 1685. But this decision was ascribed to corrupt influence; and instead of allaying, only served to increase the clamour against them. The meeting of the Convention Parliament gave the Company's opponents hopes of a successful issue to their efforts; and had they been united, they might probably have succeeded. Their opinions were, however, divided — part being for throwing the trade open, and part for the formation of a new company on a more liberal footing. The latter being formed into a body, and acting in unison, the struggle against the Company was chiefly carried on by them. The proceedings that took place on this occasion are amongst the most disgraceful in the history of the country. The most open and unblushing corruption was practised by all parties. — "*It was, in fact, a trial which side should bribe the highest; public authority inclining to one or other as the irresistible force of gold directed.*" — (*Modern Universal History*, vol. x. p. 127.) Government appears, on the whole, to have been favourable to the Company; and they obtained a fresh charter from the Crown in 1693. But in the following year the trade was virtually laid open by a vote of the House of Commons, "that all the subjects of England had an equal right to trade to the East Indies, unless prohibited by act of parliament." Matters continued on this footing till 1698. The pecuniary difficulties in which government was then involved, induced them to apply to the Company for a loan of 2,000,000*l.*, for which they offered 8 per cent. interest. The Company offered to advance 700,000*l.* at 4 per cent.; but the credit of government was at the time so low, that they preferred accepting an offer from the associated merchants, who had previously opposed the Company, of the 2,000,000*l.* at 8 per cent., on condition of their being formed into a new and exclusive company. While this project was in agitation, the advocates of free trade were not idle, but exerted themselves to show that, instead of establishing a new Company, the old one ought to be abolished. But, however conclusive, their arguments, having no adventitious recommendations in their favour, failed of making any impression. The new Company was established by authority of the legislature; and as the charter of the old Company was not yet expired, the novel spectacle was exhibited of two legally constituted bodies, each claiming an exclusive right to the trade of the same possessions!

Notwithstanding all the pretensions set up by those who had obtained the new charter during their struggle with the old Company, it was immediately seen that they were as anxious as the latter to suppress every thing like free trade. They had not, it was obvious, been actuated by any enlarged views, but merely by a wish to grasp at the monopoly, which they believed would redound to their own individual interest. The public, in consequence, became equally disgusted with both parties; or, if there were any difference, it is probable that the new Company was looked upon with the greatest aversion, inasmuch as we are naturally more exasperated by what we conceive to be duplicity and bad faith, than by fair undisguised hostility.

At first the mutual hatred of the rival associations knew no bounds. But they were not long in perceiving that such conduct would infallibly end in their ruin; and that while one was labouring to destroy the other, the friends of free trade might step in and

procure the dissolution of both. In consequence, they became gradually reconciled; and in 1702, having adjusted their differences, they resolved to form themselves into one company, entitled *The United Company of Merchants of England trading to the East Indies.*

The authority of parliament was soon after interposed to give effect to this agreement.

The United Company engaged to advance 1,200,000*l.* to government without interest, which, as a previous advance had been made of 2,000,000*l.* at 8 per cent., made the total sum due to them by the public 3,200,000*l.*, bearing interest at 5 per cent.; and government agreed to ratify the terms of their agreement, and to extend the charter to the 25th of March, 1726, with 3 years' notice.

While those important matters were transacting at home, the Company had acquired some additional possessions in India. In 1692, the Bengal agency was transferred from Hooghly to Calcutta. In 1698, the Company acquired a grant from one of the grandsons of Aurengzebe, of Calcutta and 2 adjoining villages; with leave to exercise judiciary powers over the inhabitants, and to erect fortifications. These were soon after constructed, and received, in compliment to William III., then king of England, the name of Fort William. The agency at Bengal, which had hitherto been subsidiary only, was now raised to the rank of a presidency.

The vigorous competition that had been carried on for some years before the coalition of the old and new Companies, between them and the private traders, had occasioned a great additional importation of Indian silks, piece goods, and other products, and a great reduction of their price. These circumstances occasioned the most vehement complaints amongst the home manufacturers, who resorted to the arguments invariably made use of on such occasions by those who wish to exclude foreign competition; affirming that manufactured India goods had been largely substituted for those of England; that the English manufacturers had been reduced to the cruel necessity either of selling nothing, or of selling their commodities at such a price as left them no profit; that great numbers of their workmen had been thrown out of employment; and, last of all, that Indian goods were not bought by British goods, but by gold and silver, the exportation of which had caused the general impoverishment of the kingdom! The merchants and others interested in the India trade could not, as had previously happened to them in the controversy with respect to the exportation of bullion, meet these statements without attacking the principles on which they rested, and maintaining, in opposition to them, that it was for the advantage of every people to buy the products they wanted in the cheapest market. This just and sound principle was, in consequence, enforced in several petitions presented to parliament by the importers of Indian goods; and it was also enforced in several able publications that appeared at the time. But these arguments, how unanswerable soever they may now appear, had then but little influence; and in 1701, an act was passed, prohibiting the importation of Indian manufactured goods for home consumption.

For some years after the re-establishment of the Company, it continued to prosecute its efforts to consolidate and extend its commerce. But the unsettled state of the Mogul empire, coupled with the determination of the Company to establish factories in every convenient situation, exposed their affairs to perpetual vicissitudes. In 1715, it was resolved to send an embassy to Delhi, to solicit from Furucksur, an unworthy descendant of Aurengzebe, an extension and confirmation of the Company's territory and privileges. Address, accident, and the proper application of *presents*, conspired to ensure the success of the embassy. The grants or patents solicited by the Company were issued in 1717. They were in all 34. The substance of the privileges they conferred was, that English vessels wrecked on the coasts of the empire should be exempt from plunder; that the annual payment of a stipulated sum to the government of Surat should free the English trade at that port from all duties and exactions; that those villages contiguous to Madras formerly granted and afterwards refused by the government of Arcot, should be restored to the Company; that the island of Diu, near the port of Masulipatam, should belong to the Company, paying for it a fixed rent; that in Bengal, all persons, whether European or native, indebted or accountable to the Company, should be delivered up to the presidency on demand; that goods of export or import, belonging to the English, might, under a *dustuck* or passport from the president of Calcutta, be conveyed duty free through the Bengal provinces; and that the English should be at liberty to purchase the lordship of 37 towns contiguous to Calcutta, and in fact commanding both banks of the river for 10 miles south of that city. — (*Grant's Sketch of the History of the East India Company*, p. 128.)

The important privileges thus granted were long regarded as constituting the great charter of the English in India. Some of them, however, were not fully conceded; but were withheld or modified by the influence of the emperor's lieutenants, or soubahdars.

In 1717, the Company found themselves in danger from a new competitor. In the course of that year some ships appeared in India, fitted out by private adventurers from

Ostend. Their success encouraged others to engage in the same line; and in 1722, the adventurers were formed into a company under a charter from his Imperial Majesty. The Dutch and English Companies, who had so long been hostile to each other, at once laid aside their animosities, and joined heartily in an attempt to crush their new competitors. Remonstrances being found ineffectual, force was resorted to; and the vessels of the Ostend Company were captured, under the most frivolous pretences, in the open seas and on the coasts of Brazil. The British and Dutch governments abetted the selfish spirit of hostility displayed by their respective Companies. And the emperor was, in the end, glad to purchase the support of Great Britain and Holland to the pragmatic sanction, by the sacrifice of the Company at Ostend.

Though the Company's trade had increased, it was still inconsiderable, and it is very difficult, indeed, when one examines the accounts that have from time to time been published of the Company's mercantile affairs, to imagine how the idea ever came to be entertained that their commerce was of any considerable, much less paramount, importance. At an average of the 10 years ending with 1724, the total value of the British manufactures and other products annually exported to India amounted to only 92,410*l.* 12*s.* 6*d.* The average-value of the bullion annually exported, during the same period, amounted to 518,102*l.* 11*s.* 0*d.*; making the total annual average exports 617,513*l.* 3*s.* 10*d.*; — a truly pitiful sum, when we consider the wealth, population, and industry of the countries between which the Company's commerce was carried on; and affording, by its smallness, a strong presumptive proof of the effect of the monopoly in preventing the growth of the trade.

In 1730, though there were 3 years still unexpired of the Company's charter, a vigorous effort was made by the merchants of London, Bristol, and Liverpool, to prevent its renewal. It has been said that the gains of the Company, had they been exactly known, would not have excited any very envious feelings on the part of the merchants; but, being concealed, they were exaggerated; and the boasts of the Company as to the importance of their trade contributed to spread the belief that their profits were enormous, and consequently stimulated the exertions of their opponents. Supposing, however, that the real state of the case had been known, there was still enough to justify the utmost exertions on the part of the merchants; for the limited profits made by the Company, notwithstanding their monopoly, were entirely owing to the misconduct of their agents, which they had vainly endeavoured to restrain; and to the waste inseparable from such unwieldy establishments.

The merchants, on this occasion, followed the example that had been set by the petitioners for free trade in 1656. They offered, in the first place, to advance the 3,200,000*l.* lent by the Company to the public, on more favourable terms; and, in the second place, they proposed that the subscribers to this loan should be formed into a *regulated* company, for opening the trade, under the most favourable circumstances, to all classes of their countrymen.

It was not intended that the Company should trade upon a joint stock, and in their corporate capacity, but that every individual who pleased should trade in the way of private adventure. The Company were to have the charge of erecting and maintaining the forts and establishments abroad; and for this, and for other expenses attending what was called the enlargement and preservation of the trade, it was proposed that they should receive a duty of 1 per cent. upon all exports to India, and of 5 per cent. upon all imports from it. For ensuring obedience to this and other regulations, it was to be enacted, that no one should trade to India without licence from the Company; and it was proposed that 31 years, with 3 years' notice, should be granted as the duration of their peculiar privilege.

"It appears from this," says Mr. Mill, "that the end which was proposed to be answered, by incorporating such a company, was the preservation and erection of the forts, buildings, and other fixed establishments, required for the trade of India. This company promised to supply that demand which has always been held forth as peculiar to the India trade, as the grand exigency which, distinguishing the traffic with India from all other branches of trade, rendered monopoly advantageous in that peculiar case, how much soever it might be injurious in others. While it provided for this real or pretended want, it left the trade open to all the advantages of private enterprise, private vigilance, private skill, and private economy, — the virtues by which individuals thrive and nations prosper. And it gave the proposed company an interest in the careful discharge of its duty by making its profits increase in exact proportion with the increase of the trade, and, of course, with the facilities and accommodation by which the trade was promoted.

"Three petitions were presented to the House of Commons in behalf of the proposed company, by the merchants of London, Bristol, and Liverpool. It was urged that the proposed company would, through the competition of which it would be productive, cause a great extension of the trade; that it would produce a larger exportation

of our own produce and manufactures in India, and reduce the price of all Indian commodities to the people at home; that new channels of traffic would be opened in Asia and America, as well as in Europe; that the duties of customs and excise would be increased; and that the waste and extravagance caused by the monopoly would be entirely avoided."—(*Mill's India*, vol. iii. p. 37.)

But these arguments did not prevail. The Company magnified the importance of their trade; and contended that it would be unwise to risk advantages already realised, for the sake of those that were prospective and contingent. They alleged that, if the trade to India were thrown open, the price of goods in India would be so much enhanced by the competition of different traders, and their price in England so much diminished, that the freedom of the trade would certainly end in the ruin of all who had been foolish enough to adventure in it. To enlarge on the fallacy of these statements would be worse than superfluous. It is obvious that nothing whatever could have been risked, and that a great deal would have been gained, by opening the trade in the way that was proposed. And if it were really true that the trade to India ought to be subjected to a monopoly, lest the traders, by their competition should ruin each other, it would follow that the trade to America—and not that only, but every branch both of the foreign and home trade of the empire—should be surrendered to exclusive companies. But such as the Company's arguments were, they seemed satisfactory to parliament. They, however, consented to reduce the interest on the debt due to them by the public from 5 to 4 per cent., and contributed a sum of 200,000*l.* for the public service. On these conditions it was agreed to extend their exclusive privileges to Lady-day, 1766, with the customary addition of 3 years' notice.

For about 15 years from this period, the Company's affairs went on without any very prominent changes. But notwithstanding the increased importation of tea, the consumption of which now began rapidly to extend, their trade continued to be comparatively insignificant. At an average of the 8 years ending with 1741, the value of the British goods and products of all sorts, exported by the Company to India and China, amounted to only 157,944*l.* 4*s.* 7*d.* a year! And during the 7 years ending with 1748, they amounted to only 188,176*l.* 16*s.* 4*d.* And when it is borne in mind that these exports included the military stores of all sorts forwarded to the Company's settlements in India and at St. Helena, the amount of which was, at all times, very considerable, it does appear exceedingly doubtful whether the Company really exported, during the entire period from 1730 to 1748, 150,000*l.* worth of British produce as a legitimate mercantile adventure! Their trade, such as it was, was entirely carried on by shipments of bullion; and even its annual average export, during the 7 years ending with 1748, only amounted to 548,711*l.* 19*s.* 2*d.* It would seem, indeed, that the Company had derived no perceptible advantage from the important concessions obtained from the Mogul emperor in 1717. But the true conclusion is, not that these concessions were of little value, but that the deadening influence of monopoly had so paralysed the Company, that they were unable to turn them to account; and that, though without competitors, and with opulent kingdoms for their customers, their commerce was hardly greater than that carried on by some single merchants.

In 1732, the Company were obliged to reduce their dividend from 8 to 7 per cent., at which rate it continued till 1744.

The opposition the Company had experienced from the merchants, when the question as to the renewal of their charter was agitated, in 1730, made them very desirous to obtain the next renewal in as quiet a manner as possible. They therefore proposed, in 1743, when 23 years of their charter were yet unexpired, to lend 1,000,000*l.* to government, at 3 per cent., provided their exclusive privileges were extended to 1780, with the usual notice. And, as none were expecting such an application, or prepared to oppose it, the consent of government was obtained without difficulty.

But the period was now come, when the mercantile character of the East India Company—if, indeed, it could with propriety be, at any time, said to belong to them—was to be eclipsed by their achievements as a military power, and the magnitude of their conquests. For about two centuries after the European powers began their intercourse with India, the Mogul princes were regarded as amongst the most opulent and powerful of monarchs. Though of a foreign lineage—being descended from the famous Tamerlane, or Timur Bec, who overran India in 1400—and of a different religion from the great body of their subjects, their dominion was firmly established in every part of their extensive empire. The administration of the different provinces was committed to officers, denominated soubahdars, or nabobs, intrusted with powers, in their respective governments, similar to those enjoyed by the Roman prætors. So long as the emperors retained any considerable portion of the vigour and bravery of their hardy ancestors, the different parts of the government were held in due subordination, and the soubahdars yielded a ready obedience to the orders from Delhi. But the emperors were gradually debauched by the apparently prosperous condition of their affairs.

Instead of being educated in the council or the camp, the heirs of almost unbounded power were brought up in the slothful luxury of the seraglio; ignorant of public affairs; benumbed by indolence; depraved by the flattery of women, of eunuchs, and of slaves; their minds contracted with their enjoyments; their inclinations were vilified by their habits; and their government grew as vicious, as corrupt, and as worthless as themselves. When the famous Kouli Khan, the usurper of the Persian throne, invaded India, the effeminate successor of Tamerlane and Aurengzebe was too unprepared to oppose, and too dastardly to think of avenging the attack. This was the signal for the dismemberment of the monarchy. No sooner had the invader withdrawn, than the soubahdars either openly threw off their allegiance to the emperor, or paid only a species of nominal or mock deference to his orders. The independence of the soubahdars was very soon followed by wars amongst themselves; and, being well aware of the superiority of European troops and tactics, they anxiously courted the alliance and support of the French and English East India Companies. These bodies, having espoused different sides, according as their interests or prejudices dictated, began very soon to turn the quarrels of the soubahdars to their own account. Instead of being contented, as hitherto, with the possession of factories and trading towns, they aspired to the dominion of provinces; and the struggle soon came to be, not which of the native princes should prevail, but whether the English or the French should become the umpires of India.

But these transactions are altogether foreign to the subject of this work; nor could any intelligible account of them be given without entering into lengthened statements. We shall only, therefore, observe that the affairs of the French were ably conducted by La Bourdonnais, Dupleix, and Lally, officers of distinguished merit, and not less celebrated for their great actions than for the base ingratitude of which they were the victims. But though victory seemed at first to incline to the French and their allies, the English affairs were effectually retrieved by the extraordinary talents and address of a single individual. Colonel (afterwards Lord) Clive was equally brave, cautious, and enterprising; not scrupulous in the use of means; fertile in expedients; endowed with wonderful sagacity and resolution; and capable of turning even the most apparently adverse circumstances to advantage. Having succeeded in humbling the French power in the vicinity of Madras, Clive landed at Calcutta in 1757, in order to chastise the soubahdar, Surajah ul Dowlah, who had a short while before attacked the English factory at that place, and inhumanly shut up 146 Englishmen in a prison, where, owing to the excessive heat and want of water, 123 perished in a single night. Clive had only 700 European troops and 1,400 Sepoys with him when he landed; but with these, and 570 sailors furnished by the fleet, he did not hesitate to attack the immense army commanded by the soubahdar, and totally defeated him in the famous battle of Plassey. This victory threw the whole provinces of Bengal, Bahar, and Orissa into our hands; and they were finally confirmed to us by the treaty negotiated in 1765.

Opinion has been long divided as to the policy of our military operations in India; and it has been strenuously contended, that we should never have extended our conquests beyond the limits of Bengal. The legislature seems to have taken this view of the matter; the House of Commons having resolved, in 1782, "that to pursue schemes of conquest and extent of dominion in India are measures repugnant to the wish, the honour, and the policy of this nation." But others have argued, and apparently on pretty good grounds, that, having gone thus far, we were compelled to advance. The native powers, trembling at the increase of British dominion, endeavoured, when too late, to make head against the growing evil. In this view they entered into combinations and wars against the English; and the latter having been uniformly victorious, their empire necessarily went on increasing, till all the native powers have been swallowed up in its vast extent.

The magnitude of the acquisitions made by Lord Clive powerfully excited the attention of the British public. Their value was prodigiously exaggerated; and it was generally admitted that the Company had no legal claim to enjoy, during the whole period of their charter, all the advantages resulting from conquests, to which the fleets and armies of the state had largely contributed. In 1767, the subject was taken up by the House of Commons; and a committee was appointed to investigate the whole circumstances of the case, and to calculate the entire expenditure incurred by the public on the Company's account. During the agitation of this matter, the right of the Company to the new conquests was totally denied by several members. In the end, however, the question was compromised by the Company agreeing to pay 400,000*l.* a year for 2 years; and in 1769, this agreement, including the yearly payment, was further extended for 5 years more. The Company, at the same time, increased their dividend, which had been fixed by the former agreement at 10, to 12½ per cent.

But the Company's anticipations of increased revenue proved entirely visionary. The rapidity of their conquests in India, the distance of the controlling authority at home,

and the abuses in the government of the native princes, to whom the Company had succeeded, conspired to foster a strong spirit of peculation among their servants. Abuses of every sort were multiplied to a frightful extent. The English, having obtained, or rather enforced, an exemption from those heavy transit duties to which the native traders were subject, engrossed the whole internal trade of the country. They even went so far as to decide what quantity of goods each manufacturer should deliver, and what he should receive for them. It is due to the directors to say, that they exerted themselves to repress these abuses. But their resolutions were neither carried into effect by their servants in India, nor sanctioned by the proprietors at home; so that the abuses, instead of being repressed, went on acquiring fresh strength and virulence. The resources of the country were rapidly impaired; and while many of the Company's servants returned to Europe with immense fortunes, the Company itself was involved in debt and difficulties; and, so far from being able to pay the stipulated sum of 400,000*l.* a year to government, was compelled to apply, in 1772, to the Treasury for a loan!

In this crisis of their affairs, government interposed, and a considerable change was made in the constitution of the Company. The dividend was restricted to 6 per cent., till the sum of 1,400,000*l.*, advanced to them by the public, should be paid. It was further enacted, that the court of directors should be elected for 4 years, 6 members annually, but none to hold their seats for more than 4 years at a time; that no person was to vote at the courts of proprietors who had not possessed his stock for 12 months; and that the amount of stock required to qualify for a vote should be increased from 500*l.* to 1,000*l.* The jurisdiction of the Mayor's Court at Calcutta was in future confined to small mercantile cases; and, in lieu of it, a new court was appointed, consisting of a chief justice and 3 principal judges appointed by the Crown. A superiority was also given to Bengal over the other presidencies, Mr. Warren Hastings being named in the act as governor-general of India. The governor-general, councillors, and judges were prohibited from having any concern whatever in trade; and no person residing in the Company's settlements was allowed to take more than 12 per cent. per annum for money. Though strenuously opposed, these measures were carried by a large majority.

At this period (1773) the total number of proprietors of East India stock, with their qualifications as they stood in the Company's book, were as follows: —

	Proprietors.	Stock. £	s.	d.
Englishmen, possessing 1,000*l.* stock and upwards	487	1,018,398	19	11
Foreigners, possessing 1,000*l.* stock and upwards	325	890,940	17	0
Englishmen, possessing 500*l.* stock and upwards	1,246	634,464	1	8
Foreigners, possessing 500*l.* stock and upwards	95	50,226	0	0
Total	2,153	£2,594,029	18	7

Notwithstanding the vast extension of the Company's territories, their trade continued to be apparently insignificant. During the 3 years ending with 1773, the value of the entire exports of British produce and manufactures, including military stores, exported by the Company to India and China, amounted to 1,469,411*l.*, being at the rate of 489,803*l.* a year; the annual exports of bullion during the same period being only 84,933*l.*! During the same 3 years, 23 ships sailed annually for India. The truth, indeed, seems to be, that, but for the increased consumption of tea in Great Britain, the Company would have entirely ceased to carry on any branch of trade with the East; and that the monopoly would have excluded us as effectually from the markets of India and China as if the trade had reverted to its ancient channels, and the route by the Cape of Good Hope been relinquished.

In 1781, the exclusive privileges of the Company were extended to 1791, with 3 years' notice; the dividend on the Company's stock was fixed at 8 per cent.; three fourths of their surplus revenues, after paying the dividend, and the sum of 400,000*l.* payable to government, was to be applied to the public service, and the remaining fourth to the Company's own use.

In 1780, the value of British produce and manufactures exported by the Company to India and China amounted to only 386,152*l.*; the bullion exported during the same year was 15,014*l.* The total value of the exports during the same year was 12,648,616*l.*; showing that the East India trade formed only *one thirty-second* part of the entire foreign trade of the empire!

The administration of Mr. Hastings was one continued scene of war, negotiation, and intrigue. The state of the country, instead of being improved, became worse; so much so, that in a council minute by Marquis Cornwallis, dated the 18th of September, 1789, it is distinctly stated, "*that one third part of the Company's territory is now a jungle for wild beasts.*" Some abuses in the conduct of their servants were, indeed, rectified; but, notwithstanding, the nett revenue of Bengal, Bahar, and Orissa, which, in 1772, had amounted to 2,126,766*l.*, declined, in 1785, to 2,072,963*l.* This exhaustion of the country, and the expenses incurred in the war with Hyder Ally and France, involved

the Company in fresh difficulties; and being unable to meet them, they were obliged, in 1783, to present a petition to parliament, setting forth their inability to pay the stipulated sum of 400,000*l.* a year to the public, and praying to be excused from that payment and to be supported by a loan of 900,000*l.*

All parties seemed now to be convinced that some further changes in the constitution of the Company had become indispensable. In this crisis, Mr. Fox brought forward his famous India Bill; the grand object of which was to abolish the courts of directors and proprietors, and to vest the government of India in the hands of 7 commissioners appointed by parliament. The coalition between Lord North and Mr. Fox having rendered the ministry exceedingly unpopular, advantage was taken of the circumstance to raise an extraordinary clamour against the bill. The East India Company stigmatised it as an invasion of their chartered rights; though it is obvious that, from their inability to carry into effect the stipulations under which those rights were conceded to them, they necessarily reverted to the public; and it was as open to parliament to legislate upon them as upon any other question. The political opponents of the government represented the proposal for vesting the nomination of commissioners in the legislature, as a daring invasion of the prerogative of the Crown, and an insidious attempt of the minister to render himself all-powerful, by adding the patronage of India to that already in his possession. The bill was, however, carried through the House of Commons; but, in consequence of the ferment it had excited, and the avowed opposition of his Majesty, it was thrown out in the House of Lords. This event proved fatal to the coalition ministry. A new one was formed, with Mr. Pitt at its head; and parliament being soon after dissolved, the new minister acquired a decisive majority in both Houses. When thus secure of parliamentary support, Mr. Pitt brought forward his India Bill, which was successfully carried through all its stages. By this bill a Board of Control was erected, consisting of 6 members of the privy council, who were "to check, superintend, and control all acts, operations, and concerns, which in anywise relate to the civil or military government, or revenues, of the territories and possessions of the East India Company." All communications to or from India, touching any of the above matters, were to be submitted to this Board; the directors being ordered to yield obedience to its commands, and to alter or amend all instructions sent to India as directed by it. A secret committee of 3 directors was formed, with which the Board of Control might transact any business it did not choose to submit to the court of directors. Persons returning from India were to be obliged, under very severe penalties, to declare the amount of their fortunes; and a tribunal was appointed for the trial of all individuals accused of misconduct in India, consisting of a judge from each of the Courts of King's Bench, Common Pleas, and Exchequer; 5 members of the House of Lords, and 7 members of the House of Commons; the last being chosen by lot at the commencement of each session. The superintendence of all commercial matters continued, as formerly, in the hands of the directors.

During the administration of Marquis Cornwallis, who succeeded Mr. Hastings, Tippoo Saib, the son of Hyder Ally, was stripped of nearly half his dominions; the Company's territorial revenue was, in consequence, greatly increased; at the same time that the permanent settlement was carried into effect in Bengal, and other important changes accomplished. Opinion has been long divided as to the influence of these changes. On the whole, however, we are inclined to think that they have been decidedly advantageous. Lord Cornwallis was, beyond all question, a sincere friend to the people of India; and laboured earnestly, if not always successfully, to promote their interests, which he well knew were identified with those of the British nation.

During the 3 years ending with 1793, the value of the Company's exports of British produce and manufactures fluctuated from 928,783*l.* to 1,031,262*l.* But this increase is wholly to be ascribed to the reduction of the duty on tea in 1784, and the vast increase that, consequently, took place in its consumption. —(See article Tea.) Had the consumption of tea continued stationary, there appear no grounds for thinking that the Company's exports in 1793 would have been greater than in 1780, unless an increase had taken place in the quantity of military stores exported.

In 1793, the Company's charter was prolonged till the 1st of March, 1814. In the act for this purpose, a species of provision was made for opening the trade to India to private individuals. All his Majesty's subjects, residing in any part of his European dominions, were allowed to export to India any article of the produce or manufacture of the British dominions, except military stores, ammunition, masts, spars, cordage, pitch, tar, and copper; and the Company's civil servants in India, and the free merchants resident there, were allowed to ship, on their own account and risk, all kinds of Indian good, except calicoes, dimities, muslins, and other piece goods. But neither the merchants in England, nor the Company's servants or merchants in India, were allowed to export or import except in Company's ships. And in order to insure such conveyance, it was enacted, that the Company should annually appropriate 3,000 tons of shipping for

the use of private traders; it being stipulated that they were to pay, in time of peace, 5*l.* outwards, and 15*l.* homewards, for every ton occupied by them in the Company's ships; and that this freight might be raised in time of war, with the approbation of the Board of Control.

It might have been, and, indeed, most probably was foreseen that very few British merchants or manufacturers would be inclined to avail themselves of the privilege of sending out goods in Company's ships; or of engaging in a trade fettered on all sides by the jealousy of powerful monopolists, and where, consequently, their superior judgment and economy would have availed almost nothing. As far, therefore, as they were concerned, the relaxation was more apparent than real, and did not produce any useful results.* It was, however, made use of to a considerable extent by private merchants in India; and also by the Company's servants returning from India, many of whom invested a part, and some the whole, of their fortune, in produce fit for the European markets.

The financial difficulties of the East India Company led to the revolution which took place in its government in 1784. But, notwithstanding the superintendence of the Board of Control, its finances have continued nearly in the same unprosperous state as before. We have been favoured, from time to time, with the most dazzling accounts of revenue that was to be immediately derived from India; and numberless acts of parliament have been passed for the appropriation of surpluses that never had any existence except in the imagination of their framers. The proceedings that took place at the renewal of the charter, in 1793, afford a striking example of this. Lord Cornwallis had then concluded the war with Tippoo Saib, which had stripped him of half his dominions: the perpetual settlement, from which so many benefits were expected to be derived, had been adopted in Bengal; and the Company's receipts had been increased, in consequence of accessions to their territory, and subsidies from native princes, &c., to upwards of *eight* millions sterling a year, which, it was calculated, would afford a future annual surplus, after every description of charge had been deducted, of 1,240,000*l.* Mr. Dundas (afterwards Lord Melville), then president of the Board of Control, availed himself of these favourable appearances, to give the most flattering representation of the Company's affairs. There could, he said, be no question as to the permanent and regular increase of the Company's surplus revenue; he assured the House that the estimates had been framed with the greatest care; that the Company's possessions were in a state of prosperity till then unknown in India; that the abuses, which had formerly insinuated themselves into some departments of the government, had been rooted out; and that the period was at length arrived, when India was to pour her golden treasures into the lap of England! Parliament participated in these brilliant anticipations, and in the act prolonging the charter it was enacted, 1st, That 500,000*l.* a year of the surplus revenue should be set aside for reducing the Company's debt in India to 2,000,000*l.*; 2dly, That 500,000*l.* a year should be paid into the exchequer, to be appropriated for the public service as parliament should think fit to order; 3dly, When the India debt was reduced to 2,000,000*l.*, and the bond debt to 1,500,000*l.*, *one sixth* part of the surplus was to be applied to augment the dividends, and the other *five sixths* were to be paid into the Bank, in the name of the commissioners of the national debt, to be accumulated as a *guarantee fund*, until it amounted to 12,000,000*l.*; and when it reached that sum, the dividends upon it were to be applied to make up the dividends on the capital stock of the Company to 10 per cent., if at any time the funds appropriated to that purpose should prove deficient, &c.

Not one of these anticipations was realised! Instead of being diminished, the Company's debts began immediately to increase. In 1795, they were authorised to add to the amount of their floating debt. In 1796, a new device to obtain money was fallen upon. Mr. Dundas represented that as all competition had been destroyed in consequence of the war, the Company's commerce had been greatly increased, and that their mercantile capital had become insufficient for the extent of their transactions. In consequence of this representation, leave was given to the Company to add *two millions* to their capital stock by creating 20,000 new shares; but as these shares sold at the rate of 173*l.* each, they produced 3,460,000*l.* In 1797, the Company issued additional bonds to the extent of 1,417,000*l.*; and notwithstanding all this, Mr. Dundas stated in the House of Commons, on the 13th of March, 1799, that there had been a deficit in the previous year of 1,319,000*l.*

During the administration of the Marquis Wellesley, which began in 1797–8 and terminated in 1805–6, the British empire in India was augmented by the conquest of Seringapatam and the whole territories of Tippoo Saib, the cession of large tracts by

* In his letter to the East India Company, dated the 21st of March, 1812, Lord Melville says: "It will not be denied that the facilities granted by that act (the act of 1793) have not been satisfactory, at least to the merchants either of this country or of India. They have been the source of constant dispute, and they have even entailed a heavy expense upon the Company, without affording to the public any adequate benefit from such a sacrifice."— (*Papers published by E. I. Comp.* 1813, p. 84.)

the Mahratta chiefs, the capture of Delhi, the ancient seat of the Mogul empire, and various other important acquisitions; so that the revenue, which had amounted to 8,059,000*l.* in 1797, was increased to 15,403,000*l.* in 1805. But the expenses of government, and the interest of the debt, increased in a still greater proportion than the revenue, having amounted, in 1805, to 17,672,000*l.*, leaving a deficit of 2,269,000*l.* In the following year the revenue fell off nearly 1,000,000*l.*, while the expenses continued nearly the same. And there was, at an average, a continued excess of expenditure, including commercial charges, and a contraction of fresh debt, down to 1811–12.

Notwithstanding the vast additions made to their territories, the Company's commerce with them continued to be very inconsiderable. During the 5 years ending with 1811, the exports to India by the Company, exclusive of those made on account of individuals in their ships, were as under: —

1807	£952,416	1810	£1,010,815
1808	919,544	1811	1,033,816
1809	866,153		

The exports by the private trade, and the *privilege* trade, that is, the commanders and officers of the Company's ships, during the above-mentioned years, were about as large. During the 5 years ending with 1807-8, the annual average imports into India by British private traders, only, amounted to 305,496*l.* — (*Papers published by the East India Company in* 1813, 4to. p. 56.)

The Company's exports include the value of the military stores sent from Great Britain to India. The ships employed in the trade to *India and China*, during the same 5 years, varied from 44 to 53, and their burden from 36,671 to 45,342 tons.

For some years previously to the termination of the Company's charter in 1813, the conviction had been gaining ground among all classes, that the trade to the East was capable of being very greatly extended; and that it was solely owing to the want of enterprise and competition, occasioned by its being subjected to a monopoly, that it was confined within such narrow limits. Very great efforts were, consequently, made by the manufacturing and commercial interests to have the monopoly set aside, and the trade to the East thrown open. The Company vigorously resisted these pretensions; and had interest enough to procure a prolongation of the privilege of carrying on an exclusive trade to China to the 10th of April, 1831, with 3 years' notice; the government of India being continued in their hands for the same period. Fortunately, however, the trade to India was opened, under certain conditions, to the public. The principal of these conditions were, that private individuals should trade, directly only, with the presidencies of Calcutta, Madras, and Bombay, and the port of Penang; that the vessels fitted out by them should not be under 350 tons burden; and that they should abstain, unless permitted by the Company, or the Board of Control, from engaging in the carrying trade of India, or in the trade between India and China. And yet, despite these disadvantages, such is the energy of individual enterprise as compared with monopoly, that the private traders gained an almost immediate ascendancy over the East India Company, and in a very short time more than *trebled* our trade with India.

In the Report of the committee of the House of Lords on the foreign trade of the country, printed in May, 1821, it is stated, that "the greatly increased consumption of British goods in the East, since the commencement of the free trade, cannot be accounted for by the demand of European residents, the number of whom does not materially vary; and it appears to have been much the greatest in articles calculated for the general use of the natives. That of the cotton manufactures of this country alone is stated, since the first opening of the trade, to have been augmented from *four* to *five* fold (it is now (1843) augmented many hundreds of times). The value of the merchandise exported from Great Britain to India, which amounted, in 1814, to 870,177*l.*, amounted *, in 1819, to 3,052,741*l.*; and although the market appears then to have been so far overstocked as to occasion a diminution of nearly one half in the exports of the following year, that diminution appears to have taken place more in the articles intended for the consumption of Europeans than of natives; and the trade is now stated to the committee, by the best informed persons, to be reviving. When the amount of population, and the extent of the country over which the consumption of these articles is spread, are considered, it is obvious that any facility which can, consistently with the political interests and security of the Company's dominions, be given to the private trader, for the distribution of his exports, by increasing the number of ports at which he may have the option of touching in pursuit of a market, cannot fail to promote a more ready and extensive demand."

Besides the restraints imposed by the act of 1813 on the proceedings of the free traders†,

* This is the amount of the Company's exports only, and the sum is not quite accurate: *see post.*

† These restraints were a good deal modified by the 3 Geo. 4. c. 80., passed in pursuance of the recommendation of the committee quoted above.

they frequently experienced very great loss and inconvenience from the commercial speculations of the East India Company. The latter had commercial residents, with large establishments of servants, some of them intended for coercive purposes, stationed in all the considerable towns; and the Marquis Wellesley has stated, "that the intimation of a wish from the Company's resident is always received as a command by the native manufacturers and producers." The truth is, that it was not in the nature of things that the Company's purchases could be fairly made; the natives could not deal with their servants as they would have dealt with private individuals; and it would be absurd to suppose that agents authorised to buy on account of government, and to draw on the public treasury for the means of payment, should generally evince the prudence and discretion of individuals directly responsible in their own private fortunes for their transactions. The interference of such persons would, under any circumstances, have rendered the East India trade peculiarly hazardous. But their influence in this respect was materially aggravated by the irregularity of their appearances. No individual, not belonging to the court of directors, could foresee whether the Company's agents would be in the market at all; or, if there, to what extent they would either purchase or sell. So capricious were their proceedings, that in some years they laid out 700,000*l.* on indigo, while in others they did not lay out a single shilling: and so with other things. A fluctuating demand of this sort necessarily occasioned great and sudden variations of price, and was injurious alike to the producers and the private merchants.

And besides being injurious to the private trader, and to the public generally, both in India and England, this trade was of no advantage to the East India Company. How, indeed, could it be otherwise? A company that mantained armies and retailed tea, that carried a sword in the one hand and a ledger in the other, was a contradiction; and, had she traded with success, would have been a prodigy. It was impossible for her to pay that attention to details that is indispensable to the carrying on of commerce with advantage. She may have gained something by the monopoly of the tea trade, though even that is questionable; but it is admitted on all hands, that she lost heavily by her trade to India. When, therefore, the question as to the renewal of the charter came to be discussed in 1832 and 1833, the Company had no reasonable objection to urge against their being deprived of the privilege of trading. And the act 3 & 4 Will. 4. c. 85., for continuing the charter till 1854, *terminated the Company's commercial character*; by enacting, that the Company's trade to China was to cease on the 22d of April, 1834, and that the Company was, as soon as possible after that date, to dispose of their stocks on hand, and close their commercial business. And the wonderful increase that has since taken place in the trade with the East is the best proof of the sagacity and soundness of the opinions of those by whose efforts the incubus of monopoly was removed.

From this period down to last year (1858), when the Company was finally abolished, its functions were wholly political, and the directors were, in truth, little more than a council to assist and advise the President of the Board of Control. During the period now alluded to (from 1834 to 1858), some most important events have taken place in India. The British Empire has been increased by the acquisition, in 1845, of the territory of Scinde, at the mouths of the Indus; in 1849, of the extensive and fertile country of the Punjab (Five Rivers), in N. W. India, between the Sutlej and the Indus; and, in 1852, of Pegu and Martaban, in Burmah. Being occupied by comparatively brave and hardy races, the subjugation of Scinde and the Punjab was not effected without much difficulty, and after the occurrence of several well-fought battles.

The period referred to is also distinguished by the ill advised invasion of Affghanistan in 1839. This unprovoked aggression led to the greatest reverse that has ever happened to the English in India. But the disastrous retreat from Caubul having been avenged, and the *prestige* of our arms restored, we finally withdrew from the country in 1842. And it is to be hoped that we may never again, unless from the most urgent necessity, attempt to extend our empire in that quarter beyond its present limits.

A conviction had been for a lengthened period gaining ground, that the Company's intervention in the government of India had become inexpedient, and that it should be directly administered by the Crown. In 1853 a step was taken in this direction by the act 16 & 17 Vic. c. 95., which reduced the number of directors from 24 to 18, part of which were to be nominated by the Crown, and made other changes. It is not easy to say how long this modified system might have gone on, had it not been for the outbreak of the gigantic mutiny of 1857. It would be foreign to our object to introduce details with respect to the origin of this insurrection, its progress and suppression. These are known to all our readers. Here it is sufficient to mention, that the incipient prejudice against the Company having been strengthened, though without much reason, by the disasters in India, advantage was taken of their occurrence to introduce a bill into

Parliament for transferring its government from the Company to the Crown, which soon after (2nd August 1858) became the act 21 & 22 Vic. c. 106. Thus has terminated, after a prolonged existence of about 258 years, the East India Company *,—the most celebrated joint-stock association of which history has preserved any account. For a lengthened period its commercial had been sunk in its military and political character. It had subjugated one of the most extensive empires in the world. And though its policy has been in many respects of a very questionable description, it is entitled to the high praise of having vigorously exerted itself to restrain abuses on the part of its servants, to protect the vast population within its dominion, and provide for their well-being.

The government of India is now vested under the 21 & 22 Vic. c. 106. in a Secretary of State, assisted by a council of 15 members: 8 of the latter were nominated by Her Majesty, and 7 by the East India Company. On vacancies taking place among the former, their successors are to be nominated by the Crown; and vacancies among the Company's nominees are to be filled up by election by the council. Members hold their situations during good behaviour, receive a salary of 1200*l.* a-year, and a retiring pension of 500*l.* a-year. The majority of the council are to consist of persons who have either served or resided in India for 10 years. They are not allowed to sit in Parliament.

II. EAST INDIES (STATE OF SOCIETY IN, GROWING DEMAND FOR ENGLISH GOODS, TRADE, COLONISATION, ETC.).

1. *Distinction of Castes in India. Inaccuracy of the Representations as to the Inhabitants being unalterably attached to ancient Customs and Practices.* — We have taken occasion in the preceding sketch of the history of the East India Company, repeatedly to notice the small extent of the trade carried on by its agency. It was contended, however, that this was to be ascribed, not to the deadening influence of monopoly, but to the peculiar state of the people of India. A notion has long been prevalent in this quarter of the world, that the Hindoos are a race unsusceptible of change or improvement of any sort; that every man is brought up to the profession of his father, and can engage in none else; and that, owing to the simplicity and unalterableness of their habits, they never can be consumers, at least to any considerable extent, of foreign commodities. "What is now in India, has always been there, and is likely still to continue." —(*Robertson's Disquisition*, p. 202.) The Hindoos of this day are said to be the same as the Hindoos of the age of Alexander the Great. The description of them given by Arrian has been quoted as applying to their actual situation. It is affirmed that they have neither improved nor retrograded; and we are referred to India as to a country in which the institutions and manners that prevailed 3000 years ago may still be found in their pristine purity! The President de Goguet lays it down distinctly, in his learned and invaluable work on the origin of laws, arts, and sciences, that in India "every trade is confined to a particular caste, and can be exercised only by those whose parents professed it."—(*Origin of Laws, &c.*, Eng. trans. vol. iii. p. 24.) Dr. Robertson says, that *the station of every Hindoo is unalterably fixed; his destiny is irrevocable; and the walk of life is marked out, from which he must never deviate.*"—(*Disquisition on India*, p. 199.) The same opinions are maintained by later authorities. Dr. Tennant says, that "the whole Indian community is divided into 4 great classes; and each class is stationed between certain walls of separation, which are impassable by the purest virtue, and most conspicuous merit."—(Quoted by *Mr. Rickards*, p. 6.) This unalterable destiny of individuals has been repeatedly assumed in the despatches and official papers put forth by the East India Company; and has been referred to on all occasions by them and their servants, as a proof that the depressed and miserable condition of the natives is not owing to misgovernment, or to the weight of the burdens laid upon them; and that it is in vain to think of materially improving their condition, or of making them acquainted with new arts, or giving them new habits, so long as the institution of castes, and the prejudices to which it has given rise, preserve their ascendancy unimpaired.

But notwithstanding the universal currency which the opinions now referred to have obtained, and the high authority by which they are supported, they are, in all the most essential respects, entirely without foundation! The books and codes of the Hindoos themselves, and the minute and careful observations that have recently been made on Indian society, have shown that the influence ascribed to the institution of castes by the ancients, and by the more early modern travellers, has been prodigiously exaggerated. In the first part of his work on India, Mr. Rickards established, partly by re-

* It still exists in name for the receipt and distribution of dividends and other routine matters; but it is probable that this phantom, *magni nominis umbra*, will speedily disappear.

ferences to the authoritative books of the Hindoos, and partly by his own observations, and those of Mr. Colebrook, Dr. Heber, and other high authorities, that the vast majority of the Hindoo population may, and, in fact, do engage in all sorts of employments. It has been further shown, that there is nothing in the structure of Indian society to oppose any serious obstacle to the introduction of new arts, or the spread of improvement; and that the causes of the poverty and misery of the people must be sought for in other circumstances than the institution of castes, and the nature of Hindoo superstition.

The early division of the population into the 4 great classes of priests (Brahmins), soldiers (Cshatryas), husbandmen and artificers (Vaisyas), and slaves (Sudras), was maintained only for a very short period. The Hindoo traditions record that a partial intermixture of these classes took place at a very remote epoch; and the mixed brood thence arising were divided into a vast variety of new tribes, or castes, to whom, speaking generally, no employments are forbidden.

"The employments," says Mr. Rickards, "allowed to these mixed and impure castes, may be said to be every description of handicraft and occupation for which the wants of human society have created a demand. Though many seem to take their names from their ordinary trade or profession, and some have duties assigned them too low and disgusting for any others to perform, but from the direct necessity; yet no employment, generally speaking, is forbidden to the mixed and impure tribes, excepting three of the prescribed duties of the sacerdotal class; viz. teaching the *Vedas*, officiating at a sacrifice, and receiving presents from a pure-handed giver; which three are exclusively *Brahminical*."

Mr. Colebrook, who is acknowledged on all hands to be one of the very highest authorities as to all that respects Indian affairs, has a paper in the fifth volume of the *Asiatic Researches*, on the subject of castes. In this paper, Mr. Colebrook states that the *Jatimala*, a Hindoo work, enumerates *forty-two* mixed classes springing from the intercourse of a man of inferior class with a woman of a superior class, or in the *inverse* order of the classes. Now, if we add to these the number that must have sprung from intermixture in the *direct* order of the classes, and the hosts further arising from the continued intermixture of the mixed tribes amongst themselves, we shall not certainly be disposed to dissent from Mr. Colebrook's conclusion, "that the subdivisions of these classes have further multiplied distinctions to an *endless variety*."

Mr. Colebrook has given the following distinct and accurate account of the professions and employments of the several classes at the present day. It forms a curious commentary on the "irrevocable destiny" of Dr. Robertson, and the "impassable walls" of Dr. Tennant.

"A *Brahman*, unable to subsist by his duties, may live by the duty of a soldier; if he cannot get a subsistence by either of these employments, he may apply to tillage and attendance on cattle, or gain a competence by traffic, avoiding certain commodities. A *Cshatrya* in distress may subsist by all these means; but he must not have recourse to the highest functions. In seasons of distress a further latitude is given. The practice of medicine, and other learned professions, painting, and other arts, work for wages, menial service, alms, and usury, are among the modes of subsistence allowed both to the *Brahman* and *Cshatrya*. A *Vaisya*, unable to subsist by his own duties, may descend to the servile acts of a *Sudra;* and a *Sudra*, not finding employment by waiting on men of the higher classes, may subsist by handicrafts; principally following those mechanical operations, as joinery and masonry, and practical arts, as painting and writing, by which he may serve men of superior classes; and although a man of a lower class is in general restricted from the acts of a higher class, the *Sudra* is expressly permitted to become a trader, or a husbandman.

"Besides the particular occupation assigned to each of the mixed classes, they have the alternative of following that profession, which regularly belongs to the class from which they derive their origin on the mother's side; those at least have such an option who are born in the direct order of the classes. *The mixed classes are also permitted to subsist by any of the duties of a Sudra, that is, by mental service, by handicrafts, by commerce, and agriculture.* Hence it appears THAT ALMOST EVERY OCCUPATION, THOUGH REGULARLY IT BE THE PROFESSION OF A PARTICULAR CLASS, IS OPEN TO MOST OTHER CLASSES; and that the limitations, far from being rigorous, do in fact reserve only the peculiar profession of the *Brahman*, which consists in teaching the *Veda*, and officiating at religious ceremonies."

"We have thus," says Mr. Rickards, by whom this passage has been quoted, "the highest existing authority for rejecting the doctrine of the whole Hindoo community 'being divided into four castes,' and of their peculiar prerogatives being guarded inviolate by 'impassable walls of separation.' It is also clear that the intermixture of castes had taken place, to an indefinite extent, at the time when the *Dherma Sastra* was composed, which Sir William Jones computes to be about 880 years B.C.; for the mixed classes are specified in this work, and it also refers, in many places, to past times, and to events which a course of time only could have brought about. The origin of the intermixture is therefore lost in the remotest and obscurest antiquity; and having been carried on through a long course of ages, a heterogeneous mass is everywhere presented to us, in these latter times, without a single example, in any particular state, or kingdom, or separate portion of the Hindoo community, of that quadruple division of castes which has been so confidently insisted upon.

"I have *myself* seen carpenters of five or six different castes, and as many different bricklayers, employed on the same building. The same diversity of castes may be observed among the craftsmen in dockyards, and all other great works; and those who have resided for any time in the principal commercial cities of India must be sensible that every increasing demand for labour, in all its different branches and varieties of old and new arts, has been speedily and effectually supplied, in spite of the tremendous institution of castes, which we are taught to believe forms so impassable an obstruction to the advancement of Indian industry."

2. *Growing Demand for English Goods.*—It is difficult to suppose that the directors of the East India Company should not have been early aware of the fallacy of the opinions as to the fixedness of Indian habits. So far, however, as we know, they did not, in this instance, evince any acquaintance with the discoveries of their servants. On the

contrary, in all the discussions that took place with respect to the opening of the trade in 1814, the Company invariably contended that no increase of trade to India could be expected. In a letter of the chairman and deputy chairman to the Right Honourable Robert Dundas, dated 13th of January, 1809, it is stated, that the small demand for foreign commodities in India "results from the nature of the Indian people, their climate and their usages. The articles of first necessity their own country furnishes more abundantly and more cheaply than it is possible for Europe to supply them. The labour of the great body of the common people only enables them to subsist on rice, and to wear a slight covering of cotton cloth; they, therefore, *can purchase none of the superfluities we offer them.* The comparatively few in better circumstances, restricted, like the rest, by numerous religious and civil customs, of which all are remarkably tenacious, find few of our commodities to their taste; and their climate, so dissimilar to ours, renders many of them unsuitable to their use; so that a commerce between them and us cannot proceed far upon the principle of supplying mutual wants. Hence, except woollens, in a very limited degree, for mantles in the cold season, and metals, on a scale also very limited, to be worked up by their own artisans for the few utensils they need, hardly any of our staple commodities find a vent among the Indians; the other exports which Europe sends to India being chiefly consumed by the European population there, and some of the descendants of the early Portuguese settlers; all of whom, taken collectively, form but a small body, in view to any question of national commerce."—(*Papers published by authority of the East India Company*, 1813, p. 21.)

The volume from which we have made this extract contains a variety of passages to the same effect. So confident, indeed, were the Company that they had carried the trade to India to the utmost extent of which it was capable, that it was expressly stated, in resolutions passed in a general court held at the India House on the 26th of January 1813, "that no large or sudden addition can be made to the amount of British exports to India or China;" that the Company had suffered a loss in attempting to extend this branch of their trade; that the warehouses at home were glutted with Indian commodities for which there was no demand; and that to open the outports to the trade would be no other than "a ruinous transfer of it into new channels, to the destruction of immense and costly establishments, and the beggary of many thousands of industrious individuals."

Luckily, however, these representations were unable to prevent the opening of the trade, and the result has sufficiently demonstrated their fallacy. The enterprise and exertion of individuals has vastly increased our exports to India—to that very country which the Company had so confidently pronounced was, and would necessarily continue to be, incapable of affording any additional outlet for our peculiar products!

The commercial accounts for 1812 and 1813 were unfortunately destroyed by the fire at the Custom-house. The trade to India was opened on the 10th of April, 1814; and in that year the declared or real value of the products exported from Great Britain to the countries eastward of the Cape of Good Hope, excepting China, by the East India Company, was 826,558*l.*, and by the private traders, 1,048,132*l.* In 1817, the Company's exports had declined to 638,382*l.*, while those of the private traders had increased to 2,750,333*l.*; and in 1828, the former had sunk to only 488,601*l.*, while the latter had increased to 3,979,072*l.*, being more than double the total exports to India, as well by the Company as by private traders in 1814! Since then the market has continued progressively to increase. At an average of the 6 years ending with 1849 the declared value of the exports of British goods amounted to no less than 6,313,668*l.* a year; the declared value of those exported in 1849 being 6,803,274*l.* In 1854, previously to the late outbreak, the exports to India had reached the sum of 10,025,969*l.*

The Company stated, and no doubt truly, that they lost a very large sum in attempting to extend the demand for British woollens in India and China, which, notwithstanding, continues very limited. But in their efforts to force the sale of woollens, they seem to have entirely forgotten that we had attained to great excellency in the manufacture of cotton stuffs, the article principally made use of as clothing in Hindostan; and that, notwithstanding the cheapness of labour in India, the advantage we derived from our superior machinery might enable us to offer cotton stuffs to the natives at a lower price than they could afford to manufacture them for. No sooner, however, had the trade been open to private adventurers, that this channel of enterprise was explored; and the result has been, that, instead of bringing cottons from India to England, the former has become *one of the best and most extensive markets for the cottons of the latter.* We question, indeed, whether, in the whole history of commerce, another equally striking example can be produced of the powerful influence of competition in opening new and almost boundless fields for the successful prosecution of commercial enterprise.

In 1814, the first year of the free trade to India, the exports of cotton amounted to 817,000 yards, of which only about 170,000 yards, valued at 17,778*l.*, were exported by the Company! The progress of the trade has since been such that, in 1837, we exported to India 419,226,233 yards cotton stuffs, and 17,846,904 lbs. twist and yarn, ex hosiery, lace, and small wares, the agg. declared value of the whole being 6,083,266*l.*

The demand for several other articles of British manufactures has recently increased, though not in the same unprecedented manner as cotton, with considerable rapidity. Notwithstanding all that has been said as to the immutability of Hindoo habits, the fact is not to be denied, that a taste for European products and customs is rapidly spreading itself over India. And the fair presumption is, that it will continue to gain ground according as education is more diffused, and as the natives become better acquainted with our language, arts, and habits. The authenticity of Dr. Heber's statements cannot be called in question; and there are many passages in different parts of his Journal that might be quoted in corroboration of what has now been stated. Our limits, however, will only permit of our making a very few extracts.

"Nor have the religious prejudices, and the unchangeableness of the Hindoo habits, been less exaggerated. Some of the best informed of their nation, with whom I have conversed, assure me that half their most remarkable customs of civil and domestic life are borrowed from their Mohammedan conquerors; and *at present there is an obvious and increasing disposition to imitate the English in everything*, which has already led to very remarkable changes, and will, probably, to still more important. The wealthy natives now all affect to have their houses decorated with Corinthian pillars, and filled with English furniture; they drive the best horses and the most dashing carriages in Calcutta; many of them speak English fluently, and are tolerably read in English literature; and the children of one of our friends I saw one day dressed in jackets and trowsers, with round hats, shoes, and stockings. In the Bengalee newspapers, of which there are two or three, politics are canvassed with a bias, as I am told, inclined to Whiggism; and one of their leading men gave a great dinner, not long since, in honour of the Spanish revolution: among the lower orders the same feeling shows itself more beneficially in a growing neglect of caste."—(Vol. ii. p. 306.)

"To say that the Hindoos or Mussulmans are deficient in any essential feature of a civilised people, is an assertion which I can scarcely suppose to be made by any who have lived with them: their manners are at least as pleasing and courteous as those in the corresponding stations of life among ourselves; their houses are larger, and, according to their wants and climate, to the full as convenient as ours; their architecture is at least as elegant; nor is it true that in the mechanic arts they are inferior to the general run of European nations. Where they fall short of us, (which is chiefly in agricu tural implements, and the mechanics of common life,) they are not, so far as I have understood of Italy and the south of France, surpassed in any degree by the people of those countries. Their goldsmiths and weavers produce as beautiful fabrics as our own; and it is so far from true that they are obstinately wedded to their old patterns, that they show an anxiety to imitate our models, and do imitate them very successfully. The ships built by native artists at Bombay are notoriously as good as any which sail from London or Liverpool. The carriages and gigs which they supply at Calcutta are as handsome, though not as durable, as those of Long-Acre. In the little town of Monghyr, 300 miles from Calcutta, I had pistols, double-barrelled guns, and different pieces of cabinet work, brought down to my boat for sale, which in outward form (for I know no further) nobody but perhaps Mr. ——— could detect to be of Hindoo origin; and at Delhi, in the shop of a wealthy native jeweller, I found brooches, ear-rings, snuff-boxes, &c. of the latest models (so far as I am a judge), and ornamented with French devices and mottoes."—(Vol. ii. p. 382.)

As Bishop Heber penetrated into the interior of India, he found the same taste as in Calcutta, for European articles and for luxuries, to prevail everywhere among the natives. Of Benares, he writes as follows:—

"But what surprised me still more, as I penetrated further into it, were the large, lofty, and handsome dwelling-houses, the beauty and apparent richness of the goods exposed in the bazaars, and the evident hum of business. Benares is in fact a very industrious and wealthy, as well as a very holy city. It is the great mart where the shawls of the north, the diamonds of the south, and the muslins of Dacca and the eastern provinces centre; and it has very considerable silk, cotton, and fine woollen manufactories of its own; while English hardware, swords, shields, and spears, from Lucknow and Monghyr, and *those European luxuries and elegancies which are daily becoming more popular in India*, circulate from hence through Bundlecund, Gorruckpoor, Nepaul, and other tracts which are removed from the main artery of the Ganges."—(Vol. i. p. 289.)

Proceeding still further into the interior of the country, and when at Nusseerabad, distant above 1,000 miles from Calcutta, the bishop continues his Journal in the same strain; viz.: —

"European articles are, at Nusseerabad *, as might be expected, very dear; the shops are kept by a Greek and two Parsees from Bombay: they had in their list all the usual items of a Calcutta warehouse. English cotton cloths, both white and printed, are to be met with commonly in wear among the people of the country, and may, I learned to my surprise, be bought best and cheapest, as well as all kinds of hardware, crockery, writing-desks, &c., at Pallee, a large town and celebrated mart in Marwar, on the edge of the desert, several days' journey west of Joudpoor, where, till very lately, no European was known to have penetrated."—(Vol. ii. p. 36.)

As to the character of the Hindoos, their capacity, and even anxious desire, for improvement, the bishop's testimony is equally clear and decided; and as this is a point of pre-eminent importance, the reader's attention is requested to the following statements.

"In the schools which have been lately established in this part of the empire, of which there are at present 9 established by the Church Missionary, and 11 by the Christian Knowledge Societies, some very unexpected facts have occurred. As all direct attempts to convert the children are disclaimed, the parents send them without scruple. But it is no less strange than true, that there is no objection made to the use of the Old and New Testament, as a class-book; that so long as the teachers do not urge them to eat what will make them lose their caste, or to be baptized, or to curse their country's gods, they readily consent to everything else; and not only Mussulmans, but Brahmins, stand by with perfect coolness, and listen sometimes with apparent interest and pleasure, while the scholars, by the road side, are reading the stories of the creation and of Jesus Christ."—(Vol. ii. p. 290.)

"Hearing all I had heard of the prejudices of the Hindoos and Mussulmans, I certainly did not at all expect to find that the common people would, not only without objection, but with the greatest thankfulness, send their children to schools on Bell's system; and they seem to be fully sensible of the advantages conferred by writing, arithmetic, and, above all, by a knowledge of English. There are now in Calcutta, and the surrounding villages, 20 boys' schools, containing 60 to 120 each; and 23 girls', each of 25 or 30."—(Vol. ii. p. 300.)

"In the same holy city (Benares) I visited another college, founded lately by a wealthy Hindoo banker, and intrusted by him to the management of the Church Missionary Society, in which, besides a grammatical knowledge of the Hindoostanee language, as well as Persian and Arabic, the senior boys could pass a good examination in English Grammar, in Hume's History of England, Joyce's Scientific Dialogues, the use of the globes, and the principal facts and moral precepts of the Gospel; most of them writing beautifully in the Persian, and very tolerably in the English character, and excelling most boys I have met with in the accuracy and readiness of their arithmetic."—(Vol. ii. p. 388.)

"The different nations which I have seen in India (for it is a great mistake to suppose that all India is peopled by a single race, or that there is not as great a disparity between the inhabitants of Guzerat, Bengal, the Dooab, and the Deccan, both in language, manners, and physiognomy, as between any four nations in Europe,) have, of course, in a greater or less degree, the vices which must be expected to attend on arbitrary government, a demoralising and absurd religion, and (in all the independent states, and in some of the districts which are partially subject to the British) a laxity of law, and an almost universal prevalence of intestine feuds and habits of plunder. The general character, however, has much which is extremely pleasing to me: they are brave, courteous, intelligent, and most eager after knowledge and improvement, with a remarkable talent for the sciences of geometry, astronomy, &c., as well as for the arts of painting and sculpture. In all these points they have had great difficulties to struggle with, both from the want of models, instruments, and elementary instruction; the indisposition, or rather the horror entertained, till lately, by many among their European masters, for giving them instruction of any kind; and now from the real difficulty which exists of translating works of science into languages which have no corresponding terms."—(Vol. ii. p. 409.)

Even if our space permitted, it would be unnecessary to add to these extracts. The facts and circumstances now mentioned, must, we think, satisfy every one that there is nothing in the nature of Indian society, in the institution of castes as at present existing, or in the habits and customs of the natives, to hinder them from advancing in the career of civilisation, commerce, and wealth. "It may safely be asserted," says Mr. Hamilton, "that with so vast an extent of fertile soil, peopled by so many millions of tractable and industrious inhabitants, Hindostan is capable of supplying the whole world with any species of tropical merchandise; the production, in fact, being only limited by the demand."

3. *Trade with India.*—We had occasion to animadvert, in former editions of this work, on the difficulties under which the trade with India then laboured, in consequence of the duties on sugar, rum, and other Indian products, being very much higher than those laid on the same articles when imported from the colonies in the West Indies. It is needless, however, to enlarge on the manifest inexpediency of such policy, or to enter into any lengthened arguments to prove that governments are bound to treat all who are subject to their authority with the same equal and impartial justice. The discriminating duties now referred to have been all, or nearly all, abolished, and the products of India and of our other dependencies come into the home market on the same equal terms. The beneficial influence of this wise and liberal policy has been strikingly evinced in the increased imports of sugar, cotton, indigo, rice, wool, &c., from India. These, indeed, have been so very great, that despite the vast increase in the shipments of cotton stuffs and yarn, iron, machinery, woollens, and other articles of British produce for India, the value of the imports from, has greatly exceeded the value of the exports to that continent; and hence the heavy drain of bullion to the East. This drain, indeed, has always, or almost always, existed; but the late extraordinary excess of the imports over the exports has proportionally increased its magnitude.

Indigo grows luxuriantly from the equator to the 30th degree of lat.; but in India the best is produced in Bengal and Bahar, between lat. 23° and 27° N., and long. 84°

* Nusseerabad, near Ajmere, in the heart of the Rajepoot country.

and 90° E.; everywhere else the product is inferior. The annual produce of all the Bengal provs. may be estimated at about 60,000,000 lbs. produced on about 1,250,000 acres of cultivated land; the planters, at an average, farming about 2500 acres each. The prime cost of the article to the planters has been estimated at 1,700,000*l.*; the gross profit on which, including risk and charges to the port of exportation, amounts to 40 per cent. The production of silk in India is confined to Bengal, and the produce, though large, is of inferior quality.

Opium has been, for many years past, and still is, an article of great and rapidly increasing export to China, the Malay Islands, and elsewhere. The exports to China may at present (1858) be estimated at the prodigious amount of from 70,000 to 75,000 chests, worth from 32,000,000 to 34,000,000 dolls. This vast importation into China not being balanced by any corresponding exportation of ordinary merchandise, is the cause of the large exports of bullion from it to India. The poppy may be said to take the place in Indian agriculture that the vine and olive occupy in that of S. Europe. Its growth within the British territories has been confined to Bahar and the Benares districts; but in the province Malwah, most part of which is included in the dominions of Scindia, it is extensively cultivated, and pays an export duty on being shipped from ports in our territories. It is produced under a monopoly, and yields a large revenue to government.

The principal export of cotton is to China; but the export to Great Britain is also very considerable, having amounted to 84,101,961 lbs. in 1848, and to no fewer than 250,338,144 lbs. in 1857. But large as this importation may appear, it does not really amount to 1-5th part of our whole annual consumption of cotton wool!

Notwithstanding the vast, and all but unlimited, capacities of British India for the production of sugar, its total export, in 1838, amounted to little more than two thirds of the exports of sugar from the Mauritius! This miserable result was wholly, or almost wholly, ascribable to the inferior quality of East Indian sugars, owing to the very rude and imperfect methods in which they were prepared; but it was partly, also, ascribable to the circumstance of E. Indian sugars having been burdened, previously to 1836, with a duty of 8*s.* a cwt. over and above the duty charged on W. Indian sugars. But in the course of that year Bengal sugars were put on the same footing, in respect of duties, as those of the W. Indian colonies; and of late years a great improvement has been effected in the manufacture of E. Indian sugars, the best of which are now about equal to the best of those from Jamaica and Demerara. In consequence of the circumstances now referred to, and of the comparatively high price of sugar in this country, the imports from India have increased with such rapidity, that they amounted, in 1857, to 1,181,369 cwt.

The abolition of the discriminating duty, in favour of Bengal sugars, being founded on reason and equity, it has since been extended to all parts of British India, and to Ceylon. Nothing, indeed, as already observed, could be more unjust and inconsistent with sound principle, than to impose higher duties on the products of one portion or dependency of the empire than on those of another.

The corn of India, both rice and wheat, is inferior to that of most other countries, for the same reason that its cotton and sugar are inferior, both being the produce of a rude husbandry, and rude preparation. Rice is scalded instead of being kiln-dried; and wheat is never dried at all, except in the sun. It was supposed that the latter might be largely imported under a free corn trade into England; but it does not appear that there are any real grounds for such an opinion. Indian wheat is, speaking generally, very inferior to British wheat; and it could not be imported, in ordinary years, at less than from 40*s.* to 44*s.* a quarter. Its price, free on board at Calcutta, may be taken at 16*s.* or 17*s.* a quarter; to which, if we add 16*s.* or 18*s.* for freight to England, and 7*s.* or 9*s.* for profits and landing charges here, it is abundantly plain that, except in high priced years, it would not answer to import Indian corn.

The exports of wool principally obtained from Bombay and the north-west provinces have increased with extraordinary rapidity. The imports of Indian wool into England in 1833, when the trade began, were so inconsiderable as to amount to only 3721 lbs., whereas, in 1851, they had increased to 4,529,520 lbs., and, in 1857, to no fewer than 19,341,021 lbs.

Previously to the discovery of nitrate of soda in S. America, Bengal and Bahar had a monopoly of the trade in saltpetre. And, contrary to what might have been anticipated, the exports from the latter do not appear to have been much affected by that discovery. Dyes, shell-lac, linseed, safflower, sal-ammoniac, castor oil, coffee from Malabar, tea from Assam, &c., tin, antimony, catechu, and pearl sago, are other exports worthy of mention; and which owe their importance as such principally to the commercial enterprise and talent of Europeans.

Account of the Quantities and computed Values of the Principal Articles imported from India into the United Kingdom in each of the 3 Years ending with 1857.

Articles.		Quantities.			Computed Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
Borax	cwts.	9,368	16,236	14,926	£27,576	£42,826	£36,143
Cardamoms	lbs.	27,641	78,763	74,825	3,685	12,471	15,718
Cassia lignea	"	502,382	725,898	95,187	11,886	13,896	3,144
Cinnamon	"	15,117	12,018	119	656	601	7
Cloves	"	270,639	1,247,840	806,328	32,140	26,647	16,379
Coffee	"	3,051,471	4,470,928	3,625,551	85,260	143,013	121,845
Coir rope, twine, and strands	cwts.	49,943	23,852	47,847	47,116	26,811	64,593
Corn: wheat	qrs.	9,512	90,963	30,429	30,676	252,422	78,180
Cotton, raw	cwts.	1,281,131	1,592,666	2,216,976	2,241,979	3,550,410	5,416,883
Cotton piece goods	pieces	189,340	155,427	213,332	85,949	67,342	102,786
Cutch	tons.	1,906	733	1,157	47,050	32,252	69,998
Ginger	cwts.	5,316	4,866	13,181	7,576	5,849	17,514
Gum, Arabic	"	13,980	11,373	5,936	19,222	12,837	8,310
" Laedye	"	9,343	10,704	11,767	44,146	36,391	49,422
" Shellac	"	20,822	13,847	18,399	41,644	32,541	62,250
Hair or wool, goats', manufactures of	value £	(*See under Value.*)			27,482	3,888	2,264
Hemp, rough or undressed	cwts.	69,464	44,365	45,327	67,727	38,820	47,251
" Jute	"	520,744	713,680	536,177	431,781	597,707	560,347
" other vegetable substances of the nature of undressed hemp	"	3,963	1,493	2,637	4,756	1,775	3,315
Hides, not tanned	"	133,717	150,501	211,075	451,911	646,503	1,007,711
" tanned, tawed, curried, or in any way dressed	lbs.	785,745	489,096	914,617	31,102	27,874	59,451
Horns, horntips, and pieces of horns	tons.	1,459	1,186	1,505	29,859	27,371	39,518
Indigo	cwts.	55,405	71,651	54,208	1,518,037	2,190,151	1,791,644
Mace	lbs.	41,517	93,979	80,029	4,564	9,368	7,002
Madder	cwts.	1,416	129	393	3,186	326	1,061
Madder root	"	13,275	18,089	53,823	19,249	34,671	94,499
Nutmegs	lbs.	199,087	359,759	356,112	24,056	42,246	37,711
Oil, castor	cwts.	11,910	29,411	39,243	31,859	77,204	109,881
" cocoa nut	"	125,335	43,468	62,450	275,737	91,283	149,099
" seed	tuns.	785	1,598	2,797	41,918	71,252	121,589
Oilbanum	cwts.	10,817	10,427	15,492	19,118	23,591	41,553
Pepper	lbs.	2,046,537	5,639,952	1,496,507	44,775	117,499	30,398
Rice, not in the husk	cwts.	2,151,175	3,473,047	3,134,396	1,559,601	1,823,350	1,755,971
Safflower	"	11,518	7,542	12,714	35,892	32,336	112,837
Saltpetre	"	184,068	375,587	349,601	265,831	657,277	693,316
Seeds:—Linseed and flax	qrs.	362,882	341,763	209,263	1,297,303	991,113	649,588
" Mustard	cwts.	4,835	38,870	34,385	4,553	54,418	59,545
" Poppy	qrs.	30,686	24,073	31,002	92,058	65,795	95,251
" Rape	"	139,916	251,890	144,894	487,374	756,778	441,927
" Unenumerated for expressing oil therefrom	"	27,750	33,275	33,948	87,413	99,270	100,147
Senna	lbs.	74,856	308,806	187,856	1,871	7,077	4,207
Silk, raw	"	877,364	600,430	191,796	559,319	565,405	188,697
" Manufactures:—Corahs, choppas, Bandannas, and Tussore cloths	pieces	407,497	586,421	354,712	265,857	391,161	255,303
Skins, goat, undressed	No.	57,452	171,861	100,191	1,197	6,922	4,175
" " tanned, tawed, or dressed	"	163,877	490,117	549,139	11,689	39,311	43,855
" sheep, tanned or tawed	"	397,618	615,919	695,632	14,911	25,022	34,682
Spirits:—rum	gallons	615,005	643,907	381,563	74,065	69,756	46,786
Sugar, unrefined	cwts.	730,882	1,210,969	1,138,494	1,027,838	1,862,822	1,927,592
" refined	"	11,138	5,049	356	15,592	8,457	614
Tallow	"	11,180	40,770	16,446	27,950	98,272	45,294
Tea	lbs.	408,858	690,390	1,240,254	25,601	32,703	147,989
Teeth, elephants'	cwts.	2,599	4,781	3,232	68,871	170,523	138,653
Tin	"	7,019	16,010	18,371	41,412	108,601	114,963
Turmeric	tons	3	207	1,827	42	6,376	56,637
Wax, bees'	cwts.	1,728	2,115	3,572	12,826	16,261	28,019
Wine	gallons	27,146	13,859	18,261	4,072	2,768	3,649
Wood: Teak	loads	15,712	16,529	26,741	186,576	219,560	327,577
Wool, sheep and lambs'	lbs.	14,283,535	15,385,171	19,341,921	490,977	576,944	675,493
All other articles	value	-	-	-	256,950	377,595	559,502
Total		-	-	-	12,668,732	17,262,851	18,650,223

Account of the Quantities and declared Values of the Principal Articles, the Produce of the United Kingdom, exported to India (ex Singapore and Ceylon) in each of the 3 Years ending with 1857.

Articles.		Quantities.			Declared Real Value.		
		1855.	1856.	1857.	1855.	1856.	1857.
Apothecary wares (drugs and chemical preparations not otherwise described)	cwts.	8,446	(*See under Value.*)		£57,383	£55,015	£46,563
Apparel, slops, and haberdashery	value	-	-	-	119,847	141,415	185,037
Arms: viz.—Guns	No.	11,574	46,214	72,541	91,014	113,160	228,184
Beer and ale	barrels	132,036	95,441	76,297	438,319	267,393	245,020
Books, printed	cwts.	2,168	2,215	1,725	37,677	39,251	30,971
Coals, cinders, and culm	tons	101,897	87,568	193,819	57,397	49,419	102,363
Copper, wrought and unwrought	cwts.	60,856	79,752	83,007	364,833	467,576	528,356
Cottons, entered by the yard	yards	124,631,817	123,304,389	119,266,233	4,564,022	4,737,923	5,004,283
" " at value	value	-	-	-	66,925	52,570	67,436
Cotton yarn	lbs.	27,447,590	23,085,680	17,846,904	1,212,029	1,066,990	1,011,547
Earthenware and porcelain	value	-	-	-	52,465	59,889	40,764
Glass manufactures	"	-	-	-	102,250	80,188	74,256
Hardwares and cutlery	cwts.	24,770	30,585	42,839	137,848	149,938	190,647
Iron, wrought and unwrought, including unwrought steel	tons.	130,760	168,563	159,784	1,242,853	1,585,735	1,639,652
Lead and shot	"	684	1,244	3,652	16,170	32,870	87,868
Leather, wrought and unwrought	lbs.	91,588	111,904	189,878	14,234	15,026	31,497
" Saddlery and harness	value	-	-	-	24,721	21,119	26,763
Linens, entered by the yard	yards	1,518,855	1,790,781	1,956,316	56,954	69,441	82,513
Machinery: Steam engines	value	-	-	-	210,767	61,597	94,775
" all other sorts	"	-	-	-	194,159	385,752	451,281
Painters' colours (not otherwise described)	"	-	-	-	18,118	24,170	24,592
Pickles and sauces	"	-	-	-	42,810	44,897	57,431
Provisions (not otherwise described)	"	-	-	-	18,024	18,620	29,557
Stationery	"	-	-	-	112,198	139,061	154,681
Tin plates	"	-	-	-	8,449	10,835	32,741
Umbrellas and parasols	"	-	-	-	36,195	57,349	60,231
Woollens, entered by the piece	pieces	51,162	61,089	99,068	223,881	216,798	382,621
" " by the yard	yards	792,766	944,802	1,558,00	38,258	47,275	81,515
" " at value	value	-	-	-	10,421	11,525	14,584
All other articles	"	-	-	-	482,955	523,435	661,255
Total		-	-	-	9,949,154	10,546,190	11,666,714

Account of the Number of Ships, specifying their Tonnage, and distinguishing between British and Foreign, that have Entered Inwards and Cleared Outwards, from and to the East Indies and Ceylon, at Ports of the United Kingdom, in the following Years, viz:—

Years.	Entered Inwards.				Cleared Outwards.			
	British.		Foreign.		British.		Foreign.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
1853	555	340,503	48	27,827	412	254,929	109	48,908
1854	601	360,311	49	27,458	477	275,055	82	49,297
1855	618	395,576	79	65,116	637	427,502	135	106,337
1856	668	473,270	109	93,531	628	456,689	151	109,170
1857	696	516,257	72	61,208	728	538,571	289	188,956

Exportation of the Precious Metals to India.—There is a vast portion of the earth's surface, including Turkey in Asia, Arabia, Persia, India, China, and other eastern territories, into which bullion has been largely imported from the remotest æra. During the intercourse of the Phœnicians, Greeks, and Romans, with the East, gold and silver, obtained from the mines of Spain and other European countries, always formed important articles of export to Arabia and India. The same notions of the mischievous influence of the exportation of these metals that have prevailed in modern times were also prevalent in antiquity; and various efforts were in consequence made to hinder its taking place. That such had been the practice in the earlier periods of Roman history, is evident from the statement of Cicero *, and the prohibition was repeatedly renewed, though with very little effect, by the emperors. Tiberius complained to the Senate that the wealth (meaning gold and silver) of the state was irrecoverably consigned to foreign and hostile nations in exchange for luxuries and female ornaments.† Pliny computed the annual drain of cash to India only for these objects at 50 million sesterces, or 400,000*l.*‡; and to India, China, and Arabia, at double that sum, or 800,000*l.*§ And the drain thus early commenced, though varying in intensity, has continued, with but little interruption, down to the present times. Since the establishment of the East India Company in 1600, gold and silver have usually been among the best and safest articles of export to the East. And despite the vast quantities of these metals, but more especially of silver, that have thus been poured into India, they appear of late years to be in greater request than ever in that and the adjacent countries. The supplies thrown upon their markets, like the water poured into the sieves of the Danaids, completely disappear, or are so absorbed that the demand for fresh supplies continues without any abatement.

Humboldt estimated that, of the entire produce of the American mines at the commencement of this century, amounting, as already seen, to 43,500,000 dollars, no less than 25,500,000 were sent to Asia,—17,500,000 by the Cape of Good Hope, 4,000,000 by the Levant, and 4,000,000 through the Russian frontier. And though it be generally believed by later authorities that this estimate was beyond the mark, still there is no manner of doubt that the drain of bullion to the East was then, and for several years before and after, of the most formidable dimensions. Gradually, however, it began to diminish, partly in consequence of the decrease in the supplies of bullion from America, subsequently to 1808, and partly, and we believe principally, from the great and sudden increase in the exports of cottons and other manufactured goods to India which followed the opening of the trade in 1813. Such, indeed, was the influence of these and other concurring causes, that in 1832 and 1833 the export of bullion from England to India had not merely ceased, but the tide had actually begun to set in the opposite direction. This abnormal state of things did not, however, continue for any very lengthened period. For a few years there was no very decided movement of bullion either from Europe to the East, or from the East to Europe. But this approach to an equilibrium has wholly passed away. Within the last dozen years the drain of bullion from Europe to the East has again set in with renewed force, and is become deeper and broader than at any former period. And yet, despite their continued influx, there is no general rise of prices nor anything to show that India is becoming saturated with the precious metals, or even with silver. On the contrary, the supply appears to be as deficient as ever; and it is doubtful whether this apparently bottomless abyss be not of itself sufficient to swallow up the largest portion, if not the whole, of the late extraordinary additions to the supply of bullion.

* "Exportari aurum non oportere, cum sæpe antea Senatus, tum me consule gravissime judicavit." (*Oratio* pro L. Flacco, cap. 28.)

† Taciti, *Annal.*, lib. iii.,,cap. 53.

‡ "Digna res, nullo anno imperii nostri minus H. S. quingenties exhauriente India, et merces remittente." (*Hist. Nat.*, lib. vi., cap. 23.)

§ "Minimaque computatione millies centena millia sestertium India et Seres, peninsulaque illa (Arabia) imperio nostro adimunt. Tanto nobis deliciæ et fœminæ constant." (Ibid., lib. xii., cap. 18.)

Account of the Imports and Exports of Treasure into and from India, during each of the 23 Years ending with 1855-57.

Years.	Imports.	Exports.	Excess of Imports.	Years.	Imports.	Exports.	Excess of Imports.
	£	£	£		Brought forward - -		£28,519,709
1834-35	1,893,023	194,741	1,698,282		£	£	
1835-36	2,146,465	108,109	2,038,356	1847-48	1,973,391	1,426,038	547,353
1836-37	2,036,167	263,934	1,772,233	1848-49	4,204,603	2,539,743	1,664,760
1837-38	2,610,101	340,656	2,269,445	1849-50	3,296,807	871,944	2,425,563
1838-39	3,010,920	347,906	2,663,014	1850-51	3,811,809	541,289	3,270,520
1839-40	1,945,264	470,523	1,474,741	1851-52	5,052,059	919,089	4,132,970
1840-41	1,786,253	366,486	1,419,767	1852-53	6,831,377	1,055,230	5,776,147
1841-42	1,841,335	515,076	1,326,259	1853-54	4,871,956	1,183,296	3,688,660
1842-43	5,143,292	215,797	5,227,495	1854-55	2,028,258	1,267,055	761,223
1843-44	4,794,678	746,076	4,048,602	1855-56	11,501,288	601,177	10,700,111
1844-45	3,752,472	1,106,840	2,645,532	1856-57	14,413,693	1,253,428	13,160,271
1845-46	2,495,959	816,028	1,679,931				
1846-47	2,939,922	713,870	2,226,052	Total Excess of Imports - - -			74,347,287
				Average Annual Excess of Imports -			3,232,490
	Carried forward - -		£28,519,709				

Causes of the Drain of Bullion to India.—It is difficult to account for the long-continued and heavy drain of bullion to India. It would seem, however, to be principally owing to the following circumstances, viz.:—1. To the country having no mines of its own *; 2. To the great amount of the population, their early civilisation and poverty, and their habit of wearing ornaments of silver and gold; and, 3. To that burying and hoarding of the precious metals which is perhaps more prevalent in India than anywhere else.

1. The influence of the first of these causes of the importation of the precious metals into India is too obvious to require any illustration.

2. The influence of the second cause of the importation referred to is of the most powerful kind. From the remotest period the people of India have been in a considerably advanced state of civilisation, which, owing to the early institution of castes and other circumstances, has continued in a comparatively stationary state. Owing also to the economical habits of the people, and the facility with which they have obtained subsistence, their wages have always been, and continue to be, extremely low. And from the combination of these and other causes, the businesses carried on in India have, with few exceptions, been generally on a petty scale; and while comparatively few large payments have to be made, the every-day transactions of an immense population, though individually small, amount in the aggregate to a very great sum. And hence the extraordinary demand for silver to serve as coin in retail transactions, and for *cowries*, inferior in value even to the smallest coins.

And in addition to the very great sums required for currency, another, and also a very large sum, is absorbed in jewellery or trinkets. The habit of wearing rings, bracelets, brooches, hair-pins, and such like personal ornaments of gold and silver, but generally the latter, is universal in India, and cannot fail to occasion a very large expenditure. There are no data on which to build up an approximate estimate of the gross amount of the sums invested in the coin in circulation and in trinkets in India. It has, however, been said that it is quite conceivable it should come up to 400,000,000 sterling †; and to those who bear in mind that the population is not less perhaps than from 175,000,000 to 180,000,000, and that metallic ornaments are worn by all but the most degraded persons, this conjectural estimate may not appear to be in any degree extravagant.

But if it be not very far from the mark, the wear and tear or abrasion and loss upon so great a sum, being taken at only 1 per cent., would require an influx of bullion to the extent of 4,000,000*l.* a year. And as this source of loss may be regarded, so to speak, as a constant quantity, it is plain that if, owing to circumstances affecting the commerce of the Peninsula, or any other cause, this supply should be diminished for a few years, the demand for bullion would be proportionally increased as soon as the disturbing force had ceased to operate.

3. The practice of burying or hoarding of treasure has been carried to a greater extent in India, Persia, Turkey in Asia, and other eastern countries, than anywhere else. Despotism and a want of security have always prevailed in these countries. The inhabitants have in consequence been accustomed to regard the money they have committed to the earth as their only real wealth, and have availed themselves of every opportunity to place portions of their means beyond the grasp of their avaricious and tyrannical masters. And as many of the hoards so deposited will never be brought to light, the practice has undoubtedly been a principal cause of the constant flow of bullion to the East. ‡

* This statement may not, perhaps, be strictly correct. It is affirmed that gold and silver have been produced in India; but if so, it is admitted on all hands that the production has been so inconsiderable as to be unworthy of notice.

† Newmarch in *Tooke on Prices*, vi., p. 723.

‡ For accounts of the discovery of concealed treasures see D'Herbelot, *Bibliothèque Orientale*, i. 206, and ii. 347, ed. 1777.

Bernier, "that most curious traveller," as he is called by Gibbon *, remarks on this subject as follows, viz.: — "Avant que de finir, je dirai d'où peut venir que cet empire du Mogol étant ainsi une abyme d'or et d'argent, comme j'ai dit dans le commencement, on ne voit neanmoins pas qu'entre le peuple il y en ait davantage qu'ailleurs, au contraire le peuple y paroit moins pecunieux et l'argent s'y trouve plus rare qu'en beaucoup d'autres endroits.

"La premiere raison est qu'il s'en consomme beaucoup a fondre et refondre tous ces anneaux de nez et d'oreilles, chaines, bagues, et brasselets des pieds et des mains que portent les femmes; et principalement dans cette incroyable quantitè de manufactures où il en entre tant, que se perd, et qu'on ne sçait ce qu'il devient, comme dans toutes ces broderies, alachas ou étoffes de soye rayes, &c. &c." And then, having adverted to the injustice and exactions to which the mass of the people are exposed, he goes on to state, — "D'ou vient qu'un chacun est dans une crainte perpetuelle de ces sortes de gens, et surtout des Gouverneurs, plus qu'une esclave de son maitre. Que pour l'ordinaire ils affectent de paroitre gueux et sans argent, très-simples dans le vestement, logement, ameublement, et encore plus dans le boire et le manger. Qu'ils apprehendent même souvent de se mesler trop avant dans le negoce, dans la crainte qu'ils ont qu'on ne les croye riches et qu'on ne leur trâme quelque piece pour les ruiner; si bien qu'enfin ils ne trouvent point de meilleur remede que de cacher et enfouir leur argent bien secretement et bien profondement en terre, sortant ainsi hors du commerce ordinaire des hommes, et perissant enfin là dedans, sans que le Roy, ni l'etat, ni que ce soit en profite. Ce qui arrive non seulement entre les paisans et artisans, mais ce qui est plus considerable entre toutes sortes de marchands, soit Mahometans soit Gentils; mais principalment entre les Gentils, qui sont presque seuls les maitres du negoce et de l'argent, infatuez qu'ils sont de cette croyance, que l'or et l'argent qu'ils cachent durant leur vie leur servira après la mort; et c'est à mon avis la veritable raison pourquoi il paroit, si peu d'argent en commerce parmi le peuple." (Bernier, *Voyage dans les Etats du Grand Mogul*, i. pp. 306—311, Amst. 1710.)

At a later date, Mr. Luke Scrafton has referred to the same practice in still stronger terms: — "In India," says he, "the Hindoos bury their money underground often with such secrecy as not to trust their own children with the knowledge of it; and it is amazing what they will suffer rather than betray it. When their tyrants have tried all manner of corporal punishments upon them, they threaten to defile them; but even that fails; for, resentment prevailing over the love of life, they frequently rip up their bowels or poison themselves, and carry the secret to their graves. And the sums lost in this manner in some measure account why the silver of India does not appear to increase, though there are such quantities continually coming into it, and none going out." (*On the Government of Hindostan*, p. 16.)

The comparative security that was lately enjoyed by the natives in most parts of India may have done something to lessen this habit. But one so widely diffused and so deeply rooted, cannot be easily or speedily modified. And though the illegal exactions of their rulers were curbed and partially put down in the countries directly under the Company's government, there was in Oude and many other parts of India, previously to the late insurrection, a great deal of disorder, oppression, and robbery. And since that unfortunate outbreak insecurity and disorders of all sorts have immeasurably increased, and have proportionally stimulated the practice of hoarding. The rebellion raging in China has had similar effects; and we have been assured by those who, from experience and observation, are well qualified to form an opinion on such a subject, that it may be moderately estimated that in India and China, during the half-dozen years ending with 1857, a sum of not less than 100,000,000*l.* sterling has been consigned to the earth.

The circumstances thus briefly noticed may be considered as the leading causes of the all but perennial drain of bullion to the East. Other circumstances, already adverted to, depending on the peculiar state of the trade between England and Europe generally and the East during the last ten years, have largely increased the export of the precious metals to India. But the further details connected with this part of the subject will find a more appropriate place in the article PRECIOUS METALS, to which we beg to refer the reader.

4. *Colonisation of India.*— Considerable obstacles were long thrown in the way of Europeans establishing themselves in India, and particularly of their acquiring or holding land. This policy was dictated by various considerations; partly by a wish to prevent the extrusion of the natives from the soil, which it was supposed would be eagerly bought up by Europeans, and partly by the fear lest the latter, when scattered over the country, and released from any effectual control, should offend the prejudices of the natives, and get embroiled with them. Now, however, it seems to be the general

* *Decline and Fall*, i., p. 267, ed. 1838.

opinion of those best acquainted with India, that but little danger is to be apprehended from these circumstances; that the few Europeans established in it as Indigo planters, &c. have contributed very materially to its improvement; and that the increase and diffusion of the English population, and their permanent settlement in the country, are at once the most likely means of spreading a knowledge of our arts and sciences, and of widening and strengthening the foundations of our ascendancy. It is obvious, indeed, that the duration of our power in India must depend on a very uncertain tenure, unless we take root, as it were, in the soil, and a considerable portion of the population be attached to us by the ties of kindred, and of common interests and sympathies. In this respect we should imitate the Roman in preference to the Lacedæmonian or Athenian policy. *Quid aliud exitio Lacedæmoniis Atheniensibus fuit, quanquam armis pollerent nisi quod victis pro alienigenis arcebant?* When, however, a former edition of this work was published, we observed that, looking at the density of population in India, the low rate of wages, the nature of the climate, and other similar circumstances, it seemed very doubtful whether it would ever become the resort of any considerable number of English settlers, at least of such a number as would be sufficient, within any reasonable period, to form anything like a powerful native English interest. And we have now to state, that these anticipations have been more than realised; and that though the restraints on the settlement of Englishmen in India have been practically at an end since 1834, very few have availed themselves of the privilege. There may, no doubt, though we see little reason to anticipate such a result, be a greater emigration to India in time to come; and to whatever extent it may be carried, it promises to be highly advantageous. "We need not, I imagine," said Lord William Bentinck, "use any laboured argument to prove that it would be infinitely advantageous for India to borrow largely in arts and knowledge from England. The legislature has expressly declared the truth: its acknowledgment has been implied in the daily acts and professions of government, and in all the efforts of humane individuals and societies for the education of the people. Nor will it, I conceive, be doubted, that the diffusion of useful knowledge, and its application to the arts and business of life, must be comparatively tardy, unless we add to precept the example of Europeans, mingling familiarly with the natives in the course of their profession, and practically demonstrating, by daily recurring evidence, the nature and the value of the principles we desire to inculcate, and of the plans we seek to have adopted. It seems to be almost equally plain, that, independently of their influencing the native community in this way, various and important national advantages will result from there being a considerable body of our countrymen, and their descendants, settled in the country. To question it, is to deny the superiority which has gained us the dominion of India; it is to doubt whether national character has any effect on national wealth, strength, and good government: it is to shut our eyes to all the perils and difficulties of our situation; it is to hold as nothing community of language, sentiment and interest, between the government and the governed: it is to disregard the evidence afforded by every corner of the globe in which the British flag is hoisted: it is to tell our merchants and manufacturers, that the habits of a people go for nothing in creating a market; and that enterprise, skill, and capital, and the credit which creates capital, are of no avail in the production of commodities."

III. EAST INDIES, EXTENT, POPULATION, MILITARY FORCE, REVENUE, ETC.

1. *Extent, Population, &c. of British Dominions in Hindostan.* — The following Table has been framed from the best authorities. It can, however, be regarded as an approximation only, inasmuch as no means exist of coming at correct conclusions; but we incline to think that it is nearly as accurate as it can be made with the present imperfect means of information.

Table of the Area and Population of British and Native Indian States.

States.	Government.	Area in Sq. Miles.	Total Area in Sq. Miles.	Population.	Total Population.
British States	Under Gov.-Gen. of India in Council	246,050		23,255,972	
	Lieut. Gov. of Bengal	222,609		41,212,562	
	Lieut.-Gov. of N.W.P.	105,726		33,216,565	
	Madras Government	132,090		22,437,297	
	Bombay Government	131,544		11,790,042	
			838,019		131,912,238
	Presidency.				
Native States	Bengal	515,533		38,749,589	
	Madras	51,802		5,213,671	
	Bombay	60,575		4,460,370	
			627,910		48,423,630
	Country.				
Foreign States	French	188		203,887	
	Portuguese	1,066		313,262	
			1,254		517,149
	Grand Totals		1,467,183		180,853,017

The native states comprise those of Bundelcund, Bhawlpore, Golab Singh's and Scindia's possessions, Hyderabad, or the Nizam's dominions, Nepaul, the Rajpoot states, Mysore, Travancore, &c. These dependent states are, for the most part, surrounded by British territories; and their governments are substantially under the control of the British agents appointed to reside at their respective courts. One would be inclined to think that their entire absorption into the British dominions would be desirable; but though this would most likely be beneficial in the end, it would, at first, occasion much discontent. The annexation of Oude, by Lord Dalhousie, notwithstanding its government was of the worst possible description, is believed to have been a prominent cause of the late rebellion.

In 1805, according to the official returns, the total number of British-born subjects in Hindostan was 31,000. Of these, 22,000 were in the army as officers and privates: the civil officers of government of all descriptions were about 2,000; the free merchants and mariners who resided in India under covenant, about 5,000; the officers and practitioners in the courts of justice, 300; the remaining 1,700 consisting of adventurers who had smuggled themselves out in various capacities. Since the date above mentioned, no detailed reports have been published; but there is no reason to believe that down to the recent outbreak the total number of British subjects in Hindostan exceeded 45,000 or 50,000, if so many; the removal of the restrictions on their settlement having, as already seen, added very few to the previous number.

The army required for the protection of these extensive provinces, and for the retaining them under due subordination, has been, with the exception of that of Russia, probably the largest standing army in the world. In 1796, it amounted to 55,000. In 1852, it consisted of the following effective force, in British, native, and contingent native troops: —

The Army of the British Government in India, including Her Majesty's Troops and the Company's European and Native Troops of all Arms, consisted, in 1852, of 289,529 men, viz.—

	Queen's Troops: Europeans.	Company's Troops.			Total.
		Europeans.*	Natives.	Total.	
Engineers	-	321	2,248	2,569	2,569
Artillery	-	7,436	9,004	16,440	16,440
Cavalry	3,664	469	30,851	31,320	34,984
Infantry	25,816	9,648	193,942	203,590	229,406
Medical	included in above.	1,111	652	1,763	1,763
Warrant officers	-	243	-	243	243
Veterans	-	700	3,424	4,124	4,124
	29,480	19,928	240,121	260,049	289,529

The contingent Troops of the Native States commanded by British Officers, and available, under Treaties, to the British Government, amount to about 32,000 men, viz.—

Hyderabad (Nizam's) auxiliary force	8,094	Brought forward	27,845
Gwalior (Scindia's) contingent	8,401	Malwa Bheel corps	648
Kotah contingent	1,148	Joudpore legion	1,246
Mysore horse	4,000	Meywar Bheel corps	1,054
Guzerat (Guicowar's) contingent	3,756	Colapore local horse	907
Bhopal contingent	829	Sawunt Warree local corps	611
Malwa united contingent	1,617	Total	32,311
Carried forward	27,845		

The military expenses amounted, in 1855-56, to 10,974,212*l.*, which differed but little from their amount for some years previously.

Each presidency has its separate army, commander-in-chief, staff, &c.; but the commander-in-chief of the supreme government has a general authority over the armies of all the presidencies. Among the native troops, called *Sepoys* (esquires), the infantry consists chiefly of Hindoos, and the cavalry of Mohammedans. The Hindoo soldiers of the Bengal army have been mostly of high caste; more than 20,000 being Brahmins. The soldiers of the Madras army are principally Rajpoots, and are reckoned the most persevering and hardy; but they observe their religious customs so strictly, that the least deviation from them might have a dangerous effect on their discipline. The Bombay soldiers are the most easily disciplined, being generally of the lower castes. The troops are not raised by any forced levy or conscription; military service in India is quite voluntary; and has been so popular that each regiment has had a number of supernumeraries ready to take the place of such soldiers as die or leave. The men have been well paid, clothed, and fed. The corporal punishment of Hindoos is not allowed, imprisonment being, in the Indian as in the French army, the principal engine by which discipline is kept up. Each company has an English captain, lieutenant, and ensign, as well as a native captain, lieutenant, and ensign. The latter, however, are under the command of British officers; so that, with the title and uniform of officers, they are, properly speaking, only subalterns or non-commissioned officers.

A good deal of conflicting evidence was given before the parliamentary committees,

* Including officers attached to native regiments.

in 1832 and 1833, as to the real state of the Indian army, and the degree of dependence to be placed on it. But none could have anticipated the entire, or all but the entire, defection of the Bengal native army, and the bloodshed and calamities by which it has been followed. A radical change will now, no doubt, be effected in the constitution and government of the native troops kept on foot in India. But, however modified, if we wish to retain possession of the country, we must in future depend less on them, and more on the European force distributed over its surface.

Two systems are open to us, on either of which we may attempt permanently to establish our power in India, viz.: 1st. By maintaining the laws and customs, and outwardly respecting the religious and other prejudices of the natives; and 2nd. By vigorously labouring to subvert all these, and to effect a moral and religious revolution by, in as far as possible, anglicising the country. We have hitherto acted on the first of these plans, and though its results have not certainly been of the most satisfactory description, it is the safest and most economical, the most in accordance with the tolerant spirit of the age, and it might, in the course of centuries, if our ascendancy were so far prolonged, lead to nearly the same results as the second. The latter, however, provided it were skilfully conducted, and that we were prepared to maintain a force in India adequate to suppress any disturbance that might take place, particularly at the outset of the plan, would accomplish its object in a much shorter period, and would probably be, in the end, the best for all parties, and more especially for the natives.

Advantage of India to England. — The popular opinions in regard to the vast advantages derived by England from the government of India are as fallacious as can well be imagined. It is doubtful, indeed, whether its advantages compensate for its disadvantages. India never has been, and never can be, a field for the resort of ordinary emigrants. It has, it is true, furnished an outlet for considerable numbers of well-educated young men of the middle classes, but the fortunes of those who return to spend the evening of their days in England, are far short of compensating for the outlay on themselves and on those who die in the service. And there is but little ground to think that the legitimate* trade we carry on with India is greater than it would have been had it continued subject to its native rulers: neither is it by any means improbable that the large public debt of India will, in the end, have to be partially or wholly provided for by this country.

We may flatter our vanity by dwelling on the high destiny and glory of providing for the regeneration and well-being of 180 millions of human beings. But we have yet to learn whether this be not an undertaking that is greatly beyond our means; and whether in attempting to elevate a debased and enervated race (supposing that we really make such an attempt), 12,000 miles from our shores, we may not be sapping the foundations of our own power and greatness.

Nothing during the recent outbreak has been more extraordinary than the fact of its having failed to bring forward a single native chief of talent. In every contest the inferiority even of the best drilled sepoys, when brought face to face with Europeans, has been most striking. No superiority of numbers gave them a chance of success. They continue to be precisely what they were at Plassey and Assaye.

2. *Revenue and Expenditure of the East India Company.*—The far greater part of the revenue of India is at present, and has always been, derived from the soil. The land has been held by its immediate cultivators generally in small portions, with a perpetual and transferable title; but they have been under the obligation of making an annual payment to government of certain portion of the produce of their farms, which might be increased or diminished at the pleasure of the sovereign; and which has, in almost all cases, been so large, as seldom to leave the cultivators more than a bare subsistence. Under the Mohammedan government, the *gross* produce of the soil was divided into equal or nearly equal shares, between the ryots, or cultivators, and the government. We regret we are not able to say that the British government has made any material deductions from this enormous assessment. Its oppressiveness, and the impossibility of assessing it on anything like a fair and sound principle, has done far more than anything else to prevent our ascendancy in India, and the comparative tranquillity and good order we have introduced, from having the beneficial effects that might have been anticipated. The cultivators throughout Hindostan are proverbially poor; and till the amount of the assessment they are subject to be effectually reduced, and they are secured from the interference of the revenue officers, they cannot be otherwise than wretched. They are commonly obliged to borrow money, to buy their seed and carry on their operations, at a high interest, on a species of mortgage over the ensuing crop. Their only object is to get subsistence — to be able to exist in the same obscure poverty as their forefathers. If they succeed in this, they are satisfied. Mr. Colebrooke, whose authority on all that relates to India is so deservedly high, mentions that the quantity

* We say *legitimate*, for a considerable portion of our trade with India is carried on upon account of the British troops serving in the Peninsula.

Abstract View of the Gross Revenues of India for the Years 1854-55, 1855-56, 1856-57, with an Estimate for 1857-58.

Heads of Revenue.	1854-55.	1855-56.	1856-57.	Estimate 1857-58.
Ordinary:	£	£	£	£
Land revenue	15,066,475	15,935,016	16,604,282	14,648,172
Tributes and subsidies from Native States	507,437	498,904	504,030	507,804
Excise duties in Calcutta	35,464	42,326	42,829	41,915
Sayer revenue	309,460	343,784	382,921	368,408
Abkarry ditto	737,333	797,225	859,131	704,102
Moturpha, Madras	105,196	101,889	101,642	102,192
Small farms and licenses, Madras	26,889	22,350	12,330	
Miscellaneous receipts in the revenue department	68,447	98,922	151,725	83,225
Customs	1,436,867	1,974,999	1,961,759	1,831,525
Salt (exclusive of customs duty on salt imported)	2,707,175	2,485,736	2,517,726	1,940,135
Opium	4,415,955	4,871,227	4,689,750	5,865,718
Post-office collections	188,871	219,795	166,181	177,706
Stamp duties	508,495	518,203	583,280	386,470
Mint receipts	75,792	184,903	246,009	267,616
Marine and Pilotage receipts	127,027	164,013	161,488	149,753
Judicial receipts	158,907	178,508	191,834	195,377
Revenues of Prince of Wales' Island, Singapore and Malacca	82,529	97,904	104,812	119,766
Revenues and receipts from the district of Coorg	15,893	20,477	19,013	18,750
Ditto ditto Nagpore Territory	*501,384			
Sale of presents	8,202	8,858	18,452	1,500
Interest on debts due by Native States, and on other accounts	93,397	85,705	60,506	59,587
Electric telegraph receipts	3,695	15,719	22,108	14,062
Toll and ferry collections		69,109	64,225	53,258
Miscellaneous receipts in the Civil and Political Departments	63,624	85,620	72,862	52,512
Total Ordinary Revenues	27,240,314	28,821,192	29,536,893	27,589,953
Other Receipts:				
Unclaimed estates transferred to the credit of government	8,432	12,971	4,475	4,406
Produce of assets of the late government in the Punjaub	2,693			
Gain by exchange with reference to the fixed rate of 1s. 10½d. the Company's Rupee on remittance transactions between India and London	60,796	57,136	161,486	49,855
Total Revenue receipts of all the Presidencies of India	27,312,235	28,891,299	29,702,854	27,644,214
Excess of Expenditure over Income	1,707,364	972,791	143,597	9,304,905
	29,019,599	29,864,090	29,846,451	36,949,119

Abstract Account of the Charges on the Revenue of India, including those disbursed in England, for the Years 1854-55, 1855-56, 1856-57, and by Estimate for 1857-58.

Expenditure.		1854-55.	1855-56.	1856-57.	Estimate, 1857-58.
		£	£	£	£
Repayments: allowances, refunds and drawbacks		101,606	79,202	89,281	51,214
Charges of collection and other payments in realisation of the revenues, including cost of salt and opium, viz.:					
Land, Sayer and Abkarry		2,260,241	2,170,715	2,150,870	1,934,088
Customs		169,498	116,609	107,115	128,085
Salt	Cost	243,274	261,113	275,624	291,168
	Charges	227,636	313,169	281,876	242,249
Opium	Cost	1,128,110	995,005	919,535	869,719
	Charges	162,594	161,869	151,100	130,924
Post-Office		250,359	241,115	278,473	322,913
Stamps		27,793	30,958	26,596	35,771
Prince of Wales' Island, Singapore and Malacca, charges of collection, &c.		4,332	4,032	3,718	4,440
Coorg ditto		9,657	8,572	7,317	7,350
Allowances and assignments payable out of the revenues, in accordance with treaties, or other engagements		1,277,955	1,244,498	1,044,843	1,009,138
Sinking fund for redemption of the bonds issued to the creditors of the late Rajah of Tanjore, &c.		46,956	47,789	25,360	0
Allowances to district and village officers and Enamdars, &c.		1,055,798	1,064,366	1,068,873	1,074,195
Payments to claimants upon the Registrar of the Supreme Court		6,866	4,940	1,881	656
Total of the direct claims and demands upon the revenues, including charges of collection and cost of salt and opium		6,945,655	6,743,952	6,452,762	6,101,970
Charges of the civil and political establishments, including contingent charges		2,302,429	2,276,262	2,446,856	3,949,859
Judicial and police charges		2,373,051	2,510,799	2,585,626	2,512,045
Buildings, roads, and other public works, exc. repairs and of military buildings		1,328,118	1,881,606	1,866,515	828,393
Military charges		9,701,408	10,019,436	9,958,759	13,428,426
Ditto buildings		490,860	397,935	162,291	684,137
Indian navy and other marine charges		536,507	598,070	622,313	703,150
Charges of Prince of Wales' Island, Singapore, and Malacca (exc. charges of collection, &c. out of the revenues)		63,667	64,512	62,351	65,228
Charges of the Nagpore Territory (exc. charges of collection, &c. out of the revenues)		*308,791			
Mint charges		48,708	62,573	78,751	80,673
Interest on debt		1,908,670	2,044,318	2,100,554	2,297,138
Total charges in India		26,007,864	26,599,461	26,316,778	30,651,019
Charges disbursed in England, including invoice value of stores consigned to India		3,011,735	3,264,629	3,529,673	6,298,100
		29,019,599	29,864,090	29,846,451	36,949,119

It is seen from these statements that the territorial revenues at the disposal of the East India Company equal those of the most powerful monarchies. At present they are greater than those of either Russia or Austria, being inferior only to those of Great Britain and France. Still, however, the Company's financial situation is not very prosperous. Vast as their revenue has been, their expenditure appears, in most instances, to have been still larger. In 1857 their debts in India, exclusive of their bond debts at home, amounted to above 52,000,000*l.* And the heavy expenditure occasioned by the late rebellion will increase the debt to 80 or 90 millions, or even to a larger sum.

* The receipts and disbursements of the Nagpore territory are included in 1855-56 and subsequent years under their separate heads of account.

of land occupied by each ryot, or cultivator, in Bengal, is commonly about 6 acres, and rarely amounts to 24; and it is obvious that the abstraction of a half or even a third the produce raised on such patches can leave their occupiers nothing more than the barest subsistence for themselves and their families. Indeed, Mr. Colebrooke tells us that the condition of ryots subject to his tax is generally inferior to that of a hired labourer, who receives the miserable pittance of 2 annas, or about 3 pence, a day of wages. The metayer system is the curse of every European country into which it has been introduced. And yet we seem to think that it may be advantageously acted upon in most parts of India!

Besides the land revenue *, a considerable revenue is derived in India from the monopolies of salt and opium, the sale of spirituous liquors, land and sea customs, post office, &c. Of these monopolies, the first is, in all respects, decidedly the most objectionable. Few things, indeed, would do more to promote the improvement of India, than the total abolition of this monopoly. An open trade in salt, with moderate duties, would, there can be no doubt, be productive of the greatest advantage to the public, and perhaps of an increase of revenue to government. The opium monopoly, though far less objectionable than the last, is, notwithstanding, very oppressive. It interferes with the industry of the inhabitants; those who are engaged in the cultivation of opium being obliged to sell their produce at prices arbitrarily fixed by the Company's agents. It would be useless to waste the reader's time by pointing out in detail the mischievous effects of such a system; they are too obvious not to arrest the attention of every one.

Account exhibiting the Total Gross and Net Revenue and Charges of the British Possessions in India for 15 Years from 1835-36 to 1849-50. (*Campbell's Modern India*, p. 419.)

Years.	Gross Revenue.	Nett Revenue.	Charges.	Surplus.	Deficit.
	£	£	£	£	£
1835-36	20,680,246	16,391,000	14,924,152	1,466,848	
1836-37	20,976,580	16,215,000	14,966,776	1,248,224	
1837-38	20,832,710	16,070,000	15,289,682	780,318	
1838-39	- -	16,320,000	16,701,000	- -	381,000
1839-40	- -	15,512,000	17,650,000	- -	2,138,000
1840-41	- -	16,141,000	17,895,000	- -	1,754,000
1841-42	- -	16,334,000	18,605,000	- -	1,771,000
1842-43	- -	17,485,000	18,831,000	- -	1,346,000
1843-44	- -	18,284,000	19,724,000	- -	1,440,000
1844-45	- -	18,271,000	18,854,000	- -	583,000
1845-46	- -	18,998,000	20,493,376	- -	1,495,376
1846-47	25,272,520	19,896,000	20,867,202	- -	971,202
1847-48	24,675,960	18,748,000	20,659,791	- -	1,911,791
1848-49	25,231,000	19,442,000	20,915,115	- -	1,173,115
1849-50	27,757,853	21,686,172	21,621,326	64,846	
		Total - - - - - £		2,095,388	15,264,484

Account of the Principal and Interest payable on the Public Debts outstanding at the several Presidencies of India on the 30th April 1857.

	Amount of Debt.	Rate of Interest.	Annual Amount of Interest.		Amount of Debt.	Rate of Interest.	Annual Amount of Interest.
INDIA AND BENGAL. *Registered Debt.*	£		£	MADRAS.	£		£
Loans - - - -	338,178	6 per cent. -	20,291	Loans - - - -	14,437	8 per cent. -	1,155
Ditto - - - -	5,120,905	5 per cent. -	256,045	Ditto - - - -	7,547	6 per cent. -	453
Ditto - - - -	371,494	4½ per cent. -	16,717	Civil, military, and medical funds -	619,604	6 and 5 per cent. -	35,916
Ditto - - - -	39,392,841	4 per cent. -	1,575,714				
Ditto - - - -	125,000	3½ per cent. -	4,305	Miscellaneous deposits	92,862	6, 5, 4, 3½ and 3 per cent. -	3,322
	45,346,418	- - -	1,875,072	Treasury notes - -	143,484	4 and 3½ per cent. -	5,732
Loan transferred from Fort Marlborough - -	715	10 per cent. -	71	Bonds issued to the creditors of the late Rajah of Tanjore - -	527,230	4 per cent. -	21,089
Treasury notes - -	981,532	6, 4, and 3½ per cent.	39,407				
Civil and medical funds - -	2,563,474	6, 5 and 4 per cent.	141,597		1,405,164		67,667
Miscellaneous deposits	116,702	3 per cent. -	3,501				
	48,808,641	- - -	2,057,648	BOMBAY.			
				Civil annuity and other funds -	575,472	6 per cent. -	34,528
N. WEST. PROVINCES, (including the annexed territory.)				Civil provident and military funds -	914,581	5 per cent. -	45,729
Miscellaneous deposits	18,750	4 per cent. -	50	Miscellaneous deposits	130,894	4 and 3 per cent. -	4,126
Temporary loans -	219,656	5 per cent.	10,932	Treasury notes -	1,828	3½ per cent. -	69
	238,406	- - -	11,732		1,622,775	- - -	84,452
					52,074,986	- - -	2,221,499

N.B.—The charges defrayed in England on account of India, including cost of home establishments, dividends on Company's stock, about 630,000*l.* a year; interest on home bond debt; invoice value of stores consigned to India; half pay, and other retired allowances, &c.

* For an account of the land revenue system of British India, see art. INDIA (BRITISH), in *Geog. Dict.*

However much this account of the financial concerns of our Eastern empire may be at variance with the exaggerated ideas entertained respecting it, as well by a large proportion of the people of England as by foreigners, it will excite no surprise in the mind of any one who has ever reflected on the subject. It is due, indeed, to the directors, to state, that though they have occasionally acted on erroneous principles, they have always exerted themselves to enforce economy in every branch of their expenditure, and to impose and collect their revenues in the best and cheapest manner. But though they have succeeded in repressing many abuses, it would be idle to suppose that they should ever have succeeded in entirely rooting them out. How can it be imagined, that strangers sent to India, conscious that they are armed with all the strength of government, placed under no real responsibility, exempted from the salutary influence of public opinion, fearing no effectual exposure through the medium of the press, and anxious only to accumulate a fortune, should not occasionally abuse their authority? or that they should manage the complicated and difficult affairs of a vast empire, inhabited by a race of people of whose language, manners, and habits they are almost wholly ignorant, with that prudence, economy, and vigilance, without which it were idle to expect that any great surplus revenue should ever be realised?

EBONY (Ger. *Ebenholz*; Du. *Ebbenout*; Fr. *Ebéne*; It. *Ebano*; Rus. *Ebenowoederewo*; Lat. *Ebenus*), a species of wood brought principally from the West and East Indies. It is exceedingly hard and heavy, of great durability, susceptible of a very fine polish, and on that account used in mosaic and other inlaid work. There are many species of ebony. The best is that which is jet black, free from veins and rind, very compact, astringent, and of an acrid pungent taste. This species (denominated by botanists *Diospyrus Ebenus*) is found principally in Madagascar, the Mauritius, and Ceylon. The centre only of the tree is said to be valuable. In 1857, we imported 718 tons of ebony, principally from the W. Indies, Cuba, the W. coast of Africa, &c. Besides the black, there are red, green, and yellow ebonies; but the latter are not so much esteemed as the former. Cabinet-makers are in the habit of substituting pear-tree and other woods dyed black, for genuine ebony; these, however, want its polish and lustre, though they hold glue better. The price of ebony varies, in the London market, from 5*l.* to 20*l.* a ton.

EEL (*Anguilla muræna* of Linnæus), a fish, the appearance of which is too well known to require any description. It is a native of almost all the waters of Europe, frequenting not only rivers but stagnant pools. Eels are, in many places, extremely abundant, particularly in Holland and Jutland. Several ponds are appropriated in England to the raising of eels; and considerable numbers are taken in the Thames and other rivers. But a large portion of the eels used in England are furnished by Holland. Indeed, very few except Dutch eels are ever seen in London; and even Hampton and Richmond are principally supplied by them. The trade is carried on by Dutch traders, who employ it in several small vessels, by means of which the market is regularly and amply provided for. A cargo of eels is supposed to average from 15,000 to 20,000 lbs. weight, and was charged down to 1853, when it was repealed, with a duty of 13*l.* 13*s.* In 1857, 74 cargoes were imported, of the estimated value of 22,092*l.*—(*Report on Channel Fisheries*, p. 93, &c.)

EGGS (Fr. *Œufs*; Lat. *Ova*) are too well known to require to be described. They differ in size, colour, taste, &c. according to the different species of birds that lay them. The eggs of poultry are those most commonly used as food; and form an article of very considerable importance in a commercial point of view. The eggs of plovers, which are esteemed a great delicacy, are, also, extensively used in London during a part of the season; and make, indeed, a perpetually recurring dish at fashionable dinners. Vast quantities of the eggs of poultry are brought from the country to London and other large towns; besides being very largely imported from the Continent. At this moment the trade in eggs forms no inconsiderable branch of our trade with France, and affords constant employment to a number of small vessels.

In 1854, the duty on eggs was fixed at 8*d.* per cubic foot (about 200), on those brought from a foreign country, and at 4*d.* per ditto on those brought from a British possession. The imports from the latter are quite inconsiderable, and it were much to be wished that the discriminating duty were abolished. It is a miserable as well as an offensive remnant of the protective system.

In 1858, we imported no fewer than 134,684,800 eggs, almost entirely from France, Belgium, and Spain, but especially France, which furnished by far the largest portion of the entire supply. In 1857, the duty produced 21,169*l.* Supposing the eggs brought from the foreigner to cost at an average 4*d.* per dozen, it follows, taking the imports at 134,600,000, that the people of the metropolis and Brighton (for it is into them that they are almost all imported) pay the French, Belgians, &c. about 186,000*l.* a year for eggs: and supposing that the freight, importers' and retailers' profit, duty, &c. raise their price to the consumer to 10*d.* a dozen, their total cost will be 466,000*l.*

Plovers' eggs are found in most parts of England, but especially in the Fens. Considerable supplies are, also, derived from Holland.

EJOO. See GOMUTI.

ELEMI, a resin obtained from the *Amyris elemifera*, a tree growing in different parts of America, Turkey, &c. It is obtained by wounding the bark in dry weather, the juice being left to thicken in the sun. It is of a pale yellow colour, semi-transparent; at first softish, but it hardens by keeping. Its taste is slightly bitter and warm. Its smell, which is, at first, strong and fragrant, gradually diminishes. It used to be imported in long roundish cakes, wrapped in flag leaves, but it is now usually imported in mats and chests. — (*Thomson's Chemistry.*)

ELEPHANTS' TEETH. See IVORY.

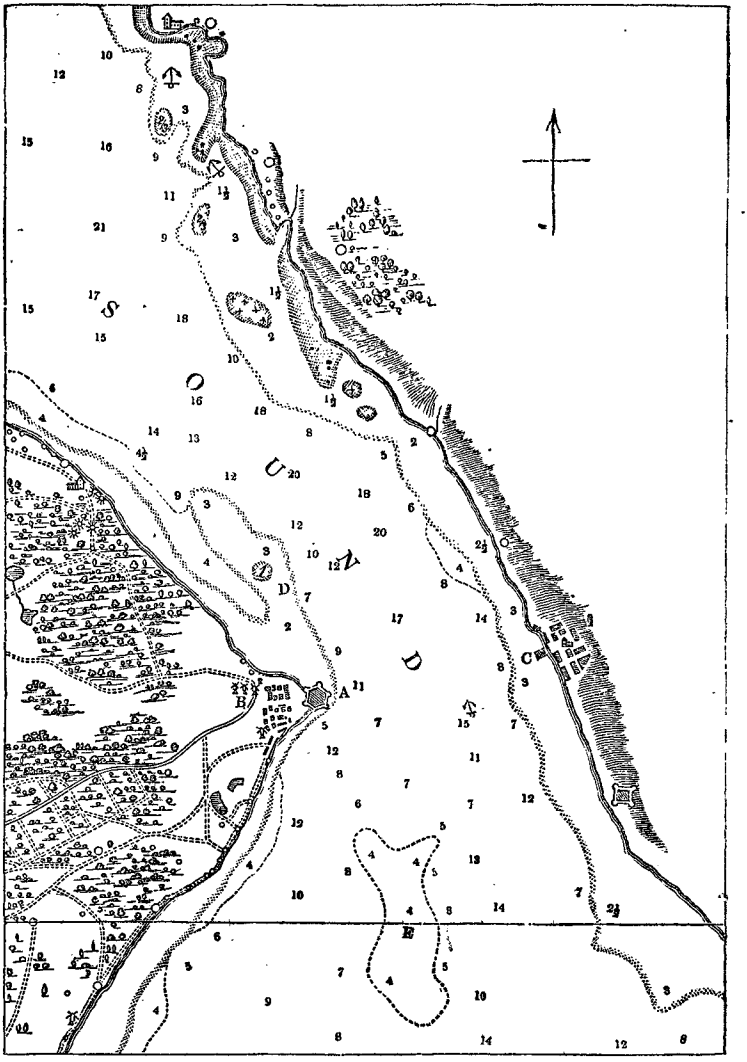
ELM (*Ulmus*), a forest tree common in Great Britain, of which there are several varieties. It attains to a great size, and lives to a great age: its trunk is often rugged and crooked, and it is of slow growth. The colour of the heart-wood of elm is generally darker than that of oak, and of a redder brown. The sap-wood is of a yellowish or brownish white, with pores inclined to red. It is in general porous, and cross-grained, sometimes coarse-grained, and has no larger septa. It has a peculiar odour. It twists and warps much in drying, and shrinks very much both in length and breadth. It is difficult to work, but is not liable to split, and bears the driving of bolts and nails better than any other timber. In Scotland, chairs and other articles of household furniture are frequently made of elm wood; but in England, where the wood is inferior, it is chiefly used in the manufacture of coffins, casks, pumps, pipes, &c. It is appropriated to these purposes because of its great durability in water, which also occasions its extensive use as piles and planking for wet foundations. The naves of wheels are frequently made of elm; those of the heavy waggons and drays of London are made of oak, which supports a heavier weight, but does not hold the spokes so firmly. Elm is said to bear transplanting better than any other large tree.—(*Tredgold's Principles of Carpentry*, pp. 201—203, &c.)

ELSINEUR, OR HELSINGOR, a town of Zealand, on the Sound, about 22 miles north of Copenhagen, lat. 56° 2′ 17″ N., lon. 12° 38′ 2″ E. Population about 8,000. Adjacent to Elsineur is the castle of Cronborg, which commands the entrance to the Baltic by the Sound. All merchant ships passing to and from the Baltic were obliged, previously to 1857, to salute Cronborg Castle by hoisting their colours when abreast of the same; and no merchant ship was allowed to pass the Sound without clearing out at Elsineur, and paying toll, according to the provisions in the treaties to that effect negotiated with Denmark by the different European powers. The first treaty with England having reference to this subject is dated in 1450. The Sound duties had their origin in an agreement between the King of Denmark on the one part, and the Hanse Towns on the other, by which the former undertook to construct lighthouses, landmarks, &c. along the Cattegat, and the latter to pay duty for the same. The duties have since been varied at different periods. But being a serious obstruction to navigation, and much objected to, they were finally repealed, in 1857, on compensation being made to Denmark according to the subjoined treaty.—(See *post*, p. 571.) The following plan of the Sound is taken from the Admiralty Chart, compiled by Danish authorities.—(See next page.)

Navigation of the Baltic.—This is exhibited in the following Account of the Number of Ships that have passed (going and returning) the Sound at different Periods, from the Year 1777 to 1856, specifying the Countries to which they belonged.

Countries.	1777.	1780.	1785.	1790.	1814.	1816.	1820.	1825.	1830.	1835.	1840.	1851.	1856.
British Islands	2,552	1,701	2,557	3,771	2,319	1,848	3,597	5,186	4,274	2,472	4,071	4,811	4772
Holland	2,567	2,058	1,571	2,009	551	876	853	630	1,227	654	917	2,060	1908
Sweden	1,773	1,880	2,136	450	2,759	2,042	1,519	1,519	1,188	991	1,364	2,255	2538
Denmark	1,110	1,341	1,787	1,586	476	787	792	803	744	752	974	1,518	2396
Prussia	472	671	1,358	599	1,033	1,014	1,554	2,391	2,253	1,988	2,996	2,664	2836
Russia	47	43	114	6	495	399	242	335	405	625	814	1,047	422
United States	-	-	20	44	-	168	169	230	152	196	145	134	160
France	21	-	20	125	12	16	63	72	159	146	239	288	389
Spain	10	-	15	32	22	9	-	-	8	7	18		2
Hanover	-	-	-	-	55	263	458	413	645	386	768	661	829
Imperial (Austria)	5	30	66	6	-	-	-	-	-	-	-	2	
Dantzic	231	174	161	248									
Mecklenburg	-	-	-	-	-	386	517	602	664	583	962	1,077	799
Oldenburgh	-	-	-	24	18	9	47	34	56	46	85	224	160
Lubeck	78	82	79	89	28	45	64	121	80	71	96	125	86
Bremen	82	146	176	177	248	111	59	34	79	43	59	33	35
Hamburg	22	31	61	104	36	36	15	31	25	21	23	77	86
Rostock	79	104	101	339									
Portugal	12	21	28	28	42	48	2	9	-	-	-	-	30
Courland	2	7	25	22									
Venice	-	2	4	(It.) 6	9	-		-	6	-	5		
Norway	-	-	-	-	85	794	946	951	1,202	1,357	2,025	2,894	3275
Other places	-	-	-	99	-	-	-	-	-	37	73	51	56
Totals	9,053	8,291	10,268	9,742	8,186	8,871	10,926	13,160	13,212	10,255	15,662	19,919	20,680

The statements in this Table for the years 1777 and 1780 are taken from the valuable work entitled



References to Plan.— A, Castle and light of Cronborg; B, Elsineur; C, Helsingborg in Sweden; D, the bank called the Lappen; E, the bank called the Disken. The soundings are in fathoms.

Voyage de Deux François au Nord de l'Europe (i. 360.); the other years are taken from the returns sent by the British consul at Elsineur, and other sources. We have seen no two returns of the shipping that pass the Sound that quite agree, though the differences are not very material. The British consul first began to send returns of the tonnage in 1831.

The Oder, Vistula, and other great rivers which flow into the Baltic, and the many large cities that are built on or near its shores, have made it the theatre of a very extensive commerce. In this respect its importance was much increased by the foundation of Petersburg, the trade of which is now of great extent and value. Raw products, including corn, timber, hemp and flax, tallow, hides, linseed, bristles, wool, &c., constitute the principal articles of export from the Baltic ports; colonial products, manufactured goods, dry stuffs, wine, salt, coal, &c., being among the principal articles of import. The leading ports, setting out from the Sound, are Copenhagen, Lubeck, Wismar, Rostock, Swinemunde, Dantzic, (which, next to Odessa, is the principal European port for the shipment of wheat,) Konigsberg, Memel, Riga, Petersburg, and Stockholm. The U. Kingdom has by far the largest portion of the foreign trade of the Baltic. This is evident from the fact of the British ships passing

the Sound greatly exceeding those of any other country. In 1857 we imported from the Baltic about 1,580,000 qrs. wheat, 980,000 do. barley, and 1,260,000 do. oats, exclusive of very large quantities of tallow, hemp and flax, timber, linseed, bristles, &c.

Pilotage, &c.—When ships come into Elsineur roads, or lie wind-bound near the Lappen, watermen come on board to inquire if the master will be carried ashore to clear; and in rough weather it is always best to make use of their services, their boats being generally very safe. The Danish authorities have published a table of rates, being the highest charge that can be made by the boatmen upon such occasions; but captains may bargain with them for as much less as they please. Most ships passing the Sound take on board pilots, the signal for one being a flag at the fore-topmast-head. Those bound for the Baltic take a pilot at Elsineur, who either carries the ship to Copenhagen, or Dragoe, a small town on the south-east extremity of the island of Amack, where she is clear of the grounds. Those leaving the Baltic take a pilot from Dragoe, who carries the ship to Elsineur. Sometimes, when the wind is fresh from the E. and S.E., it is impossible for a ship bound for Copenhagen or the Baltic to double the point of Cronborg; and in that case an Elsineur pilot is sometimes employed to moor the ship in the channel towards Kull Point on the Swedish shore, in lat. 56° 18′ 3″ N., lon. 12° 26′ E. But this does not often happen, as the Danish government employ steam tugs for the special purpose of bringing ships, in adverse weather, round Cronborg Point. The pilots are regularly licensed, so that, by employing them, the captain's responsibility is at an end. Their charges are fixed by authority, and depend on the ship's draught of water. We subjoin a copy of the tariff applicable to pilots taken on board at Elsineur to carry ships to Dragoe, Copenhagen, or Kull Point, with the sums both in silver and in Rigsbank paper dollars.

Pilotage from the 1st of April to the 30th of September.

Ships drawing Water.	Dragoe.				Copenhagen.				Kull Point.			
	Silver.		Paper.		Silver.		Paper		Silver.		Paper.	
Feet.	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*
Under - - 8	11	78	12	18	9	10	9	38	5	72	5	89
Between - - 8 and 9	13	16	13	56	10	6	10	36	6	65	6	83
9 — 10	14	50	14	94	11	2	11	35	7	55	7	76
10 — 11	15	84	16	36	11	91	12	54	8	44	8	69
11 — 12	17	22	17	74	12	91	13	53	9	35	9	63
12 — 13	18	56	19	16	13	87	14	52	10	25	10	56
13 — 14	19	90	20	54	14	85	15	31	11	16	11	50
14 — 15	21	28	21	92	15	78	16	30	12	7	12	43
15 — 16	22	62	23	34	16	75	17	29	12	93	13	36
16 — 17	24	65	25	43	18	56	19	16	13	84	14	30
17 — 18	26	68	27	52	20	37	21	2	15	44	15	90
18 — 19	28	71	29	61	22	19	22	86	17	5	17	54
19 — 20	30	74	31	72	24	0	24	72	18	59	19	19
20 — 21	32	77	33	80	25	77	26	58	20	19	20	80
21 — 22	34	80	35	89	27	59	28	46	21	74	22	43
22 — 23	36	83	38	1	29	40	30	32	23	34	24	28

Pilotage from the 1st of October to the 30th of March.

Ships drawing Water.	Dragoe.				Copenhagen.				Kull Point.			
	Silver.		Paper.		Silver.		Paper.		Silver.		Paper.	
Feet.	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*	*R. b. dr.*	*Sch.*
Under - - 8	14	92	15	40	11	35	11	70	7	53	7	76
Between - - 8 and 9	16	75	17	30	12	61	13	2	8	73	9	3
9 — 10	18	56	19	16	13	88	14	64	9	92	10	26
10 — 11	20	37	21	2	15	19	15	64	11	16	11	50
11 — 12	22	19	22	86	16	47	17	0	12	38	12	73
12 — 13	24	0	24	72	17	73	18	30	13	55	14	0
13 — 14	25	77	26	58	19	4	10	62	14	75	15	24
14 — 15	27	59	28	46	20	29	20	90	15	95	16	48
15 — 16	29	40	30	32	21	57	22	26	17	17	17	68
16 — 17	32	12	33	12	24	0	24	72	18	37	18	92
17 — 18	34	80	35	88	26	39	27	22	20	48	21	14
18 — 19	37	52	38	68	28	79	29	70	22	57	23	28
19 — 20	40	24	41	48	31	21	32	19	24	68	25	46
20 — 21	42	92	44	28	33	60	34	65	26	79	27	64
21 — 22	45	64	47	9	36	4	37	16	28	88	29	78
22 — 23	48	36	49	85	38	43	39	62	31	3	32	0

N.B.—When a pilot is taken on board at Dragoe to carry a ship to Elsineur, the charge is the same as that given under the first head of the above column.—(*Archives du Commerce*, tome iii. p. 145.)

The *Monies*, *Weights*, and *Measures* of Elsineur are the same as those of Copenhagen (which see), except that the rixdollar is divided into 4 *orts* instead of 6 marcs: thus, 24 skillings make 1 ort; and 4 orts 1 rixdollar.

Treaty for Abolition of Sound Dues

Agreed to at Copenhagen, on the 14th March, 1857, by the following Powers:—

The Queen of the U. K. of Great Britain and Ireland, the Emperor of Austria, the King of the Belgians, the Emperor of the French, the King of Hanover, the Grand Duke Mecklenburg-schwerin, the Grand Duke of Oldenburg, the King of the Netherlands, the King of Prussia, the Emperor of Russia, the King of Sweden and Norway, and the Senates of the Free Hanseatic Cities of Lübeck, Bremen, and Hamburg, on the one part; and the King of Denmark, on the other part.

I. The King of Denmark engages to the Queen of the U. K. of Great Britain and Ireland, &c.

1. Not to levy any duty of customs, tonnage, lights, lighthouses, beacons, or any other charge whatever, either in regard to vessels or cargo, upon ships sailing from the North Sea to the Baltic, or *vice versâ*, on passing through the Belts or the Sound, whether they simply traverse the Danish waters, or whether they may be obliged by casualties or by commercial operations to anchor or lie to therein. No vessel whatever shall henceforward be subjected, under any pretext, to any detention or impediment whatever, in the passage of the Sound or of the Belts; but the King of Denmark expressly reserves to himself the right of regulating, by special arrangements, not involving visit or detention, the treatment in regard to duties and customs, of vessels belonging to Powers which are not parties to the present Treaty;

2. Not to levy upon such of the said vessels as may enter or depart from Danish ports, whether with cargo or in ballast, and whether they have or have not performed any operation of commerce therein,

nor upon their cargoes, any tax whatever to which such vessels or their cargoes would have been liable on account of the passage through the Sound and the Belts, and which is abolished by the stipulations of the preceding paragraph; and it is well understood that the taxes which shall be so abolished, and which consequently shall not be levied either in the Sound and the Belts or in Danish ports, shall never be reimposed indirectly by any augmentation, for that purpose, of the port and customs dues now existing, nor by the introduction, for that purpose, of fresh dues of navigation or customs; nor in any other manner whatever.

II. The King of Denmark engages, moreover, to the above-mentioned High Contracting Parties—

1. To preserve and maintain in the best state all the lights and lighthouses actually existing either at the entrance or in the approaches to his ports, harbours, roads, and rivers or canals, or along his coasts, as well as the buoys, beacons, and sea-marks actually existing, and serving to facilitate navigation in the Kattegat, the Sound, and the Belts;

2. To take into most serious consideration, as heretofore, in the general interest of navigation, the utility or expediency either of changing the position or the form of such lights, lighthouses, buoys, beacons, and sea-marks, or of increasing the number thereof; the whole without charge of any kind upon foreign vessels;

3. To superintend, as heretofore, the service of pilotage, the employment of which in the Kattegat, the Sound, and the Belts, shall at all times be at the option of captains and masters of vessels. It is understood that the charges for pilotage shall be moderate; that the rate thereof shall be the same for Danish vessels and for foreign vessels; and that the charge for pilotage shall be exacted from those vessels only which shall have voluntarily employed pilots.

4. To permit, without any restriction, any private individuals, Danes or foreigners, to establish and to station in the Sound and in the Belts, freely and on the same conditions, whatever nation they may belong to, tugs serving exclusively for the towing of vessels which may desire to employ them.

5. To extend to all the roads or canals which do now or may hereafter connect the North Sea and the Elbe with the Baltic, the exemption from dues *which is at present* accorded on some of those lines of communication, to the national or foreign goods enumerated in the following list:—

Agaric; amadou, not prepared; yellow amber; living animals of all kinds; antimony; live trees and shrubs; slates and slate-pencils; slate for roofing; silver in bars and for remelting; arsenic; asphaltum (bitumen Judaicum or glutinous bitumen); assafœtida; valonia; berries or seeds of juniper; brooms and rubbers (unless comprised under the article "brushes"); bamboo, Indian reeds or canes, and other rough reeds not manufactured; butter; spermaceti, and oil of spermaceti: grain; buckwheat, barley, oats, maize, rye, wheat, vetches: wood for the use of apothecaries; dye-woods; wood of all kinds; float-wood, wood to be used instead of cork as floats for fishing-nets; bole, white and red, and terra sigillata: borax, crude or refined; gut; bricks; pounded brick, or brick-powder; bronze or bell-metal; brushwood (*buisson*); bulbs or roots of flowers; cadmium; calamine; camphor; cantharides; floor-stones (*carreaux*); maps and charts; castoreum: ashes; potash, soda, and other kinds of ashes: wooden hoops; hemp, dressed or undressed; charcoal; teasles; wheelwright's work (*charronnage*); lime; rags; cement of all kinds; wax; isinglass; shells; corals; cordage; ox and cow horns (or horns of black cattle) as well as horn-tips; cotton: copper; rose-copper (Garkupher) (not forged or prepared by rollers) and copper in sheets for coining; waste of grain; grits as forage for cattle; bran, straw, chaff, and other waste of grain: elephant's teeth or ivory; teeth of the walrus (the sea-horse or sea-cow); law or business documents; staves, or stave wood; tortoise-shell; patterns of no value; scaleboards for binders shoemakers, furbishers, as well as split twigs; meerschaum: packages, old or used; casks, cases, trunks, chests, bags or sacks, and old wicker flasks, empty: emery; tin, raw, unwrought, and rasped tin (*étain râpé*); whalebone, whalefins, whalebone not split; flour or meal made of grain which is free from transit duty; feldspar, not pulverised; pig-iron, raw; bar-iron of all kinds; (hoop-iron, however, is liable to duty); beans; figures and statues in plaster; flowers and flower-plants; flores cassiæ (cassia buds); hay; dung and artificial manure; also, for example, patent manures, *noir animal*, &c.; (Chile saltpetre, sulphated ammoniac, and *similar* goods, are not exempt, notwithstanding they may be intended for manure. Plaster in powder is, however, exempt from transit duty, when certified as intended to be used only for manure); rough ice (natural); acorns; globes; tar and tarwater; seeds, hemp, flax, colza, and other seeds of all kinds, as well as seeds for the use of apothecaries, as, for example, fennel-seed (caraway and aniseed are liable to duty); clothes and baggage of travellers, household furniture, and implements which have been used, if they are transported in consequence of a change of residence; clothes or garments, which have been worn, transported, according to the judgment of the officers of customs, as travellers' baggage, without its being necessary for the owner to accompany them: fresh pot-herbs, as well as whortleberries or bilberries, strawberries, raspberries, gooseberries, red or spotted whortleberries (*airelles rouges ou ponctuées*), green gooseberries, hips, fresh grapes, horseradish, and onions: coal of all kinds, as well as coke and cinders; oil of hemp; oysters; reed for thatching; wool of all kinds; milk; brass, unwrought (not forged and not prepared by rollers); blubber, liver, and graves, for making train-oil; bacon; lentils; lees of wine in a dry state (sediment of wine); cork; flax, dressed or undressed; printed books with the prints which belong to them, bound or unbound; malt; manganese; manna; medals; metals, unwrought (bronze and other alloys of metals similar to brass), not forged, and not prepared by rollers; black lead; ore, not melted, of all kinds; minerals, and objects of natural history, such as earths, stones, and ores, plants and fruits, shells, insects, birds, and other animals, stuffed or preserved in spirit of wine for cabinets of natural history or scientific collections; models of all kinds; coin of all kinds; moss for packing and stuffing, and *coton silvestre*; music, manuscript or printed; musk; mother-of-pearl, rough or in shells; mats, used; galls; objects of art, such as statues, busts, bas-reliefs,; opium; gold in bars, and for remelting; peeled, shelled, or hulled barley, and groats made of grain which is free from transit duty; bones; osiers, peeled or unpeeled; rope-maker's work, including hemp-webs and fishing-nets; straw, and straw cut or chopped; skins, curried or not curried, without exception, such as fur-skins, calf or sheep-skins, cordovan, morocco, &c.; walrus skins (of the sea-horse or sea-cow); juniper-poles; pearls (real); pumice-stone; blood-stone or hæmatites; lime-stone; chalk-stone, and chalk in powder; plaster-stone; precious stones; stones of all kinds; veneers; platina unwrought; lead in pigs, blocks, and moulds, old lead for remelting, and old sheet-lead; feathers for beds, and down; hair of all kinds (including bristles, hair, and wool of pigs); hair curled or crisped is liable to duty: peas; fresh fish; pitch; potatoes; pozzolana; paper-cuttings and shavings, and waste of paper of all kinds; brown-red, or Spanish brown (*rouge brun*); blood; leeches; salt (except medicinal salts); steatite; tallow; sumach; pictures, as well as engravings, lithographies, and stanographies; tanner's bark or tan; Cologne earth, white; clay, such as pipe-clay, marl, English clay, china clay, fuller's earth, clay for refining sugar (or sugar clay), and other kinds of clay, argil, and marl, unless they fall under the class of colours: turtles; turf; tripoli; tiles; quills; sea-weed for packing and stuffing; Muscovy glass (*verre de Moscovie ou pierre spéculaire*); meat, fresh and salted; quicksilver; vehicles of all kinds, as well as railway carriages and tenders, (locomotives are liable to duty); detached parts of such vehicles and railway carriages (and dismounted vehicles and railway carriages) are liable to duty, unless they can be considered as wheelwright's work (*ouvrage de charron*); crab's eyes; zinc, raw, not wrought, or in cakes.

It is understood that if hereafter other articles should, on any line of communication whatever, be allowed a similar exemption, such exemption from transit duty shall be extended as a matter of right to all the lines of communication above specified.

6. To reduce on all the said roads or canals to a uniform rate, in proportion to weight, not exceeding sixteen (16) skillings Danish per 500 lbs. Danish, the transit duty on all goods which are now chargeable with duty, such charge not to be augmented by any other charge, under any denomination whatever.

In case the transit duties should be reduced below the rate above specified, the King of Denmark engages to place all the roads or canals which do or may connect the North Sea and the Elbe with the Baltic or its tributaries, on a footing of perfect equality with the most favoured roads which now exist, or may hereafter be established, upon his territory.

7. The King of Sweden and Norway having, by a special Convention concluded with the King of Denmark, contracted with the said King the engagement to maintain the lighthouses upon the coasts of Sweden and Norway, which serve to light and facilitate the passage of the Sound and the entrance of the Kattegat; the King of Denmark engages to make a definite arrangement with the King of Sweden and Norway, for ensuring for the future the maintenance and support of those lighthouses as hitherto, without any charge on that account upon vessels passing by the Sound and the Kattegat.

III. The engagements contained in the two preceding Articles shall come into operation from and after the 1st of April, 1857.

IV. As compensation for the sacrifices which the stipulations above-mentioned will impose upon the King of Denmark, the Queen of the U. K. of Great Britain and Ireland, and the other contracting parties engage, on their part, to pay to the King of Denmark, who accepts the same, a total sum of 30,476,325 rix-dollars, to be thus assessed:

	Rd. R. M.		*Rd. R. M.*
Upon Great Britain	10,126,855	Upon Mecklenburg	373,663
„ Austria	29,434	„ Norway	667,225
„ Belgium	301,455	„ Oldenburg	28,127
„ Bremen	218,585	„ Netherlands	1,408,060
„ France	1,219,003	„ Prussia	4,440,027
„ Hamburgh	107,012	„ Russia	9,739,993
„ Hanover	123,387	„ Sweden	1,590,503
„ Lübeck	102,996		

It is fully understood that each of the High Contracting Parties shall be eventually responsible only for the share placed to its own charge.

V. The sums specified in the preceding Article may, subject to the reservations hereinafter set forth in § 3 Art. VI, be paid in 20 years, by 40 equal half-yearly payments, which shall cover both capital and the interest accruing on instalments not due.

VI. Each of the High Contracting Powers engages to regulate and determine with the King of Denmark, by a separate and special Convention: —

1. The mode and the place of payment of the forty above-mentioned half-yearly instalments for the amount placed to its charge by Art. IV.

2. The mode and the rate of conversion into foreign money of the amounts of Danish currency specified in the same Art.

3. The conditions and the mode of entire or partial redemption which each Power expressly reserves to itself the right to effect at any time, in order to anticipate the total discharge of its share of the indemnity hereinbefore stipulated.

VII. The execution of the reciprocal engagements contained in the present Treaty, is expressly declared to be subject to the fulfilment of the formalities and rules prescribed by the constitutional laws of those of the High Contracting Parties for whom such a sanction is needful, and who engage to take measures for obtaining the same with the least possible delay.

VIII. The present Treaty shall be ratified, and the ratifications shall be exchanged at Copenhagen, before the 1st of April, 1857, or as soon as possible after that date.

In witness whereof the respective Plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Copenhagen the 14th March, 1857.

Then follow the signatures.

At the rate of 9 rix-dollars to 1 pound sterling, the total compensation awarded to Denmark by the above Treaty amounts to 3,386,258*l.*, of which the portion to be paid by Great Britain amounts to 1,125,206*l.*

The United States were not a party to the above Treaty. But they soon after (11th April, 1857) agreed to pay Denmark a compensation of 717,829 rix-dollars for the abolition of the dues levied on their ships. The determination of the United States not to submit to the payment of the dues was, in fact, the immediate cause of their abolition.

EMBARGO, an order issued by the government of a country to prevent the sailing of ships.

When hostilities are apprehended with a country, it is not unusual to take the questionable step of laying an embargo on its ships and goods: sometimes an embargo is imposed on vessels laden with articles of which it is thought expedient to prevent the exportation; sometimes it is resorted to, in cases of emergency, in the view of obtaining ships for the conveyance of troops or other purposes; and sometimes, as in the case of the embargoes of the U. States in 1807 and 1812, it is intended as a hostile demonstration. But an embargo for the prevention of intercourse with others rarely answers: that stoppage of trade, which it is intended to effect, is in general as injurious to those by whom the embargo is enacted, as to those against whom it is levelled.

EMERALD (Fr. *Éméraude*; Ger. *Smaragd*; It. *Smeraldo*; Lat. *Smaragdus*; Sp. *Esmeralda*), a precious stone in high estimation. It is distinguished from all other gems by its peculiar *emerald green* lustre, varying in intensity from the palest possible tinge to a full and deep colour, than which, as Pliny has truly stated, nothing can be more beautiful and pleasing; *nullius coloris aspectus jucundior est.* It emulates, he continues, if it do not surpass, the verdure of the spring; and the eye, satiated by the dazzling glare

of the more brilliant gems, or wearied by intense application, is refreshed and strengthened by the quiet enlivening green of the emerald. In Pliny's time, the best came from Scythia. Those met with in modern times do not often exceed the size of a walnut. Some of a much larger size, and perfect, have been found, but they are extremely rare. Nero used one as an eye-glass in surveying the combats of the gladiators. Hitherto it has always been found crystallised. Specific gravity from 2·6 to 2·77. — (*Plin. Hist. Nat.* lib. xxxvii. cap. 5. ; *Thomson's Chemistry.*)

"For the last two centuries and more, the only country known to yield emeralds is Peru, where they occur in Santa Fé, and in the valley of Tunca. Several large stones have appeared in Europe: about 2 years ago I cut one, exceeding 2 ounces in weight, for the Emperor of Morocco, but it was full of imperfections. The largest specimen known is an hexagonal crystal, nearly 6 inches long, and above 2 in diameter. This gem, however small, is so rarely seen perfect, that 'an emerald without a flaw' has passed into a proverb. A fine stone of 4 carats may be valued at 40*l.* or 50*l.*, or even more if very pure. Inferior stones of 1 or 2 carats are sold at from 40*s.* to 70*s.* per carat; and if smaller and defective, at 10*s.* or 15*s.* per carat. Fine emeralds are rare, and in such demand, that a particular suit has been known to have passed into the possession of a series of purchasers, and to have made the tour of Europe in the course of half a century." — (*Mawe on Diamonds*, 2d ed. p. 104.)

EMERY (Fr. *Emeril, Emeri;* Ger. *Smirgel;* It. *Smerglio, Smeregio;* Sp. *Esmeril;* Rus. *Nashdak;* Lat. *Smiris*), a mineral brought to Britain from Naxos, Smyrna, &c. It occurs also in Germany, Italy, and Spain. It is always in shapeless masses, and mixed with other minerals. Colour intermediate between greyish black and bluish grey. Specific gravity about 4. Lustre glistening and adamantine. Emery is extensively used in the polishing of hard bodies. Its fine powder is obtained by trituration. — (*Thomson's Chemistry.*)

Most part of the emery that is at present used in the arts comes from Asia Minor. In 1847, an American geologist, of the name of Smith, discovered a deposit of emery in the vicinity of Smyrna; and the supplies from thence are now very extensive. In 1854, for example, 44,950 cwts. (2,247 tons) of emery were exported from Smyrna, of which no fewer than 38,360 cwts. were destined for England. The value of the article was estimated at 2,257,250 piastres.—(See *Rolleston's* valuable *Report on Smyrna*, p. 89.)

ENGROSSING, "the buying up of corn and other dead victuals, with intent to sell them again." — (*Blackstone*, book iv. cap. 42.) We have shown, in another article, how absurd it is to suppose that this practice should have any injurious influence — (*antè*, p. 412). But, for a long time, most scarcities that occurred were either entirely ascribed to the influence of engrossers and forestallers — (see FORESTALLING) — or, at least, were supposed to be materially aggravated by their proceedings. In consequence, however, of the prevalence of more just and enlarged views upon such subjects, the statutes that had been made for the suppression and punishment of engrossing, forestalling, &c. were repealed in 1772. But notwithstanding this repeal, engrossing continues to be an indictable offence, punishable at common law by fine and imprisonment; though it is not at all likely, were an attempt made, that any jury would now be found ignorant or prejudiced enough to convict any one on such a charge.

ENTRY, BILL OF. See IMPORTATION.

ERMINE (Ger. *Hermelin;* Fr. *Hermine, Ermine;* Rus. *Gornostai*), a species of weasel (*Mustela candida* Lin.), abundant in all cold countries, particularly Russia, Norway, Lapland, &c., and producing a most valuable species of fur. In summer, the ermine is of a brown colour, and is called the *stoat.* It is in winter only that the fur has that beautiful snowy whiteness and consistence so much admired. — (See FURS.)

ESPARTO, a species of rush, the *Stipa tenacissima* of botanists. It is found in the southern provinces of Spain; and is particularly abundant on all the sterile, uncultivated, and mountainous districts of Valencia and Murcia. Beckmann (*Hist. of Invent.* vol. ii. p. 288. Eng. ed.) supposes, apparently with good reason, that the *Stipa tenacissima* is the plant described by Pliny under the name of *Sparta*, who ascribes its application to useful purposes to the Carthaginians.—(*Hist. Nat.* lib. xix. c. 2.) It is still used for the same purposes as in antiquity, being manufactured into cordage, shoes, matting, baskets, nets, mattresses, sacks, &c. Cables made of esparto are said to be excellent; being light, they float on the surface of the water, and are not, therefore, so liable as hempen cables to be cut or injured by a foul bottom. They are exclusively made use of in the Spanish navy. Esparto is largely consumed in the manufacture of *alpergates.* These are light shoes worn by the Valencian peasantry, having platted soles made either of esparto or hemp, but principally of the former. They are extremely cheap and commodious in hot climates; and besides being in extensive demand at home, used to be exported in immense quantities to both Indies: but since the emancipation of Spanish America, this trade has greatly fallen off. The Spanish peasantry have attained to wonderful dexterity

in the manufacture of esparto. "After having soaked the rush in water, the women and children, without either wheel or spindle, contrive to twist two threads at the same time. This they do by rubbing them between the palms of their hands, in the same manner as a shoemaker forms a thread upon his knees, with this difference, that one motion gives the twist to each thread, and, at the same time, unites them. To keep the threads asunder, the thumb of the right hand is interposed between them; and when that is wanted for other purposes, the left thumb supplies its place. Two threads being thus twisted into one of the bigness of a large crow-quill, 46 yards are sold for little more than $\frac{1}{4}d.$, the materials being worth about $\frac{1}{5}$th part of the price."—(*Townsend's Travels in Spain*, vol. iii. p. 177., see also p. 129.; *Fischer's Picture of Valencia*, Eng. ed. p. 92. and p. 57, &c.)

But despite the falling off in the exports of esparto shoes to America, this branch of industry has materially advanced of late years. At present (1858) about 50,000 women and young persons are said to be constantly employed in the country between Alicant and Almeria in the production of nets, mats, and other light articles, exclusive of great numbers of men engaged in the manufacture of cables, and cordage of all sorts. Latterly esparto matting has come into very extensive demand, and the various articles made from the rush, *esparto labrado*, form a considerable item in the exports of Spain. About 20,000 tons are annually shipped from Aguilas, near Carthagena, besides considerable quantities from the latter, Alicant, and Valencia. They are mostly sent to Marseilles; but partly, also, to other ports of Spain, and to England and other countries. Within the last few years machinery has been successfully introduced into various branches of the manufacture, and the demand for its produce is said to be rapidly extending.—(*Annales du Commerce Exterieur* for 1858.)

ESTRICH OR ESTRIDGE (Fr. *Duvet d'autruche*; It. *Penna matta di strozzo*; Sp. *Plumazo de avestrux*; Lat. *Struthionum plumæ molliores*), is the fine soft down which lies immediately under the feathers of the ostrich. The finest is used as a substitute for beaver in the manufacture of hats, and the coarser or stronger sort is employed in the fabrication of a stuff which resembles fine woollen cloth. Estridge is brought from the Levant, Italy, and other parts of the Mediterranean.

EUPHORBIUM (Ger. *Euphorbiengummi*; Lat. *Euphorbium*; Fr. *Euphorbe*; Arab. *Akal-nafzah*), the produce of a perennial plant, a native of Africa, and of many parts of India, &c. It is a concrete gum resin; is inodorous; when first chewed has little taste, but it soon gives a very acrid burning impression to the tongue, palate, and throat, which is very permanent, and almost insupportable. It is imported in serons, containing from 100 to 150 lbs. It is in small, hollow, forked pieces, often mixed with seeds and other impurities. —(*Thomson's Dispensatory.*)

EXCHANGE. In commerce, this term is generally used to designate that species of mercantile transactions, by which the debts of individuals residing at a distance from their creditors are cancelled without the transmission of money.

Among cities or countries having any considerable intercourse together, the debts mutually due by each other approach, for the most part, near to an equality. There are at all times, for example, a considerable number of persons in London indebted to Hamburg; but, speaking generally, there are about an equal number of persons in London to whom Hamburg is indebted. And hence, when A. of London has a payment to make to B. of Hamburg, he does not remit an equivalent sum of money to the latter; but he goes into the market and buys a *bill* upon Hamburg, that is, he buys an order from C. of London addressed to his debtor D. of Hamburg, requesting him to pay the amount to A. or his order. A., having indorsed this bill or order, sends it to B., who receives payment from his neighbour D. The convenience of all parties is consulted by a transaction of this sort. The debts due by A. to B., and by D. to C., are extinguished without the intervention of any money. A. of London pays C. of ditto, and D of Hamburg pays B. of ditto. The debtor in one place is substituted for the debtor in another; and a postage or two, and the stamp for the bill, form the whole expenses. All risk of loss is obviated.

A bill of exchange may, therefore, be defined to be an order addressed to some person residing at a distance, directing him to pay a certain specified sum to the person in whose favour the bill is drawn, or his order. In mercantile phraseology, the person who draws a bill is termed the *drawer*; the person in whose favour it is drawn, the *remitter*; the person on whom it is drawn, the *drawee*; and after he has accepted, the *acceptor*. Those persons into whose hands the bill may have passed previously to its being paid, are, from their writing their names on the back, termed *indorsers*; and the person in whose possession the bill is at any given period, is termed the *holder* or *possessor*.

The negotiation of *inland* bills of exchange, or of those drawn in one part of Great Britain and Ireland on another, is entirely in the hands of bankers, and is conducted in the manner already explained. —(See *antè*, p. 66.) Bills drawn by the merchants

of one country upon another are termed *foreign* bills of exchange, and it is to their negotiation that the following remarks principally apply.

I. *Par of Exchange.* — The *par* of the currency of any two countries means, among merchants, the equivalency of a certain amount of the currency of the one in the currency of the other, *supposing the currencies of both to be of the precise weight and purity fixed by their respective mints.* Thus, according to the mint regulations of Great Britain and France, 1*l.* sterling is equal to 25 fr. 20 cent., which is said to be the par between London and Paris. And the exchange between the two countries is said to be at par when bills are negotiated on this footing; that is, for example, when a bill for 100*l.* drawn in London is worth 2,520 fr. in Paris, and conversely. When 1*l.* in London buys a bill on Paris for more than 25 fr. 20 cent., the exchange is said to be in favour of London and against Paris; and when, on the other hand, 1*l.* in London will not buy a bill on Paris for 25 fr. 20 cent., the exchange is against London and in favour of Paris.*

II. *Circumstances which determine the Course of Exchange.* — The exchange is affected, or made to diverge from par, by two classes of circumstances: *first*, by any discrepancy between the actual weight or fineness of the coins, or of the bullion for which the substitutes used in their place will exchange, and their weight or fineness as fixed by the mint regulations; and, *secondly*, by any sudden increase or diminution of the bills drawn in one country upon another.

1. It is but seldom that the coins of any country correspond exactly with their mint standard; and when they diverge from it, an allowance corresponding to the difference between the actual value of the coins and their mint value must be made in determining the *real* par. Thus, if, while the coins of Great Britain corresponded with the mint standard in weight and purity, those of France were either 10 per cent. worse or debased below the standard of her mint, the exchange, it is obvious, would be at *real* par when it was *nominally* 10 per cent. against Paris, or when a bill payable in London for 100*l.* was worth in Paris 2,772 fr. instead of 2,520 fr. In estimating the real course of exchange between any 2 or more places, it is always necessary to attend carefully to this circumstance; that is, to examine whether their currencies be all of the standard weight and purity, and if not, how much they differ from it. When the coins circulating in a country are either so worn or rubbed as to have sunk considerably below their mint standard, or when paper money is depreciated from excess or want of credit, the exchange is at real par only when it is against such country to the extent to which its coins are worn or its paper depreciated. When this circumstance is taken into account, it will be found that the exchange during the latter years of the war, though apparently very much against this country, was really in our favour. The depression was nominal only; being occasioned by the great depreciation of the paper currency in which bills were paid.

2. Variations in the actual course of exchange, or in the price of bills, arising from circumstances affecting the currency of either of two countries trading together, are *nominal* only: such as are *real* grow out of circumstances affecting their trade.

When two countries trade together, and each buys of the other commodities of precisely the same value, their debts and credits will be equal, and, of course, the *real* exchange will be at par. The *bills* drawn by the one will be exactly equivalent to those drawn by the other, and their respective claims will be adjusted without requiring the transfer of bullion or any other valuable produce. But it very rarely happens that the debts reciprocally due by any two countries are equal. There is almost always a balance owing on the one side or the other; and this balance must affect the exchange. If the debts due by London to Paris exceeded those due by Paris to London, the competition in the London market for bills on Paris would, because of the comparatively great amount of payments our merchants had to make in Paris, be greater than the compe-

* The statements in the text explain what is usually meant by the *par* of exchange; but its exact determination, or the ascertaining of the precise equivalency of a certain amount of the currency of one country in the currency of another, is exceedingly difficult. If the standard of one be gold and that of another silver, the par must necessarily vary with every variation in the relative values of these metals. This, however, is not all: even where two countries use the same metal for a standard, its value may be greater in one than in the other, and in estimating the par of exchange between them this difference must be taken into account. In illustration of this we may take the case of France and Mexico: they both use silver for a standard; but silver being largely produced in Mexico, is always cheaper there than in France, and is extensively imported into the latter; and taking the cost of this importation at 2 or 3 per cent., it is plain that the exchange would be really at par when it appeared to be 2 or 3 per cent. against Mexico. But the value of the precious metals, even in contiguous countries, is always exposed to fluctuations from the over issue or withdrawal of paper, from circumstances affecting the balance of payments, &c., as shown in the text. It is obvious, therefore, that it is all but impossible to say, by merely looking at the mint regulations of any two or more countries, and the prices of bullion in each, what is the par of exchange between them. And, luckily, this is not necessary. The importation and exportation of bullion is the real test of the exchange. If bullion be stationary, neither flowing into nor out of a country, its exchanges may be truly said to be at par; and, on the other hand, if there be an efflux of bullion from a country, it is a proof that the exchange is against it, and conversely if there be an influx of bullion into a country.

tition in Paris for bills on London; and, consequently, the real exchange would be in favour of Paris and against London.

The cost of conveying bullion from one country to another forms the limit within which the rise and fall of the *real* exchange between them must be confined. If 1 per cent. sufficed to cover the expense and risk attending the transmission of money from London to Paris, it would be indifferent to a London merchant whether he paid 1 per cent. premium for a bill of exchange on Paris, or remitted money direct to that city. If the premium were less than 1 per cent., it would clearly be his interest to make his payments by bills in preference to remittances: and that it could not exceed 1 per cent. is obvious; for every one would prefer remitting money, to buying a bill at a greater premium than sufficed to cover the expense of a money remittance. If, owing to the breaking out of hostilities between the two countries, or to any other cause, the cost of remitting money from London to Paris were increased, the fluctuations of the *real* exchange between them *might* also be increased. For the limits within which such fluctuations *may* range, correspond in all cases with the cost of making remittances in cash.

Fluctuations in the *nominal* exchange, that is, in the value of the currencies of countries trading together, have no effect on foreign trade. When the currency is depreciated, the premium which the exporter of commodities derives from the sale of the bill drawn on his correspondent abroad, is only equivalent to the increase in the price of the goods exported, occasioned by this depreciation. But when the premium on a foreign bill is a consequence, not of a fall in the value of money, but of a deficiency in the supply of bills, there is no rise of prices; and in these circumstances the unfavourable exchange operates as a stimulus to exportation. As soon as the *real* exchange diverges from *par*, the mere inspection of a price current is no longer sufficient to regulate the operations of the merchant. If it be unfavourable, the premium which the exporter will receive on the sale of his bill must be included in the estimate of the profit he is likely to derive from the transaction. The greater that premium, the less will be the difference of prices necessary to induce him to export. And hence an unfavourable *real* exchange has an effect exactly the same with what would be produced by granting a bounty on exportation equal to the premium on foreign bills.

But for the same reason that an unfavourable *real* exchange increases exportation, it proportionally diminishes importation. When the exchange is really unfavourable, the price of commodities imported from abroad must be so much lower than their price at home, as not merely to afford, exclusive of expenses, the ordinary profit of stock on their sale, but also to compensate for the premium which the importer must pay for a foreign bill, if he remit one to his correspondent, or for the discount, added to the invoice price, if his correspondent draw upon him. A less quantity of foreign goods will, therefore, suit our market when the *real* exchange is unfavourable; and fewer payments having to be made abroad, the competition for foreign bills will be diminished, and the *real* exchange rendered proportionally favourable. In the same way, it is easy to see that a favourable *real* exchange must operate as a *duty* on exportation, and as a *bounty* on importation.

It is thus that fluctuations in the *real* exchange have a necessary tendency to correct themselves. They can never, for any considerable period, *exceed* the expense of transmitting bullion from the debtor to the creditor country. But the exchange cannot continue either permanently favourable or unfavourable to this extent. When favourable, it corrects itself by restricting exportation and facilitating importation; and when unfavourable, it produces the same effect by giving an unusual stimulus to exportation, and by throwing obstacles in the way of importation. The true PAR forms the centre of these oscillations; and although the thousand circumstances which are daily and hourly affecting the state of debt and credit, prevent the ordinary course of exchange from being almost ever precisely at *par*, its fluctuations, whether on the one side or the other, are confined within certain limits, and have a constant tendency to disappear.

This natural tendency which the exchange has to correct itself, is powerfully assisted by the operations of the bill-merchants.

England, for example, might owe a large excess of debt to Amsterdam; yet, as the aggregate amount of the debts *due* by a commercial country is generally balanced by the amount of those which it has to receive, the deficiency of bills on Amsterdam in London would most probably be compensated by a proportional redundancy of those on some other place. Now, it is the business of the merchants who deal in bills, in the same way as of those who deal in bullion or any other commodity, to buy them where they are cheapest, and to sell them where they are dearest. They would, therefore, buy up the bills drawn by other countries on Amsterdam, and dispose of them in London; and by so doing, would prevent any great fall in the price of bills on Amsterdam in those countries in which the supply exceeded the demand, and any great rise in Great Britain and those countries in which the supply happened to be deficient. In the trade between Italy and this country, the bills drawn on Great Britain amount almost inva-

riably to a greater sum than those drawn on Italy. The bill-merchants, however, by buying up the excess of the Italian bills on London, and selling them in Holland, and other countries indebted to England, prevent the *real* exchange from ever becoming very much depressed.

III. *Negotiation of Bills of Exchange.*—Bills of exchange may be made payable on *demand* (the invariable term of payment in the case of checks), at *sight*, at a certain specified time *after sight* or *after date*, or at *usance*, which is the usual term allowed by the custom or law of the place where the bill is payable. In most countries, though not in all, a few days are allowed for payment beyond the term when the bill becomes due. These are denominated *days of grace*, and vary in different parts. In Great Britain and Ireland, 3 days' grace are allowed on all bills except those payable on demand, which must be paid as soon as presented. The following is a statement of the usance and days of grace, if any, for bills drawn upon some of the principal commercial cities:—

[*m* | *d*, *m* | *s*, *d* | *d*, *d* | *s*, *d* | *a* respectively denote *months after date, months after sight, days after date, days after sight, days after acceptance.*]

London on	Usance.	Days of Grace.	London on	Usance.	Days of Grace.	London on	Usance.	Days of Grace.
Amsterdam	1 m|d.	0	Geneva	30 d|d.	5	Vienna†	14 d|a.	3
Rotterdam	1 m|d.	0	Madrid	2 m|s.	14	Malta	30 d|d.	13
Antwerp	1 m|d.	0	Cadiz	60 d|d.	6	Naples	3 m|d.	3
Hamburg	1 m|d.	12	Bilboa	2 m|d.	14	Palermo	3 m|d.	0
Altona	1 m|d.	12	Gibraltar	2 m|s.	14	Lisbon	30 d|s.	6
Dantzic	14 d|a.	10	Leghorn	3 m|d.	0	Oporto	30 d|s.	6
Paris*	30 d|d.	0	Leipsic	14 d|a.	0	Rio Janeiro	30 d|d.	6
Frankfort	14 d|s.	4	Genoa	3 m|d.	30	Dublin	21 d|s.	3
Bremen	1 m|d.	8	Venice	3 m|d.	6	New York	60 d|s.	3
Barcelona	60 d|d.	14						

In the dating of bills, the new style is used in every country in Europe, with the exception of Russia.

In London, bills of exchange are bought and sold by brokers, who go round to the principal merchants and discover whether they are buyers or sellers of bills. A few of the brokers of most influence, after ascertaining the state of the relative supply and demand for bills, suggest a price at which the greater part of the transactions of the day are settled, with such deviations as particular bills, from their being in very high or low credit, may be subject to. The price fixed by the brokers is that which is published in Wittenhall's List; but the first houses generally negotiate their bills on $\frac{1}{8}$, 1, $1\frac{1}{2}$, and 2 *per cent.* better terms than those quoted. In London and other great commercial cities, a class of middlemen speculate largely on the rise and fall of the exchange; buying bills when they expect a rise, and selling them when a fall is anticipated.

It is usual in drawing foreign bills of exchange, to draw them in sets, or duplicates, lest the first should be lost or miscarry. When bills are drawn in sets, each must contain a condition that it shall be payable only while the others remain unpaid; thus, the first is payable only, "second and third unpaid;" the second, "first and third being unpaid;" and the third, "first and second unpaid."

The Stamps on Bills of Exchange have been fixed by the 17 & 18 Vict. c. 83., as follows, viz.:—

Inland bill of exchange, draft, or order for the payment to the bearer, or to order, at any time otherwise than on demand, of any sum of money

£			£	Duty. £ s. d.
Not exceeding	-	-	5	0 0 1
Exceeding	5	and not exceeding	10	0 0 2
—	10	—	25	0 0 3
—	25	—	50	0 0 6
—	50	—	75	0 0 9
—	75	—	100	0 1 0
—	100	—	200	0 2 0
—	200	—	300	0 3 0
—	300	—	400	0 4 0
—	400	—	500	0 5 0
—	500	—	750	0 7 6
—	750	—	1,000	0 10 0
—	1,000	—	1,500	0 15 0
—	1,500	—	2,000	1 0 0
—	2,000	—	3,000	1 10 0
—	3,000	—	4,000	2 0 0
—	4,000 and upwards	-	-	2 5 0

Foreign bill of exchange drawn in, but payable out of, the U. K.,

If drawn singly or otherwise than in a set of three or more, the same duty as on an inland bill of the same amount and tenor.

If drawn in sets of three or more, for every bill of each set, where the sum payable thereby shall not exceed - - - - £25 0 0 1

Exceeding	£25	and not exceeding	50	0 0 2
—	50	—	75	0 0 3
—	75	—	100	0 0 4
—	100	—	200	0 0 8
—	200	—	300	0 1 0
—	300	—	400	0 1 4
—	400	—	500	0 1 8
—	500	—	750	0 2 6
—	750	—	1,000	0 3 4

	£		£	Duty. £ s. d.
Exceeding	1,000 and not exceeding	-	1,500	0 5 0
—	1,500	—	2,000	0 6 8
—	2,000	—	3,000	0 10 0
—	3,000	—	4,000	0 13 4
—	4,000 and upwards	-	-	0 15 0

Foreign bill of exchange drawn out of the U. K., and payable within the U. K., the same duty as on an inland bill of the same amount and tenor.

Foreign bill of exchange drawn out of the U. K., and payable out of the U. K., but indorsed or negotiated within the U. K., the same duty as on a foreign bill drawn within the U. K., and payable out of the U. K.

Stamp on promissory note for the payment in any other manner than to the bearer on demand of any sum of money,

£			£	Duty. £ s. d.
Not exceeding	-	-	5	0 0 1
Exceeding	£5	and not exceeding	10	0 0 2
—	10	—	25	0 0 3
—	25	—	50	0 0 6
—	50	—	75	0 0 9
—	75	—	100	0 1 0

Stamp on promissory note for the payment, either to the bearer on demand or in any other manner than to the bearer on demand, of any sum of money,

£			£	Duty. £ s. d.
Exceeding	£100	and not exceeding	200	0 2 0
—	200	—	300	0 3 0
—	300	—	400	0 4 0
—	400	—	500	0 5 0
—	500	—	750	0 7 6
—	750	—	1,000	0 10 0
—	1,000	—	1,500	0 15 0
—	1,500	—	2,000	1 0 0
—	2,000	—	3,000	1 10 0
—	3,000	—	4,000	2 0 0
—	4,000 and upwards	-	-	2 5 0

The stat. 17 & 18 Vict. c. 83. directs that the duties in respect of bills of exchange drawn out of the U. K. shall be denoted by proper adhesive stamps, to be obtained from the Commissioners of Inland Revenue, and applied to the same.—§ 3.

The holder of a bill drawn out of the U. K. shall affix the proper adhesive stamp to the same before negociating it, under a penalty of 50*l.*—§ 5.

Persons drawing a bill purporting to be one of a set, and not drawing the whole number of the set, shall forfeit 100*l.*; and persons receiving such bills shall not be entitled to recover on the same.—§ 6.

* In France, days of grace were suppressed by the *Code de Commerce*, art. 135.

† In Austria, bills payable at sight, or on demand, or at less than 7 days after sight or date, are not allowed any days of grace. In Petersburg bills after date are allowed ten days' grace, but after sight only 3 days do.

No one acquainted with the fundamental rules of arithmetic can have any difficulty whatever in estimating how much a sum of money in one country is worth in another, according to the state of the exchange at the time. The common arithmetical books abound in examples of such computations. But in conducting the business of exchange, a direct remittance is not always preferred. When a merchant in London, for example, means to discharge a debt due by him in Paris, it is his business to ascertain not only the state of the direct exchange between London and Paris, and, consequently, the sum which he must pay in London for a bill on Paris equivalent to his debt, but also the state of the exchange between London and Hamburg, Hamburg and Paris, &c.; for it frequently happens that it may be more advantageous for him to buy a bill on Hamburg, Amsterdam, or Lisbon, and to direct his agent to invest the proceeds in a bill on Paris, rather than remit directly to the latter. This is termed the ARBITRATION of exchange. An example or two will suffice to show the principle on which it is conducted.

Thus, if the exchange between London and Amsterdam be 35*s.* Flemish (old coinage) per pound sterling, and between Paris and Amsterdam 1*s.* 6*d.* Flemish per franc, then, in order to ascertain whether a direct or indirect remittance to Paris would be most advantageous, we must calculate what would be the value of the franc in English money if the remittance were made through Holland; for if it be less than that resulting from the direct exchange, it will obviously be the preferable mode of remitting. This is determined by stating, as 35*s.* Flem. (the Amsterdam currency in a pound sterling): 1*s.* 6*d.* Flem. (Amsterdam currency in a franc):: 1*l.* : 10*d.* the proportional or *arbitrated* value of the franc. — Hence, if the English money, or bill of exchange, to pay a debt in Paris, were remitted by Amsterdam, it would require 10*d.* to discharge a debt of a franc, or 1*l.* to discharge a debt of 24 francs: and therefore, if the exchange between London and Paris were at 24, it would be indifferent to the English merchant whether he remitted directly to Paris, or indirectly *viâ* Amsterdam; but if the exchange between London and Paris were *above* 24, then a direct remittance would be preferable; while, if, on the other hand, the direct exchange were less than 24, the indirect remittance ought as plainly to be preferred.

"Suppose," to borrow an example from Kelly (*Universal Cambist*, vol. ii. p. 137.) "the exchange of London and Lisbon to be at 68*d.* per milree, and that of Lisbon on Madrid 500 rees per dollar, the arbitrated price between London and Madrid is 34*d.* sterling per dollar; for, as 1,000 rees : 68*d.* :: 500 rees : 34*d.* But if the direct exchange of London on Madrid be 35*d.* sterling per dollar, then London, by remitting directly to Madrid, must pay 35*d.* for every dollar; whereas, by remitting through Lisbon, he will pay only 34*d.*: it is therefore the interest of London to remit indirectly to Madrid through Lisbon. On the other hand, if London draws directly on Madrid, he will receive 35*d.* sterling per dollar; whereas, by drawing indirectly through Lisbon, he would receive only 34*d.*; it is therefore the interest of London to draw directly on Madrid. Hence the following rules: —

"1. Where the certain price is given, draw through the place which produces the lowest arbitrated price, and remit through that which produces the highest.

"2. Where the uncertain price is given, draw through that place which produces the highest arbitrated price, and remit through that which produces the lowest."

In compound arbitration, or when more than 3 places are concerned, then, in order to find how much a remittance passing through them all will amount to in the last place, or, which is the same thing, to find the arbitrated price between the first and the last, we have only to repeat the different statements in the same manner as in the foregoing examples.

Thus, if the exchange between London and Amsterdam be 35*s.* Flem. for 1*l.* sterling; between Amsterdam and Lisbon 42*d.* Flem. for 1 old crusade; and between Lisbon and Paris 480 rees for 3 francs: what is the arbitrated price between London and Paris?

In the first place, as 35*s.* Flem. : 1*l.* :: 42*d.* Flem. : 2*s.* sterling = 1 old crusade.

Second, as 1 old crusade, or 400 rees : 2*s.* sterling :: 480 rees : 2*s.* 4·8*d.* sterling = 3 francs.

Third, as 2*s.* 4·8*d.* sterling : 3 francs :: 1*l.* sterling : 25 francs, the arbitrated price of the pound sterling between London and Paris.

This operation may be abridged as follows: —

1*l.* sterling	=	1*l.* sterling.
3½ shillings Flem.	=	35*s.* Flemish.
1 old crusade	=	1 old crusade.
480 rees	=	400 rees.
	=	3 francs.

Hence $\frac{35 \times 400 \times 3}{480 \times 3\frac{1}{2}} = \frac{4{,}200}{168} = 25$ francs.

This abridged operation evidently consists in arranging the terms so that those which would form the divisors in continued statements in the Rule of Three are multiplied together for a common divisor, and the other terms for a common dividend. The ordinary arithmetical books abound with examples of such operations.

The following account of the manner in which a very large transaction was actually conducted by indirect remittances, will sufficiently illustrate the principles we have been endeavouring to explain.

In 1804, Spain was bound to pay to France a large subsidy; and, in order to do this, three distinct methods presented themselves: —

1. To send dollars to Paris by land.
2. To remit bills of exchange directly to Paris.
3. To authorise Paris to draw directly on Spain.

The first of these methods was tried, but it was found too slow and expensive; and the second and third plans were considered likely to turn the exchange against Spain. The following method by the indirect, or circular exchange, was, therefore, adopted.

A merchant, or *banquier*, at Paris, was appointed to manage the operation, which he thus conducted: — He chose London, Amsterdam, Hamburg, Cadiz, Madrid, and Paris, as the principal hinges on which the operation was to turn; and he engaged correspondents in each of these cities to support the circulation. Madrid and Cadiz were the places in Spain from whence remittances were to be made; and dollars were, of course, to be sent to where they bore the highest price, for which bills were to be procured on Paris, or on any other places that might be deemed more advantageous.

The principle being thus established, it only remained to regulate the extent of the operation, so as not to issue too much paper on Spain, and to give the circulation as much support as possible from real business. With this view, London was chosen as a place to which the operation might be chiefly directed, as the price of dollars was then high in England; a circumstance which rendered the proportional exchange advantageous to Spain.

The business was commenced at Paris, where the negotiation of drafts issued on Hamburg and Amsterdam served to answer the immediate demands of the state; and orders were transmitted to these places to draw for the reimbursements on London, Madrid, or Cadiz, according as the course of exchange was most favourable. The proceedings were all conducted with judgment, and attended with complete

success. At the commencement of the operation, the course of exchange of Cadiz on London was 36*d.*; but by the plan adopted, Spain got 39½*d.*, or above 8 *per cent.* by the remittance of dollars to London, and considerable advantages were also gained by the circulation of bills through the several places on the Continent. — (*Kelly's Cambist*, vol. ii. p. 168.; *Dubost's Elements of Commerce*, 2d ed. p. 228.)

Table specifying the Value of the Monies of Account of the principal Places with which this Country has Exchange Transactions, taking Silver at 5*s.* an oz., and specifying also the *Par* of Exchange with such Places on this Hypothesis. — (Abstracted from *Tate's Modern Cambist*, to which the reader is referred for farther explanations).

					Par of Exchange.
Petersburg	100 copecks	= 1 rouble	= 3*s.* 1½*d.* giving	6 roub. 40 cop.	= 1*l.*
Berlin	30 sil. groschen	= 1 Pruss. doll.	= 2*s.* 10⅝*d.* —	6 doll. 27 s. g.	= 1*l.*
Copenhagen	96 skillings	= 1 Rig. doll.	= 2*s.* 2½*d.* —	9 doll. 10 sk.	= 1*l.*
Hamburg	16 schillings	= 1 mark	= 1*s.* 5½*d.* —	13 mks. 10½ sch.	= 1*l.*
Amsterdam	100 centimes	= 1 florin	= 1*s.* 8*d.* —	11 fl. 97 cents	= 1*l.*
Antwerp	100 centimes	= 1 florin	= 1*s.* 8*d.* —	11 fl. 97 cents	= 1*l.*
Paris	100 centimes	= 1 franc	= 9½*d.* —	25 fr. 57 cents	= 1*l.*
Frankfort	24½ guld. or flor.	= 1 mark	= 1*s.* 7⅞*d.* —	12⅝ guldens	= 1*l.*
Vienna	60 kreusers	= 1 florin	= 2*s.* 0⅘*d.* —	9 fl. 50 kr.	= 1*l.*
Venice	100 centisimi	= 1 lira Austriaca	= 8·13*d.* —	29 li. 52 cent.	= 1*l.*
Genoa	100 centisimi	= 1 lira Nuova	= 9¾*d.* —	25 li. 57 cent.	= 1*l.*
Leghorn	100 centisimi	= 1 lira Toscana	= 7·82*d.* —	30 li. 69 cent.	= 1*l.*
Madrid	8 reals	= 1 dollar of Plate	= 3*s.* 1½*d.* —	6 doll. 2⅜ reals	= 1*l.*
Lisbon	1000 reis	= 1 milreis	= 4*s.* 8*d.* —	4 mil. 285 reis	= 1*l.*
New York	100 cents	= 1 dollar	= 4*s.* 2*d.* —	4 doll. 80 cents	= 1*l.*
Rio Janeiro	1000 reis	= 1 milreis	= 2*s.* 7*d.* —	7 mil. 777 reis	= 1*l.*
Havannah	100 cents	= 1 dollar	= 4*s.* 6$\frac{13}{222}$*d.* —	4 doll. 44 cents	= 1*l.*

It is easy from this table to calculate the value of any of the above coins, taking silver at 5*s.* 2*d.*, 5*s.* 6*d.* an oz., or any other price, and thence to deduce the par of exchange at such rates. The values of the coins in the Table of Coins (*antè*, p. 328.) are estimated on the hypothesis that silver is worth 5*s.* 2*d.* an oz.

Law of Bills of Exchange.

The chief legal privileges appertaining to bills are, first, that though only a simple contract, yet they are always presumed to have been originally given for a good and valuable consideration; and, secondly, they are assignable to a third person not named in the bill or party to the contract, so as to vest in the assignee a right of action, in his own name; which right of action, no release by the drawer to the acceptor, nor set-off or cross demand due from the former to the latter, can affect.

All persons, whether merchants or not, being legally qualified to contract, may be parties to a bill. But no action can be supported against a person incapable of binding himself, on a bill drawn, indorsed, or accepted by such incapacitated person; at the same time the bill is good against all other competent parties thereto.

Bills may be drawn, accepted, or indorsed by the party's agent or attorney verbally authorised for the purpose. When a person has such authority, he must either write the name of his principal, or state in writing that he draws, &c. as agent, thus: "per procuration, for A. B."

Where one of several partners accepts a bill drawn on the firm, for himself and partners, or in his own name only, such acceptance binds the partnership if it concern the trade. But the acceptance of one of several partners on behalf of himself and partners, will not bind the others, if it concern the acceptor only in a separate and distinct interest; and the holder of the bill, at the time he becomes so, was aware of that circumstance. If, however, he be a *bonâ fide* holder for a sufficient consideration, and had no such knowledge at the time he first became possessed of the bill, no subsequently acquired knowledge of the misconduct of the partner in giving such security will prevent him from recovering on such bills against all the partners.

Although no precise form of words is required to constitute a bill of exchange or promissory note, yet it is necessary that it should be *payable at all events*, and not depend on any contingency; and that it be made for the payment of money only, and not for payment of money and performance of some other act, as the delivery of a horse, or the like.

If, however, the event on which the payment is to depend must inevitably happen, it is of no importance how long the payment may be in suspense; so a bill is negotiable and valid if drawn payable 6 weeks after the death of the drawer's father, or payable to an infant when he shall become of age.

Any material alteration of a bill after it has been drawn, accepted, or indorsed, such as the date, sum, or time of payment, will invalidate it: but the mere correction of a mistake, as by inserting the words "or order," will have no such effect.

The negotiability of a bill depends on the insertion of sufficient operative words of transfer; such as by making it payable to A. or order, or to A. or bearer, or to bearer generally.

Although a bill is presumed to have been originally drawn upon a good and valuable consideration, yet in certain cases a want of sufficient consideration may be insisted on in defence to an action on a bill. Certain considerations have been made illegal by

statute; as for signing a bankrupt's certificate, for money won at gaming, or for money lent on a usurious contract. But with respect to gaming, it is held, that a bill founded on a gambling transaction is good in the hands of a *bonâ fide* holder; and by 58 Geo. 3. c. 93. a bill or note in the hands of an innocent holder, although originally founded on a usurious contract, is not invalid.

In general, if a bill is fair and legal in its origin, a subsequent illegal contract or consideration on the indorsement thereof will not invalidate it in the hands of a *bonâ fide* holder.

A bill cannot be given in evidence in a court of justice, unless it be duly stamped, not only with a stamp of the proper value, but also of the proper denomination.

Acceptance of a Bill.—An acceptance is an engagement to pay a bill according to the tenor of the acceptance, which may be either *absolute* or *qualified*. An *absolute* acceptance is an engagement to pay a bill according to its request, which is done by the drawee writing "Accepted" on the bill, and subscribing his name, or writing "Accepted" only; or merely subscribing his name at the bottom or across the bill. A *qualified* acceptance is when a bill is accepted conditionally; as when goods conveyed to the drawee are sold, or when a navy bill is paid, or other future event which does not bind the acceptor till the contingency has happened.

An acceptance may be also partial; as to pay 100*l.* instead of 150*l.*, or to pay at a different time or place from that required by the bill. But in all cases of a conditional or partial acceptance, the owner should, if he mean to resort to the other parties to the bill in default of payment, give notice to them of such partial or conditional acceptance.

In all cases of presenting a bill for acceptance, it is necessary to present the bill at the house where the drawee lives, or where it is made payable. By 1 & 2 Geo. 4. c. 78., all bills accepted payable at a banker's or other place are to be deemed a general acceptance; but if they are accepted payable at a banker's "only and not otherwise or elsewhere," it is a qualified acceptance, and the acceptor is not liable to pay the bill, except in default of payment when such payment shall have been first demanded at the banker's. The drawee is entitled to keep the bill 24 hours when presented for acceptance. The acceptance of an inland bill must be *in writing on the face of the bill*, or if there be more parts than one, on one of such parts; nothing short of this constitutes a valid acceptance.

When a bill is made payable *at sight*, or at a certain time *after sight*, it must, in either case, in order to fix the time when it is to be paid, be presented for acceptance; and the date of the acceptance should appear thus: "Accepted, 10th December, 1845."

Due diligence is the only thing to be considered in presenting any description of bill for acceptance; and such diligence is a question depending on the situation of the parties, the distance at which they live, and the facility of communication between them.

When the drawee refuses to accept, any third party, after protesting, may accept for the honour of the bill generally, or for the drawee, or for the indorser; in which case the acceptance is called an acceptance *supra protest*.

The drawers and indorsers are discharged from liability, unless due notice of non-acceptance when presented for acceptance, or non-payment at the time the bill becomes due, is given. These notices must be given with all due diligence to all the parties to whom the holder means to resort for payment. Generally, in both foreign and inland bills, notice is given next day to the immediate indorser, and such indorser is allowed a day, when he should give fresh notice to the parties who are liable to him.

Notice may be sent by the post, however near the residence of the parties may be to each other; and though the letter containing such notice should miscarry, yet it will be sufficient; but the letter, containing the notice, should be delivered at the General Post-Office, or at a receiving-house appointed by that office, not to the bellman in the street. In all cases of notice, notice to one of several parties is held to be notice to all; and if one of several drawers be also the acceptor, it is not necessary to give notice to the other drawers.

Upon the non-acceptance or non-payment of a bill, the holder, or a public notary for him, should protest it; that is, draw up a notice of the refusal to accept or pay the bill, and the declaration of the holder against sustaining loss thereby. Inland bills need not be protested; in practice they are usually only noted for non-acceptance; but this, without the protest, is wholly futile, and adds nothing whatever to the evidence of the holder, while it entails a useless expense on those liable to pay.

Indorsement of Bills.—An indorsement is the act by which the holder of a negotiable instrument transfers his right to another person, termed the indorsee. It is usually made on the back of a bill, and must be in writing; but the law has not prescribed any set form of words as necessary to the ceremony, and in general the mere signature of the indorser is sufficient.

All bills payable to order or to bearer for *l.* and upwards are negotiable by indorsement; and the transfer of them for a good consideration, before they are payable, gives a right of action against all the precedent parties on the bill, if the bills in themselves are valid; but a transfer after they are due will only place the holder in the situation of the person from whom he takes them.

Bills may be transferred either by delivery only, or by indorsement and delivery: bills payable to order are transferred by the latter mode only; but bills payable to bearer may be transferred by either mode. On a transfer by delivery, the person making it ceases to be a party to the bill; but on a transfer by indorsement, he is to all intents and purposes chargeable as a new drawer.

A bill originally transferable may be restrained by restrictive words; for the payee or indorsee, having the absolute property in the bill, may, by express words, restrict its currency, by indorsing it "Payable to A. B. only," or "to A. B. for his use," or any other words clearly demonstrating his intention to make a restrictive and limited indorsement. Such special indorsement precludes the person in whose favour it is made from making a transfer, so as to give a right of action against the special indorser, or any of the preceding parties to the bill.

In taking bills to account or discount, it is important well to examine all special indorsements. Lord Tenterden decided that a person who discounts a bill indorsed "Pay to A. B. or order *for my use*," discounts it subject to the risk of having to pay the money to the special indorser, who so limited the application *for my use*; thus a party may be liable to pay the amount of the bill twice over, unless he previously ascertains that the payment has been made conformably to the import of the indorsement.

After the payment of part, a bill may be indorsed over for the residue.

Presentment for Payment.—The holder of a bill must be careful to present it for payment at the time when due, or the drawer and indorsers will be exonerated from their liability; even the bankruptcy, insolvency, or death of the acceptor, will not excuse a neglect to make presentment to the assignees or executor; nor will the insufficiency of a bill in any respect constitute an excuse for non-presentment;

the presentment should be made at a reasonable time of the day when the bill is due; and if by the known custom of any trade or place bills are payable only within particular hours, a presentment must be within those hours. If a bill has a qualified acceptance, the presentment should be at the place mentioned in such qualified acceptance, or all the parties will be discharged from their obligations.

If a bill fall due on Sunday, Good Friday, Christmas Day, or any public fast or thanksgiving day, the presentment must be on the day preceding these holidays. By 7 & 8 Geo. 4. c. 15., if a bill or note be payable on the day preceding these holidays, notice of the dishonour may be given the day following the holiday; and if Christmas Day fall on Monday, notice may be given on Tuesday.

Bills, however, payable at usance, or at a certain time after date or sight, or after demand, ought not to be presented for payment precisely at the expiration of the time mentioned in the bills, but at the expiration of the *days of grace*. These are not allowed in some countries: they also vary where they are allowed, and should always be computed according to the usage of the place where the bill is due.—(See *antè*, p. 580.) At Hamburg, the day on which the bill falls due makes one of the days of grace; but nowhere else.

On bills payable on demand, or when no time of payment is expressed, no days of grace are allowed; but they are payable instantly on presentment. On bank post bills no days of grace are claimed; but on bills payable at sight the usual days of grace are allowed from the sight or demand, as notified by the date of the acceptance.

Payment of a bill should be made only to the holder; and it may be refused unless the bill be produced and delivered up. On payment, a receipt should be written on the back; and when a part is paid, the same should be acknowledged upon the bill, or the party paying may be liable to pay the amount a second time to a *bonâ fide* indorser.

Promissory Notes and Checks.—The chief distinction between promissory notes and bills of exchange is, that the former are a direct engagement by the drawer to pay them according to their tenor, without the intervention of a third party as a drawee or acceptor. Promissory notes may be drawn payable on demand to a person named therein, or to order, or to bearer generally. They are assignable and indorsable; and in all respects so nearly assimilated to bills by 3 & 4 Ann. c. 9., that the laws which have been stated as bearing upon the latter, may be generally understood as applicable to the former. In *Edis* v. *Bury*, it has been decided, in case an instrument is drawn so equivocally as to render it uncertain whether it be a bill of exchange or promissory note, the holder may treat it as either against the drawer.

Promissory notes, bills, drafts, or undertakings in writing, being made negotiable or transferable, for a less sum than 20*s*., are void, and persons uttering such are subject to a penalty not exceeding 20*l*., recoverable before a justice of peace.

The issue of any promissory note payable to bearer on demand for a less sum than 5*l*. by the Bank of England, or any licensed English banker, is prohibited; and by 9 Geo. 4. c. 65. it is provided, that no corporation or person shall utter or negotiate, in England, any such note which has been made or issued in Scotland, Ireland, or elsewhere, under a penalty not exceeding 20*l*. nor less than 5*l*. But this does not extend to any draft or order on bankers for the use of the drawer.

A check or draft is as negotiable as a bill of exchange, and vests in the assignee the same right of action against the assignor.

Checks are of two sorts, that is, they may be either on plain or on stamped paper. The distinction was introduced by the 16 & 17 Vict. c. 59. The peculiar conditions and limitations under which plain checks must be drawn, and the privileges enjoyed by those on stamped paper, are briefly stated in the Art. CHECKS, to which the reader is referred.

Any person drawing, accepting, or paying any bill or promissory note, not duly stamped, is liable to a penalty of 50*l*.; and a penalty of 50*l*. is imposed on parties sending or receiving unstamped checks or drafts at a greater distance than 15 miles in a direct line from the place where they are issued.

It used to be of especial importance to bankers and others taking bills and notes, that they should not only be aware of the responsibility of the acceptors and other parties to such bills and notes, but that they should have some knowledge of those from whom they received them; for, if the instrument turned out to have been lost or fraudulently obtained, they might be deprived of their security, on an action by the owner to recover possession. Lord Tenterden decided, "if a person take bill, note, or any other kind of security, under circumstances which ought to excite suspicion in the mind of any reasonable man acquainted with the ordinary affairs of life, and which ought to put him on his guard to make the necessary inquiries, and he do not, then he loses the right of maintaining possession of the instrument against the rightful owner."—(*Guildhall*, Oct. 25, 1826.) But it has since been decided, in contravention of this doctrine, that the claim of the *bonâ fide* holder of a bill or note that has been lost or stolen is not invalidated by the want of the suspicions or inquiries referred to by Lord Tenterden, or even by gross negligence: and that to defeat the holder's claim it must be shown that he took the instrument *malâ fide*.—(*Chitty on Bills*, 9th ed. p. 257.) This is an important, and, as we think, a sound decision: it facilitates the negotiation of bills, and clears up and gives precision to the law.

Before concluding this article on mercantile paper, it may not be improper to introduce one or two cautions with regard to acceptances, and accommodation paper, and proceedings in case of the loss of bills.

First, A man should not put his name as acceptor to a bill of exchange without well considering whether he has the means of paying the same when due, as otherwise he may be liable not only to the costs of the action against himself, but also to the costs of the action against the other parties to the bill: the shrewd tradesman is generally anxious to get the acceptance of his debtor at a short date, well knowing that it not only fixes the amount of the debt, but it is more speedily recoverable by legal procedure than a book debt.

Secondly, Traders who wish to support their respectability, and desire to succeed in business, should be cautious in resorting to what is called the system of cross-accommodation acceptances: it seldom ends well, and usually excites suspicion as to the integrity of the parties; it being an expedient often adopted by swindlers to defraud the public. Independent of the expense in stamps and discounts, and frequently in noting, interest, and law expenses, the danger attending such accommodation is sufficient to deter from the practice. Suppose, for instance, A. B. mutually accommodate each other to the amount of 1,000*l*., the acceptances being in the hands of third persons: both A. and B. are liable to such third persons to the extent of 2,000*l*. each; and should A. by any unforeseen occurrence be suddenly rendered unable to meet his acceptances, the holders of the whole, as well the acceptances of A. as the acceptances of B., will resort to B. for payment; and it may so happen, that although B. could have provided for his own share of the accommodation paper, he may be unable to provide for the whole, and may thus become insolvent.

Lastly, In case of the loss of a bill, the 9 & 10 Will. 3. c. 17. provides, that if any inland bill be lost or missing within the time limited for its payment, the drawer shall, on sufficient security given to indemnify him if such bill be found again, give another bill of the same tenor with the first.

EXCHEQUER BILLS. See FUNDS.

EXPECTATION, of life. See INSURANCE.

EXPORTATION, in commerce, the act of sending or carrying commodities from one country to another.—(See IMPORTATION and EXPORTATION.)

EXCISE, the name given to the duties or taxes laid on certain articles produced and consumed at home; but, exclusive of these, the duties on licenses and post-horses

are also placed under the management of the excise, and are consequently included in the excise duties.

An excise of one sort or other has existed in all modern, and, perhaps, also, in all ancient states. It was introduced into Rome by Augustus, who imposed a duty of 1 per cent. (centesima rerum venalium) on all articles, whether great or small, sold in public markets or by auction. Though extremely moderate, a duty of this sort could not fail, from the difficulties in the way of its assessment, its interference with the dealings of individuals, and the abuses to which it must have led, to occasion clamour and discontent. And these in no long time became so very prevalent, that Tiberius was obliged to declare, that the maintenance of the army, for the support of which this tax had been appropriated, depended on its being continued.* In the sequel it underwent various changes. It appears to be sufficiently well established that it applied only to Rome, and, perhaps, to some few of the other great towns. In the smaller towns its produce would not indeed have sufficed to defray the cost of its collection. It, therefore, had at bottom a good deal in common with the octrois or town duties charged on commodities coming into Paris, and other great continental cities. But the defective mode of its assessment must have made it infinitely more troublesome and onerous.†

Excise duties had been from an early period established in Holland, and the large revenue which they afforded pointed them out to the leaders of the popular party in the great civil war, as the most likely means by which they could raise funds to carry on the great contest in which they had embarked. They were consequently introduced by a parliamentary ordinance in 1643; being then laid on the makers and vendors of ale, beer, cider, and perry. The royalists soon after followed the example of the republicans; both sides declaring that the excise should be continued no longer than the termination of the war. But it was found too productive a source of revenue to be again relinquished; and when the nation had been accustomed to it for a few years, the parliament declared in 1649, that the "impost of excise was the most easy and indifferent levy that could be laid upon the people." And it is worthy of remark, that the regulations embodied in Cromwell's Excise Act of 1657, authorising officers to make searches, and directing the giving of notices, &c., are very similar to those now in force.

The same reasons that made the excise be continued down to the Restoration secured its existence subsequently to that epoch. A portion of its produce was, at the same time, assigned in perpetuity to the Crown, in compensation for its relinquishing the hereditary revenues arising from wardships and other feudal prerogatives which were then abolished. And, notwithstanding Mr. Justice Blackstone says that "from its first original to the present time, its very name has been odious to the people of England" — (*Com.* book i. c. 3.), — it has continued progressively to gain ground; and is at this moment imposed on various important articles, and furnishes a large share of the public revenue of the kingdom.

It is probable that the prejudice to which Blackstone alludes, did not originate so much in any dislike to the duties themselves, as in the peculiar circumstances connected with their imposition. Originally they were let in farm, which is a most unpopular proceeding. And down to a recent period there was hardly a single duty, the assessment of which was not made the subject of numerous lengthened, obscure, and contradictory statutes, so that it was hardly possible for any trader, however desirous to comply with the law, to avoid getting into serious scrapes. The duties being frequently also carried to an oppressive extent, smuggling was practised; and when a party was prosecuted, whether for an intentional or unintentional infraction of the law, or for attempting to defraud the revenue, the case might be laid before judges (without the intervention of a jury) in whose decision the public had little confidence. No wonder, therefore, that the excise should have been unpopular. But the obnoxious practice of letting the duties to farmers has been long abandoned; and of late years the laws and regulations connected with their assessment have been much simplified. In this respect, indeed, nothing should be omitted to render the rules for assessing the duties brief, level to the comprehension of every one, and calculated to interfere as little as possible with the details and processes of manufacture. And, supposing their assessment to be sufficiently simplified, and that they are of a reasonable amount, but little objection can be made to the duties because of the summary jurisdiction exercised by the commissioners and justices. On the contrary, this practice has some material advantages. When parties are prosecuted in the Court of Exchequer for offences against the revenue, their case is, of course, submitted to a jury. But in this court, as in others, delays frequently take place, and the expenses are always very considerable; whereas in cases of summary jurisdiction, or those adjudged by the commissioners and justices, there is little or no delay, and little or no expense. And considering that all parties who fancy themselves

* Taciti, *Annal.*, lib. i. § 78.

† Gibbon, *Decline and Fall*, i. 211., ed. 1838; Dureau de la Malle, *Economie Politique des Romains*, ii. 45.

aggrieved by the decision of the commissioners are entitled (4 Vict. c. 20. § 26.) to appeal at a very trifling cost to a baron of exchequer, who rejudges the case; while those who suppose themselves aggrieved by a sentence of the justices may appeal to the quarter-sessions (7 & 8 Geo. 4. c. 53. § 82.), there really appears to be more to approve than to object to in the summary jurisdiction.

The excise duties formerly imposed on salt, leather, candles, beer, glass, and other less important articles, have been repealed within these few years. And we doubt whether there be one of the existing duties which can be fairly objected to on principle, or for its injuriously interfering with the manufacture, or being too high. Whatever may have been the case formerly, the excise is now fully entitled to the eulogium passed upon it by Arthur Young. "Excises are by much the fairest, most equal, and least burdensome of all taxes. They are paid voluntarily. Not a shilling is contributed but in proportion to the free consumption. The Dutch, who have been deservedly esteemed the wisest nation in Europe, in all matters of taxation, have been enabled to preserve their industry under burdens of which we have no experience, and scarcely any conception, principally by their having adopted this mode of taxation."*

Account of the Quantities of each Article charged with Excise Duty in England, Scotland, and Ireland respectively, in the Years ended the 31st of March, 1857–58 and 1858–59.

Articles charged.	1857–58.				1858–59.			
	England.	Scotland.	Ireland.	U. K.	England.	Scotland.	Ireland.	U. K.
Spirits - gallons	10,995,312	7,024,950	6,783,871	24,804,133	10,221,263	6,876,345	6,101,576	23,198,984
Malt - bushels	38,015,624	1,513,917	1,834,717	41,164,258	39,094,648	1,537,876	2,161,520	42,794,044
Hops - lbs.	47,717,561	-	-	47,717,561	53,125,101	-	-	53,125,101
Hops. No. of acres of land under hop cultivation.	50,974	-	-	50,974	47,601	-	-	47,601
Paper - lbs.	138,952,570	40,539,165	7,922,932	187,414,667	146,589,680	44,532,540	7,893,600	199,015,820
Race horses (England) no.	1,357	-	-	1,357	1,499	-	-	1,499
Railways. Amount received for conveyance of passengers chargeable with duty.	£6,406,940	£570,745	-	£6,977,385	£6,229,877	£576,411	-	£6,806,288
Licences - no.	580,321	53,163	79,190	712,674	584,501	53,361	82,423	720,285
Sugar (home made) cwts.	*	*						
Hackney carriages, London - no.	5,474	-	-	5,474	5,646	-	-	5,646
Stage carriages no.	3,004	323	-	3,327	3,024	353	-	3,377

Amount of Excise Duty charged on each Article in England, Scotland, and Ireland respectively, in the following Years.

Duties charged.	1857–58.				1858–59.			
	England.	Scotland.	Ireland.	U. K.	England.	Scotland.	Ireland.	U. K.
	£	£	£	£	£	£	£	£
Spirits - - -	4,398,124	2,809,980	2,091,693	9,299,797	4,088,505	2,750,538	2,338,624	9,177,667
Malt - - -	5,155,868	176,007	247,737	5,579,612	5,302,211	206,309	292,049	5,800,569
Hops - - -	417,526	No duty charged.	The duty does not extend to this country.	417,526	464,842	No duty charged.	The duty does not extend to this country.	464,842
Paper - - -	911,876	266,038	51,994	1,229,908	961,994	292,241	51,801	1,306,039
Race horses (England)	5,221	-	-	5,221	5,771	-	-	5,771
Railways - -	320,331	28,537	The duty does not extend to this country.	348,868	311,493	28,820	The duty does not extend to this country.	340,313
Licences - -	1,172,860	127,805	135,947	1,436,612	1,183,631	127,220	126,041	1,436,892
Sugar (home made) -								
Hackney carriages, London - -	80,368	-	-	80,368	82,243	-	-	82,243
Stage carriages -	109,632	8,849	The duty does not extend to this country.	118,481	116,020	9,535	-	125,555
Totals - -	12,571,809	3,417,216	2,527,371	18,516,396	12,516,710	3,414,666	2,808,515	18,739,891

The excise duty on sugar was imposed, by the act 3 & 4 Vict. c. 57., on all sugar raised in the U. Kingdom, whether from beet-root, potatoes, or other materials. It is the same as the duty on British colonial sugar. Probably, however, the better policy would be to prohibit the home production of such articles; inasmuch as it is sure to facilitate smuggling and adulteration.

The laws with respect to the general management of the excise were consolidated by the 7 & 8 Geo. 4. c. 5., from which the following particulars are selected:—

Commissioners.—Four commissioners constitute a board. They are to be subject, in all things relating to their peculiar duty, to the orders of the Treasury. They may appoint collectors and other subordinate officers, and give them such salaries and allowances as the Treasury shall direct; but they are not allowed to increase the number of inferior officers without the permission and approval of the Treasury. No member of the House of Commons can be a commissioner of excise.

Officers of Excise.—No officer of excise is to vote or interfere at any election of a member of parliament, under pain of forfeiting 500*l.*, and being rendered incapable of ever holding any office or place of trust under her Majesty.

No person holding any office of excise is to deal in any sort of goods subject to the excise laws.

Any person bribing or offering to bribe any officer of excise shall forfeit 500*l.*; and every officer accepting such bribe, or doing, conniving at, or permitting any act or thing whereby any of the provisions of the excise laws may be evaded or broken, shall forfeit 500*l.*, and be declared incapable of ever after serving her Majesty in any capacity whatever. But if any of the parties to such illegal transactions shall inform against the other, before any proceedings thereupon shall have been instituted, he shall be indemnified against the penalties and disabilities imposed for such offences.

Duties and Powers of Officers.—It is lawful for any officer to enter any building or other place, used for carrying on any trade subject to the excise, either by night or by day (but if by night, in the presence of a constable or peace officer), to in-

* *Political Arithmetic*, part ii. p. 46.

spect the same, &c. And upon an officer making oath that he has cause to suspect that goods forfeited under the excise acts are deposited in any private house or place, 2 commissioners of excise, or 1 justice of the peace, may grant a warrant to the officer to enter such house or place (if in the night, in the presence of a constable) to search for and seize such forfeited goods.

Specimen Books may be left by the officers on the premises of persons subject to the excise laws; and any one who shall remove or deface such books shall be liable to a penalty of 200*l*.

Removing Goods to avoid Duty.—Goods fraudulently removed or secreted, in order to avoid the duty, to be forfeited; and every person assisting in such removal shall forfeit and lose treble the value of such goods, or 100*l*., at the discretion of the commissioners.

Obstructing Officers.—All persons who shall oppose, molest, &c. any officer of excise in the execution of his duty, shall respectively, for every such offence, forfeit 200*l*.

Officers violently resisted in making any seizure may oppose force to force; and in the event of their wounding, maiming, or killing any person, when so opposed, they shall be admitted to bail, and may plead the general issue.

Justices, mayors, bailiffs, constables, &c. are required to assist excise officers; and any constable or peace officer who, on notice and request, declines going with an excise officer, is to forfeit 20*l*. for every such offence.

Claimants of Goods seized.—No claim shall be entered for goods seized, except in the real names of the proprietors of such goods. Claimants are bound with 2 sureties in a penalty of 100*l*. to pay the expenses of claim; and in default thereof, the goods are to be condemned.

Proceedings in Courts of Law.—All penalties under the excise laws may be sued for and recovered in the Courts of Exchequer at Westminster, Edinburgh, or Dublin respectively, according as the offence may have taken place in England, Scotland, or Ireland; provided that the proceedings in the courts commence within 3 years after the commission of the offence.

Informations for the recovery of penalties against the excise laws in London may be heard and adjudged by any 3 or more of the commissioners of excise; and in other places such informations may be exhibited before 1 or more justices of the peace, and may be heard and adjudged by any 2 or more such justices.

Mitigation of Penalties.—Justices are authorised, if they shall see cause, except when there is a special provision to the contrary, to mitigate any penalty incurred for any offence committed against the excise laws to *one fourth* part thereof; but it is lawful for the commissioners of excise, when they see cause, further to mitigate, or entirely remit, such penalty.

Distribution of Penalties.—All penalties and forfeitures incurred under the excise acts are to be distributed, half to his majesty, and half to the officer or person who shall discover, inform, or sue for the penalty. On proof being made of any officer acting collusively in making a seizure, the commissioners may direct his share to be forfeited.

Oaths and Affirmations.—Persons wilfully taking or making any false oath or affirmation as to any matter connected with the excise laws, shall, upon being convicted of such offence, suffer the pains and penalties incident to wilful and corrupt perjury; and those procuring or suborning such persons to swear or affirm falsely shall, upon conviction, be liable to the pains and penalties incident to subornation of perjury.

Actions against Excise Officers.—No writ, summons, or process shall be sued out or served upon, nor shall any action be brought, raised, or prosecuted against, any officer of excise, for any thing done under any of the excise laws, until after the expiration of 1 calendar month next after notice in writing has been delivered to such officer, specifying the cause of such action, and the name and place of abode of the person in whose name it is to be brought. No action shall lie against any excise officer for any thing done under the excise laws, unless it be brought within 3 months after the cause of action shall have arisen. If judgment be given against the plaintiff, and in favour of the defendant, the latter shall, in every such action, have treble costs awarded to him.

Forging Certificates, &c.—By the 41 Geo. 3. c. 91. it is enacted, that if any one shall forge, counterfeit, or knowingly give any forged certificate required to be granted by any officer of excise, he shall be guilty of felony, and being convicted, shall be transported for 7 years.

All individuals carrying on any business subjected to the control of the excise, must take out licences renewable annually on the 5th of July.—(See *Licences.*)

All such individuals are also obliged to make entries of every building, place, vessel, or utensil, as the case may be, in the name of the real owner, with the officer of excise in whose survey such building, place, &c. shall be situated. Individuals found employed in unentered excise manufactories are severally liable in a penalty of 30*l*. for the first offence; and in the event of any such offender refusing or neglecting to pay such penalty, he is to be committed to the house of correction or other prison for 3 calendar months, to be kept to hard labour, and not to be liberated until the fine of 30*l*. has been paid, or the term of 3 months has expired; and if found guilty of a second offence, the fine is to be 60*l*.; and in the event of its not being paid, the imprisonment is to be for 6 months.—(7 & 8 Geo. 4. c. 53. s. 33.)

Permits are usually necessary for the removal of exciseable commodities.—(See *Permits.*)

EXPORTS, the articles exported, or sent beyond seas.—(See IMPORTS AND EXPORTS.)

F.

FACTOR, an agent employed by some one individual or individuals, to transact business on his or their account. He is not generally resident in the same place as his principal, but, usually, in a foreign country. He is authorised, either by letter of attorney or otherwise, to receive, buy, and sell goods and merchandise; and, generally, to transact all sorts of business on account of his employers, under such limitations and conditions as the latter may choose to impose. A very large proportion of the foreign trade of this and most other countries is now carried on by means of factors or agents.

Factors and brokers are, in some respects, nearly identical, but in others they are radically different. "A factor," said Mr. Justice Holroyd, "differs materially from a broker. The former is a person to whom goods are sent or consigned; and he has not only the possession, but, in consequence of its being usual to advance money upon them, has also a special property in them, and a general lien upon them. When, therefore, he sells in his own name, it is within the scope of his authority; and it may be right, therefore, that the principal should be bound by the consequences of such sale. But the case of a broker is different: he has not the possession of the goods, and so the vendor cannot be deceived by the circumstance; and, besides, the employing a person to sell goods as a broker does not authorise him to sell in his own name. If, therefore, he sells in his own name, he acts beyond the scope of his authority; and his principal is not bound."

A factor is usually paid by a per-centage or commission on the goods he sells or buys. If he act under what is called a *del credere* commission, that is, *if he guarantee the price of the goods sold on account of his principal*, he receives an additional per-centage to indemnify him for this additional responsibility. In cases of this sort the factor stands in the vendee's place, and must answer to the principal for the value of the goods sold. But where the factor undertakes no responsibility, and intimates that he acts only on account of another, it is clearly established that he is not liable in the event of the vendee's failing.

The sound maxim, that the principal is responsible for the acts of his agent, prevails universally in courts of law and equity. In order to bind the principal, it is necessary only that third parties should deal *boná fide* with the agent, and that the conduct of the latter should *be conformable to the common usage and mode of dealing.* Thus, a factor may sell goods upon credit, that being in the ordinary course of conducting mercantile

affairs: but a stock broker, though acting *boná fide*, and with a view to the benefit of his principal, cannot sell stock upon credit, *unless he have special instructions to that effect;* that being contrary to the usual course of business.

A sale by a factor creates a contract between the owner and buyer; and this rule holds even in cases where the factor acts upon a *del credere* commission. Hence, if a factor sell goods, and the owner *give notice to the buyer to pay the price to him*, and not to the factor, the buyer will not be justified in afterwards paying the factor, and the owner may bring his action against the buyer for the price, unless the factor has a lien thereon. But if no such notice be given, a payment to the individual selling is quite sufficient.

If a factor buy goods on account of his principal, where he is accustomed so to do, the contract of the factor binds the principal to a performance of the bargain; and the principal is the person to be sued for non-performance. But it is ruled, that if a factor enter into a charterparty of affreightment with the master of a ship, the contract obliges *him* only, unless he lade the vessel with his principal's goods, in which case the principal and lading become liable, and not the factor. Where a factor, who is authorised to sell goods in his own name, makes the buyer debtor to himself; then, though he be not answerable to the principal for the debt, if the money be not paid, yet he has a right to receive it, if it be paid, and his receipt is a sufficient discharge; the factor may, in such a case, enforce the payment by action, and the buyer cannot defend himself by alleging that the principal was indebted to him in more than the amount.

"Where a factor," said Lord Mansfield, "dealing for a principal, but concealing that principal, delivers goods in his own name, the person contracting with him has a right to consider him, to all intents and purposes, as the principal; and though the real principal may appear, and bring an action on that contract against the purchaser of the goods, yet that purchaser may set off any claim he may have against the factor, in answer to the demand of the principal."

Merchants employing the same factor run the joint risk of his actions, although they are strangers to each other: thus, if different merchants remit to a factor different bales of goods, and the factor sell them as a single lot to an individual who is to pay one moiety of the price down and the other at 6 months' end; if the buyer fail before the second payment, each merchant must bear a proportional share of the loss, and be content to accept his dividend of the money advanced. — (*Beawes, Lex Merc.*)

A factor employed, without his knowledge, in negotiating an illegal or fraudulent transaction, has an action against his principal. On this ground it was decided, that a merchant who had consigned counterfeit jewels to his factor, representing them to be genuine, should make full compensation to the factor for the injury done to him by being concerned in such a transaction, as well as to the persons to whom the jewels had been sold.

The office of a factor or agent being one of very great trust and responsibility, those who undertake it are bound, both legally and morally, to conduct themselves with the utmost fidelity and circumspection. A factor should take the greatest care of his principal's goods in his hands: he should be punctual in advising him as to his transactions on his behalf, in sales, purchases, freights, and, more particularly, bills of exchange: he should deviate as seldom as possible from the terms, and never from the *spirit and tenor*, of the orders he receives as to the sale of commodities: in the execution of a commission for purchasing goods, he should endeavour to conform as closely as practicable to his instructions as to the quality or kind of goods: if he give more for them than he is authorised, they may be thrown on his hands; but he is bound to buy them for as much less as he possibly can. After the goods are bought, he must dispose of them according to order. If he send them to a different place from that to which he was directed, they will be at his risk, unless the principal, on getting advice of the transaction, consent to acknowledge it.*

* "Whoever," says Dr. Paley, "undertakes another man's business, makes it his own; that is, promises to employ upon it the same care, attention, and diligence, that he would do if it were actually his own; for he knows that the business was committed to him with that expectation. And he promises nothing more than this. Therefore, an agent is not obliged to wait, inquire, solicit, ride about the country, toil, or study, whilst there remains a possibility of benefiting his employer. If he exert as much activity, and use such caution, as the value of the business in his judgment deserves; that is, as he would have thought sufficient if the same interest of his own had been at stake; he has discharged his duty, although it should afterwards turn out, that by more activity and longer perseverance, he might have concluded the business with greater advantage."— (*Moral and Pol. Phil.* c. 12.)

There seems to be a good deal of laxity in this statement. It is necessary to distinguish between those who, in executing a commission, render their services for the particular occasion only, without hire, and those who undertake it *in the course of business*, making a regular charge for their trouble. If the former bestow on it that ordinary degree of care and attention which the *generality of mankind* bestow on similar affairs of their own, it is all, perhaps, that can be expected: but the latter will be justly censurable, if they do not execute their engagements on account of others with that care and diligence which a "*provident and attentive father of a family*" uses in his own private concerns. It is their duty to exert themselves proportionally to the exigency of the affair in hand; and neither to *do* any thing, how minute soever, by which their employers may sustain damage, nor omit any thing, however inconsiderable, which the nature of the act requires. Perhaps the best general rule on the subject is, to suppose a factor

A factor who sells a commodity under the price he is ordered, may be obliged to make good the difference, unless the *commodity be of a perishable nature and not in a condition longer to be kept.* And if he purchase goods for another at a fixed rate, and, their price having afterwards risen, he fraudulently takes them to himself, and sends them somewhere else, in order to secure an advantage, he will be found, by the custom of merchants, liable in damages to his principal.

If a factor, in conformity with a merchant's orders, buy with his money, or on his credit, a commodity he is directed to purchase, and, without giving advice of the transaction, sells it again at a profit, appropriating that profit to himself, the merchant may recover it from him, and have him amerced for fraud.

If a factor buy, conformably to his instructions, goods of which he is *robbed,* or which suffer some unavoidable injury, he is discharged, and the loss falls on the principal. But if the goods be *stolen* from the factor, he will not be so easily discharged; for the fact of their having been abstracted by *stealth,* and not by *violence,* raises a strong presumption that he had not taken that reasonable care of them which was incumbent upon him. If, however, he can prove that the goods were lodged in a place of security, and that he had not been guilty of positive negligence, nor exercised less care towards them than towards his own property, he will not be held responsible even for a theft committed by his servants. — (*Jones on Bailments,* 2d ed. p. 76.; *Chitty on Commercial Law,* vol. iii. p. 368.)

If a factor, having money in his hands belonging to his principal, neglect to insure a ship and goods, according to order, he must, in the event of the ship miscarrying, make good the damage; and if he make any composition with the insurers after insurance, without orders to that effect, he is answerable for the whole insurance. A principal at the end of a very long letter, directed his agent thus: "Observe, the premium on this value is also to be insured." But the agent, not noticing this sentence, neglected to insure the premium; and being sued, was held liable for the omission.

If goods are remitted to a factor, and he make a false entry of them at the Custom-house, or land them without entry, and they are, in consequence, seized or forfeited, he is bound to make good the damage to his principal; but if the factor make his entry according to invoice or letters of advice, and these proving erroneous, the goods are seized, he is discharged.

It is now a settled point, that a factor has a lien on goods consigned to him, not only for incidental charges, but as an item of mutual account for the balance due to him so long as he remains in possession. If he be surety in a bond for his principal, he has a lien on the goods sold by him on account of such principal, to the amount of the sum he is bound for.

It being the general rule of law "that property does not change while *in transitu,*" or in the hands of a carrier, a consignment made *before* the bankruptcy of a consignor, but not arriving till *after,* remains the property of the consignor, except, indeed, where the *delivery* is made *by the order* and upon the account of the consignee, and is a complete *alienation from* the consignor. In the case, therefore, of a consignment to a factor, the property remains the consignor's, and passes into the hands of *his* assignees. When a factor has a lien on goods, he has a right to the price, though received after the bankruptcy.

Where general or unlimited orders are given to a factor, he is left to buy and sell on the best conditions he can. And if detriment arise to a principal from the proceedings of a factor acting under such authority, he has no redress, unless he can show that he acted fraudulently or with *gross negligence.*

A factor or broker acting against the interest of his principal cannot even receive his commission. If he pay money on account of his principal, without being authorised, he cannot recover it back.

An agent cannot delegate his rights to another so as to bind the principal, unless expressly authorised to nominate a sub-agent.

(For further information as to the general powers and liabilities of factors and agents, see *Beawes, Lex Mercatoria,* art. *Factors, Supercargoes, &c.; Chitty's Commercial Law,* vol. iii. c. 3.; *Woolrych on Commercial Law,* pp. 317—329, &c. See also the article BROKERS.)

Under the law with respect to the transactions of factors or agents on third parties that prevailed down to the act 6 Geo. 4. c. 94., it was held, that a factor, as such, had no authority to *pledge,* but only to *sell* the goods of his principal; and it was repeatedly decided that a principal might recover back goods on which a *bonâ fide* advance of

or agent bound to exert that degree of care and vigilance that may *be reasonably expected of him by others.* At all events, it is clear he is not to be regulated by his own notions of the "value of the business." A man may neglect business of his own, or not think it worth attending to; but he is not, therefore, to be excused for neglecting any similar business he has undertaken to transact for others.—(There are some very good observations on this subject in *Sir William Jones's Essay on Bailments,* 2d ed, p. 53. and *passim.*)

money had been made by a third party, without his being bound to repay such advance; and notwithstanding this third party was wholly ignorant that the individual pledging the goods held them as a mere factor or agent. It used also to be held, that *bonâ fide* purchasers of goods from factors or agents not vested with the power of sale, might be made liable to pay the price of the goods a second time to the real owner.

The extreme hardship and injurious influence of such regulations is obvious. It is the business of a principal to satisfy himself as to the conduct and character of the factor or agent he employs; and if he make a false estimate of them, it is more equitable, surely, that he should be the sufferer, than those who have no means of knowing any thing of the matter. The injustice of the law in question, and the injury it did to the commerce of the country, had frequently excited attention; and was very ably set forth by the late Lord Liverpool, in his speech in the House of Lords, on moving the second reading of the bill referred to.

"Those of their Lordships who were acquainted with commercial transactions, would know that money was frequently advanced on goods, without its being possible for the person advancing the money to have any further acquaintance with the transactions, than that the factor was in actual possession of the goods. It then became a question, putting fraud out of view, if the factor became a bankrupt, or in any other way failed to execute his engagements, whether the loss should fall on the principal who had consigned these goods, or on the *pledgee* who had advanced money on them. It had been of late ruled, that if the factor were intrusted only to dispose of the property, the loss must fall on the pledgee. He meant to contend, that this was contrary to equity, and contrary to analogy; that it was disapproved of by high authority, and was contrary to the law in every country of the world, except this, and the United States of America, which had drawn their law from this country. It was contrary to equity, he thought, that the pledgee, who had advanced his money without any fraud, but on the *bonâ fide* possession of the goods, should suffer. He had placed no confidence, but the principal who had appointed the factor had placed confidence. He could limit him in his operations as he pleased — he could give him any kind of instructions — he might qualify his power — he was bound to take precautions before placing confidence; and he was in all respects more liable to suffer from his faults than the pledgee. The latter knew nothing of the power of the factor, he saw only the goods, and advanced his money on what was a sufficient security for repayment. On every principle of natural equity, therefore, the loss ought to fall, not on the *pledgee*, but on the principal. He knew that this view was connected with one very important question — that of possession and title; but it was not possible for transactions to go on, unless the possession was admitted as the title to the goods. If this were an indifferent question, or a question involving only a few cases, he would not have called on their Lordships to legislate on this subject; but all the commercial interests of the country were connected with it. And he might say he believed that two thirds of the whole commerce of the country was carried on by consigning goods to a factor, and leaving it to his discretion to dispose of them to the greatest advantage, sending them to market when he pleased, and raising money on them when he could not send them to market. Bills of exchange, Exchequer bills, and money bills of every description, were subject to this rule. If a person consigned Exchequer bills to a second person, and he parted with them, the third party who obtained them was held to have a right to them. Commercial proceedings were of as much importance as money proceedings, and he could not see why they should not receive the same security. It might be asked, perhaps, when this was felt to be so great an evil, why it was not altered before; but it seemed to be one of those things which had grown up gradually, and which did much mischief before they became extensively known. The first decision, he believed, which established the law as it now stood, was delivered in 1742; and he knew that Lord Chief Justice Gibbs had said, he could not explain the origin of that decision. He supposed it might have been dictated by some fraud. That decision, the Lord Chief Justice maintained, was at variance with the best interests of commerce, and had grown out of circumstances he could not explain. From the time of the first decision, the decisions had not been numerous, till of late years. He did not doubt but the judges had decided according to the law as it was established by these precedents; but in doing that, they had expressed their regret that these precedents had been established. [Here his Lordship read an extract from opinions delivered by the late Lord Chief Justice Ellenborough, and a late judge, Mr. Le Blanc, expressing their regret, in deciding cases according to these precedents, that they had been established.] He inferred from these opinions, that these judges, though they had felt themselves obliged to decide in this way, supposed that the law was contrary to the general analogy of our laws, and to the principles of justice. He then came to the last consideration, the law of this country being in this respect different from the law of all other countries, except the law of the United States of America. In all other countries, the law was recognised to be what he wished to establish it by the bill before their Lordships. When there was no evidence of fraud, it was held, that the man advancing money on goods held by a factor should not suffer for his faults, but that the person who confided in the factor must be the sufferer. This was also the law in Scotland. He had understood, too, that the evils of the law were felt in America, and that means had been taken for bringing it before the congress, with a view to assimilate the law of America to the law of other countries. If the question were examined by the principles of equity, by analogy with other cases, by the authority of those who decided in our courts, or by the practice of other countries, it would be found that the reasons were strong in favour of the bill. It was of great importance in commercial transactions, that our law should be like the laws of other countries. It was not the same with the laws relative to real property — to our local law, if he might so call it; but when the bill was founded on equity and analogy, he thought it was an additional reason in its favour, that it assimilated our commercial law to the commercial law of other countries. He did not know if he had made himself understood, or if he had sufficiently explained the object of the bill; but the measure was founded in justice, and he hoped to have their Lordships' consent to it." The noble Earl concluded by moving the second reading of the bill.

Nothing can be clearer or more satisfactory than the principle laid down by Lord Liverpool, in the above extract from his speech. But the act 6 Geo. 4. c. 94., which his Lordship introduced, did not fully carry out his views; for while it confirms *bonâ fide* sales, made in the ordinary course of business, in cases in which the purchaser had notice that the seller was merely an agent, it does not confirm *bonâ fide* advances made on goods, or on documents of title to goods, under the same circumstances. To obviate this discrepancy, to get rid of the litigation to which certain ambiguities in the 6 Geo. 4. c. 94. had given rise, and to facilitate commerce, the following statute, 5 & 6 Victoria, c. 39., was passed in 1842.

Bonâ fide Advances to Persons intrusted with the Possession of Goods or Documents of Title, though known to be Agents, protected. — From and after the passing of this act, any agent intrusted with the

possession of goods, or of the documents of title to goods, shall be deemed and taken to be owner of such goods and documents, so far as to give validity to any contract or agreement by way of pledge, lien, or security *bonâ fide* made by any person with such agent, as well for any original loan, advance, or payment made upon the security of such goods or documents, as also for any further or continuing advance in respect thereof; and such contract or agreement shall be binding upon and good against the owner of such goods, and all other persons interested therein, notwithstanding the person claiming such pledge or lien may have had notice that the person with whom such contract or agreement is made is only an agent.—§ 1.

Bonâ fide Deposits in exchange protected.—Where any such contract or agreement for pledge, lien, or security shall be made in consideration of the delivery or transfer to such agent of any other goods or merchandise, or document of title, or negotiable security, upon which the person so delivering up the same had at the time a valid and available lien and security for or in respect of a previous advance by virtue of some contract or agreement made with such agent, such contract and agreement, if *bonâ fide* on the part of the person with whom the same may be made, shall be deemed to be a contract made in consideration of an advance within the true intent and meaning of this act, and shall be as valid and effectual, to all intents and purposes, and to the same extent, as if the consideration for the same had been a *bonâ fide* present advance of money: provided always, that the lien acquired under such last-mentioned contract or agreement upon the goods or documents deposited in exchange shall not exceed the value at the time of the goods and merchandise which, or the documents of title to which, or the negotiable security which shall be delivered up and exchanged.—§ 2.

But the Statute to be construed to protect only Transactions bonâ fide.—This act, and every matter and thing herein contained, shall be deemed and construed to give validity to such contracts and agreements only, and to protect only such loans, advances, and exchanges, as shall be made *bonâ fide*, and without notice that the agent making such contracts or agreements as aforesaid has not authority to make the same, or is acting *malâ fide* in respect thereof against the owner of such goods and merchandise; and nothing herein contained shall be construed to extend to or protect any lien or pledge for or in respect of any antecedent debt, owing from any agent to any person with or to whom such lien or pledge shall be given, nor to authorise any agent intrusted as aforesaid in deviating from any express orders or authority received from the owner; but that, for the purpose and to the intent of protecting all such *bonâ fide* loans, advances, and exchanges as aforesaid (though made with notice of such agent not being the owner, but without any notice of the agent's acting without authority), and to no further or other intent or purpose, such contract or agreement as aforesaid shall be binding on the owner and all other persons interested in such goods.—§ 3.

Meaning of the Term "Document of Title," &c.—Any bill of lading, India warrant, dock warrant, warehouse keeper's certificate, warrant, or order for the delivery of goods, or any other document used in the ordinary course of business as proof of the possession or control of goods, or authorising or purporting to authorise, either by indorsement or by delivery, the possessor of such document to transfer or receive goods thereby represented, shall be deemed and taken to be a document of title within the meaning of this act; and any agent intrusted as aforesaid, and possessed of any such document of title, whether derived immediately from the owner of such goods, or obtained by reason of such agent's having been intrusted with the possession of the goods, or of any other document of title thereto, shall be deemed and taken to have been intrusted with the possession of the goods represented by such document of title as aforesaid, and all contracts pledging or giving a lien upon such document of title as aforesaid shall be deemed and taken to be respectively pledges of and liens upon the goods to which the same relates; and such agent shall be deemed to be possessed of such goods or documents, whether the same shall be in his actual custody, or shall be held by any other person subject to his control or on his behalf; and where any loan or advance shall be *bonâ fide* made to any agent intrusted with and in possession of any such goods or documents of title as aforesaid, on the faith of any contract or agreement in writing to consign, deposit, transfer, or deliver such goods or documents of title as aforesaid, and such goods or documents of title shall actually be received by the person making such loan or advance, without notice that such agent was not authorised to make such pledge or security, every such loan or advance shall be deemed and taken to be a loan or advance on the security of such goods or documents of title within the meaning of this act, though such goods or documents of title shall not actually be received by the person making such loan or advance till the period subsequent thereto; and any contract or agreement, whether made direct with such agent as aforesaid, or with any clerk or other person on his behalf, shall be deemed a contract or agreement with such agent; and any payment made, whether by money or bills of exchange, or other negotiable security, shall be deemed and taken to be an advance within the meaning of this act; and an agent in possession as aforesaid of such goods or documents shall be taken, for the purposes of this act, to have been intrusted therewith by the owner thereof, unless the contrary can be shown in evidence.—§ 4.

Agent's civil Responsibility not to be diminished.—Nothing herein contained shall lessen, vary, alter, or affect the civil responsibility of an agent for any breach of duty or contract, or non-fulfilment of his orders or authority in respect of any such contract, agreement, lien, or pledge as aforesaid.—§ 5.

Agent making Consignments contrary to Instruction of Principal, guilty of Misdemeanor.—If any agent intrusted as aforesaid shall, contrary to or without the authority of his principal in that behalf, for his own benefit and in violation of good faith, make any consignment, deposit, transfer, or delivery of any goods or documents of title so intrusted to him as aforesaid, as and by way of a pledge, lien, or security; or shall, contrary to or without such authority, for his own benefit and in violation of good faith, accept any advance on the faith of any contract or agreement to consign, deposit, transfer, or deliver such goods or documents of title as aforesaid; every such agent shall be deemed guilty of a misdemeanor, and being convicted thereof, shall be sentenced to transportation for any term not exceeding 14 years nor less than 7 years, or to suffer such other punishment by fine or imprisonment, or by both, as the court shall award; and every clerk or other person who shall knowingly and wilfully act and assist in making any such consignment, deposit, transfer, or delivery, or in accepting or procuring such advance as aforesaid, shall be deemed guilty of a misdemeanor, and being convicted thereof, shall be liable, at the discretion of the court, to any of the punishments which the court shall award, as hereinbefore last mentioned: provided nevertheless, that no such agent shall be liable to any prosecution for consigning, depositing, transferring, or delivering any such goods or documents of title, in case the same shall not be made a security for or subject to the payment of any greater sum of money than the amount which at the time of such consignment, deposit, transfer, or delivery was justly due and owing to such agent from his principal, together with the amount of any bills of exchange drawn by or on account of such principal, and accepted by such agent: provided also, that the conviction of any such agent shall not be received in evidence in any action at law or suit in equity against him, and no agent intrusted as aforesaid shall be liable to be convicted by any evidence in respect of any act done by him, if he shall, at any time previously to his being indicted for such offence, have disclosed such act, on oath, in consequence of any compulsory process of any court of law or equity in any action, suit, or proceeding which shall have been *bonâ fide* instituted by any party aggrieved, or if he shall have disclosed the same in any examination or deposition before any commissioner of bankrupt.—§ 6.

Right of Owner to redeem, &c.—Nothing herein contained shall prevent such owner as aforesaid from having the right to redeem such goods or documents of title pledged as aforesaid, at any time before such goods shall have been sold, upon repayment of the amount of the lien thereon, or restoration of the securities in respect of which such lien may exist, and upon payment or satisfaction to such agent, if by him required, of any sum of money for or in respect of which such agent would by law be entitled to

retain the same goods or documents, or any of them, by way of lien as against such owner, or to prevent the said owner from recovering of and from such person with whom any such goods or documents may have been pledged, or who shall have any such lien thereon as aforesaid, any balance or sum of money remaining in his hands as the produce of the sale of such goods, after deducting the amount of the lien of such person under such contract or agreement: provided always, that in case of the bankruptcy of any such agent, the owner of the goods which shall have been so redeemed by such owner shall, in respect of the sum paid by him on account of such agent for such redemption, be held to have paid such sum for the use of such agent before his bankruptcy, or in case the goods shall not be so redeemed, the owner shall be deemed a creditor of such agent for the value of the goods so pledged at the time of the pledge, and shall, if he shall think fit, be entitled in either of such cases to prove for or set off the sum so paid, or the value of such goods, as the case may be.—§ 7.

Clause 8. refers to the interpretation of the act.

FACTORAGE, or COMMISSION, the allowance given to factors by the merchants and manufacturers, &c. who employ them: it is a percentage on the goods they purchase or sell on account of their principals; and varies in different countries, and as it refers to different articles. It is customary for factors, as observed in the previous article, to insure the debts due to those for whom they sell for an additional, or *del credere*, commission, generally averaging from 1½ to 2 per cent. Factorage or commission is also frequently charged at a certain rate per cask, or other package, measure, or weight, especially when the factor is only employed to receive or deliver: this commission is usually fixed by special agreement between the merchant and factor.

Factorage, Brokerage, and Commission Table.

Amt.	At ⅛ per Ct.	At ¼ per Ct.	At ⅜ per Ct.	At ½ per Ct.	At ⅝ per Ct.	At ¾ per Ct.	At ⅞ per Ct.	At 1 per Ct.
£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1	0 0 0½	0 0 0½	0 0 0½	0 0 1	0 0 1¼	0 0 1½	0 0 2	0 0 2½
2	0 0 0½	0 0 1	0 0 1½	0 0 2½	0 0 3	0 0 3½	0 0 4	0 0 4½
3	0 0 0½	0 0 1½	0 0 2½	0 0 3½	0 0 4½	0 0 5¼	0 0 6¼	0 0 7
4	0 0 1	0 0 2	0 0 3	0 0 4½	0 0 6	0 0 7	0 0 8¼	0 0 9½
5	0 0 1¼	0 0 2½	0 0 4¼	0 0 5¼	0 0 7½	0 0 9	0 0 10¼	0 1 0
6	0 0 1½	0 0 3	0 0 4½	0 0 6	0 0 7½	0 0 9	0 0 10½	0 1 2
7	0 0 1¾	0 0 3½	0 0 5¼	0 0 7	0 0 8¾	0 0 10½	0 1 0½	0 1 4
8	0 0 2	0 0 4	0 0 6	0 0 8	0 0 10	0 1 0	0 1 2½	0 1 5½
9	0 0 2¼	0 0 4½	0 0 6¾	0 0 9	0 0 11¼	0 1 1½	0 1 4½	0 1 7
10	0 0 2½	0 0 5	0 0 7½	0 0 10	0 1 0	0 1 3	0 1 6½	0 1 9½
20	0 0 5	0 0 10	0 0 15	0 1 0	0 1 8	0 1 6	0 1 9	0 2 0
30	0 0 7½	0 1 0	0 1 6	0 1 6	0 2 0	0 2 3	0 2 6	0 2 6
40	0 0 10	0 1 6	0 2 3	0 2 0	0 2 6	0 3 0	0 3 3	0 3 0
50	0 1 0	0 2 0	0 3 0	0 2 6	0 3 3	0 3 9	0 4 0	0 4 0
60	0 1 3	0 2 6	0 3 9	0 3 0	0 4 0	0 4 6	0 4 9	0 5 0
70	0 1 6	0 2 9	0 4 6	0 3 6	0 4 6	0 5 3	0 5 6	0 6 0
80	0 1 9	0 3 0	0 4 9	0 4 0	0 5 0	0 6 0	0 6 6	0 6 8
90	0 2 0	0 3 6	0 5 3	0 4 6	0 5 6	0 6 6	0 7 6	0 7 6
100	0 2 3	0 4 0	0 6 0	0 5 0	0 6 3	0 7 6	0 8 3	0 8 4
200	0 4 6	0 8 0	0 12 0	0 10 0	0 12 6	0 15 0	0 17 6	0 16 8
300	0 7 0	0 12 0	0 18 0	0 15 0	0 18 9	1 2 6	1 6 0	1 5 0
400	0 9 6	0 16 0	1 4 0	0 20 0	1 5 0	1 10 0	1 14 6	1 13 4
500	0 12 0	1 0 0	1 10 0	1 5 0	1 11 3	1 17 6	2 3 9	2 1 8
600	0 14 6	1 4 0	1 16 0	1 10 0	1 17 6	2 5 0	2 12 6	2 10 0
700	0 17 0	1 8 0	2 2 0	1 15 0	2 3 9	2 12 6	3 1 3	2 18 4
800	0 19 6	1 12 0	2 8 0	2 0 0	2 10 0	3 0 0	3 10 0	3 6 8
900	1 2 0	1 16 0	2 14 0	2 5 0	2 16 3	3 7 6	3 18 9	3 15 0
1,000	1 4 6	1 20 0	3 0 0	2 10 0	3 2 6	3 15 0	4 7 6	4 3 4
2,000	2 9 0	2 16 0	4 10 0	3 0 0	4 5 0	5 10 0	6 15 0	5 16 8
3,000	3 13 6	3 12 0	5 0 0	4 10 0	5 7 6	6 5 0	7 2 6	7 10 0
4,000	4 18 0	4 8 0	6 10 0	5 0 0	6 10 0	7 0 0	8 10 0	8 3 4
5,000	6 2 6	5 4 0	7 0 0	6 5 0	7 12 6	8 15 0	9 17 6	9 16 8
10,000	12 5 0	10 8 0	14 0 0	12 10 0	15 0 0	17 10 0	20 0 0	19 13 4

Amt.	At 1¼ per Ct.	At 2 per Ct.	At 2½ per Ct.	At 3 per Ct.	At 4 per Ct.	At 4½ per Ct.	At 5 per Ct.
£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
2	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
3	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
4	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
5	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
6	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
7	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
8	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
9	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
10	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
20	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
30	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
40	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
50	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
60	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
70	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
80	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
90	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
100	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
200	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
300	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
400	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
500	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
600	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
700	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
800	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
900	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
1,000	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
2,000	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
3,000	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
4,000	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
5,000	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
10,000	0 0 0½	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0

FACTORY, in commerce, a place where merchants and factors reside, to negotiate business for themselves and their correspondents on commission. We have factories in China, Turkey, Russia, &c.

FAIRS AND MARKETS. These institutions are very closely allied. A fair, as the term is now generally understood, is only a greater species of market recurring at more distant intervals. Both are appropriated to the sale of one or more species of goods, the hiring of servants, or labourers, &c. : but fairs are, in most cases, attended by a greater concourse of people, for whose amusement various exhibitions are got up.

1. *Origin of Fairs.* — Institutions of this sort are peculiarly serviceable in the earlier stages of society, and in rude and inland countries. The number of shops, and the commodities in them, are then either comparatively limited, or they are but little frequented by dealers; so that it is for the advantage of all, that fairs should be established, and merchants induced to attend them. For this purpose various privileges have been annexed to fairs, and numerous facilities afforded to the disposal of property in them. To give them a greater degree of solemnity, they were originally, both in the ancient and modern world, associated with religious festivals. In most places, indeed, they are still held on the same day with the wake or feast of the saint to whom the church is dedicated; and till the practice was prohibited, it was customary, in England, to hold them in churchyards! — (*Jacob's Law Dict.* art. *Fair.*) But since the growth of towns, and the opportunities afforded for the disposal and purchase of all sorts of produce at the weekly or monthly markets held in them, the utility of fairs, in this country at least, has very much diminished; they have, also, lost much of their ancient splendour; and, though some of them are still well attended, and of real use, a good number might be advantageously suppressed.

But it is far otherwise in inland countries, where the facilities for carrying on commercial transactions are comparatively circumscribed. There it is of the utmost importance, that certain convenient places and specified periods should be appointed for the bringing together of commodities and dealers. This is not only the readiest and best means of promoting commerce, but also of softening national antipathies, and diffusing a knowledge of the products, arts, and customs of other countries.

2. *Establishment of English Fairs.* — No fair can be holden without grant from the Crown, or a prescription which supposes such grant. And before a patent is granted, it is usual to have a writ of *ad quod damnum* executed and returned, that it may not be issued to the prejudice of a similar establishment already existing. The grant usually contains a clause that it shall not be to the hurt of another fair or market; but this clause, if omitted, will be implied in law: for if the franchise occasion damage either to the king or a subject, in this or any other respect, it will be revoked; and a person, whose ancient title is prejudiced, is entitled to have a *scire facias* in the king's name to repeal the letters patent. If his Majesty grant power to hold a fair or market in a particular place, the lieges can resort to no other, even though it be inconvenient. But if no place be appointed, the grantees may keep the fair or market where they please, or rather where they can most conveniently.

3. *Times of holding Fairs and Markets.* — These are either determined by the letters patent appointing the fair or market, or by usage. The statute 2 Edw. 3. c. 15. enacts, that the duration of the fair shall be declared at its commencement, and that it shall not be continued beyond the specified time. By statute 5 Edw. 3. c. 5. any merchant selling goods after the stipulated time is to forfeit double the value of the goods sold.

4. *Effects of Sales in Fairs and Markets.* — A *bonâ fide* sale made in a fair or open market, in general, transfers the complete property of the thing sold to the vendee; so that, however vicious or illegal the title of the vendor may be, the vendee's is good against every one except the king. But the sale, in order to come within this rule, must take place *on the market day, and at the place assigned for the market.* The city of London is said to be a market overt every day of the week except Sunday; every shop being a market overt for such things as the shopkeeper professes to deal in. The property of goods may, however, be changed, and effectually transferred to the buyer, by a *bonâ fide* sale in a shop out of London, whether the shopkeeper be the vendor or vendee, if the goods are of the kind in which he trades. A wharf in London is not within the custom, and is not a market overt for articles brought there. But a sale in a market will not be binding, if it be such as carries with it a presumption of fraud: as, for example, if it take place in a back room, or secret place; if the sale be covinous, and intended to defraud the real owner; or if the buyer know that the vendor is not the real owner of the goods, &c. It is very difficult to transfer the property of horses, even when they are sold in an open market, without the consent of the real owner. — (See HORSES.)

5 *Court of Pié Poudre.* — To every fair or market there is incident, even without any express words in the grant, a court of *pié poudre*, in allusion to the dusty feet of the suitors. The steward or mayor may preside. It has cognizance of all questions as to contracts made in the market, respecting goods *bought and delivered there*, &c. Formerly *pié poudre* courts were held at every considerable fair: but they are now entirely laid aside.

6. *Clerk of the Market.* — Owners and governors of fairs are to take care that every thing be sold according to just weights and measures. And for that and other purposes they may appoint a clerk of the fair or market, who is to mark and allow all such weights, &c.; charging 1*d.* for sealing and marking a bushel, ½*d.* for marking a half bushel or peck, and ¼*d.* for marking a gallon, pottle, quart, pint, &c., under penalty of 5*l.* — (22 *Cha.* 2. c. 8.)

7. *Tolls.* — Being a matter of private benefit to the owners of fairs or markets, and not incident to them, tolls are not exigible unless specially granted in the patent: but the king may by a new grant authorise a reasonable toll to be taken. If the toll granted be excessive, the patent will be void. It is a general rule, unless changed by a contrary custom obtaining time out of mind, that no toll be paid for any thing brought to a fair or market, before the same is sold, and that it shall then be *paid by the buyer.*

The owner of a house next to a fair or market is not allowed to open his shop during such fair or market without paying *stallage* (toll for having a stall); on the ground that if he take the benefit of the market, he ought to pay the duties thereon. This regulation has been a good deal complained of.

The owners of fairs and markets are required by statute (2 & 3 Ph. and M. c. 7.) to appoint a person in a special open place to take the toll. The most important part of this person's duty has reference to his entering the horses sold with three distinguishing marks, and the names, &c. of those who buy and sell them. — (See HORSES.)

An action lies against any one who refuses to pay the customary toll.

(For further information as to British fairs and markets, see *Chitty on Commercial Law*, vol. ii. c. 9.)

The 3 Geo. 4. c. 55. enacts, that at all fairs held within 10 miles of Temple Bar, business and amusements of all kinds shall cease at 11 o'clock in the evening, and not re-commence before 6 o'clock in the morning, under a penalty of 40*s.* to be paid by any master, mistress, or other person, having the care or management of any house, shop, room, booth, standing, tent, caravan or wagon, where any breach of this enactment shall have been committed. Power is also given by the same act to any 2 justices of the peace, within their respective jurisdictions, to put a stop to any fair which is held without charter, prescription, or lawful authority.

8. *Principal British Fairs.* — Among these may be specified Stourbridge, in Worcestershire. Bristol has two considerable fairs, one in March and one in September. Exeter December fair, for cattle, horses, and most sorts of commodities. Weyhill fair, in Hampshire (October 10.), has, probably, the greatest display of sheep of any fair in the kingdom. Bartholomew fair, in London, used to be of considerable importance, but latterly it was appropriated only to shows of wild beasts, and such like exhibitions, and has, within these few years, been very properly suppressed. St. Faith's near Norwich (October 17.), is the principal English fair for Scotch cattle. They are sold to the graziers and feeders of Norfolk, Suffolk, Essex, &c., by whom they are fattened for the London markets, where they are met with in great abundance. But besides those sold at St. Faith's, large numbers of Scotch cattle are disposed of at Market Harborough, Carlisle, Ormskirk, and other places. Ipswich has two considerable fairs: one in August, for lambs; and one in September, for butter and cheese: it is reckoned that above 100,000 lambs are annually sold at the former. Woodborough-hill, in Dorset, for west country manufactures, as kerseys, druggets, &c. Woodstock October fair, for cheese. Northampton and Nottingham have each several large fairs, for horses, cattle, cheese, &c. The August fair of Horncastle, in Lincolnshire, is the largest horse fair in the kingdom, many thousand horses being exhibited for sale during its continuance: it is resorted to by crowds of dealers from all parts of Great Britain, by several from the Continent, and sometimes even from North America. Howden, in Yorkshire, has, also, a very large horse fair, particularly for Yorkshire hunters. Devizes, in Wiltshire, has several large fairs for sheep and cattle. There is usually a large display of cheese at the Gloucester April fair. A guild, or jubilee, commencing the last week of August, is held every twentieth year at Preston, in Lancashire; the last was held in 1842, and was well attended. The October fair of Market Harborough, Leicestershire, lasts 9 days, and a great deal of business is usually done in cattle, cheese, &c. Woodbridge Lady-day fair is celebrated for the show of Suffolk horses. Falkirk fair, or tryst, is one of the most important in Scotland, for the sale of cattle and sheep. The October fair of Ballinasloe, in the county Galway, is famous for the display of cattle and sheep; by far the largest proportion of these animals raised for sale in Connaught being disposed of at it. The sheep are generally from 3 to 4, the heifers from 3 to 4, and the bullocks from 4 to 5 years of age. They are mostly lean; and are kept for a year in Leinster before they are fit for the Dublin or Liverpool markets.

We subjoin an

Account of the Number of Sheep and Cattle exhibited at the October Fairs of Ballinasloe, in the undermentioned Years, from 1790 to 1858, both inclusive.

Years.	Sheep, total sold and unsold.	Horned Cattle, total sold and unsold.	Years.	Sheep, total sold and unsold.	Horned Cattle, total sold and unsold.	Years.	Sheep, total sold and unsold.	Horned Cattle, total sold and unsold.
1790	61,931	8,632	1819	78,222	9,758	1837	69,536	9,137
1795	68,217	7,996	1820	80,775	8,505	1838	92,269	14,143
1800	70,586	7,749	1821	83,100	7,284	1839	96,231	11,750
1804	87,464	8,801	1822	90,177	9,017	1840	91,282	12,208
1805	84,554	10,104	1823	95,999	10,909	1841	77,189	11,164
1806	87,395	12,190	1824	84,234	10,505	1842	78,815	14,564
1807	80,962	8,568	1825	90,265	10,266	1847	80,519	10,454
1808	82,799	9,327	1826	94,405	8,240	1848	67,045	8,162
1809	76,918	8,457	1827	91,375	8,349	1849	61,446	12,758
1810	91,001	7,258	1828	97,384	11,515	1850	54,072	15,795
1811	86,489	7,462	1829	86,119	9,243	1851	51,549	11,659
1812	83,529	9,988	1830	81,556	7,276	1852	52,187	11,803
1813	77,088	9,268	1831	62,176	7,269	1853	62,556	12,512
1814	80,280	9,611	1832	63,054	8,128	1854	79,899	18,409
1815	94,764	8,149	1833	56,412	8,761	1855	84,182	22,740
1816	78,553	8,183	1834	66,714	9,637	1856	99,658	26,123
1817	70,599	6,802	1835	62,431	8,584	1857	80,718	20,788
1818	70,877	9,610	1836	65,638	9,483	1858	97,779	25,046

9. *Principal French Fairs.*—Among these may be specified the fairs of St. Germain's, Lyons, Rheims, Chartres, Rouen, Bordeaux, Troyes, and Bayonne; but they are much fallen off.

The most important of the modern French fairs is that of Beaucaire, on the right bank of the Rhone opposite to Tarrascon, 14 miles E. Nismes. It is very favourably situated for an *entrepôt*, being, exclusive of the command of internal navigation afforded by the Rhone, connected by canals with the sea and the *Canal du Midi*. The fair, which commences on the 22d and finishes on the 28th of July, was formerly the greatest in Europe, and, though a good deal fallen off, it is still attended by a vast concourse of people, not from France only, but also from Switzerland, Germany, Italy, Spain, and the Levant. Almost every sort of article, whether of convenience or luxury, may then be met with in the town. It is said that the number of visitors still amounts to from 70,000 to 80,000, and the amount of business done to 150,000,000 fr.; but we have little doubt that these estimates are very greatly exaggerated; and that the first would be nearer the mark were it reduced to 50,000 or 60,000. All bills due at this fair are presented on the 27th, and protested on the 28th. A tribunal instituted for the purpose takes cognizance of and immediately settles all disputes growing out of transactions that take place at the fair. A military force attends to preserve order, and the prefect of the department, who is always present, entertains the principal merchants and strangers. — (See *Geographical Dictionary*, art. *Beaucaire*, and the authorities there referred to.)

10. *German Fairs.*—The principal German, or rather European, fairs, are those of Frankfort on the Maine, Frankfort on the Oder, and Leipsic. The concourse of merchants, and the business done at these fairs, are generally very great. They are copiously supplied with the cotton stuffs, twist, cloths, and hardware of England; the silks and jewellery of France; the printed cottons of Switzerland and Austria; the raw, manufactured, and literary products of Germany; the furs of the North; Turkey carpets; Cachemere shawls, &c.; and there, also, are to be found merchants of all countries, those of Ispahan negotiating with those of Montreal for the purchase of furs; and Georgians and Servians supplying themselves with the cottons of Manchester and the jewellery of Paris. There, in fact, are met the representatives, as it were, of every people in the world, labouring, though without intending it, to promote each other's interest, and to extend and strengthen those ties that bind together the great family of the human race.

The fairs at Frankfort on the Maine should begin, the first on Easter Tuesday, and the second on the Monday nearest to the 8th of September. Their duration is limited to 3 weeks, but they usually begin from 8 to 15 days before their legal commencement. Accounts are kept in rixdollars: 1 rixdollar of account = $1\frac{1}{2}$ florin, or $4\frac{1}{2}$ copsticks, or $22\frac{1}{2}$ batzen. The rixdollar = 3*s.* 1·8*d.*; so that the par of exchange is 141 batzen per 1*l.* sterling. 100 lbs. common Frankfort weight = 103 lbs. avoirdupois. The foot = 11·27 English inches.

The fairs at Frankfort on the Oder are 3 in number: viz. *Reminiscere*, in February or March; *St. Margaret*, in July; and *St. Martin*, in November. They ought, strictly speaking, to terminate in 8 days, but they usually extend to 15. The Prussian government gives every facility to those who attend these fairs. Accounts are kept in Prussian money, that is, in rixdollars of 2*s.* $11\frac{1}{4}$*d.* 100 lbs. Prussian = 103 lbs. avoirdupois. The foot = 12·356 English inches.

The fairs of Leipsic are still more celebrated than those of either Frankfort. They are held thrice a year, — on the 1st of January, at Easter, and at Michaelmas. The first is the least important. The Easter and Michaelmas fairs are famous, particularly

the former, for the vast number of new publications usually offered for sale. They are attended by all the principal booksellers of Germany, and by many from the adjoining countries, who adjust their accounts, learn the state of the trade in all parts of the world, and endeavour to form new connections. Most German publishers have agents in Leipsic; which is to the literature of Germany what London is to that of Great Britain. As many as 5,000 new publications have been in a single Leipsic catalogue! They are also great markets for Saxon woollens and other goods, British calicoes, French silks, and, in fact, for most descriptions of produce. The fairs ought to close in 8 days, but they usually continue for about 3 weeks.

No days of grace are allowed. The holder of a bill must demand payment on the day it becomes due; and, if not paid, he must have it protested on that very day, and returned by the first opportunity. If he neglect any of these regulations, he loses all right of recourse upon the drawer and indorsers. Money of account at Leipsic same as at Frankfort on the Maine. 100 lbs. Leipsic=103 lbs. avoirdupois. The foot = 11·11 English inches.—(*Kelly's Cambist; Manuel de Nelkenbrecher; Bowring's Report on the Prussian Commercial Union*, pp. 255—269, &c.)

Dr. Bright gives, in his *Travels in Hungary* (pp. 201—223.), an interesting account of the fairs held at Debretzin and Pesth. The latter has become the grand centre of Hungarian commerce; most part of which is conducted at its fairs.

11. *Italian Fairs.*—Of these, the most celebrated is that of Sinigaglia, a small but handsome town of the Papal dominions, on the Misa, near its confluence with the Adriatic. The fair commences on the 20th of July, and should terminate on the last day of that month, but it usually continues 8 or 10 days longer. The duties on goods brought to the fair are extremely moderate, and every thing is done to promote the convenience of those frequenting it. All sorts of cotton, woollen, and silk goods, colonial produce, iron and steel, hardware, jewellery, brandy and liqueurs, timber, drugs, spices, &c. are brought here by the English, French, Austrians, Swiss, &c. These are exchanged for the various raw and manufactured products of Italy and the Levant; consisting, among others, of raw, thrown, and wrought silks; oil, fruits, cheese, alum, soda, sumach, sulphur, &c. Accounts are kept in scudi of 20 soldi; the scudo = 4*s.* 4*d.* very nearly. 100 lbs. Sinigaglia = 73¾ avoirdupois. The ell or braccio measures 25·33 English inches. —(*Manuel de Nelkenbrecher; Macgregor's Tariffs, Italy*, p. 121.)

12. *Russian Fairs.*—These are numerous, and many of them are well attended. The most important is held at Nijnii-Novgorod, at the confluence of the Oka with the Wolga; lat. 56° 19′ 40″ N. lon. 44° 28′ 30″ E. Previously to 1817 this fair was held in a less convenient situation, at Makarieff, lower down the Wolga. But the buildings for the accommodation of the merchants at the latter having been accidentally burnt down in 1816, government took advantage of the circumstance to remove the fair to Nijnii. It is principally carried on within the new bazaars constructed for that purpose on the left bank of the Oka. These, which are divided into parallel rows or streets, are constructed of stone walls roofed with iron, having covered galleries in front supported by iron pillars. They are built on piles, and, to guard against inundations, the ground on which they stand has been raised about 20 feet. Being enclosed on 3 sides by canals, and on the 4th by a navigable inlet of the Oka, there is every facility for the delivery and shipment of goods. The establishment is of great extent, comprising 2,524 booths, and is admitted on all hands to be at once the largest and most perfect of its kind that is anywhere to be met with. But, in addition to the above, there are about as many shops and booths constructed of wood which belong to private parties. The fair begins in July, and continues for a month or 6 weeks.

The total value of all sorts of produce brought to the fair in 1852 amounted to 64,591,000 silv. roubles: of this sum Russian produce made 49,274,000 roub.; colonial and European produce, 3,754,000 do.; drugs and dye stuffs, 2,580,000 do.; Chinese produce, 6,886,000 do.; Persian produce 1,234,000 do.; with the produce of Khiva and Boukhara 886,000 do. The sales amounted to 56,264,000 roub. (*Tegoborski, Forces Productives de la Russie*, iii. 281.) The stationary population of the town, which may amount to about 25,000, is, during the fair, said to amount to from 100,000 to 130,000, including Chinese, Persians, Armenians, Tartars, Bokharians, &c. Theatrical exhibitions, shows of wild beasts, and other Bartholomew fair exhibitions, add to the attractions of the scene.

Another celebrated Russian fair is held, in the month of December, at Kiachta, in Mongolia, on the Chinese frontier, lat. 50° 21′ 5″ N., long. 106° 28′ 15″ E. The town is small, the population not exceeding 4,000 or 5,000; but by far the largest part of the commerce between the Russian and Chinese empires is transacted at its fair, and it is also the centre of the political intercourse between them. The commodities brought hither by the Russians consist principally of Russian and German broad cloths, furs, sheep and lamb skins, leather, coarse linens, worsted stuffs, cattle, &c., with, for the most part, bullion. These they exchange with the Chinese for tea, raw and manufactured silk, nankeens, porcelain, sugar candy, rhubarb, tobacco, musk, &c., the value of the articles, however, other than tea, being comparatively inconsiderable. The quantity of tea purchased at the Kiachta fairs by the Russians, which has latterly increased very considerably, amounted, in 1850, according to the official returns, to 210,179 poods, or 7,566,444 lbs. of very superior tea, worth about 2*s.* 6*d.* per lb., and 85,440 poods (3,076,840 lbs.) inferior or black tea. At an average of the 6 years ending with 1850, the total imports of all sorts of tea into Russia through Kiachta was estimated at 11,748,464 lbs. Eng. a year. According to the same accounts, the total value of the exports to China through Kiachta, in 1850, amounted to 6,916,071 silver

roubles, and that of the imports to about the same. The customs duty received at Kiachta in 1848 amounted to 923,554*l.* The Russian trade is in the hands of a comparatively small number of merchants, some of whom are very rich; that of the Chinese is much more diffused. Commodities may be conveyed from Kiachta to European Russia either by land or by water. In the former case, the journey takes a year; in the latter, it takes 3 years, or rather 3 very short summers; the rivers being for the most part of the year frozen over.)—*Schnitzler, Statistique Générale de l'Empire de la Russie*, p. 143, &c.) We subjoin

An Account of the principal Fairs in Russia, and of the Value of the Goods exhibited and sold at each in 1851.—(*Tegoborski*, iii. 288.)

Fairs.	Goods exhibited.	Goods sold.	Per Cent. Goods Sold.	Fairs.	Goods exhibited.	Goods sold.	Per Cent. Goods Sold.
	Sil. Roub.	*Sil. Roub.*			*Sil. Roub.*	*Sil. Roub.*	
Nijni-Novgorod -	60,976,000	53,690,000	88	Kharkoff, in August -	5,192,000	1,922,000	37
Irbit, gov. Perm -	35,531,000	28,741,000	81	Krolevitz, gov. Tchernigoff -	4,566,000	2,520,000	55
Kharkoff, in January -	12,770,000	7,938,000	62	Poltava, in February -	3,981,000	1,768,000	44
Poltava, in August -	9,216,000	5,100,000	59	Do. Feast of the Ascension	3,554,000	1,310,000	37
Korennaia, gov. Kourak	6,939,000	3,395,000	49	Other principal fairs -	94,982,000	12,182,000	48
Ouriourpinskaia, Don Cossack-	6,028,000	3,592,000	60	Totals -	173,755,000	122,168,000	70

13. *Turkish Fairs.* — Several important fairs, of which little or nothing is known in this country, are held at various places in European Turkey. Among others may be specified those of Usundji, or Usundjova, in Roumelia; Joanina, in Albania; Strouga on the lake of Ocrida; Novi-Bazar, in Upper Mœsia; Islivni, in Thrace; Prelip and Nicopoli, in Macedonia; Eski-Djouma, in Bulgaria; and Zeitoun and Pharsalia, in Thessaly.

The largest and most important of these fairs is that of Usundji, held at the village of that name, on the Usundji, a tributary of the Maritza, about 44 miles W. by N. Adrianople. It was visited by M. Blanqui in 1841, and by Mr. Spencer in 1850. The latter says (but statements of this sort are very apt to be exaggerated), that it was attended by from 80,000 to 100,000 people, who had journeyed hither from all parts of European Turkey for the purpose of disposing of their wool, hides, raw cotton, leeches, and other products of the country, and of purchasing in return the manufactures of the West. The show of the latter is very extensive. Sheds are erected in the village by government, which serve as warehouses for the merchants, and every house is converted into a han for the reception of strangers. But by far the greater number of the latter have, notwithstanding, to encamp with their camels, horses, &c., on the surrounding plain. Blanqui speaks in high terms of commendation of the good order that prevailed, in the absence of any thing like police, among the motley population at the fair. —(*Blanqui, Voyage en Bulgarie*, p. 252; *Spencer's Travels in European Turkey*, ii. 346, &c.)

This great fair, which lasts for 15 days (Blanqui) is held, like the other fairs, in autumn, immediately after harvest. But though it be largely frequented by German, Swiss, Italian, and Greek merchants, who transact a great amount of business, it is very little, if at all, known in England. This is the more surprising, seeing that we have consuls at Adrianople and other places not very distant from the seat of the fair. And it might have been supposed that these functionaries would have been anxious to send home the most ample details with respect to this and other fairs in their vicinity; describing the products which might be most advantageously bought and sold at these marts; the routes by which they might be most easily reached, and so forth. But if such reports any where exist, they have not, at all events, been published. And hence, probably, the fact of the business of these fairs being mostly in the hands of foreigners.

14. *Eastern Fairs.* — The most important fair in the Eastern world is that held at Mecca, during the resort of pilgrims in the month of Dhalhajja. It used to be frequented by many thousands of individuals of all ranks and orders, brought together from the remotest corners of the Mohammedan world; and though the numbers attending it have declined of late years, the concourse is still very great. — (See CARAVAN.)

Hurdwar, in Hindostan, in lat. 29° 57′ N., lon. 78° 2′ E., 117 miles N. E. from Delhi, is famous from its being one of the principal places of Hindoo pilgrimage, and the greatest fair in India. The town, which is but inconsiderable, is situated on the Ganges, at the point where that sacred stream issues from the mountains. The pilgrimage and fair are held together at the vernal equinox; and Europeans, nowise addicted to exaggeration, who have been repeatedly present on these occasions, estimate that from 200,000 to 300,000 strangers are then assembled in the town and its vicinity. But every twelfth year is reckoned peculiarly holy; and then it is supposed that from 1,000,000 to 1,500,000, and even 2,000,000 pilgrims and dealers are congregated together from all parts of India and countries to the north. In 1819, which happened to be a twelfth year, when the auspicious moment for bathing in the Ganges was announced to the impatient devotees, the rush was so tremendous that no fewer than 430 persons were either trampled to death under foot, or drowned in the river! The foreigners resorting to Hurdwar fair for commercial purposes only, consist principally of natives of Nepaul, the Punjab, and Peshwaur, with Afghans, Usbeck Tartars, &c. They import vast num-

bers of horses, cattle, and camels; Persian dried fruits, shawls, drugs, &c.: the returns are made in cotton piece goods, indigo, sugar, spices, and other tropical productions. The merchants never mention the price of their goods, but conduct the bargain by touching the different joints of their fingers, to hinder the bystanders gaining any information. During the Mahratta sway, a kind of poll-tax and duties on cattle were levied; but all is now free, without impost or molestation of any sort. Owing, also, to the precautions adopted by the British government, the most perfect order is preserved; much to the surprise and satisfaction of the natives; for, antecedent to our occupation of the country, the fairs usually ended in disorder and bloodshed. — (*Private Information*, and the excellent account of *Hurdwar* in *Hamilton's Gazetteer*.)

The fairs of Portobello, Vera Cruz, and Acapulco, once so famous, are now totally deserted; that of the Havannah is also much fallen off.

FATHOM, a measure of length, 6 feet, chiefly used for measuring the length of cordage, and the depth of water and mines.

FEATHERS, BED-FEATHERS (Fr. *Plumes, Plumes à lit;* Ger. *Federn, Bettfedern;* Du. *Bedveern, Pluimen;* It. *Piume;* Sp. *Plumas*), make a considerable article of commerce; particularly those of the ostrich, goose, heron, swan, peacock, and other poultry. The feathers of the ostrich have been held in the highest estimation from antiquity downwards, and have furnished favourite decorations for the fans and head-dresses of ladies, the helmets of warriors, and the most splendid processions. Many parts of Great Britain supply feathers for beds, and an inferior sort is brought from Ireland. Eider down, the finest variety of its class, is imported from the north of Europe; the ducks that supply it being inhabitants of Greenland, Iceland, and Norway. The eider duck breeds in the islands on the west of Scotland, but not in sufficient numbers to form a profitable branch of trade to the inhabitants. Hudson's Bay furnishes very fine feathers, especially for quills. The down of the swan is brought from Dantzic, as well as large quantities of superior feathers.

The duty on feathers was repealed in 1845. In 1852 the following quantities were imported and re-exported; viz.

	Imported.			Re-exported.				Imported.	Re-exported.
Feathers for beds -	- cwt.	2,541	3 19	535	1 17	Feathers, not otherwise described, undressed - value		£810 10 0	£993 0 0
ostrich, undressed -	- lb.	8,976	0 0	3,242	0 0				
paddy bird, undressed -	-	403	0 0	314	0 0				

FIDDLES, OR VIOLINS (Ger. *Violinen, Geigen;* Du. *Vioolen;* Fr. *Violons;* It. *Violini;* Sp. *Violines;* Rus. *Skripizii*), musical instruments, too well known to need any particular description. The finest-toned violins are those made in Italy; they are usually called Cremonas, from the name of the town where they were formerly manufactured in the highest perfection: 100 guineas and more have not unfrequently been given for a first-rate Cremona violin.

FIGS (Ger. *Feigen;* Du. *Vygen;* Fr. *Figues;* It. *Fichi;* Sp. *Higos;* Lat. *Fici, Caricæ;* Arab. *Teen*), the fruit of the fig tree (*Ficus carica*), a native of Asia, but early introduced into Europe.

It flourishes in Turkey, Greece, France, Spain, Italy, and Northern Africa, and even sometimes ripens its fruit in the open air in this country. Figs, when ripe, are, for the most part, dried in ovens to preserve them; and then packed very closely in the small chests and baskets in which we import them. The best come from Turkey; those of Kalamata, in the Morea, are said to be the most luscious. — (*Thomson's Dispensatory.*)

Dried figs form a very considerable article of commerce in Provence, Italy, and Spain; besides affording, as in the East, a principal article of sustenance for the population. In Spain, figs are chiefly exported from Andalusia and Valencia; but they are more or less abundant in every province. In the northern parts of France there are many fig gardens, particularly at Argenteuil.

In 1857, 35,953 cwt. figs were admitted to consumption. The duty, which was reduced in 1840 to 15*s.* 9*d.* a cwt., amounted to 28,314*l.* Of 48,693 cwt. figs imported in 1857 no fewer than 31,666 came from Turkey, 8,008 cwt. being supplied by Spain, 1,288 by Portugal, and 6,681 by Austria, probably at second hand from Turkey.

No abatement of duty is made on account of any damage received by figs.

FILE, FILES (Da. *File;* Du. *Vylen;* Fr. *Limes;* Ger. *Feilen;* It. *Lime*), an instrument of iron or forged steel, cut in little furrows, used to polish or smooth metals, timber, and other hard bodies.

FIR. See PINE.

FIRE-ARMS. Under this designation is comprised all sorts of guns, fowling-pieces, blunderbusses, pistols, &c. The manufacture of these weapons is of considerable importance; employing at all times, but especially during war, a large number of persons.

In consequence of the frequent occurrence of accidents from the bursting of insufficient barrels, the legislature has most properly interfered, not to regulate their manufacture, but to prevent all persons from using or selling barrels that have not been regularly *proved* in a public proof-house. The first act for this purpose was passed in 1813; but it was soon after superseded by a fuller and more complete one, the 55 G. 3. c. 59. This statute imposes a fine of 20*l.* on any person *using*, in any of the progressive stages

of its manufacture, any barrel not duly proved; on any person *delivering* the same, except through a proof-house; and on any person *receiving*, for the purpose of making guns, &c., any barrels which have not passed through a proof-house. These penalties to be levied on conviction before 2 justices: with like penalties, to be similarly levied, on persons counterfeiting the *proof-marks*.

FIRE-WORKS. By 9 & 10 Will. 3., all sorts of fire-works are declared to be a common nuisance: and the *making*, *causing to be made*, *giving*, *selling*, or *offering* for sale, any squibs, rockets, serpents, or *other fireworks*, or any cases or implements for making the same, is made subject to a penalty of *5l.*, to be recovered on conviction before a justice of the peace. Casting or firing any such fire-works, or permitting the same to be cast or fired, *from* any house or place, and casting or firing the same *into* any house, shop, street, highway, or river, is subjected to a penalty of 20*s.*, to be recovered in like manner; and if not immediately paid, the party to be imprisoned and kept to hard labour for any time not exceeding a month. But the statute provides, that it shall be lawful for the master, lieutenant, or commissioners of his Majesty's ordnance, or those authorised by them, to give orders for making any fire-works, to be used according to such orders.

FIRKIN, a measure of capacity, equal to 9 ale gallons, or 7½ Imperial gallons, or 2,538 cubic inches. —(See WEIGHTS AND MEASURES.)

FIRLOT, a dry measure used in Scotland. The Linlithgow wheat firlot is to the Imperial bushel as ·998 to 1; and the Linlithgow barley firlot is to the Imperial bushel as 1·456 is to 1. —(See WEIGHTS AND MEASURES.)

FISH (Ger. *Fische*; Du. *Visschen*; Da. and Sw. *Fisk*; Fr. *Poissons*; It. *Pesci*; Sp. *Pescados*; Port. *Peixes*; Rus. *Riib*; Pol. *Rybi*; Lat. *Pisces*), a term used in natural history to denote every variety of animal inhabiting seas, rivers, lakes, ponds, &c. that cannot exist for any considerable time out of the water. But in a commercial point of view, those fishes only are referred to, that are caught by man, and used either as food or for some other useful purpose. Of these, herring, salmon, cod, pilchard, mackarel, turbot, lobster, oyster, whale, &c. are among the most important. —(See the different articles under these titles.)

The supply of fish in the seas round Britain is most abundant, or rather quite inexhaustible. "The coasts of Great Britain," says Sir John Boroughs, "doe yield such a continued sea harvest of gain and benefit to all those that with diligence doe labour in the same, that no time or season of the yeare passeth away without some apparent meanes of profitable employment, especially to such as apply themselves to fishing; which, from the beginning of the year unto the latter end, continueth upon some part or other upon our coastes; and these in such infinite shoales and multitudes of fishes are offered to the takers, as may justly move admiration, not only to strangers, but to those that daily are employed amongst them."—"That this harvest," says Mr. Barrow, "ripe for gathering at all seasons of the year — without the labour of tillage, without expense of seed or manure, without the payment of rent or taxes — is inexhaustible, the extraordinary fecundity of the most valuable kinds of fish would alone afford abundant proof. To enumerate the thousands, and even millions of eggs, which are impregnated in the herring, the cod, the ling, and indeed in almost the whole of the esculent fish, would give but an inadequate idea of the prodigious multitudes in which they flock to our shores; the shoals themselves must be seen, in order to convey to the mind any just notion of their aggregate mass."—(For an account of the shoals of herrings, see HERRING.)

But, notwithstanding these statements, there has been, for these some years past, a growing complaint of a scarcity of such fish as breed in the channel; and it is affirmed, in the report of the Commons' committee of 1833, on the Channel fisheries, that the fact of such scarcity existing has been completely established. The committee ascribe it to various causes, but principally to the destruction of the spawn or brood of fish, by fishing with trawl or drag nets with small meshes, near the shore, during the breeding season; a practice prohibited by several statutes, which seem, however, to have fallen into disuse. The committee represent the fishermen as being generally in a very depressed state, and that the business is, for the most part, very unprofitable. We believe that this is the fact; but we do not know any period when the same might not have been said with quite as much truth as at present. Smith has remarked, that from the age of Theocritus downwards, fishermen have been proverbially poor—(*Wealth of Nations*, p. 45.); and a library might be filled with the acts, reports, plans, tracts, &c. that have been printed in this country during the last 2 centuries, containing regulations, schemes, suggestions, &c. for the improvement of fisheries and fishermen. But it is not too much to say, that not one of these well-meant endeavours, notwithstanding the enormous expense incurred in carrying some of them into effect, has been productive of any material advantage! and we see no reason to think that the suggestions of the late committee, supposing they were to be acted upon, would have any better success.

The injury done to the breeding grounds might, perhaps, be obviated; but besides this, the committee laid much stress on the encroachments of the French and other

foreign fishermen, and on the licence given to import foreign-caught turbot, &c. duty free! We confess, it appears to us quite visionary to suppose that these circumstances could have much influence. Our fishermen, living upon the very shores of the bays to which the French are said to resort, have advantages on their side sufficient, surely, to insure them a superiority, without the forcible expulsion, supposing that could be accomplished, of their foreign competitors. A man who does not succeed in a business carried on at his own door so well as one who resides 100 miles off, must look for the cause in his want of skill or industry; and should seek rather to improve himself than to discard his rival. The proposition for excluding turbot, &c. of foreign catch, is one that could not be listened to for a single moment. Such exclusion would not be of the slightest advantage to the British fishermen, unless it occasioned a rise in the price of the fish; and we need not say, that if the legislature interfere at all in the matter, it should have for its object the lowering, not the raising of prices. We are glad, however, to have to state that a convention for fixing the limits of the oyster and other fisheries on the coasts of the U. Kingdom and of France, was signed at Paris on the 2d of August, 1839.

All that it is possible to do for the fishery, by relieving it from tithes and other burdens, and facilitating the disposal of the fish in the markets of this and other countries, should be done; but, except in so far as its interests may be promoted in this way, and, perhaps, by some new regulations for preserving the brood, we do not see what more is to be done by legislative interference. It will be seen, in our articles on the herring and whale fisheries, that the bounty system was attended with vast expense, without leading to any useful result. All sorts of fish, of whatever take, are now admitted free of duty.

The price of fish in the metropolis, though much reduced of late years, is still very high, at least as compared with beef. This has been pretty generally believed to be in no small degree owing to the salesmen of Billingsgate market being able, in great measure, to regulate both the supply of the article and its price. The committee of 1833, however, declared, that though they minutely examined the subject, it did not appear that any improper monopoly or injurious regulations subsisted either in the mode of supplying the market, or in the sale of the fish.

Down to a comparatively late period the consumption of fish, except in the metropolis and a few seaport towns, was but inconsiderable. This was not so much a consequence of the scarcity or high price of fish, as of the difficulty and expense of its conveyance into the country, where, indeed, it could hardly be had quite fresh. But the opening of railroads from the sea-ports to all parts of the interior has obviated this difficulty. And fish brought to London, Yarmouth, Scarborough, &c., in the morning, may be served up at dinner on the same day at Derby, Birmingham, and other towns in the centre of the kingdom. There has been, in consequence, an extraordinary increase in the consumption of fish in the central parts of the country. Birmingham, for example, imported only about 400 tons of fish in 1829; in 1835 the importation had increased to about 1,000 tons; in 1840, to 2,500 tons; and in 1845 to 3,910 tons! And it has since gone on increasing. (*Statistical Account of the British Empire*, 3rd ed. i. 625).— The demand for fish in other central towns has been similarly augmented.

Sir John Barrow, in a valuable article on the fisheries, in the *Encyclopædia Britannica*, estimated the value of the entire annual produce of the foreign and domestic fisheries of Great Britain at 8,300,000*l*. But it is admitted by every one who knows any thing of the subject, that this estimate is very greatly exaggerated. We doubt much, whether the entire value of the fisheries can be reckoned so high as 5,500,000*l*.

FLAX (Ger. *Flachs*; Du. *Vlasch*; Fr. *Lin*; It. and Sp. *Lino*; Rus. *Len*; *Lon*; Pol, *Len*; Lat. *Linum*), an important plant (*Linum usitatissimum*) that has been cultivated from the earliest ages in Great Britain and many other countries; its fibres being manufactured into thread, and its seed crushed for oil. But in general we have been in the habit of importing a large proportion of our supplies. The premiums given by the legislature to force the cultivation of flax had little effect; the fact being, as Mr. Loudon has stated, that its culture is found to be, on the whole, less profitable than that of corn. When allowed to ripen its seed, it is one of the most severe crops.

Probably, however, the case may be different in Ireland, the soil and climate of which appear to be better suited than those of Britain to the growth of flax. There, at all events, its cultivation has been rapidly extended within the last few years. This is evinced by the fact that while the land under flax in Ireland in 1847 amounted to only 58,312 acres, it had increased in 1851 to 140,356 acres. This extension has been, however, owing, in great measure, to the exertions of a society for promoting the growth of flax, and it remains to be seen whether it be really an advantage.

Russia supplies by far the largest portion of the flax imported into this country, the principal sorts being Petersburg, Narva, Riga, Revel, Pernau, Liebau, Memel, and Oberland. Petersburg and Narva flax are nearly of the same quality, the latter being but little inferior to the former. Both sorts come to us in bundles of 12, 9, and 6 heads. The Riga flax seems to deserve the preference of any imported from the Baltic. It is the growth of the provinces of Marienburg, Druania, Thiesenhausen, and Lithuania.

The best Marienburg is called simply Marienburg (M), or Marienburg clean; the second quality, cut (GM); and the third, *risten drayband* (RD); of the three other provinces, the first quality bears the name of *rakitzer*; — as *Druania rakitzer* (DR), *Thiesenhausen rakitzer* (TR), and *Lithuania rakitzer* (LR). The cut flax of these three provinces is the second quality: and to the third quality belong the *badstub* and *badstub cut* (B and BG); the *paternoster* (PN); and *hafs three band* (HD). *Badstub* and *paternoster* are the refuse of the *rakitzer* flax, and the *three band* again the refuse of the former sorts, and consequently very ordinary. The Revel and Pernau consists of Marienburg, *cut*, *risten*, *hafs three band*, and *three band*. The Liebau and Memel growths are distinguished by the denomination of *four* and *three band*. These two sorts, as well as the Oberland flax, come from Königsberg, Elbing, &c., and are little esteemed in the British markets.

Flanders or Dutch flax is well dressed, and of the finest quality.

Flax is extensively cultivated in Egypt. Of late years, some of the Italian ports, which used to be supplied from Russia, have been fully supplied on lower terms from Alexandria.

The *Phormium tenax*, or New Zealand flax, has been said to exceed every other species in strength of fibre and whiteness; qualities (which if it really possess them in the degree stated) must make it peculiarly well fitted for being made into canvas and cordage. In point of fact, however, there is a great diversity of opinion as to its real merits, and it fetches at present but a low price. In 1831 and 1832 the imports of New Zealand flax amounted respectively to 15,725 and 15,867 cwts.; but they fell off in 1835 to 7,812 cwts., and since then only trifling quantities have been imported. It is alleged that this is a consequence of the imperfect preparation of the flax, which has hitherto been entirely intrusted to the native women. But without presuming to say whether the defects with which it is charged be inherent in the flax itself, or depend on its preparation, it is abundantly certain that, unless it be furnished of a superior quality, it will not suit our markets.

When flax is brought to the principal Russian ports whence it is shipped, it is classified according to its qualities, and made up in bundles by sworn inspectors (*brackers*) appointed by government for the assortment of that and all other merchandise. These functionaries are said to perform their task with laudable impartiality and exactness. A ticket is attached to every bundle of assorted flax, containing the names of the inspector and owner, the sort of flax, and the period when it was selected or inspected. —(See HEMP.) Good flax should be of a fine bright colour, well separated from the tow, codilla, or coarser portion of the plant; and of a long, fine, and strong fibre. In purchasing flax, it is usual to employ agents wholly devoted to this peculiar business.

Account of the Quantities and Values of the Flax and Tow, and Codilla of Flax, imported into the United Kingdom in 1857, specifying the Countries from which they were brought, and the Quantities and Values brought from each.

Flax.			Tow and Codilla of Flax.		
Whence imported.	Quantities.	Computed Value of Imports.	Whence imported.	Quantities.	Computed Value of Imports.
Russia	cwts. 1,081,657	£1,924,707	Russia	cwts. 193,195	£281,996
Prussia	265,177	475,154	Prussia	10,359	15,110
Holland	120,374	320,928	Hanover	4,682	6,685
Belgium	120,913	353,599	Hanse Towns	6,715	9,448
France	24,253	70,597	Holland	23,736	33,324
Egypt	6,099	7,463	Belgium	1,389	1,888
Other parts	3,916	7,979	Other parts	1,910	2,657
Total	1,620,789	3,160,427	Total	241,986	354,088

The duty on flax, which previously to 1845 was only 1*d.* a cwt., was repealed in the course of that year. For an account of the exports of flax and hemp from Russia, see Petersburg.

Charges at Petersburg on 12 Head Flax, per ton.

Circa, 16 bobbins = 63 poods = 1 ton.

	Pap. rou. cop.
Duty, 540 cop. per bercovitz	34 2
Quarantine duty, 1 per cent.	0 34
Additional duty, 10 per cent.	3 40
	R. 37 76
Custom-house charges, 4 per cent.	1 51
Receiving and weighing, 40 cop. per bobbin	6 40
Bracking, 1 roub. per bercovitz	6 30
Binding, 75 cop. per ditto	4 72
Lighterage and attendance to Cronstadt, 8 rou. per 60 poods	8 40
Mats	8 0
Brokerage, 60 cop. per ton	0 60
Fixed charges	*R.* 73 69

Brokerage, ½ per cent.
Commission and extra charges, 3 per cent.
Stamps, ¼ per cent.
Brokerage on bills, ½ per cent. } ¼ per cent.
are charges varying according to the price paid.

Riga flax is bought at so much per shippound. 6 shippound = 1 ton.

The charges of importation are the same, or nearly so, as on Petersburg flax.

Charges here, per ton, taking the price at 45*l.*

	£	*s.*	*d.*
Insurance, 12*s.* 6*d.* per cent., and policy, during the summer, for best risks	0	6	9
Sound dues	0	5	6
Freight, say 52*s.* 6*d.* per ton in full	2	12	6
Customs	0	1	8
Landing charges	1	11	0
Discount, 5½ per cent. (being sold at 9 months' credit)	1	13	9
Brokerage, ½ per cent.	0	4	6
	£5	15	8
Loss by tare, 2 per cent.	0	18	0
	6	13	8

9 Head Flax.

26 bobbins = 63 poods = 1 ton. *Rou. cop.*

Fixed charges at Petersburg amount to 80 35

The other charges same as on 12 head; the charges of import may be called the same as on 12 head also, the difference being only on the value; which makes the insurance, discount, and brokerage, of less amount. The increase of fixed charges at Petersburg is owing to the larger number of bobbins to the ton.

6 Head Flax.

47 bobbins = 63 poods = 1 ton. *Rou. cop.*

Fixed charges, per ton 91 57

Other charges, *vide suprà*

FLAX-SEED, or LINSEED (Fr. *Lin, Graine de Lin*; Ger. *Leinsaat*; Du. *Lynzaad*; It. *Linseme*; Sp. *Linaza*; Port. *Linhaca*; Pol. *Siemie, Inlane*; Rus. *Semja lenjanoe*; Lat. *Lini semen*), the seed of flax. It contains a great deal of oil, which it yields by expression; and is cultivated either that it may be used in sowing, or sent to the crushing mills to be converted into oil.

As the quality of the crop depends much on the seed employed, a good deal of care is requisite in selecting the best. Generally speaking, it should be chosen of a bright, brownish colour, oily to the feel, heavy, and quite fresh. Dutch seed is in the highest estimation for sowing; it not only ripens sooner than any other that is imported, but produces larger crops, and of the quality that best suits our principal manufactures. American seed produces fine flax, but the produce is not so large as from Dutch seed. British flax-seed is sometimes used instead of Dutch; but the risk of the crop misgiving is so much greater, "that those only who are ignorant of the consequences, or who are compelled from necessity, are chargeable with this act of ill-judged parsimony."—(*Loudon's Enc. of Agriculture.*) Crushing seed is principally imported from Russia, but considerable quantities are also brought from India, Italy, and Egypt.

Account of the Quantities and Values of Flax and Linseed imported into the U. Kingdom in 1857, specifying the Countries from which they were brought, and the Quantities and Values brought from each.

Whence imported.	Quantities.	Computed Value of Imports.	Whence imported.	Quantities.	Computed Value of Imports.
Russia - -	685,569 qrs.	£1,962,462	Egypt - -	35,498 qrs	£103,429
Prussia - -	69,393	194,773	United States - -	16,687	41,161
Hanse Towns -	2,822	8,157	British East Indies -	209,277	649,427
Holland - -	7,977	28,299	Other parts - -	10,643	31,475
France - -	4,906	14,788			
Two Sicilies -	4,742	12,906	Total - -	1,051,113	3,061,684
Austrian Italy -	3,669	11,807			

Account of the Quantities of Flax and Linseed imported into the U. Kingdom in each of the 7 Years ending with 1858.

	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Flax and linseed - - qrs.	799,402	1,035,335	848,513	756,951	1,180,180	1,051,113	1,017,844

The duty of 1*d.* per quarter formerly imposed on flax-seed and linseed was repealed in 1846.

FLOTSAM, JETSAM, AND LAGAN. In order to constitute a legal wreck, the goods must come to land. If they continue at sea, the law distinguishes them by the foregoing uncouth and barbarous appellations: *flotsam* is when the goods continue swimming on the surface of the waves; *jetsam* is when they are sunk under the surface of the water; and *lagan* is when they are sunk, but tied to a cork or buoy to be found again. —(*Blackstone*, book i. c. 8.) Foreign liquors, brought or coming into Great Britain or Ireland, as derelict, flotsam, &c., are to pay the same duties and receive the same drawbacks as similar liquors regularly imported.

FLOUR (Ger. *Feines mehl, Semmelmehl*; Du. *Bloem*; Fr. *Fleur de Farine*; It. *Fiore*; Sp. *Flor*), the meal of wheat corn, finely ground and sifted. There are three qualities of flour, denominated *firsts, seconds,* and *thirds,* of which the first is the purest. — (See CORN LAWS AND CORN TRADE.)

FOOT, a measure of length, consisting of 12 inches. —(See WEIGHTS AND MEASURES.)

FORESTALLING, the buying or contracting for any cattle, provision, or merchandise, on its way to the market, or dissuading persons from buying their goods there, or persuading them to raise the price, or spreading any false rumour with intent to enhance the value of any article. In the remoter periods of our history several statutes were passed, prohibiting forestalling under severe penalties; but as more enlarged views upon such subjects began to prevail, their impolicy became obvious, and they were consequently repealed in 1772. But forestalling is still punishable at common law by fine and imprisonment; though it be doubtful whether any jury would now convict an individual accused of such practices.—(*Wealth of Nations*, p. 237.)

FRANKINCENSE. See ROSIN.

FREIGHT, the sum paid by the merchant or other person hiring a ship, or part of a ship, for the use of such ship or part, during a specified voyage or for a specified time.

The freight is most commonly fixed by the charterparty—(see CHARTERPARTY)—or bill of lading—(see BILL OF LADING); but in the absence of any formal stipulations on the subject, it would be due according to the custom or usage of trade.

In the case of a charterparty, if the stipulated payment be a gross sum for an entire ship, or an entire part of a ship, for the whole voyage, the gross sum will be payable

although the merchant has not fully laden the ship. And if a certain sum be stipulated for every ton, or other portion of the ship's capacity, for the whole voyage, the payment must be according to the number of tons, &c. which the ship is proved capable of containing, without regard to the quantity actually put on board by the merchant. On the other hand, if the merchant have stipulated to pay a certain sum per cask or bale of goods, the payment must be, in the first place, according to the number of casks and bales shipped and delivered; and if he have further covenanted to furnish a complete lading, or a specific number of casks or bales, and failed to do so, he must make good the loss which the owners have sustained by his failure.

If an entire ship be hired, and the burden thereof be expressed in the charterparty, and the merchant bind himself to pay a certain sum for every ton, &c. of goods which he shall lade on board, but does not bind himself to furnish a complete lading, the owners can only demand payment for the quantity of goods actually shipped. But if the merchant agree to load a full and complete cargo, though the ship be described as of less burden than she really is, the merchant must load a full cargo, according to the *real burden* of the ship, and he will be liable for freight according to what ought to be loaded.

The delivery of goods at the place of destination is in general necessary to entitle the owner to freight; but with respect to living animals, whether men or cattle, which may frequently die during the voyage, without any fault or neglect of the persons belonging to the ship, it is ruled, that if there be no express agreement whether the freight is to be paid for the lading, or for the transporting them, freight shall be paid as well for the dead as for the living: if the agreement be to pay freight for the *lading*, then death certainly cannot deprive the owners of the freight; but if the agreement be to pay freight for *transporting* them, then no freight is due for those that die on the voyage, because as to them the contract is not performed. These distinctions have been made in the civil law, and have been adopted into the modern systems of maritime law.

Freight is most frequently contracted to be paid either by the whole voyage, or by the month, or other time. In the former case the owners take upon themselves the chance of the voyage being long or short: but in the latter the risk of the duration falls upon the merchant; and if no time be fixed for the commencement of the computation, it will begin from the day on which the ship breaks ground and commences her voyage, and will continue during the whole course of the voyage, and during all unavoidable delays *not occasioned by the act or neglect of the owners or master*, or by such circumstances as occasion a suspension of the contract for a particular period. Thus, the freight will be payable for the time consumed in necessary repairs during a voyage, provided it do not appear that the ship was insufficient at the outset, or that there was any improper delay in repairing her.

In the absence of an express contract to the contrary, the entire freight is not earned until the whole cargo be ready for delivery, or has been delivered to the consignee according to the contract for its conveyance.

If a consignee receive goods in pursuance of the usual bill of lading, by which it is expressed that he is to pay the freight, he, by such receipt, makes himself debtor for the freight, and may be sued for it. But a person who is only an agent for the consignor, and who is known to the master to be acting in that character, does not make himself personally answerable for the freight by receiving the goods, although he also enters them in his own name at the Custom-house.

In some cases freight is to be paid, or rather an equivalent recompence made to the owners, although the goods have not been delivered at the place of destination, and though the contract for conveyance be not strictly performed. Thus, if part of the cargo be thrown overboard for the necessary preservation of the ship and the remainder of the goods, and the ship afterwards reach the place of destination, the value of this part is to be answered to the merchant by way of general average, and the value of the freight thereof allowed to the owner. So, if the master be compelled by necessity to sell a part of the cargo for victuals or repairs, the owners must pay to the merchant the price which the goods would have fetched *at the place of destination;* and, therefore, are allowed to charge the merchant with the money that would have been due if they had been conveyed thither.

When goods are deteriorated during a voyage, the merchant is entitled to a compensation, provided the deterioration has proceeded from the fault or neglect of the master or mariners; and of course he is not answerable for the freight, unless he accept the goods, except by way of deduction from the amount of the compensation. On the other hand, if the deterioration has proceeded from a principle of decay naturally inherent in the commodity itself, whether active in every situation, or in the confinement and closeness of a ship, or from the perils of the sea, or the act of God, the merchant must bear the loss and pay the freight; for the master and owners are in no fault, nor does their contract contain any insurance or warranty against such an event. In our West India

trade, the freight of sugar and molasses is usually regulated by the weight of the casks at the port of delivery here, which, in fact, is in every instance less than the weight at the time of the shipment; and, therefore, the loss of freight occasioned by the leakage necessarily falls upon the owners of the ship by the nature of the contract.

Different opinions have been entertained by Valin, Pothier, and other great authorities as to maritime law, with respect to the expediency of allowing the merchant to abandon his goods for freight in the event of their being damaged. This question has not been judicially decided in this country. "The only point," says Lord Tenterden, "intended to be proposed by me as doubtful, is the right to abandon for freight alone at the port of destination: and in point of practice, I have been informed that this right is never claimed in this country."—(*Law of Shipping*, part iii. c. 7.)

Freight being the return made for the conveyance of goods or passengers to a particular destination, no claim arises for its payment in the event of a total loss; and it is laid down by Lord Mansfield, that "in case of a total loss with salvage, the merchant may either take the part saved, or abandon."—(*Abbott*, part iii. c. 7.) But after the merchant has made his election, he must abide by it.

It often happens that a ship is hired by a charterparty to sail from one port to another, and thence back to the first—as, for example, from London to Leghorn, and from Leghorn back to London—at a certain sum to be paid for every month or other period of the duration of the employment. Upon such a contract, *if the whole be one entire voyage*, and the ship sail in safety to Leghorn, and there deliver the goods of the merchant and take others on board to be brought to London, but happen to be lost in her return thither, nothing is due for freight, although the merchant has had the benefit of the voyage to Leghorn; but, *if the outward and homeward voyages be distinct*, freight will be due for the proportion of the time employed in the outward voyage. "If," said Lord Mansfield, in a case of this sort, "there be *one entire voyage out and in*, and the ship be cast away on the homeward voyage, no freight is due; no wages are due, because the whole profit is lost; and by express agreement the parties may make the outward and homeward voyage one. Nothing is more common than two voyages: *wherever there are two voyages, and one is performed*, and the ship is lost on the homeward voyage, freight is due for the first."—(*K. B. Trin. Term*, 16 *Geo.* 3.)

It frequently happens that the master or owner fails to complete his contract, either by not delivering the whole goods to the consignee or owner, or by delivering them at a place short of their original destination; in these cases, if the owner or consignee of the goods *derive any benefit from their conveyance*, he is liable to the payment of freight according to the proportion of the voyage performed, or *pro ratâ itineris peracti*: and though contracts of this nature be frequently entire and indivisible, and the master or owner of the ship cannot, from their nature, sue thereon, and recover a rateable freight, or *pro ratâ itineris*; yet he may do so upon a fresh *implied* contract, for as much as he deserves to have, unless there be an express clause in the original charterparty or contract to the contrary. A fresh implied contract is inferred from the owner's or consignee's acceptance of the goods. Many difficulties have, indeed, arisen in deciding as to what shall amount to an acceptance: it is not, however, necessary actually to receive the goods; acceptance may be made by the express or implied directions, and with the consent, of the owner or consignee of the goods, but not otherwise.

It sometimes happens that the owner of the ship, who is originally entitled to the freight, sells or otherwise disposes of his interest in the ship, where a chartered ship is sold *before* the voyage, the vendee, and not the vendor or party to whom he afterwards assigns the charterparty, is entitled to the freight. But where a ship has been sold *during* the voyage, the owner, with whom a covenant to pay freight has been made, is entitled to the freight, and not the vendee. A mortgagee who does not take possession, is not entitled to the freight.

The time and manner of paying freight are frequently regulated by express stipulations in a charterparty, or other written contract; and when that is the case, they must be respected: but if there be no express stipulation contrary to or inconsistent with the right of *lien*, the goods remain as a security till the freight is paid; for the master is not bound to deliver them, or any part of them, without payment of the freight and other charges in respect thereof. But the master cannot detain the cargo on board the vessel till these payments be made, as the merchant would, in that case, have no opportunity of examining the condition of the goods. In England, the practice is, when the master is doubtful of payment, to send such goods as are not required to be landed at any particular wharf, to a public wharf, ordering the wharfinger not to part with them till the freight and other charges are paid. No right of lien for freight can exist, unless the freight be earned; if the freighter or a stranger prevent the freight from becoming due, the ship owner or master's remedy is by action of damages.

(For further information and details with respect to this subject, see the art. CHARTER-

FARTY, in this Dictionary; *Abbot* (Lord Tenterden) *on the Law of Shipping*, part. iii. c. 7.; *Chitty's Commercial Law*, vol. iii. c. 9.; *Molloy de Jure Maritimo*, book ii. c. 4., *&c.*)

FRUIT (Ger. *Obst, Früchte;* Du. *Ooft;* Fr. *Fruit;* It. *Frutta, Frutte;* Sp. *Fruta;* Rus. *Owoschtsch;* Lat. *Fructum*). This appellation is bestowed by commercial men upon those species of fruit, such as oranges, lemons, almonds, raisins, currants, apples, &c., which constitute articles of importation from foreign countries.

FULLERS' EARTH (Ger. *Walkererde;* Du. *Voläarde;* Fr. *Terre à foulon;* It. *Terra da purgatori;* Sp. *Tierra de batan;* Rus. *Schiffernaia;* Lat. *Terra fullonum*), a species of clay, of a greenish white, greenish grey, olive and oil green, and sometimes spotted colour. It is usually opaque, very soft, and feels greasy. It is used by fullers to take grease out of cloth before they apply the soap. The best is found in Buckinghamshire and Surrey. When good, it has a greenish white, or greenish grey colour, falls into powder in water, appears to melt on the tongue like butter, communicates a milky hue to water, and deposits very little sand when mixed with boiling water. The remarkable detersive property on woollen cloth depends on the alumina, which should be at least one fifth of the whole, but not much more than one fourth, lest it become too tenacious. — (*Thomson's Chemistry; Jameson's Mineralogy.*) Malcolm, in his *Survey of Surrey*, published in 1809, says that he took considerable pains in endeavouring to ascertain the consumption of fullers' earth, and that he found it to be about 6,300 tons a year for the entire kingdom, of which about 4,000 tons were furnished by Surrey.

FUNDS (PUBLIC), the name given to the public funded debt due by government.

The practice of borrowing money in order to defray a part of the war expenditure began, in this country, in the reign of William III. In the infancy of the practice, it was customary to borrow upon the security of some tax, or portion of a tax, set apart as a fund for discharging the principal and interest of the sum borrowed. This discharge was, however, very rarely effected. The public exigencies still continuing, the loans were, in most cases, either continued, or the taxes were again mortgaged for fresh ones. At length the practice of borrowing for a fixed period, or, as it is commonly termed, upon *terminable* annuities, was almost entirely abandoned, and most loans were made upon *interminable* annuities, or until such time as it might be convenient for government to pay off the principal.

In the beginning of the funding system, the term fund meant the taxes or funds appropriated to the discharge of the principal and interest of loans; those who held government securities, and sold them to others, selling, of course, a corresponding claim upon some fund. But after the debt began to grow large, and the practice of borrowing upon interminable annuities had been introduced, the meaning attached to the term fund was gradually changed; and instead of signifying the security upon which loans were advanced, it has, for a long time, signified the principal of the loans themselves.

Owing partly, perhaps, to the scarcity of disposable capital at the time, but far more to the supposed insecurity of the Revolutionary establishment, the rate of interest paid by government in the early part of the funding system was, comparatively, high. But as the country became richer, and the confidence of the public in the stability of government was increased, ministers were enabled to take measures for reducing the interest, first in 1716, and again in 1749.

During the reigns of William III. and Anne, the interest stipulated for loans was very various. But in the reign of George II. a different practice was adopted. Instead of varying the interest upon the loan according to the state of the money market at the time, the rate of interest was generally fixed at *three* or *three and a half* per cent.; the necessary variation being made in the principal funded. Thus, suppose government were anxious to borrow, that they preferred borrowing in a 3 per cent. stock, and that they could not negotiate a loan for less than 4½ per cent.; they effected their object by giving the lender, in return for every 100*l.* advanced, 150*l.* 3 per cent. stock; that is, they bound the country to pay him or his assignees 4*l.* 10*s.* a year in all time to come, or, otherwise, to extinguish the debt by a payment of 150*l.* In consequence of the prevalence of this practice, the principal of the debt now existing amounts to nearly *two fifths* more than the sum actually advanced by the lenders.

Some advantages are, however, derivable, or supposed to be derivable, from this system. It renders the management of the debt, and its transfer, more simple and commodious than it would have been, had it consisted of a great number of funds bearing different rates of interest: and it is contended, that the greater field for speculation afforded to the dealers in stocks bearing a low rate of interest, has enabled government to borrow, by funding additional capitals, for a considerably less payment on account of interest than would have been necessary had no such increase of capital been made.

In point of fact, however, these advantages are but inconsiderable, while the disadvantages inseparable from the practice of funding a large amount of stock at a low rate of interest are great and lasting. During war, especially if any considerable portion of its expenditure be defrayed by means of loans, the rate of interest uniformly rises, and

is usually much higher than during peace. If, therefore, loans were funded in stocks bearing a rate of interest equivalent to the market rate when they happen to be contracted for, the charge on their account might be reduced soon after the return of peace, according to the fall in the rate of interest; whereas, when loans are funded in stocks bearing a low rate of interest, with a corresponding increase of capital, it becomes impossible to take advantage of the fall of interest at the return of peace, and the country is burthened with the war interest in all time to come! It is not easy to exaggerate the injury we have sustained by overlooking this plain principle. In 1815, to specify only one of many similar instances, government bargained for a loan of 36,000,000*l.*, it being stipulated that every subscriber of 100*l.* should be entitled to 174*l.* 3 per cent. stock, and 10*l.* 4 per cent. stock, making the interest on the loan 5*l.* 12*s.* 4*d.* per cent. The great improvidence of this transaction is obvious. Had from 5*l.* 15*s.* to 6*l.* per cent. of interest been paid for the loan, it might have been obtained without funding any additional capital; and had that been done, we should have been able, within 4 or 5 years, in consequence of the fall of interest after the peace, to reduce the charge on account of the loan to 3 or 3½ per cent.; but, owing to the way in which the contract was made, we have not had, and will not have, any means of reducing the exorbitant charge on account of this loan, so long as the market rate of interest is above 3 per cent., except by paying 174*l.* for every 100*l.* originally received, exclusive of the 10*l.* of 4 per cent. stock! But this, as already stated, is only one instance out of many of the same sort. We believe, indeed, that we are within the mark when we affirm that, owing to this erroneous method of funding, the country is at present paying from 6,000,000*l.* to 7,000,000*l.* a year on account of the public debt more than it would have had to pay, had the same sums been borrowed and funded without any increase of capital.*

That this improvident system should have been so extensively acted on by our finance ministers during the American and French wars is the more surprising, seeing that experience had already demonstrated the advantages of funding limited capitals at a comparatively high rate of interest. Owing partly to the scarcity of capital, but much more to the supposed instability of the revolutionary establishment, the loans during the reigns of William III. and Anne were mostly contracted at a very high rate of interest. Luckily, however, this was not attempted to be disguised by assigning to the parties large amounts of stock bearing a low rate of interest. The stock created was the exact amount of the loans, the interest on it being increased according to the supposed insecurity of the government, the scarcity of floating capital, &c. Now, mark the consequences of this. So early as 1716, Sir Robert Walpole, availing himself of the greater facility with which money was procured after the treaty of Utrecht, and of the greater stability of the government, was able, by offering to pay off the creditors, to reduce the charge on account of the debt from 1,598,602*l.* to 1,274,146*l.*, being a saving of 324,456*l.*, or about ¼ part of the entire charge. In 1727, a farther saving of about 340,000*l.* a-year was effected by reducing the interest on the greater portion of the debt from 5 to 4 per cent. And in 1749, during the administration of Mr. Pelham, the interest was again reduced from 4 to 3 per cent., a measure which produced a fresh saving of 565,000*l.* a-year!

Happily the practice of funding in a 5 per cent. stock, was not entirely abandoned during the late war. In 1822 the total British and Irish 5 per cent. stock amounted to about 150,000,000*l.*; and, by offering to pay it off, a reduction of interest was then effected to the extent of about 1,200,000*l.* a-year! And, since that period, further savings have been effected by the reduction of the interest on the 4 and 4½ per cent. stock. But, unfortunately, by far the greatest proportion of the debt created during the late war, and that with the American colonies, was funded in the 3 per cents.; and, as already stated, the charge on that portion has, in consequence, been hitherto, and will, most probably, continue to be, for an indefinite period, unsusceptible of diminution.

* For a further and full discussion of this subject, see the 2nd edition of the *Treatise on Taxation* and the *Funding System*, by the author of this work, pp. 441—468.

An Account of the Principal and Interest of the Public Funded Debt of Great Britain and Ireland, and the Charge thereupon, in the Year ended 31st March, 1859.

DEBT.

	Capitals.	Capitals transferred to and standing in the Names of the Commissioners.	Capitals Unredeemed.
GREAT BRITAIN.	£ s. d.	£ s. d.	£ s. d.
New annuities . at 2½ per cent.	3,009,617 17 4	23,145 15 5	2,985,472 1 11
Exchequer bonds, created per act 16 Vict. c. 23, 2½ per cent . .	418,300 0 0	. . .	418,300 0 0
Debt due to the Bank of England at 3 per cent.	11,015,100 0 0	. . .	11,015,100 0 0
Consolidated annuities „ .	402,518,845 10 11	1,489,031 10 10	400,829,812 0 1
Reduced annuities . „ .	116,855,334 14 5	1,729,350 9 1	115,101,504 5 4
New annuities . . „ .	213,097,651 5 3	435,911 7 7	212,661,739 17 8
Total, at 3 per cent. . £	743,265,429 10 7	3,654,273 7 6	739,611,156 3 1
New annuities . at 3½ per cent.	240,746 6 4	. . .	240,746 6 4
New annuities . at 5 „	451,749 14 4	1,145 18 5	450,603 15 11
Total, Great Britain . £	747,365,843 8 7	3,679,565 1 4	743,686,278 7 3
IRELAND.			
New annuities . at 2½ per cent.	3,080 0 0	. . .	3,080 0 0
Consolidated annuities at 3 „	6,375,043 14 1	. . .	6,375,043 14 1
Reduced annuities, at 3 „	122,607 12 1	. . .	122,607 12 1
New annuities . at 3 „	33,983,575 16 7	. . .	33,983,575 16 7
Debt due to Bank of Ireland . at 3½ „	2,630,769 4 8	. . .	2,630,769 4 8
New annuities . at 5 „	2,000 0 0	. . .	2,000 0 0
Total, Ireland . . £	43,114,876 7 5	. . .	43,114,876 7 5
Total, United Kingdom, at 31st March, 1859 . . £	790,480,719 16 0	3,679,565 1 4	786,801,154 14 8

CHARGE.

	In Great Britain.	In Ireland.	Total Annual Charge of Unredeemed Debt.
Due to the public creditor.	£ s. d.	£ s. d.	£ s. d.
Annual interest of unredeemed debt . .	22,504,431 0 11¼	1,506,621 14 9	
Long annuities, expire 1860 .	1,157,710 2 4	135,356 15 0	
Annuities, expire 1867 . .	585,740 0 0		
Annuities expire 1885 . .	116,000 0 0		
Annuities for terms of years, expire at various periods . .	868,425 4 7	62,000 0 0	
Payable { *Life annuities* . .	1,030,944 10 0		
N. Debt { Tontine annuities { English .	15,946 16 7		
Office. { nuities { Irish .	26,084 19 9	5,522 13 11	
Management . .	26,125,280 14 2¼	1,509,504 3 8	
	90,019 11 6		
Total annual charge, exclusive of 113,026*l.* 3*s.* 7½*d.*, the annual charge on capitals and long annuities, and annuities for terms of years, standing in the names of the commissioners on account, &c.	26,215,300 5 8½	1,509,504 3 8	27,724,804 9 4½

ABSTRACT.

	Capitals.	Capitals standing in Names of Commissioners.	Capitals Unredeemed.
	£ s. d.	£ s. d.	£ s. d.
Great Britain	747,365,843 8 7	3,679,565 1 4	743,686,278 7 3
Ireland	43,114,876 7 5	. . .	43,114,876 7 5
Total, U. Kingdom, on 31st March, 1859	790,480,719 16 0	3,679,565 1 4	786,801,154 14 8

ABSTRACT.

Annual Charge of Unredeemed Debt.			Deferred Annuities outstanding on 31st March.	
Due to the Public Creditor.	Management.	Total.		
£ s. d.	£ s. d.	£ s. d.		£ s. d.
26,125,280 14 2¼	90,019 11 6	26,215,500 5 8¼	Deferred life annuities	24,703 19 6
1,509,504 3 8	. . .	1,509,504 3 8	Deferred annuities for terms of years .	629 9 6
27,634,784 17 10½	90,019 11 6	27,724,804 9 4½		25,324 9 0

The following accounts exhibit the progress of the National Debt of Great Britain from the Revolution to the present time :—

Account showing the Total Amount of the Unredeemed Funded Public Debt of the U. Kingdom, and the Annual Charge thereon, on the 5th day of January of the following Years.

Years ending	Capital of Unredeemed Funded Debt.	Annual Charge thereon.	Years ending	Capital of Unredeemed Funded Debt.	Annual Charge thereon.
1st Feb. 1817.	£ 796,200,191	£ 29,842,014	5th Jan. 1845	£ 769,193,614	£ 27,839,244
5th Jan. 1818	776,742,403	29,310,454	1846	766,672,822	27,702,880
1820	794,980,481	29,789,658	1847	764,608,284	27,656,555
1825	781,125,222	28,372,206	1848	772,401,851	27,705,234
1830	771,251,932	28,286,900	1849	774,092,658	27,773,190
1835	743,675,299	27,783,454	1850	773,168,517	27,717,936
1836	758,549,866	28,403,305	1851	769,272,562	27,687,884
1837	761,422,570	28,533,192	1852	765,126,582	27,614,413
1838	762,275,188	28,524,739	1853	761,622,704	27,530,881
1839	761,347,690	28,585,503	1854	755,311,701	27,436,193
1840	766,547,684	28,748,794	1855	752,258,272	27,236,199
1841	766,371,725	28,556,324	31st March. 1856	775,730,994	27,370,807
1842	772,530,758	28,701,458	1857	780,119,722	27,500,112
1843	773,068,340	28,609,708	1858	779,225,495	27,477,443
1844	772,169,092	28,516,882	1859	786,801,154	27,724,804

Amount of the Unfunded Debt in Exchequer Bills, and of the Annual Charge thereon in the following Years, viz.:—

Years ending Jan. 5.	Amount of Exchequer Bills.	Rate of Interest per Diem.	Charge of Interest per Annum.	Years ending Jan. 5.	Amount of Exchequer Bills.	Rate of Interest per Diem.	Charge of Interest per Annum.
1830	£ 25,490,550	1½d. Dec. 18, 1829	£ 806,076	1843	£ 18,182,100	1¾d. Mar. 17, 1843 / 1½d. June 16, 1843	£ 631,601
1831	27,271,650	- -	726,465	1844	18,407,300	- -	594,051
1832	27,135,350	- -	604,365	1845	18,404,500	- -	464,363
1833	27,278,000	- -	577,320	1846	18,380,200	- -	422,654
1834	27,906,900	- -	725,596	1847	18,310,700	2d. Mar. 16, / 3d. June 16,	419,393
1835	28,321,550	- -	636,417	1848	17,946,500	2½d. Mar. 16, / 2d. June 15,	433,548
1836	28,976,600	2d. Sept. 29, 1836	688,701	1849	17,786,700	1½d. Mar. 15,	787,381
1837	26,976,000	2½d. Nov. 21, 1836	692,095	1850	17,758,700	- -	605,124
1838	24,014,550	2d. Dec. 14, 1837	871,309	1851	17,756,800	- -	402,790
1839	24,026,050	1¾d. Mar. 18, 1839	641,370	1852	17,742,800	1½d. June 10,	403,476
1840	19,965,050	2¼d. Mar. 16, 1840	788,707				
1841	21,076,350	- -	559,130				
1842	18,345,850	2d. June 15, 1842	797,046				

Amount of the Unfunded Debt in Exchequer Bills and Exchequer Bonds, and of the Interest paid thereon in the following Years, viz.:—

Years.	Exchequer Bills.			Exchequer Bonds.		
	Amount outstanding at the close of the Year.	Rate of Interest per Diem at which Bills were issued during the Year.	Amount of Interest paid during the Year.	Amount outstanding at the close of the Year.	Rate of Interest per Annum payable on the Bonds.	Amount of Interest paid during the Year.
1853 ending 5 Jan. 1854	£16,024,100	1d. and 2d.	£334,269			
1854-5 „ 31 Mar. 1855	17,151,400	2d. and 2½d.	595,200	£6,000,000	3½	£105,000
1855-6 „ „ 1856	21,182,700	2d. and 2¼d.	616,083	7,000,000	3¾	210,000
1856-7 „ „ 1857	20,989,000	2¼d.	747,493	7,000,000	3½	245,000
1857-8 „ „ 1858	20,911,500	2¼d. and 2d.	774,645	5,000,000	3¾	210,000
1858-9 „ „ 1859	13,277,400	1¾d.	734,153	5,000,000*	3½ and 3¼	156,250

* £2,000,000 paid off on 8th May, 1859.

Account of the Principal and Annual Charge of the Public Debt at different Periods since the Revolution.*

	Principal, Funded and Unfunded.	Interest and Management.
	£	£
Debt at the Revolution in 1689	664,263	39,855
Excess of Debt contracted during the reign of William III. above Debt paid off	15,730,439	1,271,087
Debt at the accession of Queen Anne, in 1702	16,394,702	1,310,942
Debt contracted during Queen Anne's reign	37,750,061	2,040,416
Debt at the accession of George I., in 1714	54,145,763	3,351,353
Debt paid off during the reign of George I., above debt contracted	2,053,125	1,133,807
Debt at the accession of George II., in 1727	52,092,238	2,217,551
Debt contracted from the accession of George II. till the peace of Paris, in 1763, 3 years after the accession of George III.	86,773,192	2,634,500
Debt in 1763	138,865,430	4,852,051
Paid during peace, from 1763 to 1775	10,281,795	380,480
Debt at the commencement of the American war, in 1775	128,583,635	4,471,571
Debt contracted during the American war	121,267,993	5,088,336
Debt at the conclusion of the American war, 1784	249,851,628	9,500,907
Paid during peace, from 1784 to 1793	10,501,380	249,277
Debt at the commencement of the French war, 1793	239,350,148	9,311,630
Debt contracted during the French war	601,500,343	22,704,511
Total Funded and Unfunded Debt on the 1st of February, 1817, when the English and Irish Exchequers were consolidated	840,850,491	32,015,941
Debt cancelled from the 1st of February, 1817, to the 31st of March, 1859	35,772 037	3,403,734
Debt and charge thereon, 31st March, 1859	805,078,554	28,612,207

* This account has been made up partly from the table in Dr. Hamilton's work on the National Debt (3rd ed. p. 100.), partly from Price on the State of the Finances in 1784 (p. 8.), and partly from the Finance Accounts, and other official statements.

The above statement shows that a reduction of 35,772,037*l.* was effected in the principal of the national debt, and of 3,403,734*l.* in the annual charge on account thereof, between February, 1817, and the 31st of March, 1859. The diminution has been brought about, despite the loans effected during the interval, partly by the application of surplus revenue to buy up stock, but more by the reduction of the interest on the 4 and 5 per cent. stocks existing in 1817, and by that paid on the unfunded debt. The total annual saving by the reduction of interest on the funded debt between 1822, when the first, and 1844, when the last reduction was made (that of the 3½ per cent. annuities, mentioned in former impressions of this work), has been 3,051,800*l.*; and, considerable as this is, it would have been three times as great, but for the pernicious practice, previously pointed out, of funding large nominal capitals. We subjoin

A Return showing the Results of the Operations undertaken in 1822, 1824, 1825, 1830, 1834, and 1844, for reducing the Charge on account of the National Debt, and the Terms upon which such Reduction was made; also, showing the Annual Interest on the Funded Debt saved thereby.

			Gross Capitals.	Annual Interest.	Annual Interest saved.
			£	£	£
1822	5 per cents. reduced to 4 per cents.; viz. 105*l.* 4 per cents. for 100*l.* 5 per cents., per 3 Geo. 4. c. 9.	Five per cent. (Navy) Annuities, capital	152,422,143		
		Amount of Dissents paid off	2,794,276		
			149,627,867	7,481,393	
		Bonus of 5*l.* per cent. allowed to those who assented	7,481,350		
		Capital 4*l.* per cents.	157,109,217	6,284,368	
					1,197,025
	Bank of Ireland Debt at 5 per cent. reduced to 4 per cent. at par, per 3 Geo. 4. c. 26.	Bank of Ireland Debt, at 5 per cent.	1,153,846	57,692	
		Same Capital, at 4 per cent.	1,153,846	46,153	
					11,539
1824	Old 4 per cents. reduced to 3½ per cents. at par, 5 Geo. 4. c. 11.	Four per cent. Annuities - Capital	76,248,180	3,049,927	
		Same Capital, at 3½ per cent., including 6,149,245*l.* Non-assents, vested in the Commissioners for the Reduction of the National Debt, per 5 Geo. 4. c. 45.	76,248,180	2,668,685	
					381,242
1824 & 1825	5 per cents. 1797, reduced to 3 per cents.; viz., 153*l.* 6*s.* 8*d.* consolidated 3 per cents. for 100*l.* 5 per cents., 37 Geo. 3. c. 10.	Capital at 5 per cent.	1,013,668		
		Deduct Dissents paid off	41,011		
			972,657	48,633	
		Capital at 3 per cent.	1,296,876	38,906	
					9,726
1830	4 per cents. exchanged for 100*l.* of 3½ per cents., or 70*l.* of 5 per cents., per 11 Geo. 4. c. 13.	4 per cent. Annuities, formerly Navy 5 per cents.; - - Capital	153,671,091		
		Amount of Dissents paid off	2,880,915		
			150,790,176	6,031,607	
		Interest:			
		Which was exchanged for 150,119,609*l.*, 3*l.* 10*s.* per cent. Annuities	5,254,186		
		469,398*l.*, 5*l.* per cent. Annuities	23,469		
				5,277,655	
					753,952
1834	4 per cents. 1826 reduced to 3½ per cents. at par, per 4 & 5 Will. 4. c. 31.	4 per cent. Annuities, created in 1826. Capital	10,622,911	424,916	
		Same Capital, at 3*l.* 10*s.* per cent., including 4,153,721*l.* Dissents, vested in Commissioners for the reduction of the National Debt on account of the Fund for Banks for Savings	10,622,911	371,891	
					53,115
1841	Bank of Ireland Debts, at 5 and 4 per cent., reduced to 3½ per cent., per 3 and 4 Vict. c. 75. and Warrant of Treasury, 30 January, 1841	Debt at 5 per cent.	1,015,384	50,769	
		Debt at 4 per cent.	1,615,384	64,615	
			2,630,768	115,384	
		Same Capital at 3½ per cent.	2,630,768	92,076	
					23,308
1844	3½ per cents. reduced at par to 3½ per cents. until 10 October, 1854, and from that period to be reduced to 3*l.* per cents., and not liable to further reduction until after 10 October, 1874, per 7 Vict. c. 4 and 5 -	New 3*l.* 10*s.* per cent. Annuities Capital	157,243,517		
		Reduced 3*l.* 10*s.* per cent. Annuities ditto	67,701,606		
		3*l.* 10*s.* per cent. Annuities, 1818 - ditto	9,514,369		
		Old 3*l.* 10*s.* per cents. and Debentures ditto	14,401,171		
			248,860,663		
		Amount of Dissents and Non-assents paid off	103,352		
			248,757,311	8,706,505	
		Same capital at 3*l.* 5*s.* per cent.	248,757,311	8,084,612	
					621,893
					3,051,800

We subjoin a brief notice of the different unredeemed funds or stocks constituting the public debt, as they stood on the 31st of March, 1859.

I. Funds bearing Interest at Two and a half per Cent.

New Annuities at 2½ per cent.—This is a stock created in 1853, under the 16 & 17 Vict. c. 23. Previously to the passing of this act, the existing stock of the once famous, or rather, perhaps, infamous South Sea Company, amounted to 3,662,784*l.* For many years previously the Company had been entirely divested of its commercial character, and the duty of the directors was restricted to the transfer of the Company's stock from one purchaser to another, and the payment of the dividends upon it, both of which operations were performed at the South Sea House, and not at the Bank. But in 1853, when the price of stocks was unusually high, it was proposed to create a new 2½ per cent. stock; and in this view the proprietors of the S. Sea Stock were offered for every 100*l.* of it subscribed into the new 2½ per cent. stock, 110*l.* of the latter, with a guarantee against the interest being reduced for 40 years, or till 1894. It is evident,

however, from this statement, that the interest on the sum transferred from the old S. Sea Stock was not really 2½ but 2¾, or 2*l.* 15*s.* per cent. The non-commuted portion was paid off on the 5th April, 1854.

There can be little or no doubt that but for the unforeseen change in the money market which began to take place about the period when the 16 & 17 Vict. c. 23. was passed, the whole, or by far the greater portion, of the old S. Sea Stock would have been converted into the 2½ per cent. stock. But the rise in the rate of interest, occasioned by the threatened disturbances on the continent, and the anticipations of a deficient harvest, hindered the conversion that would otherwise have taken place. Still, however, it is of great importance to have laid the foundation of a 2½ per cent. stock.

II. Funds bearing Interest at Three per Cent.

1. *Debt due to the Bank of England.* — This consists of the sum of 11,015,100*l.* lent by the Bank to the public at 3 per cent.; dividends payable on the 5th of April and 10th of October. This must not be confounded with the Bank capital of 14,553,000*l.* on which the stockholders divide. The dividend on the latter is at present, and has been for some time past, 9 per cent.

2. *Three per Cent. Consols, or Consolidated Annuities.*—This stock forms by much the largest portion of the public debt. It had its origin in 1751, when an act was passed, consolidating (hence the name) several separate stocks bearing an interest of 3 per cent. into one general stock. At the period when the consolidation took place, the principal of the funds blended together amounted to 9,137,821*l.*; but by the funding of additional loans and parts of loans, in this stock, it amounted, on the 31st of March, 1859, to the immense sum of 400,829,812*l.*!

The consolidated annuities are distinguished from the 3 per cent. reduced annuities, by the circumstance of the interest upon them never having been varied, and by the dividends becoming due at different periods. This stock is, from its magnitude, and the proportionally great number of its holders, the soonest affected by all those circumstances which tend to elevate or depress the price of funded property; and, on this account, it is the stock which speculators and jobbers most commonly select for their operations. Dividends payable 5th of January and 5th of July.

3. *Three per Cent. Reduced Annuities.*—This fund was established in 1757. It consisted, as the name implies, of several funds which had previously been borrowed at a higher rate of interest; but, by an act passed in 1749, it was declared that such holders of the funds in question as did not choose to accept in future of a reduced interest of 3 per cent. should be paid off;—an alternative which comparatively few embraced. The debts that were thus reduced and consolidated amounted, at the establishment of the fund, to 17,571,574*l.* By the addition of new loans, they now amount to 115,104,504*l.* Dividends payable 5th of April and 10th of October.

4. *New Annuities.*—This stock was formed in 1844 by the acts 7 Vict. c. 4 and c. 5., which directed that the following stocks, viz.: —

	£
New 3½ per Cent. Annuities, formed in 1830	157,243,517
Reduced 3½ per Cent. 1824	67,701,606
3½ per Cent. Annuities 1818	9,514,369
Old 3½ per Cent. Annuities and Debentures	13,401,171
	£248,860,663

should be converted into a new stock bearing interest at 3¼ per cent. till the 10th of October, 1854, when the interest was reduced to 3 per cent., with the proviso that it is not to be farther reduced till 1874. The new unreedemed stock created under this arrangement amounted on the 31st of March, 1859, to 212,661,739*l.* 17*s.* 8*d.* Dividends payable 5th of April and 5th of October.

III. Funds bearing more than Three per Cent. Interest.

1. *New 5 per Cent. Annuities.* — This stock was formed in 1830, at the same time with the new 3½ per cent. annuities referred to above, under the 11 Geo. 4. c. 13. This statute gave the holders of the then existing 4 per cent. stock, the interest on which was to be reduced, the option of subscribing into the new 3½ per cent. annuities, or into a new 5 per cent. stock, at the rate of 100*l.* 4 per cents. for 70*l.* 5 per cents. Few, however, availed themselves of the latter alternative. Amount, 31st of March, 1859, 430,604*l.*

2. *New 3½ per Cent. Annuities*, formed, as before stated, in 1853.

IV. Annuities.

1. *Long Annuities.* — These annuities were created at different periods, but they all expire together in 1860. They were chiefly granted by way of premiums or douceurs to the subscribers to loans.—Payable on the 5th of April and 10th of October.

2. *Annuities per 4 Geo. 4. c. 22.*—This annuity is payable to the Bank of England, and is commonly known by the name of the "Dead Weight" annuity. (See *antè*, p. 100.) It expires in 1867. It was equivalent to a *perpetual* annuity of 470,319*l.* 10*s.*

3. *Annuities per* 48 *Geo.* 3., 10 *Geo.* 4. *c.* 24., *and* 3 & 4 *Will.* 4. *c.* 14.—These acts authorised the commissioners for the reduction of the national debt to grant annuities for terms of years, and life annuities; accepting in payment either money or stock, according to rates specified in Tables to be approved by the Lords of the Treasury. No annuities are granted on the life of any *nominee* under 15 years of age, nor in any case not approved by the commissioners. Annuities for terms of years not granted for any period less than *ten* years. These annuities are transferable, but not in parts or shares. Those for terms of years, payable 5th of January and 5th of July; and those for lives, 5th of April and 10th of October.

Irish Debt. — It seems unnecessary to enter into any details with respect to the public debt of Ireland. The various descriptions of stock of which it consists, and their amount are specified above. The dividends on the Irish debt are paid at the Bank of Ireland; and, in order to accommodate the public, stock may be transferred, at the pleasure of the holders, from Ireland to Great Britain, and from the latter to the former.

Exchequer Bills are bills of credit issued by authority of parliament. They are for various sums, and bear interest (generally from 1½*d.* to 2½*d.* per diem, per 100*l.*) according to the usual rate at the time. The advances of the Bank to Government are made upon Exchequer Bills; and the daily transactions between the Bank and Government are principally carried on through their intervention. Notice of the time at which outstanding Exchequer bills are to be paid off is given by public advertisement. Bankers prefer investing in Exchequer bills to any other species of stock, even though the interest be for the most part comparatively low; because the capital may be received at the Treasury at the rate originally paid for it, the holders being exempted from any risk of fluctuation, except in the amount of the premium or discount at which they may have bought the bills. Exchequer bills were first issued in 1696, and have been annually issued ever since. The amount outstanding, and *unprovided for*, on the 31st of March, 1859, was 13,277,400*l.*

In 1853 *Exchequer bonds* were issued bearing interest at 2¾ per cent. for 10 years, and thereafter 2½ per cent. for 30 years, or till 1894, to such holders of S. Sea and 3 per cent. stock as chose to accept the same, a bond for 100*l.* being given for every 100*l.* stock subscribed. (16 & 17 Vict. c. 23.) On the 31st of March, 1859, the Exchequer bonds outstanding amounted to 5,000,000*l.*

India Stock and India Bonds are always quoted in the list of the prices of the public funds. The stock on which the East India Company divide is 6,000,000*l.*; the dividend on which has been, since 1793, 10½ per cent.; and is to remain at that rate during the continuance of the charter. India bonds are generally for 100*l.* and 1,000*l.* each, and bear at present 2½ per cent. interest, payable 31st of March and 30th of September. In selling them, the interest due down to the day of sale is, with the premium, added to the amount of the bills; the total being the sum to be paid by the purchaser. The premium, which is, consequently, the only variable part of the price, is influenced by the circumstances which influence the price of stocks generally, the number of bonds in circulation, &c.

The price of stocks is influenced by a variety of circumstances. Whatever tends to shake or to increase the public confidence in the stability of government, tends at the same time to lower or increase the price of stocks. They are also affected by the state of the revenue; and, more than all, by the facility of obtaining supplies of disposable capital, and the interest which may be realised upon loans to responsible persons. From 1730 till the rebellion of 1745, the 3 per cents. were never under 89, and were once, in June, 1737, as high as 107. During the rebellion they sunk to 76; but in 1749 rose again to 100. In the interval between the peace of Paris, in 1763, and the breaking out of the American war, they averaged from 80 to 90; but towards the close of the war they sunk to 54. In 1792, they were, at one time, as high as 96. In 1797 the prospects of the country, owing to the successes of the French, the mutiny in the fleet, and other adverse circumstances, were by no means favourable; and, in consequence the price of 3 per cents. sunk, on the 20th of September, on the intelligence transpiring of an attempt to negotiate with the French republic having failed, to 47⅝, being the lowest price to which they have hitherto fallen.

Account of the Highest and Lowest Price of the Principal English and Foreign Funds in each of the 5 Years ending with 1857.

	1853.		1854.		1855.		1856.		1857.	
English.	*High.*	*Low.*	*High.*	*Low.*	*High.*	*Low.*	*High.*	*Low.*	*High.*	*Low.*
Consols	101	90⅝	96¼	85⅛	93⅜	86¼	96⅛	87¼	95⅞	86⅛
3 per cent. Reduced	101⅜	90	96	85¾	94	85⅜	96¼	87⅛	94⅝	86⅜
3½ per cent. New	104⅜	92⅛	96¼	85	94⅜	86⅛	97⅛	87⅜	94⅜	86⅜
Bank Stock	230¼	208	221½	201	216	205	220	205	220	207
India Stock	274	238	241	220	236	220	235	218	223¼	207
Long Annuities	6⅛	5⅝	5⅜	4⅜	4⅜	3⅜	3 9-16	2 15-0	2⅜	1⅞
India Bonds	83*s.* p.	10*s.* p.	12*s.* p.	20*s.* d.	37*s.* p.	8*s.* d.	25*s.* p.	12*s.* d.	3*s.* p.	50*s.* d.
Exchequer Bills	73*s.* p.	17*s.* p.	22*s.* p.	2*s.* d.	27*s.* p.	12*s.* d.	24*s.* p.	12*s.* d.	9*s.* p.	39*s.* d.
Foreign.										
Austrian 5 per cent.	101¼	93	87	73	67½	65	99½	81⅜	94	87
Belgian 4½ per cent.	100⅜	94¼	93	84	95¼	90½	99⅛	92½	100	92
Brazilian 5 per cent.	104	97	102	90	103	98¼	103⅛	99	103¾	98
B. Ayres 6 per cent.	72½	56	63½	48	60	51	88⅛	54	96	79
Chilian 6 per cent.	108	99¼	103	98½	105	99	106½	102½	105½	100
Danish 5 per cent.	86½	84¼	85	76	84	81	86	83	88	81
Dutch 2½ per cent.	67¼	62	63⅛	51	65½	60⅛	67	63	66	63½
Dutch 4 per cent.	99⅛	92	96⅛	80½	97	90⅜	99½	93	100	94
French Rentes	105f. 25c.	98	99f.	88f.	99f. 40c.	89f. 75c.	97f. 75c.	90f.	95f. 40c.	87f. 50c.
Russian 5 per cent.	121¾	111	112⅜	82	102	94	113	97	113⅜	104
Spanish 3 per cent.	50	44	44½	33	40⅛	36	43	38⅛	43¼	39⅜
Turkish 6 per cent.	- -	- -	- -	- -	- -	- -	107⅛	84⅛	99	84½
Turkish 4 per cent.	- -	- -	- -	- -	- -	- -	107	98	103⅜	95½

The following were the prices of the different descriptions of British funds on Friday the 1st of July, 1859.

Bank Stock, div. 9 per cent	.	.	220
3 per Cent. Reduced Annuities	.	.	93⅝ ¼
3 per Cent. Consols Annuities	.	.	93½ ⅝
New 3 per Cent. Annuities	.	.	93⅝
New 3½ per Cent.	.	.	.
New 2½ per Cent.	.	.	.
5 per Cent	.	.	.
Long Annuities, Jan. 5, 1860	.	.	.
Annuities for 30 Years, expire Oct. 10th, 1859			.
Ditto	Jan. 5th, 1860		.
Ditto	Jan. 5th, 1880		.
Ditto	Apr. 5th, 1885	.	17¾
India Stock, 10½ per cent.	.	.	.
Ditto Loan Debentures	.	.	94⅛
India Loan Scrip	.	.	94⅛ 4
Ditto Bonds, 4 per Cent. 1000*l.*			.
Ditto under 1000*l.*	.	.	6*s.* 10*s.* d.
Bank Stock for Account, July 8th			.
3 per Cent. Consols for Account, July 8th			93 xd.
India Stock for Account, July 8th	.		.
Consol Scrip	.	.	.
Exchequer Scrip	.	.	.
Exchequer Bills, 1000*l.* 1½d.			24*s.* p.
Ditto 500*l.* —			21*s.* p.
Ditto Small —			21*s.* p.
Ditto Bonds B. 1859, 3½ po.			.
Ditto under 1,000*l.* —			.

Agreements for the sale of stock are generally made at the Stock Exchange, which is frequented by a set of middlemen, called *jobbers*, whose business is to accommodate the buyers and sellers of stock with the exact sums they want. A jobber is generally possessed of considerable property in the funds; and he declares a price at which he will either sell or buy. Thus, he declares he is ready to buy 3 per cent. consols at 85½, or to sell at 85⅝; so that, in this way, a person willing to buy or sell any sum, however small, has never any difficulty in finding an individual with whom to deal. The jobber's profit is generally ⅛ per cent., for which he transacts both a sale and a purchase. He frequently confines himself entirely to this sort of business, and engages in no other description of stock speculation.

We borrow the following details from Dr. Hamilton's valuable work on the National Debt: —

"A bargain for the sale of stock being agreed on, is carried into execution at the Transfer Office, at the Bank, or the South Sea House. For this purpose the seller makes out a note in writing, which contains the name and designation of the seller and purchaser, and the sum and description of the stock to be transferred. He delivers this to the proper clerk *, and then fills up a receipt, a printed form of which, with blanks, is obtained at the office. The clerk in the mean time examines the seller's accounts, and if he find him possessed of the stock proposed to be sold, he makes out the transfer. This is signed in the books by the seller, who delivers the receipt to the clerk; and upon the purchaser's signing his acceptance in the book, the clerk signs the receipt as witness. It is then delivered to the purchaser upon payment of the money, and thus the business is completed.

"This business is generally transacted by brokers, who derive their authority from their employers by powers of attorney. Forms of these are obtained at the respective offices. Some authorise the broker to sell, others to accept a purchase, and others to receive the dividends. Some comprehend all these objects, and the two last are generally united. Powers of attorney authorising to sell must be deposited in the proper office for examination one day before selling; a stockholder acting personally, after granting a letter of attorney, revokes it by implication.

"The person in whose name the stock is invested when the books are shut, previous to the payment of the dividends, receives the dividend for the half year preceding; and, therefore, a purchaser during the currency of the half year has the benefit of the interest on stock he buys, from the last term of payment to the day of transfer. The price of stock, therefore, rises gradually, *cæteris paribus*, from term to term; and when the dividend is paid, it undergoes a fall equal thereto. Thus, the 3 per cent. consols should be higher than the 3 per cent. reduced by ¾ per cent. from the 6th of April to the 5th of July, and from the 10th of October to the 5th of January; and should be as much lower from the 5th of January to the 5th of March, and from the 5th of July to the 10th of October; and this is nearly the case. Accidental circumstances may occasion a slight deviation.

"The dividends on the different stocks being payable at different terms, it is in the power of the stockholders to invest their property in such a manner as to draw their income quarterly.

"The business of speculating in the stocks is founded on the variation of the price of stock, which it probably tends in some measure to support. It consists in buying or selling stock according to the views entertained, by those who engage in this business, of the probability of the value rising or falling.

"This business is partly conducted by persons who have property in the funds. But a practice also prevails among those who have no such property, of contracting for the sale of stock on a future day at a price agreed on. For example, A. may agree to sell B. 10,000*l.* of 3 per cent. stock, to be transferred in 20 days, for 6,000*l.* A. has, in fact, no such stock; but if the price, on the day appointed for the transfer, be only 58, he may purchase as much as will enable him to fulfil his bargain for 5,800*l.*, and thus gain 200*l.* by the transaction; on the other hand, if the price of that stock should rise to 62, he will lose 200*l.* The business is generally settled without any actual purchase of stock, or transfer; A. paying to B. or receiving from him the difference between the price of stock on the day of settlement, and the price agreed on.

* The letters of the alphabet are placed round the room, and the seller must apply to the clerk who has his station under the initial of his name. In all the offices, there are supervising clerks, who join in witnessing the transfer.

"This practice, which amounts to nothing else than a wager concerning the price of stock, is not sanctioned by law; yet it is carried on to a great extent: and as neither party can be compelled by law to implement these bargains, their sense of honour, and the disgrace attending a breach of contract, are the principles by which the business is supported. In the language of the Stock Exchange, the buyer is called a *Bull*, and the seller a *Bear*, and the person who refuses to pay his loss is called a *Lame Duck*; and the names of these defaulters are exhibited in the Stock Exchange, where they dare not appear afterwards.

"These bargains are usually made for certain days fixed by a committee of the Stock Exchange, called *settling days*, of which there are about 8 in the year; viz. one in each of the months of January, February, April, May, July, August, October, November; and they are always on Tuesday, Wednesday, Thursday, or Friday, being the days on which the commissioners for the reduction of the national debt make purchases. The settling days in January and July are always the first days of the opening of the Bank books for public transfer; and these days are notified at the Bank when the consols are shut to prepare for the dividend. The price at which stock is sold to be transferred on the next settling day, is called the price *on account*. Sometimes, instead of closing the account on the settling day, the stock is carried on to a future day, on such terms as the party agree on. This is called a *continuation*.

"All the business, however, which is done in the stocks *for time*, is not of a gambling nature. In a place of so extensive commerce as London, opulent merchants, who possess property in the funds, and are unwilling to part with it, have frequently occasion to raise money for a short time. Their resource in this case is to sell for money, and buy for account; and although the money raised in this manner costs more than the legal interest, it affords an important accommodation, and it may be rendered strictly legal and recoverable."—(Third ed. pp. 314—317.)

It would be foreign to the object of this work to enter upon any examination of the advantages and disadvantages of the funding system, which we have elsewhere discussed at considerable length.—(*Treatise on Taxation*, pp. 410—424. 2nd ed.) Perhaps, on the whole, the latter preponderate; though it is not to be denied that the former are very considerable. The purchase of funded property affords a ready method of investment; and as neither the Bank of England, nor any of the London private banks, allows interest upon deposits, it is plain that, had it not been for the facilities given by the funds, individuals unable to employ their savings in some branch of business, would, down to a late period, have derived no immediate advantage from them, unless they resorted to the hazardous expedient of lending upon private credit. But since the establishment of joint stock banks in the metropolis, which allow interest on deposits, the advantage of the funds as a means of commodious investment is not quite so obvious, though, probably, it is little less real; for, it may be doubted whether the banks in question, or even the Scotch banks, which have been long in the habit of allowing interest on deposits, could do so, or whether, in fact, they could be conducted at all, without the aid of the funds.

The subjoined account of the number of dividend warrants issued in the quarters ending with the 10th of October, 1851, and 5th of January, 1852, is a very important document. The large number (89,315) of holders of sums not producing above 5*l.* of quarterly dividend, is principally to be ascribed to the circumstances already mentioned as peculiar to the banking system of the metropolis; and there can be little doubt that their number would be materially diminished, did the Bank of England and the private banks allow a reasonable rate of interest on deposits. It is evident from this account, that the number of persons having a direct interest in the funds is much greater than it represents. The dividends upon the funded property belonging to the Equitable and other insurance companies, the different banking companies, &c. are paid upon single warrants, as if they were due to so many private individuals; whereas they are, really, paid to these individuals only because they act as factors or trustees for a vast number more. It is consequently quite absurd to pretend, as is sometimes done, that any interference with funded property would affect only some 270,000 individuals out of a population of 28,000,000. Any attack upon the dividends would really be destructive, not merely of the interests of those to whom dividend warrants are issued, but of *all* who depend upon them: it would destroy our whole system of insurance and banking, and overspread the country with bankruptcy and ruin. Not only, therefore, is every proposal for an invasion of the property of the fundholders bottomed on injustice and robbery, but it would, were it acted upon, be little less ruinous to the community than to the peculiar class intended to be plundered.

Account of the Number of Persons who were entitled to Dividends on the Portions of the Public Debt held by them which became due at the Quarters ended the 10th of October 1851, and 5th January 1852, arranged in Classes according to the Amount of Dividend paid to each.

	Not exceeding									Exceeding 2000*l.*	Total.
	5*l.*	10*l.*	50*l.*	100*l.*	200*l.*	300*l.*	500*l.*	1000*l.*	2000*l.*		
Number to whom dividends were payable											
On 3*l.* per cent. reduced annuities -]	12,429	5,360	12,321	3,596	2,080	618	340	176	68	28	37,016
On 3*l.* 5*s.* per cent. - - -] *	33,313	15,561	32,872	7,804	4,072	1,046	706	280	86	46	95,786
On long annuities - - -] *	2,412	2,029	4,764	851	413	143	75	45	18	24	10,774
On annuities for terms of years -]	522	444	1,036	191	93	27	29	8	6	11	2,367
On 3*l.* per cent. consolidated annuities -]	39,934	17,685	39,377	10,986	6,905	1,998	1,409	613	175	78	119,160
On 3*l.* per cent. annuities, 1726 - -] †	116	51	127	32	17	4	3	1	-	-	350
On new 3*l.* per cent. annuities - -] †	29	25	134	32	20	3	3	19	-	-	237
On annuities for terms of years - -]	560	415	1,151	210	88	29	28	-	8	13	2,501
Totals	89,315	41,570	91,752	23,702	13,688	3,868	2,593	1,142	361	200	268,191

* Dividends payable 10th of October. † Dividends payable 5th of January.

The following Table has been calculated, in order to show in which of the public funds money may be invested, so as to yield the greatest interest. It gives the prices, differing by 1 per cent. from 50 to 93 for 3 per cents., &c., at which they all must be to yield the *same* interest; so that, supposing the 3 per cents. to be at 80, a sum invested in them, or in the 3½ per cents., will yield the same interest, provided the latter be at 93⅓, if the 3½ per cents. be *below* this sum, it will of course be more advantageous, in so far at least as interest is concerned, to invest in them than in the 3 per cents.; while, if they be *above* 93⅓, it will be less advantageous.

To get the *true value* of the different funds at any particular period, in order to compare them accurately together, it is necessary to deduct from each the amount of interest accruing upon it from the payment of the last dividend.

Table showing the Prices the different Funds must be at to produce an equal Interest; and also the annual Interest produced by 100*l.* sterling invested at any of those Prices.

3 per Cent. Price.	3½ per Cent. Price.	4 per Cent. Price.	5 per Cent. Price.	Interest.	3 per Cent. Price.	3½ per Cent. Price.	4 per Cent. Price.	5 per Cent. Price.	Interest.
£	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£	£ s. d.	£ s. d.	£ s. d.	£ s. d.
50	58 6 8	66 13 4	83 6 8	6 0 0	72	84 0 0	96 0 0	120 0 0	4 3 3
51	59 10 0	68 0 0	85 0 0	5 17 7	73	85 3 4	97 6 8	121 13 4	4 2 2
52	60 13 4	69 6 8	86 13 4	5 15 4	74	86 6 8	98 13 4	123 6 8	4 1 0
53	61 16 8	70 13 4	88 6 8	5 13 2	75	87 10 0	100 0 0	125 0 0	4 0 0
54	63 0 0	72 0 0	90 0 0	5 11 1	76	88 13 4	101 6 8	126 13 4	3 18 11
55	64 3 4	73 6 8	91 13 4	5 9 0	77	89 16 8	102 13 4	128 6 8	3 17 11
56	65 6 8	74 13 4	93 6 8	5 7 1	78	91 0 0	104 0 0	130 0 0	3 16 11
57	66 10 0	76 0 0	95 0 0	5 5 3	79	92 3 4	105 6 8	131 13 4	3 15 11
58	67 13 4	77 6 8	96 13 4	5 3 5	80	93 6 8	106 13 4	133 6 8	3 15 0
59	68 16 8	78 13 4	98 6 8	5 1 8	81	94 10 0	108 0 0	135 0 0	3 14 0
60	70 0 0	80 0 0	100 0 0	5 0 0	82	95 13 4	109 6 8	136 13 4	3 13 2
61	71 3 4	81 6 8	101 13 4	4 18 4	83	96 16 8	110 13 4	138 6 8	3 12 3
62	72 6 8	82 13 4	103 6 8	4 16 9	84	98 0 0	112 0 0	140 0 0	3 11 6
63	73 10 0	84 0 0	105 0 0	4 15 2	85	99 3 4	113 6 8	141 13 4	3 10 7
64	74 13 4	85 6 8	106 13 4	4 13 8	86	100 6 8	114 13 4	143 6 8	3 9 9
65	75 16 8	86 13 4	108 6 8	4 12 3	87	101 10 0	116 0 0	145 0 0	3 8 11
66	77 0 0	88 0 0	110 0 0	4 10 10	88	102 13 4	117 6 8	146 13 4	3 8 2
67	78 3 4	89 6 9	111 13 4	4 9 6	89	103 16 8	118 13 4	148 6 8	3 7 4
68	79 6 8	90 13 4	113 6 8	4 8 2	90	105 0 0	120 0 0	150 0 0	3 6 8
69	80 10 0	92 0 0	115 0 0	4 6 11	91	106 3 4	121 6 8	151 13 4	3 5 11
70	81 13 4	93 6 8	116 13 4	4 5 8	92	107 6 8	122 13 4	153 6 8	3 5 2
71	82 16 8	94 13 4	118 6 8	4 4 6	93	108 10 0	124 0 0	155 0 0	3 4 6

Foreign Funds. — Exclusive of the funded and unfunded debt due by the British government, more than 19-20ths of which is held by British subjects, our countrymen are also large creditors of foreign states. With the exception of Spain, the interest on the debts of most European states is paid with great regularity; and their funds form what may, on the whole, be reckoned, at least so long as peace is preserved, a pretty secure investment. Our countrymen are, also, large creditors of the new South American States, and of the U. States of North America. Owing, however, to the anarchy in which the former have been almost constantly involved, and the consequent want of power, and probably also of inclination, on the part of their rulers, to make any adequate provision for the payment of their debts, a large arrear of interest has, in most instances, been allowed to accumulate, with but little prospect of its being speedily reduced.

The public debt of the U. States, which amounted, at the close of the last war with this country, to 158,713,049 dollars, was entirely paid off in 1835. This proceeding, so honourable to the U. States, naturally tended to raise the character of American securities in the English market, and enabled the government to contract the loans required to carry on the late war with Mexico on very favourable terms. The debt of the Union existing on the 17th November, 1857, amounted to 25,165,155 dolls.; but it has since been somewhat increased.

But in addition to the debt of the Union, most part of the States, and several also of the principal cities, have contracted peculiar debts of a less or greater amount. In most cases these were incurred to promote the execution of some public undertaking, such as the construction of canals or railways, the excavation of docks, the erection of buildings, the establishment of banks or insurance companies, and so forth. We subjoin from the American Almanac (see next page)

Some of the debts so contracted have been advantageously laid out; but a large portion borrowed in 1835, and other periods of wild excitement, were contracted on very disadvantageous terms, and expended on projects some of which have turned out extremely ill. This, however, was the affair of the States themselves, and did not afford so much as the shadow of an excuse for the conduct of those States which have declined to provide for the payment of their debts. It was not, indeed, to be wondered at that in the distress into which the Union was thrown by the crash of 1837, and the depression following thereon, some of the States should have been compelled to suspend payment of their debts; but a necessity of this sort could be temporary only. The indebted States are all rich, and eminently flourishing and prosperous communities, and it might have been expected that they would have made every effort to resume payment in full of their debts at the earliest possible moment. But this we are sorry to say has not been the case with some of them, as will be seen from the

An Account of the Debts of the different States in January, 1858.

States.	Absolute Debt.	Contingent Debt.	Total Debt.	Annual Interest on Absolute Debt.
Maine	$699,500	$326,700	$1,026,200	$41,970
New Hampshire	None.	. .	None.	
Vermont	None.	. .	None.	
Massachusetts	1,314,000	4,949,555	6,263,555	70,000
Rhode Island	. .	386,311	386,311	
Connecticut	None.	. .	None.	
New York	31,671,944	770,000	32,441,944	1,900,000
New Jersey	95,000	. .	95,000	5,700
Pennsylvania	39,881,738	. .	39,881,738	1,935,840
Delaware	None.	. .	None.	
Maryland	10,754,204	4,100,000	14,854,204	600,000
Virginia	28,812,967	3,898,500	32,711,467	1,763,944
North Carolina	7,181,923	. .	7,181,923	450,000
South Carolina	3,192,743	3,000,000	6,192,743	184,620
Georgia	2,632,722	. .	2,632,722	157,963
Florida	158,000	. .	158,000	11,060
Alabama	5,888,134	. .	5,888,134	315,000
Mississippi	2,271,707	5,000,000	7,271,707	136,000
Louisiana	4,580,591	6,322,551	10,703,142	300,000
Texas	None.	. .	None.	
Arkansas	1,424,345	1,100,000	2,524,345	82,800
Tennessee	4,142,857	8,614,000	12,756,857	248,571
Kentucky	5,574,244	. .	5,574,244	355,000
Ohio	17,100,269	. .	17,100,269	1,006,936
Michigan	2,269,467	. .	2,269,467	137,000
Indiana	7,357,074	. .	7,357,074	316,726
Illinois	12,834,000	. .	12,834,000	770,000
Missouri	602,000	18,436,000	19,038,000	35,865
Iowa	128,010	. .	128,010	10,000
Wisconsin	. .	. .	. .	
California	3,910,906	218,021	4,128,927	258,132
Minnesota	250,000	. .	250,000	20,000
Total, near Jan. 1. 1852	169,076,638	33,481,124	202,557,762	8,696,888
— 1853	184,303,865	31,863,921	216,167,786	9,291,334
— 1854	191,671,591	30,133,112	221,804,503	9,943,841
— 1855	192,026,298	44,767,851	236,794,149	9,866,995
— 1856	182,030,283	56,872,259	238,902,542	10,006,812
— 1857	187,292,059	57,919,220	245,211,259	10,628,871
— 1858	194,528,345	57,121,638	251,646,983	11,065,067

"These tables are believed to be accurate, being compiled almost exclusively from official reports made by the treasurers and auditors to the legislatures of the several States, near the 1st of January, 1858."

following statement, obligingly furnished to us for our last edition by a gentleman connected with the United States, and extremely well versed in these matters.

"The following States of the Union failed to pay the interest on the whole or a part of their debts during the period of depression which followed 1837, viz., Michigan, Pennsylvania, Indiana, Illinois, Maryland, Arkansas, Mississippi, Louisiana, Florida, and Texas. Of these, Pennsylvania has resumed payment of interest, and has funded the arrears thereof, which had accrued during the suspension, in stock bearing interest from the date when the respective dividends became due. The interest on this stock was 6 per cent.; but after it had remained unpaid for 3 years, the State, notwithstanding her wealth, was mean enough to oblige the holders to accept in exchange 5 per cent. stock, with the payment of the overdue interest at 5 instead of 6 per cent.; while she, at the same time, laid a direct tax of 5 per cent. on the dividends payable on her debt, including the portion held by foreigners. Maryland has, also, resumed payment of interest in full, and has paid off the dividends which had accumulated during the period of suspension, with interest upon them from their maturity; but like Pennsylvania, she laid a tax of 5 per cent. (recently reduced to 3 per cent.), on the dividends of all her debt, including that belonging to foreigners. The debt of Louisiana consisted of two parts, one comparatively small (about 1,500,000 dollars), which was the direct debt of the State, and which has always been punctually provided for; the other much larger (about 20,000,000 dollars), arising from the loan of the credit of the State to various banks as security for their engagements, and which became a charge upon the State in consequence of the inability of the banks to provide for the claims upon them. The State did not make any provision for this latter portion of debt from her treasury; but the various banks which suspended payments have, after a shorter or longer interval, themselves provided for their bonds guaranteed by the State; so that there is not at present any overdue obligations outstanding for which the credit of the latter is pledged.

"Michigan has repudiated the greater part of her debt, viz. the portion sold to the Bank of the United States, excepting a small proportion of the amount, for which she admits her liability. She has sold certain public works, receiving her bonds in payment to the extent to which she has acknowledged her liability, and has thus greatly reduced the amount outstanding, and has provided for the payment of interest on the latter, excepting the repudiated portion. The State of Indiana has a small proportion of her debt guaranteed by the Bank of Indiana, the interest on which has been regularly paid. The other, and much the larger portion, has been disposed of, after several years of suspension, in the following manner: one half of the principal has been funded in a new stock, bearing 5 per cent. interest, of which, however, only 4 per cent. was paid for a

certain time, the other 1 per cent. being funded in a deferred stock. One half of the arrears of interest was also funded in a deferred 2½ per cent. stock. For the other half of the principal and interest the State has declined to make any provision from its funds. But as the Wabash and Erie Canal, one of the works for which the debt was contracted, was in an unfinished state, the bondholders were offered the option of advancing the sum required for its completion, and receiving the nett income of the canal and the produce of the sale of certain public lands granted to aid in its construction, towards the payment, first, of their advances, and then of the half of the principal and interest of their State bonds not provided for by the State. A considerable part of the bondholders having acted upon this proposal by contributing the necessary sum, the canal has been completed. Its revenue, and the produce of the land sales, will be applied, first, to the repayment of the advances, then to the payment of the interest and principal of the bonds of the subscribers, and lastly, if there should be any eventual surplus, to the payment of the bonds held by non-subscribers. It is hoped that the bonds of the subscribing bondholders may in time be provided for by the canal and sales of land; but the prospect of benefit to the non-subscribers from this arrangement is remote and uncertain. Illinois has confined her provision for her debt to imposing a permanent tax of 25 cents in the 100 dolls. on all property in the State, and enacting that the produce of this tax, whatever it may amount to, shall be applied towards paying the interest on the bonds, applying it first towards the payment of the oldest overdue coupons, and then to those of more recent date in succession. The largest amount produced by this tax has only sufficed to pay about 1¾ per cent. per annum on the principal of the bonds. It is hoped that from the rapid increase of the wealth of the State, the tax will equally improve in productiveness, and that it may eventually equal the interest of the bonds, which is at the rate of 6 per cent. But until that shall be the case, the amount of the debt must increase every year by the difference between a year's interest and the produce of the tax for the year, which becomes an addition to the very large amount of interest now overdue. And as no provision is made for paying, either now or hereafter, the interest accruing on this very large and increasing arrear, the bondholders must, under the most favourable working of the law, be eventually considerable losers. Arkansas has not made any provision from the State funds towards her debt; but as the State bonds were issued to provide capital for a bank, its assets are liable for the payment of the bonds.

"The debt of Mississippi was contracted to furnish capital for the Union Bank and the Planters' Bank. She has repudiated the bonds issued for the benefit of the former, amounting to 5,000,000 dollars, and has made no provision either for these or for 2,000,000 dollars issued to the Planters' Bank, her liability for which she acknowledges. By a recent change in the constitution of the State, her courts of law have been allowed to take cognizance of the claims of individuals against the State, and under this law a suit was brought, which resulted in a decision of the supreme court of the State affirming the obligation of the State in the case of the Union Bank bonds, which had been repudiated. There has not been time to ascertain what effect will be given to this decision. But we cannot suppose that the State will be profligate enough to repudiate obligations the validity of which has been established by her own tribunals; though the fact that one of the judges who decided in favour of the bondholders, and who, having completed his term of service, became a candidate for re-election, has been rejected, because of his decision, by the vote of the people, is a very ominous circumstance. Florida has not provided for her debt from the State funds. Its amount has been greatly reduced by debtors of the banks, to whom the State bonds were issued, buying them up at low prices, and paying them into the banks in discharge of their debts.

"Texas has announced her intention of profiting by her own laches, that is, of settling her debt on the principle of only recognising the amount which the bonds have cost the bondholders, a principle which will operate a very great reduction of its magnitude. Only a part of the bondholders have submitted to this decision. 5,000,000 dollars paid to Texas by the Federal Government have been appropriated by her towards the settlement of her debt in the way now stated."

This is not a very favourable statement: but Michigan, Illinois, and those States which had made such ineffectual provision for the payment of their debts, have since been induced to adopt more efficient measures. A very small sacrifice on their part would enable them entirely to wipe off that foul stain on their honour and their credit under which some of them are even now suffering. Mississippi, we are afraid, continues her policy, if so we may call it, of repudiation. *We* cannot find fault with the policy of the States which have taxed some of their dividends due to foreigners; for, though such a proceeding be not easily justified on principle, it is unluckily in accordance with the example we have set in subjecting the dividends due to the foreigner to the income tax.

The total State debt of California amounted, as seen above, in January, 1858, to

$4,928,127; but this sum was raised by county and city debts to an agg. of $12,163,090. It is highly to the credit of the people of this new State that on a proposal for the repudiation of the debt being submitted to their consideration, it was rejected by 57,661 votes to 16,970 do.—(*American Almanac for* 1859, p. 336.)

Soon after Pennsylvania had been unwise enough to repudiate her debt, the following forcible appeal was addressed to Congress by the late Rev. Sydney Smith.

The Humble Petition of the Rev. Sydney Smith to the House of Congress at Washington.

"I petition your honourable house to institute some measures for the restoration of American credit, and for the repayment of debts incurred and repudiated by several of the States. Your petitioner lent to the State of Pennsylvania a sum of money, for the purpose of some public improvement. The amount, though small, is to him important, and is a saving from a life income, made with difficulty and privation. If their refusal to pay (from which a very large number of English families are suffering) had been the result of war, produced by the unjust aggression of powerful enemies; if it had arisen from civil discord; if it had proceeded from an improvident application of means in the first years of self-government; if it were the act of a poor State struggling against the barrenness of nature,—every friend of America would have been contented to wait for better times; but the fraud is committed in profound peace, by Pennsylvania, the richest State in the Union, after the wise investment of the borrowed money in roads and canals, of which the repudiators are every day reaping the advantage. It is an act of bad faith which (all its circumstances considered) has no parallel, and no excuse.

"Nor is it only the loss of property which your petitioner laments: he laments still more that immense power which the bad faith of America has given to aristocratical opinions, and to the enemies of free institutions in the Old World. It is in vain any longer to appeal to history, and to point out the wrongs which the many have received from the few. The Americans, who boast to have improved the institutions of the Old World, have at least equalled its crimes. A great nation, after trampling under foot all earthly tyranny, has been guilty of a fraud as enormous as ever disgraced the worst king of the most degraded nation of Europe.

"It is most painful to your petitioner to see that American citizens excite, wherever they may go, the recollections that they belong to a dishonest people, who pride themselves on having tricked and pillaged Europe; and this mark is fixed by their faithless legislators, on some of the best and most honourable men in the world, whom every Englishman has been eager to see, and proud to receive.

"It is a subject of serious concern to your petitioner that you are losing all that power which the friends of freedom rejoiced that you possessed, looking upon you as the ark of human happiness, and the most splendid picture of justice and of wisdom that the world had yet seen. Little did the friends of America expect it, and sad is the spectacle, to see you rejected by every State in Europe, as a nation with whom no contract will be made, because none will be kept; unstable in the very foundations of social life, deficient in the elements of good faith, men who prefer any load of infamy, however great, to any pressure of taxation, however light.

"Nor is it only this gigantic bankruptcy for so many degrees of longitude and latitude which your petitioner deplores, but he is alarmed also by that total want of shame with which these things have been done, the callous immorality with which Europe has been plundered, that deadness of the moral sense which seems to preclude all return to honesty, to perpetuate this new infamy, and to threaten its extension over every State of the Union.

"To any man of real philanthropy, who receives pleasure from the improvements of the world, the repudiation of the public debts of America, and the shameless manner in which it has been talked of and done, is the most melancholy event which has happened during the existence of the present generation. Your petitioner sincerely prays that the great and good men still existing among you may, by teaching to the U. States the deep disgrace they have incurred in the Old World, restore them to moral health, to that high position they have lost, and which, for the happiness of mankind, it is so important they should ever maintain; for the U. States are now working out the greatest of all political problems, and upon that confederacy the eyes of thinking men are intensely fixed, to see how far the mass of mankind can be trusted with the management of their own affairs, and the establishment of their own happiness."

FURS, in commerce, the skins of different animals, covered, for the most part, with thick fine hair, the inner side being converted by a peculiar process into a sort of leather. Furs, previously to their undergoing this process, are denominated *peltry*.

Beaver fur was formerly in very extensive use in the hat manufacture; but the introduction of silk and other hats has all but entirely superseded its employment in this way, and its value, though now

much scarcer than formerly, has, in consequence, fallen off very considerably. The fur of the middle-aged or young animal, called cub beaver, is most esteemed. It is the finest, most glossy, and takes the best dye. Fitch, or the fur of the fitchet or polecat, is principally imported from Germany: it is soft and warm, but the unpleasant smell which adheres to it depresses its value. Martin and mink (a diminutive species of otter) are principally imported from the U. States and Canada. The fur of the musquash or musk rat (a diminutive species of beaver) is imported in vast quantities from our possessions in North America; which also supply us with considerable quantities of otter skins. Nutria skins are principally brought from Buenos Ayres. The more valuable furs, as ermine, sable, &c., come principally from Russia.

FUR TRADE. We are indebted for the following details with respect to the fur trade to one of the most extensive and intelligent fur merchants of London.

"Though practically engaged in the fur trade, I fear I shall be able to say little with regard to it not already known to you; but were I to write on the subject, I should divide the trade into 2, or rather 3 classes.

"1. The 1st class would comprise articles of necessity; among which I should principally number an immense variety of lamb skins, varying so widely from each other in size, quality, colour, and value, that to most persons they would appear as the produce of so many different species of animals. These lamb skins are produced in all parts of the globe, and are every where consumed; but they form, in particular, an essential part of the dress of thousands among the lower classes in Russia, Poland, East Prussia, Hungary, Bohemia, and Saxony. In Russia and other cold climates, the skins of various other animals may be considered as articles of actual necessity.

"2. The 2d class would in a measure form part of the first, as it also comprises furs which through habit and fashion have now become articles of necessity. I should here enumerate all those different skins commonly called *hatting furs*. But the demand for these has, owing to the introduction of silk and straw hats, greatly fallen off, though it is still considerable. The furs used for hat making were beaver, musquash, otter, nutria, hare, and rabbit; but each of these may be subdivided into 20 different sorts or classes.

"Neutria, or nutria, is comparatively a new article. It began first to be imported in large quantities about 1810, from the Spanish possessions in South America.—(See NUTRIA.) The skin is used for different purposes, being either dressed as a peltry, or cut (shorn) as a hatting fur; and if well manufactured and prepared, it bears some resemblance to beaver fur, and is used for similar purposes.

"3. Under the 3d and last class I should bring all those furs which, though continually sold, and used in immense quantities, must still be considered mere articles of fashion, as their value varies according to the whims and fancies of different nations. There are, however, exceptions among these; and many furs may be considered as standard articles, since they are always used, though their price is much influenced by changes of fashion.

"This class comprises an endless variety of furs, as under it may be brought the skins of most animals in existence; almost all of them appearing occasionally in the trade.

"Furs being entirely the produce of nature, which can neither be cultivated nor increased, their value is not influenced by fashion alone, but depends materially on the larger or smaller supplies received. The weather has great influence on the quality and quantity of furs imported from all quarters of the globe; and this circumstance renders the fur trade more difficult, perhaps, and precarious than any other. The quality, and consequently the price, of many furs will differ every year. It would be completely impossible to state the value of the different articles of furs, the trade being the most fluctuating imaginable. I have often seen the same article rise and fall 100, 200, and 300 per cent. in the course of a twelvemonth; nay, in several instances, in the space of 1 month only.

"Among the furs which always rank very high (though, like all the rest, they change in value) may be specified the Siberian sable, and the black and silver fox. These articles are at all times comparatively very scarce, and command high prices.

"The chief supplies of peltries are received from Russia (particularly the Asiatic part of that empire), and from North America. But many other countries produce very beautiful and useful furs; and though we are most indebted to Asia and America, Europe furnishes a very considerable quantity. Africa and Australia are of little importance to the fur trade, as, from their situation, they furnish but few articles, and consume still less. From the former we draw leopard and tiger skins (the most beautiful of that species), while the *only* production of the latter is the kangaroo; this, however, is never used as a fur, being chiefly consumed by leather dressers and tanners for the sake of its pelt.

"Besides numerous private traders, there are several fur companies of very old standing, who in various countries do a great amount of business. Among these, the Hudson's Bay Company (in London) deserves to be mentioned first, not only from the extent of their business, but because it is one of the oldest chartered companies in England.

"The American Fur Company (in New York) stands next. They chiefly trade to London, whither they send the produce of the U. States and other parts of North America.

"The 3d company is the Russo-American (in Moscow). They trade to the Russian possessions on the western coast of North America, whence they draw their supplies, which are chiefly consumed in Russia, and sent to China.

"The 4th and last company of any consequence is the Danish Greenland Company (in Copenhagen). They do but a very limited business; exposing their goods for sale once a year in Copenhagen.

"The principal consumption of the furs which I should bring under the head of the 3d class, is in China, Turkey, and Russia, and among the more civilised countries of Europe, particularly in England. Germany consumes a considerable quantity. The consumption of America is comparatively little. In Africa, none but the Egyptians wear fur. In Australia, none is consumed.

"Most of the companies sell their goods by public sale, and the principal fur fairs are held at Kiachta (on the borders of China); Nijni Novgorod, between Moscow and Casan, in Russia; and twice a year at Leipsic.—(See FAIRS.)

"It is a remarkable feature of the fur trade, that almost every country or town which produces and exports furs, imports and consumes the fur of some other place, frequently the most distant. It is but seldom that an article is consumed in the country where it is produced, though that country may consume furs to a very great extent."

The following details with respect to the North American fur trade may not be uninteresting: —

This trade was first practised by the French settlers at Quebec and Montreal; and consisted then, as now, in bartering fire-arms, ammunition, cloth, spirits and other articles in demand among the Indians, for beaver and other skins. In 1670, Charles II. established the Hudson's Bay Company, to which he assigned the exclusive privilege of trading with the Indians in and about the vast inlet known by the name of Hudson's

Bay. The company founded establishments at Forts Churchill and Albany, Nelson River, and other places on the west coast of the bay. But the trade they carried on, though said to be a profitable one, was of very limited extent; and their conduct on various occasions shows how thoroughly they were "possessed with that spirit of jealousy which prevails in some degree in all knots and societies of men endued with peculiar privileges."—(*European Settlements*, vol. ii. p. 268.) Mr. Burke has, in the same place, expressed his astonishment that the trade has not been thrown open. But as the company's charter was never confirmed by any act of parliament, all British subjects are lawfully entitled to trade with those regions; though from the difficulties attached to the trade, the protection required in carrying it on, and the undisguised hostility which private traders have experienced from the agents of the company, the latter have been allowed to monopolise it with but little opposition. In 1783-4, the principal traders engaged in the fur trade of Canada formed themselves into an association known by the name of the North-West Company, having their chief establishment at Montreal. This new company prosecuted the trade with great enterprise and very considerable success. The course of their proceedings in their adventurous undertakings has been minutely described by Mr. Mackenzie, one of the agents of the company, in his *Voyage from Montreal, through the Continent of America*. This gentleman informs us, that some of those engaged in this trade are employed at the astonishing distance of upwards of 4,000 miles north-west of Montreal! A very numerous caravan, if we may so call it, sets out every year for *Le Grand Portage*, on Lake Superior, where they meet those who have wintered in the remoter establishments, from whom they receive the furs collected in the course of the season, and whom they, at the same time, furnish with fresh supplies of the various articles required in the trade. Fort Chepeywan, on the Lake of the Hills, in lon. 110° 26′ W., used to be one of the most distant stations of the servants of the North-West Company; but many of the Indians who traded with the fort came from districts contiguous to, and sometimes even beyond, the Rocky Mountains.

The competition and success of the North-West Company seem to have roused the dormant energies of the Hudson's Bay Company. The conflicting interests and pretensions of the two associations were naturally productive of much jealousy and ill-will. Under the auspices of the late Earl of Selkirk, who was for a considerable period at the head of the Hudson's Bay Company, a colony was projected and founded on the Red River, which runs into Lake Winnipec. The North-West Company regarded this establishment as an encroachment upon their peculiar rights; and the animosities thence arising led to the most violent proceedings on the part of the servants of both companies. At length, however, the more moderate individuals of each party began to perceive that their interests were not materially different; and the rival companies, wearied and impoverished by their dissensions, ultimately united under the name of the *Hudson's Bay Fur Company*, which at present engrosses most of the fur trade of British America. The most important part of the trade is still carried on from Montreal in the way described by Mr. Mackenzie.

The *North American Fur Company*, the leading directors of which reside in the city of New York, have long enjoyed the principal part of the Indian trade of the great lakes and the Upper Mississippi. But with the exception of the musk rat, most of the fur-clad animals are exterminated in the vicinity of the lakes. The skins of racoons are of little value; and the beaver is now scarce on this side the Rocky Mountains.

The following Table, extracted from the Report of the Jurors of the Great Exhibition of 1851, gives what is believed to be a pretty fair account of the average Imports and Exports of the Skins adapted for Furs.

	Total Importations into U. K.	Exported.	Consumed in U. K.		Total Importations into U. K.	Exported.	Consumed in U. K.
Racoon	525,000	525,000	None.	Otter	17,000	17,500	None.
Beaver	60,000	12,000	48,000	Fur seal	15,000	12,500	2,500
Chinchilla	85,000	30,000	55,000	Wolf	15,000	15,500	None.
Bear	9,500	8,500	1,000	Marten, stone and brown	120,000	5,000	115,000
Fisher	11,000	11,000	None.	Squirrel	3,000,000	100,000	2,900,000
Fox: red	50,000	50,000	„	Fitch	65,091	28,276	36,815
cross	4,500	4,500	„	Kolinski	53,410	200	53,210
silver	1,000	1,000	„	Ermine	117,104	None.	117,104
white	1,500	500	1,000	Rabbit	120,000	„	120,000
grey	20,000	18,000	2,000	Wolverine	1,200	1,200	None.
Lynx	55,000	50,000	5,000	Skunk	1,200	1,200	„
Marten	120,000	15,000	105,000	Sea otter	100	100	„
Mink	245,000	75,000	170,000				
Musquash	1,000,000	150,000	850,000				

The furs from our North American colonies are mostly all imported by the Hudson's Bay Company, by whom they are sold at public sales.

China is one of the best markets for furs. The Russo-American Fur Company are in the habit of carrying a considerable quantity of the furs taken by them in Kamtschatka and Russian America to Kiachta, where they are exchanged for tea and other Chinese products.

FUSTIAN (Ger. *Barchent*; Du. *Fustein*; Fr. *Futaine*; It. *Fustagno, Frustagno*; Sp. *Fustan*; Rus. *Bumasea*; Pol. *Barchan*), a kind of cotton stuff, wealed or ribbed, on one side.

FUSTIC (Ger. *Gelbholz, Fustick*; Du. *Geelhout*; Fr. *Bois jaune de Brésil*; It. *Legno giallo de Brasilio*; Sp. *Palo del Brasilamarillo*), the wood of a species of mulberry (*Morus tinctoria*), growing in most parts of South America, in the United States, and the West India Islands.

It is a large and handsome tree; and the timber, though, like most other dye woods, brittle, or at least easily splintered, is hard and strong. It is very extensively used as an ingredient in the dyeing of yellow, and is largely imported for that purpose. Of 10,800 tons of fustic imported into Great Britain in 1850, 3,395 tons were brought from New Granada, 2,076 ditto from the British West Indies, 1,639 ditto from Cuba, 945 ditto from the United States, 750 ditto from Mexico, and 669 ditto from Brazil. Fustic from Cuba fetches full 30 per cent. more in the London market than that of Jamaica or Colombia. At present the price of the former varies from 9*l.* to 9*l.* 10*s.* a ton, while the latter varies from 5*l.* 5*s.* to 6*l.* a ton. The consumption amounts to about 6,000 tons a year. The duty on fustic was abolished in 1845.

Zante, or *young* fustic, is really a species of sumach (*Rhus cotinus* Lin.), and is quite distinct from the *morus tinctoria*, or *old* fustic; the latter being a large American tree, while the former is a small European shrub. It grows in Italy and the south of France, but is principally exported from the Ionian Islands and Patras in the Morea. It imparts a beautiful bright yellow dye to cottons, &c., which, when proper mordants are used, is very permanent. It is conveniently stowed amongst a cargo of dry goods, as it may be cut into pieces of any length without injury. Only a small quantity of this species of sumach is imported. Its price fluctuates considerably.

G.

GALACZ or GALATZ, a town of Moldavia, on the left bank of the Danube, between the confluence of the Sereth and Pruth with that river, lat. 45° 25′ N., long. 28° E. It is ill built and dirty, though in these respects it has latterly been much improved. Pop. supposed to amount to 25,000. The trade of the town is chiefly carried on by Greek merchants; but, within the last few years, various English and other foreigners have formed establishments in it. Though at a considerable distance inland, Galacz is in the best position for becoming the port of the Danube. At present, however, it is little more than the port of Moldavia, Ibraila or Brahilow, about 12 miles farther inland, being the port of Wallachia. The commercial importance of these ports, and indeed of the Danube, dates only from the treaty of Adrianople in 1829. Previously to that epoch the trade of the principalities laboured under the most oppressive restrictions, and was principally carried on by land. But all articles of native produce may now be freely exported either by sea or land, on paying moderate duties; and the duties on imports are also, for the most part, comparatively moderate. The probability indeed seems to be that Galacz, "the Alexandria," as it has been called, "of the Scythian Nile," will at no very distant period become a first-rate emporium. The rescuing of Moldavia and Wallachia from Turkish misgovernment has been of signal advantage; and it is to be hoped that they may never again be subjected to its paralysing influence. The establishment of a regular intercourse by means of steam packets between Vienna and Galacz, and thence, by the Black Sea, with Constantinople and Trebizond, has already done a great deal, and will every day do more, to introduce a spirit of improvement into the vast and fertile; but long neglected, countries traversed by the Danube in the lower part of its course. The capacities of this great river as a commercial highway are certainly unequalled by those of any other European stream; and their full development would be of immeasurable advantage, not merely to the countries on its banks, but to all commercial nations.

Exports and Imports. — Moldavia and Wallachia are very productive provinces, being fruitful both of corn and cattle. The high prices of corn in France, Italy, and England, in 1846 and 1847, gave an extraordinary stimulus to the export trade of Galacz and Ibraila. The exports of wheat from both ports, in 1847, amounted to no fewer than 570,978 quarters, worth on board-ship 875,603*l.*; the exports of Indian corn during the same year were 937,720 quarters, worth 1,172,150*l.*; and among the other exports were about 320,000 quarters of barley, and 42,000 cwt. of tallow, with a variety of inferior articles. The total value of the exports from the two ports during the above year amounted to the very large sum of 2,368,472*l.*, of which about two thirds were from Ibraila.

The quality of the wheat, which is partly hard and partly soft, was, a few years ago, very inferior, being generally damp, and having an earthy smell from its being kept in pits dug in the ground. Latterly, however, it has been much improved; and the finer samples now fetch, in Marseilles, Genoa, and Leghorn, within from 3 to 4 per cent. of the price of Odessa wheat. In 1852 we imported 86,140 quarters of Wallachian and Moldavian wheat, with no fewer than 626,714 do. Indian corn. Both provinces fatten large herds of cattle, particularly Moldavia, which annually sends great numbers to the Austrian states. Tallow may be had in large quantities, its annual produce in Wallachia only being estimated at about 3,000,000 okes, or 8,500,000 lbs. Until within

these few years the tallow shipped at Galacz was burdened with a heavy export duty, which checked its sale, and consequently, also, its growth. Happily, however, that duty is now reduced to 3 per cent., and the exportation is rapidly increasing. The quality of the Danubian tallow is excellent. Among the other articles of export are wool, timber, hides, and skins, lard, butter, bristles, bones, jerked beef, linseed, barilla, yellow-berries, coarse cheese, &c. Timber of the finest quality may be had in any quantity; but as it can only be advantageously exported in large ships, which cannot when laden make their way over the bar, the trade in it has hitherto been confined within comparatively narrow limits. One, however, would be disposed to think that this difficulty might be obviated by sending down the timber in rafts and loading outside the bar.

Notwithstanding the recent period at which the navigation of the Danube has been opened, and the barbarous state of the countries in the lower part of its course, the value of the exports from Galacz and Ibraila probably at this moment (1853) exceed 1,800,000*l.* a year, of which from 750,000*l.* to 800,000*l.* may be from the former. But, considerable as this is, it is nothing to what it certainly would be were civilisation to make any considerable progress in the countries traversed by the Danube after it leaves the Austrian dominions, and still more were the river to become, as it naturally is, the principal channel for the conveyance of products to and from Hungary and Transylvania.

The great articles of import are manufactured cotton goods, and cotton twist, principally from England, the demand for which is rapidly increasing; with sugar, coffee, and other colonial products; olives and olive oil, iron and steel, hardware, &c.

Entrance to Galacz.—Of the three principal mouths of the river, the Soulineh (middle) mouth, in lat. 45° 10′ 30″ N., long. 29° 41′ 20″ E., is the only one accessible by vessels of considerable burden. The depth of water on the bar, at its entrance, ½ mile from the shore, varies from 10 to 13 and 14 feet, according to the season of the year, and the direction of the wind. When the latter blows from the E. it is opposed by the current of water flowing from the W., so that the bar is rapidly increased by the deposit thereon of the mud brought down by the river; and when, on the contrary, the current and the wind coincide, the mud is carried out into the sea, and the depth of water on the bar is progressively augmented. The assistance of a powerful dredging machine, or machine fitted to stir up the mud, or other deposit forming the bar during the prevalence of westerly winds, would be of great importance; and it is believed that with its agency the channel might be very materially deepened. Great complaints have been made of the state of the navigation of the Danube during the present year (1853). It appears to have been occasioned partly by difficulties arising out of the disputes between Russia and Turkey, and partly by the prevalence of easterly winds. But it would be easy by erecting a light-house to mark the entrance to the river, and employing a dredging machine and steam tugs, to obviate the physical obstructions to the navigation. From the bar to Galacz and Ibraila, there is nowhere less than 18 feet water, and in many places from 60 to 70 feet. Vessels of 300 tons lie close to the quays at Galacz. The shores at the mouth of the river being low and bordered with reeds and shoals, vessels intending to enter the river generally make the small rocky islet of Phidonisi, or Serpent's Isle*, in lat. 45° 15′ 15″ N., long. 30° 10′ 30″ E., whence the Soulineh mouth bears W. by S., distant 23 miles. According to Mr. Cunningham, the first objects seen, on nearing the shore, are the masts of vessels in the river and the houses in the town of Soulineh, which, however, are very low. Hagemeister says that there is a wooden tower on the south shore at the entrance to the river; but, though the contrary has been often affirmed, and its position given in Arrowsmith's map, there is certainly no lighthouse. When a ship approaches the entrance, a boat from the Russian captain of the port goes off, and by waving a red flag indicates the course to be kept. Lighters are generally stationed without the bar, into which large ships discharge a part of their cargoes; and pilots may generally be obtained from them or other vessels. As the current is sometimes very strong, and difficult to stem, a proper establishment of steam tugs at the mouth of the river would be a great advantage. An E. S. E. wind carries a vessel from Soulineh to Galacz through all the different reaches of the river; but otherwise the navigation is difficult, and towing is in parts necessary.

Frost usually sets in on the Danube in the month of December, and continues till the month of March; in 1833, however, there was no frost. Freights in the ports of the Danube are always from 20 to 25 per cent. higher than in Odessa; premiums of insurance, on the contrary, are not higher than at the latter, except on such vessels as, on account of their size, are obliged to discharge outside the bar.

Money, Weights, and Measures.—These are mostly the same as at Constantinople, which see. Accounts are kept in piastres and paras. 1 piastre=40 paras.

Galacz.—Ducat blanc = pia. 44. Silver ruble = 15 pia. Spanish dollar = 19 pia. 32 paras. Turkish yermelik, old coinage = 19 pia. 32 paras; Turkish yermelik, new coinage,

* This island was famous in antiquity for its temple in honour of Achilles, to whom it was sacred. It was called *Leuce*, or the White Island, from the myriads of sea-fowl by which it was usually covered. There seems to be no good foundation for the modern notion of its being infested with serpents. It is singular, however, seeing that it is now annually passed by numbers of European ships, that it should not have been visited by any traveller. It may be expected to contain some remains of antiquity.—(See *Clarke's Travels in Russia, Turkey, &c.* 8vo. edit. vol. ii. p. 394—401

= 17 pia. 15 paras. Austrian swanzikers=3 pia. 5 paras. It is to be observed that when exchanges are so high that it is requisite to remit in specie, any of these coins may go to a premium, according as it suits better than others for the remittance; and just now, owing to the want of bills to remit to Austria, the ducat blanc = 44 pia. 20 paras.

Ibraila has two rates of currency; the one for charges, which is the same as in Galacz, and the other for the purchase of merchandise, as follows:—Ducat blanc = 32 pia.; Spanish dollar = 14½ pia.; Turkish yermelik, old coinage, = 1½ pia.; Turkish yermelik, new coinage, = 12 pia. 28 paras; swanziker = 2 pia. 12 paras. *Note.*—The same as in Galacz, any of these coins may go to a premium.

Galacz and Ibraila.—All duties are paid in both places, in the course of the Treasury, as follows:—Ducat blanc = 31½ pia.; silver ruble = 10½ pia.; Spanish dollar = 14 pia.; Turkish yermelik, old, = 1¼ pia.; swanziker = 2¼ pia.

The ducat blanc weighs 1 Turkish drachm.

Exchanges.—Bills can generally be sold on the following places, and the present (1842) rates are as noted: it must be observed, however, that these rates are very high; and when a great deal of paper is offering, they may go 4 per cent lower.

		Pias.	*Paras.*	
Vienna	3 m *f* date	9	16	per florin.
Trieste		9	13	florin.
Marseilles		3	26	franc.
Genoa		3	26	franc.
Leghorn		3	4	lira.
London		90	20	£ sterl.
Odessa	10 d /st.	420 per 100 roubles.		
Constantinople	111	119	100 of Galacz.	

Weights.—Galacz and Ibraila. 400 drams = 1 oke. 44 okes = 1 cantar.

Measures.—Galacz and Ibraila. 20 banniza = 1 kilo. 3 kilo of Galacz = 2 kilo of Ibraila.

Correspondence of Weights and Measures of Galacz with those of Foreign Places.

39½ okes	=	1 cwt. English.	
78 —	=	100 kilogrammes.	
44 —	=	100 fund of Vienna.	
12¾ —	=	1 pud of Russia.	
100 kilo of Galacz	=	150 Imperial quarters.	
100 —	=	435 hectolitres.	
100 —	=	425 stajo of Venice.	
100 —	=	600 sacks of Leghorn.	
100 —	=	280 chetwerts of Odessa.	
160 okes linseed	=	1 Imperial quarter.	
55 —	=	1 hectolitre.	
115 —	=	1 chetwert.	
1 kilo of Brahilow	=	2½ *Imperial* quarters.	

Note.—These measures generally measure out somewhat less.

Charges on Shipping, &c. in Galacz and Ibraila.

Port Charges.—In Galacz anchorage is 30 pia., and a guardian for 5 days' observation 5 pia. per day. In Ibraila anchorage is 17½ pia., and guardian for 5 days' observation 5 pia. per day.

Quarantine.—Vessels generally remain in quarantine during their stay, as little or no advantage is gained by taking pratique.

Vessels wishing to take pratique may obtain it in 14 to 21 days according to the state of health in Turkey, by taking a Health Office guard on board; or the captain alone may take pratique, the same as any passenger, by going into the lazzaret. During the last year, as the health was good in Constantinople and along the Danube, the quarantine was only seven days.

Note of Exports from Galacz by Sea in 1851, in English Weights and Measures, and Value of the same in Sterling Money, free on Board.

Articles.	Weight or Measure.	Quantity.	Value. £	s.	d.	Total Value. £
Wheat	Quarters.	134,474	1	1	0	141,198
Indian corn	—	350,682	0	16	0	280,545
Rye	—	71,024	0	14	0	49,716
Tallow and chervice *	Cwt.	4,349	1	14	0	7,393
Ox hides	Pieces.	1,547	0	10	0	773
Wine	Gallons.	86,400	0	0	8	2,880
Planks and deals	Pieces.	429,515	0	0	4	7,158
Masts and spars	Rafts.	5	00	0	0	3,500
Sundries						3,205
Total						£496,368

Account of the Exports by Sea from Ibraila in 1858, specifying the Vessels and the Countries to which they belonged, employed in the Exportation.

Countries.	Vessels.	Wheat.	Indian Corn.	Barley.	Rye.	Millet.	Rape Seed.
		kilos.	*kilos.*	*kilos.*	*kilos.*	*kilos.*	*okes.*
Greeks	546	77,662	76,878	57,214	2,555	519	
English	158	8,207	48,233	33,477	583	760	854,333
Turks	141	2,800	7,306	25,576	52	215	
Sardinians	91	13,942	18,370	17,157	-	724	
Austrians	80	6,528	26,547	10,498	771	-	199,387
French	59	2,412	15,535	7,129	1,226	-	109,300
Ionians	55	3,666	7,725	2,872			
Dutch	26	675	5,385	1,714	2,148	362	252,342
Wallachians	30	2,915	1,880	4,020			
Norwegians	20	1,898	4,085	2,087	-	823	
Hanoverians	15	1,511	2,496	1,296	483	-	213,000
Swedes	14	855	4,363	2,054			
Moldavian	9	1,818	936	194			
Samian	9	1,758	1,557				
Prussian	8	-	1,857	3,082			
Oldenburg	8	1,016	957	762	462		
Neapolitan	6	471	1,335	709			
Tuscan	6	1,830					
Russian	4	343	546	802			
Serbian	4	-	175	1,440			
Mecklenburg	2	682	-	765			
Hamburg	2	306	301				
Jerusalem	2	-	1,178	409			
Belgians	1	-	241				
Danes	12	390	1,065	1,432	310	1,096	
Total	1,291	131,610	228,747	174,689	8,590	4,499	1,619,362

EXPORTED BY STEAMBOATS AND SAILING VESSELS.

	okes.		*okes.*
Beans	2,828,567	Wool	332,575
Tallow	382,614	Linseed	61,468
Cheese	241,542		

100 kilos. Ibraila = 232 imperial quarters.

* Tallow is here divided into two qualities, called tallow and chervice. The latter is the clean fat of the carcass and marrow boiled, and is much used in Constantinople for culinary purposes; tallow is the fat of the intestines, feet, &c. boiled. It is generally sold in parcels, consisting of ⅔ chervice and ⅓ tallow. For the Constantinople market chervice is worth 10 per cent. more than tallow, but for other European markets tallow is worth as much as chervice.—(*Cunningham on the Trade of the Danube*, p. 2.)

Duties.—An *ad valorem* duty of 3 per cent. is levied on all articles, except provisions, imported into, or exported from, the principalities of Moldavia and Wallachia. Government reserves to itself the power of prohibiting the exportation of any article, but it has to give a month's previous notice of any such prohibition.

Galacz is a free port; that is, a port at which all commodities may be landed, warehoused, re-exported, and consumed in the town, free of duty. Quarantine regulations are strictly enforced, unless performed previously to entering the river.

Ismail and Reni, ports of the Russian province of Bessarabia, are situated on the Danube, and are both, but especially Ismail, a good deal nearer its mouth than Galacz; but they are much less considerable in point of commercial importance. Having little importation, their trade is confined almost entirely to the exportation of corn, and even in this respect they are very inferior to Galacz and Brahilow. They are subject to the Russian duties and regulations.

We have gleaned these particulars from a variety of works, but principally from the valuable *Report* by Mr. Cunningham, now vice-consul at Brahilow, printed at Galacz in 1841; the work of Hagemeister, *On the Commerce of the Black Sea*, Eng. Trans. pp. 83—95, *&c.*; *Purday's Sailing Directions to the Black Sea*, p. 193, *&c.*

Pro formâ Invoice of Wheat purchased in Galacz, and put free on board.

	Pias.	Par.	Pias.	Par.
Kilo 1000 wheat at 150 pias. ℔ kilo			150,000	0
Kilo 30 loss on sifting.				
Kilo 970 shipped.				
CHARGES.				
Duty on kilo 970, @ pias. 4. — D $31\frac{1}{2}=44$	5,419	69		
Town duty, @ paras 10 ℔ kilo	242	50		
Measuring on purchasing, @ paras 6 ℔ kilo	150	0		
Porterage receiving, @ paras 20 ℔ kilo	500	0		
Sifting, @ paras 20 ℔ kilo	500	0		
Cartage in warehouse according to distance, paras 30 ℔ kilo on kilos 970	727	50		
Measuring shipping on kilos 970 @ paras 12	291	0		
Porterage on shipping kilos 970 @ paras 20	485	0		
Cartage on shipping, paras 30	727	50		
Warehouse, ½ per cent.	750	0		
Brokerage, ½ per cent.	750	0		
Scandaglio box for measure	30	0		
Attendance of warehouseman	80	0		
Postage and petty expenses	30	0		
			10,974	19
			160,974	19
Commission, 3 per cent.			4,829	22
Bill brokerage, 1 per cent.			165	96
			Pia 165,969	37

When the grain is shipped direct from the warehouse of the seller, without being transported to the warehouse of the buyer, then the charges will be less by the cartage and porterage passed for that purpose.

When the season is advanced and the streets in bad order, the charges of embarking will be something more.

Pro formâ Invoice of Tallow purchased at Ibraila in Hides and melted into Casks, put free on board in Galacz.

Cask Ok 94,342				
Tare of hides, loss on melting 5,658 6 per cent.				
Purchased Ok 100,000 at 108 para			P. I. 270,000	
32 Piast. Ibraila = 44 Piast. Galacz			P. G. 371,250	
CHARGES.				
Export on duty No. 60,000 tallow, P. 2½.				
,, 34,342 chervice, P. 3.			Pias.	Par.
P. 253,026 at 3 per cent. P. 7590. D. $31\frac{1}{2}=44$			10,601	90
Town duty on P. 253,026 at ½ per cent.			883	60
Weighing, receiving, para 12 per 100 okes			300	0
Porterage, receiving, and stowing on hides 2,902 at P. 2½			725	0
Cartage receiving, P. 1½			435	0
Cartage from warehouse to melting			290	0
Porterage, taking out of warehouse, filling casks, and restoring, P. 1 per 100 okes			1,000	0
Hire of melting-house coopers			700	0
Firewood for melting			600	0
Cost of 400 casks heading, P. 40			16,000	0
Carting, shipping, P. 1½ per cask			500	0
Porterage, shipping, P. 1½ per cask			600	0
Weighing and shipping, P. 1 of Vesteria per cask			558	75
Quarantine, guards and present			100	0
Attendance of warehouseman			350	0
Warehouse rent, ½ per cent.			1,856	25
Brokerage, ½ per cent.			1,856	25
Postages and petty expenses			300	0
Certificates			40	0
				37,696 73
				P. 408,946 73
Commission, 3 per cent.				12,268 38
				P. 421,215 11
Sold hides, 290 at P. 34½			10,077 50	
Brokerage, 1 per cent.		P. 100 77		
Commission, 1 per cent.		100 77	201 54	
				9,875 96
				P. 411,339 15
Bill brokerage, 1 per cent.				411 74
				P. 411,750 89

An Account of the Exports of Wheat and Indian Corn from Galacz during each of the 10 Years ending with 1849.

Years.	Wheat.	Maize.	Total.
1840	230,568	189,037	419,606
1841	100,845	35,394	136,239
1842	154,675	93,531	248,206
1843	107,654	140,662	249,296
1844	166,535	174,023	340,558
1845	180,032	157,101	337,133
1846	110,902	336,627	447,529
1847	180,860	318,605	499,465
1848	113,605	143,727	257,332
1849	169,022	248,199	417,221

In 1849 there were also exported 62,113 qrs. of rye. In 1847 the total value of the exports from Galacz was estimated at 775,532*l.* During the same year, 662 loaded vessels left its port, of which 206 were

English. The value of the exports from Ibraila in 1847 was about double the value of those from Galacz.

We may avail ourselves of this opportunity to state that there has been an equal, or even greater, increase in the exports from Bulgaria, independently of those that come down the Danube to Ibraila. About eight or ten years ago, the entire exports of wheat from Varna and the other Bulgarian ports between the Gulph of Bourghas and Kustenjee, did not certainly exceed 200,000 quarters, whereas in 1847 they amounted to 896,000 quarters! And it is necessary to bear in mind that this is exclusive of the exports, which are very considerable, from Tulcha, a port of Bulgaria, on the Danube, about 40 miles W. of the entrance to the Soulineh mouth. We subjoin some statements in regard to the trade of Varna, the capital of Bulgaria, in 1847.

Account of the Quantities and Values of the principal Articles imported into and exported from Varna in 1847.

Imports.			Exports.		
Articles.	Quantities.	Value in £ sterling.	Articles.	Quantities.	Value in £ sterling.
Almonds - - cwts.	24	60	Wheat - - quarters	377,500	471,000
Carobs - - —	10,803	6,000	Barley - - —	10,000	5,000
Coffee - - —	14,263	30,000	Hides - - No.	100,000	84,456
Cotton twist - - packets	130,000	32,000	Tallow - - cwts.	92,714	176,800
Cloths, woollen - bales	200	10,000	Butter - - —	9,482	21,816
Cloths, cotton - —	200	7,000	Cheese - - —	24,000	63,636
Figs - - - cwts.	3,000	2,400	Walnuts - - bushels	10,000	1,000
Iron - - - tons	500	7,000	Wool - - lbs.	112,600	2,000
Olive oil - - cwts.	2,107	5,057	Dried beef or pasturma cwts.	56,817	25,000
Olives - - —	3,000	2,400	Miscellaneous, including poultry and eggs - -	- -	25,000
Pepper and other spices lbs.	14,500	1,612			
Raisins - - cwts.	10,535	6,322			
Sugar - - - —	5,266	11,585			
Soap - - - —	1,875	4,125			
Salt - - - tons	923	1,800			
Tin (in bars) - - bands	727	2,000			
Spirits - - gallons	500,000	75,000			
Miscellaneous - -	- -	10,000			
Total -	- -	£214,361	Total -	- -	£875,708

The port of Varna is situated on the W. coast of the Black Sea, at the bottom of a rather small bay, about 3 m. N.W. Cape Galata, the latter being in lat. 43° 10′ N., long. 27° 58½′ E. The ordinary anchorage is to the S.E. of the town, in 7 or 8 fathoms, bottom sand and oaze. It is open to all winds between E. and S.S.E. Vessels load and unload by means of lighters, it being dangerous to approach within less than ¼ m. of the shore.

Both hard and soft wheat are shipped from Varna, the value of the former being from 30 to 40 per cent. greater than that of the latter. An export duty is charged on wheat when exported, and being a fixed duty of about 2*s.* 8*d.* a quarter, it is high when prices are low, and low when they are high.

Mouths of the Danube. — There is a great discrepancy in the statements of ancient authors as to the number of channels by which the Danube poured its waters into the Euxine. — (*Cellarii Notitia Orbis Antiqui*, lib. ii. cap. 8.) A similar discrepancy exists at this moment; some authorities affirming that it has 4, others 5, and others 6 or 7 mouths. But, as stated above, there are only 3 of any considerable magnitude, viz. the Kilia mouth on the north, and successively the Soulineh mouth, and the Edrillis mouth. But, besides these, there are other channels of inferior importance, of which two, at least, are still more to the south than the Edrillis mouth. In antiquity, the most southerly channel was the deepest, and best suited for the purposes of navigation, and was thence called *Sacrum*. — (See *Cellarius ut suprà.*) It is not, however, to be wondered at, that, in the course of so many ages, very great changes should have taken place in the channels of the river. It seems probable that the *Ostium Sacrum*, or southern channel of the ancients, may have run between *Carsum*, now Hirchova, and the lake *Halmyris*, now Rassein, which communicates with the Euxine at Kara Kerman, formerly *Istropolis*, and at a point still more to the south. At any rate, there certainly was a channel in the route now pointed out — (*D'Anville, Abrégé de la Géographie Ancienne*, tom. i. p. 307.); and as it is a good deal more to the south than the Edrillis mouth, with which the *Ostium Sacrum* has been commonly identified, it would seem to have the best claim to the distinction of being synonymous with the latter. This channel is, in fact, still partially open, and it is stated that the Austrian government has seriously entertained a project for making it navigable. There can be no doubt, that if this could be effected, it would be of much importance to the trade with Hungary and the countries on the upper part of the river, by materially shortening the river navigation, and facilitating the transit of ships and goods to and from the Black Sea; but the marshy nature of the ground is said to oppose formidable obstacles to the construction of a canal.

Navigation of the Danube. — Steam navigation was first established on the Danube

in 1830, since which the undertaking has gone on prospering, so much so, that the communication between Vienna and Constantinople is now maintained by a line of 7 or 8 steam vessels. The Austrian steam company, which was the first in the field, have extended their scheme by starting vessels between Vienna and Linz, and a Bavarian company commenced in 1838 running vessels between Ratisbon and Linz.

At present (or, very recently) steam boats ply on the Danube as long as the river is free from ice (usually from February or March to November), from Ratisbon to Linz, once a week; Linz to Vienna, 10 hours, once a week; Vienna to Presburg and Pesth, twice; Pesth to Drencova, once a week; Gladova to Galacz, once a week; Galacz to Constantinople, once a fortnight.

The voyage from Vienna to Constantinople, including stoppages, is seldom performed in less than 14 days, and sometimes occupies 17; in returning against the stream it takes at least a month, including 10 days quarantine at Orsova. The fare was lately, first place, 134 fl., about 13*l.*; second place, 94 fl.

The navigation of the Danube by steamers is unfortunately interrupted for about 50 miles, between Drencova and Gladova, by rocks and rapids, the lowest and most considerable of which is a sort of cataract, called the "Irongate," about 3 miles below the Hungarian frontier. It is worthy of remark that the most illustrious of the Roman emperors, Trajan, alive to all the advantages to be derived from the easy navigation of the Danube, had with equal industry and sagacity formed a road, or towing path, along the river's edge, for facilitating the operation of towing, of which the remains are still extant, with an inscription commemorative of the completion of the works. It has been proposed to overcome the difficulties in the way of the navigation by renovating the old Roman road, and deepening the channel contiguous to it. But it rarely happens that attempts to improve the navigation in the bed of a river, under any thing like similar circumstances, are even tolerably successful. The better way undoubtedly would be, were it practicable, to construct a lateral canal, or rather a canal from the mouth of the Bereska to Palanka, which would not only avoid the rapids, but also shorten the navigation by getting rid of the bend of the river by Orsova. But the difficulties in the way of such an undertaking, from the nature of the ground, are said to be insuperable; and it is, therefore, probable that the distance of 50 miles along the rapids will continue, if not always, at least for some considerable time, *a portage*. The inconvenience, however, of this break in the navigation has been diminished, as far as possible, by the construction of an admirable carriage road, at great expense, by the Hungarian diet, from Moldova to Orsova. In the extent of excavations in the rock, and terraces of masonry, upon which it is carried, it is not inferior as a specimen of engineering to the finest roads over the Alps. Several steamers have been transported down these rapids at the season of floods, small barges pass them at all times, and little boats, laden with wax and wool, are towed up by men and oxen. The passengers and goods conveyed by the steamers are transferred from Moldova in row-boats, to Gladova, below the Irongate, where they embark on another steamer. — (*Geog. Dict.* art. *Danube.*)

Railroad is completed from Brunn, the capital of Moravia, to Vienna; another railroad diverges, from the Danube at Linz, north to Budweis in Bohemia, where it reaches the banks of the Muldau, and through it communicates with the Elbe.

Junction of the Danube and the Rhine. — The long projected canal to unite the Danube and Rhine, the favourite scheme of Charlemagne, having been undertaken by the Bavarian government, was completed and opened in 1846. It extends from Bamberg, by Erlangen and Nuremberg, to Neumark, joining the Danube at Kellheim, a few miles above Ratisbon. The distance between the Maine near Bamberg, and the Danube, is about 112 miles; but the actual extent of canal is less, the communication being in part effected by the Regnitz, a tributary of the Maine, and the Altmuhl, a tributary of the Danube. There is now, consequently, an internal communication by water throughout all the vast country, stretching from the shores of the Netherlands to the Black Sea; so that produce shipped at Rotterdam or at Galacz may be conveyed from the one to the other in the same vessel.

GALANGAL (Ger. *Galgant;* Du. and Fr. *Galanga;* Rus. *Kalgan;* Lat. *Galanga;* Arab. *Kusttulk;* Chin. *Laundon*), the root of the *galanga*, brought from China and the East Indies in pieces about an inch long, and hardly ¼ an inch thick. A larger root of the same kind (*Greater Galangal*), an inch or more in thickness, is to be rejected. It has an aromatic smell, not very grateful; and an unpleasant, bitterish, extremely hot, biting taste. It should be chosen full and plump, of a bright colour, very firm and sound: 12 cwt. are allowed to a ton. — (*Lewis's Mat. Med.; Milburn's Orient. Com.*)

GALBANUM (Fr. *Galbanum;* Ger. *Mutterharz;* It. *Galbano;* Lat. *Galbanum;* Arab. *Barzud*), a species of gum resin obtained from a perennial plant (*Galbanum officinale*) growing in Africa, near the Cape of Good Hope, and in Syria and Persia. It

is brought to this country from the Levant in cases or chests containing from 100 to 300 lbs. each. The best is in ductile masses, composed of distinct whitish tears agglutinated together by a pale brown or yellowish substance. It is generally much mixed with stalks, seeds, and other impurities. The separate tears are considered as the best. When the colour is dark brown or blackish, it is to be rejected. It has a strong peculiar odour, and a bitterish, warm, acrid taste. — (*Thomson's Dispensatory.*)

GALLIPOLI, a sea-port town of S. Italy, k. of Naples, prov. Terra di Otranto, on the E. shore of the Gulph of Taranto, on a rocky islet, at the W. extremity of a narrow peninsula, to which it is joined by a bridge, lat. 40° 3′ N., long. 17° 58′ E. It is fortified, has a castle, and is well built. Pop. about 7,000 (6,709 in 1843). It is the principal port of the Mediterranean for the shipment of olive oil, and has, in consequence, a considerable trade.

It is indebted for this distinction, partly to its being situated in a country where oil is produced in the greatest abundance, but more, perhaps, to the circumstance of the cisterns, cut in the limestone rock on which the town is built, being peculiarly well fitted for the preservation of the oil. They do not differ much in appearance from a common water tank. They are usually under the houses of the inhabitants; are arched over, with the exception of a circular hole, into which the oil is poured, and through which it is again drawn up. It will keep in these cisterns for an indefinite period; and is materially improved, not only in clearness, but also in flavour. When the oil is to be shipped, it is drawn off from the cisterns into *uteri* or skins, which are carried on men's backs to the shore, where the casks, being filled, are conveyed in lighters to the ships. — (See art. Olive Oil in this Dictionary.) Of 16,964 tuns olive oil imported into the U. K. in 1849, 9,661 tuns were from the k. of Naples, and principally from this port.

Gallipoli has no harbour, but a bay or roadstead N. E. of the town. The latter has from 10 to 12 fathoms water; but it shoals towards shore, and vessels of considerable burden should not come within less than a musket shot of the land. Those that come nearest to the shore moor, with their heads to the N.W. with 2 cables out a-head and 2 a-stern in from 16 to 20 feet water. The only danger in entering or leaving the roads is a blind rock at their entrance, about 500 yards N. N. E. from the fort. It has only about from 5 to 7 feet water; and as it is not marked by any buoy, pilots should be employed by foreigners. A tunny fishery is carried on inside the bay; but the nets are easily avoided. Winds from the N. and N. W. throw in a heavy sea.

About 1½ m. W. from the town is the low, flat island of St. Andrea. It is said in *Norries's Sailing Directions for the Mediterranean*, that there is a light-house on this island. But, though a light-house on it would be of great service to ships making the port, and though it be laid down in some of the charts of this sea, the truth is that none such really exists, nor is there even a tower on the island! There are some lesser islands between St. Andrea and the mainland. There is deep water between the former and the nearest islands, but not between the latter and the town. A dangerous shoal lies about ½ m. S. of St. Andrea.

Monies, Weights, and Measures. — Those of Naples, excepting the measure of oil, which in loading is measured in vats of 11 salme, 1 stajo, and 28 pignatti of Gallipoli. The salmas of Naples and Gallipoli are the same, each weighing 165½ rottoli of clear oil. The difference is in the subdivision: viz.,—

1 Salma of Naples	=	16 Staja, or 320 Pignatti.
1 Salma of Gallipoli	=	10 Staja, or 320 ditto.
1 Stajo of Naples	=	20 Pignatti.
1 Stajo of Gallipoli	=	32 Pignatti.
72 Staja of Gallipoli	=	1 Imp. Tun.

The quarantine regulations are the same as those of Naples; but as Gallipoli has no lazaretto, vessels laden with susceptible goods proceed to Brindisi to discharge and perform quarantine, Brindisi having the only lazaretto in the province of Terra di Otranto.

General Remarks. — Masters of vessels loading oil at Gallipoli are obliged to attend at the measurement of the oil, and inspect its quality. They receive for their attendance from the shipper, free of all charges on board, 2 staja, or 2 per cent. (Gallipoli measure), of oil for every 100 salme their vessel loads.

Bills of Lading for a cargo of oil are merely signed by the master with his name, *without any sort of clause*. He, consequently, affirms for the quantity and quality of the oil and casks. All bills of lading are made out in Italian.

In shipments for St. Petersburg, the number, tare, gross, and nett weight of each cask is endorsed on the bill of lading, which is signed by the master and shipper on both sides.

Besides the bills of lading, the master signs receipts in quadruplicate, specifying that a sufficient quantity of wood has been supplied to the stowers for the stowage of his cargo, and that he has received a certain number of empty casks for the purpose of transferring the oil to them, should any leakage take place during the voyage.

Another receipt is signed by the master stating that he has received the custom-house cockets, proving the duty to have been paid on his cargo. The cockets are of service should the vessel put into any other port of the Two Sicilies.

The *Port Charges*, of a public nature, are fixed by the tariff for the kingdom. But there are several port charges of a private nature, such as pilotage, mooring, unmooring, discharging of ballast, and watermen's or interpreter's attendance. These are only paid by foreign vessels, for the Neapolitan traders require no pilot, and having numerous crews, they moor and unmoor their own vessels, and discharge their ballast: and speaking the language of the place, do not require an interpreter, and merely have a person to assist them in getting their clearances from the different offices, whom they pay by private arrangement.

The charges for British vessels, are —

	ducats.	*grains.*
Pilotage, entering	4	50
ditto clearing	5	50
Mooring and unmooring	16	0
Interpreter's attendance	18	0
Discharging of ballast, for every ton	0	25

N. B. — Vessels of all sizes pay the same charges.

Supplies and Prices of Provisions. — Gallipoli is not a favourable place for obtaining supplies of fresh provisions, and is without any salt provisions, except salted cod, herrings, pilchards, and anchovies.

	grains.	
Bread (rather bad)	4 to 5	per rottolo.
Beef (not always to be had)	13 — 26	ditto.
Pork (not to be had in summer)	15 — 18	ditto.
Lamb and kid	10 — 12	ditto.
Fowls	20 — 30	each.
Eggs	12 — 18	per dozen.
Cheese	20 — 34	per rottolo.
Coffee	48 — 60	ditto.
Tea (very bad, and sold by apothecaries)	no price.	
Sugar (crushed)	36 — 48	ditto.
Butter (not to be had).		
Wine (good and strong)	2 — 6	per caraffa.
Biscuit	6 — 9	per rottolo.

Biscuit must be ordered, and is inferior. Vessels generally provide this article at Naples, where it is good and cheap.

Vegetables are not abundant at all seasons.

Water. The supply for shipping is copious and excellent, and is conveniently put on board. — (*Geographical Dictionary*, art. *Gallipoli*, with the authorities there referred to, and valuable private information.)

GALLON, a measure of capacity, both for dry and liquid articles, containing 4 quarts. By 5 Geo. 4. c. 74., "the Imperial gallon shall be the standard measure of capacity, and shall contain 10 lbs. avoirdupois weight of distilled water, weighed in air at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches, or 277·274 cubic inches; and all other measures of capacity to be used, as well for wine, beer, ale, spirits, and all sorts of liquids, as for dry goods, not measured by heaped mea-

sure, shall be derived, computed, and ascertained from such gallon; and all measures shall be taken in parts, or multiples, or certain proportions, of the said Imperial standard gallon." The old English gallon, wine measure, contained 231 cubic inches; and the old English gallon, ale measure, contained 282 cubic inches. Hence the Imperial gallon is about $\frac{1}{5}$ larger than the old wine gallon, and about $\frac{1}{20}$ less than the old ale gallon. By the 6 Geo. 4. c. 58. § 6. it is enacted, that from and after the 6th of January, 1826, whenever any gallon measure is mentioned in any act of parliament relative to the excise, it shall be taken and deemed to be a gallon Imperial standard measure. — (See WEIGHTS AND MEASURES.)

GALLS, OR GALL-NUTS (Fr. *Galles, Noix de Galle*; Ger. *Gallapfel, Gallus*; It. *Galle, Galluze*; Lat. *Galæ*; Arab. *Afis*; Hind. *Majouphal*; Pers. *Mazu*), are excrescences produced by the attacks of a small insect, which deposits its eggs in the tender shoots of a species of oak (*Quercus infectoria* Linn.), abundant in Asia Minor, Syria, Persia, &c. Galls are inodorous, and have a nauseously bitter and astringent taste. They are nearly spherical, and vary in magnitude from the size of a pea to that of a hazel nut. When good, they are of a black or deep olive colour; their surface is tubercular, and almost prickly; they are heavy, brittle, and break with a flinty fracture. They are known in commerce by the names of *white, green*, and *blue*. The white galls are those which have not been gathered till after the insect has eaten its way out of the nidus and made its escape. They are not so heavy as the others, are of a lighter colour, and do not fetch so high a price. The green and blue galls are gathered before the insect has escaped; they are heavier and darker than the former, and are said to afford about one third more of colouring matter.

Galls are of great importance in the arts, being very extensively used in dyeing, and in the manufacture of ink, of which they form one of the principal ingredients. They are the most powerful of all the vegetable astringents; and are frequently used with great effect in medicine.

The ancients reckoned the gall-nuts of Syria superior to every other, and they still retain their pre-eminence. They are principally exported from Aleppo, Tripoli, Smyrna, and Said; those brought from the first come chiefly from Mosul, on the western bank of the Tigris, about ten days' journey from Aleppo. The real Mosul galls are unquestionably the best of any; but all that are gathered in the surrounding country are sold under this name. Those from Caramania are of a very inferior quality. The galls met with in India are carried thither from Persia by Arabian merchants.

It is not unusual to dye the whitish gall-nuts blue, in order to increase their value. The fraud is, however, detected by the deeper blue tinge that is thus imparted to them; and by their being perforated and lighter than the genuine blue galls.

The price of galls in bond varies in the London market from 50*s*. to 64*s*. a cwt. — (*Rees's Cyclopædia; Bancroft on Colours; Ainslie's Mat. Indica, &c.*)

GALVESTON, the principal sea-port of Texas, the most southerly of the U. States, at the N. E. end of the long, low, narrow island of the same name, on the north shore of the Gulph of Mexico, and on the channel forming the entrance to the bay of Galveston, an extensive inlet of the sea between the N. side of the island and the mainland, lat. 29° 16′ 37″ N., long. 94° 49′ 41″ W. Having only recently attained to any distinction, Galveston is yet of no great magnitude, its population not perhaps exceeding 6,000 or 7,000; but it is increasing; and if population and cultivation should increase in the interior, it will most probably become one of the principal *entrepôts* in this part of the world.

The bar outside Galveston harbour and bay, between the N. E. end of the island and Point Bolivar on the mainland, has not more than 13½ feet water at the highest springs, and but 10 feet at ebb: hence the smaller class of vessels, or those under 200 or 250 tons, are most suitable for the trade of the port, as well as for that of almost all the other ports on the N. and E. sides of the gulph, the deficiency of water being all but universal. Though the land be low, the houses of Galveston may be seen from the masthead at a distance of several miles. Vessels drawing 8 feet water and upwards should, however, not approach the bar nearer than 6 fathoms, without heaving to and making the signal for a pilot, which is promptly attended to. Vessels drawing less than 8 feet water may approach the bar till the water shoals to 4 fathoms before heaving to. Vessels making the port in the night should invariably anchor in 5 or 6 fathoms; and the holding ground being excellent, those who are well found in anchors and cables have nothing to fear. Pilot boats are constantly on the look-out; and ships should on no account attempt crossing the bar till they have got a pilot on board. In the harbour there is from 18 to 30 feet water. The bay, which stretches about 35 miles from N. to S., and from 12 to 18 miles from E. to W., has not generally more than 9 feet water, and is intersected by a bar, on which there is only from 5 to 6 feet water. — (*Kennedy's Texas*, i. 29.) Several very considerable rivers have their embouchures in the bay, so that the town has a considerable command of internal navigation.

The great articles of export from Galveston, and, indeed, from Texas, are cotton, provisions, cattle and other stock, hides and skins, furs, bullion from Mexico, &c. The articles of importation consist principally of cotton and other manufactured goods, hardware, agricultural implements and machinery, powder and shot, salt, coal, &c. But the foreign trade of the port is so very limited that the value of the exports from Texas, in the year ended 30th June, 1849, was only estimated at 82,791 dolls., and that

of the imports at 16,600 do. Some part, however, of the commerce of the state is carried on at second-hand through New Orleans. The shipping belonging to the port in 1849 amounted to 2,560 tons.

Monies, Weights, and Measures, same as those of the U. States, for which see NEW YORK.

Charges on Shipping in the Ports of Texas.

Tonnage Duty. — All sailing vessels entering any port of the state from any foreign port or place, are chargeable with a tonnage duty of 60 cents per ton, and steam-boats with 30 cents, according to registered tonnage.

Entrance. — Any ship or vessel of less than 100 tons burden pays 1½ dollars; of 100 and upwards, 2½ dollars.

Clearance. — For every clearance of vessels of the above-mentioned burden, the same fees respectively: —

	$ cts.
Port entry	2 0
Permit to land goods	0 20
Bond taken officially	0 40
Permit to load goods for exportation, that may be entitled to debenture or official certificate	0 40
Bill of health	0 20
For every document (registers excepted) required by any merchant, owner, or master of any ship or vessel not before enumerated	0 20

Rates of Pilotage at Galveston. — On all vessels drawing less than 8 feet water, 2 dollars 50 cents per foot. On all vessels drawing 8 feet and over, 3 dollars per foot.

Any pilot that may be detained waiting on any vessel bound for sea, or any vessel that may be prevented from entering the port by contrary winds or otherwise, shall be entitled to receive 5 dollars per day for each day he may be detained after the first 24 hours.

Any pilot taking charge of a vessel in distress from loss of anchors, spars, or rudder, shall receive such extra compensation as in the opinion of the collector of customs the circumstances of the case may require; the same to be awarded by the collectors after hearing the parties.

Any pilot speaking a vessel outside the bar, inward bound, or any vessel inside the bar, outward bound, and offering his services, shall be entitled to full pilotage, whether those services be accepted or not.

Any pilot speaking a vessel, inward bound, inside the bar, shall, if his services be accepted, be entitled to half pilotage; but, if his services be not accepted, he shall not be entitled to any pilotage.

Any vessel, after waiting outside the bar for four hours with a signal for a pilot flying, may enter port free of all pilotage charges.

Any pilot boarding a vessel 15 miles from shore, shall be entitled to 25 per cent. more than the regular rates for off-shore pilotage.

*** Consignees are, in all cases, liable for the pilotage of vessels consigned to them, and no vessel is permitted to go to sea, until all pilotage has been paid.

Pilotage Regulations at Galveston.—The collector of customs at Galveston is authorised to appoint as many pilots as may be necessary for the shipping, with power of suspension and dismissal, requiring bond with good security, in the sum of 10,000 dollars, for the faithful performance of duties; without which appointment it is not lawful for any person to exercise the calling of a pilot.

Each branch pilot may appoint two deputies, for whose acts he is responsible; these appointments are subject to the approval of the collector.

Any pilot or deputy taking charge of a vessel, while in a state of inebriety, forfeits his appointment. Any pilot wilfully or negligently losing any vessel, is to be dismissed, and is, with his sureties, liable to the party injured for all damages sustained by reason of his misconduct.

Any branch or deputy pilot, who fails to board with promptitude a vessel in need of his services, is, for the first offence, subject to the penalty of suspension for three months, and for the second, to forfeiture of his appointment; and any pilot, who for any cause whatever forfeits his branch, or appointment, is ever afterwards held incapable of filling any office of the kind.

The tariff in force in Texas is, of course, that of the U. States, and the rules and regulations observed in regard to the importation and exportation of goods in other parts of the Union are observed here.

Probable Progress of Texas. — Our anticipations of the future progress of this newly formed state are not so sanguine as those that seem to be generally entertained. The country, no doubt, is, speaking generally, highly productive, well watered, and well situated for commerce; but the climate, especially in the lower and more fertile districts, is too hot and relaxing, and the land too fruitful, to permit or require its cultivation being vigorously prosecuted by free labourers. Had the importation of slaves into Texas been permitted, its progress might, and most probably would, have been as rapid as that of the other southern states of the American Union. But their importation, except from the U. States, is prohibited; and if the supply from this quarter should fail, and the prohibition of their importation from other quarters be really enforced, its progress will, we apprehend, be comparatively slow. It is a contradiction and an absurdity to suppose that free settlers in such a country should exhibit any considerable portion of the energy and industry they would exhibit if they had to cultivate a less fertile soil, or were placed under a severer climate. Mexico and the Northern U. States may both be referred to in illustration of this principle: industry is, in the former, at the lowest possible ebb (see *Geog. Dict.*, art. *Mexico*), though it is needless to add, that the incentives to labour are there quite as great as in Texas. And does any one suppose that the cultivation of cotton and sugar would be carried to near its present extent in Louisiana, Alabama, &c., but for their all but unlimited command of slave labour? We, therefore, are well convinced that the future progress of Texas will depend principally on the fact, whether she can or cannot derive ample supplies of slave labour. If she can (whether with or without the sanction of the law is in this respect of no importance), the fair presumption is, that she will make a rapid progress; whereas, if she cannot, her progress will, most probably, be comparatively slow.

GAMBOGE (Fr. *Gomme gutte*; Ger. *Gummigutt*; It. *Gomma gutta*; Lat. *Gummi guttæ, Cambogia*; Arab. *Ossararewand*; Siamese and Cambojan, *Rong*), a concrete vegetable juice, or gum resin, the produce of the *Garcinia Cambogia*, a forest tree of the genus which affords the mangostein, the most exquisite fruit of the East. The districts which yield gamboge lie on the east side of the Gulph of Siam, between the latitudes of 10° and 12° north, comprising a portion of Siam and the kingdom of Camboja, whence its English name. It is obtained by making incisions in the bark of the tree, from which it exudes, and is collected in vessels placed to receive it. In these it assumes a firm consistence; and being formed into orbicular masses, or more frequently cylindrical rolls, it is at once fit for the market. It is of a bright yellow colour, opaque, brittle, breaks vitreous, has no smell, and very little taste. Specific gravity 1·22. When taken internally, it operates as a most violent cathartic. It forms a beautiful yellow pigment, for which purpose it is principally used. The Dutch began to import it about the middle of the seventeenth century. The greater part of the gamboge of commerce first finds its way to Bangkok, the Siamese capital, or to Saigon, the capital of lower Cochin China; from thence it is carried by junks to Singapore, whence it is shipped for Europe. Its price at Singapore varies, according to quality, from 30 to 80 dollars per picul. Dark-coloured pieces should be rejected. — (*Crawford's Embassy to Siam*, p. 425.; *Thomson's Chemistry.*)

GARNET, GARNETS (Fr. *Grenats*; Ger. *Granaten, Granatstein*; It. *Granati*; Lat. *Granati*; Rus. *Granatnoi hamen*; Sp. *Granadas*). There are two species of garnet, the precious and the common. The colour of the first is red; and hence the name of the mineral, from its supposed resemblance to the flower of the pomegranate; passes from Columbine red, to cherry and brown red; commonly crystallised. External lustre glistening, internal shining, vitreous; transparent, sometimes only translucent; specific gravity 4·08 to 4·35. The colour of the common garnet is of various shades of brown and green. Different colours often appear in the same mass: translucent; black varieties nearly opaque: specific gravity from 3·66 to 3·75. — (*Thomson's Chemistry.*) The finest varieties come from India, and some good specimens have been received from Greenland. When large and free from flaws, garnets are worth from 2*l.* to 5*l.* or 6*l.*, and even more; but stones of this value are of rare occurrence, and always in demand. — (*Mawe on Diamonds, &c.* 2d ed. p. 113.)

GAS COMPANIES, the term usually applied to designate the companies or associations established in most large towns for lighting the streets and houses with gas.

Every one must have remarked that most species of coal, when ignited, give out large quantities of gas, which burns with much brilliancy, yielding a great quantity of light as well as of heat. Dr. Clayton seems to have been the first who attempted, about 1736, to apply this gas to the purposes of artificial illumination; but his experiments were upon a very limited scale, and no further attention was paid to the subject till more than half a century afterwards. At length, however, Mr. Murdoch, of Soho, instituted a series of judicious experiments on the extrication of gas from coal; and, by his ingenuity and sagacity, succeeded in establishing one of the most capital improvements ever made in the arts. Mr. Murdoch found that the gas might be collected in reservoirs, purified, conveyed by pipes to a great distance from the furnace where it was generated; and that it affords, by its slow combustion, when allowed to escape through small orifices, a beautiful and steady light. This great discovery, which places Mr. Murdoch in the first rank among the benefactors of mankind, was first brought into practice at Redruth, in Cornwall. In 1802, it was applied to light Mr. Murdoch's manufactory at Soho; in 1805, it was adopted by Messrs. Philips and Lee, of Manchester, in the lighting of their great cotton mill; and is now employed in the lighting of the streets, theatres, and other public buildings, factories, &c. of *all* the considerable towns of the empire; and also in most considerable towns of the Continent and America.

Gas light is indebted, for its rapid diffusion, not more to its peculiar softness, clearness, and unvarying intensity, than to its comparative cheapness. According to Dr. Thomson (*Encyc. Brit.* art. *Gas Lights*), if we value the quantity of light given by 1 lb. of tallow in candles at 1*s.*, an equal quantity of light from coal gas will not cost more than 2¾*d.*, being less than a *fourth part* of the cost of the former.

Oil and other substances have been used in furnishing gas for the purpose of illumination, but none of them has answered so well as coal. Most of the oil gas establishments have been abandoned.

The construction of gas works on a large scale, and the carrying of pipes through the streets and into houses, &c., is very expensive, and requires a large outlay of capital. Hence most of the gas lights in the different towns are supplied by joint stock companies. Many of them have turned out to be very profitable concerns.

The subjoined Table contains a statement of the most important particulars connected with the principal gas companies, obtained under parliamentary authority in 1850.

A Return showing the Rates per 1000 cubical Feet charged for Gas by the principal Gas Companies in the United Kingdom in 1850, with the Amount of their paid-up Capital at that Date, the Rate per Cent. of Dividend payable on the Capital, and the Price of Coal per Ton used by the Companies.—(*Parl. Paper*, No. 399. Sess. 1850.)

Names of Companies.	Rates per 1000 Cubic Feet at which the Gas is supplied at the latest Date.	Amount of paid up Capital at the latest Date.	Rate per Cent. of last Dividend.	Price of Coal per Ton at the latest Date.
	s. d. — *s. d.*	£ *s. d.*	£ *s. d.*	*s. d.* — *s. d.*
ENGLAND.				
Ashton-under-Lyme	5 6	39,700 0 0	10 0 0	7 6 to 14 6
Bath	4 6 to 7 0	50,000 0 0	6 0 0	15 0
Birkenhead	7 0	30,000 0 0	3 0 0	13 0
Birmingham	6 0 to 3 4½	93,000 0 0	9 0 0	8 11 to 15 0
Blackburn	4 0 — 5 0	30,000 0 0	10 0 0	11 5
Bolton	4 6 — 5 0	38,582 0 0	9 19 5	10 6
Bradford (York)	5 0	45,000 0 0	9 10 0	8 0¾
Bristol	6 0	100,000 0 0	9 0 0	8 6
Cambridge	6 0	34,560 0 0	9 0 0	17 2
Carlisle	5 0	25,000 0 0	9 0 0	5 0 to 9 8
Cheltenham	4 7½	18,732 10 0	8 10 0	16 6
Coventry	5 6	20,000 0 0	6 0 0	15 0
Croydon	7 0	20,000 0 0	5 0 0	19 0
Dudley	5 0	126,000 0 0	4 0 0	8 0 to 10 0
Exeter	6 6	40,000 0 0	10 0 0	17 0
Gloucester	6 0	25,000 0 0	7 10 0	15 0
Halifax	5 0	15,000 0 0	10 0 0	7 11½
Kidderminster	8 0 to 5 6	10,000 0 0	5 0 0	14 0

Names of Companies.	Rates per 1000 Cubic Feet at which the Gas is supplied at the latest date.	Amount of paid-up Capital at the latest Date.	Rate per Cent. of last Dividend.	Price of Coals per Ton at the latest Date.
	s. *d.* *s.* *d.*	£ *s.* *d.*	£ *s.* *d.*	*s.* *d.*
Kingston-upon-Hull	5 6	11,712 0 0	5 0 0	11 6
Leeds, Gas Light Company	5 0	84,175 0 0	{10 0 0} { 6 0 0}	9 1
New Gas Light Company	5 0	60,000 0 0	{10 0 0} { 6 0 0}	7 6
Leicester	4 8 and 5 6½	36,930 0 0	7 0 0	11 6
Liverpool	4 6	423,750 0 0	9 0 0	14 6
London, British	6 0	136,500 0 0	5 0 6	15 3
Chartered	6 0 and 5 0	30,000 0 0	6 0 0	15 4
City of London	4 0	300,000 0 0	6 0 0	15 3
Commercial	6 0	99,639 0 0	6 0 0	15 6
Equitable	6 0	200,000 0 0	- - -	13 11
Imperial	6 0	655,500 0 0	6 0 0	15 0
Independent	6 0	120,000 0 0	6 0 0	16 0
London	6 0	550,000 0 0	nil.	15 3
Phœnix	6 0	441,000 0 0	4 10 0	14 5
Poplar	6 0	20,000 0 0	nil.	17 0
Ratcliff	6 0	90,000 0 0	5 0 0	15 6
South Metropolitan	6 0	200,000 0 0	6 0 0	16 6
United General (Hibernia)	5 10	- -	- -	20 5
Western	8 0			
Macclesfield	4 3 to 5 6	32,000 0 0	3 15 0	10 7
Manchester	4 9	274,427 16 4	10 3 0	15 6
Newcastle and Gateshead	3 0 to 4 0	65,000 0 0	8 0 0	5 6
Norwich	5 10	40,000 0 0	7 0 0	17 4
Nottingham	5 0 to 3 9	43,750 0 0	10 0 0	8 0
Plymouth and Stonehouse	6 0	33,333 0 0	6 0 0	15 6
Sheffield	5 10 to 4 9½	139,600 0 0	8 6 8	8 9
Shrewsbury	6 8 to 6 3	10,000 0 0	7 0 0	13 1
Stalybridge	5 6	15,000 0 0	10 0 0	15 0
Wigan	6 0 and 5 0	10,160 0 0	12 10 0	9 4½
Wolverhampton	5 0 and 4 6	44,160 0 0	7 0 0	11 0
York	5 6 to 4 6	55,000 0 0	7 0 0	7 5
SCOTLAND.				
Dundee, Gas Light Company	5 5	29,687 10 0	4 4 0	18 6
New Gas Light Company	6 0	33,815 0 0	2 10 0	18 6
Edinburgh	6 6	150,000 0 0	10 0 0	17 10½
Edinburgh and Leith	6 6	98,640 0 0	6 10 0	18 6
Glasgow, Gas Light Company	5 0	122,500 0 0	7 10 0	14 11
City and Suburban Gas Company	5 0	135,000 0 0	6 10 0	14 11
Paisley	6 0	40,000 0 0	6 8 0	12 9½
IRELAND.				
Dublin, Alliance and Dublin Consumers	5 10	95,000 0 0	6 15 0	16 3

GENEVA (Du. *Genever*; Fr. *Genièvre*; Ger. *Gaud, Genever*; It. *Acqua di Ginepro*; Lat. *Juniperi aqua*; Sp. *Agua de Enebro*), a spirit obtained by distillation from grain, rectified with the addition of juniper berries. The latter gives to the spirit that peculiar flavour by which it is distinguished, and are also said to render it diuretic. Geneva is a corruption of *genièvre*, the French term for the juniper berry.

By far the best Geneva is made in Holland, where its manufacture is carried on to a very great extent. The distilleries of Schiedam have long been famous, and are at present in a very prosperous condition. Schiedam geneva is made solely of spirit obtained from rye and barley, flavoured with juniper berries. It becomes milder, and acquires, as it gets old, an oily flavour disliked by the Hollanders; hence nearly the whole of the "Schiedam" is exported, principally to the East Indies. There are no fewer than 100 distilleries in Schiedam, 200 in other parts of Holland, and not more than 40 in Belgium. The entire annual produce of the distillery in Holland is estimated at 2,000,000 ankers, or 20,500,000 wine gallons, of which about two thirds are exported. — (*Cloet, Description Géographique des Pays Bas*, p. 32.)

In nothing, perhaps, has the destructive effect of heavy taxation been so strongly exhibited, as in the trade of geneva. It appears from the *Parl. Paper*, No. 248. Sess. 1826, that during the ten years ending with 1786, when the duty on geneva was about 10*s.* the wine gallon, the average annual consumption in Great Britain amounted to about 80,362 gallons. But in 1786, Mr. Pitt reduced the duties to 5*s.* a gallon; and the effect of this wise and politic measure was such, that in the next decennial period the average imports for home consumption amounted to 444,891 gallons! From 1796 to 1806, the duties fluctuated from 7*s.* 6*d.* to 14*s.*; but as the taste for geneva had been formed, and as the duties on other spirits had been increased in about the same proportion, the consumption went on increasing, having been, at an average of the 10 years, as high as 724,351 gallons a year. This was the maximum of consumption. Mr. Vansittart soon after began his inauspicious career, and immediately raised the duty from 14*s.* to 20*s.* 8*d.*, the consequence of this increase being, that in the 10 years ending with 1816, the average consumption amounted to only 272,898 gallons. Since then the duties continued stationary down to 1846 at 22*s.* 10*d.* the Imperial gallon, on an article which may be bought in bond for 3*s.* 6*d.* or 4*s.* 6*d.*! The duties on rum and British spirits having been afterwards materially reduced, the consumption of geneva went on progressively diminishing, till it amounted, as appears from the subjoined official statement in 1843, to no more than 13,913 gallons; being only *one fifty-third* part of what it amounted to during the 10 years ending with 1806!

To make any lengthened commentary on such statements would be useless. Our policy, if we may apply this term to so revolting a display of short-sighted rapacity,

had no other effect than to lessen the public revenue and enjoyment of the people, to injure our trade with Holland, and to foster and promote the ruinous and destructive practice of smuggling. The exorbitant duties on geneva, brandy, and tobacco, led to the formation of the coast guard and the preventive water guard, costing together about 360,000*l.* a-year; and yet, notwithstanding this outlay, and notwithstanding the innumerable penalties and punishments to which he is exposed, the trade of the smuggler was not put down, but continued, on the contrary, in a peculiarly flourishing condition.

At length, in 1846, Sir Robert Peel did for geneva what he did for brandy, that is, he reduced the duty from 22*s.* 10*d.* to 15*s.* a gallon. And though insufficient, this wise measure has had the best effect, as will be seen from the subjoined table.

The regulations as to the importation, &c. of geneva are similar to those affecting BRANDY; which see.

An Account of the Number of Gallons (Imperial Measure) of Geneva entered for Home Consumption in Great Britain and Ireland, the Rates of Duty on the same, and the entire Nett Produce of the Duty, in certain Years since 1826.

Years.	Quantities retained for Home Consumption.			Nett Produce of Duty.			Rates of Duty per Imperial Gallon.					
	Britain.	Ireland.	U. Kingdom.	Britain.	Ireland.	U. Kingdom.	Great Britain.			Ireland.		
	Imp. gall.	*Imp. gall.*	*Imp. gall.*	£	£	£	£	*s.*	*d.*	£	*s.*	*d.*
1826	67,079	2,081	69,160	75,553	2,337	77,890	1	2	6	1	2	6
1830	29,006	1,793	30,799	32,650	2,018	34,668		—			—	
1835	18,026	1,622	19,648	20,330	1,826	22,156		—			—	
1841	14,203	1,218	15,421	16,348	1,391	17,739	1	2	10	1	2	10
1846	37,388	2,495	39,885	28,463	1,930	30,393	to 18 March 1	2	10	1	2	10
							from 18 March 0	15	0	0	15	0
1847	26,194	2,606	28,800	19,652	1,955	21,607	0	15	0	0	15	0
1850	25,524	2,713	28,237	19,145	2,035	21,180		—			—	
1856	- -	- -	27,512	- -	- -	20,486		—			—	
1857	- -	- -	25,929	- -	- -	19,449		—			—	

GENOA, a maritime city of Italy, once the capital of the famous republic of that name, now of a province of the kingdom of Sardinia, at the bottom of the extensive gulph to which it gives its name; the light-house being in lat. 44° 24′ 18″ N., lon. 8° 54′ 24″ E. Population, in 1857, 119,610. Genoa is one of the finest cities of Europe. In general, the streets are inconveniently narrow; but some of the principal ones are moderately wide, and consist almost entirely of public buildings, and private palaces erected during the period of her prosperity. Being built on a rising ground, in the form of an amphitheatre, the appearance of the town from the sea is most magnificent, and justifies the epithet given to her of "*la superba.*"

Port.—The harbour is semicircular, the diameter being about 1000 fathoms. It is artificial, being formed by two gigantic moles having opposite directions. That on the east side, called the old mole (*molo vecchio*), projects from the centre of the city W. by S. It is about 260 fathoms in length, and has a battery near its middle. The new mole (*molo nuovo*), on the opposite side of the port, adjoins the southern extremity of the suburb of St. Pietro d'Arena, projecting about 210 fathoms from the shore in an E. S. E. direction. The moles heads bear from each other N. E. by E. and S. W. by W., the distance between them, forming the entrance to the harbour, being about 350 fathoms. The light-house is without the port, on the west side, near the extremity of a point of land, and contiguous to the bottom of the new mole. It is a lofty square tower; and as it stands on a high rock, and is painted white, it is visible in clear weather at a great distance. There is also a harbour light at the extremity of the new mole. There is no difficulty in entering the harbour; the ground is clean, and there is plenty of water, particularly on the side next the new mole; care, however, must be taken, in coming from the west, to give the light-house point a good offing. Moderate sized merchantmen commonly anchor inside the old mole contiguous to the *porto franco*, or bonded warehouses, having a hawser made fast to the mole, and an anchor ahead. Men of war and the largest class of merchantmen may anchor inside the new mole, but they must not come too near the shore. Ships sometimes anchor without the harbour in from 10 to 25 fathoms, the light-house bearing N. ½ W.; distant 2 or 3 miles. The S. W. winds occasion a heavy swell, but the bottom is clay and holds well. Within the town are two rather shallow basins designed for galleys and small trading vessels. There is also an arsenal.

Money.—Accounts were formerly kept at Genoa in lire of 20 soldi, each soldo containing 12 denari, and money was divided into *banco* and *fuori di banco*. But since the 1st of January, 1827, the ancient method of reckoning has ceased, and accounts are now kept in lire Italiane, divided into cents. The weight and fineness of the new coins are precisely the same as those of France: so that the par of exchange = 25·20 lire per 1*l.*, if estimated in silver at 5*s.* 2*d.* an oz., and 25·54, if estimated in silver at 5*s.* an oz. 6 old lire di banco are equal to 5 new lire very nearly.—(*Manuel de Nelkenbrecher.*)

Weights and Measures.—Those formerly in use in Genoa are described in the previous editions of this work. In 1847 the French system of weights and measures was introduced, the only difference being the substitution of Italian for French names. Thus, the *chilogramma* (kilog.) = 2·2 lbs. avoird. (50⅝ chilog. being very nearly equal to 112 lbs. avoird.); the *libbra* (livre), or pound = ½ chilog. = 1·1 lb. avoird.; the *quintale centinajo*, or cwt. = 220 lbs. avoird.; and the *ettolitro* (hectolitre) liquid measure = 22 imp. gall.; ditto, dry measure = 2⅘ imp. bush.; the *metro* (metre) = 39·37 inches, &c. A barrel of oil = 59½ chilog. = 14⅘ imp. gall. All tares of usage were abolished at the same time that the French metrical system was introduced.

The *Bank of Genoa*, or of St. George, was one of the most ancient and celebrated banks of circulation and deposit in Europe. Until 1746, when the bank was pillaged by the Austrians, it was customary to make all bills of exchange drawn upon Genoa payable in *banco;* but since then they have generally been made payable in money *fuori di banco*. In 1800, when the French were besieged in Genoa by the Austrians, they took the treasure of the bank to pay their troops. The establishment has never recovered from this blow; some warehouses, and a part of the town's revenue, were assigned to it, but they yield a very poor dividend. It is no longer used as a place of deposit for money.

In 1844, a new bank was established in Genoa, which being united in 1855 to a bank that had been established at Turin in 1847, has the title of National Bank (*Banca Nazionale*). Its capital amounts to 32,000,000 lire in shares of 1,000 lire each. It is authorised to issue notes of the value of 1,000, 500, 250, and 100 lire; the amount of its notes in circulation and debts payable on demand being limited to

3 times the amount of the coin in its coffers. It discounts mercantile paper, and transacts all kinds of ordinary banking business. Besides the great branch in Turin, it has inferior branches in Nice and Vercelli (*Calendario del Regno Sarao pel* 1857, p. 594).

Trade, &c.—Genoa is the *entrepôt* of a large extent of country; and her commerce, though inferior to what it once was, is very considerable, and has latterly been increasing. She is a free port; that is, a port where goods may be warehoused and exported free of duty. The exports consist partly of the raw products of the adjacent country, such as olive oil (an article of great value and importance), rice, fruits, cheese, rags, steel, argol, &c.; partly of the products of her manufacturing industry, such as silks, damasks, and velvets, (for the production of which she has long been famous), thrown silk, paper, soap, works in marble, alabaster, coral, &c.; the printed cottons of Switzerland, and the other products of that country and of the western parts of Lombardy, intended for the south of Europe and the Levant; and partly of the various foreign products brought by sea and placed in *porto franco*. The imports principally consist of cotton, cotton stuffs and yarn, iron and hardware, linens and woollens, machinery, copper, coals, &c., from England; cotton wool, mostly from Egypt; corn from the Black Sea, Sicily, and Barbary; sugar, spices, coffee, cochineal, and indigo; hides; naval stores from the Baltic; codfish, wool, tobacco, lead (principally from Spain), wax, &c. Corn, barilla, Gallipoli oil, cotton, valonia, sponge, galls, and other products of the countries adjoining the Black Sea, Sicily, the Levant, &c. may in general be had here, though not in so great abundance as at Leghorn. The abolition of the various duties and custom-house fees formerly charged on the transit of goods through Genoa and the Sardinian territories, has had a very beneficial influence on the trade of this port, particularly as regards the importation of raw cotton for Switzerland and Milan, as well as of the different descriptions of colonial produce.

Account of the Quantities and computed Values of the Principal Articles the Produce of the Sardinian Dominions imported into the U. Kingdom in 1856 and 1857.

Articles.		Quantities.		Values.	
		1856.	1857.	1856.	1857.
				£	£
Cream of tartar	cwts.	2,799	115	15,068	600
Hides, not tanned	,,	758	8,854	3,272	27,947
Madder root	,,	8,280	-	18,526	
Oil, olive	tuns	907	807	60,089	57,422
,, chemical, essential, and perfumed	lbs.	15,215	8,901	6,903	4,337
Seeds, grass	cwts.	2,758	2,349	8,274	7,047
Silk: waste, knubs, and husks	,,	167	166	2,806	5,079
Stone: marble in rough blocks or slabs	solid feet	3,282	7,910	1,805	4,350
Vermicelli and maccaroni	cwts.	2,298	3,133	7,239	7,677
Wool, sheep and lambs'	lbs.	89,577	154,148	4,199	8,036
Total value of the above and of all other articles		-	-	238,258	206,786

Account of the Quantities and declared Values of the principal Articles the Produce and Manufacture of the U. Kingdom exported to the Sardinian Dominions in 1856 and 1857.

Articles.		Quantities.		Declared Value.	
		1856.	1857.	1856.	1857.
				£	£
Apparel, slops, and haberdashery	value	-	-	11,664	13,369
Coals and culm	tons	91,229	112,742	45,913	56,385
Copper, wrought and unwrought	cwts.	9,059	8,190	51,675	48,597
Cottons, entered by the yard	yards	17,589,407	17,158,166	251,900	267,714
,, ,, at value	value	-	-	11,196	10,549
Cotton yarn	lbs.	1,366,739	1,299,558	51,862	55,202
Hardwares and cutlery	cwts.	4,745	5,530	25,268	22,096
Iron, wrought and unwrought, including unwrought steel	tons	28,855	31,045	237,610	249,331
Linens, entered by the yard	yards	742,283	748,919	25,557	32,056
Linen yarn	lbs.	1,034,755	933,151	39,051	40,658
Machinery: steam engines	value	-	-	38,109	22,463
,, all other sorts	,,	-	-	17,529	56,434
Oil, linseed	gallons	223,950	81,884	33,611	14,710
Silk manufactures	value	-	-	33,517	23,670
Soap	cwts.	1,701	1,318	2,051	1,857
Telegraphic wire, &c.	value	-	-	30,050	183,260
Tin plates	,,	-	-	23,681	6,667
Woollens, entered by the piece	pieces	32,839	35,816	49,934	54,536
,, ,, by the yard	yards	1,692,111	2,141,774	64,962	84,155
,, ,, at value	value	-	-	3,675	2,710
Woollen yarn	lbs.	107,968	190,960	10,200	16,568
Total value of the above and of all other articles		-	-	1,143,689	1,350,210

Statement of the vessels that arrived in the port of Genoa from British dominions during 1858:—

British vessels (sailing)	192 ships.	38,067 tons.
British steamers	54	31,817
	246	69,884

Foreign vessels.	Ships.	Tons.
Sardinians	146	37,158
Swedish and Norwegian	40	12,239
Dutch	25	3,731
French	20	5,114
Prussian	13	5,063
Neapolitan	9	3,123
Russian	7	2,523
American	7	2,491
Various nations	26	7,859
Total	293	77,301

Total from British dominions, under all flags, 539 ships, 147,185 tons.

Fifteen or 20 years ago the number of British vessels annually arriving in that port from British dominions could not be reckoned at more than 100 to 120, most of them of small tonnage. Steamers now arrive from London and Liverpool with considerable regularity, generally about 2 or 3 a month, each steamer bringing from 800 to 1000 tons of merchandise.

The import from Great Britain of iron (wrought and pig) and coals and coke has greatly increased of late years, especially since so many railways have been made in Piedmont. The figures given above show a greatly increased substitution of steam for sailing power in the British merchant service.

Comparative Statement of the English Vessels that entered the Port of Genoa during the last 5 years:—

Years.	Sailing Vessels.	Tons.	Steamers.	Tons.	Total. Vessels.	Total. Tons.
1854	231	48,857	28	12,167	259	61,124
1855	217	57,319	27	11,182	244	68,501
1856	181	46,029	53	17,762	234	65,791
1857	156	36,979	70	30,589	226	67,568
1858	192	38,057	54	31,817	246	69,884

Sardinian vessels from British dominions that arrived at Genoa in —

1854	60 — 15,790 tons
1855	40 — 9,781
1856	50 — 15,826
1857	97 — 31,489
1858	146 — 37,158

GENTIAN (Ger. *Enzian*; Fr. *Gentiane*; It. *Genziana*; Sp. *Jenciana*; Rus. *Enzian*; Lat. *Gentiana*), the roots of two alpine plants, *Gentiana lutea* and *Gentiana*

purpurea, found growing in Switzerland and Austria, the Apennines, the Pyrenees, and in North America.

Those brought to this country come from Germany. They are in pieces of various lengths and thickness, twisted, wrinkled on the outside, and covered with a brownish grey cuticle. They have no particular odour; and the taste is intensely bitter, without being nauseous. — (*Thomson's Dispensatory.*)

GEROPIGA, or JERUPIGA, a factitious liquor imported from Portugal, and used in the adulteration of wine.

A pipe (about 105 gall.) of this compound is said by Mr. Consul Johnston to contain about 35 gall. brandy at 25 degs. over proof, the other constituents being colouring and sweetening matters and unfermented grape juice. But the proportion of spirits and the description of the other ingredients which enter into its composition and which are sometimes of a very noxious character, vary very widely in different samples. Generally, however, Geropiga may be said to be strong, sweet, and high coloured. Besides being mixed with port, sherry, and other wines, it is substituted in various beverages, especially in the U. States, for spirits and sugar.

This villanous compound is allowed to be imported at the same duty as wine, provided the proof spirits in it do not exceed 33 per cent. of its quantity. It is, also, permitted to be mixed in the bonded warehouses in the docks with wine in the same proportions relatively to its strength as brandy, that is, when it is only half the strength of the latter, double the quantity may be used, and so on.

This licence has been much, and, as we think, justly objected to. There can of course be no check, and, perhaps, no good objection to the compounding of wines in Portugal. But one should think that the facilities for adulteration in the shops of the dealers are here quite enough without legitimating the practice in the docks. It is difficult, indeed, to see what purpose can be served by this indulgence, unless it be to excuse and facilitate the commission of fraud.

Geropiga being confounded in Portugal with brandy and here with wine, the quantity exported from the former and imported into the latter is not easily ascertained. It appears, however, that in 1848, 481 pipes were shipped from Oporto for England, and 1063 do. for the U. States. (See Parl. Paper, No. 314, Sess. 1855, &c.)

GHEE. See Butter.

GIBRALTAR, a famous fortress, in the possession of Great Britain, near the southernmost extremity of Spain, and contiguous to the narrowest part of the strait, to which it gives its name, joining the Atlantic and Mediterranean, lat. 36° 6′ 30″ N., lon. 5° 21′ 12″ W.

It is situated on the west side of a rocky mountain or promontory, the *Mons Calpe* of the ancients, projecting into the sea, in a southerly direction, about 3 miles, being from ½ to ¾ of a mile in width. The southernmost extremity of the rock is called Europa Point. Its northern side, fronting the isthmus which connects it with Spain, is almost perpendicular, and wholly inaccessible; the east and south sides are so rugged and precipitous as to render any attack upon them, even if they were not fortified, next to impossible; so that it is only on the west side, fronting the bay, where the rock declines to the sea and the town is built, that it can be attacked with the least chance of success. Here, however, the strength of the fortifications, and the magnitude of the batteries, are such, that the fortress seems to be impregnable, even though attacked by an enemy having the command of the sea. It was taken by the English in 1704, but the fortifications were then very inferior to what they are at present. Towards the end of the American war, it was attacked by a most formidable armament fitted out jointly by Spain and France; but the strength of the place and the bravery of the garrison defeated all the efforts of the combined powers. Population about 16,000, exclusive of the troops, which usually amount, in time of peace, to about 3000.

The bay of Gibraltar is spacious; and being protected from all the more dangerous winds, affords a convenient station for ships. Two moles have been constructed at a vast expense, for the protection of the shipping. The old mole projects from the north end of the town, N.W. by N., 1,100 feet into the sea: the new mole is 1¼ mile more to the south, extending outwards about 700 feet: it has an elbow formed by the shore, and in winter large vessels anchor inside; the farthest out in from 5 to 6 fathoms. The plan on the opposite page gives a better idea of the position of Gibraltar, as well as of the Straits, than could be derived from any description. It is taken from Captain Smyth's beautiful chart of the Mediterranean.

Trade, Political Importance, &c. — Gibraltar is of considerable consequence as a commercial station. Being a free port, subject to no duties and few restrictions, she is a convenient *entrepôt* for the English and other foreign goods destined for the supply, principally through illegitimate channels, of the contiguous Spanish provinces. Its importance, in this respect, increased rapidly during the 10 years ending with 1840; so much so, that while the declared value of the various articles of British produce and manufacture exported to Gibraltar in 1833 amounted to only 385,460*l.*, they amounted to 1,053,367*l.* in 1841. But since a more liberal system began to be introduced into Spain the exports of British products to Gibraltar have declined. In 1857 they were valued at 655,661*l.* We also send to Gibraltar considerable quantities of foreign and colonial merchandise, most part of which are destined for the supply of Spain.

Gibraltar is also of great importance to Great Britain in a military and naval point of view, being, in fact, the key of the Mediterranean, and affording a convenient and secure station for the outfit, refreshment, repair, and accommodation of our ships of war and merchantmen. The revenue collected in the town amounts to from 30,000*l.* to 40,000*l.*, which is about sufficient to defray the public civil expenditure of the place. The expense annually incurred in Great Britain on account of the garrison, in time of peace, amounts to about 200,000*l.* — a small sum compared with the important political and commercial advantages it is the means of securing.

Money.—The effective or hard dollar=4*s.* 6*d.*; the current dollar being estimated at ⅔ hard dollars=2*s.* 10½*d.* Reals and quartos of both hard and current dollars are the same, being, the former=4½*d.*, and the latter=1$\frac{1}{20}$*d.*

Accounts are kept in current dollars (pesos), divided into 8 reals of 16 quartos each; 12 reals currency make a cob or hard dollar, by which goods are bought and sold; and 3 of these reals are considered equal to 5 spanish reals vellon.

Gibraltar draws on London in effective dollars of 12 reals, and London on Gibraltar in current dollars of 8 reals.

The exchange of Gibraltar on Cadiz, and other cities of Spain, is in hard dollars at a percentage, which varies considerably, and mostly in favour of Gibraltar.

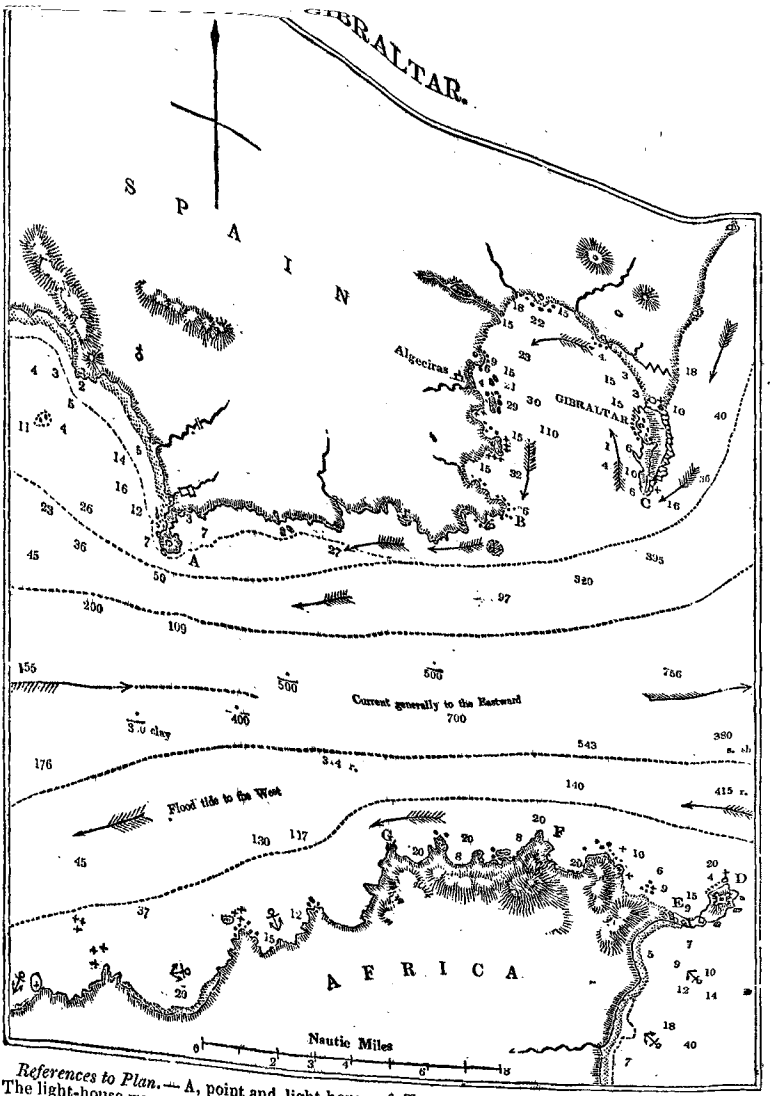
Weights and Measures are those of England, excepting the arroba=25 lbs. English: grain is sold by the fanega, 5 of which make 1 Winchester quarter; wine is sold by the gallon, 100 of which are equal to 109·4 English wine gallons.

Port Dues.—An Order in Council, 5th of June, 1858, altered the port-dues payable on vessels arriving at Gibraltar, which are now levied according to the subjoined schedule: —

			Spanish dollars.
For every vessel from	1 to 20 tons inclusive		2 0 0
,, ,,	21 — 50	,,	3 0 0
,, ,,	51 — 100	,,	4 0 0
,, ,,	101 — 150	,,	6 0 0
,, ,,	151 — 200	,,	7 0 0
,, ,,	201 — 250	,,	8 0 0
,, ,,	251 — 300	,,	9 0 0
,, ,,	301 — 400	,,	10 0 0
,, ,,	401 — 500	,,	11 0 0
,, ,,	501 — 600	,,	12 0 0
,, ,,	601 — 800	,,	13 0 0
,, ,,	801 and upwards	,,	14 0 0

(N.B. The engine room of steamers is not included in the tonnage.)

And in addition to each of the foregoing rates, a further duty when the ship or vessel is liable to quarantine, of	2 0 0
For every day's attendance by a health guard when embarked	1 0 0
For every visit by a health guard to a vessel in quarantine	0 6 0
For every day's attendance by a health guard in superintending the discharge of a vessel in quarantine	2 0 0
For every bill of health	1 0 0
For every endorsement on a bill of health	1 0 0



References to Plan.—A, point and light-house of Tariffa, lat. 36° 0′ 30″ N., lon. 5° 35′ 15″ W. The light-house was erected in 1813, and the light revolves. B, Cabrita Point. C, Europa Point, the extremity of the rock of Gibraltar. D, town and fortress of Ceuta, on the African coast. E, Little Ceuta Bay. F, Point Leona. G, Point Cires. The soundings and the direction of the currents are marked in the chart. Variation in the Straits, 22° 31′.

Account of the Quantities and declared Values of the Principal Articles the Produce and Manufactures of the U. Kingdom exported to Gibraltar in 1856 and 1857.

Articles.		Quantities.		Declared Value.	
		1856.	1857.	1856.	1857.
				£	£
	value	-	-	23,622	17,734
Apparel, slops, and haberdashery	-	-	-	4,556	6,281
Beer and ale	barrels	1,445	2,122	9,799	12,249
Butter	cwts.	2,005	2,443	48,952	30,157
Coals, cinders, and culm	tons	97,257	60,495	3,134	6,329
Copper, wrought and unwrought	cwts.	549	992	430,934	268,181
Cottons, entered by the yard	yards	33,079,099	19,980,267	19,871	21,263
	value	-	-	12,516	6,045
	lbs.	366,762	161,627	25,265	26,043
	cwts.	3,914	4,808	23,770	17,777
,, ,, at value	-	2,054	1,507	35,978	26,618
Cotton yarn	tons	995,935	659,985	40,450	45,363
Hardwares and cutlery	yards	881,487	1,042,134	11,505	5,760
Iron, wrought and unwrought, including unwrought steel	lbs.	-	-	5,798	6,452
	value	-	2,040	59,929	49,565
Linens, entered by the yard	cwts.	272	19,464	20,788	17,801
Linen yarn	pieces	31,263	359,414	14,141	8,299
Silk manufactures	yards	411,125	-		
Sugar, refined	value	-	-		
Woollens, entered by the piece		-	-	866,179	655,661
,, ,, by the yard					
,, ,, at value					
Total value of the above and of all other articles					

GILD, OR GUILD, a company of merchants or manufacturers, whence the halls of such companies are denominated Gild or Guild Halls.

GILL, a measure of capacity. See WEIGHTS AND MEASURES.

GIN. English geneva, or gin, is made of spirit obtained from oats, barley, or malt, rectified or redistilled, with the addition of juniper berries, oil of turpentine, &c. All spirits manufactured in England, and most of the Scotch and Irish spirits imported into England, are subjected to the process of rectification. English gin is said to be one of the most wholesome spirits. — (See SPIRITS.)

GINGER (Ger. *Ingwer*; Du. *Gember*; Fr. *Gingembre*; It. *Zenzero*; Sp. *Jenjibre, Agengibre*; Rus. *Imbir*; Lat. *zingiber*; Pers. *Zungeveel*; Arab. *Zingebeel*), the roots of a plant (*Amomum Zingiber*), a native of the East Indies and China, but which was early carried to and succeeds very well in the West Indies. After the roots are dug, the best are selected, scraped, washed, and dried in the sun with great care. This is called *white ginger*; while the inferior roots, which are scalded in boiling water before being dried, are denominated *black ginger*. Preserved ginger is made by scalding the green roots, or the roots taken up when they are young and full of sap, till they are tender; then peeling them in cold water, and putting them into a thin syrup, from which they are shifted into the jars in which they come to us, and a rich syrup poured over them. Dried ginger has a pungent aromatic odour, and a hot, biting taste. It is imported in bags, each containing about a cwt. The white brings the highest price, being more pungent and better flavoured. The external characters of goodness in both sorts of dried ginger are, soundness, or the being free from worm holes, heaviness, and firmness; the pieces that are small, light, and soft, or very friable and fibrous, should be rejected. The best preserved ginger is nearly translucent; it should be chosen of a bright yellow colour; rejecting that which is dark-coloured, fibrous, or stringy. — (*Milburn's Orient. Commerce*; *Thomson's Dispensatory.*)

The consumption of ginger did not formerly exceed 10,000 cwt. a year. This was most probably owing to the too high duties with which it was burdened down to 1842. But these being then reduced to 10*s.* 6*d.* per cwt. on foreign, and 5*s.* 3*d.* per do. on colonial ginger, the consumption has since considerably increased, having amounted to 18,691 cwt. in 1852. During the same year 117,472 lbs. preserved ginger were admitted to consumption.

GINSENG (Du. *Ginseng, Ginsem*; Fr. *Ginseng*; Ger. *Kraftwerzel, Ginseng*; It. *Ginseng*; Sp. *Jinseng*; Chin. *Yansam*; Tart. *Orhota*), the root of a small plant (*Panax quinquefolium* Lin.), growing in China, Tartary, and several parts of North America. The latter is what we generally see in England, and is an article of trade to China, which is its only market. Large quantities were formerly exported from this country; but it is now carried direct to China by the Americans. It is sometimes exported crude, and sometimes cured or clarified. Within these few years, it has been discovered in the Himalaya mountains, and small quantities have been thence sent to Canton; but the speculation has not succeeded. It is only about 40 years since it began to be sent from America to China. Previously to the present century, the Chinese drew their supplies from the wilds of Tartary, and the root brought an exorbitant price. Crude ginseng now sells in the Canton market at from 60 to 70 dollars per picul, and prepared at from 70 to 80 dollars. In 1852, there were sent from the United States to China, 158,455 lbs. ginseng, valued at 102,073 dollars. — (*Papers laid before Congress*, 1st January, 1853.)

GLASS (Ger. and Du. *Glas*; Fr. *Vitre, Verre*; It. *Vetro*; Sp. *Vidrio*; Rus. *Steklo*; Lat. *vitrum*), a transparent, brittle, factitious body. It is formed by mixing together some sort of siliceous earth, as fine sand, or pounded flint, with an alkali, such as soda, potash, or pearlash, and subjecting them to a strong heat. By this means they are melted into a transparent, soft, tenacious mass, that may, when hot, be formed into thin plates, bent and shaped in every possible way. When cool, it becomes brittle, and is denominated glass. Litharge, minium, borax, the black oxide of manganese, &c. are sometimes used in the manufacture of glass, according to the purposes to which it is to be applied.

The kinds of glass, and their ingredients, are stated by Dr. Ure as follows: —

"There are 5 distinct kinds of glass at present manufactured:—1. Flint glass, or glass of lead; 2. Plate glass, or glass of pure soda; 3. Crown glass, the best window glass; 4. Broad glass, a coarse window glass; 5. Bottle, or coarse green glass.

"1. *Flint Glass*, so named because the siliceous ingredient was originally employed in the form of ground flints. It is now made of the following composition:—

Purified Lynn sand	100 parts
Litharge, or red lead	60 —
Purified pearlash	30 —

"To correct the green colour derived from combustible matter, or oxide of iron, a little black oxide of manganese is added, and sometimes nitre and arsenic. The fusion is accomplished usually in about 30 hours.

"2. *Plate Glass*. — Good carbonate of soda, procured by decomposing common salt with pearlash, is employed as the flux. The proportion of the materials is —

Pure sand	45·0
Dry subcarbonate of soda	25·5
Pure quicklime	4·0
Nitre	1·5
Broken plate glass	25·0——100·0.

About 70 parts of good plate glass may be run off from these materials.

"3. *Crown, or fine Window Glass*. — This is made of sand vitrified by the impure barilla manufactured by incineration of sea weed on the Scotch and Irish shores. The most approved composition is—

	By Measure.	By Weight.
Fine and purified	5	200
Best kelp ground	11	330

"4. *Broad Glass.* — This is made of a mixture of soap-boilers' waste, kelp, and sand. The first ingredient consists of lime used for rendering the alkali of the soap-boiler caustic, the insoluble matter of his kelp or barilla, and a quantity of salt and water, all in a pasty state. The proportions neces sarily vary. 2 of the waste, 1 of kelp, and 1 of sand, form a pretty good broad glass. They are mixed together, dried, and fritted.

"5. *Bottle Glass* is the coarsest kind. It is made of soapers' waste and river sand, in proportions which practice must determine according to the quantity of the waste; some soap-boilers extracting more saline matter, and others less, from their kelps. Common sand and lime, with a little common clay and sea salt, form a cheap mixture for bottle glass."

1. *Historical Notices with respect to Glass.* — The manufacture of glass is one of the very highest beauty and utility. It is most probable that we are indebted for this wonderful art, as we are for the gift of letters, to the Phœnicians. According to Pliny (*Hist. Nat.* lib. xxxvi. c. 26.), glass had been made for many ages, of sand found near the mouth of the small river Belus in Phœnicia. "The report," says he, "is, that the crew of a merchant ship laden with nitre (fossil alkali) having used some pieces of it to support the kettles placed on the fires they had made on the sand, were surprised to see pieces formed of a translucent substance, or glass. This was a sufficient hint for the manufacture. Ingenuity (*astuta et ingeniosa solertia*) was immediately at work, to improve the process thus happily suggested. Hence the magnetical stone came to be added, from an idea that it contained not only iron, but glass. They also used clear pebbles, shells, and fossil sand. Indian glass is said to be formed of native crystal, and is on that account superior to every other.* Phœnician glass is prepared with light dry wood, to which copper and nitre are added, the last being principally brought from Ophir. It is occasionally tinged with different colours. Sometimes it is brought to the desired shape by being blown, sometimes by being ground on a lathe, and sometimes it is embossed like silver." Sidon, he adds, is famous for this manufacture. It was there that mirrors were first invented. In Pliny's time, glass was made in Italy, of fine sand on the shore between Cumæ and the Lucrine bay.

Glass was manufactured at Rome into various articles of convenience and ornament. Pliny mentions that Nero gave 6,000 sesterces (50,000*l.* according to the ordinary method of reckoning) for two glass cups, each having two handles! These, however, must have been of an immense size and of exquisite workmanship; for glass was then in common use for drinking vessels, and was used even in the form of bottles in which to keep wine. — (*Mart. Epig.* lib. ii. 22. 40., and lib. iv. 86.)

There is no authentic evidence of glass being used in windows previously to the third or fourth century; and then, and for long after, it was used only in churches and other public buildings. In this country, even so late as the latter part of the sixteenth century, glass was very rarely met with. In a survey of Alnwick Castle, made in 1573, it is stated — "And, because throwe extreme winds, the glasse of the windowes of this and other my lord's castles and houses here in the country dooth decay and waste, yt were good the whole leights of everie windowe, at the departure of his lordshippe from lyinge at any of his said castels, and houses, and dowring the time of his lordship's absence, or others lyinge in them, were taken doune and lade up in safety: And at sooche time as ather his lordshippe or anie other sholde lye at any of the said places, the same might then be set uppe of newe, with smale charges, whereas now the decaye thereof shall be verie costlie and chargeable to be repayred." — (*North. Housh. Book*, xvii.) Sir F. M. Eden thinks it probable that glass windows were not introduced into farmhouses in England much before the reign of James I. They are mentioned in a lease in 1615, in a parish in Suffolk. In Scotland, however, as late as 1661, the windows of ordinary country houses were not glazed, and only the upper parts of even those in the king's palaces had glass; the lower ones having two wooden shutters, to open at pleasure, and admit the fresh air. From a passage in Harrison's *Description of England*, it may be inferred that glass was introduced into country houses in the reign of Henry VIII. He says, — "Of old time," (meaning, probably, the beginning of the century,) "our countrie houses instead of glasse did use much lattise, and that made either of wicker or fine rifts of oke in checkerwise. I read also that some of the better sort, in and before the time of the Saxons, did make panels of horne instead of glasse, and fix them in wooden calmes (casements); but as horne in windowes is now (1584) quite laid downe in everie place, so our lattises are also growne into disuse, because glasse is come to be so plentiful, and within verie little so good, cheape, if not better than the other." Glass is now introduced into the windows of almost every cottage of Great Britain; and in this cold, damp climate, it ought rather to be considered as a necessary of life, than as the most elegant and useful of conveniences. What Dr. Johnson has said as to glass deserves to be quoted: — "By some fortuitous liquefaction

* If this be a correct description of the glass of India in the age of Pliny, it has since fallen off very much; Indian glass being now about the very worst that is made. At present, the Hindoos manufacture it of fragments of broken glass, quartz sand, and impure soda, — an article found native in many parts of India, particularly in the south. The furnaces are so bad that they cannot melt our common bottle glass. — (*Hamilton's Mysore*, vol. iii. p. 370.) The glass of China is much better than that of India, though still very inferior to that of Europe.

was mankind taught to produce a body at once in a high degree solid and transparent, which might admit the light of the sun, and exclude the violence of the wind; which might extend the sight of the philosopher to new ranges of existence, and charm him at one time with the unbounded extent of the material creation, and at another with the endless subordination of animal life; and, what is of yet more importance, might supply the decays of nature, and succour old age with subsidiary sight. Thus was the first artificer in glass employed, though without his own knowledge or expectation. He was facilitating and prolonging the enjoyment of light, enlarging the avenue of science, and conferring the highest and most lasting pleasures; he was enabling the student to contemplate nature, and the beauty to behold herself." — (*Rambler*, No. 9.)

Venice, for a long time, excelled all Europe in the manufacture of glass, but was subsequently rivalled by France. The manufacture was early introduced into England; but it was not carried on to any extent previously to the sixteenth century. The first plates for looking-glasses and coach windows were made in 1673, at Lambeth, by Venetian artists under the protection of the Duke of Buckingham. The British Plate Company was incorporated in 1773, when it erected its extensive works at Ravenhead near St. Helen's, in Lancashire. The manufacture was at first conducted by workmen from France, whence we had previously brought all our plate glass. But that which is now made at Ravenhead, at Liverpool, and London, is equal or superior to any imported from the Continent.

It is difficult to form any precise estimate of the value of the glass annually produced in Great Britain. We believe, however, that it cannot amount to less than 2,600,000*l.*; and that the workmen employed in the different departments of the manufacture exceed 45,000.

Duties on Glass. — Considering the vast importance of glass, and the various necessary, convenient, and ornamental purposes to which it is applied, it might have been supposed that it would be exempted from all taxation; and that, at all events, if the public exigencies made its taxation indispensable, that the duties on it would be kept within reasonable limits, and imposed in the way least likely to be injurious. We regret, however, to state that these apparently obvious considerations were all but wholly lost sight of in the taxing of glass in this country; the duties on it having been carried to a most exorbitant extent, and imposed in the most oppressive manner. After successive augmentations, the duties were raised in 1813 to the amount of 98*s.* a cwt. on flint and plate glass! And the consequence was, that despite the increase of wealth and population in the interim, the consumption of both these sorts of glass was less than it had been in 1794, when the duty was only 32*s.* 2½*d.* a cwt.! The progress of the manufacture and of the duties since 1813 is exhibited in the subjoined tables, the influence of the various modifications of the latter on production being too obvious to require being pointed out.

We do not know whether it was possible materially to vary the mode in which the duties were assessed, without opening a still wider door to fraud than that which existed. But they not only augmented the price of a most indispensable article by their entire amount, but they farther augmented it, and that in no inconsiderable degree, by fettering the operations of the manufacturers, and preventing them from making experiments and improvements, and introducing new processes. In this respect the duties were especially injurious. Nor can any one acquainted with the facts entertain any doubt that the Commissioners of Excise Inquiry were fully justified in expressing their conviction that "*no tax can combine more objections, or be more at variance with all sound principles of taxation, than this duty on glass.*"

Had it been impossible otherwise to get rid of the duties, they might have been advantageously commuted for an increase of the house duty. The greater cheapness of glass would have more than compensated to most householders for the increase of the house tax, at the same time that the manufacture would have been increased and improved.

But any commutation of this sort was rendered unnecessary. The imposition of the income tax having supplied Sir Robert Peel with the means of effecting those great financial reforms which will ever distinguish his administration, the glass duties were repealed from the 5th April, 1845. The beneficial influence of this liberal and most judicious measure is obvious in the improved quality, the increased cheapness, and greater variety of descriptions of glass in the market; and there can be no doubt that its advantages will become still more and more obvious from the facilities it gives for the introduction of improvements, and, consequently, for ameliorating the fabric as well as reducing the cost of one of the most useful and admirable of the products of art and industry.

The annexed tables show the state of the manufacture previously to the abolition of the duty.

The duties on foreign glass are specified in the Tariff.

I. A Return of the Rates of Duty on Glass in 1813, with the Quantities of each Kind of Glass retained for Home Use, and the aggregate Nett Revenue in each Year, from 1813 to 1842, both included, noting the Periods when any Alteration of the Duty took place, and the Amount of such Alterations.

Years.	Flint.	Plate.	Crown.	German Sheet.	Broad.	Common Bottle.	Total.	Period and Amount of Alteration of Duty.	Aggregate Nett Revenue.
Rate of Duty in 1813, ℔ cwt.	98*s.*	98*s.*	73*s.* 6*d.*	75*s.* 6*d.*	30*s.*	8*s.* 2*d.*			
	Quantities of Glass retained for Home Use.								
	Cwts.	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*		£
1813	23,370	9,398	84,441	- -	6,994	47,350	171,553		500,850
1814	24,227	6,778	84,251	- -	8,628	140,252	264,136		550,791
1815	24,911	419	77,485	- -	8,452	129,461	240,728		473,780
1816	20,011	-	56,151	- -	6,140	160,221	242,523		355,188
1817	22,117	1,739	76,561	- -	8,374	123,881	232,692		461,849
1818	26,978	6,391	88,893	- -	8,319	201,795	332,376		584,399
1819	28,309	6,473	90,726	- -	8,267	238,463	372,738	From 5th July, 1819, the duty on plate glass reduced from 4*l.* 18*s.* to 3*l.* per cwt.	606,176
1820	24,745	8,753	74,183	- -	7,782	171,495	286,940		500,595
1821	21,927	9,718	86,384	- -	8,035	137,117	265,181		521,075
1822	21,400	9,562	95,510	- -	8,353	154,492	289,317		559,029
1823	21,829	11,607	101,392	- -	9,172	198,456	342,456		607,578
1824	24,954	13,543	123,845	- -	9,295	238,725	410,362		728,342
1825	34,184	15,082	140,298	- -	8,347	251,932	449,843	From 5th July, 1825, the duty of 4*l.* 18*s.* on flint glass repealed, and a new duty of 12*l.* 10*s.* for every 1,000 lbs. of fluxed materials for flint glass imposed.	772,303
1826	47,090	12,527	115,731	- -	8,113	282,512	465,973		720,920
1827	46,688	14,209	114,381	- -	7,611	239,794	422,683		699,726
1828	54,255	17,096	121,158	- -	6,970	254,787	454,266	From 5th July, 1828, the duty on common bottle glass reduced in Great Britain from 8*s.* 2*d.* to 7*s.* per cwt., and the duty on every description of glass assimilated throughout the U. Kingdom.	752,097
1829	50,869	13,925	92,252	-	6,864	218,901	382,811		609,406
1830	49,353	12,677	80,926	- -	4,845	180,945	328,746		542,261
1831	49,608	14,373	88,688	- -	5,915	150,520	299,104		531,718
1832	51,586	11,554	86,007	179	5,304	158,719	313,349	From 10th October, 1832, the duty on fluxed materials for flint glass reduced from 12*l.* 10*s.* per 1,000 lbs. to 20*s.* for every 100 lbs.	558,423
1833	54,818	13,893	105,134	- -	6,306	164,000	344,151		645,781
1834	52,890	16,306	106,389	- -	6,766	194,143	376,494		664,391
1835	43,936	16,941	111,651	4,248	5,847	201,613	384,236	From 10th October, 1835, the duty on fluxed materials for flint glass reduced from 20*s.* to 6*s.* 8*d.* per 100 lbs.	640,149
1836	86,866	19,993	117,041	- -	7,629	249,145	480,674		665,162
1837	78,121	21,640	101,309	707	7,190	247,446	456,413		608,993
1838	81,594	23,992	113,756	2,262	6,575	243,046	471,225		667,998
1839	82,309	26,465	113,340	5,170	8,514	252,808	488,606		691,467
1840	82,486	31,200	111,316	7,914	9,049	232,834	473,799	From 15th May, 1840, the duty on every description of glass increased 5 per cent.; and from 15th August, 1840, the duty on broad glass increased from 1*l.* 10*s.* to 3*l.* 15*s.* 6*d.* per cwt.	724,343
1841	74,444	22,088	93,033	11,298	- -	190,257	391,120		613,588
1842	68,098	18,396	81,715	17,117	- -	161,537	346,863		565,437

II. Account exhibiting the Quantities of the different Descriptions of Glass manufactured during each of the 3 Years ending with 1842, with the Quantities exported, the Rates and Produce of the Duties, &c. — (*Obtained from the Excise.*)

Description of Glass.		Quantity manufactured.	Quantity exported.	Rate of Duty.	Gross Amount of Duty.	Drawback on Glass exported.	Nett Amount of Duty (Excise) after deducting drawback and other legal allowances.
		Cwts.	*Cwts.*		£	£	£
Flint glass - - -	1840	104,389	19,913	To 15th May, 1840, 18*s.* 8*d.* per cwt.; since, 18*s.* 8*d.* per cwt. and 5 per cent.	101,029	21,199	79,830
Ditto - - -	1841	97,524	20,516		95,565	22,605	72,960
Ditto - - -	1842	83,653	13,696		81,973	15,098	66,875
		Sq. feet.	*Sq. feet.*				
Plate glass - - -	1840	53,623	52,879	To 15th May, 1840, 3*l.* per cwt.; since, 3*l.* per cwt. and 5 per cent.	104,117	7,412	96,705
Ditto - - -	1841	27,659	121,113		87,061	17,483	69,578
Ditto - - -	1842	21,523	68,318.		67,812	9,866	57,946
		Cwts.	*Cwts.*				
Crown glass - -	1840	122,978	15,518	To 15th May, 1840, 3*l.* 15*s.* 6*d.* per cwt.; since, 3*l.* 15*s.* 6*d.* per cwt. and 5 per cent.	499,967	73,550	417,497
Ditto - - -	1841	116,895	19,118		451,064	92,070	357,337
Ditto - - -	1842	97,495	12,369		376,205	60,891	315,323
German sheet glass -	1840	16,859	8,219	To 15th May, 1840, 3*l.* 15*s.* 6*d.* per cwt.; since, 3*l.* 15*s.* 6*d.* per cwt. and 5 per cent.	63,986	33,604	30,382
Ditto - - -	1841	20,855	8,781		80,473	36,876	43,597
Ditto - - -	1842	25,500	7,701		98,597	32,348	66,049
Broad sheet glass -	1840	9,051	1½	To 15th May, 1840, 1*l.* 10*s.* per cwt.	13,915	2	13,913
Ditto - - -	1841	- -	- -	To 15th Aug. 1840, 1*l.* 10*s.* per cwt. and 5 per cent.; since 3*l.* 15*s.* 6*d.* per cwt. and 5 per cent.			
Ditto - - -	1842	- -	- -				
Common bottle glass	1840	525,574	292,887	To 15th May, 1840, 7*s.* per cwt.; since, 7*s.* per cwt. and 5 per cent.	189,883	103,926	85,957
Ditto - - -	1841	501,177	310,937		184,174	114,109	70,065
Ditto - - -	1842	390,482	225,633		143,496	82,915	60,581
				Total nett revenue collected during the 3 years ending with 1842		- -	£ 1,902,595
				Annual average nett revenue of the 3 years ending with 1842		- -	£ 634,198

GLOVES (Ger. *Handschuhe*; Fr. *Gants*; It *Guanti*; Sp. *Guantes*; Rús. *Rukawizii, Pertschatki, Golizii*), well known articles of dress used for covering the hands, usually made of leather, but frequently also of cotton, wool, silk, &c. The leather used in the manufacture of gloves is not, properly speaking, tanned, but prepared by a peculiar process that renders it soft and pliable. Some sorts of leather gloves admit of being washed, and others not. Woodstock and Worcester, but particularly the former, are celebrated for the manuf cture of leather gloves of a superior quality; in which a great number of women and girls, as well as men, are employed. Besides Worcester and Woodstock, London, Yeovil, Ludlow, and Leominster are the principal seats of the leather glove manufacture. It is, however, impossible to obtain any trustworthy accounts of the numbers produced. Gloves are sometimes sewed by machinery; but this is done only to improve the work by rendering the stitches more correctly equidistant, as it is not cheaper than manual labour. Limerick used to be famous for the manufacture of a sort of ladies' gloves, called chicken gloves. Large quantities of cotton gloves are made at Nottingham and Leicester.

Influence of Repeal of Prohibition of Importation.—The importation of leather gloves and mitts was formerly prohibited, under the severest penalties. This prohibition had the effect, by preventing all competition and emulation with the foreigner, to check improvement, and to render British gloves at once inferior in quality and high in price. This system was, however, permitted to continue till 1825, when the prohibition was repealed, and gloves allowed to be imported on payment of duties, which, though high, are not prohibitory. This measure was vehemently opposed; and many predictions were made of the total ruin of the manufacture; but in this, as in most other instances, experience has shown that the trade had not been materially benefited by the prohibition. The wholesome competition to which the manufacturers now felt themselves, for the first time, exposed, made them exert all their energies; and it is admitted on all hands, that there was a more rapid improvement in the manufacture during the dozen years after the trade was opened than in the previous half century. There was, no doubt, a great deal of complaining of a decay of trade among the leather glove manufacturers, and large quantities of gloves are imported; but the check given to the trade was probably owing more to the growing use of home-made cotton gloves than to the importation of foreign leather gloves; and had it not been for the improved fabric, and greater cheapness of British leather gloves, that has grown out of the new system, it is abundantly certain that cotton gloves would have gained still more rapidly on them. In point of fact, however, it does not appear, taking the smuggling that formerly existed into account, that there has been any considerable falling off in the leather glove trade. At all events, there has been no serious falling off in the number of skins brought from abroad to be used in the manufacture, and consequently in the number of pairs of gloves produced from such skins; and there is no reason for thinking that it is different with the other departments.

Account of the Number of Lamb and Kid Skins entered for Home Consumption in the undermentioned Years, with an Estimate of the quantity of Gloves which such Skins would produce, on the Supposition that from each 120 Skins there would be manufactured 18 Dozen Pairs of Gloves.

Years.	Number of Lamb Skins.	Number of Kid Skins.	Total Lamb and Kid.	Doz. Gloves produced each Year.	Years.	Number of Lamb Skins.	Number of Kid Skins.	Total Lamb and Kid.	Doz. Gloves produced each Year.
1821	1,202,029	242,996	1,445,025	216,756	1840	1,552,528	697,012	2,249,540	337,431
1825	2,098,553	771,522	2,870,075	430,506	1844	1,549,203	537,351	2,086,554	312,985
1830	1,859,850	1,086,209	2,946,059	441,900	1850	1,917,213	491,518	2,411,731	361,759
1835	2,287,046	956,628	3,243,674	486,551	1851	1,591,275	615,412	2,206,687	331,003

At an average of the years 1850 and 1851, 2,805,123 pairs of foreign leather gloves were entered for consumption, producing an annual average revenue of 42,958*l*. The duties, which vary from 2*s*. 6*d*. to 4*s*. 6*d*. per doz. pairs, are specified in the Art. TARIFF.

GOLD (Ger. *Gold*; Du. *Goud*; Da. and Sw. *Guld*; Fr. *Or*; It. and Sp. *Oro*; Port. *Oiro, Ouro*; Rus. *Soloto*; Pol. *Zloto*; Lat. *Aurum*; Arab. *Tibr* and *Zeheb*; Sans. *Swarna*; Malay, *Más*), the most precious of all the metals, seems to have been known from the earliest antiquity. It is of an orange red, or reddish yellow colour, and has no perceptible taste or smell. Its lustre is considerable, yielding only to that of platinum, steel, silver, and mercury. It is rather softer than silver. Its specific gravity is 19·3. No other substance is equal to it in ductility and malleability. It may be beaten out into leaves so thin, that one grain of gold will cover $56\frac{3}{4}$ square inches. These leaves are only $\frac{1}{282000}$ of an inch thick. But the gold leaf with which silver wire is covered has only $\frac{1}{72}$ of that thickness. An ounce of gold upon silver is capable of being extended more than 1,300 miles in length. Its tenacity is considerable, though in this respect it yields to iron, copper, platinum, and silver. From the experiments of Seckingen, it appears that a gold wire 0·078 inch in diameter, is capable of supporting a weight of 150·07 lbs. avoirdupois without breaking. It melts at 32° of Wedgwood's pyrometer. When melted, it assumes a bright bluish green colour. It expands in the act of fusion, and consequently contracts while becoming solid more than most metals; a circumstance which renders it less proper for casting in moulds.—(*Thomson's Chemistry.*)

For the quantities of gold produced, and the places where it is produced, see PRECIOUS METALS.

GOMUTI, OR EJOO, a species of palm (*Borassus Gomutus*), growing in the Indian islands.

A valuable product is obtained from this palm, resembling *black horse hair;* it is found between the trunk and branches, at the insertion of the latter, in a matted form, interspersed with long, hard, woody twigs of the same colour. When freed from the latter, it is manufactured by the natives into cordage. Its fibres are stronger and more durable, but less pliant, than those of the cocoa nut, or coir — (see COIR); and is, therefore, fitter for cables and standing rigging, but less fit for running rigging. The native shipping of the Eastern islands of all kinds are chiefly equipped with cordage of the gomuti; and the largest European shipping in the Indies use cables of it. It undergoes no preparation but that of spinning and twisting; no material similar to our tar and pitch, indispensable to the preservation of hempen cordage, being necessary with a substance that, in a remarkable degree, possesses the quality of resisting alternations of heat and moisture. The gomuti of Amboyna, and the other Spice islands, is the best. That of Java has a coarse ligneous fibre. Gomuti is generally sold in twisted shreds or yarns, often as low as 1 dollar a picul, and seldom more than 2. Were European ingenuity applied to the improvement of this material, there seems little doubt that it might be rendered more extensively useful.—(*Crawfurd's East. Archip.* vol. iii. p. 425.)

GOOD HOPE, CAPE OF. See CAPE TOWN.

GOTTENBURG, OR, more properly, GOTHABORG, on the south-west coast of Sweden, at the head of a fiord near the Cattegat, which receives the river Götha, lat. 57° 42′ 4″ N., lon. 11° 57′ 45″ E. Population 29,000, and increasing. Vessels do not come close to the city, but lie in the river or harbour at a short distance from the shore, goods being conveyed from and to them by lighters that navigate the canals by which the lower part of the town is intersected. The depth of water in the port is 17 feet, and there is no tide, bar, or shallow. A vessel entering the Götha must take a pilot on board, whose duty it is to meet her ½ league west of Wingo beacon. After Stockholm, Gottenburg has the most extensive commerce of any town in Sweden. Iron and steel, the former excellent, but the latter inferior to that made in England, form the principal articles of export. They are brought from the rich mines of Wermeland, distant about 200 miles; being conveyed partly by the lake Wener, partly by the Tröllhætta canal — (see CANALS), — and partly by the river Götha. The exports of iron, in 1847, amounted in all to 27,447 tons. The original cost of iron is supposed to be increased about 5 per cent. by the expense of its conveyance to Gottenburg; and the shipping charges, inclusive of the export duty, are about 10 per cent. additional. The next great article of export is timber, particularly deals, which are also furnished by Wermeland. Of these, the exports, in 1847, were 22",000 doz., but this is above the average. The other articles of export are linen, sail-cloth, tar, copper, alum, glass, cobalt, manganese, linseed, oak bark, bones, juniper berries, cranberries, rock moss for dyeing, &c. Grain is sometimes imported and sometimes exported. The principal articles of import are sugar, coffee, tobacco, cotton yarn and twist, salt, indigo, and dye woods, South Sea oil, rice, herrings, wine, spices, &c. There belonged to the port in 1847, exclusive of river craft, 126 vessels of the aggregate burden of 13,254 Swedish lasts, or about 30,000 English tons, and ship building has since been going on briskly. The opening of the Götha canal by which Gottenburg communicates with a large portion of the interior of Sweden, has exercised a powerful and beneficial influence over her commerce. She carries on an extensive trade with England, and English is generally understood. Steamers run once a week between Gottenburg and Hull for 8 months of the year; but in winter the intercourse with England is kept up by the tedious route of Lubeck and Hamburg.

Herring Fishery. — Gottenburg used, at no distant period, to be one of the principal seats of the herring fishery; but at present this branch of industry is quite extinct, and it has always been very capricious. From 1556 to 1588, great quantities of herrings were taken; from 1588 to 1660, they left the coast; during the next 15 years they were again abundant: but from 1675 to 1747, they entirely disappeared. From 1747 to 1770, they were abundant, 186,614 barrels being taken in 1763, and 151,483 in 1768. From 1786 to 1799, the fishery was very good, from 110,000 to 190 000 barrels being annually exported. In 1804, the export was 79,512 barrels. In 1808 and 1809, fish were very scarce; and in 1812 they entirely disappeared, and have not hitherto returned; so that Gottenburg, instead of exporting, at present imports considerable supplies of herrings.

Both iron and timber pay duties on exportation, but they are not heavy.

Custom-house Regulations and Port Charges.—On arriving in port, no person is allowed to board or to leave a vessel till she be in custody of the officers; who, having inspected the manifest and papers, send them to the Custom-house. An officer is appointed to superintend the unloading and also the loading. The public charges of all sorts on a Swedish ship and on a foreign ship not privileged, each of 300 tons burden, unloading and loading mixed cargoes at Gottenburg, would be, on the former, 24*l.* 5*s.* 7*d.*; on the latter, 49*l.* 5*s.* 7*d.* On a privileged foreign ship the charges are the same as on a Swedish ship.

Warehousing System. — Goods may be bonded for any length of time, on paying ½ per cent. *ad valorem* for the first 2 years, and ¼ per cent. annually thereafter.

Commission, Credit, &c. — The usual rate of commission is 2 per cent. Goods are commonly sold on credit. Raw sugar at 9 months, with 3 months' interest to the seller. Other goods at 3, 4, and 6 months.

Banking, &c. — There are no public or private banking establishments at Gottenburg for the issue of notes; but the national bank has two offices here which advance limited sums of money, at 5 per cent. on the security of goods, and in discount of bills. Some of the English insurance companies have agents here, who do a good deal of business.

Sea Stores, Water, &c. — These may be had here of excellent quality and cheap. Beef, 1½*d.* per lb., best rye bread, 2½*d.* per lb., and butter, 6*d.* per lb.

Money, Weights, Measures, &c., same as at Stockholm, which see.

In compiling this article, we have made use of consular returns, *Coxe's Travels in the North of Europe*, vol. iv. pp. 267 — 275.; and some valuable *private communications.*

GRACE, DAYS OF. See EXCHANGE.

GRAPES (Ger. *Trauben;* Fr. *Raisins;* It. *Grappoli, Grappi;* Sp. *Ubas, Racimos;* Lat. *Uvæ*), a well known fruit, produced from the vine.

France, Spain, Portugal, and Italy, as well as some parts of Germany and Hungary, produce grapes which yield wines of various qualities and flavour, many of them excellent. We import green grapes from Lisbon, and other parts of Portugal, Malaga, &c.: they are brought packed in jars, and secured from damage by means of sawdust, plentifully strewed between the layers of fruit. The grapes grown in Great Britain in the open air are much smaller, and by no means so luscious, as those of foreign countries; but those raised in hot-houses are quite equal, if not superior, to the latter. Grapes are imported not only in their natural state, but dried and preserved, in which latter state they are denominated RAISINS; which see.

GRINDSTONES, flat circular stones of different diameters and thickness, mounted on spindles or axles, and made to revolve with different degrees of velocity, employed to polish steel articles, to give an edge to cutting instruments, &c. Grindstones not in constant use are commonly turned by winch handles; but at Sheffield and other places, where polished articles and cutlery are extensively manufactured, large numbers of grindstones, being mounted in buildings appropriated to that purpose, called grind or blade mills, are turned by straps, acting on their axles, the moving power being either water or steam. The stone best suited to form grindstones is what is called a sharp-grit; it being chosen finer or coarser grained according to the purposes for which they are destined. The principal grindstone quarry in England is at Gateshead Fell, in the county of Durham; where they are produced in vast numbers, not only for home use, but for exportation to all parts of the world. But those principally in use at Sheffield are mostly quarried at Wickersley, in Yorkshire.

They are classed in eight different sizes called *foots*, according to their dimensions, as in the following table: —

Denominations.	Diameter.	Thickness.	No. in a Chaldron.	Denominations.	Diameter.	Thickness.	No. in a Chaldron.
	Inches.	*Inches.*			*Inches.*	*Inches.*	
1 foot	10	2	36	5 foots	35	5	5
2 foots	14	2½	27	6 foots	42	6	3
3 foots	20	4	18	7 foots	50	6	1½
4 foots	28	4	9	8 foots	56	8	1

A grindstone foot is 8 inches; the size is found by adding the diameter and thickness together. Thus, a stone 56 inches diameter by 8 thick, making together 64 inches, is an 8 foot stone, of 8 inches each foot.

Besides the above sizes, grindstones are made, when ordered, of any intermediate dimensions; many are made much larger than any of the above sizes; some as large as 76 inches diameter, and 14 or 15 inches thick, which are a great weight, a cubic foot weighing 1 cwt. 1 qr. 14 lbs. — (*Rees's Cyclopædia; Bailey's Survey of Durham*, p. 43.)

Grinding is an unhealthy and dangerous employment. For some purposes, the stones are made to revolve with an extreme degree of velocity, which makes them occasionally fly in pieces. But the greatest annoyance to which the grinder is exposed is from his inhaling the minute particles of stone, and of iron and steel, that are always flying about, particularly in the process termed dry grinding. Contrivances have been suggested for obviating this serious inconvenience; but whether it be owing to their unsuitableness, or to the carelessness of the workmen, none of them has succeeded in practice. — (*Treatise on Iron and Steel, Lardner's Cyclopædia*, p. 293.)

GUAIACUM, OR LIGNUM VITÆ (Fr. *Gayac, Bois saint;* Ger. *Pockholz;* It. *Guajaco;* Lat *Guaiacum, Lignum vitæ;* Sp. *Guayaco*), the wood of a tree, a native of Jamaica, Hayti, and the warmer parts of America.

It is a dark-looking evergreen, growing to from 40 to 50 feet in height, and from 14 to 18 inches in diameter. The bark is hard, smooth, and brittle; the wood is externally yellowish, and internally of a blackish brown colour. Lignum vitæ is the weightiest timber with which we are acquainted, its specific gravity being 1·333. It is exceedingly hard, and difficult to work. It can hardly be split, but breaks into pieces like a stone, or crystallised metal. It is full of a resinous juice (*guaiac*), which prevents oil or water from working into it, and renders it proof against decay. Its weight and hardness make it the very best timber for stampers and mallets; and it is admirably adapted for the sheaves or pulleys of blocks, and for friction rollers or castors. It is extensively used by turners.

The *guaiac*, or gum, spontaneously exudes from the tree, and concretes in very pure tears. It is imported in casks or mats; the former containing from 1 to 4 cwt., the latter generally less than 1 cwt. each. Its colour differs considerably, being partly brownish, partly reddish, and partly greenish; and it always becomes green when left exposed to the light in the open air. It has a certain degree of transparency, and breaks with a vitreous fracture. When pounded, it emits a pleasant balsamic smell, but has scarcely any taste, although when swallowed it excites a burning sensation in the throat. When heated, it melts, diffusing, at the same time, a pretty strong fragrant odour. Its specific gravity is 1·229. — (See *Veget. Sub., Lib. of Entert. Knowledge; Thomson's Chemistry*, &c.)

GUANO, OR HUANO (the Peruvian term for manure), a substance used as a manure found on certain small islands off the coast of Peru and Bolivia, and on parts of the shore of the mainland. It is friable and easily reduced to powder; its colour varies from a dull red to a dirty white, and it has a strong smell, and a fat, unctuous feel. At an average it may weigh from 50 to 60 lbs. a bushel. Humboldt was either the first, or one of the first, by whom this important substance was brought to Europe; but it was described at a much earlier date by Ulloa (*Voyage au Perou*, i. 481.), and has been used as a manure by the Peruvians from the age of the Incas downwards. Very different opinions have been entertained as to its nature and origin. Many have supposed that it was a peculiar mineral or earth. Ulloa, however, was clearly of opinion that it consists

of the excrements of the sea-birds which are found in prodigious swarms all along the Peruvian and Bolivian shores; and there is no longer any doubt that such is the case. The localities where the deposit is principally met with being within a rainless region, it is accumulated with a rapidity of which we have no idea. Guano is of very different qualities: some authorities give the preference to the whitish varieties, which are believed to be more recent, while others prefer the red. According to Klaproth, a quantity of guano represented by 100 contained, urate of ammonia 16 parts, phosphate of lime 10 do., oxalate of lime 12¾ do., silica 4 do., common salt ½ do., sand 28 do., and water, organic and combustible matter, 28¾ do.; but its composition is found to differ very materially. The best is that which contains the greatest proportion of ammoniacal salts.

Guano has not been long introduced into England; and there is a good deal of discrepancy in the statements that have been put forth as to its operation. There can, however, be no doubt that it is a most efficient manure, and that about 2 to 2½ cwt. per acre of average guano mixed with about two-thirds the usual quantity of farm-yard manure (which is required to keep the soil loose) will produce, when applied to land that is well drained, nearly double the ordinary quantity of potatoes. In turnip husbandry, splendid crops are produced by the agency of guano only; but in this case from 4 to 5 cwt. per acre should be applied. It has, also, a powerful influence in improving crops of corn and the pasture following such crops. The effect of guano is very materially increased by its being covered up to some considerable depth as soon as it is laid on the soil; and top-dressing is certainly the most wasteful way in which it can be applied.—(*Private information.*) It is, in fact, the most valuable of manures; and under such circumstances it becomes of importance to learn the probable supply of the deposit, and the price at which it may be imported and sold in Europe.

Unfortunately, however, our information on both these points is less complete than might be desired. Since it began to be largely exported to this and other foreign countries, an apprehension began to gain ground in Peru, that the deposits would in no very long time be wholly exhausted; and as this would occasion the ruin of those estates along the coast of Peru, and the department of Arequipa, in which guano is extensively used as a manure, government has been called upon to avert this catastrophe by prohibiting its export. We are, however, well convinced that this apprehension is in great measure unfounded. At present (1859) guano is principally obtained from the Chincha islands, opposite to Pisco, in Lower Peru, in about lat. 13° 25′ S., and long. 76° 30′ W., and the Lobos islands, opposite to Lambayeque, in Upper Peru, lat. 5° to 7° S., and long. 81° W. But in addition to the deposits in these islands, very large quantities are found at Pavellon de Pica, Iquique, and other points along the coast of Upper and Lower Peru. As might be anticipated, the estimates of the guano accumulated in these deposits differ very widely. On the whole, however, we have no difficulty in coming to the conclusion that the estimates contained in the paper on this subject published at Lima in 1852* are the most to be depended on. And they give the following results, viz.:—The coast deposits 7,921,407 tons, those of the Chincha islands 18,250,000 do., and those of the Lobos islands 853,086, do., making in all 27,024,493, tons. And supposing that under a liberal system the exports were to amount to 400,000 or 500,000 tons a year, here is a supply that would last in the one case for nearly 70, and in the other for more than 50, years. But it is stated in the paper referred to, that the coast deposits are greatly underrated in the above estimate; and that were the shores and the adjacent rocks and islands properly explored, from 6° to 23° S. lat., many more deposits would certainly be met with. And hence we may conclude that for practical purposes the supply of guano may be said to be all but inexhaustible.

The islands where the guano is found being uninhabited except by those employed in its shipment, it would, but for the interference of government, cost nothing save the expense of putting it on board and the freight home. But the governments of Peru and Bolivia were either so little aware of the value of the article, and of their duty to their constituents, or so corrupt, that they sold in 1839 to private parties (Messrs. Quiros, Allier, and Co. of Lima), for a mere trifle (40,000 dollars), the sole right to ship guano for the term of nine years; so that these parties had it in their power to exact any price they pleased for the article! This contract was, however, too ruinous to be allowed to continue; and was cancelled by the Peruvian government in 1841, on the ground of enormous public lesion, and of ignorance of the value of the privilege that had been conceded. For some time after this the trade was comparatively free, and large quantities of guano were imported in 1844 and 1845. But the monopoly system has been again revived. Messrs. Gibbs and Sons, of London, who act as agents for the Peruvian government, are now the sole inporters of guano. They sell it at the same fixed wholesale price, whether freights be high or low. For a while this price was 9*l.* 5*s.* a ton, minus 2½ per cent. dis. But it was subsequently raised to 13*l.* a ton;

* Translated and published in papers on guano (pp. 51—76) laid before parliament in 1852

and since June, 1858, has been fixed at 12*l.* per ton, both here and in the United States. But these prices are quite excessive, and furnish one of the most glaring instances of the abuse of monopoly to be found in the history of commerce. Being a gratuitous product, the necessary cost of guano is that of its shipment and freight to the destined port. The first of these items is estimated at from 12*s.* to 20*s.* a ton; and taking it at 20*s.*, and adding thereto 3*l.* 10*s.* or 4*l.* 10*s.* a ton for the freight to England, its price here should not exceed 5*l.* or 6*l.* a ton. We should not, however, object to the Peruvian government laying a reasonable duty of 20*s.*, or even a high duty of 30*s.* a ton on guano when exported; and with such a duty it might be advantageously imported and sold at 6*l.* 10*s.* or 7*l.* 10*s.* a ton. Under a free system of this sort the imports would be vastly increased. When return cargoes could not be obtained from the W. coast of America, or when freights were low, the importation of guano would furnish ample employment for shipping; and the comparatively low price at which it would then be sold would, by extending its use, contribute as much to the benefit of agriculture as of shipping. But under the present artificial plan, if the agents be tempted, as is sometimes the case, by the lowness of freight, to import an unusually large quantity, they are not permitted to realise a profit by selling it at a reduced rate, so that it becomes a dead weight on their hands, and proportionally lessens the imports in subsequent years.

The Peruvian government would, we believe, gain by throwing the trade in guano open under an export duty like that suggested above. And we do not know that anything could be devised that would be more likely to prove advantageous to our agriculture and shipping than the carrying out of such a plan. Perhaps the best way to effect an arrangement of this sort would be to purchase one or more of the guano islands from the Peruvian government. And if the latter should perversely decline to agree to such sale, or to modify the present monopoly system, the question of her right to appropriate such valuable deposits, and to deprive others of any equitable participation in their advantages, may, perhaps, force itself on the public attention. Should such be the case, it will probably be found that the claim of the Peruvians to the exclusive possession of the guano islands is of a very questionable description; and that in grasping at all they may not improbably lose all.

Lobos de Afuera is fully 50 m. from the nearest point of the mainland. And it seems rather too much for a government like that of Peru, without anything worthy of the name either of a mercantile or a warlike fleet, to pretend to hinder others from carrying away the dung of wild birds from an unoccupied rock at so great a distance from its territories.

Guano is very apt to be adulterated. So long, however, as the present system lasts, it is quite plain that genuine Peruvian guano cannot be sold by retail in limited quantities for less than 12*l.* 15*s.* or 13*l.* a ton.

No guano has ever been imported at all equal to that from Peru. And unless it come from a rainless region it is worth comparatively little; for otherwise the ammoniacal salts, which are its most valuable portion, are either partially or wholly washed away by the rains.

Guano is found in the caves frequented by swallows, pigeons, bats, &c., in Java, Sumatra, and other places in the Eastern Archipelago. And not being exposed to the rain it may probably be of good quality. We subjoin an

Account of the Quantities of Guano imported into and exported from the U. Kingdom in each of the 8 Years ending with 1858.

	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
Imports . . .	243,014	129,889	123,166	235,111	305,061	191,501	288,362	353,541
Exports . . .	30,419	36,247	40,937	50,254	47,502	64,384	23,741	19,632
Remains for consumption . .	212,595	93,642	82,229	184,857	257,559	127,117	264,621	333,909

Of the 288,362 tons guano imported in 1857, 264,230 were from Peru, and 6,005 from Chili. The trifling imports from other places brought comparatively low prices. The deposits of guano on the west coast of Africa were speedily exhausted.

The reader will, perhaps, be surprised to learn that large quantities of guano have, of late years, been imported into Spain. It is principally employed in manuring the *huertas*, or low rich grounds of Murcia and Valencia. Hitherto it has been mostly sent at second-hand from England. But recently the Peruvians have begun to export it on their own account to Alicant, Valencia, &c., and have established agents in these towns for its sale.

GUAYAQUIL, a city and port of Colombia, on the western coast of South America, lat. 2° 11′ 21″ S., long. 79° 43′ W. Population, 20,000? The town is situated on the banks of the river of the same name, about 6 or 7 leagues from the Isla Verde, or 9 leagues from the Isla Puña, in the Gulph of Guayaquil, opposite to the mouth of the river. Ships bound for Guayaquil generally call at the Isla Puña, where expert pilots may be had, who carry them up to the town by night or by day, according to the state of the tides. The town is old; but as the houses are of wood, and it has frequently suffered from fires, much of it is comparatively modern, and has a

good appearance. There is a dry dock on the south bank of the river, where several ships of a superior construction have been built.

The district in which Guayaquil is situated, has for a considerable period formed a part of the republic of Ecuador or Æquator. Like the other S. American states, it has been subjected to perpetually recurring revolutions; but Guayaquil has, notwithstanding, continued to enjoy a considerable commerce. Its principal article of export is cocoa, of which large quantities are shipped; and next to it are straw hats, timber, tobacco, hides, bark, &c. The principal articles of import are British manufactured cottons and hardware, silks, wine, flour, &c.

Account of the Quantities and Values of the Principal Articles of Produce exported from Guayaquil, in 1855.

Articles.	Price.	Quantities.	Value in £ Sterling.
Cocoa . . . . . ql.	6½ $	158,897	£163,471 16 8
Straw hats . . . . . dozens	14 —	38,778	90,482 0 0
Tanned hides . . . . . sides	2½ —	26,246	10,482 16 8
Tobacco . . . . . cwts.	28 —	3,659	17,075 6 8
Sarsaparilla . . . . . —	15 —	657	1,642 10 0
Tamarinds . . . . . —	5 —	699	582 10 0
Coffee . . . . . —	11 —	776	1,422 13 4
Orchilla . . . . . —	3½ —	4,000	2,333 6 8
Bark . . . . . —	25 —	7,739	32,245 16 8
Timber . . . . . logs	4 —	9,568	6,245 6 8
Canes . . . . . each	2 rrs.	73,551	3,064 13 4
Mangles . . . . . —	4 —	5,661	471 13 4
India rubber . . . . . cwts.	15 $	765	1,912 10 0
Pita . . . . . lbs.	2 rrs.	7,504	313 0 0
Bavetas and jellones . . . . . each	4 $	322½	215 0 0
Coarse woollens . . . . . yards	2 rrs.	18,532	772 0 0
Lard . . . . . cwts.	18 $	414	1,242 0 0
Rum . . . . . jars	15 —	165	326 0 0
Gold and silver coin	. .	. .	23,639 10 0
Total	. .	. .	358,393 10 0

Ex. 6 doll. currency=£1.

GUERNSEY. For the peculiar regulations to be observed in trading with Guernsey, Jersey, &c., see IMPORTATION AND EXPORTATION.

GUMS, RESINS, GUM-RESINS. In commerce, the term gum is not only applied to gums properly so called, but also to resins and gum-resins. But though these substances have many properties in common, they are yet sufficiently distinct.

I. *Gum* is a thick transparent fluid that issues spontaneously from certain species of plants, particularly such as produce stone fruit, as plum and cherry trees. It is very adhesive, and gradually hardens by exposure to the atmosphere. It is usually obtained in small pieces, like tears, moderately hard and somewhat brittle while cold; so that it can be reduced by pounding to a fine powder. When pure, it is colourless: but it has commonly a yellowish tinge; it is not destitute of lustre; it has no smell; its taste is insipid; its specific gravity varies from 1·3161 to 1·4317; it readily dissolves in water, but is insoluble in alcohol. Gum is extensively used in the arts, particularly in calico printing, to give consistence to the colours, and to hinder them from spreading. It is also used in painting, in the manufacture of ink, in medicine, &c.

The only important gums, in a commercial point of view, are gum Arabic and gum Senegal; but lac is popularly, though improperly, ranked among the gums.

1. *Gum Arabic* (Fr. *Gomme Arabique*; It. *Gomma Arabica*; Ger. *Arabische gummi*; Arab. *Tolh*), the produce of the *Acacia vera*, a tree growing in Arabia, and in many parts of Africa. The gum exudes naturally from the trunk and branches, and hardens by exposure to the air. "The more sickly the tree appears, the more gum it yields; and the hotter the weather, the more prolific it is. A wet winter and a cool or mild summer are unfavourable to gum."—(*Jackson's Morocco*, p. 84.) It is in irregularly shaped pieces, hard, brittle, and semi-transparent. When pure, it is almost colourless, or of a pale yellowish hue; being insipid, inodorous, and dissolving completely in the mouth. Specific gravity 1·31 to 1·43. It is often mixed with gum Senegal. East India gum Arabic is, though a useful, a spurious article, not being the produce of the *acacia vera*, but of other species of plants. The best gum is either imported direct from Alexandria, Smyrna, Tripoli, Mogadore, Tangiers, &c., or at second hand from them through Gibraltar, Malta, and other Italian ports. The price depends principally on its whiteness and solubility, increasing and diminishing from 1*l.* 15*s.* to 8*l.* or 9*l.* per cwt., according as the article has more or less of these qualities.—(*Thomson's Dispensatory*, and *private information.*)

At an average of the 3 years ending with 1842, the gum Arabic entered for consumption amounted to 18,176 cwt. a year. Previously to 1832, the duty on gum Arabic from a British possession was 6*s.* a cwt., and from other parts 12*s.*; but the duty on it and all other gums was then fixed at 6*s.* a cwt. without regard to origin. In 1842 it was further reduced to 1*s.* a cwt., and was finally repealed in 1845. Of 46,032 cwt. of gum Arabic imported in 1851 Morocco furnished 5,362; Egypt, 20,312; Italy, 3,710; Cape of Good Hope, 521; the East Indies, 14,382, &c.

2. *Gum Senegal*, principally brought from the island of that name on the coast of Africa, is obtained from various trees, but chiefly from two; one called *Vereck*, which

yields a white gum; the other called *Nebuel*, which yields a red gum; varieties of the *acacia gummifera*. Gum Arabic is very often mixed with gum Senegal. The latter is nearly as pure as the former, but it is usually in larger masses, of a darker colour, and more clammy and tenacious. It is the sort of gum principally employed by calico printers.—(*Thomson's Chemistry, Thomson's Dispensatory, Ainslie's Materia Indica, &c.*) The trade in gum Senegal is principally in the hands of the French. We subjoin

An Account of the Imports and Re-exports of the principal Varieties of Gum known in Commerce in 1852.—(*Parl. Paper*, No. 504. Sess. 1853.)

Gums.		Imports.	Re-Exports.	Gums.		Imports.	Re-Exports.
Animi - -	cwt.	2,869 0 25	1,085 0 17	Kino - -	cwt.	159 1 6	169 0 15
Copal - -	—	4,651 2 18	3,678 1 11	Mastic - -	—	139 1 10	96 3 19
Arabic - -	—	18,484 0 20	12,264 2 15	Tragacanth -	—	1,151 1 21	167 0 1
Senegal - -	—	4,266 3 12	39 0 0	Lac-dye - -	—	17,631 1 10	6,955 0 20
Assafœtida - -	—	1,167 1 1	1,175 3 16	Shellac - -	—	16,556 0 11	9,490 3 15
Ammoniacum - -	—	503 2 18	318 3 11	Seedlac - -	—	401 3 12	601 3 14
Euphorbium - -	—	14 0 22		Sticklac - -	—	3,054 0 25	2,777 2 20
Galbanum - -	—	11 2 1	62 0 5	Unenumerated -	—	10,913 2 21	7,117 0 9

II. *Resins*, for the most part, exude spontaneously from trees, though they are often obtained by artificial wounds, and are not uncommonly, at first, combined with volatile oil, from which they are separated by distillation. They are solid substances, naturally brittle; have a certain degree of transparency, and a colour most commonly inclining to yellow. Their taste is more or less acrid, and not unlike that of volatile oils; but they have no smell, unless they happen to contain some foreign body. They are all heavier than water, their specific gravity varying from 1·0182 to 1·1862. They differ from gums in being insoluble in water, whether cold or hot; while they are, with a few exceptions, soluble in alcohol, especially when assisted by heat. When heated, they melt; and if the heat be increased, they take fire, burning with a strong yellow flame, and emitting a vast quantity of smoke. Common *rosin* furnishes a very perfect example of a resin, and it is from this substance that the whole genus have derived their name. Rosin is, indeed, frequently denominated resin. The principal resins are *Animi, Elemi, Copal, Lac, Labdanum, Mastic, Rosin, Sandarach, Tacamahac, &c.*; which see under their respective names.—(*Thomson's Chemistry.*)

III. *Gum-resins*, a class of vegetable substances consisting of gum and resin. They differ from resins in this—that they never exude spontaneously from the plant, being obtained either by bruising the parts containing them, and expressing the juice, which is always in a state of emulsion, generally white, but sometimes of a different colour, or by making incisions in the plant, from which the juice flows. The juice, being exposed to the action of the sun, is condensed and inspissated, till it forms the gum-resin of commerce. Gum-resins are usually opaque, or, at least, their transparency is inferior to that of resins. They are always solid, and most commonly brittle, and have, sometimes, a fatty appearance. When heated, they do not melt as resins do, neither are they so combustible. Heat, however, commonly softens them, and causes them to swell. They burn with a flame. They have almost always a strong smell, which, in several instances, is alliaceous. Their taste, also, is often acrid, and always much stronger than that of resins. They are usually heavier than resins. They are partially soluble in water, but the solution is always opaque, and usually milky. Alcohol partially dissolves them, the solution being transparent.

The most common gum-resins are *Aloes, Ammonia, Euphorbium, Galbanum, Gamboge, Myrrh, Olibanum, Sagapenum, Scammony*, &c.; which see, under their respective names.—(*London's Ency. of Agriculture; Thomson's Chemistry.*)

GUNPOWDER (Ger. *Pulver, Schiesspulver;* Du. *Buskruid;* Da. *Krudt. Pulver;* Sw. *Krut*; Fr. *Poudre;* It. *Polvere;* Sp. and Port. *Polvora;* Rus. *Poroch;* Pol. *Proch;* Lat. *Pulvis pyrius.*) This well known inflammable powder is composed of nitre, sulphur, and charcoal, reduced to powder, and mixed intimately with each other. The proportion of the ingredients varies very considerably; but good gunpowder may be composed of the following proportions; viz. 76 parts of nitre, 15 of charcoal, and 9 of sulphur. These ingredients are first reduced to a fine powder separately, then mixed intimately, and formed into a thick paste with water. After this has dried a little, it is placed upon a kind of sieve full of holes, through which it is forced. By this process it is divided into grains, the size of which depends upon the size of the holes through which they have been squeezed. The powder, when dry, is put into barrels, which are made to turn round on their axis. By this motion the grains of gunpowder rub against each other, their asperities are worn off, and their surfaces are made smooth. The powder is then said to be glazed.—(*Thomson's Chemistry.*)

Dr. Thomson, whose learning is equal to his science, has the following remarks with respect to the introduction of gunpowder into warlike operations: "The discoverer of this compound, and the person who first thought of applying it to the purposes of war, are unknown. It is certain, however, that it was used in the fourteenth century. From certain archives quoted by Wiegleb, it appears that cannons were employed in Germany before the year 1372. No traces of it can be found in any European author previously to the thirteenth century; but it seems to have been known to the Chinese long before that period. There is reason to believe that cannons were used in the battle of Cressy, which was fought in 1346. They seem even to have been used three years earlier, at the siege of Algesiras; but before this time they must have been known in Germany, as there is a piece of ordnance at Amberg, on which is inscribed the year 1303. Roger Bacon, who died in 1292, knew the properties of gunpowder; but

it does not follow that he was acquainted with its application to fire-arms."—(*Thomson's Chemistry.*). For further particulars as to the introduction of cannon, see that article.

The manufacture and sale of gunpowder is regulated by several statutes. By the 12 Geo. 3. c. 61. it is enacted, that no person shall use mills or other engines for making gunpowder, or manufacturing the same in any way, except in mills and other places which were *actually in existence* at the time of passing the act, or which, if erected afterwards, have been sanctioned by a licence, under pain of forfeiting the gunpowder, and 2*s.* a pound. It is further enacted, that no mill worked by a pestle, and usually termed a pestle mill, shall be used in making gunpowder, under the above-mentioned penalty; and that no more than 40 lbs. of gunpowder, or materials to be made into gunpowder, shall be made at any one time under a single pair of mill-stones, on pain of forfeiting all above 40 lbs., and 2*s.* for every pound; nor shall more than 40 cwt. be dried in any one stove or place at any one time, under forfeiture of all above that quantity, and 2*s.* for every pound thereof. The powder mills erected at Battle, Crowhurst, Saddlescombe, and Brede, in Sussex, previously to 1772, are exempted from the above regulations so far as relates to the making of fine fowling powder.

No dealer is to keep more than 200 lbs. of powder, nor any person not a dealer more than 50 lbs., in the cities of London or Westminster, or within 5 miles thereof, or within any other city, borough, or market town, or 1 mile thereof, or within 2 miles of the king's palaces or magazines, or ½ a mile of any parish church, on pain of forfeiture, and 2*s.* per lb.; except in licensed mills, or to the amount of 300 lbs. for the use of collieries, within 200 yards of them.

Not more than 25 barrels are to be carried by any land carriage, nor more than 200 barrels by water, unless going by sea or coastwise, each barrel not to contain more than 100 lbs.

All vessels, except his Majesty's, coming into the Thames, are to put on shore, at or below Blackwall, all the gunpowder they have on board exceeding 25 lbs. Vessels outward bound are not to receive on board more than 25 lbs. of gunpowder previously to their arrival at Blackwall. The Trinity House have authority to appoint searchers to inspect ships, and search for gunpowder. All the gunpowder found above 25 lbs., and the barrels containing it, and 2*s.* for every pound above that quantity, are forfeited. Any person obstructing an officer searching for concealed gunpowder is liable to a penalty of 10*l.* The places of deposit for gunpowder are regulated by the 54 Geo. 3. c. 159.

The importation of gunpowder, arms, &c., may, at any time, be prohibited by proclamation, or by order in council, (16 & 17 Vict. c. 107. § 45.)

Gunpowder is of considerable importance in a commercial point of view. This will be evident from the following

Account of the Gunpowder exported in 1857, specifying the Countries to which it was sent, and the Quantity and Value of that sent to each.

	lbs.	£
Greece	289,130	8,934
W. coast of Africa (foreign)	3,305,579	92,086
Foreign West Indies	136,227	3,845
Brazil	1,726,220	62,068
Buenos Ayres	118,950	4,775
Chili	771,783	22,510
Channel Islands	176,865	5,329
Malta	366,120	11,392
W. coast of Africa (British)	1,204,804	31,017
British poss. in S. Africa	287,063	10,084
Mauritius	244,959	7,984
British East Indies	717,693	25,330
Australia	845,024	29,767
British North America	468,016	14,731
British W. India Islands	128,895	5,048
Other countries	487,217	19,244
Total	11,271,875	354,144

GUNNY (Hind. *Tāt;* Ben. *Gūni*), a strong coarse sackcloth manufactured in Bengal for making into bags, sacks, and packing generally, answering at once the two purposes for which canvas and *bast* are used in Europe. The material from which this article is manufactured is the fibre of two plants of the genus Corchorus; viz. *Corchorus olitorius*, and *Corchorus capsularis* (Bengali, *pat*); both, but particularly the first, extensively cultivated throughout Lower Bengal. Besides a large domestic consumption of gunny, the whole rice, paddy, wheat, pulses, sugar, and saltpetre of the country, as well as the pepper, coffee, and other foreign produce exported from Calcutta, are packed in bags or sacks made of this article. There is also a large exportation of manufactured bags, each commonly capable of containing two maunds, or about 160 lbs. weight, to other parts of India, N. America, Singapore, Pegu, &c. In 1853-54 there were exported from Calcutta no fewer than 14,231,755 gunny bags, of the value of 1,696,706 rup. (169,670*l.*), and 228,706 pieces of gunny cloth, worth 798,634 rup. (79,863*l.*) (*Statement of the External Trade of Bengal, Calcutta*, 1854, p. 42.)

GYPSUM, OR SULPHATE OF LIME, is found in various parts of the continent, in Derbyshire and Nottinghamshire, and in Nova Scotia, whence it is largely exported. When reduced to a powder, and formed into a paste with water, it is termed *plaster of Paris*, and is much used for forming casts, &c. It is also used for laying floors, and has been advantageously employed as a manure.

H.

HABERDASHERY AND MILLINERY, closely allied, but vague and ill-defined terms which are used to designate a great variety of articles, but especially those which either form component parts of ladies' dresses or which are required to make or mend them. Dr. Johnson calls a haberdasher a "dealer in small wares, a peddler." But it is not easy to imagine a definition wider of the mark than this. It is true that a haberdasher deals in needles, pins, thimbles sewing thread, and such like petty articles; but he also deals in articles of first-rate importance, including all sorts of linen, woollen, silk, and cotton goods, &c. Indeed, as every body knows, the haberdashery and millinery business has become one of the most extensive internal trades. Inasmuch, however, as haberdashers are merely dealers in and not makers of the articles which they sell, their number is comparatively small, comprising in 1851 (hosiers inc.) only 6,231 persons in G. Britain, of whom about ⅔rds were males. But it is quite otherwise with milliners and dressmakers. They produce the articles which they offer for sale; and, in consequence, they are a very large class, amounting in G. Britain, in 1851, to no fewer than 267,791 persons, being the next most numerous handicraft class to shoemakers. While, however, females form only from ⅛th to ⅛th part of the latter, they may be said to be in the entire possession of the millinery and dress-making business, the males engaged in it, who are chiefly employed as book-keepers, being only 366! (*Returns of Census of* 1851.)

Besides this vast consumption at home the exports of haberdashery and millinery have lately increased to a very large amount. In proof of this statement we beg to subjoin the following

Account of the Haberdashery and Millinery exported from the U. Kingdom in 1857, specifying the Countries to which they were sent and the Value of the Articles sent to each.

	£		£
Russia	6,067	New Granada	10,833
Sweden	7,770	Venezuela	2,639
Norway	30,774	Brazil	57,765
Denmark	1,984	Uruguay (Monte Video)	9,827
Hanse Towns	36,768	Buenos Ayres	41,765
Holland	29,381	Chili	16,571
Belgium	21,838	Peru	12,611
France	26,226	Channel Islands	81,311
Portugal, Azores, and Madeira	18,005	Gibraltar	11,013
Spain and the Canaries	8,595	Malta	10,624
Sardinia	7,074	Ionian Islands	5,553
Tuscany	6,074	W. coast of Africa (British)	8,566
Austrian Territories	2,550	British poss. in S. Africa	171,047
Turkey	19,752	Mauritius	16,176
Egypt	70,731	British East Indies	132,729
Western Coast of Africa (foreign)	6,199	Hong Kong	2,754
Java	2,004	Australia	788,688
China (ex Hong Kong)	1,492	British North America	560,810
Cuba	17,379	British W. India Islands and B. Guiana	150,255
St. Thomas	23,624	Honduras (British settlements)	3,512
United States	1,428,809	Other countries	14,188
Mexico	8,400		
Central America	2,640	Total	3,893,613

HACKNEY CARRIAGES are carriages stationed in the streets or other public places, and bound to carry such persons as require their services, for certain rates of hire according to the distances travelled. They have generally been licensed by authority, and subjected to certain regulations, intended to prevent strangers and others using them from fraud and imposition. It may be doubted, however, whether these regulations have had any good effect; and whether the public would not be as well accommodated, at least in all large towns, by throwing the business open, and trusting to competition to rectify abuses. As respects London, nothing can be said in favour of its hackney coach establishment, which is, in truth, a disgrace to the city. Speaking generally, the carriages are dirty, disagreeable vehicles, the horses worn out, and the drivers ill clothed and uncivil, forming a striking contrast to the elegance and commodiousness of the private carriages, the excellence of the horses, and the neatness of the servants.

Hackney coaches were first established in London in 1625; but they were not then stationed in the streets, but at the principal inns. In the reign of Charles II. their number was considerable. Commissioners for licensing and superintending hackney coaches were established by the act 9 Ann. c. 23.; and successive acts have been passed, specifying the number of coaches that might be licensed, the duties payable to government, and the conditions under which licences were to be granted. But we cannot say that these acts reflect any credit on their authors; and the last (the 16 & 17 Vict. c. 33.) is, perhaps, the most objectionable of any. To say that all hackney carriages shall charge alike, without regard to their style or fitting up, is to offer a premium on inferiority; and if this were their object, these acts have been eminently successful. But in every other respect they have been complete failures; and the sooner they are repealed the better. Immense numbers of cabriolets are annually licensed in the metropolis.

Hackney Carriage Regulations, Fares, &c.—The regulations as to hackney carriages in the metropolis are governed by the acts 16 & 17 Vict. cc. 33. and 127., 13 Vict. c. 7., 6 & 7 Vict. c. 86., 2 & 3 W. 4. c. 120., and the 1 & 2 Will. 4. c. 22. The act 6 & 7 Vict. c. 86. provided for the appointment of a registrar of metropolitan public carriages, to grant licences, costing 5s. each, to the drivers and conductors of stage, hackney, and other carriages. This office was abolished and its duties transferred to Commissioners of Police, 13 Vict. c. 7. ss. 1. 2. & 7. The persons so licensed receive metal tickets or badges, which they are to wear conspicuously on their breast, and persons acting as drivers, conductors, watermen, &c., without such licences and tickets, are to be fined 5*l.*; and proprietors who suffer drivers, conductors, &c. to act for them shall forfeit 10*l.* for every such offence.—6 & 7 Vict. c. 86. §§ 8, 9, 10, &c.

The acts 16 & 17 Vict. cc. 33. and 127. regulate the licensing of carriages, the amount of fares, &c. We notice a few of the more important clauses of the various acts above mentioned.

Definition.—A hackney carriage is any carriage with 2 or more wheels, standing or plying for hire in any public street or road.—1 & 2 W. 4. c. 22. § 4.

Licensing Plates, &c.—A licence to keep a hackney carriage for hire is granted by the commissioners of inland revenue on production of a certificate by the commissioners of police that the carriage is fit for the purpose.—16 & 17 Vict. c. 33. § 1. This licence costs 1*l.*, and a weekly sum of 7*s.* has to be paid on every licence to hire such carriage every day in the week, and a weekly sum of 6*s.* on every licence to hire such carriage on every day except Sunday.—16 & 17 Vict. c. 127. § 2. A plate specifying the number of the licence is to be placed inside of the coach; and two other plates, on which are painted the names of the proprietor, or of one of the proprietors of the coach, are to be placed externally, one on each side.—1 & 2 W. 4. c. 22. § 20. Penalty on proprietor for letting or employing a hackney coach without having properly numbered plates properly fixed upon such coach, 10*l.*; ditto, on driver, if proprietor, 10*l.*; if not, 5*l.*—1 & 2 W. 4. c. 22. §§ 22, 23.

Obligation to ply.—Carriages standing on the streets with plates to be deemed hackney coaches; and, unless actually hired, shall be compellable, under a penalty of 40*s.*, to go with any person offering to hire the same.—1 & 2 Will. 4. c. 22. § 35. and 16 & 17 Vict. c. 33. § 7. No driver shall be compellable to hire his carriage for a fare *according to time* after 8 in the evening or before 8 in the morning.—Schedule A. to 16 & 17 Vict. c. 33.

Distance.—Drivers of hackney carriages compellable, under a penalty of 40*s.*, to go any distance not exceeding 6 miles from the place where they shall have been hired, or for any time not exceeding 1 hour.—16 & 17 Vict. c. 33. § 7. An extra charge of *one shilling* per mile for every mile driven beyond a circle the radius of which is 4 miles from Charing Cross, provided the carriage be discharged beyond such circumference.—16 & 17 Vict. c. 127., § 15.

Number of Passengers.—The number of persons to be carried by hackney carriages is to be distinctly painted on the same; and drivers are compellable, under a penalty of 40*s.*, to carry this number if required.—1 & 2 Will. 4. c. 22. § 46.; 16 & 17 Vict. c. 33. § 9.

Two children under 10 years of age to be considered as *one adult.*—16 & 17 Vict. c. 33. Schedule A.; 16 & 17 Vict. c. 127. § 14.

Rates and Fares.—These may be charged either by time or distance, at the option of the hirer, to be expressed at the commencement of hiring. If not *otherwise expressed*, the fare to be paid according to distance. The terms are, when charged by *distance*,

For every hackney carriage drawn by 1 horse, for any distance within and not exceeding 1 mile, 6*d.*; and for every distance exceeding 1 mile after the rate of 6*d.* for any part of a mile over and above any number of miles completed.

Where more than 2 persons are conveyed in a hackney carriage drawn by 1 horse, 6*d.*, in addition to the fare to be paid for each person above 2 for the whole hiring.—16 & 17 Vict. c. 127. § 14.

Fares when taken by *time* are—For any time within and not exceeding 1 hour, 2*s.*; and then after the rate and proportion of 6*d.* for every 15 minutes or part of 15 minutes above 1 hour.

Carriages with 2 horses are entitled to one-third above the rates and charges above mentioned.—16 & 17 Vict. c. 33. schedule A.

The driver of a hackney carriage *hired by distance*, when required by the hirer to stop 15 minutes, or any longer time, shall be entitled to 6*d. extra fare for every* 15 *minutes completed* during such stoppage.—16 & 17 Vict. c. 33. § 4.

Luggage.—The driver of every hackney carriage shall carry for the person hiring he same, in or upon such carriage, a reasonable quantity of luggage without extra charge.—16 & 17 Vict. c. 33. § 10. When more than 2 persons shall be carried inside with more luggage than can be carried inside, a further sum of 2*d.* for every package carried outside is to be paid by the hirer in addition to the fare.—Schedule A. to 16 & 17 Vict. c. 33.

Rate of Driving.—When any driver *hired by time* shall be required to drive more than 4 miles per hour, he will be entitled to demand in addition to the fare for time, *the fare regulated by distance* for every mile beyond the 4.—16 & 17 Vict. c. 33. § 7.

No back Fare to be taken or demanded.—16 & 17 Vict. c. 33. § 4.

Table of Fares to be put up distinctly both inside and outside hackney carriages, and drivers to produce a *Book of Fares* when required.—16 & 17 Vict. c. 33. § 5.

Driver, when hired, to deliver to the hirer a ticket on which shall be printed the number of the plate affixed to the carriage.—16 & 17 Vict. c. 33. § 8.

Coaches waiting are entitled to a reasonable deposit, to be accounted for in the fare. Penalty on drivers refusing to wait, or to account for deposit, 40*s.*—1 & 2 W. 4. c. 22. § 47.

Refusal to pay fare, or defacing or injuring any hackney coach, may be punished, unless reasonable satisfaction be made for the same, by imprisonment for 1 calendar month.—1 & 2 W. 4. c. 22. § 41.

Drivers exacting more than legal fare liable to a penalty of 40*s.*—1 & 2 W. 4. c. 22. § 42.; 16 & 17 Vict. c. 33. § 17.

Agreement to pay more than legal Fare, not binding; sum

paid beyond such legal fare may be recovered back, and driver be liable to a penalty of 40*s*.—1 & 2 W. 4. c. 22. § 43.

Drivers demanding more than sum agreed upon, though distance be exceeded, or it be less than the legal fare, forfeit 40*s*. for each offence.—1 & 2 W. 4. c. 22. §§ 44, 45.

Drivers to hold check strings, under a penalty of 20*s*.— 1 & 2 W. 4. c. 22. § 48.

Property left in hackney coaches to be carried within 24 hours to the nearest police station, under a penalty of 10*l*. If not claimed within a year, to be sold by order commissioners of police, and proceeds carried to public account.—16 & 17 Vict. c. 33. § 11.

Offences may be tried and disputes settled either by one of the police magistrates, or by any justices of the peace for the county, and in case of dispute *the hirer may require the driver* to drive to the nearest police court.—16 & 17 Vict. c. 33 § 18.

Standings for carriages in metropolitan districts to be appointed by police commissioners.—13 Vict. c. 7. § 4.

Commissioners of Police to appoint from time to time *fit men to enforce good order* at the standings for hackney carriages.—16 & 17 Vict. c. 33. § 12.

No printed bill to be put on carriage so as to obstruct the light or ventilation.—16 & 17 Vict. c. 33. § 15.

A Proprietor of a carriage must give 10 *days* notice to police commissioners of his intention to *withdraw his carriage from hire*.—16 & 17 Vict. c. 127. § 16.

A proprietor or driver using or letting a carriage not in fit and proper condition, liable to a penalty of 3*l*.—16 & 17 Vict. c. 33. § 5.

HAIR, Human (Ger. *Haare, Menschen-haar*; Du. *Hair*; Fr. *Cheveux*; It. *Capelli umani*; Sp. *Cabellos*; Lat. *Capilli*). "Human hair makes a very considerable article in commerce, especially since the mode of perruques has obtained. Hair of the growth of the northern countries, as England, &c., is valued much beyond that of the more southern ones, as Italy, Spain, the southern parts of France, &c. Good hair is well fed, and neither too coarse nor too slender; the bigness rendering it less susceptible of the artificial curl, and disposing it rather to frizzle; and the smallness making its curl of too short duration. Its length should be about 25 inches; the more it falls short of this, the less value it bears."—(*Ency. Brit.*)

Hair of Beasts (Ger. *Haare, Huhaare*; Du. *Hair*; Fr. *Poil*; It. and Sp. *Pelo*; Lat. *Pelles*). The hair of horses is extensively used in the manufacture of chairs, sofas, saddles, &c.: while the hair or wool of beavers, hares, rabbits, &c. is much employed in the manufacture of hats, &c.

HAIR-POWDER (Ger. *Puder*; Fr. *Poudre à poudrer*; It. *Polvere di cipri*; Sp. *Polvos de peluca*) is used as an ornament for the hair, and generally made from starch pulverised, and sometimes perfumed. A tax of 1*l*. 3*s*. 6*d*. a year is laid upon all persons who wear hair-powder. Different statutes prohibit the mixing of hair-powder with starch or alabaster. And hair-powder makers are prohibited having alabaster in their custody.

HALIFAX, the capital of Nova Scotia, on the south-east coast of that province, lat. 44° 36′ N., lon. 63° 28′ W. It is situated on a peninsula on the west side of Chebucto Bay, and has one of the finest harbours in America. Population, exclusive of the military, about 19,000. The town is irregularly built, and most of the houses are of wood. The government-house is one of the most splendid edifices in North America. Halifax was founded in 1749.

Port.—The best mark in sailing for Halifax is Sambro light-house, on a small island off the cape of the same name, on the west side of the entrance to the harbour, in lat. 44° 30′., lon. 63° 32′. The light, which is fixed, is 210 feet above the level of the sea; and a detachment of artillery, with two 24-pounders, is upon duty at the light-house, firing at regular intervals during the continuance of the dense fogs with which this part of the coast is very much infested.—(*Coulier, Tables des Principales Positions Geographiques*, p. 78.) The course into the harbour for large ships after passing Sambro light, is between the main land on the west, and Macnab's island on the east. On a spit projecting from the latter a light-house has recently been constructed; and when this is seen, ships may run in without fear. The harbour is defended by several pretty strong forts. Ships usually anchor abreast of the town, where the harbour is rather more than a mile in width. After gradually narrowing to about ¼ of that width, it suddenly expands into a noble sheet of water, called Bedford Basin, completely land-locked, with deep water throughout, and capable of accommodating the whole navy of Great Britain. The harbour is accessible at all times, and is rarely impeded by ice. There is an extensive royal dockyard at Halifax; which during war is an important naval station, being particularly well calculated for the shelter, repair, and outfit of the fleets cruising on the American coast and in the West Indies. Mr. M'Gregor has severely, and, we believe, justly censured the project for the removal of the dockyard from Halifax to Bermuda.

Trade, &c. of Halifax and Nova Scotia.—Halifax is the seat of a considerable fishery; but the British colonists seem to be, for what reason it is not easy to say, less enterprising and successful fishers than the New Englanders. The principal trade of the town and province is with the West Indies, Great Britain and the United States. To the former they export dried and pickled fish, lumber, coals, grindstones, cattle, flour, butter, cheese, oats, potatoes, &c. They export the same articles to the southern ports of the United States, and gypsum to the eastern ports of New England. To Great Britain they send timber, deals; whale, cod, and seal oil; furs, &c. The principal exports of timber are from Pictou on the St. Lawrence. The imports consist principally of colonial produce from the West Indies; all sorts of manufactured goods from Great Britain; and of flour, lumber, &c. from the United States, principally for exportation to the West Indies.

In 1826 a company was formed for making a canal across the country from Halifax to the basin of Minas, which unites with the bottom of the Bay of Fundy. The navigation is formed, for the most part, by Shubenacadie lake and river. The legislature gave 15.000*l*. to this undertaking. The excavated part of the canal is 60 feet wide at top, 36 feet at bottom, and admits vessels drawing 8 feet water. It seems very questionable whether this canal will be profitable to the shareholders; but it is of very considerable service to the trade of Halifax.

There are two private banking companies at Halifax. Accounts are kept in pounds, shillings, and pence, the same as in England, and the weights and measures are also the same.

About 120 large square-rigged vessels, and about the same number of large schooners, with several smaller craft belong to Halifax.

The steam ships conveying the mails to British North America ply between this port and Boston in the U. States and Liverpool. They sail from the latter twice a month during the summer months but only once a month in winter. The fare to Halifax or Boston from Liverpool, including provisions and steward's fee (but excluding wines and liquors), is 39 guineas. On arriving at Halifax, passengers are conveyed by coaches across the Peninsula to Pictou, whence they are carried by steamers to Quebec and Montreal. A steam intercourse is also kept up in summer with Boston.

Account of the Value (in Sterling) of the Principal Articles Imported into and Exported from Nova Scotia, and principally into and from Halifax, in 1855 and 1856.

Imports.			Exports.		
Principal Articles.	1855.	1856.	Principal Articles.	1855.	1856.
	£	£		£	£
Cordage	34,075	40,040	Butter	22,182	27,844
Cotton and woollen manufactures	293,148	316,720	Coals	84,049	86,027
Fish, viz.: cod	67,090	66,855	Cotton and woollen manufactures	33,584	25,459
herrings	21,595	40,446	Fish, viz.: cod	223,190	250,042
salmon	12,526	11,041	herrings	74,954	85,976
Grain, viz.: corn and wheat	25,718	19,272	do. (smoked)	4,252	2,309
meal, corn and oats	68,475	44,041	mackerel	221,451	178,620
flour (wheat)	402,909	372,087	scale fish, &c.	24,475	30,746
do. (rye)	28,256	19,996	shad and salmon	20,684	16,689
oats and barley	21,789	16,308	Furs	8,970	16,410
Hardware	143,788	156,014	Grain, viz.: flour	26,634	25,001
Leather and leathern manufactures	41,002	31,114	Gypsum	16,475	12,297
Molasses	116,424	128,191	Hardware	18,562	14,702
Oil (seal and fish)	15,436	20,075	Horned cattle	25,884	27,799
Paper manufactures, books, and stationery	19,770	19,432	Molasses	79,162	69,587
Pork and hams	12,119	22,333	Oils (fish and seal	27,114	34,819
Salt	15,461	20,865	Potatoes and vegetables	62,324	53,431
Spirits, viz.: brandy	16,300	19,542	Salt	9,555	10,785
Geneva and whiskey	6,346	12,035	Spirits, viz.: brandy and Geneva	14,158	10,645
rum	16,136	18,889	rum	15,514	19,153
Sugar	110,373	115,419	Sugar	135,725	81,151
Tea	58,652	56,041	Tea	27,527	16,841
Tobacco	18,854	20,826	Timber	8,952	11,264
Wine	10,017	18,568	Wood	42,340	32,576
Wood wares and agricultural implements	12,444	15,518	lumber	107,012	79,948
			other kinds	22,415	21,804
Total value of principal and other articles	1,882,705	1,869,832	Total value of principal and other articles	1,472,215	1,372,958

Whereof from Great Britain	£545,424	To Great Britain	£88,887
,, British Colonies	421,897	,, British Colonies	711,665
,, United States	678,590	,, United States	413,716
,, Other countries	222,921	,, Other countries	158,690
	£1,866,832		£1,372,958

During 1856, 139 ships, of the agg. burden of 61,565 tons, entered the ports of the colony (principally Halifax) from the United Kingdom.

HAMS. See BACON and HAMS.

HAMBURG, a free Hanseatic city, on the north bank of the river Elbe, about 70 miles from its mouth, lat. 53° 32′ 51″ N., lon. 9° 58′ 37″ E. Population, in 1857, including the suburbs of St. George and St. Paul, but excluding the territory attached to the city, 169,718. Hamburg is the greatest commercial city of Germany, and, perhaps, of the Continent. She owes this distinction principally to her situation. The Elbe, which may be navigated by lighters as far as Melnik, in Bohemia, renders her the *entrepôt* of a vast extent of country. Advantage, too, has been taken of natural facilities that extend still further her internal navigation; a water communication having been established, by means of the Spree and of artificial cuts and sluices, between the Elbe and the Oder, and between the latter and the Vistula; so that a considerable part of the produce of Silesia destined for foreign markets, and some even of that of Poland, is conveyed to Hamburg. (See CANALS.) There is, also, a communication by means of the Steknitz canal, with the Trave, and, consequently, with Lubeck and the Baltic. But the great lines of railway which now unite Hamburg with Berlin, Leipsic, and all the interior of Germany, have vastly extended her connections, and are probably of even more importance than her command of river and canal navigation. Vessels drawing 14 feet water come up to the town at all times; and vessels drawing 18 feet may come safely up with the spring tides. The largest vessels sometimes load from and unload into lighters at Cuxhaven. The trade of Hamburg embraces every article that Germany either sells to or buys from foreigners. The imports consist principally of cotton wool, stuffs, and yarn; wool, woollen, and worsted goods; coffee, which is the favourite article for speculative purchases; sugar, silk and silk goods; tobacco, hides, iron, and hardware, machinery, indigo, wine, brandy, rum, dyewoods, tea, pepper, &c., very large quantities of coal are imported from the U. K. Being brought from many different places, there is a great variety of quality in the grain found at Hamburg; but a large proportion of the wheat is inferior. Some of the barley is very good, and fit for malting. The oats are feed of various qualities. With the exception of coal the exports consist of the same articles as the imports, Hamburg not being a centre of cousumption but of distribution. In addition to colonial produce, British manufactured goods and grain of all sorts, they include wool, clover seed, bark, spelter, cattle, butter, salted provisions, rags, wooden clocks and toys, linens, and all sorts of German manufactured goods, Rhenish wines, &c. Most sorts of Baltic articles, such as grain, flax, iron, pitch, and tar, wax, &c., may generally be bought as cheap at Hamburg, allowing for difference of freight, as in the ports whence they were originally brought. The total annual value of the import and export trade of the port (including that of Altona, the merchants of

which conduct their business on the Hamburg exchange) carried on by sea, may be estimated at above 50,000,000*l.* sterling a year, or upwards: and as the largest portion by far of this immense trade is in our hands, it will be necessary that we should be a little fuller than ordinary in our details in regard to this great emporium.

Hamburg was visited by a most destructive fire in May, 1842. But, notwithstanding the heavy losses that were in consequence incurred, and the paralysis it occasioned in trade and industry, the shock was less severe than might have been anticipated. The system of mutual insurance having been generally adopted, the proprietors of houses and other property were subjected to a tax, to defray the interest of a loan of 32 millions marks banco raised to indemnify the sufferers, and to enable them to rebuild their houses. And we are glad to have to state that all traces of the devastation have nearly disappeared; and that here, as in most other places exposed to a similar calamity, it has led to a great improvement of the town, which is now better built, and more commodiously laid out than formerly.

Navigation of the Elbe, Pilotage, &c. — The mouth of the Elbe is encumbered with sand banks. The channel leading to Cuxhaven is bounded on the north by the Vogel Sands and North Grounds, and on the south by the Schaarhorn Sands and Neuwerk Island. On the latter there are 2 lighthouses and 2 beacons, and on the Schaarhorn is another beacon. The lighthouses on Neuwerk Island are about 700 yards apart; the most southerly, which is also the most elevated, being in lat. 53° 54′ 57″ N., lon. 8° 29′ 40″ E. It is 128 feet high, being twice the height of the other. The channel is, in some places, hardly ⅔ of a mile wide. The outer red buoy in the middle of the channel, at its mouth, bears from Heligoland S. E. by S., distant nearly 20 miles. But the best mark in entering the Elbe is the floating light, or signal ship, moored 2 miles N. W. by N. of the red buoy, in 11 fathoms at low water. This vessel never leaves her station, unless compelled by ice in the winter season. By night she exhibits a lantern light, 38 feet above deck, and in foggy weather rings a bell every quarter of an hour. A second signal ship is stationed 5½ miles S. E. by E. from the first, at the westernmost point of a sand bank dividing the fair way of the river. She is rigged like a galliot, to distinguish her by day from the first signal ship; and during night she exhibits *two* lights, one 18 feet above the other. The distance from the outer red buoy to Cuxhaven is about 16 miles; thence to Glückstadt the course is east, 28 miles; from the latter to Stade the course is south-easterly, 9 miles; and then easterly to Hamburg, 18 miles. The channel throughout is marked with black and white buoys, which are numbered and specified in the charts. The black ones are to be left, in passing up the river, on the starboard or right-hand side, and the white on the larboard side.

All vessels coming from sea into the Elbe, and drawing over 4 feet water, must take a pilot on board; and however well the signals, lights, beacons, and buoys may be arranged, the services of an experienced pilot are very necessary, especially in the case of fogs, or stormy weather. To assist in getting vessels supplied with this indispensable functionary, a schooner was directed, in 1855, to cruise between Heligoland and the mouth of the river, to be in readiness to supply ships with pilots and instructions. And this plan having been found to answer extremely well, a second schooner has since been employed for the same purpose. Previously to this arrangement, vessels had to heave-to by the pilot-galliot, moored near the river's mouth, and when, owing to the state of the tide or the weather, they could not do this, they had to sail to Cuxhaven, and there get a pilot. But the schooners being extremely good sea-boats, and, always on the look-out, their employment has greatly reduced the inconveniences that formerly attended the shipping of pilots.

The charges on account of pilotage vary, of course, with the vessel's draught of water, the distance she has been piloted, and sometimes, also, with the nature of the cargo. They are in all cases very moderate. The charge for towage is fixed per agreement.

Down to a late period there were no docks or quays at Hamburg. Vessels moored in the river outside of piles driven into the ground a short distance from shore; and in this situation they were not exposed to any danger, unless the piles gave way, which rarely happens. There was a sort of inner harbour formed by an arm of the Elbe which runs into the city, where small craft discharged their cargoes. Larger vessels loaded and unloaded from their moorings, by means of lighters. These carry the goods from and to the warehouses which front the various small arms and channels of the river, and the canals carried from it into different parts of the city. The charges on account of lighterage are extremely moderate. But, whatever inconveniences may have attached to this state of things, either have been, or are on the eve of being, materially abated by the formation of a new harbour, in which ships will lie alongside the quays, and their loading and unloading be greatly facilitated.

Stade Duties.—In addition to the duties levied at Hamburg, all articles passing up the Elbe to that city, which are not the property of her citizens and conveyed in their ships, whether for transit or not, pay duties to Hanover. Previously to 1844 ships bound for Hamburg were obliged to heave-to at Brunshausen, near Stade, and to exhibit the manifests of their cargoes, bills of lading, and other particulars. But, at the epoch referred to, this vexatious proceeding was dispensed with. And the Stade duties, which have since been paid at Hamburg, were then, also, reduced and embodied in a tariff.

But despite this reduction they are still very considerable; and amounted, in 1855, to an average charge of 4*l.* 6*s.* 4*d.* per cargo of 100 tons conveyed to Hamburg in British ships. And as Hanover does nothing whatever either to improve or facilitate the navigation of the Elbe, a charge of this sort is much and justly objected to by our merchants; and notwithstanding the exemption in their favour, it is also much objected to by those of Hamburg. Nor is this to be wondered at. Since the repeal of the Sound dues the Stade duties have made many ships be sent to Stettin and other Baltic ports, that would otherwise have been sent to Hamburg. And that is not its only effect. For the Hanoverian government having exempted ships coming to Harburg, on the opposite side of the Elbe, from the duty, there has recently been a great influx of shipping to the latter, it, also, being connected by railways with Hanover and the interior of Germany. And in addition to the Stade toll, the navigation of the Elbe, above Ham-

burg, is seriously obstructed by tolls and regulations of one sort and another. Surely, however, it is high time that these offensive relics of a barbarous age were removed, and the navigation of this great inlet of Europe rendered quite free. And if no other means can be devised to effect so beneficial a purpose, the precedent of the abolition of the Sound dues may be advantageously followed; that is, a contribution may be raised by the nations whose ships frequent the Elbe, and by Hamburg, sufficient to buy up the tolls. It is as much, indeed, for the advantage of Prussia and Saxony as of England, or more, that all obstructions to the free navigation of the Elbe should be abolished. And instead of burdening it with tolls, they would, if they took an enlightened view of their own interests, repeal the latter, and assist Hamburg in deepening and improving the navigation of the river.

Money and Banks.—Money is generally reckoned in Hamburg in marcs, of 16s., each of 12 pfennings; and is of two sorts, *banco* and *current*. The former consists of the sums inscribed in the books of the Bank, opposite to the names of those who have deposited specie or bullion in the bank, or got it transferred to them at the rate of 27⅔ marcs banco to the Cologne marc of fine silver. The value of the marc banco, taking silver at 5*s.* an oz., is consequently 1*s.* 5½*d.*, which makes the par of exchange 13 marks 10½ schill. banco for 1*l.* sterling. There is always a considerable agio in favour of banco.

By a law passed in 1856, the Prussian dollar = 2½ marcs Hamburg currency, was made the only legal tender; and it was at the same time ordered that all payments contracted for in Hamburg currency should be made in Prussian dollars with an agio of 1 per cent. Hamburg is not to coin dollars, but merely pieces of 8, 4, 2, and 1 schillings.

In addition to the *Giro*, or Deposit Bank of Hamburg, which was founded so far back as 1619 (see *ante* p. 111.), two joint-stock banks were established here in 1856. One of these, the North German Bank, has a capital of 20,000,000 m. banco,=1,500,000*l.*, which has been wholly paid up. The capital of the other, or Union Bank, is nominally the same as that of the latter, but only 4,000,000 m. banco, or 300,000*l.*, of it has been paid up. They discount bills, make advances on goods, and transact all sorts of banking business.

Measures and Weights. A new regulation of these was effected by an act passed on the 16th January, 1843.

There were then in Hamburg 3 different sorts of *pound weights*.

1. The bank or silver weight (formerly the Cologne weight.)
2. The commercial weight.
3. The apothecary weight.

One pound bank, or silver weight, = 2 marks; 1 mark (Cologne) is 235·8489 grains, or 4865·57 Dutch As.=100 marks =62·6554 English troy pounds.

The old relation between the commercial weight and bank weight, by which the commercial pound was equal to $33\frac{5}{32}$ oz. bank weight has been confirmed by the act of 1843.

1 centner = 112 pounds; 1 pound = 32 oz.; 1 oz. = 4 *drachms*; 1 drachm 4 pfennings.

100 commercial lbs. =	106·838	English lbs. avoirdupois.
100	—	48·4609 kilogrammes.
100	—	86·5355 lbs. *Vienna*.
100	—	96·9219 lbs. *German* customs union.

1 "schiffpfund," in commerce, = 2½ centners, or 20 "liespfund" of 14 lbs. each, or 280 lbs.

1 "schiffpfund" by land carriage has 20 "liespfund," each of 16 pfund; is, therefore, = 320 lbs.

A pipe of oil is 820 lbs.; 1 barrel of butter (small willow and hoops) is taken at 224 lbs.; but with common hoops at 280 lbs. nett.

But the inconveniences of such a system are too obvious to require being pointed out. And to obviate them, provision was made in a treaty concluded in 1856, by the governments of Hamburg, Hanover, Brunswick, Bremen, &c. for the introduction of a uniform and simpler system of weights. These, which have since been brought into use, are 3·1759 per cent. heavier than the old ones; and their introduction, besides its other effects, has, of course, reduced the various duties charged by weight in this city, and the other countries referred to, in the proportion now stated.

Long Measure.—The Hamburg foot, divided into 12 inches, of 8 parts each, = 0·28657 metres, = 127·036 Parisian lines, = 11·289 Eng. inches. Hence

100 Hamburg feet =	94·021	Eng. feet.
100	—	28·657 French metres.
100	—	91·307 Prussian or Rheinish feet.
100	—	90·664 Vienna feet.

The Hamburg ell (short ell) = 2 Hamburg feet. 05·7514 metres = 254,072 Paris lines. 100 Hamburg ells = 62·681 Eng. yards.

The Brabant elle (or long ell) most commonly used in Hamburg, in measurement of piece goods, = 27·585 Eng. inches.

Liquid Measure.—1 fuder = 6 aums, 1½ aum = 4 ankers or 5 eimers; 1 anker = 5 viertels; 1 viertel = 2 stübchens; 1 stübchen = 2 kannens; 1 kannen = 2 quarters of Oessel; 1 eimer = 4 viertels; 1 hogshead = 1½ aums, or 6 ankers, or 30 viertels, each of 8 quarters or their Introduction, besides its

The stübchen contains 266 Hamburg cubic inches, = 3·62 litres.

100 Hamburg viertels = 159·39 English imperial gallons.
100 — 724·18 French litres.
100 — 632·45 Prussian quarters.
100 — 511·88 Vienna maass.

The full beer barrel contains 48 stübchens, or 192 quartiers; the small barrel only 32 stübchens, or 128 quartiers.

The vinegar barrel contains 30 stübchens, or 120 quartiers.

The whale and fish oil barrel contains 32 stübchens, or 128 quartiers; 2 whale oil barrels = 1 quarteel.

Grain Measure.—One last = 60 fass; 1 fass = 2 himpten; 1 himpten = 4 spint. The wispel of wheat, rye, and peas is 20 fass; but of oats and barley, 30 fass. The scheffel of wheat, rye, and peas, is 2 fass; of barley and oats, 3 fass.

The fass contains 3872 Hamburg cubic inches, = 52,731 litres, and 2658·45 Parisian cubic inches, and

100 Hamburg fass =	18·135	Imperial quarters.
100	—	42·734 hectolitres.
100	—	95·947 Prussian scheffels.
100	—	85·765 Austrian hetzen.

10 Hamburg lasts = 108·11 Imperial quarters.

The mode of measuring grain has hitherto been by the metres throwing or pitching it into the fass, and striking off the surplus with a wooden roller pressed lightly along the upper edge; but an alteration is expected on a new corn law, now projected, coming into operation; there will probably be a new fass measure (of 4035 Hamburg cubic inches), equal to the Prussian scheffel.

In practice, 1 Hamburg last is taken at 11 imperial quarters, 31 hectolitres, 57 Prussian scheffels, 25 Danish barrels, and 16½ Russian chetwerts.

The coal barrel contains (when the 1453 Hamburg cubic inches of head or heaped measure is added) 16,438 cubic inches.

The Hamburg ship last, or last of commerce, really weighs 6,000 pounds, or 3 tons (not 4,000 pounds, as is generally stated.)

The exports of grain from Hamburg depend in part on the harvests in the countries traversed by the Elbe, but more, perhaps, on the wants of this country. In our customs accounts, the imports of corn, &c. from the Hanseatic towns are given in the aggregate; but those from Hamburg amount to, full 2-3rds or 3-4ths of the whole.

The once important trade in German linens to Spain and her former American possessions, has of late years greatly fallen off. This is a consequence of the competition of England, who, by means of her superior machinery, is able, not only to spin, but to produce cloth cheaper than any other country. On the other hand, however, the import of linen yarns from England is being progressively augmented.

Lastage and Custom-house Charges.—British and other foreign vessels pay the same as Hamburg vessels. For clearing in and clearing out, no separate charges are made; visiting the port is considered as *one* voyage, and the charges on vessels are paid as follows:—

For vessels arrived with cargoes from the undermentioned places: viz.—

Places.	Last of 6,000 lbs.		
	Marcs.	£ *s. d*	
The East Indies	3	0	0 3 6
West Indies, North and South America	2	8	0 3 5
Portugal, Spain, and the Mediterranean	2	0	0 2 4
The rest of the European ports	1	8	0 1 9
Holland, East Friesland, the Weser, Eyder, and Jutland	0	12	0 0 10½
For vessels under 20 commercial lasts* without distinction	0	4	0 0 3½
Vessels arriving and departing in ballast, of upwards of 20 commercial lasts	0	8	0 0 7

* It is difficult to determine the exact ratio of a last to a ton, but it may be taken as about 3 or 2½ to 1. But in Hamburg all vessels are measured by the harbour-master; and it is upon his report that the lastage is calculated.

For all vessels laden with coals, wood, or turf, no lastage is paid, provided they do not take return cargoes.

Half Lastage.—Vessels arriving in ballast and departing with a cargo pay half the above lastage, according to their destination.

N. B.—Exclusive of the above dues, which are all remarkably moderate, vessels coming to the port of Hamburg are obliged to pay certain dues to Hanover, called Stade or Brunshausen dues. (See *post.*)

Duties.—The import and export duty was formerly 1½ per cent. (courant for banco, or 1½ on 125) on goods imported and exported by sea, and ½ ℔ cent. (courant for banco), for such as were received and transported by land or river conveyance; but for some years these duties have been greatly reduced, and are now only ½ ℔ cent. on imports, and ¼ ℔ cent. on exports. The greater part of the imports and exports are, however, entirely free even of these low duties, as is evident from the following statements:—

Goods entirely free of Duty on Import.

1. Linen, mixed linen, and cotton, linen and woollen rags, used and new made linen cloths, yarn and manufactured girths of flax, hemp, and cotton, sheep and lambs' wool.
2. Wheat, rye, barley, buckwheat, malt, potatoes, and rape-seed.
3. Unmanufactured copper and brass, ship's copper, old ditto for smelting, certain copper and brass waste, copper and brass plates, rough spelter, tinned and untinned iron plates.
4. Bullion and coins, unworked gold and silver, waste derived from the precious metals.
5. Printed works, books, music, and maps.
6. Oilcakes, bark, bones.
7. Passenger luggage, accompanied by proprietor, and otherwise, as may be allowed by the collectors of customs under particular circumstances.

Articles of Export exempted from Duty.

1. Millet, peas, beans, lentils, tares, spelt, aniseed, caraway seed, flour, madder, seed oils, arsenic, smalts, calamine, gypsum, black lead, mineral earths, mortar, mill stones, red stone, potters' clay, terras stone, tripoli, tophus stone, fullers' earth, brimstone, spelter in blocks and plates, and coals.
2. Wood for building, staves, and fire-wood, coming down the Elbe, or received landwards, the last being exempted when it has come originally by sea.
3. Articles arriving by post waggons, coming to one party, not above the value of 50 ℔ cent. banco.

All articles defined as *transitu goods* are likewise entirely free of duty if so declared at entry, whether imported on account of Hamburg citizens or of foreigners.

The privilege of *transitu* generally extends to a period of 3 months from the time of entry, but an extension of 3 months may be obtained on petition, by paying ¼ ℔ cent. courant for banco, on the value. Transit beyond a period of 6 months is not allowed.

The levy of duties in Hamburg is conducted in the simplest manner, and on the most liberal footing. No vexatious forms check the free intercourse or the free course of trade; the entry for duty is merely a declaration of the current value at the time; transitu articles remaining in warehouse for exportation, require a mere declaration to that effect by a burgher or citizen.

In levying duties, no advantage is claimed by Hamburg for vessels bearing her own flag; goods by all vessels, from whatever quarter of the world, paying the same duties. Commercial treaties have been concluded by Hamburg alone, or in conjunction with the two other free Hanseatic cities, with Great Britain, Prussia, the United States of America, Mexico, Venezuela, the Porte, Norway, and Sweden.

The low rates of duty in Hamburg is a proof of her anxious desire to encourage trade with all nations; and the more so when we consider the great expense she is put to in keeping up buoys along the Lower Elbe, and other necessary charges for the navigating that river; expenses which considerably exceed the total sum received for duties.

Custom-house Regulations.—On a vessel's arrival at Hamburg the broker reports her to the Custom-house, and gives his guarantee for payment of the duties, and delivers her papers; and, upon a receipt being produced for the Stade duties by the Hanoverian authorities at Hamburg, the vessel is allowed to unload. On clearing, a manifest of the outward cargo, together with the consul's certificate of the regularity of the ship's papers, must be produced at the Custom-house by the broker, who obtains in return a clearance certificate, authorising the vessel to go to sea.

Credit, Brokerage, &c.—Almost all goods are sold for ready money, with an allowance of 1 per cent. for discount. Sometimes, but not frequently, sales are made at 2 or 3 months' credit, and in such cases a higher price is obtained than for cash. Sometimes sugar is sold to the sugar baker at this credit.

Brokers are positively forbidden to act as merchants or factors. They are avenged by the Senate, and must conform to the established regulations.

Brokerage is paid wholly by the seller, and amounts to—

"Five sixths per cent. on cotton, cotton-twist, cocoa, cochineal, copper, hides, indigo, manufactured goods, nankeens, sugar, and tea *

"One per cent. on annotto, camphire, cinnamon, cards, moms*, cassia*, cloves*, drugs not denominated*, deer skins, dyewoods*, ginger*, jalap*, mace*, nutmegs*, pepper, pimento, potashes, Peruvian bark, quercitron bark, rice*, saltpetre, sarsaparilla*, shellac*, tamarinds*, tobacco in leaves* and tobacco stems*, of the growth of the United States of America, whale oil*, vanelloes*.

"*N.B.*—Tobacco stems* of all other origin, segars, and other manufactured tobacco, pay 2 per cent.; all other leaf and roll tobacco* 1½ per cent.

"One and a half per cent. on wine, brandy, rum, and arrack, if sold in parcels amounting to 3,000 marcs banco and upwards.

"Two per cent. on ditto, for sales of and under 3,000 marcs banco.

"In auction the selling broker is entitled to 1½ per cent. and the purchasing broker to 2 per cent., without regard to the amount."

All articles marked (*) pay the brokerage before mentioned, if the quantity sold amounts to 600 marcs banco, or higher; for smaller lots of less than 600 marcs banco, and down to 150 marcs banco, the brokerage is paid, with the addition of one half, and under 150 marcs banco, the double is allowed. All other merchandise pays 1½ per cent. at least for sales not exceeding 150 marcs banco.

It is, however, to be observed, that all augmentations, in proportion to the amount sold, are only to be understood for sale by private contract, and not for those by auction; and even not for such private sales, where a broker has made the purchase of a larger quantity of goods above the said amount of 600 marcs banco, and has afterwards divided it into smaller lots.

Conditions of Sale. Imports.—Coffee is sold per pound in schill. banco; discount, 1 per cent.; good weight is ½ per cent. Tare is as follows: viz. on casks, real weight: on bags of 130 lbs. or less, 2 lbs.; above 150 lbs. and not above 180 lbs., 3 lbs.; above 180 lbs. and not exceeding 200 lbs., 4 lbs. On Mocha bales of about 300 lbs., 14 lbs.; if 600 lbs., 50 lbs. On Bourbon single bales, 2 lbs.: on double, 4 lbs.

Cotton is sold per lb. in schill. banco; discount, 1 per cent.; good weight, 1 per cent.; tare on bales, West Indian and North American, 4 per cent.; on square bales, 6 per cent.; on Bombay and Surat bales, 8 per cent.; on Bourbon bales and Manilla serons, 6 per cent.; on Caraccas and Guiana small serons, 10 per cent. For the regulation of the Stade duty, all packages should be called bags, and not bales, in the bill of lading.

East India piece goods are sold per piece, in marcs banco; discount, 1 per cent. For saving in the Stade duty, if more than 30 pieces are in a bale, the number of pieces should not be mentioned in the bill of lading, but only the number of bales.

Flour is sold per 100 lbs. in marcs currency, uncertain agio; discount 1 per cent.; good weight, 4 per cent.; tare, 20 lbs. per barrel.

Fustic is sold per 100 lbs. in marcs currency, agio, 20 per cent.; discount, 1 per cent.; good weight, 1 per cent.; and frequently an allowance in weight is made, if the wood is not very solid.

Indigo is sold per lb. in schill. banco; discount, 1 per cent.; good weight, ½ per cent.; tare, if in serons upwards of 120 lbs., 22 lbs.; in ½ serons less than 120 lbs., 20 lbs.; in chests, real tare.

Logwood is sold like fustic.—*N.B.* To avoid a high Stade duty, the nett weight of all dyed woods should be stated in the bills of lading.

Pepper is sold per lb. in schill. banco; discount, 1 per cent.; good weight, ½ per cent.; tare, if in single bales of 300 lbs., 3 lbs.; in double bales, 6 lbs.

Quercitron bark is sold per 100 lbs. in marcs currency; agio 20 per cent.; discount, 2 per cent.; good weight, 1 per cent. To determine the tare, the American tare is reduced to Hamburg weight.

Rice is sold per 100 lbs. in marcs banco; discount, 1 per cent.; good weight, 1 per cent.; tare, real; and super-tare for tierces, 4 lbs.; for ½ tierces, 2 lbs.

Rum is sold per 30 quarts in rix doll. currency, agio uncertain.

Sugar, raw and clayed, is sold per lb. in banco groats, with a rebate of 8℔ per cent.; discount, 1 per cent., and sometimes 1½ per cent.; Brazil or Havannah chest, good weight, ½ per cent.; real tare; super-tare, 10 lbs. for Brazil, and 5 lbs. for Havannah sugar, per chest. Muscovados in casks, good weight, 1 per cent.; tare, if the casks weigh upwards of 1,000 lbs., 18 per cent., if less, 20 per cent. Clayed sugars, good weight, 1 per cent.; tare, 16 per cent. East India sugars, in bags, good weight, ¾ per cent.; tare for white, 4 to 5 lbs.; for brown, 6 to 7 lbs.

Tea, per lb. in schill. currency, agio uncertain: discount, 1 per cent.; good weight, ½ per cent. Tare of bohea, in chests, of 400 lbs., 70 lbs.; of 150 to 180 lbs., 45 lbs. All black tea, 28 lbs. tare; green, 24 lbs. For the regulation of the Stade duty, the nett weight should likewise be mentioned in the bill of lading.

Tobacco.—Leaf tobacco is sold per lb. in schill. banco, agio uncertain; discount, 1½ per cent.; good weight, 1 per cent.; tare per cask, 80 lbs. Brazil leaf in serons; tare, 5 per cent. In rolls; canister, in baskets of about 100 lbs.; good weight, 1 lb. per basket; tare, 14 lbs. if the basket is packed up in linen, and 12 lbs. if without linen. Porto Rico rolls, good weight, 1 per cent.; no tare, as the rolls are weighed by themselves. Brazil rolls, in serons of 400 to 600 lbs., are sold per lb., in schillings banco; good weight, ¾ per cent.; tare, 8 lbs. per seron. Tobacco stems per 100 lbs., in marcs currency, agio uncertain; discount, 1½ per cent.; good weight, 1 per cent.; tare, if in casks, real weight; if packed up with cords, 2 to 4 per cent. according to the thickness of the rope. As there is great difference in the Stade duty for the different sorts of tobacco, it is necessary that, on shipping leaf tobacco, there *should* be inserted in the bill of lading, *Leaf Tobacco*, omitting the weight. With tobacco in rolls, only the number of packages containing roll tobacco, and the nett weight, without mentioning the number of rolls, should appear in the bill of lading.

Glass (window) is sold per chest, in marcs banco uncertain; other glass ware per piece, dozen, or hundred, in schillings or marcs currency, with uncertain agio; discount, 1 per cent.

Hares, wool is sold per 2 lbs. in marcs currency, agio uncertain; discount, 1 per cent.

Hare skins (German, grey) are sold per 100 pieces, in rixdoll. banco, Russian, grey, per 104 pieces, in rixdoll. banco. White, in marcs currency, agio uncertain; discount, 1 per cent.

Iron is sold per 100 lbs. in schill. currency, agio uncertain; discount, 1 per cent.

Copper is sold per 100 lbs. in schill. banco; discount, 1 per ct.

The exchange business done at Hamburg is very great; for, besides the business of the place, most of the merchants in the inland towns have their bills negotiated there.

The usual charge for commission is, on sales 2 per cent. and 1 per cent. for *del credere*, if such guarantee be required; on purchases, 2 per cent Under particular agreements, the rates sometimes vary considerably from the above.

Citizenship.—Foreigners cannot establish themselves as merchants, or carry on any business in their own names, at Hamburg, without becoming burghers; and to be manufacturers, they must also enter the guild or corporation peculiar to the trade they mean to follow. But, to become a burgher, one has only to comply with certain forms and pay certain fees, which do not, in all, exceed 10*l*. He then becomes, in the eye of the law, a Hamburg subject, and enjoys all the rights and privileges of a native.

Insurance, &c.—All sorts of insurances are effected at Hamburg. A municipal regulation compels the insurance of all houses within the city, the rate varying according to the number of fires and the amount of loss. Marine insurance is principally effected by joint-stock companies, of which there are several; their competition has reduced the premiums to the lowest level, and the business is not understood to be profitable. The high duties on policies of insurance by this country has led to the insuring of a good many English ships at Hamburg. Life insurance is not prosecuted in Germany to any considerable extent; but some of the English companies have agents here, who are said not to be very scrupulous.

Bankruptcy.—Considering the vast number of merchants and tradespeople at Hamburg, bankruptcy is not, in general, of frequent occurrence.

Much of the business transacted at Hamburg being on commission and for account of houses abroad, the failure of foreign merchants is a prevalent source of bankruptcy. Another

source of bankruptcy is losses on goods imported or exported on speculation, and occasionally losses in the funds, in which a good deal of gambling goes on here. Expensive living is not nearly so prevalent a source of bankruptcy here as in London and other places.

The law of Hamburg makes 3 classes of bankrupts;—the unfortunate, the careless, and the fraudulent. The first class consists of those whose books show that misfortune alone has occasioned the bankruptcy; that the party has all along lived within his probable income, and can account to his assignees completely for all his losses. Whoever is adjudged by the court to belong to this class (which contains but few in number), is considered entirely free from his debts, and is not subject to be called upon hereafter. The second and most numerous class contains those termed "careless" bankrupts. These are persons who have entered into speculations exceeding their means, who have gone on for a considerable time after they found their affairs in arrear, who have lived beyond their income, have not kept their books in good order, and so forth. They are liable to be confined in prison for a period of 3 or 6 months; and, provided they have not paid a dividend of 40 per cent., may be called upon for payment of their debt after 5 years from their discharge. If a claim be made by any creditor after this lapse of time, the bankrupt is obliged to pay whatever sum he is able for the benefit of his creditors. He must swear that he cannot pay anything, or not above a certain sum, without depriving himself and his family of necessaries. Every 5 years the claim may be repeated. All careless bankrupts are disabled from holding offices of honour. The third class contains the "fraudulent" bankrupts, who are liable to be imprisoned, according to the extent of their frauds, for a limited period, or even for life, besides being rendered incapable of holding any office whatever. Should a bankrupt abscond, he is called upon by public advertisement to appear by a certain day, in default of which he is adjudged a fraudulent bankrupt, and his name is posted up on a black board on the Exchange.

The obstructions and dangers that attach to the navigation of the Elbe, have long been a subject of anxious consideration to the Senate and people of Hamburg. Hitherto, however, but little has been done to effect any material improvement; and the difficulties to be overcome are so very great, and the expense that would have to be incurred so very heavy, that it is not, perhaps, very likely that anything on a great scale will be speedily attempted. A plan for deepening the channel of the river and forming a new harbour at Cuxhaven, to be accomplished at an estimated expense of 640,000*l.*, was proposed by Mr. Rendell, C.E., in 1854. But the death of that gentleman, and the all but universal belief that the expense would really exceed twice or three times the estimated sum, have hitherto prevented any steps being taken in the matter. No doubt, however, it is one of vital importance not merely to Hamburg, but to all Germany, and, in some measure, to the commercial world.

The Quarantine Regulations that were formerly enforced at Hamburg were not a little oppressive. But we are glad to have to state that they were repealed in 1856, and that a new and comparatively liberal code has been enacted in their stead. The latter directs that no vessels save those from the Black Sea, Turkey, and certain specified portions of the Mediterranean, or from ports declared by the Senate to be suspected, are to be subjected to quarantine at Cuxhaven. And these, except under very suspicious circumstances, are to be immediately set free. The old charges have, also, been abolished; and those adopted in their stead are extremely moderate.

Account of the Arrivals and Departures of Shipping at Hamburg in 1857.

	Arrivals.			Departures.		
	Number.	Burden in Lasts of 6,000 lbs.	Crews.	Number.	Burden in Lasts of 6,000 lbs.	Crews.
From and to transatlantic countries	533	72,964	7,850	551	70,560	7,786
European countries	4,534	343,869	43,896	4,482	340,054	43,597
Total	5,067	416,833	51,746	5,033	410,614	51,183
Whereof were from and for the U. Kingdom	2,247	241,631	28,833	2,336	252,425	29,886
Laden	4,306	378,819	47,106	3,112	275,601	37,199
In ballast	761	38,014	4,610	1,921	135,013	13,984

On the 1st of January, 1858, there belonged to Hamburg 491 ships of the agg. burden of 191,244 tons. Of which 20 ships, of the burden of 16,011 tons, were steamers.

Arrivals and Departures of Boats and Rafts from and to the Upper Elbe.

	Arrivals.				Departures.			
	Ships and Rafts.		Quantity.	Crews.	Ships and Rafts.		Quantity.	Crews.
	Loaded.	In Ballast.	Quintals.		Loaded.	In Ballast.	Quintals.	
Prussia and Poland	2,344	825	3,726,160	12,143	2,911	141	4,783,470	13,297
Anhalt	168	2	261,595	510	92	-	154,990	419
Saxony and Bohemia	360	47	538,654	1,683	290	48	546,560	1,991
Hanover	199	158	429,125	1,927	87	436	51,560	1,504
Mecklenburg	554	46	590,763	1,824	265	155	141,540	1,113
Lauenburg	180	39	84,050	558	65	112	30,620	374
Lubeck	71	-	35,410	142	56	42	22,320	196
Total	3,876	1,117	5,158,757	17,867	3,766	964	5,714,060	19,001

Account of the Number and Destination of the Emigrants shipped at Hamburg in 1856 and 1857.

Countries for which Destined.	1856.		1857.	
	Vessels.	Persons.	Vessels.	Persons.
Canada	13	3,188	15	4,208
Australia	17	1,701	13	1,205
United States	68	16,766	75	20,948
Brazil and other American States	21	2,167	24	2,209
Totals	119	23,822	127	28,468
Indirect, via England	-	1,917	-	2,672
	-	25,739	-	31,240

Of which 127 vessels, 90 belonged to Hamburg (14 being steamers), 7 to Bremen, 4 to Hanover, 3 to Oldenburg, 12 to United States, 5 to England, 3 to Denmark, 2 to Holland, and 1 to Sweden.

Account of the Value of the Imports in 1857 (in Prussian Crowns).

Countries.	Crowns.	Prop.	Classified.	Crowns.	Prop.
Asia	5,166,095	1·5	Articles for consumption	77,203,485	22·0
Africa	1,611,900	0·5	Raw materials	113,135,890	31·0
America	32,226,280	9·4	Articles of manufacture and art	88,343,655	25·0
			Money	65,411,620	19·0
Transatlantic	38,004,275	11·4	Total	344,424,650	100·0
North of Europe	10,448,920	3·0	*Weight of Imports.*		
Great Britain	85,148,025	24·7	Foreign imports — quintals	21,304,583	56
South of Europe	10,479,110	3·0	Native do. „	16,667,355	44
Altona	29,816,715	8·7			
German countries	169,527,605	49·2	Total in quintals	37,971,938	100
Total	344,424,650	100·0			

Account of the Quantities and Values of the Principal Articles of Domestic Produce exported from the U. K. to the Hanse Towns (about 4-5ths being for Hamburg) in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apothecary wares — value	-	-	-	-	31,251	38,953	28,793	24,427
Apparel, slops, and haberdashery — „	-	-	-	-	49,204	71,048	86,632	67,063
Brass manufactures — cwts.	2,380	2,105	2,874	2,846	15,909	12,308	17,153	17,540
Coals, cinders, and culm — tons	325,860	416,546	463,614	520,266	158,851	182,948	202,081	224,953
Copper, wrought, and unwrought — cwts.	21,957	22,866	31,290	33,136	126,653	120,614	166,689	186,552
Cottons: entered by the yard — yards	54,262,332	71,211,577	58,575,522	50,964,697	871,191	1,104,472	1,051,069	959,714
at value — value	-	-	-	-	192,635	162,688	168,148	156,040
Cotton yarn — lbs.	45,269,443	47,654,874	49,278,282	46,057,560	2,161,494	2,250,821	2,378,842	2,305,960
Earthenware and porcelain — value	-	-	-	-	24,880	27,853	48,774	53,376
Fish, herrings — barrels	30,742	43,502	13,996	13,628	31,544	48,041	15,906	19,965
Hardwares and cutlery — cwts.	21,286	28,800	41,460	39,712	161,822	176,800	217,379	216,298
Iron, wrought and unwrought — tons	36,790	45,114	77,443	64,770	338,103	402,285	702,978	575,047
Lead and shot — „	1,013	17	255	581	22,041	422	6,568	9,661
Leather, wrought and unwrought — lbs.	237,508	368,814	355,264	501,754	25,147	32,253	33,513	42,820
Linens: entered by the yard — yards	3,321,755	4,185,991	5,756,476	6,750,258	155,708	165,828	217,342	240,281
at value — value	-	-	-	-	96,885	98,850	142,759	95,226
Linen yarn — lbs.	5,163,409	4,893,957	7,379,596	9,142,759	322,158	297,488	459,222	522,246
Machinery: steam engines — value	-	-	-	-	17,676	21,484	46,750	73,890
other sorts — „	-	-	-	-	125,157	135,345	168,768	184,124
Molasses — cwts.	27,019	19,562	26,774	12,949	24,569	17,910	27,804	15,586
Oil, linseed — galls.	675,620	567,785	1,725,573	514,007	94,930	85,172	256,159	85,259
Painters' colours — value	-	-	-	-	14,052	15,703	35,641	38,327
Silk manufactures — „	-	-	-	-	225,540	289,652	475,274	446,844
Skins, British and foreign — „	-	-	-	-	61,219	69,883	112,880	111,764
Soda — cwts.	93,774	77,648	83,585	95,954	35,856	28,710	32,731	46,011
Stationery — value	-	-	-	-	17,822	26,645	24,981	30,312
Tin plates — „	-	-	-	-	26,417	32,905	32,760	32,471
Wool, sheep and lambs' — lbs.	437,919	952,618	980,471	708,027	34,375	68,040	83,428	75,707
Woollens: entered by the piece — pieces	410,578	481,554	449,797	476,816	548,148	626,456	640,407	661,610
by the yard — yards	4,665,443	5,672,555	4,522,594	5,225,076	223,901	194,490	272,717	333,771
at value — value	-	-	-	-	11,597	22,002	31,712	26,111
Woollen yarn — lbs.	10,188,864	12,955,040	14,503,328	10,810,352	950,735	1,258,910	1,607,527	1,519,801
Total value of the above and of all other articles	-	-	-	-	7,415,715	8,350,228	10,134,813	9,595,962

Account of the Foreign and Colonial Produce and Manufactures exported from the U. K. to the Hanse Towns (about 4-5ths being for Hamburg) in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Almonds — cwts.	6,241	5,745	6,100	9,361	16,489	11,507	19,082	29,699
Cochineal — „	3,872	4,258	2,545	2,414	84,829	94,136	54,961	52,746
Cocoa — lbs.	325,702	718,192	621,378	650,099	4,524	15,965	14,240	23,927
Coffee — „	4,915,618	4,472,960	2,668,491	1,253,275	118,512	128,625	67,681	37,707
Cotton, raw — cwts.	321,922	325,974	357,029	187,005	585,140	641,187	718,901	482,711
Currants — „	56,099	6,857	954	9,755	59,257	22,172	2,634	18,087
Guano — tons	11,899	5,501	21,554	2,145	125,569	53,958	238,959	26,872
Hides, not tanned — cwts.	25,193	55,846	50,029	59,503	71,555	182,079	207,254	268,400
Indigo — „	16,456	16,592	10,676	10,200	591,655	446,819	322,148	326,655
Oil: cocoa nut — „	52,769	46,244	14,207	15,445	129,284	95,137	29,835	36,489
palm — „	15,867	23,176	20,052	23,878	36,494	50,408	45,069	52,134
Raisins — „	20,322	10,816	2,575	9,295	32,007	15,865	5,847	21,050
Rice, not in the husk — „	49,513	137,600	76,552	35,134	54,865	100,535	41,146	20,055
Silk: raw — lbs.	12,672	18,676	30,157	36,429	8,923	12,919	29,780	39,616
thrown — „	10,011	5,192	15,559	15,341	10,675	4,786	19,767	25,951
Silk manufactures of India: bandannoes, &c. — pieces	41,293	35,680	43,052	23,630	24,188	25,661	29,185	17,721
Skins: beaver — no.	21,651	36,056	56,286	86,531	10,284	15,220	26,756	41,102
fox — „	43,256	60,765	64,477	64,901	16,221	29,116	49,164	55,273
marten — „	5,995	18,710	29,850	48,512	4,171	11,582	22,124	39,416
racoon — „	466,525	491,476	287,128	423,904	47,824	61,434	57,426	79,482
Spirits, rum — proof galls.	93,494	264,797	211,900	166,112	16,260	36,879	25,731	22,296
Sugar, unrefined — cwts.	79,017	51,685	149,610	103,684	77,775	65,901	217,256	168,803
Tea — lbs.	1,764,968	2,795,136	740,895	535,533	113,988	175,298	44,762	38,463
Teeth, elephants' — „	535	599	601	653	13,642	15,873	21,456	28,022
Tobacco: unmanufactured — lbs.	1,790,512	1,424,897	2,453,049	2,750,745	55,955	48,985	101,577	114,654
manufactured, and cigars „	307,521	35,735	122,867	64,168	32,554	3,259	16,383	10,828
Wine — galls.	26,258	50,450	54,715	66,235	8,868	10,598	13,577	23,279
Wool, sheep and lambs' — lbs.	2,384,787	6,641,549	5,653,759	3,751,615	144,245	435,672	269,450	281,951
Total value of the above and of all other articles	-	-	-	-	2,720,274	3,344,416	3,260,543	3,005,379

Commercial Crisis of 1857.—This crisis was more severely felt here than anywhere else, either in Europe or America. The system of overtrading, which had been gaining ground at Hamburg for a considerable time, was greatly extended in 1854 and 1855, but more especially in 1856, and the earlier portion of 1857. In these years all sorts of bills were readily

I. Statement of some of the more Important Particulars of the Trade of Hamburg and Altona during each of the 5 Years ending with 1858.

	1854.	1855.	1856.	1857.	1858.
Arrivals.					
From the East Indies	44	42	64	56	53
Africa	17	16	22	32	24
South America	219	260	250	269	240
the West Indies	144	105	144	135	115
North America	101	73	119	107	64
the Azores, &c.	8	6	1	1	1
Greenland	1	2	2		
From Transat. ports direct	534	509	602	600	497
And from European ports	4,883	4,577	4,961	4,873	4,556
Total number of vessels	5,417	5,086	5,563	5,473	5,053
Including from G. Britain	2,503	2,461	2,685	2,214	2,567
Cocoa:					
Import — tons	720	470	1,700	1,550	1,300
Consumption — ,,	700	757	1,655	1,050	1,680
Stock, 31 December — ,,	320	15	80	580	200
Coffee:					
Import — tons	41,500	45,000	36,400	43,900	33,000
Consumption — ,,	38,900	43,600	36,300	36,400	42,500
Stock, 31 December — ,,	7,400	8,800	9,000	16,500	7,000
Cotton:					
Import — bales	148,100	118,500	133,300	78,000	57,600
Consumption — ,,	145,800	127,900	126,700	77,900	61,700
Stock, 31 December — ,,	12,800	3,400	10,000	10,100	6,000
Imp. of cotton twist — ,,	36,500	39,200	37,900	31,700	25,800
Dyewoods:					
Logwood — import tons	8,500	9,500	12,500	15,500	3,800
Stock, 31 December — ,,	750	250	3,000	9,000	2,000
Fustic — import ,,	550	1,850	1,750	1,600	600
Stock, 31 December — ,,	50	150	750	400	75
Redwoods — import ,,	1,700	850	1,800	1,700	2,200
Stock, 31 December — ,,	800	—	—	450	400
Hides and Kips of all kinds from all parts:—					
Import — pieces	458,100	767,000	1,038,500	1,223,900	1,092,000
Consumption — ,,	460,900	779,000	1,018,500	1,027,900	1,180,000
Stock, 31 December — ,,	12,000	—	2,000	198,000	110,000
Indigo:	Chests. / Ser.	Chests. / Ser.	Chests. / Ser.	Chests. / Ser.	Chests. / Ser.
Import —	6,950 / 500	5,680 / 75	4,700 / 125	3,900 / 150	2,450 / 450
Consumption —	6,950 / 250	5,680 / 175	4,600 / 135	3,920 / 170	2,200 / 300
Stock, 31 December —	300 / 150	300 / 30	400 / 20	380 / —	650 / 150
Pepper:					
Import — tons	1,680	465	1,080	750	650
Consumption — ,,	1,280	890	805	750	775
Stock, 31 December — ,,	500	75	350	350	225
Rice:	Tierces. / Bags.	Tierces. / Bags.	Tierces. / Bags.	Tierces. / Bags.	Tierces. / Bags.
Import —	3,000 / 118,200	950 / 183,900	4,900 / 250,800	2,400 / 215,900	4,200 / 141,000
Consumption —	2,800 / 128,700	1080 / 160,600	4,750 / 256,600	2,300 / 200,900	4,100 / 185,000
Stock, 31 December —	300 / 18,500	150 / 41,800	500 / 136,000	400 / 151,000	500 / 107,000
Rum:					
Import — casks	3,300	4,400	4,550	2,900	3,350
Consumption — ,,	3,800	4,350	4,320	2,880	2,650
Stock, 31 December — ,,	100	150	380	400	1,100
Saltpetre:					
E. India — import bags	7,000	26,600	14,300	13,000	5,500
Stock, 31 December — ,,	—	—	—	100	1,900
S. Sea — ,,	42,900	45,600	167,500	84,100	68,800
Stock, 31 December — ,,	8,000	—	20,000	20,000	14,700
Sugar:					
Import — tons	35,000	28,200	31,000	24,000	23,200
Consumption — ,,	31,200	33,750	28,850	22,800	25,200
Stock, 31 December — ,,	5,800	250	2,400	3,600	1,600
Tea:	Imp. / Stock, 31 Dec.	Imp. / Stock, 31 Dec.	Imp. / Stock, 31 Dec.	Imp. / Stock, 31 Dec.	Imp. / Stock, 31 Dec.
Black — qr. chests	25,600 / 1,600	34,100 / 24,400	28,500 / 27,300	20,800 / 20,100	16,100 / 15,250
Green — ,,	6,100 / 4,900	6,700 / 6,200	6,100 / 6,900	4,350 / 7,050	1,550 / 5,050
Total Imports and Stock ,,	31,700 / 21,700	40,800 / 30,600	34,400 / 34,200	25,150 / 27,150	17,650 / 20,300
Consumption {black ,,	23,300	25,900	25,400	28,000	20,950
Consumption {green ,,	4,800	5,400	5,400	4,200	3,550
Total Consumption — ,,	28,100	31,300	30,800	32,200	24,500

	Import in			Stock, 31 December.		
	1856.	1857.	1858.	1856.	1857.	1858.
Tobacco:						
Columbia — serons.	1,670	4,170	3,530	400	1,500	1,600
Varinas — baskets	730	1,530	800	130	1,020	
Porto Rico leaf packages	8,600	13,100	12,300			
Havannah — serons.	16,500	6,600	8,200	3,100	2,600	780
Cuba — ,,	13,500	16,500	7,950	1,600	11,200	9,000
Domingo — ,,	29,100	27,100	24,000	5,200	12,900	6,500
Cumana and Laguayra — ,,	1,800	8,900	1,020	700	6,000	120
Brazil leaf packages	10,700	24,400	9,100	190	4,480	1,200
Ditto — rolls	5,400	3,100	4,000	350	350	200

negotiated; so that people without any, or with but little capital, became possessed of funds, and were enabled to enter into all sorts of undertakings. The result was such as uniformly follows on the like occasions. It appears from returns that are believed to be nearly accurate, that the bill liabilities of the Hamburg merchants, which amounted in 1853, to 133,173,000 m. banco (nearly 10,000,000*l.*), had increased in January, 1857, to 278,268,000 m. banco (18,620,000*l.*), and that in the middle of November, on the eve of the crisis, they amounted to 281,302,500 m. banco (21,097,688*l.*)! And this increase of bills was necessarily accompanied by a great increase in the price of most sorts of produce; which, however, was said to be occasioned by the influx of Australian and Californian gold! But the process of inflation cannot be indefinitely carried on. And the fall of some London houses, connected with the Hamburg and Swedish trade, led to the immediate bursting of the bubble. Overweening confidence gave way to the most unreasonable apprehensions. The government of the city made every effort to support the credit of some of the suspected houses; and even applied for and obtained from the Austrian government a loan of 15 millions m. banco to assist them in their object. But nothing could support that which had no real foundation. The mushroom firms that had overtraded to the greatest extent were the first to fall. And in their fall they shook, and in some cases destroyed, the credit even of those houses that had managed their concerns with the greatest prudence. In all about 220 houses suspended payments in the course of about two months. Of these about 50 were subsequently declared bankrupts; but the others

Account of the Quantities and Values of the Principal Articles imported into the U. K. from the Hanse Towns (about 4-5ths being from Hamburg) in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Computed Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Animals: oxen and bulls	no.	8,061	7,889	6,361	6,661	£96,752	£134,113	£111,318	£124,894
cows and calves	"	1,255	655	698	529	14,580	9,820	10,214	4,692
sheep	"	29,589	14,237	16,571	37,870	44,383	25,271	30,656	91,855
Bacon	cwts.	37,516	31,063	45,910	52,761	104,485	104,837	154,782	181,574
Beads and bugles of glass	lbs.	554,410	351,742	541,580	494,095	40,610	35,907	67,697	55,527
Beef, salted	cwts.	57,800	29,820	14,700	42,488	85,175	66,101	30,125	100,378
Bones of animals & fish (except whalefins)	tons	7,638	6,455	4,075	2,692	40,100	40,541	20,374	16,691
Books	cwts.	1,072	1,054	1,127	1,406	12,006	11,579	12,618	15,747
Bristles	lbs.	777,557	761,464	410,224	209,420	112,066	95,130	51,205	27,888
Butter	cwts.	81,732	90,210	88,928	55,789	400,487	450,001	500,219	282,668
Cobalt, ore	tons	289	105	345	291	15,520	8,350	19,309	12,725
Corn: wheat	qrs.	515,386	224,818	157,326	231,574	1,135,590	868,558	501,259	704,327
barley	"	2,190	3,290	455,083	275,391	2,902	5,837	255,788	497,084
oats	"	30,699	17,105	37,184	32,091	38,597	21,810	44,621	37,655
beans	"	29,905	16,916	22,856	22,624	68,781	35,756	47,426	42,928
other kinds	"	17,922	8,201	6,877	5,525	40,926	19,623	14,332	10,155
wheatmeal and flour	cwts.	85,255	103,675	130,013	139,990	93,070	121,818	150,013	124,909
Cotton manufactures: stockings & socks	pairs	476,050	255,641	382,953	423,395	11,628	6,767	9,655	9,720
fringe	lbs.	44,450	29,891	42,124	44,688	9,290	5,678	8,425	8,958
gloves	pairs	158,854	80,171	110,801	98,545	2,516	1,169	1,616	1,434
unenumerated		-	-	-	-	52,061	26,877	53,362	19,289
Flax: undressed	cwts.	21,074	6,538	2,575	921	54,002	16,672	6,090	2,471
tow or codilla	"	50,583	50,810	14,506	6,715	117,140	88,917	21,759	9,446
Glass, flint, cut	lbs.	718,585	697,988	674,864	5,528	21,530	20,773	20,085	18,426
Hides, not tanned	cwts.	8,854	6,142	22,221	29,749	49,055	13,990	66,875	110,255
Hops	"	59,850	5,240	5,666	15,749	398,500	56,159	14,164	46,262
Horns, horntips, and pieces of horn	tons	85	234	265	237	1,700	17,516	21,200	21,696
Oil, viz., seed oil	tuns	1,975	676	922	2,554	93,845	33,869	47,340	105,129
Oil-seed cake	tons	9,400	6,602	5,973	6,538	86,010	66,880	51,568	54,606
Pork, salted	cwts.	44,050	51,760	30,781	41,659	110,125	137,164	82,359	115,466
Prints and drawings	lbs.	19,852	26,969	54,390	53,305	4,963	6,742	8,598	8,326
Rags, & other materials, for making paper	tons	4,348	5,310	4,690	3,328	93,482	74,765	103,191	77,362
Seeds, clover	cwts.	28,812	85,058	70,295	75,463	75,271	282,397	271,800	262,630
Skins and furs, undressed: viz. seal	no.	109,634	42,923	41,359	66,849	54,816	19,315	24,115	48,466
squirrel	"	2,166,656	197,100	1,778,691	281,383	27,083	2,669	29,645	5,810
Spelter	tons	8,074	7,568	11,291	10,405	192,278	182,009	300,612	310,452
Spirits, unenumerated, not sweetened	galls.	6,290	278	25,053	572,656	786	29	2,714	64,422
Toys, unenumerated, ent. by the cubic ft.	cub.ft.	165,893	164,809	195,589	178,653	41,473	41,202	48,897	44,663
Wool, sheep and lambs'	lbs.	11,448,518	6,124,765	8,640,331	5,955,201	1,001,745	529,537	823,351	615,811
Woollen manufactures, unenumerated		-	-	-	-	239,340	150,285	175,586	213,351
Yarn, worsted, dyed, or coloured, and fit for embroidery or other fancy purposes	"	106,826	94,886	84,354	68,170	32,048	27,528	25,337	20,569
Total value of the above and of all other articles		-	-	-	-	6,221,524	4,816,298	5,502,739	5,822,188

The principal trade between the United Kingdom and Hamburg is carried on through Hull, a regular communication being maintained between them by lines of steamers that sail twice a week or oftener. She is connected in the same way with London, Liverpool, Newcastle, Leith, and Dundee. Her trade with New York and other American ports, which is partly carried on by steamers, and partly by sailing ships, is, also, very extensive. The same may be said of her trade with Havre, and the principal continental ports. She has, further, some trade with India, China, and the Eastern Archipelago.

having made private arrangements with their creditors, under the sanction of a law passed for the purpose, the losses they sustained are not known. It is almost needless to add that the rate of discount, which had risen to an enormous height, and the prices of commodities, immediately fell back to their ordinary level.

But severe as this crisis was at the moment, its effect has been most salutary. It has put an end, at least for a while, to the wild speculation and overtrading, that is inconsistent with all sound commercial pursuits. And it is to be hoped that the government and people of the town will exert themselves to prevent a revival of so ruinous a system, by subjecting those whose bankruptcies may be traced to recklessness, either in overtrading or in expenditure, to the severest penalties.

We have derived the materials for this article from various sources; but principally from the communications of eminent merchants, and the able and elaborate reports of Colonel Hodges, H.M. consul at Hamburg.

HANSEATIC LEAGUE, an association of the principal cities in the north of Germany, Prussia, &c., for the better carrying on of commerce, and for their mutual safety and defence. This confederacy, so celebrated in the early history of modern Europe, contributed in no ordinary degree to introduce the blessings of civilisation and good government into the North. The extension and protection of commerce was, however, its main object; and hence a short account of it may not be deemed misplaced in a work of this description.

Origin and Progress of the Hanseatic League. — Hamburg, founded by Charlemagne in the ninth, and Lubeck, founded about the middle of the twelfth century, were the earliest members of the League. The distance between them not being very considerble, and being alike interested in the repression of those disorders to which most parts of Europe, and particularly the coast of the Baltic, were a prey in the twelfth, thirteenth, and fourteenth centuries, they early formed an intimate political union, partly in the view of maintaining a safe intercourse by land with each other, and partly for the protection of navigation from the attacks of the pirates, with which every sea was at that time infested. There is no very distinct evidence as to the period when this alliance was consummated; some ascribe its origin to the year 1169, others to the year 1200, and others to the year 1241. But the most probable opinion seems to be, that it would grow up by slow degrees, and be perfected according as the advantage derivable from it became more obvious. Such was the origin of the Hanseatic League, so called from the old Teutonic word *hansa*, signifying an association or confederacy.

Adam of Bremen, who flourished in the eleventh century, is the earliest writer who has given any information with respect to the commerce of the countries lying round the Baltic. And from the errors into which he has fallen in describing the northern and eastern shores of that sea, it is evident they had been very little frequented and not at all known in his time. But from the beginning of the twelfth century, the progress of commerce and navigation in the North was exceedingly rapid. The countries which stretch along the bottom of the Baltic, from Holstein to Russia, and which had been occupied by barbarous tribes of Sclavonic origin, were then subjugated by the kings of Denmark, the dukes of Saxony, and other princes. The greater part of the inhabitants being exterminated, their place was filled by German colonists, who founded the towns of Stralsund, Rostock, Wismar, &c. Prussia and Poland were afterwards subjugated by the Christian princes and the Knights of the Teutonic Order. So that, in a comparatively short period, the foundations of civilisation and the arts were laid in countries whose barbarism had ever remained impervious to the Roman power.

The cities that were established along the coast of the Baltic, and even in the interior of the countries bordering upon it, eagerly joined the Hanseatic confederation. They were indebted to the merchants of Lubeck for supplies of the commodities produced in more civilised countries, and they looked up to them for protection against the barbarians by whom they were surrounded. The progress of the League was in consequence singularly rapid. Previously to the end of the thirteenth century, it embraced every considerable city in all those vast countries extending from Livonia to Holland, and was a match for the most powerful monarchs.

The Hanseatic confederacy was at its highest degree of power and splendour during the fourteenth and fifteenth centuries. It then comprised from 60 to 80 cities, which were distributed into 4 classes or circles. Lubeck was at the head of the first circle, and had under it Hamburg, Bremen, Rostock, Wismar, &c. Cologne was at the head of the second circle, with 29 towns under it. Brunswick was at the head of the third circle, consisting of 13 towns. Dantzic was at the head of the fourth circle, having under it 8 towns in its vicinity, besides several that were more remote. The supreme authority of the League was vested in the deputies of the different towns assembled in congress. In it they discussed all their measures; decided upon the sum that each city should contribute to the common fund; and upon the questions that arose between the confederacy and other powers, as well as those that frequently arose between the different members of the confederacy. The place for the meeting of congress was not fixed, but it was most frequently held at Lubeck, which was considered as the capital of the League, and there its archives were kept. Sometimes, however, congresses were held at Hamburg, Cologne, and other towns. They met once every 3 years, or oftener if occasion required. The letters of convocation specified the principal subjects which would most probably be brought under discussion. Any one might be chosen for a deputy; and the congress consisted not of merchants only, but also of clergymen, lawyers, artists, &c. When the deliberations were concluded, the decrees were formally communicated to the magistrates of the cities at the head of each circle, by whom they were subsequently communicated to those below them; and the most vigorous measures were adopted for carrying them into effect. One of the burgomasters of Lubeck presided at the meetings of congress; and during the recess the magistrates of that city had the sole, or at all events the principal, direction of the affairs of the League.

Besides the towns already mentioned, there were others that were denominated confederated cities, or allies. The latter neither contributed to the common fund of the League, nor sent deputies to congress,; even the members were not all on the same footing in respect to privileges: and the internal commotions by which it was frequently agitated, partly originating in this cause, and partly in the discordant interests and conflicting pretensions of the different cities, materially impaired the power of the confederacy. But in despite of these disadvantages, the League succeeded for a lengthened period, not only in controlling its own refractory members, but in making itself respected and dreaded by others. It produced able generals and admirals, skilful politicians, and some of the most enterprising, successful, and wealthy merchants of modern times.

As the power of the confederated cities was increased and consolidated, they became more ambitious. Instead of limiting their efforts to the mere advancement of commerce and their own protection, they endeavoured to acquire the monopoly of the trade of the North, and to exercise the same sort of dominion over the Baltic that the Venetians exercised over the Adriatic. For this purpose they succeeded in obtaining, partly in return for loans of money, and partly by force, various privileges and immunities from the northern sovereigns, which secured to them almost the whole foreign commerce of Scandinavia, Denmark, Prussia, Poland, Russia, &c. They exclusively carried on the herring fishery of the Sound, at the same time that they endeavoured to

obstruct and hinder the navigation of foreign vessels in the Baltic. It should, however, be observed, that the immunities they enjoyed were mostly indispensable to the security of their commerce, in consequence of the barbarism that then prevailed; and notwithstanding their attempts at monopoly, there cannot be the shadow of a doubt that the progress of civilisation in the North was prodigiously accelerated by the influence and ascendancy of the Hanseatic cities. They repressed piracy by sea and robbery by land, which must have broken out again had their power been overthrown before civilisation was fully established; they accustomed the inhabitants to the principles, and set before them the example, of good government and subordination; they introduced amongst them conveniences and enjoyments unknown by their ancestors, or despised by them, and inspired them with a taste for literature and science; they did for the people round the Baltic, what the Phœnicians had done in remoter ages for those round the Mediterranean, and deserve, equally with them, to be placed in the first rank amongst the benefactors of mankind.

"In order," as has been justly observed, "to accomplish their purpose of rendering the Baltic a large field for the prosecution of commercial and industrious pursuits, it was necessary to instruct men, still barbarous, in the rudiments of industry, and to familiarise them in the principles of civilisation. These great principles were laid by the confederation, and at the close of the fifteenth century the Baltic and the neighbouring seas had, by its means, become frequented routes of communication between the North and the South. The people of the former were enabled to follow the progress of the latter in knowledge and industry. The forests of Sweden, Poland, &c. gave place to corn, hemp, and flax; the mines were wrought, and in return the produce and manufactures of the south were imported. Towns and villages were erected in Scandinavia, where huts only were before seen: the skins of the bear and the wolf were exchanged for woollens, linens, and silks: learning was introduced; and printing was hardly invented before it was practised in Denmark, Sweden, &c."—(*Catteau, Tableau de la Mer Baltique*, tom. ii. p. 175.)

The kings of Denmark, Sweden, and Norway were frequently engaged in hostilities with the Hanse towns. They regarded, and, it must be admitted, not without pretty good reason, the privileges acquired by the League, in their kingdoms, as so many usurpations. But their efforts to abolish these privileges served, for more than 2 centuries, only to augment and extend them.

"On the part of the League there was union, subordination, and money; whereas the half-savage Scandinavian monarchies were full of divisions, factions, and troubles; revolution was immediately followed by revolution, and feudal anarchy was at its height. There was another circumstance, not less important, in favour of the Hanseatic cities. The popular governments established amongst them possessed the respect and confidence of the inhabitants, and were able to direct the public energies for the good of the state. The astonishing prosperity of the confederated cities was not wholly the effect of commerce. To the undisciplined armies of the princes of the North—armies composed of vassals without attachment to their lords—the cities opposed, besides the inferior nobles, whose services they liberally rewarded, citizens accustomed to danger, and resolved to defend their liberties and property. Their military operations were combined and directed by a council composed of men of tried talents and experience, devoted to their country, responsible to their fellow citizens, and enjoying their confidence. It was chiefly, however, on their marine forces that the cities depended. They employed their ships indifferently in war or commerce, so that their naval armaments were fitted out at comparatively small expense. Exclusive, too, of these favourable circumstances, the fortifications of the principal cities were looked upon as impregnable; and as their commerce supplied them abundantly with all sorts of provisions, it need not excite our astonishment that Lubeck alone was able to carry on wars with the surrounding monarchs, and to terminate them with honour and advantage; and still less that the League should long have enjoyed a decided preponderance in the North."—(*L'Art de vérifier les Dates*, 3me partie, tom. viii. p. 204.)

The extirpation of piracy was one of the objects which had originally led to the formation of the League, and which it never ceased to prosecute. Owing, however, to the barbarism then so universally prevalent, and the countenance openly given by many princes and nobles to those engaged in this infamous profession, it was not possible wholly to root it out. But the vigorous efforts of the League to abate the nuisance, though not entirely successful, served to render the navigation of the North Sea and the Baltic comparatively secure, and were of signal advantage to commerce. Nor was this the only mode in which the power of the confederacy was directly employed to promote the common interests of mankind. Their exertions to protect shipwrecked mariners from the atrocities to which they had been subject, and to procure the restitution of shipwrecked property to its legitimate owners, though, most probably, like their exertions to repress piracy, a consequence of selfish considerations, were in no ordinary

degree meritorious; and contributed not less to the advancement of civilisation than to the security of navigation.*

Factories belonging to the League. — In order to facilitate and extend their commercial transactions, the League established various factories in foreign countries; the principal of which were at Novogorod in Russia, London, Bruges in the Netherlands, and Bergen in Norway.

Novogorod, situated at the confluence of the Volkof with the Imler Lake, was, for a lengthened period, the most renowned emporium in the north-eastern parts of Europe. In the beginning of the eleventh century, the inhabitants obtained considerable privileges that laid the foundation of their liberty and prosperity. Their sovereigns were at first subordinate to the grand dukes or czars of Russia; but as the city and the contiguous territory increased in population and wealth, they gradually usurped an almost absolute independency. The power of these sovereigns over their subjects seems, at the same time, to have been exceedingly limited; and, in effect, Novogorod ought rather to be considered as a republic under the jurisdiction of an elective magistrate, than as a state subject to a regular line of hereditary monarchs, possessed of extensive prerogatives. During the 12th, 13th, and 14th centuries, Novogorod formed the grand *entrepôt* between the countries to the east of Poland and the Hanseatic cities. Its fairs were frequented by an immense concourse of people from all the surrounding countries, as well as by numbers of merchants from the Hanse towns, who engrossed the greater part of its foreign commerce, and who furnished its markets with the manufactures and products of distant countries. Novogorod is said to have contained, during its most flourishing period, towards the middle of the 15th century, upwards of 400,000 souls. This, however, is most probably an exaggeration. But its dominions were then very extensive; and its wealth and power seemed so great and well established, and the city itself so impregnable, as to give rise to a proverb, Who can resist the Gods and great Novogorod? *Quis contra Deos et magnam Novogordiam?* — (*Coxe's Travels in the North of Europe*, vol. ii. p. 80.)

But its power and prosperity were far from being so firmly established as its eulogists, and those who had only visited its fairs, appear to have supposed. In the latter part of the 15th century, Ivan Vassilievitch, czar of Russia, having secured his dominions against the inroads of the Tartars, and extended his empire by the conquest of some of the neighbouring principalities, asserted his right to the principality of Novogorod, and supported his pretensions by a formidable army. Had the inhabitants been animated by the spirit of unanimity and patriotism, they might have defied his efforts; but their dissensions facilitated their conquest, and rendered them an easy prey. Having entered the city at the head of his troops, Ivan received from the citizens the charter of their liberties, which they either wanted courage or inclination to defend, and carried off an enormous bell to Moscow, that has been long regarded with a sort of superstitious veneration as the palladium of the city. But notwithstanding the despotism to which Novogorod was subject, during the reigns of Ivan and his successors, it continued for a considerable period to be the largest as well as most commercial city in the Russian empire. The famous Richard Chancellour, who passed through Novogorod in 1554, in his way from the court of the czar, says, that "next unto Moscow, the city of Novogorod is reputed the chiefest of Russia; for although it be in majestie inferior to it, yet in greatness it goeth beyond it. It is the chiefest and greatest mart town of all Muscovy; and albeit the emperor's seat is not there, but at Moscow, yet the commodiousness of the river falling into the Gulf of Finland, whereby it is well frequented by merchants, makes it more famous than Moscow itself."

But the scourge of the destroyer soon after fell on this celebrated city. Ivan IV., having discovered, in 1570, a correspondence between some of the principal citizens and the King of Poland, relative to a surrender of the city into his hands, punished them in the most inhuman manner. The slaughter by which the bloodthirsty barbarian sought to satisfy his revenge was alike extensive and indiscriminating. The crime of a few citizens was made a pretext for the massacre of 25,000 or 30,000. Novogorod never recovered from this dreadful blow. It still, however, continued to be a place of considerable trade, until the foundation of Petersburg, which immmediately became the seat of that commerce that had formerly centred at Novogorod. The degradation of this ill-fated city is now complete. It is at present an inconsiderable place, with a population of about 7,000 or 8,000; and is remarkable only for its history and antiquities.

The merchants of the Hanse towns, or Hansards, as they were then commonly termed, were established in London at a very early period, and their factory here was

* A series of resolutions were unanimously agreed to by the merchants frequenting the port of Wisby, one of the principal emporiums of the League, in 1287, providing for the restoration of shipwrecked property to its original owners, and threatening to eject from the "*consodalitate mercatorum*," any city that did not act conformably to the regulations laid down.

of considerable magnitude and importance. They enjoyed various privileges and immunities; they were permitted to govern themselves by their own laws and regulations; the custody of one of the gates of the city (Bishopsgate) was committed to their care; and the duties on various sorts of imported commodities were considerably reduced in their favour. These privileges necessarily excited the ill-will and animosity of the English merchants. The Hansards were every now and then accused of acting with bad faith; of introducing commodities as their own that were really the produce of others, in order to enable them to evade the duties with which they ought to have been charged; of capriciously extending the list of towns belonging to the association; and obstructing the commerce of the English in the Baltic. Efforts were continually making to bring these disputes to a termination; but as they really grew out of the privileges granted to and claimed by the Hansards, this was found to be impossible. The latter were exposed to many indignities; and their factory, which was situated in Thames Street, was not unfrequently attacked. The League exerted themselves vigorously in defence of their privileges; and having declared war against England, they succeeded in excluding our vessels from the Baltic, and acted with such energy, that Edward IV. was glad to come to an accommodation with them, on terms which were any thing but honourable to the English. In the treaty for this purpose, negotiated in 1474, the privileges of the merchants of the Hanse towns were renewed, and the king assigned to them, in absolute property, a large space of ground, with the buildings upon it, in Thames Street, denominated the Steel Yard, whence the Hanse merchants have been commonly denominated the Association of the Steel Yard; the property of their establishments at Boston and Lynn was also secured to them; the king engaged to allow no stranger to participate in their privileges; one of the articles bore that the Hanse merchants should be no longer subject to the Judges of the English Admiralty Court, but that a particular tribunal should be formed for the easy and speedy settlement of all disputes that might arise between them and the English; and it was further agreed that the particular privileges awarded to the Hanse merchants should be published as often as the latter judged proper, in all the sea-port towns of England, and such Englishmen as infringed upon them should be punished. In return for these concessions, the English acquired the liberty of freely trading in the Baltic, and especially in the port of Dantzic and in Prussia. In 1498, all direct commerce with the Netherlands being suspended, the trade fell into the hands of the Hanse merchants, whose commerce was in consequence very greatly extended. But, according as the spirit of commercial enterprise awakened in the nation, and as the benefits resulting from the prosecution of foreign trade came to be better known, the privileges of the Hanse merchants became more and more obnoxious. They were in consequence considerably modified in the reigns of Henry VII. and Henry VIII., and were at length wholly abolished in 1597.—(*Anderson's Hist. Com.* Anno 1474, &c.)

The different individuals belonging to the factory in London, as well as those belonging to the other factories of the League, lived together at a common table, and were enjoined to observe the strictest celibacy. The direction of the factory in London was intrusted to an alderman, 2 assessors, and nine councillors. The latter were sent by the cities forming the different classes into which the League was divided. The business of these functionaries was to devise means for extending and securing the privileges and commerce of the association; to watch over the operations of the merchants; and to adjust any disputes that might arise amongst the members of the confederacy, or between them and the English. The League endeavoured at all times to promote, as much as possible, the employment of their own ships. In pursuance of this object, they went so far, in 1447, as to forbid the importation of English merchandise into the confederated cities, except by their own vessels. But a regulation of this sort could not be carried into full effect; and was enforced or modified according as circumstances were favourable or adverse to the pretensions of the League. Its very existence was, however, an insult to the English nation; and the irritation produced by the occasional attempts to act upon it, contributed materially to the subversion of the privileges the Hanseatic merchants had acquired amongst us.

By means of their factory at Bergen, and of the privileges which had been either granted to or usurped by them, the League enjoyed for a lengthened period the monopoly of the commerce of Norway.

But the principal factory of the League was at Bruges in the Netherlands. Bruges became, at a very early period, one of the first commercial cities of Europe, and the centre of the most extensive trade carried on to the north of Italy. The art of navigation in the thirteenth and fourteenth centuries was so imperfect, that a voyage from Italy to the Baltic and back again could not be performed in a single season; and hence, for the sake of their mutual convenience, the Italian and Hanseatic merchants determined on establishing a magazine or storehouse of their respective products in some intermediate situation. Bruges was fixed upon for this purpose; a distinction

which it seems to have owed as much to the freedom enjoyed by the inhabitants, and the liberality of the government of the Low Countries, as to the conveniency of its situation. In consequence of this preference, Bruges speedily rose to the very highest rank among commercial cities, and became a place of vast wealth. It was at once a staple for English wool, for the woollen and linen manufactures of the Netherlands, for the timber, hemp and flax, pitch and tar, tallow, corn, fish, ashes, &c. of the North; and for the spices and Indian commodities, as well as their domestic manufactures imported by the Italian merchants. The fairs of Bruges were the best frequented of any in Europe. Ludovico Guicciardini mentions, in his *Description of the Low Countries*, that, in the year 1318, no fewer than 5 Venetian galleases, vessels of very considerable burden, arrived at Bruges in order to dispose of their cargoes at the fair. The Hanseatic merchants were the principal purchasers of Indian commodities; they disposed of them in the ports of the Baltic, or carried them up the great rivers into the heart of Germany. The vivifying effects of this commerce were every where felt; the regular intercourse opened between the nations in the north and south of Europe made them sensible of their mutual wants, and gave a wonderful stimulus to the spirit of industry. This was particularly the case with regard to the Netherlands. Manufactures of wool and flax had been established in that country as early as the age of Charlemagne; and the resort of foreigners to their markets, and the great additional vent that was thus opened for their manufactures, made them be carried on with a vigour and success that had been hitherto unknown. These circumstances, combined with the free spirit of their institutions, and the moderation of the government, so greatly promoted every elegant and useful art, that the Netherlands early became the most civilised, best cultivated, richest, and most populous country of Europe.

Decline of the Hanseatic League.— From the middle of the fifteenth century, the power of the confederacy, though still very formidable, began to decline. This was not owing to any misconduct on the part of its leaders, but to the progress of that improvement it had done so much to promote. The superiority enjoyed by the League resulted as much from the anarchy, confusion, and barbarism that prevailed throughout the kingdoms of the North, as from the good government and order that distinguished the towns. But a distinction of this sort could not be permanent. The civilisation which had been at first confined to the cities, gradually spread from them, as from so many centres, over the contiguous country. Feudal anarchy was every where superseded by a system of subordination; arts and industry were diffused and cultivated; and the authority of government was at length firmly established. This change not only rendered the princes, over whom the League had so frequently triumphed, superior to it in power; but the inhabitants of the countries amongst which the confederated cities were scattered, having learned to entertain a just sense of the advantages derivable from commerce and navigation, could not brook the superiority of the association, or bear to see its members in possession of immunities of which they were deprived: and in addition to these circumstances, which must speedily have occasioned the dissolution of the League, the interests of the different cities of which it consisted became daily more and more opposed to each other. Lubeck, Hamburg, Bremen, and the towns in their vicinity, were latterly the only ones that had any interest in its maintenance. The cities in Zealand and Holland joined it, chiefly because they would otherwise have been excluded from the commerce of the Baltic; and those of Prussia, Poland, and Russia did the same, because, had they not belonged to it, they would have been shut out from all intercourse with strangers. When, however, the Zealanders and Hollanders became sufficiently powerful at sea to be able to vindicate their right to the free navigation of the Baltic by force of arms, they immediately seceded from the League; and no sooner had the ships of the Dutch, the English, &c. begun to trade directly with the Polish and Prussian Hanse towns, than these nations also embraced the first opportunity of withdrawing from it. The fall of this great confederacy was really, therefore, a consequence of the improved state of society, and of the development of the commercial spirit in the different nations of Europe. It was most serviceable so long as those for whom its merchants acted as factors and carriers were too barbarous, too much occupied with other matters, or destitute of the necessary capital and skill, to act in these capacities for themselves. When they were in a situation to do this, the functions of the Hanseatic merchants ceased as a matter of course; their confederacy fell to pieces; and at the middle of the seventh century the cities of Lubeck, Hamburg, and Bremen were all that continued to acknowledge the authority of the League. Even to this day they preserve the shadow of its power; being acknowledged in the act for the establishment of the Germanic confederation, signed at Vienna, the 8th of June, 1815, as free Hanseatic cities. —(From an article in No. 13. of the *Foreign Quarterly Review*, contributed by the author of this work.)

HARBOUR, HAVEN, or PORT, a piece of water communicating with the sea, or with a navigable river or lake, having depth sufficient to float ships of considerable

burden, where there is convenient anchorage, and where ships may lie, load, and unload, screened from the winds, and without the reach of the tide.

Qualities of a good Harbour. — There is every variety in the form and quality of harbours. They are either natural or artificial; but, however formed, a good harbour should have sufficient depth of water to admit the largest ships at all times of the tide; it should be easy of access, without having too wide an entrance; the bottom should be clean and good; and ships should be able to lie close alongside quays or piers, that the expense and inconvenience of loading and unloading by means of lighters may be avoided. Ships lying in a harbour that is land-locked, and surrounded by high grounds or buildings, are, at once, without the reach of storms, tides, and currents; and may, in most cases, be easily protected from hostile attacks. Bar harbours are those that have bars or banks at their entrances, and do not, therefore, admit of the ingress or egress of large ships except at high water. These are most commonly river harbours; the sand and mud brought down by the stream, and driven back by the waves, naturally forming a bar or bank at their mouths.

Best British Harbours. — Good harbours are of essential importance to a maritime nation; and immense sums have been expended in all countries ambitious of naval or commercial greatness in their improvement and formation. Portsmouth, Milford Haven, and the Cove of Cork are the finest harbours in the British islands, being surpassed by very few, if any, in the world. Of these, Portsmouth is entitled to the pre-eminence. This admirable harbour is about as wide at its mouth as the Thames at Westminster Bridge, expanding within into a noble basin, almost sufficient to contain the whole navy of Great Britain. Its entrance is unobstructed by any bar or shallow; and it has, throughout, water adequate to float the largest men of war at the lowest tides. The anchorage ground is excellent, and it is entirely free from sunken rocks, sand banks, or any similar obstructions. The western side of the harbour is formed by the island of Portsea; and on its south-western extremity, at the entrance to the harbour, is situated the town of Portsmouth, and its large and important suburb Portsea. Here are docks and other establishments for the building, repair, and outfit of ships of war, constructed upon a very large scale, and furnished with every convenience. The fortifications that protect this great naval *depôt* are superior, both as respects strength and extent, to any other in the kingdom. "Thus," to use the words of Dr. Campbell, "it appears that Portsmouth derives from nature all the prerogatives the most fertile wits and most intelligent judges could devise or desire; and that these have been well seconded by art, without consideration of expense, which, in national improvements, is little to be regarded. Add to all this the striking excellence of its situation, which is such as if Providence had expressly determined it for that use to which we see it applied, — the bridling the power of France, and, if I may so speak, the peculiar residence of Neptune." — (*Survey of Great Britain*, vol. i. p. 370.)

Portsmouth harbour has the additional and important advantage of opening into the celebrated road of Spithead, between the Hampshire coast and the Isle of Wight, forming a safe and convenient retreat for the largest fleets.

Milford Haven deeply indents the southern part of Pembrokeshire. It is of great extent, and has many subordinate bays, creeks, and roads. The water is deep, and the anchorage ground excellent; and being completely land-locked, ships lie as safely as if they were in dock.

Cork harbour has a striking resemblance to that of Portsmouth, but is of larger extent; it has, like it, a narrow entrance, leading into a capacious basin, affording a secure asylum for any number of ships.

Plymouth, which, after Portsmouth, is the principal naval *depôt* of England, has an admirable double harbour. The roadstead in Plymouth Sound has recently been much improved by the construction, at a vast expense, of a stupendous breakwater more than 1,700 yards in length. This artificial bulwark protects the ships lying inside from the effects of the heavy swell thrown into the Sound by southerly and south-easterly winds.

London stands at the head of the river ports of Great Britain. Considering the limited course of the Thames, there is, probably, no river that is navigable for large ships to so great a distance from sea, or whose mouth is less obstructed by banks. London is mainly indebted for her unrivalled magnitude to her favourable situation on this noble river; which not only gives her all the advantages of an excellent port, accessible at all times to the largest ships, but renders her the emporium of the extensive, rich, and populous country comprised in the basin of the Thames.

The Mersey, now the first commercial river in the empire, is more incommoded by banks than the Thames; and is in all respects inferior, as a channel of navigation, to the latter. Still, however, it gives to Liverpool very great advantages; and the channels being well buoyed and marked, the largest ships have little difficulty in reaching the port. The principal channels are laid down in the map of Liverpool and its environs attached to the article Docks in this work.

Bristol and Hull are both river ports. Owing to the extraordinary rise of the tide in the Bristol Channel, the former is accessible to the largest ships. The Humber is a good deal impeded by banks; but it also is navigable as far as Hull, by large vessels. The Tyne admits vessels of very considerable burden as far as Newcastle. Sunderland, at the mouth of the Weir, is the principal ship-building port in the U. K., and has, after Liverpool and London, the greatest amount of shipping.

The shallowness of the Clyde from Greenock up to Glasgow has been a serious drawback upon the commercial progress of the latter. Large sums have been expended in attempts to contract the course and to deepen the bed of the river; and they have been so far successful, that ships drawing 19 and even 20 feet have come up to the city at high water. In 1852, 47 vessels drawing 17 feet water, and 18 drawing 18 feet, arrived at Glasgow, which is now one of the principal commercial ports in the empire.

Generally speaking, the harbours on the east coasts, both of Great Britain and Ireland, are, with the exception of the Thames, very inferior to those on their south and west coasts. Several harbours on the shores of Sussex, Kent, Lincoln, &c., that once admitted pretty large ships, are now completely choked up by sand. Large sums have been expended upon the ports of Yarmouth, Boston, Sunderland, Leith, Dundee, Aberdeen, &c. Dublin harbour being naturally bad, and obstructed by a bar, a new harbour has been formed, at a great expense, at Kingstown, without the bar, in deep water.

For an account of the shipping belonging to the different ports of Great Britain and Ireland, the reader is referred to the article SHIPS in this work. The charges on account of Docks, Pilotage, &c. are specified under these articles.

Foreign Harbours and Ports. — The reader will find the principal foreign commercial harbours described in this work at considerable length under their respective titles. The principal French ports for the accommodation of men-of-war are Brest, Toulon, and Cherbourg. The latter has been very greatly improved by the construction of a gigantic breakwater, and the excavation of immense basins. Besides Cadiz, the principal ports for the Spanish navy are Ferrol and Carthagena. Cronstadt is the principal rendezvous of the Russian navy; Landscrona, of that of Sweden; and the Helder, of that of Holland.

Law of England as to Harbours. — The anchorage, &c. of ships was regulated by several statutes. But most of these regulations have been repealed, modified, or re-enacted, by the 54 Geo. 3. c. 149.

This act authorises the Admiralty to provide for the moorings of his Majesty's ships; and prohibits any private ship from fastening thereto. It further authorises the Admiralty to prohibit the *breaming* of any ship or vessel at any place or places on shore they may think fit; and to point out the places where private ships shall deposit the gunpowder they may have on board exceeding 5 lbs. — (§ 6.) It prohibits the use of any fire on board any ship or vessel that is being breamed in any port, harbour, or haven, between the hours of 11 in the evening and 5 in the morning, from the 1st of October to the 31st of March inclusive; and between the hours of 11 in the evening and 4 in the morning from the 1st of April to the 30th of September inclusive: and it prohibits the melting or boiling of any pitch, tar, tallow, &c. within 250 yards of any of his Majesty's ships, or of his Majesty's dock-yards. By another section, the keeping of guns shotted, and the firing of the same in any port, is prohibited under a penalty of 5*s.* for every gun kept shotted, and 10*s.* for every gun discharged. — (§ 9.) The sweeping or creeping for anchors, &c. within the distance of 150 yards of any of his Majesty's ships of war, or of his Majesty's moorings, is prohibited under a penalty of 10*l.* for every offence. — (§ 10.) The loading and unloading of ballast is also regulated by this statute; but for the provisions with respect to it, see BALLAST.

HARDWARE (Ger. *Kurze waaren*; Du. *Yzerhramery*; Da. *Isenkramvarer*; Sw. *Järnkram*; Fr. *Clinquaillerie, Quincaillerie*; It. *Chincaglio*; Sp. *Quinquilleria*; Port. *Quincalharia*; Rus. *Mjélotzchnue towarii*) includes every kind of goods manufactured from metals, comprising iron, brass, steel, and copper articles of all descriptions. Birmingham and Sheffield are the principal seats of the British hardware manufactures; and from these, immense quantities of knives, razors, scissars, gilt and plated ware, fire-arms, &c. are supplied, as well for exportation to most parts of the world, as for home consumption.

The hardware manufacture is one of the most important carried on in Great Britain; and from the abundance of iron, tin, and copper ores in this country, and our inexhaustible coal mines, it is one which seems to be established on a very secure foundation. The late Mr. Stevenson, in his elaborate and excellent article on the statistics of England, in the *Edinburgh Encyclopædia*, published in 1815, estimated the value of all the articles made of iron at 10,000,000*l.*, and the persons employed in the trade at 200,000. Mr. Stevenson estimated the value of all the articles made of brass and copper at 3,000,000*l.*, and the persons employed at 50,000: and he further estimated the value of steel, plated, and hardware articles, including toys, at 4,000,000*l.*, and the persons employed at 70,000. So that, assuming these estimates to be nearly correct, the total value of the goods produced from different sorts of metals in England and Wales, in 1815, must have amounted to the sum of 17,000,000*l.*, and the persons employed to 320,000.

There is reason to believe that this estimate, in so far, at least, as respects the value of

the manufacture, was at the time decidedly too high; but at this moment it is most probably within the mark. There has been a very extraordinary augmentation of the quantity of bar and pig iron produced within the last 15 years; and the rapid increase of Birmingham and Sheffield, as well as of the smaller seats of the hardware manufacture, shows that it has been increased in a corresponding proportion. We have been assured, by those well acquainted with most departments of the trade, that if to the iron and other hardware manufactures of England be added those of Scotland, their total aggregate value cannot now be reckoned at less than 20,000,000*l.* a year, affording *direct* employment, in the various departments of the trade, for at least 320,000 persons.

Fall of Prices.—Owing partly to the reduced cost of iron, but incomparably more to improvements in manufacturing, a very extraordinary fall has taken place in the price of most hardware articles during the last 12 or 15 years. In some articles the fall exceeds 80 per cent.; and there are but few in which it does not exceed 30 per cent. In consequence, the poorest individuals are now able to supply themselves with an infinite variety of commodious and useful articles, which, half a century ago, were either wholly unknown, or were too dear to be purchased by any but the richer classes. And those who reflect on the importance of the prevalence of habits of cleanliness and neatness will readily agree with us in thinking that the substitution of the convenient and beautiful hardware and earthenware household articles, that are now every where to be met with, for the wooden and horn articles used by our ancestors, has been in no ordinary degree advantageous. But it is not in this respect only that the cheapness and improvement of hardware is essential. Many of the most powerful and indispensable tools and instruments used by the labourer come under this description; and every one is aware how important it is that they should be at once cheap and efficient.

Account of the Real Values of the Various Descriptions of Iron, of the Brass and Copper Manufactures, Hardware and Cutlery, &c., exported from the U. Kingdom during each of the 7 Years ending with 1858.

	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Iron, unwrought: pig	£557,586	£1,056,310	£1,244,853	£1,072,428	£1,385,148	£1,609,115	1,084,170
bar, bolt, and rod	3,406,360	5,647,773	5,731,671	4,628,399	2,799,679	2,773,166	2,059,163
railroad					4,095,309	4,000,515	3,565,224
cast	489,304	576,814	727,428	659,180	712,177	753,334	822,979
other kinds	94,216	201,842	168,490	125,791	195,034	242,087	209,075
wrought of all kinds	1,609,950	2,680,550	3,120,381	2,395,674	5,049,969	3,476,541	2,866,787
steel, unwrought	526,860	682,133	681,352	584,170	735,823	748,579	589,676
Total	6,684,276	10,845,422	11,674,675	9,465,642	12,966,109	13,603,337	11,197,072
Brass and copper manufactures	1,704,083	1,854,331	1,768,950	2,110,906	2,648,259	3,124,049	2,854,551
Hardwares and cutlery	2,691,697	3,665,051	3,868,498	2,959,610	3,747,598	4,016,230	3,277,607
Tin plates, and tin and pewter ware	1,079,795	1,213,630	1,075,731	1,135,467	1,432,612	1,535,055	1,389,858
Plate, plated ware, jewellery, and watches	425,705	727,386	621,084	480,543	481,317	545,473	455,006
Gross total	12,585,556	18,305,820	19,008,938	16,152,168	21,275,895	22,822,144	19,174,094

HARPOONER, the man that throws the harpoon in fishing for whales. By 35 Geo. 3. c. 92. § 34., no harpooner, line manager, or boat steerer, belonging to any ship or vessel fitted out for the Greenland or Southern whale fisheries, shall be impressed from the said service; but shall be privileged from being impressed so long as he shall belong to, and be employed on board, any ship or vessel whatever in the fisheries aforesaid.

HATS (Ger. *Hüte;* Du. *Hoeden;* Fr. *Chapeaux;* It. *Cappelli;* Sp. *Sombreros;* Rus. *Schlopü*), coverings for the head in very general use in Great Britain and many other countries, and known to every body. They are made of very various forms and sorts of material. They may, however, be divided into two great classes, viz. those felted or made of fur, wool, silk, &c., and those made of straw; the former being principally worn by men, and the latter by women.

I. Hats (Felted, Fur, Silk, &c). We possess little information as to the importance of hats, as a distinct branch of manufacture, anterior to the reign of Elizabeth.

Felted hats are stated to have been worn by the Saxons, but the earliest notice we find of "*beaver*" hats, is in an inventory of the effects of Sir John Falstoffe in 1459. Philip Stubbs, in his "Anatomie of Abuses," published in 1585, mentions amongst *other varieties*, "bever hats of 20, 30, and 40 shillings price being fetched from beyond the seas." In subsequent reigns, and particularly during the Commonwealth, the manufacture of both beaver and felted hats must have arrived at some importance; and not only the quality, but the shape of the hat, began to possess an influence in denoting the religious or political bias of the wearer, a characteristic of this article of dress, which obtains even at the present day. An interesting account of hats as worn at different periods of our history is given in the Archæologia, and the details of the manufacture,

as it is now carried on, are given in a work called "Days in the Factories" (by Mr. George Dodd), published in 1843.

Charles VII. of France wore a hat on his public entry into Rouen in 1449, which is believed to have been among the first manufactured in his kingdom.—(*Encyclopédie*, art. *Chapeaux.*)

The following details with respect to the species of hats manufactured, their value &c., furnished by a high practical authority, present a view of the trade as it existed in 1843.

1. *Stuff Hats.*— This term is applied by the trade only to the best description of hats, or to those brought to the highest perfection in London. Since the introduction of "waterproofing," it is found unnecessary to use so valuable a material as beaver in the foundation or frame-work of the best hats. Instead of it, fine seasoned backs of English coney wool, red Vigonia wool, Dutch carroted coney wool, and a small quantity of fine Saxony lambs' wool, are employed with equal advantage.

The covering, *i. e.* the "napping," of the best qualities is a mixture of *check* beaver, with white and brown stage beaver, or seasoned beaver, commonly called "*wooms.*" Inferior stuffs are napped with mixtures of stage beaver, nutria, hares' wool, and musquash.

Of late years, hats have been much reduced in weight. This is principally owing to the new method of "waterproofing," which is effected in the bodies of the hats prior to their being napped. The elastic properties of the gums employed for this purpose, when dissolved in pure spirits of wine, give a body to the stuffs which allows a good deal of their weight to be dispensed with.

Not 20 years ago, 96 ounces of stuff were worked up into 1 dozen ordinary sized hats for gentlemen; at present, from 33 to 34 ounces only are required to complete the same quantity. It is proper to observe that the heavy duty on English spirits of wine is very injurious to the manufacture, as it causes the employment of inferior dissolvents, as naphtha and gas spirit, which injure the gums.

The manufacture of the best hats employs in London nearly 1,000 makers and finishers, besides giving employment to nearly 3,000 men in Gloucestershire and Derbyshire, in body-making and ruffing. The gross returns amount to about 640,000*l.*

2. *Plated Hats.*—Next to fine hats are those designated "plated," so called from the *plate*, or napping, being of a distinct and superior nature to the foundation or body. The latter is generally formed of Kent, Spanish, or Shropshire wool; while the former consists of a mixture of fine beaver, hares' wool, musquash, nutria, and English back wool. From the cheapness of coal and the purity of the water in Lancashire, Cheshire, and Staffordshire, the whole of the plating trade is engrossed by them. The men employed in the 3 counties, including apprentices, do not exceed 3,000. The total returns amount to about 1,080,000*l.*, inclusive of bonnets and children's fancy beaver hats.

3. *Felt Hats* and *Cordies* are the coarsest species, being made wholly of Kent, Shropshire, and Italian wools. Cordies are distinguished by a fine covering of camel or goat hair. A very large trade was at one time carried on in these articles but since the introduction of caps, and the manufacture of inferior plates, the returns have sunk fro m 1,000,000*l.* to scarcely 150,000*l.*! Atherstone, Rudgeley, Bristol, and Newcastle-under-Line are the principal places where they are manufactured.

4. *Silk Hats*, made from silk, plush, or shag, manufactured in Coventry, Banbury, and Spitalfields, form at present, a very important branch of the hat trade. Many thousand dozen are exported to Italy, Gibraltar, the Cape, Sydney, and Van Diemen's Land. Little progress was made in this article for the first quarter of a century after its invention, in consequence of the hard appearance which the cane and willow framework necessarily gave the hats; but now that beaver hat bodies have been used, as well as those of lawn and muslin, this difficulty has been overcome, and silk hats have as soft an outline and as great a variety of shapes as beaver hats. London alone produces nearly 150,000 dozen silk hats annually; and the quantity manufactured in Manchester, Liverpool, Birmingham, and Glasgow is estimated at upwards of 100,000 dozen more, making a total of above 250,000 dozen. The workmen are distinct from beaver hatters; and owing to the competition of labourers, the trade has advanced in a greater ratio. This branch gives employment to about 3,000 men.

At present (1843) *silk hats* of a low quality are more extensively worn; and public taste has set strongly in favour of a new and showy kind of silk hat, made on the French plan, and of a material imported from France at a duty of 30 per cent. This change, which has reduced the consumption of both *stuff* and *plated* hats, probably arose, so far as regards the lower sorts of silk hats, from motives of economy, induced by the recent state of the country, and in the higher qualities, chiefly from the influence of fashion. But though there be no reason to conclude that this change will be permanent, it has at present depressed the trade, especially in the finer branches.

Machinery is extensively used in the preparation of the materials for the manufacture, but has hitherto been found inapplicable to the manufacture itself, which, in some processes, requires a certain amount of mental discretion. Particular districts are celebrated for particular branches of the trade, chiefly from special reasons respecting fuel, water, or lowness of wages; but the increased competition has of late had a tendency to concentrate the trade in a few localities rather than to disperse it, although it is still rather widely distributed. Hitherto the trade has not been exposed to foreign competition in the home market, but it has been of late years seriously affected in the Brazilian and West Indian markets.

Few beaver or ruffed hats meet the English manufacturer in the markets referred to; but chiefly hats of silk or felted hares' wool, of styles not adapted to our taste, though suited to that of Europe and South America.

English hats, though to a limited extent, and in an unfinished state, have been exported to the Continent. The hats chiefly exported to our colonies are silk, plated, and stuff hats, generally of a light description. Wool felts, which before the Emancipation Act were largely exported, have now materially decreased, the article termed "negro felts" being almost extinct.

This trade employs a great amount of labour, being supposed to furnish, at present, employment to not less than 30,000 persons. In the Lancashire district, the first and second manufacturing processes are chiefly carried on in the houses of the workmen. The labour of women and children is very largely employed in the trade generally, but less in the actual manufacture than in the preparation of the material; the proportions may be, in both departments, men 50 per cent., women 25 per cent., and children 25 per cent.; and their earnings, on a yearly average, are, men 25*s.*, women 7*s.*, and boys 5*s.* per week. The depression in the finer branches of the manufacture has doubtless affected the earnings of the workmen engaged in them, as a less amount of skill and labour is required in the production of low silk hats than beavers, and the increased quantity produced in the lower descriptions has not furnished an amount of employment equivalent to the decrease in the higher branch. Combinations on the part of the workmen have occasionally arisen, sometimes from questions affecting wages and disputes arising out of the existence of trades' unions, but not to any considerable extent, from attempts to introduce machinery.

No data exist on which to form any certain estimate of the value of the different branches of the manufacture or of its aggregate amount. But it is estimated, on good grounds, that on *plated* goods, the cost of the raw material varies from 25 to 40 per cent, the labour and manufacturing expenses from 75 to 60 per cent.; on stuff hats, materials 40 to 50 per cent., labour, &c. 60 to 50 per cent.; silk hats, materials 50 per cent., labour, &c., 50 per cent. The proportions in value are estimated as follows, viz.

Plated hats, 1,200,000*l.*; stuff do., 800,000*l.*; silk do., 900,000*l.*; wool felts, 100,000*l.*; making in all, 3,000,000*l.*

The duty on hats, which was formerly 10*s.* 6*d.* each, was reduced in 1842 to 2*s.* 6*d.* on fur and wool hats, and to 3*s.* 6*d.* on silk. In 1836, 53,894 dozen hats were exported, of the real or declared value of 148,282*l.*; but in 1841, the exports only amounted to 22,522 dozen, of the value of 81,583*l.* The falling off has been principally in the exports to the West Indies and Brazil.

Hat Manufacture in 1859. — A very extraordinary change has taken place in the state of the hat trade since 1843. This will be evident from the following details, which have been supplied to us by the highest practical authorities.

Stuff Hats. — This branch of the hatting trade has all but wholly ceased, in consequence of the preference given to *silk hats* (which are universally worn), owing to their lower price, and equal if not superior appearance. The only demand for *stuff hats* at the present time is for drab beavers for summer wear, the production of which may probably employ about 200 men throughout the country, during a portion of the year.

Silk Hats. — At present (1859), it is believed by persons well acquainted with the trade, that about 1,200 men are employed in London, and about 1,500 in other parts of the country, making about 500,000 dozens, of the value of 2,000,000*l.*

Plated Hats and Cordies. — This branch of the trade may be said to be extinct, and the men formerly employed in it and the silk hat branch, have found employment in the making of soft felt hats.

Felt Hats. — A great demand has sprung up for this article within the last 12 or 14 years in Lancashire, Gloucestershire, Derbyshire, and Staffordshire, giving employment to about 5,000 men and 1,000 female trimmers. The quantity annually made is estimated to amount to about 500,000 dozens, of the value of 700,000*l.* or 800,000*l.*

It is seen above that in 1843 the yearly value of the hat manufacture was estimated at about 3,000,000*l.* employing in its different departments about 30,000 persons throughout the U. Kingdom. And though the most expensive description of hats has been superseded, the trade has been much extended; the reduction which has taken place in prices, has led to a great increase in the quantities consumed and exported. The exports which, in 1857, amounted to 149,946 doz., worth 292,198*l.*, are chiefly to our colonies in Australia, British North America, the West Indies, and to N. and S. America. Labour, profit, and interest on capital form perhaps three-fourths of the yearly returns. Machinery is used to a very small extent, the manufacture being almost entirely conducted by manual labour. Wages vary from 8*s.* to 16*s.* weekly for women, and from 25*s.* to 30*s.* for men.

II. Hats (Straw).—It is most probable that the idea of *plaiting straws* was first suggested by the making of baskets of osiers and willow, alluded to by Virgil, in his Pastorals, as one of the pursuits of the agricultural population of Italy. We are ignorant of the period when the manufacture of straw plait first became of importance in that country; but it appears from Coryat's *Crudities*, published in 1611, that "the most delicate strawen hats" were worn by both men and women in many places of Piedmont, "many of them having at least an hundred seames." It is evident, therefore, that the art of straw plaiting must have arrived at great perfection upwards of two centuries since; but it does not appear to have been followed in England for more than 70 or 80 years, as it is within the remembrance of some of the old inhabitants of the straw districts, now alive, that the wives and daughters of the farmers used to plait straw for making their own bonnets, before straw plaiting became established as a manufacture. In fact, the custom, among the women of England, of wearing bonnets, is comparatively modern: it is scarcely 100 years since "*hoods and pinners*" were generally worn, and it was only the ladies of quality who wore small hats.—(*Malcolm's Manners and Customs.*)

In the edition of this work published in 1844, we stated that, during the ten years ending with 1843, the manufacture of British straw hats and bonnets had increased perhaps $\frac{2}{3}$, and of straw plait about $\frac{1}{3}$, compared with the former decennial period. At the present time (1859) it is confidently affirmed by persons conversant with the trade, that it has increased not less than threefold. It was estimated in 1843 that every score (20 yards) of plait consumed a pound of straw; that every plaiter made 15 yards per diem; that in Hertford, Bedford, and Bucks, the principal seats of the trade, there were at an average 10,000 scores brought to market every day, to make which, 13,300 women and children were employed. In Essex and Suffolk the daily produce was estimated at 2,000 scores, to make which, 3,000 persons were employed, and about 4,000 persons more must have been employed in converting those quantities into bonnets. Including other places where the manufacture was carried on in England, it was supposed there were in all, in 1833, about 30,000 persons engaged in it, while in 1843, there could not be less than from 40,000 to 50,000 persons, including 1,500 sewers in London. At this time (1859), such has been the improvement as well as the increase of the manufacture, that the average production of each straw-plaiter is estimated at 20 yards per diem from the same weight of straw, in Hertfordshire, Bedfordshire, and Bucks, and that the plaiting produced must exceed 25,000 scores, giving employment to an equal number of women and children. During some periods of the year, when out-door work is scarce, men and boys are now found amongst the producers. In Essex and Suffolk the produce has been more stationary; perhaps 3,000 persons are employed, producing about 2,500 to 2,700 scores daily. The *range* of the earnings of plaiters continues about the same (from 3*d.* to 3*s* 6*d.* per score, or from 1*s.* 6*d.* to 10*s.* per week), but the *average* is higher than in the former period, children earning 2*s.*, and grown persons 5*s.* The sewers in country districts earn from 6*s.* to 15*s.*, and average about 10*s.*, while the same class in London receive

from 6*s.* to 40*s.* and average about 11*s.* or 12*s.* Taking into account the various new kinds of plaiting and trimmings introduced from Switzerland, it is computed that the number employed in making straw and fancy hats and bonnets, must amount to 160,000 or 180,000, including the London sewers. The annual value of the trade in all its branches may be roughly estimated at between three and four millions sterling, the greater portion of which is formed of the wages of labour.

The improvement and extension of the trade are ascribed to various causes. During the last few years the practice has arisen of *blueing* instead of *bleaching* the straw, and this has been attended with the most beneficial results. Formerly much anxiety was occasioned lest the straw used for plaiting should become discoloured, and be otherwise affected by the weather before harvest, but this anxiety is now wholly removed, by the process of dyeing, while the plaiters have secured more constant employment. *Brown* was at first introduced, and subsequently *grey*, both of which are now in demand to a great extent both by men and women. Down to 1852, the production of men's and boys' hats made of *Brazilian grass*, was an improving branch of the trade, but it has since sensibly declined, owing to the preference shown for straw hats. Indeed, so fashionable and common have straw hats become, particularly since dyed straw has been introduced, that they have interfered greatly with the silk hat trade, besides superseding the Brazilian grass hats. During 1858, so rapidly did the fashion spread amongst the male portion of the population (except in London), that it was described as almost universal. Another most important cause of improvement in the trade is the reduction which has taken place in the duty on importation of foreign hats and plait. Instead of 5*s.* 8*d.* per hat, and 8*s.* 6*d.* per lb. for plait, the duty is now 2*s.* 6*d.* per lb. on hats, and 2*s.* per lb. on plait, and a great impetus has, in consequence, been given to the trade both in plaiting and hats, boys' and children's hats being now admitted, which formerly, owing to the high duty, were virtually prohibited. The importation of hats from Leghorn has, however, almost ceased. Tuscan plait has become so reduced in price, that it is no longer necessary to import the straw used for making the plait. Indeed, notwithstanding the diminution in price, Tuscan plait itself is no longer prized as it was a few years since, and the consumption has much declined, compared with former years.

Since our last account of this trade was written, the varieties of patterns in straw-plaiting have considerably increased, which with the use of horse hair (plaited by machinery), woven into light fancy trimmings, gives a distinctive feature to the trade compared with any previous epoch. The use of horse hair braid has never been superseded since its introduction, about 16 years ago; it has rather gradually increased. In 1858, cotton braid (in imitation of crinoline and chip plaiting), has been very extensively used by itself, and in combination with straw plait, adding another new feature to the trade. Other woven trimmings of Swiss manufacture have also been introduced in imitation of pillow lace or blond, worked with horse hair, and afterwards embroidered with straw, beads, &c.

Straw plaiting still continues a cottage employment, with the exception of two or three industrial institutions and unions scarcely worth mentioning. Bonnet and hat making is almost equally divided between factory and domestic employment. If small work-rooms are included in the term "factory," perhaps nine-tenths of the whole would come within that class.

Luton continues to be the chief seat of the manufacture. There is a tradition that the unfortunate Mary, queen of Scotland, when travelling through the duchy of Lorraine, invited some of the straw-plaiters there, to introduce the art into Scotland. It was not, however, very successful; and it is said that shortly after the accession of James VI. to the throne of England, he encouraged them to remove to Luton, where the trade has since maintained itself. At this time there are nearly 100 dealers connected with the manufacture in its different branches established in that town. Straw-plaiting in Orkney has entirely ceased.

Italian Manufacture. — Although from the causes above-mentioned, the importation into England of Tuscan straw plait and hats has materially diminished, new markets have been opened both in France and America, which have amply compensated for the falling off in the demand for England. The Tuscans, on the reduction of the English duty in 1856-7 to 5*s.* per lb., began making fancy plait, in which they speedily excelled; and also the fabrication of trimmings by the loom, in imitation of those made in Switzerland; but in this latter branch they were not so successful. About this time, however, the old fashioned Leghorn "flat" (called *Fioratti*), which from its circular form was difficult to convert into fancy shapes, was replaced by an entirely new conical shape, vulgarly called *Poke* or *Capotte*, which was better adapted for being cut into bonnets, and being only made of the finest qualities of plait, gave good employment for some years to the most skilful workers, whose average earnings amounted to about 9*d.* or 10*d.* English, per day. These sugar-loaf or "Poke" Leghorns have been nearly all bought by Paris houses (the English manufacturers deferring to the Parisians in the question of taste) through whom the whole world, it is said, has been supplied with ready-made bonnets; but owing to their high price (about 1*l.* each) the consumption has been limited, and has been superseded by the so-called Tuscan bonnets sewn in this country. During that period large quantities of Tuscan straw for plaiting were imported into England, amounting to from 200,000 to 400,000 lbs. per annum, at prices varying from 1*s.* 3*d.* to 2*s.* 6*d.* per lb., affording an ample supply to the plaiters; and so successful was this competition, that in the course of 2 or 3 years a case of *foreign* Tuscan plait could scarcely be imported at all to advantage, even at the reduced duty. A slight revival in the taste for Tuscan bonnets took place about 1851, when the duty was further reduced to 2*s.* per lb.; but a great reduction has occurred in prices. The piece of 55 to 57 yards was sold from 1830 to 1841, at from 10*s.* to 15*s.*; from 1842 to 1848, at 4*s.* to 6*s.*; and at the present time, 1859, the depression is so great, that the average price of the piece, duty paid, is not more than 3*s.* 6*d.* In an able pamphlet on the straw trade of Tuscany, by Signor Mariotti, published at Florence in 1858,* there is much interesting information on that subject. He supplies the following returns, extracted from the Tuscan customs books —

An Account, in Sterling, of the Value of the Straw Hats, Plait, and Straw for Plait, exported from Tuscany in each of the 5 Years ending with 1855.

Years.	Straw Hats.	Plaiting.	Fancy Straws.	Total.
	£	£	£	£
1851	150,000	125,000	25,000	300,000
1852	217,000	135,000	12,000	364,000
1853	260,000	175,000	19,000	454,000
1854	190,000	180,000	28,000	398,000
1855	325,000	235,000	5,500	565,500
	1,142,000	850,000	89,500	2,081,500

* "Notizie Storiche Economiche e Statistiche intorno all' arte della Paglia in Toscana. Raccolti da Phillippo Mariotti."

These results show that the straw trade of Tuscany would not average less than about 400,000*l.* per annum, and may well be considered as the main source of that country's riches, for it would appear that no other produce (silk included) reaches to more than about 100,000*l.* per annum. There has also been a considerable trade carried on principally with America and Continental Europe, in men's common Leghorn hats, at prices so low as from 2*d.* to 8*d.* each, called *Mountain Hats*, which are principally made on the confines of Tuscany, and in the Roman States (towards Bologna), averaging about 60,000*l.* yearly during the same period of 5 years. No material change has since taken place in the production; and of the whole it is estimated that from 40,000*l.* to 60,000*l.* per annum is taken by England. During the same period the exportation of straw is stated to be—in 1851, 104,000 lbs. English; in 1852, 251,000 lbs.; in 1853, 150,000 lbs.; in 1854, 72,000 lbs., and in 1855, 22,000 lbs. These returns show the gradual decrease of the consumption of Tuscan straw in England, and for the last few years its importation has wholly ceased. It is computed that about 100,000 hands are engaged in Tuscany in this interesting branch of industry, and that perhaps 1-3rd of that number are men. Wages at present (1859) are as low as at any previous period. Men regularly engaged in the dressing of the hats earn from 1*s.* 3*d.* to 1*s.* 9*d.* English. Workwomen from 6*d.* to 10*d.*, and all who work independently, at their own homes, are considered to be earning from 3*d.* to 7*d.* per day.

It is stated in Signor Mariotti's pamphlet, that as far back as 1341, the art of straw plaiting was known in Tuscany; certain kinds of foreign straws were then also imported; for in 1737 there was a duty levied upon it, which, however, was repealed by Leopold I. It is shown by a tomb-stone existing in the church of St. Miniato, at Signa, that Domenico Michelacci, a native of Bologna; carrying on business there in the commencement of the 18th century, was the first to establish with England the export trade in Leghorn hats. In 1718 this same man raised the first fine straw used in Tuscany. In 1757, and the following year, an annual export business in hats commenced, and reached from 15,000*l.* to 25,000*l.* sterling. The first hats for ladies (afterwards so largely imported into England), were made only in 1813, of the number of 40 rows. In 1818 the hands employed were estimated at from 50,000 to 60,000, earning from 1*s.* to 1*s.* 9*d.* per day. In 1822 the exportation to America began, and although an increase of hands was the result, the earnings rose from 1*s.* 4*d.* to 5*s.* per day. In 1826-7, the trade in ladies' Leghorn hats reached its climax; and soon after that the Tuscan plait in 11 straws, was introduced.

Swiss and other Manufactures.—The *Swiss* straw trade has greatly developed itself during the last 15 or 20 years; the returns in some of the most favourable seasons cannot have been less than from 200,000*l.* to 300,000*l.* England takes about 1-3rd, and America a large quantity. Wohlen (in the Canton d'Argovie) is the central seat for *loom* and all kind of fancy trimmings; but within the last 10 years white horse-hair braid (of which the largest manufactory is at Kriens, near Lucerne), has been in great demand. In the Fribourg Canton, there is also an interesting straw trade carried on, the principal districts being *Bulle* and *Chatel St. Denis*; but being a similar kind of straw to the Belgian and English, the importations into this country are but trifling, although a large amount of business is done with Paris and America.

Chip hats and plaiting are also produced at Modena, or rather Carpi, in its vicinity. Though commonly called "*paille de riz*," it is simply the wood of the willow cut into strips for the purpose of being plaited, and is of a most beautiful white. These "chip flats" are chiefly sent to Paris, where they are dressed in a peculiar manner, and shipped to all parts of the world. Some are shipped to England in their natural state, to be stripped and sown into white bonnets, and some, also, are dyed black and other colours. The art, it is said, was first introduced by Signor Corston, in 1803, and has been of great advantage to the small locality where it is carried on; but the returns, it is believed, cannot exceed from 15,000*l.* to 30,000*l.* per annum. The duty is the same as on straw plaiting, viz. 2*s.* per lb.

Panama hats have also been imported into England. They are made of a species of bleached grass grown in Central America, nearly quite white, of great tenacity, and very serviceable. They make a capital summer wear for men and boys. Those imported have, however, been mostly re-exported for Australia and the Continent. We subjoin—

An Account of the Weight and Value of the Straw Hats and Plaiting imported in 1857, specifying the Countries whence they came, and the Quantities and Values of those brought from each.

	Imports.	Entered for Consumption.	Value of Imports.
Hats or Bonnets of Straw.			
	Lbs.	*Lbs.*	£
From France	24,953	7,650	74,860
Tuscany	2,983	984	8,948
Saint Thomas	1,787	17	1,787
United States	17,936	361	17,936
New Granada	17,560	1	17,560
Other parts	2,235	357	5,209
	67,454	9,370	124,500
Plaiting.			
Holland	2,052	1,142	2,053
Belgium	3,409	3,088	3,409
France	154,789	124,529	154,789
Tuscany	4,852	3,187	4,852
China	1,051	53	92
United States	55,220	1,992	4,832
Other parts	1,755	819	1,712
	203,128	135,110	151,739

We are indebted for this learned and excellent article on Straw Hats to our friend Mr. Robert Slater, of Fore Street, London.

HAVANNAH, or HAVANA, on the north coast of the noble island of Cuba, of which it is the capital, the Morro castle being, according to Humboldt, in lat. 23° 8′ 15″ N., lon. 82° 22′ 45″ W. The population of the city and suburbs is said to be, at present (1859), little short of 200,000. In 1827, the resident population amounted to

94,023; viz. 46,621 whites, 8,215 free coloured, 15,347 free blacks, 1,010 coloured slaves, and 22,830 black slaves. The port of Havannah is the finest in the West Indies, or, perhaps, in the world. The entrance is narrow, but the water is deep, without bar or obstruction of any sort, and within it expands into a magnificent bay, capable of accommodating 1,000 large ships; vessels of the greatest draught of water coming close to the quays. The city lies along the entrance to, and on the west side of, the bay. The suburb Regla is on the opposite side. The Morro and Punta castles, the former on the east, and the latter on the west side of the entrance of the harbour, are strongly fortified, as is the entire city; the citadel is also a place of great strength; and fortifications have been erected on such of the neighbouring heights as command the city or port. The arsenal and dock-yard lie toward the western angle of the bay, to the south of the city. In the city the streets are narrow, inconvenient, and filthy; but in the suburbs, now as extensive as the city, they are wider and better laid out. Latterly, too, the police and cleanliness of all parts of the town have been materially improved.

From its position, which commands both inlets to the Gulph of Mexico, its great strength, and excellent harbour, Havannah is, in a political point of view, by far the most important maritime station in the West Indies. As a commercial city it also ranks in the first class; being, in this respect, second to none in the New World, New York only excepted. For a lengthened period, Havannah engrossed almost the whole foreign trade of Cuba; but since the relaxation of the old colonial system, various ports, such, for instance, as Matanzas, that were hardly known 40 years ago, have become places of great commercial importance. The rapid extension of the commerce of Havannah is, therefore, entirely to be ascribed to the freedom it now enjoys, and to the great increase of wealth and population in the city, and generally throughout the island.

The advance of Cuba, during the last half century, has been very great; though not more, perhaps, than might have been expected, from its natural advantages, at least since its ports were freely opened to foreigners, in 1809. It is at once the largest and the best situated of the West India islands. It is about 605 miles in length; but its breadth from north to south nowhere exceeds 117 miles, and is in many places much less. Its total area, exclusive of that of the numerous keys and islands attached to it, is about 33,000 square miles. The climate is, generally speaking, delightful; the refreshing sea breezes preventing the heat from becoming excessive, and fitting it for the growth of a vast variety of products. Hurricanes, which are so destructive in Jamaica and the Caribbee Islands, are here comparatively rare; and, when they do occur, far less violent. The soil is of very various qualities: there is a considerable extent of swampy marshes and rocks unfit for any sort of cultivation; but there is much soil that is very superior, and capable of affording the most luxuriant crops of sugar, coffee, maize, &c. The ancient policy of restricting trade to 2 or 3 ports, caused all the population to congregate in their vicinity, neglecting the rest of the island, and allowing some of the finest land and best situations for planting to remain unoccupied. But since a different and more liberal policy has been followed, population has begun to extend itself over all the most fertile districts, wherever they are to be met with. Still, however, only a very small proportion of the best land of the island is under cultivation, and its products and population might be doubled or trebled with the utmost facility. The first regular census of Cuba was taken in 1775, when the whole resident population amounted to 169,370 souls. Since this period the increase has been as follows:—

Years.	Whites.	Free coloured.	Slaves.	Total.
1775	94,419	30,615	44,336	169,370
1827	311,051	106,494	286,942	704,487
1841	418,291	152,838	436,495	1,007,624
1853	510,988	176,647	330,425	1,009,060
1857	549,674	174,810	374,549	1,107,491

To the above has to be added, 5,240 for *emancipados*, and 5,308 for Asiatic colonists. But it is alleged that both the slave and white inhabitants are underrated in this census, and that the population is, at present (1859), little, if at all, short of 1,450,000 or 1,500,000.

The rapid increase of the slave population down to 1841, is principally to be ascribed to the continued importation of slaves from Africa. In some years, after the peace of 1815, as many as 40,000 blacks are believed to have been imported into Cuba in a single year. Spain had indeed agreed by treaty in 1820 to abolish the trade; but this agreement was little better than a dead letter, and it is only since 1835, when a more efficient treaty with Spain was entered into, that the trade has sustained any considerable diminution. But though it be no longer continued under the Spanish flag, it is continued, though to a much less extent, under other flags. Recently not more than from 2,000

to 3,000 negroes are supposed to be annually imported. But it is doubtful what effect the objections made by the Americans to the right of visitation and search may have on the trade. If the mere hoisting of the American flag is to protect vessels from inquiry or molestation of any sort, an impunity will be provided for piracy, as well as the conveyance of slaves.

But though it were to be wished, as well for the interests of the island as of humanity, that the farther importation of slaves should be put a stop to, we are not of the number of those who think that it would be good policy rashly to agitate the question of the emancipation of slaves in Cuba. Their treatment in that island, as in all the other colonies of Spain, has always been singularly humane; and the results of their emancipation in Hayti and the British islands have not been such as to offer much inducement to the authorities in Cuba to take up this difficult question. It may, no doubt, be forced on their consideration: and the emancipation of so many slaves in their immediate vicinity will materially increase the difficulty of maintaining the existing order of things. Under these circumstances, good policy would seem to suggest that timely provision should be made for the gradual bringing about of that emancipation which is, perhaps, inevitable, coupling it, if that be practicable, with some scheme for insuring the supply of some sort of compulsory labour.

Whatever opinion may be formed of slavery in the abstract, we believe it would not be difficult to show that it has contributed, in no ordinary degree, to the rapid advancement of Cuba. Industry will always be proportioned to the strength of the motives by which it is occasioned; and in countries like Cuba, of great natural fertility and under a tropical sun, where a half or more of the articles indispensable in Europe would be useless, it were absurd to imagine that the inhabitants, supposing them to be free, should exhibit the persevering industry of free labourers in the temperate zone. The *dolce far niente* is in such countries the *summum bonum*; and we believe it will be found that the extensive cultivation of sugar, and of most other commercial products within the tropics, depends on the maintenance of slavery, or of compulsory labour of one kind or other. The people of England may be but little affected, at least directly, by these considerations, and may, therefore, on the principle of *fiat justitia, ruat cœlum*, think themselves warranted in using their influence to enforce the abolition of slavery wherever it exists. But to the Cubans, Brazilians, the inhabitants of the Southern States of America, and a host of others, this question is of the last importance. Were the slaves emancipated, not in law merely, but practically and in fact, the probability is that neither Cuba nor Brazil would, in a dozen years, export a single cwt. of sugar. Why should they do so any more than Hayti? The blacks, were they really emancipated, would be able to support themselves in that state in which they wish to live, without engaging in anything like the severe labour of sugar planting; and under such circumstances it would be a contradiction to suppose they should engage in it. But it might be difficult, perhaps, to show what good consequences would result from such a change. It is at all events clear that the commerce of the world and the comforts of all civilised nations would be seriously impaired; and it is by no means clear that the condition of the blacks would be sensibly, or at all, improved.

Besides slaves, the planters employ free labourers, mostly of an Indian mixed breed, who work for moderate wages. These, however, are little engaged in the fields, but in other branches of labour, and particularly in bringing sugar from the interior to the shipping ports.

The articles principally exported from Cuba are, sugar of the finest quality, coffee, copper ore, tobacco, bees' wax, honey, molasses, &c. Of these, the first is decidedly the most important. The following statements show the astonishing increase that has taken place in the exportation of this staple article.

Account of the Exportation of Sugar from Havannah, from 1786 to 1856.

From 1786—1790	68,150 boxes at 400 lbs.	=	27,260,000 lbs.
1800—1810	177,998	—	71,199,209
1810—1820	207,696	—	83,078,400
1820—1825	250,384	—	100,153,600
In 1830	292,732	—	117,092,800
1840	440,144	—	176,057,600
1845	267 595	—	107,038,000
1850	746,405	—	298,562,000
1855	965,677	—	396.270,800
1856	872,592	—	349,036,800

But the Havannah has long ceased to be, as it formerly was, the only port in the island for the exportation of sugar. The exports from Matanzas now usually amount to about a third part of those from the Havannah; and there is also a considerable export from Trinidad, St. Jago de Cuba, Cienfuegos, and other ports. In 1854 the entire exports from the island were reckoned at 1,685,000 boxes, of which 898,000, or about a half, were shipped from the Havannah. Now if we add to the official export, as we may safely do, 10 per cent. for the quantities exported without entry or payment of duty, the real export may be estimated at 1,853,500 boxes, equal to 781,460,000 lbs., or 353,000 tons. The consumption of

the Island may amount to 25,000 tons, making the total production 378,000 tons. And vast as this quantity is, it might be indefinitely increased, could supplies of labour be easily procured; but it is doubtful, supposing the slave trade were put down, whether it would be maintained at its present level.

Account of the Sugar exported from Cuba in each of the 5 Years ending with 1858.

Years.	Boxes.	Tons.	Hhds.	Tons.	Total Tons.
1854	1,238,959	235,402	180,034	116,722	352,124
1855	1,303,922	247,745	208,732	128,890	376,635
1856	1,114,543	211,763	237,765	146,822	358,585
1857	1,024,541	194,662	253,267	156,398	351,060
1858	1,184,375	225,125	243,739	150,510	375,635

Next to sugar, coffee was the most valuable vegetable production of Cuba. Its cultivation increased, for a while, with unprecedented rapidity. In 1800, there were but 80 plantations in the island; in 1817, there were 779; and in 1827, there were no fewer than 2,067, of at least 40,000 trees each! In 1804, the exportation from Havannah was 1,250,000 lbs.; in 1809, it amounted to 8,000,000 lbs.; from 1815 to 1820, it averaged annually 18,186,200 lbs.; and in 1827 it amounted to 35,837,175 lbs.! The exports from the other ports increased with equal rapidity. They amounted, in 1827, to 14,202,406 lbs.; making the total exportation for that year 50,039,581 lbs. But the subsequent low prices, or rather, perhaps, the greater attention paid to the culture of sugar, not only checked the further increase of the coffee plantations, but made several of them be abandoned. More recently, however, the increase in the price of coffee has occasioned a slight reaction, and the culture of coffee is again extending. The exports of it in 1854 amounted to 12,787,300 lbs., to which 10 per cent. may be added for deficient entries.

Tobacco differs much in quality; but the cigars of Cuba are esteemed the finest in the world.—(See TOBACCO.) Formerly, the culture and sale of this important plant were monopolised by government; but since 1821, this monopoly has been wholly relinquished, there being no longer any restrictions either on the growth or sale of the article. The cultivator pays a duty, which, however, is to a great extent evaded, of 1 per cent. *ad valorem* upon his crop. In consequence of the freedom thus given to the business, the culture and exportation of tobacco are both rapidly extending; so much so, that the value of the produce of tobacco is now (1858) more than four times the value of the coffee produced. Molasses, rum (tafia), wax, and honey, are also largely produced, and form important articles of trade.

Account of the Quantities and Values of the Principal Articles, the Produce of the Island, exported from Cuba, in each of the 5 Years ending with 1855.

Articles.	1851.		1852.		1853.		1854.		1855.	
	Quantities.	Value.	Quantities.	Value.	Quantities.	Value.	Quantities.	Value.	Quantities.	Value.
Spirits . pipes	9,221	$184,437	11,559	$229,437	14,294	$275,960	25,272	$518,603	31,214	$624,280
Sugar . boxes	1,519,994	22,998,477	1,409,012	20,153,002	1,661,188	23,718,015	1,675,753	25,757,062	1,905,580	27,120,153
Coffee . arrob.	575,119	575,098	759,526	759,569	442,750	522,756	511,493	511,573	475,399	475,399
Wax, bleached ,,	44,004	197,821	31,281	139,701	19,540	87,924	42,292	190,314	54,970	247,365
Molasses . hocoyes	518,428	1,968,455	262,593	1,628,641	303,331	2,037,125	261,815	1,653,058	256,100	1,619,293
Copper ore quint.	432,882	1,141,354	381,470	945,532	345,080	870,583	549,553	1,373,125	372,608	931,245
(Cigars) tobacco, manufactured . mille	270,315	2,684,345	180,610	767,414	237,350	975,139	251,313	1,013,579	356,582	1,118,836
Tobacco, in leaves . libras	9,406,591	1,176,697	9,737,443	1,001,166	8,039,797	859,248	9,809,150	890,511	9,921,711	777,275
Wood: mahogany . value	.	208,191	.	281,183	.	287,945	.	345,949	.	261,271

Account of the Quantities of the Principal Articles imported into Cuba in 1854.

Rice - - - -	lbs.	26,756,000	Liquids - - - - $2,736,874
Codfish - - - -	,,	15,532,500	Lard and butter - - - 1,197,643
Spanish flour - - - -	bbls.	281,397	Ironware - - - - 1,578,915
American flour - - - -	,,	7,237	Wood - - - - 2,102,807
Meats - - - -		$2,215,029	

In the same year (1855) the total value of the exports amounted to 34,802,826 dolls. In 1854 the value of the imports amounted to 31,394,578. During the same year, duties to the amount of 7,796,652 dolls. were collected from the imports, and 1,947,043 dolls. from the exports. The amount both of imports and exports has since materially increased.

The copper mines near Santiago and in other parts of the island, after having been abandoned for nearly a century, were reopened a few years ago, and are now worked, principally by Englishmen, with great vigour and success. The ore is one of the most valuable products of the island. It is mostly sent to England to be smelted. Of 97,099 tons copper ore imported into this country in 1858, 14,728 tons were from Cuba.

The imports into Cuba consist principally of corn, flour and grain of all sorts, with provisions, principally from the United States, cotton goods from the latter and England; wines from Spain and France; linens from the Hanse towns and England; hardware and metals from England; silks from France and Spain; gold and silver from Mexico; spices, fruits, dye-stuffs, lumber, haberdashery, &c.

Statement of the Foreign Arrivals at the Havannah for the 9 Years ending with 1858, distinguishing the American, Spanish, and English Flags. The rest of the trade is distributed about equally among French, Belgian, Dutch, Danish, Bremen, and Hamburg vessels:—

	American.		Spanish.		English.		French.		Other Nations.		Aggregate.	
	No.	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*	*No.*	*Tons.*
1858	958	392,572	653	151,627	161	74,121	25	12,662	79	46,432	1,949	679,815
1857	909	406,373	684	153,651	152	64,110	67	28,760	141	42,972	1,953	696,366
1856	883	384,752	652	159,534	131	59,013	62	20,133	152	38,993	1,815	662,426
1855	889	379,327	627	129,881	116	49,963	122	35,522	113	29,462	1,717	613,155
1854	903	356,998	571	111,823	129	59,556	69	18,790	127	30,027	1,782	557,186
1853	813	304,138	553	111,029	136	58,524	93	20,877	122	33,030	1,717	527,402
1852	750	308,120	578	114,538	143	55,427	52	12,538	124	29,732	1,647	520,196
1851	856	344,046	550	114,215	191	58,508	47	11,124	156	49,789	1,800	568,483
1850	634	298,299	541	107,250	164	65,156	51	12,466	152	40,337	1,542	423,468

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported to Cuba and Porto Rico, in 1855, 1856, and 1857, about ⅔ths being for Cuba.

Principal Articles.		Quantities.			Declared Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
Apparel, slops, and haberdashery	value	-	-	-	£19,515	£12,372	£29,074
Beer and ale	barrels	4,030	4,922	6,166	14,982	18,909	25,286
Coals, cinders, and culm	tons	95,967	65,531	111,565	47,951	32,847	52,730
Copper, wrought and unwrought	cwts.	5,686	9,586	8,939	37,616	57,982	58,043
Cottons, entered by the yard	yards	18,882,362	19,982,857	29,718,158	299,657	311,689	502,055
Earthenware and porcelain	value	-	-	-	32,366	35,060	56,455
Glass manufactures	,,	-	-	-	7,661	9,610	11,340
Hardwares and cutlery	cwts.	14,571	27,166	28,469	56,794	105,388	109,936
Iron, wrought and unwrought	tons	9,082	14,575	20,320	95,919	155,625	201,971
Linens, entered by the yard	yards	9,156,115	10,140,469	13,399,341	317,084	345,816	462,905
Machinery: steam engines	value	-	-	-	10,040	46,176	11,995
all other sorts	,,	-	-	-	22,628	75,209	103,922
Painters' colours	,,	-	-	-	11,420	13,865	11,809
Silk manufactures	,,	-	-	-	9,758	13,662	16,843
Tin plates	,,	-	-	-	6,427	9,155	8,143
Woollens: entered by the piece	pieces	6,224	9,752	22,303	18,340	27,554	59,975
by the yard	yards	137,629	391,127	948,129	6,658	20,544	29,472
Total values of the above and all other articles		-	-	-	1,077,745	1,398,837	1,865,667

Account of the Quantities of the Principal Articles imported from Cuba and Porto Rico into the U. K. in 1856 and 1857, about 3-4ths being from Cuba.

Principal Articles.		1856.	1857.
Cedar wood	tons	1,750	2,665
Coffee	lbs.	1,688	13,222
Copper ore	tons	19,856	16,352
Fustic	,,	863	694
Spirits: rum	gallons	269,293	77,207
Sugar, unrefined	cwts.	935,889	1,196,377
,, refined	,,	14,175	15,158
,, molasses	,,	624,572	556,714
Tobacco, unmanufactured	lbs.	637,337	624,698
,, manufactured, and cigars	,,	284,931	341,698
Wood and timber:			
Mahogany	tons	6,803	6,003
Sabrina wood, and other woods, for shipbuilding	loads	897	1,555
Spars	great hundreds	95	164
		£	£
Total computed values		2,654,580	3,471,353

The coastwise arrivals during 1857 were 3,640.

The admission of slave-grown sugar to our markets has considerably promoted our trade with Cuba. The U. States, however, engross the largest share of the trade of the island, a consequence in part of their proximity, but more of their supplying her with large quantities of flour, provisions, lumber, &c., and of their being principally indebted to her for their imports of sugar. The value of the exports from the U. States to Cuba in 1857-58 amounted to 17,673,167 doll., and that of the imports to 27,214,846 doll.

Slaves, though an important article of import, are not noticed in the above tables. We have already made some remarks on the numbers supposed to be annually introduced into the island.

Monies.— One dollar = 8 reals plate = 20 reals vellon. One doubloon = 17 dollars. The merchants reckon 441 dollars = 100*l.* or 1 dollar = 4*s.* 6*d.* very nearly. There is an export duty of 1⅛ per cent. on gold, and 2⅛ per cent. on silver. It is a curious fact that no description of paper money has ever circulated in Cuba.

Weights and Measures.— One quintal = 100 lbs., or 4 arrobas of 25 lbs.; 100 lbs. Spanish = 101¼ lbs. English, or 46 kilogrammes. 108 varas = 100 yards; 140 varas = 100 French ells or aunes; 81 varas = 100 Brabant ells; 108 varas = 160 Hamburgh ells. 1 fanega = 3 bushels nearly, or 100 lbs. Spanish. An arroba of wine or spirits = 4·1 English wine gallons nearly. A hogshead of sugar = 1,200 lbs.; a bag of coffee = 150 lbs.; a hogshead of molasses = 110 gallons; a pipe of tafia or rum = 120 gallons; and a bale of tobacco = 100 lbs.

The usual Commission charged by merchants on the sale of goods is 5 per cent., with a *del credere* of 2½ per cent. if the sales are on credit and guaranteed, and a further commission of 2½ per cent. for the return whether in bills or produce. On purchases the commission is ½ per cent., and a further 2½ per cent. if drawn for in bills of exchange. For procuring freight 5 per cent. is charged, and 2½ for insuring the amount. For advances of money the rate is 5 per cent. when no other commission is chargeable. Bill business is done at various rates, from 1 to 2½ per cent. according to its magnitude. These are the rates of the foreign houses; those of the Spanish and Creole merchants are generally higher. There is no obstacle whatever to the establishment of foreigners as merchants in the island. The law says that those who are naturalised in Spain may freely carry on trade with the same rights and obligations as the natives of the kingdom, and that those who have not been naturalised, or have a legal domicile, may still carry on trade under the regulations stipulated in the treaties in force between the respective governments; and in default of such conventional regulations, the same privileges are to be conceded as those enjoyed by Spaniards carrying on trade in the country of which such foreigners are natives. In practice, this last condition is not much attended to; as foreigners are allowed to establish themselves as merchants without any inquiry as to the rights and privileges enjoyed by Spaniards in the country they come from. As to manufacturers and mechanics, the only difficulty that can arise regards their religion. On entering the island every stranger is required to find security in the following terms:—"I am responsible and become security in every case for the person and conduct of A. B., arrived from C. in the ship D., binding myself to present him if called on by the government, and to conduct him at my expense to any place that may be designated." This security is easily obtained, and, in fact, encouragement is given to mechanics, and white people of all classes, to settle in the island. After landing it is only necessary to apply for a letter of domicile, and to present a certificate that the applicant is of a respectable character, and professes the Roman Catholic religion. Free coloured people, however, by a royal order of the 12th March, 1837, are prohibited from landing under any pretence whatever; and so rigorously is this order enforced, that such persons, though acting as seamen, are, on their arrival, taken out of the vessels in which they have come, and are kept in custody until her departure, when they are compelled to proceed again on board and leave the island. The business of a broker is exercised under a royal licence, and no foreigner is eligible to the office unless naturalised in the form prescribed by law. In every commercial town a certain number only is allowed, corresponding with the population and trade of the place. In the great cities, the business of merchant is often combined with that of planter; and sometimes, also, the importing merchant keeps a shop or store, where he sells his goods by retail. The foreign merchants are generally regarded as transient visitors, who go there for the purpose of accumulating such a fortune as may enable them to live with some degree of comfort in their own country. As a class they are not considered wealthy, but they are almost all in the full enjoyment of credit. The mercantile capital, as well as the proprietary wealth of the island, may be said to be concentrated in the hands of the Creoles. When the emigrants from the Peninsula make fortunes in the island, they seldom think of returning to Europe.

Customs Duties in 1848.—The tariff of Cuba, like that of Spain, is exceedingly complex, being divided into a great many classes, and embracing a vast number of articles, many of which are of very trifling importance. All, or almost all, the articles of import are valued in the tariff at certain fixed rates, upon which the duties are charged at so much per cent. Hence, when the fixed or tariff prices exceed the real prices of the goods the duties are proportionally increased; and conversely when the tariff prices are under the real prices. The duties vary from

per cent.

3½ to 27½ on go ds by foreign vessels from foreign ports.
23½ to 19⅛ on foreign goods by Spanish vessels.
17½ to 14½ on Spanish produce from Spain by foreign ships.
7⅛ on Spanish produce by Spanish vessels, and only
3½ if Rice. A balance duty of 1 per cent. is added to all but the 7⅛ and 3½ per cent. duties.

The principal exception to the above rule is in the case of flour, which pays a fixed duty of

2·00 Dolls. per brl. per Spanish ship } from Spain.
·6·75 - - per Foreign ship }
8·58 - - per Spanish ship } from other parts.
9·59 - - per Foreign ship }

Had Spain been able to supply Cuba with flour as cheaply as other countries this high discriminating duty in favour of Spanish flour would have been of comparatively little importance. But such is not the case. Cuba derives nine tenths of her supply of flour from the U. States, principally from New Orleans; so that the discriminating duty is the most oppressive and impolitic that can be imagined. We are surprised it is submitted to. Ploughs, furnace-mouths, grate-bars, crown-wheels, shafts, rollers, sugar-bowls, skimmers, steam-engines, and other such articles for sugar estates; also mares, stallions, and asses, are exempted from duty.

Special concessions have also been made in favour of the Gas Company, &c., which pays only 7½ per cent. on imports.

We subjoin a note of the duties on the principal articles of export, according to the tariff of 1848.

Articles.		Denomination.	Foreign Ships.	Spanish Ships.
			Cents.	*Cents.*
Cigars	per	Mille.	90	50
Cocoa	—	Arrob.	18	10 to 8
Coffee	—	Qtl.	20	12
Copper ore	—	-	9	9
Hides in the hair	—	One.	11	5 to 6
Honey	—	Hhd.	1·37	76 to 57
Molasses	—	do.	Free.	Free.
Rum	—	Pipe.	—	—
Sugar	—	Box.	37	27·5
Tobacco	—	Ql.	1·50	·75
Wax, white	—	Arr.	33	18 to 14
yellow	—	—	22	12 to 9

But a new or supplementary tariff, issued in 1850, provides as follows: viz.

Art. 1. augments the duties upon all articles of foreign importation at 1½ per cent.

Art. 2. increases one-seventh the impost upon national imports.

Art. 3. increases the export duty upon each box of sugar 50 cents, which makes now 87½ cents per box.

Art. 4. increases 25 cents upon each quintal of leaf tobacco imported.

Art. 5. increases 25 cents upon every 1,000 cigars, making 75 cents per 1,000 export duty.

Art. 6. Spanish flour to pay one-seventh additional to the duty now paid.

Art. 7. This extraordinary exaction will continue in force two years.

Goods in deposit, withdrawn for consumption, will be subject to the same duties, at and after the period above designated.

For the better comprehension of dealers, and to facilitate the tax upon national commerce, the impost will be 1 per cent. direct upon the custom dues, as equivalent to the 1-7th addition, and upon Spanish flour, 25 per cent. per bbl.

The usual 1 per cent. upon the total of the custom duties is still retained.

Customs Regulations. — Every ship-master is bound to have on his arrival ready for delivery to the boarding officers of the revenue, a manifest, containing a detailed statement of his cargo and ship stores, and in the act of handing it over, has to write thereon an oath, that he has no other cargo on board, and the hour when he delivers it, taking care that it be countersigned by the boarding officers. Within 12 hours, which begin to count from the moment he delivers such manifest until 7 o'clock in the evening, and again from 6 o'clock in the morning until the moment the said 12 hours elapse, he can make any alteration by *presenting a separate note* in which he specifies the errors he may have committed in the manifest. After the expiration of these 12 hours no alteration will be permitted. *Goods not manifested* will be confiscated without remedy; and if their value should not exceed 1,000 dollars, the master of the vessel will be liable to pay a penalty of double the amount of such non-manifested goods; if they exceed that sum, and belong to the master or come consigned to him, his vessel, freight, and other emoluments will be forfeited to the revenue. *Goods over manifested* will pay duties as if they were on board. *Goods not manifested, but claimed in time by a consignee,* will be delivered up to the latter, but the master in this case will be subject to a fine equal in amount to that of such goods. *Gold and silver* not manifested by either master or consignee, are liable to a duty of 4 ⅜ cent. *Goods falling short* of the quantity manifested, when landed, and not being included in any invoice of consignee, will render the master liable to a penalty of 200 dollars for each package so falling short. *Every master* must present himself, within 24 hours after his arrival, at the Custom-house, in order to swear to his manifest, in neglect of which he is liable to a fine of 1,000 dollars. *Every consignee* is obliged to present a detailed note of goods within 48 hours after the arrival of a vessel; if not, such goods are liable to 2 ⅜ cent. extra duty; the same is the case if such notes do not contain a statement of the number of pieces, contents, quantity, weight, and measure. Every vessel is required to bring a bill of health certified by the Spanish consul at the port of her departure, or that nearest to it, otherwise they are placed in quarantine.

Tonnage Duties on foreign ships 12 rs. per ton; on Spanish ships, 5 rs. per ton.

Port Charges on a Vessel of 240 tons, arriving in the Havannah in Ballast, and taking away a Cargo.

	If Foreign.		If Spanish.	
	Dolls.	*Cts.*	*Dolls.*	*Cts.*
Captain of port in and out	6	0	6	0
Health visit, ½ real per ton	10	0	5	0
Interpreter's fee	2	0		
Translation of manifest, in ballast	2	0		
Governor's fee	2	0	2	0
Moro light	4	0	4	0
Tonnage duty, $1½ and 1 per cent.	363	60	151	50
Mud machine, 1½ rs. and 1 per cent.	52	50	52	50
Wharfage and stage hire, 10 rs. per 100 tons per day of the vessel's being at the wharf.				
Custom-house visit on entry outwards, clearing visit, annotation fee, stamp paper, &c., about	34	0	34	0
Bill of health and certificate	8	0	8	0
Lighterage, 10 cts. a box, say on 1,600 boxes	160	0	160	0
Consul's fees, about	4	0		
Pilotage (if a pilot be called)	10	0	10	0
Fees whilst discharging ballast, $1 per day, say 5 days	5	0	5	0
Hoisting and stowing cargo, 8 cts. per box	128	0	128	0
Stamps and boat hire	8	90	8	90
	800	0	574	90
Commission for advice and trouble, 2½	20	0	14	37
	820	0	589	27

If the vessel arrive and sail in ballast, or without breaking bulk, she avoids the health visit, Moro light, tonnage, and mud engine dues. If she bring cargo, the translation of manifest is more, according to its length, wharfage dues are incurred for the time of discharge, and the tidewaiters charge $5½ for each day. Vessels taking entire cargoes of molasses pay no tonnage duty.

In compiling this article, we have consulted Humboldt's *Essai Politique sur l'Ile de Cuba*, Paris, 1826; and the Supplement (*Tableau Statistique*) thereto, Paris, 1851; *Geog. Dict.* arts. *Cuba* and *Havannah*; the *Balanza Mercantil* for various years; *private communications* from Cuba; and papers laid before parliament.

HAVRE, OR HAVRE DE GRACE, a commercial and strongly fortified sea-port town of France, on the English channel, near the mouth of the Seine, on its northern bank, lat. 49° 29′ 14″ N., lon. 0° 6′ 38″ E. Population, in 1851, 28,954, to which may be added 5,000 or 6,000 more for the crews of the shipping constantly in the port. It was a saying of Napoleon that "*Paris, Rouen, Le Havre, ne forment qu'une seule ville, dont la Seine est la grande rue.*" Havre being, in fact, the sea-port of Paris, most of the colonial and foreign products destined for its consumption are imported thither. Nearly double the quantity of goods, estimated by weight, is annually imported at Marseilles; but the total value of the imports at Havre amounts very nearly to that of those at the former port. The principal imports are cotton, sugar, coffee, linen thread and linen goods, rice, indigo, tobacco, hides, dyewoods, spices, drugs, timber, iron, tin, dried fish, &c.: grain and flour are sometimes imported and sometimes exported. The principal exports are silks, woollen and cotton stuffs, lace, gloves, and shoes, trinkets, perfumery, champagne and other wines, brandy, glass, furniture, books, &c.

The Harbour, which is the best and most accessible on this part of the French coast, consists of 3 basins separated from each other and from the outer port by 4 locks, and capable of accommodating about 450 ships. A large body of water being retained by a sluice, and discharged at ebb tide, clears the entrance to the harbour and prevents the accumulation of filth, sand, &c. Cape de la Heve, forming the northern extremity of the Seine, lies N.N.W. from Havre, distant about 2½ miles. It is elevated 390 feet above the level of the sea, and is surmounted by 2 lighthouses 50 feet high. These, which are 325 feet apart, exhibit powerful fixed lights. There is also a brilliant harbour-light at the entrance to the port, on the extremity of the western jetty. Havre has 2 roadsteads. The greater or out road is about a league from the port, and rather more than ⅓ league W.S.W. from Cape de la Heve; the little or inner road is about ½ league from the port, and about ¾ of a mile S.S.E. from Cape de la Heve. They are separated by the sand bank called Leclat; between which and the bank called *Les Hautes de la Rade* is the north-west passage to the port. The Hoc, or southern passage, lies between the last mentioned bank and that of Amfar. In the great road there is from 6 to 7½ fathoms water at ebb; and in the little, from 3 to 3½. Large ships always lie in the former. The rise of the tide is from 22 to 27 feet: and by taking advantage of it, the largest class of merchantmen enter the port. The water in the harbour does not begin per-

ceptibly to subside till about 3 hours after high water,—a peculiarity ascribed to the current down the Seine across the entrance to the harbour being sufficiently powerful to dam up for a while the water in the latter. Large fleets, taking advantage of this circumstance, are able to leave the port in a single tide, and get to sea, even though the wind should be unfavourable.—(See *Plan of Havre*, published by Laurie; *Annuaire du Commerce Maritime; Coulier sur les Phares*, p. 59, &c.)

The Chamber of Commerce of Havre have recently published the following information and instructions for the use of vessels frequenting the port:—

"Five buoys have been moored in the shallows Ruvun, under the designation of the Banc de l'Eclat, and Hautes de la Rade.

"These buoys are similar in form, but of different colours, viz.: The first to the northward is white; the second, white with a black top; the third is black; the fourth is black with a white top; the fifth is red.

"Vessels must always come to anchor at a distance of at least five cables' length outside the line of these buoys, which they may not pass without danger before one hour and a half prior to high water, or four hours after ebb; and they must at all times pass at a distance of five cables' length from the black as well as from the red buoy, both of which are moored on the shallowest parts of these banks. Nevertheless ships may at all hours of the tide frequent the north-western passage, comprised between Cape La Heve and the two northernmost buoys.

"All vessels using the north-western passage, and bound into the inner roadstead (Petit Rade), must steer for the white buoy, the farthest north and after leaving it a little distance on the starboard hand, should then stand towards the second white buoy, taking care never to come so close to the shore as altogether to lose sight of the lantern of the northernmost lighthouse on Cape La Heve. When the light of the north-western pier head bears by compass S.E. and the lighthouses on the Heve bear by compass N.N.E., the ship may be brought to an anchor.

"Besides the five buoys herein described, one of lesser dimensions has been moored on the shallows of the inner roadstead, at about five cables' length W.N.W. of the north-west pier head. Vessels of light draught of water coming to an anchor in that part of the road, should give this buoy an offing of at least one cable's length."

Most part of the goods imported into Havre are destined for the internal consumption of France. The coasting trade has increased very largely of late years, as is proved by the great increase of French wines, soaps, and other produce imported at Paris from Havre, instead of being sent to the capital by land. The coasting vessels transfer their cargoes partly to steamers and partly to large barges, called *chalands*, which are towed by steam tugs as far as Rouen, and thence by horses to Paris. The foreign trade of the port is also very extensive. There annually enter the port about 800 ships from parts out of Europe. Lines of sailing packets are established between Havre and New York, New Orleans, &c. A regular intercourse by means of steam packets is kept up with London, Southampton, and other ports. The entrances to the basins are too narrow to admit the passage of the largest steamers, which have, in consequence, to remain in the outer port imperfectly sheltered from the winds. Indeed the port is at present inadequate to the proper accommodation of the great and growing trade of which it is the centre, and extensive works have been undertaken for its improvement.

There belonged to the port, on the 31st December, 1857, 426 sailing vessels of the aggregate burden of 121,257 tons, and 67 steamers, aggregate burden 13,615 tons. The customs duties which in 1837 produced 18,123,993 francs, had increased in 1857 to 43,856,000 francs.

The Monies, Weights, and Measures of Havre are the same as those of the rest of France; for which see arts. BORDEAUX, COINS, and WEIGHTS AND MEASURES.

Pilotage.—From the outer roadstead 28 francs per 1st 100 tons; 25 fr. 2nd do.; 23 fr. 3rd do.; and the pilot to be fed. If the vessel be boarded nearer the port the charge is lessened accordingly. Boats from 9 to 30 frs. according to the distance.

Port Charges.—With coals, 75 cent. per ton in dock; 37½ do. in harbour. General cargo, 2 fr. 50 c. if in dock; 1 fr. 65 c. if in harbour. Salvage dues, 5 cent. and 10 per ct. Tonnage do. 66¾ cent. and 10 per ct. No charge for lights, buoys, or beacons.

Ballast delivered along side.—Clean, 1 fr. 95 c. per ton; common do. 1 fr. 14 c. do. The ton of clean ballast may be estimated to weigh about 15 or 16 cwt. The ton of common ballast, about 20 cwt.; a cart marked ½ metre is one ton; a cart marked 1 metre is two tons. Cost of removal of ballast landed from ship, 64 c. per ton, without distinction of quality.

Harbour Rules.—1. It is forbidden to have fire, or lighted candle, or to smoke on board ships in the harbour.

2. Vessels coming into and lying in the docks must have the lower and topyards topped up, jibbooms and martingales rigged in, and anchors taken in. The wharf alongside the vessel must be swept every evening.

3. No gunpowder (whatever may be the quantity) is allowed to remain on board, and must be deposited in the gunpowder warehouse.

4. All foreign sailors found away from their ships after 10 o'clock at night, from the 1st of April to the 1st of October, and after 9 o'clock from the 1st of October to the 1st of April, shall be conveyed to prison and fined. Sailors are forbidden to wear sheathing knives ashore.

5. The manifest of the cargo, signed by the captain, must be exhibited to and signed by the custom-house officers before being taken ashore. The vessel must be reported at the custom-house within 24 hours after arrival.

6. Tobacco, snuff, segars loose or in boxes, belonging to the captain, officers and mariners, to be declared as exactly as possible. All the tobacco, snuff and segars declared or not declared, to be exhibited to the custom-house officers when they come and make the visit on board. After such exhibition, if any quantity of tobacco and segars be found on board, it shall be seized, the captain shall be condemned to pay a fine which may be as high as 500 francs, and the ship shall be confiscated.

PORT CHARGES.—Charges on a British Vessel from England or an English Possession.

Pilotage in	28 fr. for the 1st hundred tons 25 fr. for the 2nd hundred tons 23 fr. for the 3rd hundred tons, and above	Tonnage dues	*f. c.* 0 66¾ per ton and 10 per cent 0 37½ per ton harbour dues 0 75 per ton dock dues 1 65 per ton harbour dues with other cargoes 2 50 per ton dock dues with other cargoes 0 5 per ton salvage duty, & 10 per cent. 1 25 stamps
Boats of help in	1¼ per cent. for the head pilot 24 fr. outside the banks 12 fr. outside the piers 9 fr. in the harbour		for vessels with coals only and 1-20th of their cargoes with bricks or grindstones From 3 fr. 85 c. to 18 fr. 15 c. for clearances according to his tonnage
Weighing anchors	*f. c.* 2 50 per each cwt.	Pilotage out	One-third of the pilotage in if the vessel is in ballast One half of the pilotage in if the vessel takes goods
Weighing chains	0 50 ditto and one third more if there be no buoy rope	Protest before the court	9 5
Haulers	0 30 per man, besides 1 fr. 50 c. for the hawsers	Affirmation before the court	5 50
Bridges	3 60 for each bridge	Gunpowder shipped and unshipped	8 0
Ballast unshipped	0 64 per half mètre	Brokerage in	0 50 per ton of goods landed
Ballast shipped	1 14 per half mètre for sand 1 95 per half mètre for clean ballast	Brokerage out	0 25 per ton of goods shipped
Board of health	2 50 for a vessel of 50 tons measurement and under (From Europe) 5 0 for a vessel of 51 tons measurement and above 10 0 for a vessel from other countries	Brokerage on ballast	0 12 per ton of goods measurement

Imports and Sales of Coffee at Havre, during the 5 Years ending with 1857.

Years.	Imports.	Sales.	Stock on 31st December.
	Kilog.	*Kilog.*	*Kilog.*
1854	12,600,000	11,500,000	1,800,000
1855	13,500,000	13,000,000	1,200,000
1856	16,600,000	14,600,000	3,000,000
1857	23,000,000	18,500,000	7,500,000
1858	11,700,000	17,400,000	2,000,000

Summary Account of the Commerce of France for 1855, 1856, and 1857, from the *Annales du Commerce Exterieur*, July, 1858.

IMPORTS. (Special Commerce.)

Articles.	Quantities.			Values in millions of fr.		
	1855.	1856.	1857.	1855.	1856.	1857.
Beasts, oxen and calves - - head	114,070	101,331	99,102			
— sheep and lambs - - —	314,419	335,272	395,438	57·9	56·0	52·9
— others - - - —	196,907	174,032	184,786			
Wines - - - - hect.	417,103	542,476	628,446	29·4	27·7	46·2
Brandy and other spirits - - —	202,888	177,716	377,170	24·2	26·1	37·9
Cereals, grain - - - —	5,593,735	8,364,017	5,437,894	122·7	303·3	116·2
— flour - - - q. met.	284,900	851,647	113,101			
— rice - - - - —	328,934	685,245	971,251	17·7	34·5	30·6
Cotton wool - - - - —	761,563	842,307	739,620	121 1	146·6	148·4
Sugars, of French colonies - - —	907,473	935,310	849,618	62·3	77·6	87·0
— of Foreign countries - - —	596,549	528,994	512,790	37·1	29·3	45·1
Coffee - - - - - —	267,406	232,221	279,974	34·3	32·5	41·5
Tea - - - - - —	1,832	1,976	2,338	0·7	1·5	1·8
Cocoa - - - - - —	44,891	41,471	34,129	6·7	7·1	6·5
Pepper - - - - - —	19,479	22,042	21,456	2·7	3·2	2·6
Thread, cotton - - - - —	379	565	512	0·9	0·9	0·8
— hemp and flax - - —	6,279	7,984	10,244	2·4	3·0	3·0
Oleaginous grains, linseed - - —	236,373	195,190	121,725	9·5	7·8	4·4
— others - - - —	335,727	511,587	677,956	14·6	21·8	28·9
Coal - - - - - —	38,171,514	39,135,197	42,057,514	89·3	85·0	80·3
Oil of olives - - - - —	244,562	191,714	182,481	20·9	24·8	22 6
Wool in the gross - - - —	335,353	489,836	377,192	68·9	128·7	116·5
Machinery and machines - - —	22,940	41,839	50,379	3·5	6·1	7·6
Metals, iron in pigs - - - —	1,182,096	1,272,724	947,407	20·1	22·9	17·1
— iron in bars - - - —	516,105	686,967	229,577	13·2	17·5	6·4
— copper - - - - —	117,518	91,939	110,037	37·7	29·9	36·1
— lead - - - - - —	239,429	259,886	204,785	14·4	15·1	12·9
— zinc - - - - - —	256,050	191,591	254,992	15·9	12·4	17·8
Nitrate of potass - - - —	37,359	18,867	36,226	3·4	1·7	4·5
— soda - - - - —	67,166	61,743	95,509	5·7	5·4	5·3
Silk, raw - - - - - —	13,454	17,210	17,285	67·1	105·0	141·1
— organzined - - - —	11,592	12,616	8,953	81·1	102·2	77·9
— waste - - - - —	11,422	12,207	10,513	15·0	19·5	19·1
Indigo - - - - - —	11,547	10,324	10,305	19·1	16·5	18·5
Cochineal - - - - - —	1,876	2,862	1,987	1·9	3·0	2·1
Fabrics of flax and hemp - - —	8,745	10,694	10,254	3·8	5·4	5·4
Other articles - - - - —	-	-	-	521·9	612·2	645·5
Totals - - -	-	-	-	1,594·1	1,989·8	1,872·9

EXPORTS. (Special Commerce.)

Articles.	Quantities.			Values in millions of fr.		
	1855.	1856.	1857.	1855.	1856.	1857.
Beasts, oxen and calves - - head	18,817	18,741	24,033			
— sheep and lambs - - —	55,788	55,190	56,872	13·7	14·8	15·2
— others - - - —	42,104	52,891	66,595			
Wines - - - - hect.	1,214,977	1,224,918	1,124,474	167·9	205·2	159·1
Spirits, brandy and alcohol - - —	159,869	197,556	170,147	41·3	65·0	55·1
Cereals, grain - - - - —	28,723	196,863	249,357	6·2	7·6	10·2
— flour - - - q.met	100,783	88,768	148,052			
Hemp and flax - - - - —	3,005	11,172	21,347	0·3	1·3	2·4
Thread, cotton - - - - —	2,552	2,594	4,836	0·7	0·8	1·8
— hemp and flax - - - —	1,581	2,050	2,084	0·6	0·9	1·1
Madder - - - - - —	163,005	160,693	120,256	14·5	17·1	15·4
Books, engravings, and music - - —	17,120	20,461	21,561	16·9	20·0	18·9
Machinery and machines - - - —	34,257	34,123	37,160	3·9	4·4	4·9
Furniture - - - - franc.	-	-	-	5·2	7·4	8·3
Articles de la mode - - - —	-	-	-	6·3	8·8	7·8
Cast articles in iron, copper, lead, tin, zinc, &c. - - - q.met.	105,018	118,778	129,110	48·7	40·9	41·2
Paper - - - - - —	73,830	83,816	88,550	12·5	14·3	15·0
Skins, tanned - - - - —	41,078	42,981	44,610	35·9	44·1	51·0
— wrought, gloves, &c. - - —	18,258	23,036	25,356	51·5	70·3	82·0
Soap - - - - - —	75,210	78,515	66,854	6·0	6·7	5·7
Sea salt and rock salt - - - —	1,171,784	2,295,779	1,478,159	2·1	4·0	2·6
Silks, plain - - - - —	5,526	5,496	4.455	26·1	35·9	35·5
— coloured - - - - —	426	436	311	2·6	3·5	2·8
Sugar, refined - - - - —	322,656	357,662	339,799	25·8	35·8	32·6
Fabrics of flax or cloths - - —	21,891	19,966	26,757	9·0	7·9	11·4
hemp - cambrics and lawns —	573	537	448	8·8	8·2	5·2
— wool - - - - —	55.710	62,773	63,256	159·7	184·8	178·8
— silk - - - - - —	26,754	29.220	27,232	367·9	455·4	434·7
— cotton - - - - —	97,465	90,879	90,254	74·1	72·1	68·4
Crystals, and other articles of glass - —	299,762	304,901	306,032	16·5	18·7	20·0
Porcelain and pottery - - - —	86,761	110,197	120,527	8·8	11·4	11·6
Other articles - - - - —	-	-	-	436·3	529·8	567·2
Totals - - -	-	-	-	1,557·9	1,893·1	1,865·9

Imports of Wool into Havre during the 5 Years ending with 1858.

	1854.	1855.	1856.	1857.	1858.
Wool from La Plata -	2,100 *bales*	3,100 *bales*	4,000 *bales*	3,500 *bales*	8,800 *bales*
„ „ Australia and South Sea -	1,100	3,000	2,100	6,300	6,600
„ „ other countries - -	100	900	800	1,200	1,500
Sheep skins - -	600	1,500	900	1,100	1,500
Total imports -	3,900	8,500	7,800	12,100	18,400
Wool in store - -	4,600	9,000	12,000	30,000	19,000

Imports of Colonial Sugar into France, in Tons of 1000 Kilog.

Years.	Guadaloupe.	Martinique.	Réunion.	Cayenne.	Total.
1847	40,300	32,100	24,800	2,300	99,500
1854	22,000	24,300	35,700	"	82,000
1855	21,000	18,500	48,900	600	89,000
1856	21,600	26,500	57,000	200	95,400
1857	18,500	22,300	51,000	300	92,100
1858	27,500	28,500	52,000	"	108,000

Consumption of Sugar in France, in Tons of 1000 Kilog. in 1856, 1857, 1858.

	1856.	1857.	1858.
Native sugar (beet root)	78,000	78,000	125,000
Sugar of the French colonies	94,000	85,000	115,000
" of other colonies	33,000	51,000	38,000
	205,000	214,000	278,000
Deduct refined sugar exported	36,000	35,000	52,000
Remains for consumption	169,000	179,000	226,000

Imports of Indigo into France during the 5 Years ending with 1858.

	1854.	1855.	1856.	1857.	1858.
Bengal	5,417 *chests*	5,902 *chests*	8,773 *chests*	8,231 *chests*	4,582 *chests*
Java	589	736	686	326	171
Madras, &c.	1,733	1,903	4,191	3,344	3,980
Other sorts	"	30	271	269	1,114
	7,539	8,571	14,221	12,170	9,847

The following Table shows the Progress of the Consumption of Cotton in Europe and the United States during the 10 Years ending with 1858.

Years.	England.	France.	Other European countries.	Total in Europe.	United States.	Total Consumption.
	Bales.	*Bales.*	*Bales.*	*Bales.*	*Bales.*	*Bales.*
1849	1,586,000	390,000	550,000	2,526,000	518,000	3,044,000
1850	1,613,000	346,000	500,000	2,459,000	487,000	2,864,000
1851	1,662,000	357,000	550,000	2,569,000	404,000	2,973,000
1852	1,911,000	439,000	650,000	3,000,000	603,000	3,603,000
1853	1,854,000	451,000	700,000	3,000,000	671,000	3,676,000
1854	1,949,000	400,000	600,000	2,949,000	610,000	3,559,000
1855	2,100,000	427,000	600,000	3,127,000	594,000	3,721,000
1856	2,265,000	450,000	725,000	3,440,000	653,000	4,093,000
1857	1,960,000	384,000	650,000	2,994,000	702,000	3,696,000
1858	2,174,000	395,000	680,000	3,249,000	452,000	3,701,000
Average of 10 years	1,897,000	404,000	620,000	2,921,000	569,000	3,493,000
Average of 5 years, 1849-53	1,705,000	396,000	590,000	2,690,000	536,000	3,236,000
Average of 5 years 1854-58	2,089,000	411,000	651,000	3,152,000	602,000	3,750,000
Increase per cent. of consumption in 5 years	22·52	3·78	10·33	17·17	12·30	15·88

Of the imports of cotton into France 9-10ths are effected *via* Havre.

Ships entered at the Port of Havre.

Years.	Ships from Foreign Voyages.	Great Coasting Trade.	Petty Coasting Trade.	Total Ships.	Total Tonnage.
1849	517	1,196	2,520	4,163	545,770
1850	478	1,328	2,700	4,506	572,062
1851	485	1,451	2,790	4,726	622,288
1852	621	1,336	2,861	4,818	665,264
1853	580	1,707	3,275	5,562	773,820
1854	697	1,559	3,527	5,783	837,894
1855	761	1,832	3,526	6,119	808,741
1856	778	1,903	3,951	6,632	1,032,496
1857	715	1,906	4,362	6,983	1,056,168
1858	713	1,799	4,160	6,672	1,050,465

Customs Duties at Havre, Marseilles, Nantes, and Bordeaux, in 1847, 1850, 1855, and 1857.

Years.	Havre.	Marseilles.	Nantes.	Bordeaux.
1847	26,012,000 *fr.*	34,742,000 *fr.*	15,918 000 *fr.*	14,957,000 *fr.*
1850	26,111,000	32,530,000	11,498,000	12,047,000
1855	48,858,000	37,813,000	24,687,000	18,141,000
1857	43,856,000	34,912,000	29,676,000	17,812,000

The total customs-revenue collected in 1857 at these and other collectorates amounted to 221,196,210 fr., of which Havre contributed 20 per cent.

Prices of Commodities, Duty paid and in Bond, Duties, Tares, Commercial Allowances, &c. — These important particulars may be learned by the inspection of the subjoined Price Current for the 9th of February, 1859. The duties on some of the articles mentioned in it will, most probably, at no very distant period, be varied. But the other particulars embodied in it will always render it an important document.

	Duty paid. Fr. ct.	Fr. ct.	In Bond. Fr. ct.	Fr. ct.
Ashes, per 50 kil.				
Pot, New York	40 0 to 41 0		0 0 to 0 0	
do. Casan	35 0 - 38 50		0 0 - 0 0	
Pearl, American	42 50 - 43 0		0 0 - 0 0	
Duty on nett weight: by French vessels from European ports, 6 fr.; from elsewhere 3 fr. 60 ct. By foreign vessels, 7 fr. 20 ct.—(See exceptions at Note A.)				
Commercial and Custom-house tare: 12 per cent.				
Bees'-wax, per ½ kil.				
North America yellow	2 35 to 2 40		0 0 to 0 0	
East India - fair	2 34 - 2 35		0 0 - 0 0	
Hayti	2 25 - 2 30		0 0 - 0 0	
Duty on gross weight: brown and yellow, by French vessels from any port whatever, 1 fr. 20 ct. By foreign vessels, 9 fr. per 100 kil.—(See Note A.)				
Commercial tare: real.				
Cochineal, per ½ kil.				
silver from ord. to fine	5 0 to 5 75		0 0 to 0 0	
black, ditto	5 50 - 6 50		0 0 - 0 0	
Duty on nett weight: by French vessels from places out of Europe, 50 ct.; from elsewhere, 60 ct. By foreign vessels, 90 ct.— (See Note A.)				
Custom-house tare: in casks, 12 per cent.; in seroons, 2 per cent.				
Commercial tare: real.				
Cocoa, Caraccas, per ½ kil.	0 0 to 0 0		1 0 to 1 36	
St. Domingo	0 0 - 0 0		0 44 - 0 45	
Maranham and Para	0 0 - 0 0		0 69 - 0 70	
Trinidad	0 0 - 0 0		0 61 - 0 62	
Duty on nett weight: by French vessels from the French colonies, 24 ct.; from countries west of Cape Horn, 30 ct.; from European ports, 39 ct.; from elsewhere, 53 ct. By foreign vessels from any port whatever, 63 ct.—(See Note A.)				
Custom-house tare: on casks, 12 per cent; on bags, 2 per cent.				
Commercial tare: on casks, real; on bags, 2 per cent.				
Coffee, per ½ kil.				
St. Domingo, from ordinary to fine	0 0 to 0 0		0 63 to 0 66	
Porto Rico	0 0 - 0 0		0 72 - 0 82	
Havannah, ordinary to fine	0 0 - 0 0		0 62 - 0 70	
Laguayra and Porto Cabello	0 0 - 0 0		0 65 - 0 82	
Rio, ordinary to fine	0 0 - 0 0		0 52 - 0 83	
Java	1 22 - 1 28		0 0 - 0 0	
Ceylon, native	1 15 - 1 18		0 0 - 0 0	
Do. plantation	1 25 - 1 45		0 0 - 0 0	
Padang and Sumatra	1 20 - 1 26		0 0 - 0 0	
Mocha	1 40 - 1 50		0 0 - 0 0	
Duty on nett weight: by French vessels from the East Indies, 46 8-10 ct.; from European ports, 60 ct.; from elsewhere, 57 ct. By foreign vessels from any port whatever, 63 ct.—(See Note A.)				
Custom-house tare: on casks, 12 per cent.; on bags, 3 per cent.				
Commercial tare: on casks, real; on bags, 2 per cent; on Mocha coffee the tare runs from 4½ to 12½ kil. upon bales of 75 to 200 kils.				
Copper, America, per ½ kil.	1 40 to 1 45		0 0 to 0 0	
Russian and British	1 38 - 1 44		0 0 - 0 0	
Duty on gross weight: by French vessels from European ports, 1 2-10 ct.; from elsewhere, 60 ct. By foreign vessels from any port whatever, 1 8-10 ct.—(See exceptions at Note A.)				
Commercial tare: real.				
Cotton, per ½ kil.				
Upland	0 86 to 1 15		0 0 to 0 0	
Mobile	0 87 - 1 20		0 0 - 0 0	
New Orleans	0 87 - 1 25		0 0 - 0 0	
Sea Island	1 15 - 3 0		0 0 - 0 0	
Pernambuco	0 85 - 1 20		0 0 - 0 0	
Surat	0 60 - 0 82		0 0 - 0 0	
Duty on nett weight: on long or short staple, by French vessels from the French colonies, duty free; from European ports (Turkey excepted), 15 ct.; from the East Indies and countries beyond Cape Horn, 3 ct.; from other countries, 12 ct. By foreign vessels (except from Turkey), 21 ct. By French vessels from Turkey, 9 ct.; by foreign vessels from Turkey, 15 ct.—(See Note A.)				
Custom-house tare: on United States cottons, 6 per cent.; on Brazil cottons, 4 per cent.; on St. Domingo, in bales, 6 per cent.; on Cumana and Caraccas, 7 kil. per seroon above 40 kil., and 6 kil. per seroon at 40 kil. and under.				
Draft: 2 kil. on Sea Island and Bengal; 3 per cent. on Brazil; 3 kil. on all other descriptions in bales exceeding 50 kil., and 1½ kil. upon bales under 50 kil.				
Flour, America, per barrel	nominal		0 25 to 25 0	
Duty 60 ct. per 10 kil. on gross weight.				
Gums, Senegal, per ½ kil.	0 60 to 0 65		0 0 - 0 0	
Shellac, orange	0 85 - 90 0		0 0 - 0 0	
ditto, garnet	0 80 - 0 82		0 0 - 0 0	
ditto, liver	0 85 - 0 0		0 0 - 0 0	
Duty on Senegal, gross weight; by French vessels from Senegal, 6 ct.; from European ports, 15 ct.; from elsewhere, 12 ct. By foreign vessels from any port whatever, 18 ct.—(See Note A.)				
Commercial tare; on casks, real; on bags, 2 per cent.				
Duty on copal, gross weight per 50 kil.: by French vessels from the East Indies, duty free; from elsewhere, 12 ct. By foreign vessels from any port whatever, 18 ct.—(See note A.)				
Commercial tare; real.				
Duty on shellac, nett weight: by French vessels from the East Indies, duty free; from elsewhere, 4-20 ct. By foreign vessels from any port whatever, 9 ct. (See Note A.)				
Commercial tare: real.				

	Duty paid. Fr. ct.	Fr. ct.	In Bond. Fr. ct.	Fr. ct.
Hides, per ½ kil.				
Buenos Ayres, dry	1 20 to 1 36		0 0 to 0 0	
ditto, wet salted	0 60 - 0 75		0 0 - 0 0	
ditto, horse dry	8 50 - 11 each		0 0 - 0 0	
ditto, do. wet salt.	12 0 - 16 ditto		0 0 - 0 0	
India cows	0 48 - 0 110		0 0 - 0 0	
Pernambuco and Bahia, dry-salted	0 73 - 0 85		0 0 - 0 0	
Rio Janeiro, wet salted	0 56 - 0 58		0 0 - 0 0	
Carthagena and Caraccas	0 82 - 0 92		0 0 - 0 0	
United States, wet salted	0 48 - 0 53		0 0 - 0 0	
Duty on gross weight: by French vessels from European ports, 3 fr.; from elsewhere, 6 ct. By foreign vessels from everywhere, 6 fr. per 50 kil.—(See Note A.)				
Hops, American, 185⅝	45 0 to 0 0		0 0 to 0 0	
Duty on nett weight: by French vessels from any port whatever, 27 fr. per 50 kil. By foreign vessels, 29 fr. 70.—(See Note A.)				
Commercial tare: on bales, 2 per cent.				
Horse-hair, per ½ kil.				
Buenos Ayres, mixed	90 0 to 140 0		0 0 to 0 0	
Russia	85 0 - 175 0		none	
Duty on gross weight: by French vessels, 60 ct.; by foreign vessels, 3 fr. per 50 kil.—(See Note A.)				
Commercial tare: real.				
Indigo, per ½ kil.				
Bengal	0 0 to 0 0		0 0 to 0 0	
superfine violet and blue	13 50 - 14 0		0 0 - 0 0	
superfine violet and purp.	13 25 - 13 50		0 0 - 0 0	
fine violet and purp.	12 75 - 13 0		0 0 - 0 0	
good violet	12 25 - 12 50		0 0 - 0 0	
middle violet	10 80 - 11 0		0 0 - 0 0	
fine red	11 60 - 11 90		0 0 - 0 0	
good red	10 0 - 10 40		0 0 - 0 0	
good to fine copper	8 50 - 9 50		0 0 - 0 0	
ordinary to low copper	7 0 - 8 50		0 0 - 0 0	
Java	10 0 - 14 0		0 0 - 0 0	
Kurpah	5 0 - 10 0		0 0 - 0 0	
Madras	3 75 - 6 25		0 0 - 0 0	
Manilla	3 50 - 8 0		0 0 - 0 0	
Caraccas	3 75 - 8 50		0 0 - 0 0	
Guatemala flores	8 50 - 9 0		0 0 - 0 0	
sobre saliente	7 25 - 7 75		0 0 - 0 0	
cortes	6 25 - 7 25		0 0 - 0 0	
ordinary and low	4 50 - 6 25		0 0 - 0 0	
Duty on nett weight: by French vessels from places of growth out of Europe, 30 ct.; from European ports, 1 fr. 80 ct.; from Manilla direct, 24 ct.; from elsewhere, 1 fr. 20 ct. By foreign vessels from any port whatever, 2 fr. 40 ct.—(See exceptions at Note A.)				
Custom-house tare: on chests, casks, and seroons, real, or at the option of the importer, 12 per cent. on chests or casks, and 9 per cent. on seroons.				
Commercial tare: on casks or chests, real; on seroons of 100 to 110 kil., 11 kil.; on do. of 85 to 90 kil., 10 kil.; on do. of 70 to 84 kil., 9 kil.; on do. of 50 to 69 kil., 7 kil. Allowance 1 kil. per chest.				
Jute, per 50 kil.				
from Calcutta	23 0 to 29 0		0 0 to 0 0	
— Manilla	27 0 - 60 0		0 0 - 0 0	
Duty on gross weight; by French vessels from countries out of Europe, 24 ct. By foreign vessels 5 fr. 28 ct.				
Lac-dye, per ½ kil.	1 0 to 3 25		0 0 to 0 0	
Duty on nett weight: by French vessels from the East Indies, 15 ct.; from elsewhere, 45 ct. By foreign vessels from any port whatever, 60 ct.—(See exceptions at Note A.)				
Commercial and Custom-house tare: real.				
Lard, per 50 kil.	0 73 to 0 0		0 0 to 0 0	
Duty on gross weight: by French vessels from America, 3 fr.; by foreign vessels, 4 fr. 80 ct.—(See Note A.)				
Commercial tare: 12 per cent.				
Pepper, light, per ½ kil.	0 75 to 0 78		0 0 to 0 0	
half-heavy	0 80 - 0 95		0 0 - 0 0	
Duty on nett weight: by French vessels from the East, Indies, and from countries west of Cape Horn, 24 ct.; from elsewhere, 48 ct. By foreign vessels from any port whatever, 63 ct. (See Note A.)				
Custom-house tare: on bags, 5 per cent.				
Commercial tare: on single bags, 2 per cent.				
Pimento, per ½ kil.				
Jamaica	0 0 to 0 0		0 42 to 43 0	
Tobago	0 0 - 0 0		0 30 - 0 0	
Duty: by French vessels from the East Indies, and from countries west of Cape Horn, 27 ct.; from elsewhere, 54 ct. By foreign vessels, 69 ct.				
Tares: as for pepper.				
Quercitron, per 50 kil.				
Philadelphia, 1st sort	14 0 to 15 0		0 0 to 0 0	
Baltimore	12 50 - 13 0		0 0 - 0 0	
Duty on gross weight: by French vessels from European ports, 2 fr. 40 ct.; from other countries, 4 fr. 20 ct. By foreign vessels from any port whatever, 3 fr. 10 ct.—(See Note A.)				
Commercial tare: 12 per cent. on casks, 2 per cent. on bags.				
Rice, Carolina, 1857, per 50 kil.	0 0 to 28 0		0 0 to 0 0	
Bengal, white	10 0 - 15 0		0 0 - 0 0	
Coringhy, Balam Mooghy	9 0 - 10 0		0 0 - 0 0	
Akyab	8 50 - 12 0		0 0 - 0 0	
Duty on gross weight: by French or foreign vessels from any port whatever, 15 ct. per 50 kil.				
Commercial tare: 12 per cent. on casks, and 2 per cent. on bags.				
Saltpetre, E. Indies, per 50 kil.	0 0 to 0 0		45 0 to 50 0	
Nitrate of soda	0 0 - 0 0		19 0 - 22 0	

Duty on gross weight: by French vessels from countries beyond the Cape Horn and Good Hope, 1 fr. 20 ct. per 100 kil.; from European ports, 4 fr. 80 ct. By foreign vessels from any port whatever, 6 fr. 60 ct.; by French vessels from countries out of Europe, 360 fr.

Commercial tare: 6 kil. per double bale of the customary form, for saltpetre. For nitrate of soda, 2 per cent., and 2 per cent. allowance for dampness of bags.

	Duty paid.		In Bond.	
	Fr. ct.	Fr. ct.	Fr. ct.	Fr. ct.
Skins, deer, each - -	3 0 to 5 0		0 0 to 0 0	

Duty per 50 kil. on gross weight: by French vessels from any port whatever, 66 ct. By foreign vessels, 66 ct.—(See Note A.)

Salt provisions, per 100 kil. on nett weight.

Pork in casks - -	115	0 to 120 0	nominal
Prime mess pork per brl.	80	0 - 90 0	none
Beef, per barrel - -	60	0 - 70 0	none

Sugar, per 50 kil.

Mart. and Guad. bonne 4e	65	0 - 0 0	nominal
Havannah, white - -	0	0 - 0 0	42 0 to 45 0
yellow - - No. 12	0	0 - 0 0	41 0 - 42 0
brown - - -	0	0 - 0 0	32 0 - 38 0
Porto Rico, No. 12 -	0	0 - 0 0	41 0 - 42 0
Pernambuco, No. 12 -	0	0 - 0 0	39 0 - 40 0
Bahia, No. 12 - -	0	0 - 0 0	38 50 - 39 0
Benares and Cochinch.	0	0 - 0 0	24 0 - 40 0
Mauritius and Réunion bonne 4e - -	67	0 - 0 0	45 50 - 46 0
Blk. Cossypore and Java	0	0 - 0 0	41 0 - 47 0

Duty on nett weight: foreign sugars by French vessels from China, Philippines, and Siam, above type, 28 fr. 80 ct., at and under type, 27 fr.; from other countries of India above type, 30 fr.; at and under type, 28 fr. 20 ct.; from European ports 7 fr. 80 ct. more; from elsewhere, above the type, 31 fr. 80 ct.; at and under type, 30 fr. By foreign vessels above type, 40 fr. 80 ct.; at and under type, 39 fr.

Custom-house tare: on chests, 12 per cent.; on bags, 2 per cent.; on double bags, 4 per cent.

Commercial tare: Havannah and St. Iago chests, 13 per cent.; Brazil, 17 per cent.; on casks, 15 per cent.; tierces, 16 per cent.; barrels, 17 per cent.; 3 per cent. on Brazil and 8 per cent. on Manila bags; on Maurice and Réunion 5 kil. per bag.

Tallow, Russia, per 50 kil. -	64	0 to 64 50	0 0 to 0 0
Plata - - - -	62	0 - 63 50	0 0 - 0 0
Australia - - -	58	0 - 62 0	0 0 - 0 0

Duty on gross weight: by French vessels from any port whatever, 3 fr. By foreign vessels, 4 fr. 80 ct.—(See Note A.)

Commercial tare: 12 per cent.

Terra Japonica, per 50 kil.

brown - - - -	38	0 to 42 0	0 0 to 0 0
yellow - - - -	20	0 - 21 0	0 0 - 0 0

Duty on gross weight: by French vessels from East Indies, free; from European ports, 9 fr.; from elsewhere, 4 fr. 80 ct. By foreign vessels, 12 ct.—(See Note A.)

Commercial tare: real.

Teas, Imperial, per ½ kil. -	0	0 to 0 0	3 0 to 7 0
Gunpowder - - -	0	0 - 0 0	3 0 - 5 50
Hyson - - -	0	0 - 0 0	4 0 - 7 0
Young Hyson - -	0	0 - 0 0	2 75 - 4 0
Hyson-skin - -	0	0 - 0 0	3 0 - 4 0

	Duty paid.		In Bond.	
	Fr. ct.	Fr. ct.	Fr. ct.	Fr. ct.
Pekoe - - -	0	0 - 0 0	5 0 - 9 0	
Souchong - - -	0	0 - 0 0	3 0 - 4 0	
Pouchong - - -	0	0 - 0 0	2 50 - 3 0	

Duty on nett weight: by French vessels from the East Indies, 90 ct.; from China, 72 ct.; from elsewhere, 3 fr. By foreign vessels from any port whatever, 3 fr. 60 ct.—(See Note A.)

Custom-house and Commercial tare: real.

Tin, strait, and banca, p. 50 kil.	165	0 to 170 0	none
British - - - -	160	0 - 165 0	none
South American - -	145	0 - 150 0	none

Duty on gross weight: by French vessels from the East Indies, free; from elsewhere, 1 fr. 20 ct. By foreign vessels from any port whatever, 3 fr. per 50 kil.—(See exceptions at Note A.)

Commercial tare: on casks, real.

Whalebone, per ½ kil.

South - - - - -	5	70 to 5 75	0 0 to 0 0
Polar and northwest -	6	50 - 7 50	0 0 - 0 0

Duty on gross weight: by French vessels from any port whatever, 18 ct. By foreign vessels, 21 ct.

Commercial tare: real. Allowance, 2 per cent. on slabs.

Woods, per 50 kil.

Logwood, Campeachy -	9	50 to 0 0	0 0 to 0 0
Honduras - - -	7	0 - 7 50	0 0 - 0 0
St. Domingo - -	5	60 - 5 75	0 0 - 0 0
Fustic Cuba - - -	9	0 - 13 50	0 0 - 0 0
Carthagena - - -	6	0 - 6 50	0 0 - 0 0
Sta. Martha - - -	21	0 - 24 0	0 0 - 0 0
Pernambuco - - -	40	0 - 50 0	none

Duty on gross weight: by French vessels from European ports, 3 fr.; from elsewhere, duty free. By foreign vessels, 3 fr. 60 ct.—(See Note A.) Allowance, 1 to 2 per cent.

Explanatory Remarks.

The above duties include the surtax, which is now 20 per cent.; the Custom-house admits the real tare whenever the importer desires it.

Note A.—The treaties of reciprocity entered into with the countries hereafter mentioned, introduce the following deviations from the above rates of duty.

United States.—The produce of the United States, except that of the fisheries, direct from the United States in United States vessels, pays the same duty as if imported by French vessels from the United States.

Brazils and Mexico.—The produce of the Brazils and Mexico imported direct in national vessels enjoys also the above privilege.

The weight of 50 kil. is equal to 110¼ lb. English, or 100 lb. English are equal to 45 35-100 kil., and the cwt. equal to 50 79-100 kil.

Credit.—4½ months, excepting coffee, pimento, pepper, quicksilver, and clayed sugars, which are sold at 3½ months, and wheat at 2½ months.

China, and places beyond the Sunda Islands.—All natural produce, sugar excepted, imported direct, by French vessels, from countries situated beyond the Straits and the Sunda Islands, either to the north of the third degree of northern latitude, or to the east of the 105th degree of eastern longitude, is admitted at four fifths of the lowest rates of duty of the tariff, the French colonial duty alone excepted.

We avail ourselves of this opportunity to lay before our readers the following details with respect to the

Trade of France in 1857, &c.

N. B. — *General commerce*, as applied to imports, means all articles imported by sea or land, without inquiring whether they are intended to be consumed, re-exported, or warehoused. *Special commerce*, as applied to imports, means such imported articles as have been admitted for home consumption, under payment of the customs duties.

The same distinction obtains in relation to exports. *General commerce*, in this case, means all exported articles, without regard to their origin; while *special commerce* means such only as are produced by the soil or manufacturers of France.

The great articles of import consist of raw cotton; raw silk; wool; timber; coal; sugar, coffee, and other colonial products; olive oil and oil seeds; hides and skins; copper; tobacco; indigo and other dye stuffs; flax and thread, &c. The articles of export consist of silk, cotton and woollen goods; wines; hard goods, toys, pedlars' wares, and wooden goods; wrought skins; linen and canvass; paper; brandy; refined sugar; madder; tanned leather; perfumery; linen and linen goods, &c. &c. The imports and exports of wheat and flour depend principally on the seasons. We have elsewhere inserted a table (antè, p. 446.), which sets their influence in this respect in a very striking light. During the cycle of abundant seasons, from 1848 to 1852, France supplied us with large quantities of wheat and flour, especially the latter. But speaking generally, the imports of these articles into France materially exceed the exports. In 1857 the total real value of the imports into France amounted to 2,689,100,000 fr., of which those entered for consumption were valued at 1,872,900,000 fr. The actual value (*valeur actuelle*) of the exports of articles the growth and produce of France, during the same year, was estimated at 1,865,800 fr. The *official* values of the principal articles of import and export are seen in the previous tables, p. 671.

Account of the Exports from France in 1857, specifying the Official Value of those sent to each Country, and distinguishing between General and Special Commerce.—
(*Administration des Douanes*, 1857, p. 6.)

Countries to which Exported.	General Commerce.			Special Commerce.			Duties Paid.	Money Exported.
	Raw Products.	Manufactured Products.	Total.	Raw Products.	Manufactured Products.	Total.		
EUROPE.	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*	*Francs.*
Russia — {Baltic and White Sea	8,084,669	10,072,425	18,157,094	5,961,130	8,765,066	14,726,196	14,772	908,600
Russia — {Black Sea	1,739,622	4,644,597	6,384,019	692,405	3,925,074	4,617,479	6,817	
Sweden	943,875	646,836	1,590,711	841,321	624,504	1,465,825	2,563	
Norway	1,106,676	1,229,029	2,335,705	1,030,671	1,113,894	2,144,565	5,386	
Denmark	958,500	636,222	1,594,722	895,857	498,901	1,394,758	2,051	
England (U. K., Gibraltar, Malta, Ionian Isles)	126,957,854	295,469,295	422,418,149	87,449,925	204,044,906	291,494,831	688,679	258,893,092
German Commercial Association	55,565,564	97,743,544	153,309,108	22,588,226	88,589,672	111,177,898	110,878	14,453,485
Mecklenburgh-Schwerin	1,281	332	1,613	1,280	513	1,793	11	
Hanseatic Towns	9,233,204	11,660,086	20,893,290	5,220,079	10,756,675	15,976,754	32,918	
Hanover	283,764	57,098	340,862	231,552	55,388	286,740	269	
Low Countries	17,521,991	6,305,197	23,827,188	7,178,952	4,876,745	12,055,697	19,380	
Belgium	39,809,259	118,512,773	158,412,032	32,245,517	112,306,856	144,550,373	282,577	126,969,208
Switzerland	78,092,777	119,075,668	197,168,445	21,046,431	55,942,280	76,988,711	100,297	28,507,498
Portugal (including Madeira, Cape de Verde Islands, and Azores)	1,232,887	11,988,397	15,221,284	663,374	8,588,664	9,252,038	6,900	6,000
Spain (including the Canary and Balearic Islands)	63,101,030	97,976,186	161,077,216	17,990,114	83,426,276	101,416,390	144,947	17,707,765
Austria (including Lombardy)	7,460,622	7,533,871	14,994,493	1,900,440	6,089,605	7,990,045	10,693	
Sardinia (Island and Continent) Monaco	39,639,674	69,977,066	109,616,740	18,785,962	55,807,896	74,591,858	88,469	29,540,885
Tuscany, Lucca	7,322,198	19,269,549	26,591,747	3,529,983	14,951,725	18,481,714	15,161	5,340,377
Roman States	1,524,221	7,865,997	9,389,218	527,099	6,723,446	7,250,545	5,794	4,342,320
Two Sicilies	3,018,924	28,631,955	36,650,879	2,095,279	24,150,993	26,226,272	12,660	23,700,500
Greece (including the Islands in the Archipelago)	1,472,970	6,489,417	7,962,587	852,161	6,176,736	7,028,897	9,149	480,400
Turkey (Do. Do.)	9,810,220	75,320,921	85,131,141	5,452,228	43,456,356	48,908,564	24,895	1,696,900
AFRICA.								
Egypt	1,864,072	13,345,518	15,209,590	1,413,152	10,632,444	12,045,596	13,864	5,877,200
States of Barbary (Tunis, Tripoli, and Morocco)	2,426,929	4,640,502	6,667,451	657,105	3,620,643	4,278,048	2,975	1,677,000
West Coast (from Morocco to the Cape of Good Hope, not including Senegal)	824,571	5,916,633	6,741,204	374,491	1,951,780	2,326,271	1,494	35,000
English Possessions (Cape of Good Hope and Mauritius)	2,940,251	10,191,260	13,131,511	2,640,137	9,380,334	12,020,471	10,409	771,766
Other Territories (including the Isle of Madagascar)	45,939	1,221,225	1,265,164	28,096	894,019	922,115	371	1,274,000
ASIA.								
India, English, and New South Wales	2,139,621	5,459,241	7,598,862	1,536,823	5,202,399	6,739,222	5,851	16,921,400
India, Dutch (Java, Sumatra, &c.)	877,263	1,167,628	2,044,891	775,805	1,127,041	1,902,846	1,518	780,600
Philippines	23,452	292,796	316,248	25,059	251,352	274,411	245	
China, Cochin China	582,500	600,393	1,182,893	387,706	592,102	979,808	1,070	
Oceanica	1,187,285	595,256	1,782,541	1,163,334	390,083	1,558,417	1,129	3,368,500
AMERICA.								
United States — {Atlantic Ocean	53,091,319	271,396,528	324,487,847	33,293,962	157,357,485	190,651,447	77,678	12,033,500
United States — {Pacific Ocean	2,463,165	4,822,721	7,285,886	2,213,029	5,697,533	5,910,562	3,859	
Mexico	3,487,852	19,267,152	22,754,984	5,125,959	14,388,542	17,514,501	8,128	
Guatemala	41,614	587,038	628,792	34,938	572,684	607,622	371	
New Granada	336,772	6,224,844	6,561,616	304,608	5,037,164	5,341,772	2,814	
Venezuela	1,237,534	6,520,622	7,758,456	974,526	4,979,600	5,954,126	3,766	21,600
Brazil	9,039,735	75,265,470	84,303,205	7,412,790	49,294,289	56,707,079	28,327	
Uruguay (Montevideo)	1,894,248	9,475,852	11,368,100	1,650,673	7,356,506	9,006,979	4,070	95,000
Rio de la Plata (Buenos Ayres)	3,808,978	27,984,203	31,793,181	3,417,431	17,445,497	20,862,968	12,966	
Equator	331,066	597,570	928,636	279,854	511,578	791,259	794	
Peru (Lower Peru)	2,531,319	25,946,115	28,477,454	2,181,577	19,053,501	21,235,078	10,506	
Bolivia (Upper Peru)	82,450	326,792	409,242	76,531	315,236	391,767	373	
Chili	3,072,226	41,035,210	44,107,436	2,519,457	28,411,853	30,931,310	16,565	
Hayti	908,660	9,452,339	10,360,999	601,803	6,568,020	7,169,823	3,858	
Spanish Possessions (Cuba, Porto Rico, &c.)	3,299,603	29,208,710	32,508,313	2,688,963	25,060,601	25,749,564	22,254	1,367,500
English do. (Canada, Guiana, Jamaica, Triniti, &c.)	1,147,182	1,565,280	2,712,462	939,918	1,516,190	2,456,108	1,792	
Danish do. (St. Thomas, &c.)	927,517	7,896,015	8,823,532	668,782	6,559,665	7,228,447	3,646	
Dutch do. (Guiana, St. Eustache, Curaçoa)	53,263	149,324	202,587	42,596	143,324	185,920	318	
French Colonies — {Bourbon	5,681,871	23,369,761	29,051,632	5,487,628	22,352,801	27,840,429	10	8,609,700
French Colonies — {French Guiana	990,541	3,003,026	3,993,567	897,908	2,964,309	3,862,217		
French Colonies — {Martinique	4,985,552	17,549,453	22,532,305	4,566,530	16,981,712	21,548,242	-	265,000
French Colonies — {Guadaloupe	4,106,724	16,952,640	21,059,364	3,990,576	16,581,189	20,571,765	-	419,200
French Colonies — {Algeria	18,592,951	106,417,926	125,010,177	15,515,185	105,589,573	118,904,758	5	15,563,276
Other French Possessions out of Europe — {Senegal {St. Louis	1,187,366	8,366,684	9,554,050	1,006,537	4,601,148	5,607,685		
Other French Possessions out of Europe — {Senegal {Gorée	951,850	4,853,776	5,785,626	763,591	4,242,816	5,006,407		
Other French Possessions out of Europe — {St. Mary, Madagascar, Magotte, and Nossi-Bé	525,418	116,490	641,908	521,451	62,078	583,529	-	108,000
Other French Possessions out of Europe — {French Establishments in India	220,932	376,843	597,775	211,346	337,592	548,938	10	365,800
Other French Possessions out of Europe — {St. Pierre, Miquelon, and Grand Peche	2,275,284	4,011,789	6,287,073	2,163,823	3,806,674	5,970,497	306	
Totals	599,792,537	1,756,951,036	2,356,743,573	341,552,808	1,298,682,612	1,640,215,420	1,801,708	582,101,072

We subjoin

Accounts of the *actual* Values of the Principal Articles Imported into and Exported from France in each of the 3 Years ending with 1858, in millions and hundreds of thousands of Francs.

Imports.	1856.	1857.	1858.	Exports.	1856.	1857.	1858.
Oxen and sheep	56·0	52·9	40·9	Oxen and sheep	11·8	15·2	16·0
Wines of all kinds	27·7	46·2	7·6	Wines	205·.	159·1	186·5
Brandies and alcohols	26	37·9	4·1	Brandies and spirits	63·0	55·1	45·8
Grain and flour	303·3	116·2	48·9	Grain and flour	7·6	10·2	128·7
Rice	34·5	36·6	12·1	Flax and hemp	1·3	2·1	2·9
Cotton	146·6	148·4	145·5	Cotton threads	0·8	1·8	1·5
Colonial sugar	77·6	87·0	72·0	Flax and hemp ditto	0·9	1·1	1·4
Foreign sugar	29·3	45·1	29·3	Madder	17·1	15·1	13·9
Coffee	32·5	41·5	37·1	Books, engravings, and music	20·0	18·9	17·5
Tea	1·5	1·8	1·6	Machinery	4·4	4·9	5·9
Cocoa	7·1	6·5	5·8	Furniture	7·1	8·3	7·9
Pepper	3·2	3·6	3·4	Moles	8·8	7·8	7·5
Cotton threads	0·9	0·8	1·1	Works in cast-iron, iron, copper, lead, tin, zinc	40·9	41·2	44·7
Hemp and flax ditto	3·0	3·0	2·2	Paper	14·3	15·0	12·2
Oleaginous seeds	29·6	33·3	31·2	Prepared skins and gloves	114·4	133·0	108·9
Coal	85·0	80·3	81·8	Soap	6·7	5·7	7·3
Olive oil	24·8	22·6	28·3	Salt	4·0	2·6	2·2
Wool	128·7	116·5	105·5	Silks	39·4	38·3	29·5
Machinery	6·1	7·6	6·7	Refined sugar	35·5	32·6	49·8
Cast-iron	22·9	17·2	8·1	Linen fabrics	7·9	11·4	10·3
Bar-iron, including rails	17·5	6·4	3·3	Cambrics	8·2	5·2	3·2
Pure copper	29·9	36·1	31·8	Woollen fabrics	184·8	178·8	156·1
Lead	15·1	12·9	12·8	Silk fabrics	455·4	434·7	378·0
Zinc	12·4	17·8	15·6	Cotton fabrics	72·1	68·4	67·8
Nitrates	5·1	9·8	8·0	Glass and crystal	18·7	20·0	17·6
Silks	226·7	211·1	208·5	Porcelain and pottery	11·4	11·6	10·0
Indigo	16·3	18·5	14·4	Other articles	529·8	567·2	557·9
Cochineal	3·0	2·1	2·4				
Flax and hemp fabrics	5·4	5·4	5·6				
Other articles	612·2	645·3	588·8	Totals	2,659·2	2,639·3	2,563·9
Totals	274·9	2,689·0	2,164·4				

The following Statements, showing the Produce of Wine in France, and the Exports in 1845 and 1846, were furnished to the *Economist*, from which we have taken them, by the authorities in Bordeaux.

Account of the Produce of Wine in France in each Department, in the order of their importance.

Departments.	*Hectolitres.*	Departments.	*Hectolitres.*
Herault	2,616,000	Aveyron	353,000
Charente Inferieure	2,394,000	Jura	357,000
Gironde	2,020,000	Vendee	319,000
Var	1,635,000	Tarn et Garonne	307,000
Charente	1,152,000	Tarn	344,000
Gers	1,128,000	Haut Rhin	574,000
Gard	1,132,000	Deux Sevres	270,000
Aude	1,011,000	Correze	245,000
Meurthe	912,000	Hautes Pyrenees	268,000
Yonne	856,000	Indre	215,000
Loiret	800,000	Isere	242,000
Dordogne	770,000	Loire	228,000
Rhone	740,000	Ardeche	282,000
Saone et Loire	644,000	Vaucluse	238,000
Lot et Garonne	637,000	Vosges	2 2,000
Indre et Loire	628,000	Cher	250,0 0
Bouches du Rhone	626,000	Aisne	228,000
Haute Garonne	601,000	Moselle	253,000
Aube	592,000	Arriege	166,000
Loire Inferieure	568,000	Allier	195,000
Cote d'Or	538,000	Doubs	172,000
Loire et Cher	527,000	Nievre	170,000
Puy de Dome	536,000	Basses Alpes	114,000
Haute Marne	508,000	Seine	107,000
Maine et Loire	510,000	Eure et Loire	16,000
Seine et Oise	504,000	Sarthe	89,000
Seine et Marne	516,000	Hautes Alpes	86,000
Bas Rhin	539,000	Oise	65,000
Lot	445,000	Haute Loire	62,000
Meuse	459,000	Ardennes	7 ,000
Vienne	459,000	Haute Vienne	22,000
Basses Pyrenees	325,000	Eure	21,000
Landes	386,000	Lozere	14,000
Marne	381,000	Morbihan	6,000
Haute Saone	345,000	Ile et Vilaine	3,000
Drome	305,000	Cantal	2,000
Pyrenees Orientales	301,000		
Ain	333,000	Total productions	35,763,000

The mercantile marine of France has increased little, if anything, since 1830, though it has gained materially in efficiency by the greater employment of steam ships. It comprised, on the 31st December, 1857, 14,845 sailing vessels, of the agg. burden of 980,465 tons, and 330 steamers, of the agg. burden of 72,870 tons. Hence it is evident that the entire mercantile navy of France does not amount to two-thirds that of the single city of N. York!

Trade between France and England.

Nothing can more strikingly illustrate the mischievous influence of commercial restrictions than the history of the trade between Great Britain and France. Here we have two countries of vast wealth and population, near neighbours, and each possessing many important articles that the other wants, and yet the intercourse between them

since 1689 has generally been inconsiderable. At a distant period this was not the case. Previously to the accession of William III., the importation of wine only from France amounted to about 13,500 tuns a year, our imports of brandy and other articles being proportionally large. But Louis XIV. having espoused the cause of the exiled family of Stuart, the British government, not recollecting that the blow they aimed at the French would also smite their own subjects, imposed, in 1693, a *discriminating* duty of 8*l.* a tun on French wine, and in 1697 raised it to no less than 33*l.* a tun! It is probable that this excess of duty would have been repealed as soon as the peculiar circumstances in which it originated had disappeared; had not the stipulations in the famous commercial treaty with Portugal, negotiated by Mr. Methuen, in 1703, given it permanence. According to this treaty, we bound ourselves for the future to charge 33⅓ per cent. higher duties on the wines of France imported into England, than on those of Portugal; the Portuguese, by way of compensation, binding themselves to admit our woollens into their markets in preference to those of other countries, at a fixed and invariable rate of duty.

Though very generally regarded, at the time, as the highest effort of diplomatic skill and address, the Methuen treaty was, undoubtedly, founded on the narrowest and most contracted views of national interest; and it, in consequence, proved, in no common degree, injurious to both parties, but especially to England. By binding ourselves to receive Portuguese wines for *two thirds* of the duty payable on those of France, we, in effect, gave the Portuguese growers a monopoly of the British market; at the same time that we excluded one of the principal equivalents the French had to offer for our commodities, and provoked them to retaliate. This, indeed, was no difficult task. Unhappily, they were but too ready to embark in that course of vindictive policy of which we set them the example; so that, prohibitions on the one side being immediately followed by counter-prohibitions on the other, the trade between the two countries was nearly annihilated! But the indirect were still more injurious than the direct consequences of this wretched policy. It inspired both parties with feelings of jealousy and dislike, and kept them in the frowning attitude of mutual defiance. Each envied the other's prosperity; and being disposed to take fire at even fancied encroachments, the most frivolous pretexts were sufficient to engage them in contests that have filled the whole world with bloodshed and confusion. But had things been left to their natural course,—had an unfettered commercial intercourse been allowed to grow up between the two countries,—the one would have formed so near, so vast, and so profitable a market for the produce of the other, that they could not have remained long at war without occasioning the most extensively ruinous distress,—distress which no government would be willing to inflict on its subjects, and to which, though the government were willing, it is most probable no people would be disposed to submit. A free trade between England and France would give these two great nations *one common interest*. It would occasion not only a vast increase of the industry, and of the comforts and enjoyments, of the people of both countries, but would be the best attainable security against future hostilities. "We know," said Mr. Hyde Villiers, in his speech of the 15th of June, 1880, "that British enterprise will fetch the extremest points on earth in the business of exchange; but here are the shores of France nearer to England than those of Ireland itself—nay, Bordeaux is commercially nearer to London than it is to Paris; and, but for the lamentable perversion of the gifts and dispositions of nature, and of the ingenuity of man, the highways of commerce between these countries—the seas which surround Great Britain and Ireland, and wash the shores of France—should literally swarm with vessels, engaged, not only in the interchange of material products, but in diffusing knowledge and stimulating improvement; in creating everywhere new neighbourhoods; in consolidating international dependence; in short, in drawing daily more close the bonds of international peace and confidence, and thus advancing, while they also served to confirm and secure, the peace, the civilisation, and the happiness of Europe."*

The commercial treaty which Mr. Pitt negotiated with France in 1786 was the first attempt to introduce a better system into the trade between the two countries; and it is one of the few treaties of this description that have been bottomed on fair and liberal principles. But the revolution in France, and the lengthened and bloody wars by which it was followed, totally suppressed that mutually beneficial intercourse which had begun to grow up under Mr. Pitt's treaty, and revived and embittered all the old hostile feelings and prejudices inherited by both parties. Since the peace of 1815 the animosities and prejudices in question have, however, been much mitigated. The

* We regret we have to add, that this was one of the last public appearances made by Mr. Villiers. He died in December, 1832, at the early age of 31. His death was a national loss. Few have entered upon public life with better dispositions, more enlarged and comprehensive views, or a more sincere desire to promote the happiness of their species.

abolition of the discriminating duty on French wine, in 1831, had a considerable influence in bringing about this improved state of things, at least in a commercial point of view. And since then we have given a still greater extension to the same enlightened policy by reducing the oppressive duty formerly laid on brandy, and the high duties on silks and other articles of French produce. It should, also, be borne in mind, that France has profited largely by the repeal of our corn laws. Her exports of wheat and flour to our markets have been much greater than any one anticipated; and have conduced greatly to the advantage of the agriculturists of Normandy, and generally of the N. W. departments of France.

There has, in consequence, been a very great extension of the trade between the two countries; though it is still but trifling compared to what it would be were it allowed to attain to its full development. But we regret to have to say, that hitherto the French have shown but little inclination to reciprocate the liberal policy of which we have set them an example. On the contrary, their policy, if so we may call it, has become, in some respects, more anti-commercial than ever. In 1836, for example, the French government having considerably reduced the high duties that were then imposed on foreign linens and linen yarn, the imports of both articles rapidly in-

Account of the Quantities and Computed Values of the Principal Articles imported from France into the U. Kingdom in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Animals, living: oxen and bulls - no.	3,561	2,189	1,487	1,909	42,732	37,094	26,023	35,794
„ „ cows and calves - —	2,709	1,158	793	557	25,796	12,176	8,106	5,515
„ „ horses - - —	2,292	741	936	703	50,124	18,600	23,400	17,575
Apples, raw - - bushels	204,909	93,949	216,220	159,194	40,982	22,513	75,677	48,422
Asphaltum or bitumen judaicum tons	1,975	1,465	2,573	2,515	49,385	20,515	29,848	38,908
Books - - - cwts.	1,423	1,767	2,226	2,492	20,419	19,793	24,955	27,911
Butter - - - - —	45,656	22,009	32,384	26,290	191,755	86,661	137,650	104,673
Caoutchouc, manufactures of - lbs.	168,752	162,535	352,134	269,137	29,532	28,444	52,865	23,550
China ware, porcelain, and earthenware - - - cwts.	3,092	3,288	3,928	3,438	31,512	33,488	39,573	34,679
Clocks - - - - no.	49,736	54,726	82,196	100,395	65,351	62,365	79,730	83,198
Corn: wheat - - - qrs.	143,078	26,159	10,007	37,178	515,081	99,733	35,025	98,058
„ barley - - - —	1,810	1,911	2,679	6,251	2,398	3,221	4,1[illegible]	11,671
„ maize, or Indian corn - —	1,464	26,775	27,658	31,480	2,929	59,279	44,252	55,565
„ other kinds - - —	13,999	29,538	960	2,320	32,035	62,443	1,992	4,051
„ wheatmeal and flour - cwts.	219,783	88,196	69,841	327,115	243,593	108,040	87,809	334,942
Cotton, raw - - - - —	1,345	38,966	11,547	18,810	5,598	111,378	35,026	67,558
Cream of tartar - - - —	16,339	4,220	6,451	2,093	94,538	22,155	34,728	10,919
Eggs - - - - cubic feet	153,088*	435,745	513,771	563,999	195,238	206,979	244,041	281,999
Embroidery and needlework:								
Silk net, figured with the needle - - - lbs.	3,370	1,491	1,731	2,156	15,166	6,711	7,788	11,053
Curtains, embroidered on muslin or net - —	94,777	52,607	50,235	57,156	47,389	26,304	25,117	28,578
Unenumerated - - value £	-	-	-	-	34,652	25,177	46,803	33,959
Flowers, artificial - - cubic feet	26,122	24,697	32,886	34,152	78,366	74,091	98,659	103,356
Gerancine - - - - cwts.	8,996	12,396	6,625	17,853	62,972	86,772	46,375	139,119
Glass, plate - - - - lbs.	514,502	418,583	424,252	568,978	19,280	16,569	21,213	18,449
„ flint, cut and not cut (except bottles) - —	441,761	396,149	406,853	348,252	9,899	8,217	9,260	8,541
Hats or bonnets of straw - - —	37,599	14,699	19,554	24,953	112,197	44,098	58,062	74,860
Hides, not tanned - - - cwts.	502	6,052	9,646	17,738	1,024	13,907	29,521	64,531
„ tanned, tawed, curried, or in any way dressed - - lbs.	1,116,582	665,557	975,915	1,856,438	105,811	58,804	109,528	215,450
Leather manufactures:								
Gloves - - - pairs	3,744,729	3,551,425	3,939,593	4,136,568	240,835	223,252	296,471	345,988
Boots, shoes, and caloshes - —	174,481	125,566	130,514	187,137	32,417	24,251	40,803	47,230
Boot fronts - - - —	558,061	531,676	668,443	552,477	52,014	56,939	88,333	76,765
Linen manufactures:								
Cambrics and French lawns sq. yds.	136,390	151,825	188,132	134,589	25,857	27,829	33,686	23,508
Madder - - - - cwts.	68,554	71,627	66,522	62,411	161,102	161,161	167,968	168,599
Madder root - - - - —	34,853	18,253	6,216	28,502	71,408	35,098	14,574	74,105
Oil, rapeseed - - - tuns	385	2,297	1,530	3,239	18,226	132,078	78,795	156,208
Oil seed cake - - - tons	11,164	19,515	15,767	13,150	102,150	195,082	118,796	108,468
Paper hangings - - - lbs.	153,227*	274,536	302,102	306,743	39,630	13,717	15,105	15,337
Platting of straw, chip, and other materials - - - —	176,926	125,425	148,220	144,398	171,766	120,757	137,830	136,418
Pork, salted - - - cwts.	15,980	8,851	20,051	14,699	33,950	23,455	53,636	40,055
Prints and drawings - - lbs.	37,215	59,860	52,077	48,011	14,304	14,965	13,020	12,003
Seeds: clover - - - cwts.	70,984	63,737	57,405	20,012	185,416	216,706	221,958	71,543
„ grass - - - —	22,425	19,481	22,702	37,147	73,254	58,443	68,106	112,341
„ trefoil - - - —	16,125	17,408	28,293	14,348	17,755	29,159	50,220	19,370
Silk, raw - - - - lbs.	148,195	139,070	157,539	345,665	159,310	158,192	256,035	619,991
„ waste, knubs, and husks cwts.	4,455	3,302	6,338	7,034	18,703	18,491	106,479	130,481
„ thrown - - - lbs.	538,413	512,193	351,048	289,800	686,020	411,056	587,611	605,384
Silk manufactures:								
Stuffs and ribbons - - —	555,041	504,855	538,708	428,600	1,393,808	1,249,830	1,376,119	1,063,618
Silk plush for making hats - —	144,015	145,287	170,519	118,142	86,409	87,172	102,312	70,885
Skins, kid, dressed - - - no.	657,994	643,782	418,984	363,477	65,940	96,567	75,322	66,788
Spirits: brandy - - gallons	2,891,320	1,861,393	2,500,190	2,796,037	1,204,717	911,305	1,270,930	1,405,637
Sugar, unrefined - - cwts	4,680	500,328	65,244	137,015	5,574	538,194	98,858	268,596
„ refined, and candy - —	15,201	22,971	29,723	9,712	22,041	42,495	49,043	20,923
Tallow - - - - —	31,682	2,377	3,162	31,781	99,799	6,773	8,432	89,104
Watches - - - - no.	109,339	91,140	88,349	87,214	271,821	209,450	212,286	205,803
Wine - - - - gallons	1,004,589	535,949	711,912	796,760	619,497	397,119	536,054	528,895
Woollen manufactures:								
Carpets and rugs - sq. yards	2,315	2,808	7,487	3,059	925	1,125	2,995	1,224
Shawls, scarfs, and handkerchiefs - - - lbs.	57,376	25,911	16,416	12,802	15,709	8,178	6,013	4,228
Unenumerated - value £	-	-	-	-	458,384	477,448	648,147	598,725
Total value of the above and of all other articles £	-	-	-	-	10,447,774	9,146,418	10,386,522	11,965,407

Account of the Quantities and Declared Values of the Principal Articles the Produce and Manufacture of the U. Kingdom exported to France in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Value.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Apothecary wares, drugs, &c.	cwts.	- -	- -	- -	- -	16,185	10,607	7,742	10,881
Apparel, slops, and haberdashery	value	- -	- -	- -	- -	34,771	48,236	68,304	50,848
Beef and pork - -	barrels	6,294	1,229	3,158	375	26,068	4,917	13,767	1,419
Caoutchouc, manufactures of	value	- -	- -	- -	- -	22,144	11,632	12,555	8,432
Coals, cinders, and culm -	tons	814,837	938,180	1,158,513	1,279,135	356,198	414,437	524,167	574,426
Copper, wrought and unwrought	cwts.	40,288	74,848	79,826	100,527	258,159	427,443	440,570	591,940
Corn, wheat - - -	- qrs.	17,156	84,450	63,662	72,482	57,465	331,062	220,690	200,080
wheat flour - -	cwts.	16,407	40,289	15,996	1,456	16,419	82,783	15,455	1,966
Cottons, entered by the yard	yards	5,087,565	7,049,674	9,529,495	17,452,579	112,504	135,120	151,960	251,474
at value -	value	- -	- -	- -	- -	39,196	35,398	33,565	34,008
Cotton yarn - - -	- lbs.	126,048	174,008	125,306	432,382	25,859	34,132	24,796	30,312
Flax, dressed and undressed -	cwts.	11,608	35,546	3,920	6,064	26,625	75,805	8,920	12,208
Hardwares and cutlery -	- —	7,216	15,146	12,016	14,106	78,948	104,370	95,856	115,791
Horses - - -	- no.	2,116	2,993	1,127	755	106,330	136,215	56,085	49,966
Iron, wrought and unwrought, including unwrought steel -	tons	42,874	147,473	173,251	133,639	261,646	902,602	1,193,576	792,049
Lead and shot - -	- —	1,438	4,562	960	374	32,149	94,571	22,216	8,881
Linens, entered by the yard -	yards	1,211,852	1,487,238	1,238,949	1,131,827	61,034	81,394	71,801	74,084
Linen yarn - - -	- lbs	291,985	295,301	361,568	490,004	48,427	49,861	70,989	86,110
Machinery, steam engines -	value	- -	- -	- -	- -	47,855	32,894	18,612	52,084
all other sorts -	- —	- -	- -	- -	- -	101,650	104,954	138,249	216,061
Oil, linseed - - -	gallons	25,947	1,123,283	987,027	642,747	3,636	173,674	188,519	102,919
Plate, plated ware, jewellery, and watches - - -	value	- -	- -	- -	- -	10,656	24,756	7,415	19,207
Silk manufactures - -	value	- -	- -	- -	- -	351,401	297,143	824,306	770,278
Spirits - - - -	gallons	42,652	5,068,766	3,155,580	2,622,491	9,195	660,750	598,393	586,574
Tin, unwrought - -	cwts.	6,898	6,898	9,431	11,784	37,999	37,999	58,647	76,116
Wool, sheep and lambs' -	- lbs.	9,509,731	12,773,816	12,031,295	11,315,553	520,993	747,442	778,331	823,780
Woollens, entered by the piece	pieces	25,128	77,742	28,257	36,849	55,462	300,882	56,665	68,836
„ „ by the yard	yards	1,156,999	1,034,505	1,289,961	2,457,090	55,877	49,450	62,198	122,655
„ „ at value -	value	- -	- -	- -	- -	2,937	10,055	7,146	5,685
Woollen yarn - -	- lbs.	404,544	458,816	1,224,048	1,168,608	104,541	105,925	174,300	210,764
Total value of the above and of all other articles -	- £	- -	- -	- -	- -	3,175,290	6,012,658	6,432,650	6,213,358

creased, and a powerful stimulus was given to the trade of France. But, as might have been expected, the linen manufacturers and spinners, whose monopoly had been interfered with, felt aggrieved by this new state of things; and instead of endeavouring to withstand the competition of their foreign rivals, by improving their fabrics and cheapening their processes, they found it more convenient to appeal to popular prejudice; and to represent themselves as sacrificed, through a false policy, to the cupidity of foreigners, who, to ensure their ruin, sold their products at less than they cost! And this contradictory nonsense induced the government to retrace its steps; to re-impose the high duties on foreign linens and yarns; and, consequently, to increase the price of a necessary, and to check or prevent the production and exportation of the articles which had been sent abroad in payment of the linens. (See art. Linen.)

The same *felo de se* policy prevails in regard to the trade in cottons and most other things. But the restrictions on the importation of iron may, notwithstanding the reductions made from their amount in 1853, be regarded as the triumph of the protective system in France. Everybody knows that a cheap and abundant supply of iron is indispensable to anything like successful agriculture or manufactures; and everybody knows, none better than the Emperor of the French, that owing to the scarcity and bad quality of coal in France, and the necessity of using wood in the smelting of minerals, she has no facilities for the production of iron, which consequently costs a very large sum. Under these circumstances it might have been expected that the French would open their ports to the iron of all countries; and that if they did not encourage its importation by a bounty, they would, at all events, take especial care not to check it by a duty. But no; they have been so enamoured of bad and dear ploughs, and of bad and dear implements and machinery of all sorts, that they imposed all but prohibitory duties on foreign iron. Under Napoleon I. duties of 44 fr. and 110 fr. per ton were laid respectively on bar and sheet-iron; and these, though justly objectionable for their too great magnitude, compared with its price, were afterwards raised till they amounted, under Napoleon III., to 200 fr. (8*l.*) and 440 fr. (17*l.* 12s.) per ton! But these monstrous duties were reduced, as already stated, in 1853, to about a half. They are still, however, a great deal too high; in fact, they ought not to exist at all. Were they repealed, iron would be as abundant and cheap in France as in England; whereas it is comparatively scarce and exorbitantly dear. And this forced scarcity and high price of the most important industrial agent, paralyses agriculture and all the more important arts, and brings them almost to a stand. And for what is this immense sacrifice incurred?—to gratify the rapacity of a handful of forest proprietors, who contend that they would suffer were foreign iron admitted duty free, or at a moderate duty! The French do not kill the goose for the sake of the eggs, but for the offal she has picked up.

It would be a libel on an intelligent people to suppose that such a system should be permanent. But our policy cannot be affected by its duration. The French may, if so disposed, prefer monopoly to freedom, and scarcity to abundance. Our business is to deal with all the world on fair and liberal principles, without inquiring or caring what may be the folly or the wisdom of others.

The great articles of importation into the U. Kingdom from France consist of brandy, wine, madder, silk manufactures and raw silk, wheat and wheat flour, gloves, boots and shoes, eggs, fruits, skins, books, &c. It should, however, be observed that a large proportion of the imports of raw and thrown silk consists, in fact, of imports from Italy, which come to us, *in transitu*, through France.

The great articles of export from this country to France consist of coal and iron, silk and cotton manufactures, including lace and patent net; copper and copper manufactures, linens and linen yarn, cotton manufactures, horses, hardware and cutlery, machinery, wool, spirits, hosiery, &c.

Increase in the Commerce of France. — This increase has been very great of late years. This is evident from the following

Account of the aggregate Values of the Import and Export Trade of France during each of the 30 Years ending with 1856, divided into Decennial Periods.

Years.	General Commerce. Value of Imports and Exports.	Special Commerce. Value of Imports and Exports.	Years.	General Commerce. Value of Imports and Exports.	Special Commerce. Value of Imports and Exports.
1827	1,168 millions	921 millions	1844	2,340 millions	1,658 millions
1828	1,218 „	965 „	1845	2,428 „	1,704 „
1829	1,224 „	988 „	1846	2,457 „	1,772 „
1830	1,211 „	912 „			
1831	1,131 „	830 „	Total - -	21,125 „	14,892 „
1832	1,349 „	1,012 „	Decennial average -	2,112 „	1,489 „
1833	1,459 „	1,051 „			
1834	1,435 „	1,014 „	1847	2,615 „	1,867 „
1835	1,595 „	1,098 „	1848	2,015 „	1,390 „
1836	1,867 „	1,193 „	1849	2,565 „	1,812 „
			1850	2,705 „	1,901 „
Total - -	13,657 „	10,014 „	1851	2,787 „	2,020 „
Decennial average -	1,366 „	1,001 „	1852	3,120 „	2,219 „
			1853	3,493 „	2,467 „
1837	1,566 „	1,084 „	1854	3,497 „	2,419 „
1838	1,893 „	1,315 „	1855	3,979 „	2,808 „
1839	1,950 „	1,328 „	1856	4,587 „	3,148 „
1840	2,063 „	1,442 „			
1841	2,187 „	1,565 „	Total - -	31,361 „	22,054 „
1842	2,082 „	1,491 „	Decennial average -	3,136 „	2,205 „
1843	2,179 „	1,533 „			

It appears from this official statement that, at an average of the 10 years ending with 1836, the total aggregate value of the imports and exports of France amounted to 1,366 millions a year; during the next decennial period, or that ending with 1846, it had increased to 2,112 millions; while during the decennial period ending with 1856, it amounted to no less than 3,136 millions. It is difficult to account for its rapid increase during the last 10 years, inasmuch as they have been characterised by the occurrence of several bad harvests, not in corn merely, but also in the great staples of silk and wine; by destructive inundations; and by the waste of life and capital resulting from the war with Russia. The circumstances capable not merely of countervailing the injurious influence of the causes now referred to, but of turning the balance greatly the other way, must have been of a very powerful description. At their head is the greater confidence inspired by the existing government, and the powerful influence it has had on all sorts of industrial undertakings; and we are also inclined to attribute a large share in the progress that has been made to the influence of the gold discoveries on the trade of this country and the U. States, and the great increase in the amount of their imports from France. The completion of railroads, and other improved means of intercourse, have, no doubt, also contributed to develop the resources of the country and her great powers of production. Nothing, indeed, but the adoption of a reasonable law of succession, and of a liberal commercial system, is wanted to elevate France to a very high, if not to the highest, place among manufacturing and commercial nations; and considering the way in which her energies are weighed down by oppressive duties and restrictions, her recent industrial progress is quite marvellous.

There has been, as already seen, a great decrease in the imports into France in 1858 as compared with 1857 and 1856. But this has been to a considerable extent occasioned by the reduced imports of corn, resulting from the abundant harvest of 1858, and is, in so far, an advantage. The vine disease, which now happily seems to be on the decline, has also operated injuriously on the trade of France.

HAWKERS AND PEDLARS. It is not very easy to distinguish between hawkers and pedlars. Both are a sort of itinerant retail dealers, who carry about their wares from place to place; but the former are supposed to carry on business on a larger scale than the latter. They are subject to the same regulations.

Regulations as to Hawkers and Pedlars.— The legislature has always looked with suspicion upon itinerant dealers; and has attempted, by obliging them to take out licences, and placing them under a sort of *surveillance*, to lessen their numbers, and to hinder them from engaging in dishonest practices. But the resident dealer has so many advantages on his side, that these precautions seem to be in a great measure superfluous. It should also be recollected, that before shops were generally established in villages and remote districts, hawkers and pedlars rendered material services to country people; and even now the competition which they excite is certainly advantageous.

By the 50 Geo. 3. c. 41., hawkers and pedlars are to pay an annual licence duty of 4*l.*; and if they travel with a horse, ass, or other beast, bearing or drawing burden, they are subject to an additional duty of 4*l.* for each beast so employed. The granting of licences, and management of the duties, are, by a late act, placed under the control of the commissioners of stamps.

Hawkers and pedlars, unless householders or residents in the place, are not allowed to sell by auction to the highest bidder; penalty 50*l.*— half to the informer, the other half to the king. But nothing in the act extends to hinder any person from selling, or exposing to sale, any sort of goods, in any public market or fair; or to hinder a hawker or pedlar from selling in a hired room, where he is not a resident, provided such sale is not by auction.

Every hawker, before he is licensed, must produce a certificate of good character and reputation, signed by the clergyman and two reputable inhabitants of the place where he usually resides.

Every hawker must have inscribed, in Roman capitals, on the most conspicuous part of every pack, box, trunk, case, cart, or other vehicle, in which he shall carry his wares, and on every room and shop in which he shall trade, and likewise on every hand-bill which he shall distribute, the words "LICENSED HAWKER." Penalty, in default, 10*l.* Unlicensed persons wrongfully using this designation forfeit 10*l.*

Hawkers dealing in smuggled goods, or in goods fraudulently or dishonestly procured, are punishable by forfeiture of licence, and incapacity to obtain one in future, besides being liable to all the other penalties, forfeitures, &c. applicable to such illegal dealing.

By stat. 6 Geo. 4. c. 80. it is enacted, that any person or persons hawking, selling, or exposing to sale, any spirits on the streets, highways, &c., or in any boat or other vessel on the water, or in any place other than those allowed in this act, shall forfeit such spirits and 100*l.* for every such offence. Any person may detain a hawker of spirits, and give notice to a peace officer to carry the offender before a justice.

Hawkers trading without licence are liable to a penalty of 10*l.* So also, if they refuse to show their licence on the demand of any person to whom they offer goods for sale, or on the demand of any justice, mayor, constable, or other peace officer, or any officer of the customs or excise. By 5 Geo. 4. c. 83., hawkers trading without a licence are punishable as vagrants.

To forge or counterfeit a hawker's licence incurs a penalty of 30*l.* To lend or hire a hawker's licence subjects lender and borrower to 40*l.* each, and the licence becomes forfeited. But the servant of a licensed hawker may travel with the licence of his master.

Hawkers trading without a licence are liable to be seized and detained by any person who may give notice to a constable, in order to their being carried before a justice of peace. Constables refusing to assist in the execution of the act are liable to a penalty of 10*l.*

Nothing in the act extends to prohibit persons from selling fish, fruit, or victuals; nor to hinder the maker of any home manufacture from exposing his goods to sale in any market or fair, in every city, borough, town corporate, and market town: nor any tinker, cooper, glazier, plumber, harness-mender, or other person, from going about and carrying the materials necessary to their business.

A *single* act of selling, as a parcel of handkerchiefs to a particular person, is not sufficient to constitute a hawker within the meaning of the statutes.—(*Rex* v. *Little*, B. 613.)

By the 52 Geo. 3. c. 108., no person, being a trader in any goods, wares, or manufactures of Great Britain, and selling the same by *wholesale*, shall be deemed a hawker; and all such persons, or their agents, selling by *wholesale* only, shall go from house to house, to any of their customers who sell again by wholesale or retail, without being subject to any of the penalties contained in any act touching hawkers, pedlars, and petty chapmen.

No person committed under these acts for non-payment of penalties can be detained in custody for a longer period than 3 months.

Hawkers exposing their goods to sale in a market town, must do it in the market-place.

Persons hawking tea without a licence are liable to a penalty under 50 Geo. 3. c. 41.; and even though they had a licence, they would be liable to a penalty for selling tea in an unentered place.—(*Chitty's* edit. of *Burn's Justice*, vol. ii. p. 1113.)

Any person duly licensed to trade as a hawker and pedlar may set up any lawful trade in any place where he is resident, though he have not served any apprenticeship to the same, and, if prosecuted, he may plead the general issue and have double costs.—(See *Chitty's* edit. of *Burn's Justice*, vol. ii. pp. 1102—1124.)

The hawkers' and pedlars' duty produced in 1855, 25,824*l.* gross revenue; the charges of collection are very heavy, amounting to between 4,000*l.* and 5,000*l.* Whatever, therefore, may be the other advantages of this tax, it cannot, certainly, be said to be very productive.

HAY (Ger. *Hew*; Du. *Hovi*; Fr. *Foin*; It. *Fieno*; Sp. *Heno*; Lat. *Fœnum*), any kind of grass, cut and dried for the food of cattle. The business of hay-making is said to be better understood in Middlesex than in any other part of the kingdom. The great object is to preserve the green colour of the grass as much as possible, and to have it juicy, fresh, and free from all sorts of mustiness.

The sale of hay within the bills of mortality, and 30 miles of the cities of London and Westminster, is regulated by the act 36 Geo. 3. c. 88. It enacts that all hay shall be sold by the load of 36 trusses, each truss weighing 56 lbs., except new hay, which is to weigh 60 lbs. till the 4th of September, and afterwards 56 lbs. only; so that till the 4th of September a load of hay weighs exactly a ton, but thereafter only 18 cwt. The clerk of the market is bound to keep a regular book for the inspection of the public, specifying the names of the seller, the buyer, the salesman, and the price of each load. Salesmen and factors are prohibited from dealing on their own account.

There are three public markets in the metropolis for the sale of hay and straw; Whitechapel, Smithfield, and the Hay-market in the vicinity of the Regent's Park. The latter used formerly to be held in the street called the Haymarket.

Straw is sold by the load of 36 trusses, of 36 lbs. each, making in all 11 cwts. 64 lbs.

It is affirmed, we know not with what foundation, that considerable frauds are perpetrated in the sale of hay and straw.

HEMP (Ger. *Hanf*; Du. *Hennip, Kennip*; Da. *Hamp*; Sw. *Hampa*; Fr. *Chanvre*; It. *Canape*; Sp. *Canamo*; Rus. *Konapli, Konopel*; Pol. *Konope*), a valuable plant (the *Cannabis sativa* of Linnæus), supposed to be a native of India, but long since naturalised and extensively cultivated in Italy, and many countries of Europe, particularly Russia and Poland, where it forms an article of primary commercial importance. It is also cultivated in different parts of America, though not in such quantities as to supersede its importation. It is stronger and coarser in the fibre than flax; but its uses, culture, and management are pretty much the same. When grown for seed, it is a very exhausting crop; but when pulled green, it is considered as a cleaner of the ground. In this country its cultivation is not deemed profitable; so that, notwithstanding the encouragement it has received from government, and the excellent quality of English hemp, it is but little grown, except in some few districts of Suffolk and Lincolnshire. The quantity raised in Ireland is also inconsiderable. — (*Loudon's Encyc. of Agricult.*)

Exceedingly good *huckaback* is made from hemp, for towels and common tablecloths. Low-priced hempen cloths are a general wear for husbandmen, servants, and labouring manufacturers; the better sorts for working farmers and tradesmen in the country; and the finer ones, ⅞ wide, are preferred by some gentlemen for strength and warmth. They possess this advantage over Irish and other linens, — that their colour improves in wearing, while that of linen deteriorates. But the great consumption of hemp is in the manufacture of sailcloth and cordage, for which purposes it is peculiarly fitted by the strength of its fibre. English hemp, when properly prepared, is said to be stronger than that of every other country, Russia not excepted; and would, therefore, make the best cordage. It is, however, but little used in that way, or in the making of sailcloth; being principally made into cloth for the uses already stated.

Hemp has been cultivated in Bengal from the remotest antiquity, but not, as in Europe, for the purpose of being manufactured into cloth and cordage. In the Hindoo economy it serves as a substitute for malt; a favourite intoxicating liquor, called banga, being produced from it! This, also, is the use to which it is applied in Egypt. — (*Milburn's Orient. Commerce, &c.*)

The price of hemp fluctuated very much during the war. In consequence of difficulties in the way of its importation, it stood at a very high level from 1808 to 1814. This was the principal circumstance that originally brought iron cables into use; and the extent to which they are now introduced, has contributed materially to diminish the consumption and importation of hemp. — (*Tooke on High and Low Prices*, 2d ed. p. 345.)

We borrow the following particulars, with respect to the hemp trade of Petersburg, from the work of Mr. Borrisow on the commerce of that city: —

Hemp forms a very important article of export from St. Petersburg, and deserves particular notice. It is assorted, according to its quality, into *clean hemp*, or firsts; *out-shot hemp*, or seconds; *half-clean hemp*, or thirds; and *hemp codilla*.

Of the first 3 sorts there are annually exported about 2,000,000 poods, the greatest part in English and American bottoms. It is brought to Petersburg, from the interior beyond Moscow, by water; and its quality depends very much on the country in which it is produced. That brought from Karatshev is the best; next to this, that produced in Belev; hemp from Gshatsk is considered inferior to the latter.

As soon as the hemp is brought down in the spring, or in the course of the summer, it is selected and made up in bundles; both operations being performed by sworn selectors (*brackers*) and binders appointed by government for this purpose; and it is a well-known fact, that this is done with great impartiality and exactness.

A bundle of clean hemp weighs from 55 to 65 poods: ditto out-shot, 48 to 55 ditto; ditto half-clean, 40 to 45 ditto. (1 pood = 36 lbs. avoirdupois.)

Binding of hemp is paid for at the rate of 2 roubles 50 copecks for *clean*, 2 roubles for *out-shot*, and 1 rouble 60 copecks for *half-clean*, per bundle; one half is paid by the seller, and the other half by the purchaser, and is charged accordingly by their agents.

The expense of selecting hemp is 50 copecks per bercovitz (or 10 poods), and is the same for every sort. To every bundle of assorted hemp is attached a ticket with the names of the selector, binder, and owner, and the date and year. Every bundle has also affixed to it a piece of lead, stamped on one side with the name of the selector, and on the other with the sort of hemp and the time when it was selected. The external marks of good hemp are, its being of an equal green colour and free from spills; but its good quality is proved by the strength of the fibre, which should be fine, thin, and long. The first sort should be quite clean and free from spills; the *out-shot* is less so; and the *half-clean* contains a still greater portion of spills, and is moreover of mixed qualities and colours.

As a perfect knowledge of the qualities of hemp and flax can only be acquired by experience and attention, agents usually employ men constantly occupied in this busi-

ness, by which means they are sure of getting goods of the best quality, and have the best chance of giving satisfaction to their principals; because, although the hemp is selected by sworn selectors, yet, owing to the quantity of business and the speed with which it must be executed, &c., there are often great differences in the same sorts. The charges are in this way somewhat increased; but this is trifling in comparison of the advantage gained. The part separated, or picked out in cleaning hemp, is called *hemp codilla*; it is generally made up in small bundles of 1 pood, which are again, when shipped, bound together in large bundles, each consisting of about 30 small ones.

Particular care must be taken to ship hemp and flax in fine dry weather; if it get wet, it heats, and is totally spoiled. For this reason every vessel taking in hemp or flax is furnished with mats to prevent its getting damp. Hemp, being light and bulky, is, when stowed, forced into the hold by means of winches, which renders the operation of loading rather slow.

It may be taken as a general rule, that the prices of hemp are highest in the months of May, June, July, and the early part of August; the demand for this article being then greatest, and the exportation to North America being principally effected at this season. Again, the prices of hemp are lowest in the month of September; the reason of which is, that the less opulent hemp-merchants return at the end of this month to their own country, in order to make new purchases for the ensuing year; and rather than be detained, sell the remainder of their stock some roubles below the market price. This causes a general decline; although an unusual demand for the article happening at the same time, or political events or rumours, occasionally produce a contrary effect. Two large warehouses, called *ambares*, are built in Petersburg, for the special purpose of housing hemp, where the greatest order is observed.

Account of the Quantities of Hemp imported into the United Kingdom during each of the 3 Years ending with 1858; specifying the Countries from which they were imported, and the Quantities brought from each.

Countries.	1856.	1857.	1858.
	Cwts.	*Cwts.*	*Cwts.*
Russia	540,155	580,697	612,174
Austrian Italy	34,566	28,819	26,001
British East Indies	45,396	47,203	73,483
Philippine Islands	28,208	56,117	143,181
Other countries	142,806	79,365	26,971
Total	791,131	792,201	882,110
Jute, and other vegetable substances of the nature of hemp, mostly from India	736,595	646,191	756,250
Grand total	1,527,726	1,438,392	1,638,360

The duty to which hemp was formerly liable was repealed in 1845.

Sixty poods of hemp and 40 poods of codilla make a last at Petersburg; 63 poods make an English ton.—(pp. 47—52.)

Riga hemp fetches a higher price than that of Petersburg. It is divided into 3 sorts: viz. rein, rhine or clean, out-shot, and pass or half-clean. The following are the prices of hemp, as quoted in the London markets, April, 1859.

	£	s.	£	s.
Hemp, St. Petersburg, clean, per ton	30	0	to 0	0
out-shot	29	0	— 29	10
half-clean	27	10	— 28	0
Riga, rhine	31	0	— 0	0
Manilla, free	26	0	— 53	0
Hemp, East Indian Sunn	15	0	— 20	0
Jute	13	10	— 19	0
Coir, rope	24	0	— 32	0
junk	17	0	— 25	0
fibre	23	0	— 30	0

We subjoin a statement of the various charges on the exportation of hemp from Petersburg, and on its importation into this country.

Clean Hemp.—1 bundle = 63 poods = 1 ton.

	Rou.	*cop.*
Duty 3 rou. 60 cop. per bercovitz	22	68
Additional duty, 10 per cent.	2	27
Quarantine duty, 1 per cent.	0	22
	R. 25	17
Custom-house charges, 4 per cent.	1	1
Receiving weighing, and shipping, 3¾ rou. per bundle	3	75
Bracking, 50 cop. per bercovitz	3	15
Binding, 40 cop. per ditto	2	52
Lighterage and attendance to Cronstadt, 8 rou. per bundle	8	0
Rebinding, 2½ rou. per bundle, ½ charged	1	12
Brokerage, 60 kop. per ton	0	60
	R. 45	32

Brokerage, ½ per cent.
Commission and extra charges, 3 per cent.
Stamps on drafts, ½ per cent. } ½ per cent.
Brokerage, ½ per cent. }

Charges of importation per ton, taking the price at 40*l.* per ton.

	£	s.	d.
Insurance, say 1*l.*, and policy	0	10	6
Freight, 52*s.* 6*d.* per ton	2	12	6
Customs and Russia dues	4	15	8
Landing charges	0	10	0
Sound dues	0	5	0
Discount, 3½ per cent.	1	10	0
Brokerage	0	4	0
per ton	£10	5	8

In the above calculation, no allowance is made for damage; which, if care be taken to select a good vessel and an early season, does not amount to much. The estimates are nearly the lowest rates of charge. The insurance, indeed, is sometimes as low as 12*s.* 6*d.* per cent., and policy. That, however, is only in the very earliest part of the season; it rises to 5*l.* per cent. in the autumn.

Out-shot Hemp.—1 bundle = 63 poods = 1 ton.

	Rou.	*cop.*
Fixed charges	46	11
Other charges same.		

Half-clean Hemp.—1½ bundle = 63 poods = 1 ton.

	Rou.	*cop.*
Fixed charges	48	71
Other charges same.		

HEMP (MANILLA) commonly called Manilla white rope. Mr. Crawfurd gives the following account of this article:—"Of the wild banana one kind (*Musa textilis*) grows in vast abundance in some of the most northerly of the spice islands. In the great island of Mindanao, in the Philippines, it fills extensive forests. From the fibrous bark or epidermis is manufactured a kind of cloth, in frequent use among the natives. It also affords the material of the most valuable cordage which the indigenous products of the

Archipelago yield. This is known to our traders and navigators under the name of Manilla rope, and is equally applicable to cables, and to standing or running rigging."—(*Hist. of Archipelago*, vol. i. p. 412.)

HEMP (INDIAN), or SUNN and JUTE. Sunn consists of the fibre of the *Crotolaria juncea*, a totally different plant from the *Cannabis sativa*, which, as already stated, is never used by the Hindoos for cloth or cordage. Sunn is grown in various places of Hindostan. The strongest, whitest, and most durable species is produced at Comercolly. During those periods of the late war when the intercourse with the Baltic was interrupted, and hemp bore an enormous price, large quantities of sunn were imported; but after the intercourse with the Continent was renewed, the importation of sunn ceased for several years. But within the last dozen years it has been again imported to a considerable extent. It is, however, deficient in toughness.

Jute consists of the fibres of two plants, called the chonch and isbund (*Corchorus olitorius* and *Corchorus capsularis*), extensively cultivated in Bengal, and forming, in fact, the material of which gunny bags and gunny cloth are made. It fetches nearly, though not quite, as high a price as sunn. It comes into competition with flax, tow, and codilla, in the manufacture of stair and other carpets, bagging for cotton and other goods, and such like fabrics, being extensively used for these purposes in Dundee. But it is unsuitable for cordage and other articles into which hemp is manufactured, from its snapping when twisted, and rotting in water. The quantities imported, and the prices, have fluctuated very greatly during the last dozen years; but from 12*l.* to 18*l.* a ton appears to be a fair average price. When first introduced into this country, in 1815, the price of jute varied from 35*l.* to 40*l.* a ton. It was then, however, very little used, and did not, in fact, begin to come into anything like general use as bagging till 1827 or 1828.

HEMP-SEED (Fr. *Chenevis, Chenevi*; Ger. *Hanfsaat*; It. *Cannapuccia*; Lat. *Semen cannabinum*; Rus. *Konopljanoe Semja*), the seed of hemp. The best hemp-seed is that which is brightest, and will not break when rubbed. It is used either as seed, or for crushing for oil, or as food for fowls. Previously to 1832 it was loaded with a duty of 2*l.* per quarter, which was then reduced to 1*s.* per ditto, and in 1845, was wholly repealed.

In 1857 we imported 4,727 qrs. of hemp-seed, of which Holland supplied 3,238 qrs. It was valued at 44*s.* a qr. Our exports during the same year amounted to only 32 qrs.

HERRINGS, AND HERRING FISHERY. The herring (*Clupea harengus* of Linnæus) is a fish too well known to require any description. It is everywhere in high esteem, both when fresh and when salted.

"Herrings are found from the highest northern latitudes yet known, as low as the northern coasts of France. They are met with in vast shoals on the coast of America as low as Carolina. In Chesapeake Bay is an annual inundation of those fish, which cover the shore in such quantities as to become a nuisance. We find them again in the seas of Kamtschatka; and probably they reach Japan. The great winter rendezvous of the herring is within the Arctic circle: there they continue for many months, in order to recruit themselves after the fatigue of spawning; the seas within that space swarming with insect food in a far greater degree than those of our warmer latitudes. This mighty army begins to put itself in motion in spring. They begin to appear off the Shetland Isles in April and May. These are only the forerunners of the grand shoal, which comes in June; and their appearance is marked by certain signs, such as the numbers of birds, like gannets and others, which follow to prey on them; but when the main body approaches, its breadth and depth is such as to alter the appearance of the very ocean. It is divided into distinct columns of 5 or 6 miles in length, and 3 or 4 in breadth; and they drive the water before them, with a kind of rippling. Sometimes they sink for the space of 10 or 15 minutes, and then rise again to the surface; and in fine weather reflect a variety of splendid colours, like a field of the most precious gems.

"The first check this army meets in its march southward, is from the Shetland Isles, which divide it into two parts; one wing takes to the east, the other to the western shores of Great Britain, and fill every bay and creek with their numbers: the former proceed towards Yarmouth, the great and ancient mart of herrings; they then pass through the British Channel, and after that in a manner disappear. Those which take towards the west, after offering themselves to the Hebrides, where the great stationary fishery is, proceed to the north of Ireland, where they meet with a second interruption, and are obliged to make a second division: the one takes to the western side, and is scarcely perceived, being soon lost in the immensity of the Atlantic; but the other, that passes into the Irish Sea, rejoices and feeds the inhabitants of most of the coasts that border on it. These brigades, as we may call them, which are thus separated from the greater columns, are often capricious in their motions, and do not show an invariable attachment to their haunts.

"This instinct of migration was given to the herrings, that they might deposit their spawn in warmer seas, that would mature and vivify it more assuredly than those of the frozen zone. It is not from defect of food that they set themselves in motion; for they come to us full of fat, and on their return are almost universally observed to be lean and miserable. What their food is near the pole, we are not yet informed; but in our seas they feed much on the *oniscus marinus*, a crustaceous insect, and sometimes on their own fry.

"They are full of roe in the end of June, and continue in perfection till the beginning of winter, when they deposit their spawn. The young herrings begin to approach the shores in July and August, and are then from ½ an inch to 2 inches long. Though we have no particular authority for it, yet, as very few young herrings are found in our seas during winter, it seems most certain that they must return to their parental haunts beneath the ice. Some of the old herrings continue on our coast the whole year." — (*Pennant's British Zoology.*)

The herring was unknown to the ancients, being rarely, if ever, found within the Mediterranean. The Dutch are said to have engaged in the fishery in 1164. The invention of pickling or salting herrings is ascribed to one Beukels, or Beukelson, of Biervliet, near Sluys, who died in 1397. The emperor Charles V. visited his grave, and ordered a magnificent tomb to be erected to his memory. Since this early period, the Dutch have uniformly maintained their ascendancy in the herring fishery; but, owing to the Reformation, and the relaxed observance of Lent in Catholic countries, the demand for herrings upon the Continent is now far less than in the fourteenth and fifteenth centuries.

Importance of the Herring Fishery. Progress of it in Great Britain. — There is, perhaps, no branch of industry, the importance of which has been so much over-rated as that of the herring fishery. For more than 2 centuries, company after company has been formed for its prosecution, fishing villages have been built, piers constructed, boards and regulations established, and vast sums expended in bounties; and yet the fishery never got into a healthy state till it was left to its own resources. The false estimates that have been long current with respect to the extent and value of the Dutch herring fishery, contributed more, perhaps, than any thing else, to the formation of exaggerated notions of the importance of this business. That the Hollanders prosecuted it to a greater extent, and with far greater success, than any other people, is, indeed, most true. There is not, however, the shadow of a ground for believing that they ever employed, as has often been stated, about 450,000 individuals in the fishery and the employments immediately subservient to it. We question whether they ever employed so many as 50,000. At the time when the Dutch carried on the fishery to the greatest extent, the entire population of the Seven United Provinces did not certainly exceed 2,400,000; and deducting a half for women, and from a half to two thirds of the remaining 1,200,000 for boys and old men, it would follow, according to the statement in question, that every able-bodied man in Holland must have been engaged in the herring fishery! It is astonishing how such ridiculously exaggerated accounts ever obtained any circulation; and still more so, that they should have been referred to and quoted, without, apparently, any doubt being ever entertained of their authenticity, down to our own times! * Had they been sifted ever so little, their falsehood would have been obvious; and we should have saved many hundreds of thousands of pounds that have been thrown away in attempting to rival that which never existed.

It would be impossible, within the limits to which this article must be confined, to give any detailed account of the various attempts that have been made at different periods to encourage and bolster up the herring fishery. In 1749, in pursuance of a recommendation in his Majesty's speech at the opening of parliament, and of a report of a committee of the House of Commons, 500,000*l.* was subscribed for carrying on the fisheries, under a corporation called "The Society of the Free British Fishery." The Prince of Wales was chosen governor of the Society, which was patronised by men of the first rank and fortune in the state. But this Society did not trust entirely to its own efforts for success. The duties were remitted upon the salt used in the fisheries; and besides this reasonable encouragement, a high tonnage bounty was granted upon every buss fitted out for the deep sea fishery. In consequence, many vessels were sent out, as Dr. Smith has truly stated, not to catch herrings, but to *catch the bounty*; and to such an extent was this abuse carried, that in 1759, when the tonnage bounty was 50*s.* the almost incredible sum of 159*l.* 7*s.* 6*d.* was paid as bounty *upon every barrel of merchantable herrings that was produced!* — (*Wealth of Nations*, p. 231.) But notwithstanding this encouragement, such was the waste and mismanagement of the Company's affairs, that it was speedily destroyed. Smith says, that in 1794 hardly a vestige remained of its having ever been in existence.

But notwithstanding this ill success, a new company was formed, for nearly the same objects, in 1786, of which George III. was patron. It has had nearly the same fate. "For a season or two, busses were fitted out by the society; but if every herring caught had carried a ducat in his mouth, the expense of its capture would scarcely have been repaid. The bubble ended by the society for fishing in the deep sea becoming a kind of building society, for purchasing ground in situations where curers and fishermen find it convenient to settle, and selling or letting it in small lots to them, at such advance of price as yields something better than fishing profits." — (See an excellent article on the *Herring Fishery* in the 11th Number of the *Quarterly Journal of Agriculture.*)

In 1808, a fresh attempt was made for the improvement and extension of the fishery. The act 48 Geo. 3. established a distinct set of commissioners for the superintendence of all matters connected with the fishery, and authorised them to appoint a sufficient number of fishery officers, to be stationed at the different ports, whose duty is to see that the various regulations with respect to the gutting, packing, &c. of the herrings, and the branding of the barrels, are duly carried into effect. In 1809, a bounty of 3*l.* per ton was granted on all vessels employed in the deep sea herring fishery, of above 60 tons burden, but payable only on 100 tons; and in 1820, a bounty of 20*s.* per ton, which, under certain specified circumstances, might be increased to 50*s.*, was granted on all vessels of from 15 to 60 tons, fitted out for the shore herring fishery; and, exclusively of these bounties on the tonnage, a bounty of 2*s.* a barrel was allowed on all herrings cured gutted during the 6 years ending the 5th of April, 1815, and a bounty of 2*s.* 8*d.* a barrel on their exportation, whether cured gutted or ungutted. During the 11 years ending the 5th of April, 1826, the bounty on herrings cured gutted was 4*s.* a barrel.

It is stated in the article already referred to, that the cost of a barrel of cured herrings is about 16*s.* the half going to the fisherman for the green fish, the other half to the curer for barrel, salt, and labour. The bounty of 4*s.* a barrel was, therefore, equal to *half* the value of the herrings as sold by the fisherman, and to *one fourth* of their value as sold by the curer! In consequence of this forced system, the fishery was rapidly increased. The following statement, extracted from the *Report of the Commissioners of the Fishery Board*, dated 27th of July, 1843, shows the progress it has made since 1809: —

* They seem to have been first set forth in a treatise ascribed to Sir Walter Raleigh; and, what is singular, they were admitted by De Witt into his excellent work, the *True Interest of Holland.* They have been implicitly adopted by Sir John Barrow, in the article *Fisheries* in the *Encyclopædia Britannica.*

Abstract of the Total Quantity of White Herrings cured, branded for Bounty, and exported, in so far as the same have been brought under the Cognizance of the Officers of the Fishery, during the undermentioned Years, ending till 1844 on the 5th of April, since then, till 1852, on the 5th of January, and thereafter on the 31st of December, distinguishing each Year, and the Herrings cured gutted, from those cured ungutted.

Years.	Total Quantity of Herrings cured.			Total Quantity of Herrings branded.	Total Quantity of Herrings exported.		
	Gutted.	Ungutted.	Total.		Gutted.	Ungutted.	Total.
	Barrels.	*Barrels.*	*Barrels.*	*Barrels.*	*Barrels.*	*Barrels.*	*Barrels.*
1811	65,430	26,397⅓	91,827⅓	55,662⅓	18,880	19,253	38,313
1815	105,372½	54,767	160,139½	83,376	68,938	72,367½	141,305½
1820	347,190⅓	35,301	382,491⅓	309,700⅓	244,096	9,420	253,516
1825	303,397	44,268½	347,665½	270,841½	201,882½	134	202,016½
1830	280,935⅓	48,623½	329,557	218,418½	177,776	3,878½	181,654½
1832	315,114⅓	49,547	362,660⅓	157,859½	214,820½	2,679⅓	217,499⅔
1833	353,684⅓	63,279⅔	416,964	168,259⅓	218,422⅓	2,255	220,684⅓
1834	382,677⅓	68,857⅔	451,531⅓	178,000⅓	269,133⅓	2,960	272,093⅓
1835	217,212⅓	60,074⅓	277,317	85,079⅓	156,229⅓	2,580	158,805⅓
1836	399,534	98,280⅔	497,614⅔	192,317	270,846⅔	2,547	273,593⅓
1837	290,169	107,660⅔	397,829⅔	114,192	187,238⅓	2,027	189,265⅓
1838	382,400	125,374⅓	507,774⅓	141,552	229,160⅓	5,997	235,158
1839	382,229	173,330⅓	555,559⅔	153,659⅓	233,690⅓	6,040	239,730⅓
1840	405,379⅓	138,565⅔	543,945	152,231	250,554	1,968	252,522
1841	431,157	126,105⅓	557,262⅓	154,189	246,851	3,286	250,137
1842	489,620⅓	177,624⅔	667,245⅓	190,922⅓	283,530	1,206	284,736
1843	442,290	181,129⅔	623,419⅔	164,713			291,800⅓
1844	475,556⅔	191,803	665,359⅔	152,988			313,516⅓
1845	411,271	121,375	532,646	142,473⅓			245,194
1847	414,915⅔	192,535⅔	607,451	156,278⅔			255,714
1848	372,989⅔	189,754	562,743⅓	116,500⅔			250,181
1849	392,827	251,541⅓	644,368⅓	153,944			249,994
1850	507,024⅓	263,673⅔	770,698⅓	215,286⅔			340,256⅔
1851	578,187	165,822⅓	744,009⅓	172,924⅓			266,908
1852	417,253⅓	176,797⅔	594,051	201,636⅔			264,204⅓
1853	560,367	217,672⅔	778,039⅔	218,136⅔			342,630⅔
1854	458,579⅓	177,982⅔	636,562⅓	211,844			361,696⅔
1855	582,715⅔	183,988⅓	766,703⅓	280,581⅔			442,264
1856	466,429⅓	143,559	609,988⅓	223,281			347,611⅓
1857	465,292⅓	115,521⅔	580,813⅔	219,992			367,160⅔

N.B. Since 1851, for Scotland and the Isle of Man only.

On looking at this Table, it is seen that the fishery made no progress under the new system till 1815, when the bounty was raised to 4*s*. This is a sufficient proof of the factitious and unnatural state of the business. Its extension, under the circumstances in question, instead of affording any proof of its being in a really flourishing condition, was distinctly the reverse. Individuals without capital, but who obtained loans sufficient to enable them to acquire boats, barrels, salt, &c. on the credit of the bounty, entered in vast numbers into the trade. The market was most commonly glutted with fish; and yet the temptation held out by the bounty caused it to be still further overloaded. Great injury was consequently done to those fish curers who possessed capital; and even the *fishermen* were injured by the system. "Most of the boats employed in the fishery never touch the water but during 6 weeks, from the middle or end of July to the middle of September. They are owned and sailed, not by regular fishermen following that vocation only, but by tradesmen, small farmers, farm-servants, and other landsmen, who may have sufficient skill to manage a boat at that season, but who do not follow the sea except for the 6 weeks of the herring fishery, when they go upon a kind of gambling speculation, of earning a twelvemonth's income by 6 weeks' work."—(*Quarterly Journal*, No. 11. p. 653.)

It has been often said, in vindication of the bounty system, that by extending the fishery it extended an important nursery for seamen; but the preceding statement shows that such has not been its effect. On the contrary, it has tended to depress the condition of the genuine fisherman, by bringing a host of interlopers into the field; and it has also been prejudicial to the little farmers and tradesmen, by withdrawing their attention from their peculiar business, that they may embark in what has hitherto been little less than a sort of lottery adventure.

These consequences and the increasing amount of the sum paid for bounties, at length induced the government to adopt a different system. By an act passed in 1825, the bounty of 2*s*. 8*d*. on exported herrings was made to cease in 1826, and 1*s*. was annually deducted from the bounty of 4*s*. a barrel paid on gutted herrings, till it ceased in 1830. And the above table shows conclusively that those who contended that the best way to promote the fishery was to let it alone, were in the right; the quantity of herrings cured and the quantity exported having been both nearly doubled since the cessation of the bounties. The fishery is now, for the first time these hundred years, placed on a secure foundation; the supply is proportioned to the real demand, while the genuine fishermen, and those curers who have capital of their own, are no longer injured by the competition of landsmen and others allured to the business by factitious encouragement and trading on capital furnished by government.

The repeal of the salt laws, and of the duty on salt, which preceded the repeal of the bounty, was of signal service to the fishery. It is true that salt used in the fisheries was exempted from the duty; but in order to prevent the revenue from being defrauded, so many regulations were enacted, and the difficulties and penalties to which the fishermen were in consequence subjected were so very great, that some of them chose rather to pay the duty upon the salt they made use of, than to undertake compliance with the regulations.

It is to be regretted, that when government repealed the bounty, it did not also abolish the "Fishery Board," and the officers and regulations it had appointed and enacted. So long as the bounty existed, it was quite proper that those who claimed it should be subjected to such regulations as government chose to enforce; but since it has been repealed, we see no reason why the fishery should not be made perfectly free, and every one allowed to prepare his herrings as he thinks best. It is said, indeed, that were there no inspection of the fish, frauds of all sorts would be practised: that the barrels would be ill made, and of a deficient size; that the fish would not be properly packed; that the bottom and middle of the barrels would be filled with bad ones, and a few good ones only placed at the top; that there would not be a sufficiency of pickle, &c. But it is obvious that the reasons alleged in vin-

dication of the official inspection kept up in the herring fishery, might be alleged in vindication of a similar inspection in almost every other branch of industry. It is, in point of fact, utterly useless. It is an attempt, on the part of government, to do that for their subjects, which they can do better for themselves. Supposing the official inspection were put an end to, the merchants and others who buy herrings of the curers would themselves inspect the barrels; and while any attempt at fraud by the curers would thus be effectually obviated, they would be left at liberty to prepare their herrings in any way that they pleased, without being compelled, as at present, to follow only one system; or to prepare fish in the same way for the tables of the poor as for those of the rich. So far, indeed, is it from being true that the inspection system tends to put down trickery, that there is much reason to think that its effect is directly the reverse. The *surveillance* exercised by the officers is anything but strict; and the official *brand* is often affixed to barrels which, were it not for the undeserved confidence that is too frequently placed in it by the unwary, would lie on the curer's hands. It is rather a security against the detection of fraud than against its existence.

The grand object of the herring fishery "Board" has been to enforce such a system of curing as would bring British herrings to a level with those of the Dutch. In this, however, they have completely failed; Dutch herrings generally fetching double the price of British herrings in every market of Europe. Neither is this to be wondered at. The consumers of Dutch herrings are the inhabitants of the Netherlands and of the German towns, who use them rather as a luxury than as an article of food, and who do not grudge the price that is necessary to have them in the finest order. The consumers of British herrings, on the other hand, are the negroes of the West Indies, and the poor of Ireland and Scotland. Cheapness is the prime requisite in the estimation of such persons; and nothing can be more entirely absurd, than that a public Board should endeavour to force the fish curers to adopt such a system in the preparation of herrings as must infallibly raise their price beyond the means of those by whom they are bought. Why should not the taste of the consumers be consulted as much in this as in anything else? It would not be more ridiculous to attempt to have all cheese made of the same richness and flavour as Stilton, than it is to attempt to bring up all herrings to the standard of the Dutch.

We do, therefore, hope that an end may be put to this system; and that our legislators and patriots will cease to torment themselves with schemes for the improvement of the fisheries. The very best thing they can do for them is to let them alone. It is not a business that requires any sort of adventitious encouragement. Every obstacle to the easy introduction of fish into London and other places should certainly be removed; but all direct interference with the fishery are sure to be in the last degree pernicious.

Of the 367,114 barrels of herrings exported from the U. Kingdom in 1857, 189,216 went to Prussia, 66,349 to Hanover, 20,224 to the Austrian territories, 19,458 to Tuscany. The exportation of herrings to the W. Indies, which had of late years rapidly declined, in consequence, no doubt, of the emancipation of the slaves, has now wholly ceased.

HIDES (Ger. *Haüte*; Du. *Huiden*; Fr. *Peaux*; It. *Cuoja*; Sp. *Pellejos, Pieles*; Rus. *Koshi*), signify, generally, the skins of beasts; but the term is more particularly applied to those of large cattle, such as bullocks, cows, horses, &c. Hides are raw or green; that is, in the state in which they are taken off the carcase, or dressed with salt, alum, and saltpetre, to prevent them from putrefying; or they are cured or tanned. The hides of South America are in the highest repute, and vast quantities of them are annually imported. The customs duty formerly imposed on hides when imported was repealed by Sir Robert Peel in 1845. And, as was to be expected, the imports have since been very largely increased. The subjoined table shows the sources whence hides are principally brought, and the supplies furnished by each.

N. B. The importation of infected or diseased hides, skins, hoofs, horns, &c., may be prohibited by Order in Council.

Account of the various Descriptions of Hides imported into the U. Kingdom in 1857, specifying the Countries whence they were imported, the Quantities brought from each, and their Values.

	Hides not Tanned, Curried, or Dressed.			Hides Tanned or in some way Dressed.			
	Wet.	Dry.	Value.	Unvarnished.	Varnished.	Tanned.	Value.
	cwts.	*cwts.*	£	*Lbs.*	*Lbs.*	*Lbs.*	£
Russia		35,775	186,950			226,314	13,004
Denmark	13,027		40,885				
Hanover				22,675			1,934
Hanse Towns	23,103	6,646	110,253	54,237	44,057	57,718	23,132
Holland	11,692	3,242	55,546	220,589	243,419	71,026	102,617
Belgium	19,957		61,755	212,887	22,503	76,063	30,569
France	15,663	2,075	64,531	1,088,931	74,650	692,857	215,150
Portugal						101,660	6,585
Sardinia	8,844		27,889				
Austrian Italy						22,321	1,450
Philippine Islands		4,248	20,218				
Turkey Proper				11,872			989
United States	30,045	8,555	131,453	115,352		960,363	63,727
Ionian Islands						44,723	2,884
Brazil	108,941	21,369	543,009				
Uruguay	107,352		424,262				
Buenos Ayres	155,067	5,592	665,517				
British possessions in S. Africa	42,219		143,554				
British West Indies		223,016	1,067,378			17,369	1,118
Australia	96,133		268,421	39,116		913,170	59,322
Other ports	12,213	14,310	115,549	20,319	6,393	290,874	20,192
						12,513	4,586
Total	645,354	322,858	3,927,168	1,786,078	391,022	3,486,971	547,050

HOGSHEAD, a measure of capacity, containing 52½ Imperial gallons. A hogshead is equal to ½ a pipe.—(See WEIGHTS AND MEASURES.)

HOLIDAYS, are understood to be those days, exclusive of Sundays, on which no regular public business is transacted at particular public offices. They are either fixed or variable. The *variable holidays* are, Ash Wednesday, Good Friday, Easter Monday and Tuesday. Holy Thursday, Whit Monday and Tuesday.

No holidays are kept by the Bank of England, the Customs, and the Inland Revenue Department, except Christmas-day, Good Friday, the Queen's birthday, and such days as may be appointed by proclamation for the purpose of a general fast, or by warrant of the authorities.

HONEY (Du. *Honig, Honing;* Fr. *Miel;* Ger. *Honig;* It. *Mele;* Lat. *Mel;* Rus. *Med;* Sp. *Miel*), a vegetable juice collected by bees.

"Its flavour varies according to the nature of the flowers from which it is collected. Thus, the honeys of Minorca, Narbonne, and England are known by their flavours; and the honey prepared in different parts even of the same country differs. It is separated from the comb by dripping and by expression: the first method affords the purest sort; the second separates a less pure honey; and a still inferior kind is obtained by heating the comb before it is pressed. When obtained from young hives, which have not swarmed, it is denominated *virgin honey*. It is sometimes adulterated with flour, which is detected by mixing it with tepid water: the honey dissolves, while the flour remains nearly unaltered."—(*Thomson's Dispensatory.*)

HOPS (Ger. *Hopfen;* Du. *Hoppe;* Fr. *Houblon;* It. *Luppoli, Bruscandoli;* Sp. *Oblon;* Rus. *Chmel;* Lat. *Humulus Lupulus*). The hop is a perennial rooted plant, of which there are several varieties. It has an annual twining stem, which, when supported on poles, or trees, will reach the height of from 12 to 20 feet or more. It is a native of Britain, and most parts of Europe.

When the hop was first used for preserving and improving beer, or cultivated for that purpose, is not known—(see ALE); but its culture was introduced into this country from Flanders in the reign of Henry VIII. Hops are first mentioned in the Statute Book in 1552, in an act 5 & 6 Edward 6. c. 5.; and it would appear from an act passed in 1603 (1 Jac. 1. c. 18.), that hops were at that time extensively cultivated in England. Walter Blithe, in his *Improver Improved*, published in 1649 (3d ed. 1653, p. 240.), has a chapter upon improvement by plantations of hops, in which there is this striking passage. He observes, that "hops were then grown to be a national commodity; but that it was not many years since the famous city of London petitioned the parliament of England against two nuisances; and these were, Newcastle coals, in regard to their stench, &c., and hops, in regard they would *spoyl the taste of drink*, and endanger the people: and had the parliament been no wiser than they, we had been in a measure pined, and in a great measure starved; which is just answerable to the principles of those men who cry down all devices, or ingenious discoveries, as projects, and thereby stifle and choak improvement."

After the hops have been picked and dried, the brightest and finest are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used in the brewing of fine ales, and the latter by the porter brewers. A *pocket* of hops, if they be good in quality, well cured and tight trodden, will weigh about 1¼ cwt.; and a *bag* of hops will, under the same conditions, weigh about 2½ cwt. If the weight of either exceeds or falls much short of this medium, there is reason to suspect that the hops are of an inferior quality, or have been badly manufactured. The brighter the colour of hops, the greater is the estimation in which they are held. Farnham hops are reckoned best. The expense of forming hop plantations is very great, amounting in some instances to from 70*l.* to 100*l.* an acre; and the produce is very uncertain, the crop being frequently insufficient to defray the expenses of cultivation.

The hop growers are placed under the *surveillance* of the excise, a duty of 2*d.* per lb. being laid on all hops produced in this country. A hop planter is obliged to give notice to the excise, on or before the 1st of August each year, of the number of acres he has in cultivation; the situation and number of his oasts or kilns for drying; the place or places of bagging, which, with the storerooms or warerooms in which the packages are intended to be lodged, are entered by the officer. No hops can be removed from the rooms thus entered, before they have been weighed and marked by a revenue officer; who marks, or ought to mark, its weight, and the name and residence of the grower, upon each bag, pocket, or package. Counterfeiting the officer's mark is prohibited under a penalty of 100*l.*, and defacing it under a penalty of 20*l.* A planter or grower knowingly putting hops of different qualities or values into the same bag or package, forfeits 20*l.* And any person mixing with hops any drug, or other thing, to change or alter the colour or scent, shall forfeit 5*l.* a cwt. on all the hops so changed or altered. The malicious cutting or destroying of hop plantations may be punished by transportation beyond seas for life, or any term not less than 7 years, or by imprisonment and hard labour in a common gaol, for any term not exceeding 7 years.—(*Loudon's Ency. of Agriculture; Stevenson's Surrey; Burn's Justice, &c.*)

The duty on hops of the growth of Great Britain produced, in 1857-58, 447,035*l.* nett. The land under hops in England comprises about 52,000 acres, of which there are in Kent about 27,500, in Sussex 10,500, in Hereford, 12,500, in Worcestershire 2,000, &c.

Hops exported from Great Britain are, on being again imported, to be treated as foreign, whether originally so or not.

HORN (Du. *Hoorn;* Fr. *Corne;* Ger. *Horn;* Lat. *Cornu*), a substance too well known to require any description. Horns are of very considerable importance in the arts, being applied to a great variety of useful purposes. They are very extensively used in the manufacture of handles for knives, and in that of spoons, combs, lanterns, snuff-horns, &c. When divided into thin plates, horns are tolerably transparent, and were formerly used instead of glass in windows. Glue is sometimes made out of the refuse of horn. We annually import considerable quantities. At an average of 1850 and 1851, the imports of foreign horn amounted to 3,727 tons and the exports to 979 tons.

HORSE (Ger. *Pferd;* Du. *Paard;* Da. *Hest;* Sw. *Hast;* Fr. *Cheval;* It. *Cavallo;* Sp. *Caballo;* Rus. *Loschad;* Pol. *Kon;* Lat. *Equus;* Gr. Ἵππος), a domestic quadruped of the highest utility, being by far the most valuable acquisition made by man among the lower animals.

There is a great variety of horses in Britain; the frequent introduction of foreign breeds, and their judicious mixture, having greatly improved the native stocks. Our race horses are the fleetest in the world; our carriage and cavalry horses are amongst the handsomest and most active of those employed for these purposes; and our heavy draught horses are the most powerful, beautiful, and docile of any of the large breeds.

Number and Value of Horses in Great Britain.—The number of horses used in Great Britain for different purposes is very great, although less so, perhaps, than has been generally supposed. Mr. Middleton (*Survey of Middlesex*, 2d ed. p. 639.) estimated the total number of horses in England and Wales, employed in husbandry, at 1,200,000, and those employed for other purposes at 600,000. Dr. Colquhoun, contrary to his usual practice, reduces this estimate to 1,500,000 for Great Britain; and in this instance we are inclined to think his guess is pretty near the mark. In 1814, when the horses employed in husbandry were taxed, the numbers of the various descriptions of horses in England and Wales, which paid duty, amounted to 1,204,307. But this account did not include stage-coach, mail-coach, and hackney-

coach horses, nor did it include those used in posting. Poor persons keeping only one horse were also exempted from the duty; as were all horses employed in the regular regiments of cavalry and artillery, and in the volunteer cavalry. In Mr. Middleton's estimate, already referred to, he estimated the number of post-chaise, mail, stage, and hackney-coach horses at 100,000; and from the inquiries we have made, we are satisfied that if we estimate the number of such horses in Great Britain, at this moment, at the like sum, we shall be decidedly beyond the mark.

On the whole, therefore, it may be fairly estimated that there are in Great Britain from 1,300,000 to 1,400,000 horses employed for various purposes of pleasure and utility. They may, probably, be worth at an average from 10*l.* to 12*l.*, making their total value from 13,000,000*l.* to 16,860,000*l.* sterling, exclusive of the young horses.

The duties begin to be charged as soon as horses are used for drawing or riding, and not previously.

An Account of the Number of Horses in G. Britain charged with Assessed Duties in each of the Years ended 5th April, 1857 and 1858, and the Amount of Duty.

	1857.				1858.			
	Number of Horses.	Amount of Duty.			Number of Horses.	Amount of Duty.		
		£	s.	d.		£	s.	d.
Race horses	1,421	5,470	17	0	(By Act 19 & 20 Vict. c. 82., transferred to the excise branch, from 5th April, 1857.			
Horses exceeding 15 hands, used for riding and drawing carriages, chargeable with duty	155,456	163,229	17	0	159,125	167,082	6	0
Ditto, used by farmers, clergymen, surgeons, &c.	128,038	67,219	13	9	129,634	68,057	17	0
Ditto, exceeding 13 hands, used in trade	169,497	88,988	0	6	172,184	90,396	12	0
Ditto, not exceeding 13 hands	61,327	28,420	1	9	64,056	29,716	16	9
Total	515,739	353,328	10	0	525,000	355,253	11	9

Exemptions.—Besides the above account of the horses charged with duty, an account is published of the numbers exempted from the duty. This account is not, however, to be relied on; inasmuch as very many of those whose horses are not liable to the duties never think of making any returns. By not attending to this circumstance, we inadvertently, in a former edition of this work, under-rated the number of horses engaged in certain departments of industry.

Influence of Railroads on Horses.—The statements now made, show the dependence that ought to have been placed on the estimates that were put forth by some of the promoters of railroads and steam carriages. These gentlemen were pleased to tell us, that, by superseding the employment of horses in public conveyances, and in the regular carriage of goods, the full adoption of their projects would in the end enable 1,000,000 horses to be dispensed with; and that, as each horse consumed as much food as 8 men, subsistence for 8,000,000 human beings would be provided! To dwell upon the absurdity of such a statement would be worse than useless; nor should we have thought of noticing it, but that it found its way into a report of a committee of the House of Commons. It is sufficient to observe, that the stage and mail coaches, and public waggons, vans, &c. that have been superseded by steam carriages are not supposed to have disengaged more than from 130,000 to 140,000 horses. And the notion that 1 horse consumes as much as 8 men, at least if we suppose the men to be reasonably well fed, is too ridiculous to deserve notice.

The duties at present (1859) imposed on horses are respectively 3*l.* 17*s.* on race horses, and 1*l.* 1*s.* and 10*s.* 6*d.* on other horses. The rules for discriminating between the horses liable to the duty of 21*s.* and those liable to the smaller duty of 10*s.* 6*d.* are embodied in the act 16 & 17 Vict. c. 90. It also contains a lengthened statement of the exemptions from the duty. The latter comprise all horses kept *bonâ fide* for husbandry purposes; but such horses may be rode, free of duty, to and from any place to which a burden shall have been carried or brought back, or to procure medical assistance. Cavalry horses in H. Majesty's service are also exempted from duty; as are the horses kept by field officers, adjutants, and surgeons serving in militia regiments.

Brood mares, while kept for the sole purpose of breeding, are exempted from all duty.

The facility with which horses may be stolen has led to the enactment of several regulations with respect to their sale, &c. The property of a horse cannot be conveyed away without the express consent of the owner. Hence, a *bonâ fide* purchaser gains no property in a horse that has been stolen, unless it be bought in a *fair*, or an *open* market. It is directed that the keeper of every fair or market shall appoint a certain open place for the sale of horses, and one or more persons to take toll there, and keep the place from 10 in the forenoon till sunset. The owner's property in the horse stolen is not altered by sale in a legal fair, unless it be openly ridden, led, walked, or kept standing for *one hour at least, and has been registered*, for which the buyer is to pay 1*d.* Sellers of horses in fairs or markets must be known to the toll-takers, or to some other creditable person known to them, who declares his knowledge of them, and enters the same in a book kept by the toll-taker for the purpose. Without these formalities, the sale is void. The owner of a horse stolen may, notwithstanding its legal sale, redeem it on payment or tender of the price any time within 6 months of the time of the theft.—(*Burn's Justice of the Peace, Chitty's* ed. vol. iii. p. 264.)

In order to obviate the facility afforded by means of slaughtering houses for the disposal of stolen horses, it was enacted in 1786 (26 Geo. 3. c. 71.), that all persons keeping places for slaughtering horses, geldings, sheep, hogs, or other cattle not killed for butcher's meat shall obtain a licence from the quarter sessions, first producing from the minister and churchwardens or from the minister and 2 substantial householders, a certificate of their fitness to be intrusted with the

management and carrying on of such business. Persons slaughtering horses or cattle without licence are guilty of felony, and may be whipped and imprisoned, or transported. Persons licensed are bound to affix over the door or gate of the place where their business is carried on, in legible characters, the words "*Licensed for slaughtering Horses, pursuant to an Act passed in the 26th Year of his Majesty King Geo. III.*" The parishioners entitled to meet in vestry are authorised to choose annually, or oftener, inspectors, whose duty it is to take an account and description, &c. of every living horse, &c. that may be brought to such slaughtering houses to be killed, and of every dead horse that may be brought to be flayed. Persons bringing cattle are to be asked an account of themselves, and if it be not deemed satisfactory, they may be carried before a justice. This act does not extend to curriers, fellmongers, tanners, or persons killing aged or distempered cattle, for the purpose of using or curing their hides in their respective businesses; but these, or any other persons who shall knowingly or wilfully kill any sound or useful horse, &c., shall for every such offence forfeit not more 20*l*., and not less than 10*l*.

The stealing of horses and other cattle is a capital crime, punishable by death. The maliciously wounding, maiming, killing, &c. of horses and other cattle, is to be punished, at the discretion of the court, by transportation beyond seas for life, for any term not less than 7 years, or by imprisonment for any term not exceeding 4 years; and if a male, he may be once, twice, or thrice publicly or privately whipped, should the court so direct.—(7 & 8 *Geo.* 4. c. 29. § 25. ; 7 & 8 *Geo.* 4. c. 30. § 16.)

French Trade in Horses.—The horses of France are not, speaking generally, nearly so handsome, fleet, or powerful as those of England. Latterly, however, the French have been making great efforts to improve the breed of horses, and have, in this view, been making large importations from England and other countries. At an average of the 5 years ending with 1827, the excess of horses imported into France, above those exported, amounted to about 15,000 a year.—(*Bulletin des Sciences Géographiques*, tom. xix. p. 5.) The imports from England have, in some late years, amounted to nearly 2,000 horses. In 1853 they were 1,216.

HORSE DEALERS, persons whose business it is to buy and sell horses.

Every person carrying on the business of a horse dealer is required to keep a book, in which he shall enter an account of the number of horses kept by him for sale and for use, specifying the duties to which the same are respectively liable; this book is to be open, at all reasonable times, to the inspection of the officers; and a true copy of the same is to be delivered quarterly to the assessor or assessors of the parish in which the party resides. Penalty for non-compliance, 50*l*.—(43 *Geo.* 3. c. 161.) Horse dealers are assessed, if they carry on their business in the metropolis, 25*l*.; and if elsewhere, 12*l*. 10*s*.

In 1851 there were in the metropolis 61 horse-dealers, and in other parts of Great Britain 742, making a total of 803.

HUNDRED WEIGHT, a weight of 112 lbs. avoirdupois, generally written cwt.

I. AND J.

ICE. — The sale of ice and snow preserved in the caverns of Vesuvius and on the more elevated parts of Ætna, has long been a considerable branch of trade in Naples, Catania, and the adjoining towns; but it was reserved for the Americans to carry the trade in ice to an extent which could not previously have been anticipated. The extreme heat of the summer in the Central and Southern States occasions a natural demand for ice, which the extreme cold of the winter in the New England States gives the means of supplying. The fresh water lakes adjoining Boston and other large towns being deeply frozen in winter, large ice-houses are filled with the ice taken from them, which is retailed in summer at a low price.

This practice had not, however, been long established till it occurred to some ingenious speculators to attempt to realise a profit by shipping ice to the southern parts of the Union and the West Indies: and the speculation having succeeded, the trade was subsequently extended to the Spanish Main and South America, and more recently to Europe, India, and China! The business has, in fact, become of the first importance; numerous companies and a very large amount of tonnage being now engaged in the ice trade from Boston. And owing to the greater skill and economy with which the business is at present conducted, the ice which used a few years ago to cost 6 cents per lb. in New Orleans and the Havannah, may now be had for 1 cent; and there has been a like fall in its price in India and other more distant places. An immense warehouse has recently been constructed at Calcutta for the reception of the ice brought by the ships, whence it is supplied in the quantities required for the public accommodation. This singular fabric has triple walls, five distinct roofs, incloses about three-fourths of an acre, and is fitted to hold upwards of 30,000 tons of ice! Our readers do not require to be told that in some late years London has been a considerable market for American ice. This, however, is only a casual occurrence, depending principally on the circumstance of an unusually hot summer having followed an unusually mild winter, which, on the one hand, occasions a large demand for ice, while, on the other, it lessens or annihilates the home supply. And the same may be said generally in regard to the demand of other European countries. The ice shipped from America is principally obtained from Fresh Pond, Spy Pond, and Wenham Pond, in an elevated position, about 18 miles from Boston, to which it is conveyed by railway; but it is also obtained from various other ponds and lakes. It is kept stored up in large warehouses adjoining the lakes till it is required for shipment. The holds of the ships used for the conveyance of ice have a space between the planking of the ship and the ice boxed in and usually filled with sawdust or some other substance reckoned a non-conductor of heat. Formerly the ice was packed with straw and hay, in boxes of thin lumber made air-tight; but this mode of packing is now comparatively little used. The ice is beautifully transparent and free from air cells, and is usually cut into blocks about a foot thick. In 1854 no fewer than 156,540 tons were shipped from Boston, and about 20,000 tons from N. York. The home consumption of the latter is estimated at from 260,000 to 270,000 tons!—(*Hunt's Merchants' Magazine for August*, 1855.) (See BOSTON.)

Owing to the mildness of our winters we have sometimes little or no frost, and when it is most severe, ice in this country rarely exceeds 2 or 4 inches in thickness; and is usually, also, a good deal stained with impurities. Occasionally a supply of ice is brought from Norway, but it wants the solidity and transparency of the American ice.

JALAP, OR JALOP (Ger. *Jalapp*; Fr. *Jalap*; It. *Sciarappa*; Sp. *Jalapa*), the root of a sort of convolvulus, so named from Xalapa, in Mexico, whence we chiefly import it. The root, when brought to this country, is in thin transverse slices, solid, hard, weighty, of a blackish colour on the outside, and internally of a dark grey, with black circular striæ. The hardest and darkest coloured is the best; that which is light, spongy, and pale coloured, should be rejected. The odour of jalap, especially when in powder, is very characteristic. Its taste is exceedingly nauseous, accompanied by a sweetish bitterness.—(*Lewis's Mat. Med.*; *Brande's Pharmacy.*) The imports of jalap amounted, in 1853, to 82,345 lbs.

JAMAICA PEPPER. See PIMENTO.

JAPANNED WARES (Ger. *Japanische ware*; Du. *Japansch lakwerk*; Fr. *Marchandises de Japon*), articles of every description, such as tea-trays, clock-dials, candlesticks, snuff-boxes, &c. covered with coats of japan, whether plain, or embellished with

painting or gilding. Birmingham is the grand staple of this manufacture, which is there carried on to a great extent. Pontypool, in Monmouthshire, was formerly famous for japanning; but it is at present continued there on a very small scale only. It is prosecuted with spirit and success at Bilston and Wolverhampton.

JASPER (Ger. *Jaspiss*; Du. *Jaspis*; Fr. *Jaspe*; It. *Diaspro*; Sp. *Jaspe*; Rus. *Jaschma*). This stone is an ingredient in the composition of many mountains. It occurs usually in large amorphous masses, sometimes in round or angular pieces; its fracture is conchoidal; specific gravity from 2 to 27. Its colours are various: when heated it does not decrepitate: it is usually divided into 4 species, denominated Egyptian jasper, striped jasper, porcelain jasper, and common jasper. It is sometimes employed by jewellers in the formation of seals.

JERSEY. See GUERNSEY.

JET, OR PITCH COAL (Du. *Git, Zwarte barnsteen*; Fr. *Jais, Jayet*; Ger. *Gagat*; It. *Gagata, Lustrino*; Lat. *Gagus, Gagates*), of a black velvet colour, occurs massive, in plates; sometimes in the shape of branches of trees, but without a regular woody texture. Internal lustre shining, resinous, soft; rather brittle; easily frangible: specific gravity 1·3. It is used for fuel, and for making vessels and snuff-boxes. In Prussia it is called black amber, and is cut into rosaries and necklaces. It is distinguished by its brilliancy and conchoidal fracture. — (*Thomson's Chemistry.*)

JETSAM. See FLOTSAM.

IMPORTATION AND EXPORTATION, the bringing of commodities from and sending them to other countries. A very large portion of the revenue of Great Britain being derived from customs duties, or from duties on commodities imported from abroad; and drawbacks being given on many, and bounties on a few articles exported; the business of importation and exportation is subjected to various regulations which must be carefully observed by those who would avoid incurring penalties, and subjecting their property to confiscation. The regulations referred to are embodied in the Customs Consolidation Act, 16 & 17 Vict. c. 107., which came into operation on the 20th August, 1853. We subjoin an abstract of such portions of this statute as relate to importation, exportation, &c.

CUSTOMS CONSOLIDATION ACT OF 1853, THE 16 & 17 VICT. CAP. 107.

The first 8 clauses of the Act relate *to the appointment of Officers of Customs*, and need not be here referred to.

Clauses 9 to 14 relate *to the appointment of Ports, Quays, Warehouses, Sufferance Wharfs, Landing and Bounding Stations.*

Clauses 15 to 17 relate *to the licensing of Agents for the transacting of business relating to the Entry and Clearance of Ships, Goods, and Baggage, and of Lightermen for the carriage of goods to and from importing and exporting ships.*

Clauses 18 to 28 relate *to the Collection, Management, and Custody of Duties of Customs, and the Payment of Drawbacks and Allowances*

AS TO DISPUTES AND CONTROVERSIES BETWEEN THE IMPORTER OF GOODS AND THE OFFICERS OF CUSTOMS AS TO THE DUTY DUE ON SUCH GOODS.

In case of Dispute, Importer to deposit the Duty demanded. — If any dispute shall arise as to the proper rate of duty payable in respect of any goods imported into the U. K., and admissible for home consumption, the importer or consignee, or his agent, shall deposit in the hands of the collector of the customs at the port of importation the amount of duty demanded by such collector; and such deposit shall be deemed and taken to be the proper duty payable in respect of such goods, unless an action or suit shall be brought or commenced by the importer of such goods within 3 months from the time of making such deposit, in one of H. Majesty's courts of law at Westminster, Dublin or Edinburgh, against such collector, for the purpose of ascertaining whether any and what amount of duty is due and payable upon such goods; and, upon payment of such deposit, and passing a proper entry for such goods, by the importer, consignee, or agent, such collector shall thereupon cause the said goods to be delivered in virtue of such entry.— § 29.

Deposits to be carried to Consolidated Fund. — Where such deposit shall have been made as aforesaid the same shall be paid by the said collector to the Receiver General of Customs, to be by him carried to the Consolidated Fund of the U. K.; and in case no action shall be brought within the time hereinbefore limited for that purpose, such deposit shall be retained and applied to the use of H. Majesty, in the same manner as if the same had been originally paid and received as the duty due and payable on such goods; and in case such action shall be so brought, and it shall thereupon be determined by due course of law that the duty so demanded and deposited was not the proper duty due and payable upon such goods, but that a less duty was payable thereon, then the difference between the sum so deposited and the duty so found to be due, or the whole sum so deposited, as the case may require, shall forthwith be returned to such importer, with interest thereon after the rate of 5 per cent. per annum for the period during which the sums so paid or returned shall have been so deposited; and such payment shall be accepted by such importer in satisfaction of all claims in respect of the importation of such goods and the duty payable thereon, and of all or any damages and expenses incident thereto, except costs of suit, as next herein-after provided; that is to say, provided always, that the party to such action or suit in whose favour a verdict shall be given shall be entitled to his costs of suit as between party and party against the other party to such action or suit—such costs to be taxed by the proper officer of the court in which such action shall be brought, in the usual way; and if such verdict shall be given against the plaintiff in such action or suit, the costs so taxed as aforesaid shall be recoverable and recovered against the plaintiff in the same manner as damages and costs in an ordinary action or suit in such court are recoverable by law: but if such verdict shall be given against the collector as defendant in such suit, the costs so taxed as aforesaid shall be paid by the Commissioners of Customs out of any monies arising from the duties of customs. — § 30.

AS TO COMPLAINTS AND DISPUTES BETWEEN MERCHANTS AND OTHERS AND THE OFFICERS OF CUSTOMS, THE PUBLIC INVESTIGATION THEREOF, AND INQUIRIES TOUCHING MATTERS RELATING TO THE CUSTOMS, AND THE CONDUCT OF OFFICERS OR OTHERS CONCERNED THEREIN.

Disputes and Inquiries in London. — If in the port of London any dispute arise between any masters or owners of ships, merchants, importers, consignees, shippers, or exporters of goods, or their agents, or licensed agents, and any officer of customs, with reference to the seizure or detention of any ship or goods, or to any apparently accidental omission, inadvertence, or noncompliance with the laws or regulations relating to the customs, or touching the withdrawal of agents' licences, it shall be lawful for the Commissioners to dispose of or determine such dispute in such manner as they may deem just. — § 31.

Power to remit or mitigate Penalties. — If upon consideration of the facts and circumstances out of which such dispute shall have arisen the Commissioners of Customs shall be of opinion that any penalty or forfeiture has been incurred by any such master, owner, merchant, importer, consignee, shipper, exporter, or agent, the said Commissioners may, in case they shall be of opinion that the penalty ought to be remitted, remit and forego the same accordingly, or in case they shall be of opinion that a mitigated penalty should be imposed and enforced, mitigate any such penalty or forfeiture to such amount as they may deem a sufficient satisfaction for the breach of law or regulation complained of. — § 32.

Appeal to open Court. — In case any such master, owner, merchant, importer, shipper, exporter, or agent shall feel himself aggrieved by the determination of the Commissioners of Customs in any of the cases aforesaid, or have any ground of complaint against any officer of customs in respect of anything done or omitted to be done by such officer in or about the execution of his duty, the party so feeling himself aggrieved shall, upon an application in writing to the Commissioners of Customs, which application shall state the substance of his complaint, or the reasons of his dissatisfaction with such determination, be entitled to have the facts and circumstances of such complaint or determination inquired into by one of the said Commissioners, in the manner following : — § 33.

Commissioner to conduct public Inquiry. — Upon receipt of such application as aforesaid the Commissioners of Customs shall depute one of such Commissioners to inquire into the subject matter of such application, for which purpose a suitable apartment shall be provided, to which the parties complaining and the parties complained against, and their agents and witnesses, and all other persons interested or desirous of attending, shall have free access ; and the Commissioner so deputed shall receive the statement of the complainant or his agent or attorney, and hear any reasons which he or they may advance in support of his complaint, and the said Commissioner shall take or cause to be taken any evidence on oath which the said complainant may offer and adduce in support of his complaint, and write down or cause to be written down and report the substance of such evidence in a narrative form, and his opinion thereon and on the arguments, if any, adduced on the hearing of the case, for the information of the said Commissioners ; and in like manner the Commissioner so deputed as aforesaid shall take and write down or cause to be taken down and written, and report, for the information of the said Commissioners of Customs, any evidence which may be offered in support of such determination of the Commissioners, or in case of a complaint against an officer such exculpatory evidence as the officer complained against may offer or adduce ; and the course of proceeding with respect to the taking of such evidence and the conduct of such inquiry shall be in as close conformity as the nature of such inquiry will admit with the practices adopted before Justices on inquiries had before such Justices. — § 34.

Commissioners to prosecute or decide. — The Commissioners of Customs, upon the evidence so reported to them, shall either determine to prosecute, if they deem it a proper case for prosecution, or decide the case upon such evidence, and make their order thereon accordingly, which order shall be communicated by a Commissioner in open court either on the same day or a future day to be appointed at the hearing for that purpose ; and every order of the Commissioners of Customs, made upon consideration of the facts, circumstances, and evidence so reported by the Commissioner by whom such inquiry shall have been holden, shall, in case any penalty or mitigated penalty or forfeiture shall be adjudged by such order to be paid or enforced, be of equal force, validity, and effect as any conviction for penalties which any Justice or Justices is or are now empowered by law to make, and upon the production of any such order of any two or more of the Commissioners of Customs to any Justice or Justices of the Peace it shall be lawful for such Justice or Justices to enforce such order, in the same manner and by the like authority as such Justice or Justices is or was now empowered to enforce orders under the act 11 & 12 Vict. cap. 43., unless the party against whom such order have been made shall, within one week after the same shall have been communicated as aforesaid, give notice in writing to the Commissioners of Customs or to their solicitor that he refuses to abide by such order, in which case the Commissioners of Customs may direct such proceedings thereon as they may see fit, or the party against whom such order has been made shall have the same remedy by action in any court having jurisdiction, including the "Court of Requests of the City of London and the Liberties thereof," as if no such hearing or order had been made : provided always, that if any such master, owner, importer, shipper, exporter, or agent (not wishing to resort to such appeal as herein-before provided) be desirous of stating his case personally to one of the Commissioners of Customs, he shall be at liberty to do so on attending at the custom house during the sitting of the board on applying for that purpose. — § 35.

Power to keep Order. — The Commissioners of Customs deputed to inquire as aforesaid shall have and exercise, while engaged in the conduct of such inquiry, and to as full an extent as the same is now exercised by any Justice or Justices in Sessions, all necessary powers and authority to enforce order and propriety of conduct. — § 36.

Disputes and Inquiries at Outports. — If at any of the outports any dispute shall arise between any master or owners of ships, merchants, importers, consignees, shippers, or exporters of goods, or their agent or agents, and any officer of customs, with reference to the class of cases herein-before enumerated as arising or occurring in the port of London, the like inquiry shall be holden, the like course of proceeding adopted, the like mode of taking evidence pursued, the like accommodation for the parties concerned provided, the like authorities for maintaining order given, and, as nearly as may be, the like matters in every respect done, as herein provided for inquiry into and conduct of similar proceedings in the port of London, save and except that the duty prescribed to be performed by one of the Commissioners of Customs deputed for that purpose shall be performed at such outports by the collector or comptroller or other officer of customs deputed for that purpose. — § 37.

Inquiries and Examinations may be conducted by Commissioners, Surveyors General, &c. — In any of the foregoing cases, or whenever it shall be necessary for the Commissioners of Customs or their officers to institute any inquiry to ascertain the truth or facts with respect to any complaint or matter relating to any business under their management or control or incident thereto, or the conduct of officers or persons employed therein, such inquiries shall and may be made or conducted by the Commissioners for the time being, or any one or more of them, or by any Surveyor General, Inspector General, Collector, or Comptroller, or other officer of the Customs, or by such person or persons as the Commissioners of Customs shall direct and appoint for that purpose ; and when upon any such inquiry proof on oath shall be required by the person so conducting the same, such person shall and may administer such oath to any person attending before him as aforesaid ; and if any person so examined as a witness before such person shall be convicted of giving false evidence on his examination on oath before the person conducting such inquiry, every such person so convicted shall be deemed guilty of perjury, and shall be liable to the pains and penalties thereof. — § 38.

Power to summon Witnesses. — Upon any such inquiry or examination it shall be lawful for the Commissioners of Customs, or any one or more of them, or for any such Surveyor General, Inspector General, Collector, Comptroller, or other officer of the Customs, or person so authorised or directed by the Commissioners of Customs to conduct such inquiry or examination, to summon any person required as a witness to appear before the said Commissioners, Inspector General, Collector, Comptroller, Surveyor General, or other officer, or person authorised to conduct such inquiry or examination, as the case may be, to attend on the hearing thereof at the time and place to be specified in such summons, to give evidence upon oath of the truth of any facts appertaining to such inquiry, or any other matter touching or relating thereto; and every person so summoned, having his reasonable expenses for such attendance, if required, tendered to him at the time of service of such summons, who shall neglect or refuse to appear according to the exigency thereof, or who, having so appeared, shall refuse to take the oath, or shall refuse to give evidence, or to answer according to the best of his knowledge and belief any question when thereunto required, shall for every such default or offence forfeit the sum of 20*l.* — § 39.

Regulations for Conduct of Inquiries. —The Commissioners of Customs shall from time to time make such rules and orders for the proper conduct of such inquiries as aforesaid as may be expedient, and as in their judgment shall be necessary or proper: and such rules and orders shall be observed on the conduct of such inquiries, until annulled or varied by the authority of the said Commissioners. — § 40.

As to the Importation, or Prohibition, Entry, Examination, Landing, and Warehousing of Goods.

Importation and Prohibition. — It shall be lawful to import into the U. K. any goods which are not by this or any law in force at the time of importation thereof prohibited to be so imported, and to warehouse under the laws in force for the warehousing of goods, except as herein-after provided, in warehouses duly approved for the warehousing of goods without payment of duty on the first entry thereof, any goods subject to duties or customs the importation and warehousing whereof is not prohibited by any law in force at the time of such importation: provided always, that the duties on the following goods, and on such other goods as the Commissioners of the Treasury may from time to time direct, shall be paid on the first importation thereof, and such goods shall not be warehoused either for home consumption or exportation; viz., corn, grain, meal, and flour, and wood goods from British possessions. — § 41.

Time of Importation of Goods and Time of Arrival of Ships defined. — If, upon the first levying or repealing of any duty, or the first permitting or prohibiting of any importation, or at any other time, or for any of the purposes of this or any act relating to the customs, it shall become necessary to determine the precise time at which an importation of any goods shall be deemed to have had effect, such time shall be deemed to be the time at which the ship importing such goods had actually come within the limits of the port at which such ship shall in due course be reported and such goods be discharged; and if any question arise upon the arrival of any ship in respect of any charge or allowance upon such ship, exclusive of cargo, the time of such arrival shall be deemed to be the time to which the report of such ship has been or ought to have been made. — § 42.

Importation Direct. — No goods shall be deemed to be imported from any particular place unless they be imported direct from such place, and shall have been there laden on board the importing ship, either as the first shipment of such goods, or after the same shall have been actually landed at such place. — § 43.

Prohibitions and Restrictions. — If any goods enumerated or described in the following table of prohibitions and restrictions as "goods absolutely prohibited to be imported," shall be imported or brought into the U. K., or if any goods enumerated or described in such table as "goods prohibited to be imported except in transit, and "subject to such regulations and restrictions as the Commissioners of the Treasury may direct, and duly reported as goods in transit accordingly" shall be imported into the U. K., except in transit, in accordance with such regulations and restrictions, and so reported as aforesaid, or if any goods enumerated or described in such table as "goods subject to certain restrictions on importation" shall be imported or brought into the U. K. contrary to the prohibitions or restrictions contained in such table in respect thereof, then and in every such case such goods shall be forfeited, and shall be destroyed or otherwise disposed of as the Commissioners of Customs may direct. — § 44.

A TABLE OF PROHIBITIONS AND RESTRICTIONS INWARDS.

Goods absolutely prohibited to be imported.

Books wherein the copyright shall be first subsisting, first composed or written or printed in the U. Kingdom, and printed or reprinted in any other country, as to which the proprietor of such copyright or his agent shall have given to the Commissioners of Customs a notice that such copyright subsists, such notice also stating when such copyright will expire.

Coin, viz.—false money, or counterfeit sterling.

Coin, silver, of the realm, or any money purporting to be such, not being of the established standard in weight or fineness.

Extracts, essences, or other concentrations of coffee, chicory, tea, or tobacco, or any admixture of the same.

Malt.

Indecent or obscene prints, paintings, books, cards, lithographic or other engravings, or any other indecent or obscene articles.

Snuff work.

Tobacco stalks stripped from the leaf, whether manufactured or not.

Tobacco stalk flour.

Goods prohibited to be imported except in transit, and subject to such Regulations and Restrictions as the Commissioners of the Treasury may direct, and duly reported as goods in Transit accordingly.

Articles of foreign manufacture and any packages of such articles bearing any names, brands, or marks being or purporting to be the names, brands, or marks of manufacturers resident in the U. K.

Clocks and watches of any metal impressed with any mark or stamp appearing to be or to represent any legal British assay, mark, or stamp, or purporting by any mark or appearance to be of the manufacture of the U. K.

Parts of articles; viz., any distinct or separate part of any article not accompanied by the other part or all the other parts of such article, so as to be complete and perfect, if such article be subject to duty according to the value thereof.

Goods prohibited to be imported, except subject to the Restrictions on Importation herein contained.

Infected cattle, sheep, or other animals, and hides, skins, horns, hoofs, or any other part of cattle or other animals, which H. Majesty may, by order in council, prohibit in order to prevent any contagious distemper.

Silk, manufactures of silk, being the manufactures of Europe, unless into the ports of London, Liverpool, Hull, Southampton, Leith, or Dublin, or ports appointed by the Commissioners of Customs, or into the ports of Dover or Folkeston direct from Calais or Boulogne, and unless in ships of 50 tons burden or upwards.

Spirits (not being perfumed or medicinal spirits), unless in ships of 50 tons burden at least, and in casks or other vessels capable of containing liquids, each of such casks or other vessels being of the size or content of 20 gallons at the least, and duly reported, or in glass bottles or stone bottles not exceeding the size of 5-pint bottles, and being really part of the cargo of the importing ship, and duly reported.

Tobacco and snuff from the East Indies, and tobacco from the Turkish dominions, including Egypt, unless imported direct from any of those places in packages containing not less than 100 lbs. net weight each.

Negrohead tobacco, and also snuff being the produce of the U. States of America, unless in hhds., casks, chests, or cases, containing not less than 200 lbs. net weight each, or unless imported direct from the said U. States in packages containing not less than 150 lbs. net weight each.

Tobacco from Malta, and tobacco the produce of Porto Rico, Mexico, South America, St. Domingo, Cuba, the British possessions in America, and the W. coast of Africa, unless in hhds., casks, chests, or cases containing not less than 200 lbs. net weight each, or unless imported direct from those places, or from the U. States of America in packages containing not less than 80 lbs. net weight each.

Tobacco and snuff, the produce of the Philippine Islands, unless in hhds. casks, chests, or cases containing not less than 200 lbs. net weight each, or unless such tobacco or snuff be imported from Manilla direct, in bales or packages containing not less than 200 lbs. net weight each.

Tobacco and snuff of or from any other country or place not before enumerated, unless in hhds., casks, chests, or cases, containing not less than 200 lbs. net weight each.

Cigars, unless in packages containing not less than 100 lbs. net weight each.

Cigarillos or cigarettos, unless in packages containing not less than 75 lbs. net weight each.

Tobacco, not being cigars, cigarillos, or cigarettos and snuff, separated or divided in any manner within any package in which the same may by the foregoing Table be imported, except tobacco from the Turkish empire, or from Egypt, in outer packages containing not less than 100 lbs. net weight each.

Tobacco, snuff, cigars, cigarillos, or cigarettos of any kind, or from any country or place whatever, unless in ships of not less than 120 tons burden, and imported into such ports only as are or may be approved of by the Commissioners of Customs.

Arms, &c. may be prohibited — The importation of arms, ammunition, gunpowder, or any other goods may be prohibited by proclamation or order in council. — § 45.

Printed Lists of prohibited Books to be exposed at Custom Houses.—The Commissioners of Customs shall cause to be made, and to be publicly exposed at the several ports in the U. K. and in H. Majesty's possessions abroad, printed lists of all books wherein the copyright shall be subsisting, and as to which the proprietor of such copyright, or his agent, shall have given notice in writing to the said Commissioners that such copyright exists, stating in such notice when such copyright expires. — § 46.

Ship to come quickly to Place of unlading, and bring to at the Stations for boarding Officers. — If any ship coming into the U. K. or into the Channel Islands shall not come as quickly up to the proper place of mooring or unlading as the nature of the port will admit, without touching at any other place, and in proceeding to such proper place shall not bring to at the stations appointed by the Commissioners of Customs for the boarding of ships by the officers of the Customs, or, if after arrival at such place such ship shall remove from such place, except directly to some other proper place of mooring or unlading, and with the knowledge of the proper officer of the Customs, or if the master of any ship on board of which any officer is stationed neglect or refuse to provide every such officer sufficient room under the deck in some part of the forecastle or steerage for his bed or hammock, the master of such vessel shall forfeit the sum of 20*l.* — § 47.

Officers to board Ships, &c.— The proper officers of the Customs may board any ship arriving at any port in the U. K. or the Channel Islands, and freely stay on board until all the goods laden therein shall be duly delivered from the same, and shall have free access to every part of the ship, with power to fasten down hatchways or entrances to the hold, and to mark any goods before landing, and to lock up, seal, mark, or otherwise secure any goods on board such ship; and if any place or any box or chest be locked, and the keys be withheld, such officers, if they be of a degree superior to that of tidewaiter, may open any such place, box, or chest in the best manner in their power, and if they be tidewaiters, or only of that degree, they shall send for their superior officer, who may open or cause to be opened any such place, box, or chest in the best manner in his power; and if any goods be found concealed on board any such ship they shall be forfeited; and if the officers shall place any lock, mark, or seal upon any goods on board, and such lock, mark, or seal be wilfully opened, altered, or broken before due delivery of such goods, or if any of such goods be secretly conveyed away, or the hatchways or entrances to the hold, after having been fastened down by the officer, be opened, the master of such ship shall forfeit the sum of 100*l.*; and if the proper officer of the customs shall place any lock, mark, or seal upon any stores on board any ship or vessel arriving in the U. K., and such lock, mark, or seal be wilfully opened, altered, or broken, or if any such stores be secretly conveyed away, either while the ship remains in the port at which she shall have so arrived, or before she shall have arrived at any other port in the U. K. to which she may then be about to proceed, the master of such ship shall forfeit the sum of 20*l.* — § 41.

Time and Place of landing Goods Inwards.—No goods, except diamonds, bullion, lobsters, and fresh fish of British-taking and imported in British ships, which may be landed without report or entry, shall be unshipped from any ship arriving from parts beyond the seas, or be landed or put on shore, on Sundays or holidays, nor shall they be so unshipped, landed, or put on shore on any other days, except between the hours of 8 o'clock in the morning and 4 o'clock in the afternoon from the 1st of March until the 1st of November, and between the hours of 9 o'clock in the morning and 4 o'clock in the afternoon from the 1st of November until the 1st of March, or during such other hours as may be appointed by the Commissioners of Customs; nor shall any goods be unshipped or landed unless in the presence or with the authority of the proper officer of the customs, nor shall they be so landed except at some legal quay, wharf, or other place duly appointed for the landing of goods, nor shall any such goods after having been unshipped, or put into any boat or craft to be landed, be transhipped or removed into any other boat or craft previously to their being landed without the permission of the proper officer of the Customs; and if any such goods shall be unshipped, landed, transhipped, or removed contrary hereto the same shall be forfeited, and if any goods shall be unshipped or removed from any importing ship for the purpose of being landed after due entry thereof, such goods shall be forthwith removed to and landed at the wharf, quay, or other place at which the same are intended to be landed; and if such goods are not so removed and landed the same shall be forfeited, together with the barge, lighter, boat, or other vessel employed in removing the same. — § 49.

AS TO THE REPORT OF THE CARGO OF MERCHANT SHIPS, AND OF SHIPS IN COMMISSION BRINGING MERCHANDISE FROM PARTS BEYOND THE SEAS.

Master to report within Twenty-four Hours after Arrival. — The master of every ship, whether laden or in ballast, shall within twenty-four hours after arrival from parts beyond the seas at any port in the U. K., and before bulk be broken, make due report of such ship in the form following or to the same effect, and containing the several particulars indicated or required thereby; and if the cargo of such ship shall have been laden at several places shall state the names of those places in column 1. in the order of time in which the same were laden opposite to the particulars of the goods so laden. — § 50.

Port of	REPORT.					
Ship's Name.	Tonnage.	British or Foreign; if British, Port of Registry; if Foreign, Country to which she belongs.	Number of Crew.		Name of Master, and whether a British or Foreign Subject.	Port or Place from whence arrived.
			British Seamen.	Foreign Seamen.		
		Here state the Particulars according to the above Headings.				
	*		Total.			

CARGO.						
1. Name or Names of Places where laden in order of Time.	2. Marks.	3. Nos.	4. Packages and Descriptions of Goods, Particulars of Goods stowed loose, and General Denomination of Contents of each Package of Tobacco, Cigars, or Snuff intended to be imported at this Port.	5. Name of Consignee.	6. Particulars of Packages and Goods (if any) for any other Port in the United Kingdom.	7. Goods (if any) to be transhipped or to remain on board for Exportation.
			Here state the Particulars according to the above Headings, or if in Ballast, state "in Ballast only."			

STORES.

Surplus Stores remaining on board, viz. [ ]

Number of Alien Passengers (if any) -
Pilots' Names -
At what Station Ship lying -
Agent's Name and Address -

I declare that the entry above written is a just report of my ship and of her lading, and that the particulars therein inserted are true to the best of my knowledge, and that I have not broken bulk or delivered any goods out of my said ship since her departure from , the last foreign place of loading (*except, if so, at stating where.*)

(Signed) *Master.*

Signed and declared this day of

In presence of

(Countersigned) *Collr. or Contr.*

On Failure Master to forfeit 100*l.*—If such master shall wilfully fail to make such report according to the particulars here set forth, so far as the same are applicable to such ship, cargo, and voyage, or if the particulars or any of them contained in such report be false, such master shall forfeit the sum of 100*l.* — § 51.

Commissioned Ships, British or Foreign, having Goods on Board, &c. — The captain, master, purser, or other person having the charge of any ship (having commission from H. Majesty, or from any foreign state) having on board any goods laden in parts beyond the seas shall on arrival at any port in the U. K., and before any part of such goods be taken out of such ship, or when called upon so to do by any officer of the customs, deliver an account in writing under his hand to the best of his knowledge of the quality and quantity of every package or parcel of such goods, and of the marks and numbers thereon, and of the names of the respective shippers and consignees of the same, and shall make and subscribe a declaration at the foot of such account declaring to the truth thereof, and shall also truly answer to the collector or comptroller such questions concerning such goods as shall be required of him, and on failure thereof such captain, master, purser, or other person shall forfeit the sum of 100*l.*; and all such ships shall be liable to such searches as merchant ships are liable to, and the officers of the customs may freely enter and go on board all such ships, and bring from thence on shore into the Queen's warehouse any goods found on board any such ship as aforesaid, subject nevertheless to such regulations in respect of ships of war belonging to H. Majesty as shall from time to Time be directed in that respect by the Commissioners of H. Majesty's Treasury. — § 52.

Master to deliver Bills of Lading and answer Questions —The master of every ship arriving from parts beyond the seas shall at the time of making such report deliver to the collector or comptroller, if required, the *bill of lading*, or a copy thereof, for every part of the cargo laden on board, and shall answer all such questions relating to the ship, cargo, crew, and voyage as shall be put to him by such collector or comptroller; and in case of failure or refusal to answer such questions or answer truly, or to produce any such bill of lading or copy, or if any such bill of lading or copy shall be false, or if any bill of lading be uttered or produced by any master, and the goods expressed therein shall not have been *bonâ fide* shipped on board such ship, or if any bill of lading uttered or produced by any master shall not have been signed by him, or any such copy shall not have been received or made by him, previously to his leaving the place where the goods expressed in such bill of lading or copy were shipped, or if after the arrival of any ship within four leagues of the coast of the U. K. bulk shall be broken, or any alteration made in the stowage of the cargo of such ship so as to facilitate the unlading of any part of such cargo, or if any part be staved, destroyed, or thrown overboard, or any package be opened, unless accounted for to the satisfaction of the Commissioners of Customs, in every such case such master shall forfeit the sum of 100*l.* — § 53.

Packages reported "Contents unknown" may be opened and examined. — If the contents of any package intended for exportation in the same ship shall be reported by the master as being unknown to him, the officers of the Customs may open and examine such package on board, or bring the same to the Queen's warehouse for that purpose, and if there be found in such package any goods which are prohibited to be imported such goods shall be forfeited, unless the Commissioners of Customs shall permit them to be exported. — § 54.

AS TO THE ENTRY OF DUTIABLE GOODS TO BE DELIVERED FOR HOME CONSUMPTION ON THE LANDING THEREOF FROM THE IMPORTING SHIP.

Entry for Home Consumption. — The importer of any goods liable to duties of customs and intended to be delivered for home use on the landing thereof from the importing ship, or his agent, shall, before unshipment thereof, make perfect entry of such goods by delivering to the collector or comptroller a bill of entry thereof in the form following or to the same effect, and containing the several particulars indicated in or required thereby.

ENTRY.

Port of (*Name of Port of Importation*).
Whether Prime or Post, and if Post, Date of Prime Entry
Importer's Name

Wharf, Dock, or Station.	Ship's Name.	Whether British or Foreign Ship; if Foreign, the Country.	Master's Name.	Port or Place from whence imported.
	Here state the Particulars according to the above Headings.			

Marks.	Numbers.	Number of Packages, Quantities, and Descriptions of Goods as charged in Table of Duties.	If charged at value, Value to be stated in Words at Length.
	Here state the Particulars according to the above Headings.		

Total amount of duty payable on this entry - -}

Dated this day of 18 .

(Signed)

Importer or Agent.

I (*name of importer or agent*), of (*place of abode*) do hereby declare that I am (*the importer or agent duly authorised by the importer*) of the goods contained in this bill of entry, and that I enter the same goods, therein stated as goods charged at value, at the sum of (*money in words at length*).

Witness my hand the day of 18

(Signed)

Importer or Agent.

And the particulars in such entry shall correspond with the particulars given of the same goods and packages in the report of the ship, and in any certificate of origin or other document, where any such is required, by which the importation or entry of such goods is authorised, or upon which the importer is entitled to any benefit by the distinction thereof, or otherwise, and whenever the value of any goods is required to be stated in the entry, the importer or his agent shall subscribe a declaration of the truth of such value in the form set forth at the foot of such entry. — § 55.

Payment of Duties. — The importer or his agent shall immediately upon the entry of any goods entered by him to be delivered for home use pay down any duties which may be payable upon the goods mentioned in such bill of entry, if in London, to the receiver general, and if at any of the outports to the collector or other person authorised by the Commissioners of Customs to receive the same; and such bill of entry, when signed by the collector or other such person, shall be transmitted to the landing waiter, and be his warrant for the landing and delivery of such goods. — § 56.

Detention of Goods for under Value. — If upon the examination of any goods entered for duty, which are chargeable with duty upon the value thereof, it shall appear to the officers of customs that such goods are not valued according to the true value thereof, or that they are properly chargeable with a higher rate or amount of duty than that to which they would be subject according to the value thereof as described in the entry, it shall be lawful for such officers to detain the same, in which case they shall forthwith give notice in writing to the person entering the same of the detention of such goods, and of the value thereof as estimated by them, either by delivering such notice personally or by transmitting the same by post to such person, addressed to him at his place of abode as stated in his entry; and the Commissioners of Customs shall, within 7 days after the detention of such goods, determine either to deliver such goods on the entry of such person, or to retain the same for the use of the crown, in which latter case they shall cause the value at which the goods were so entered, together with an addition of 5 per cent. and the duties already paid on such entry, to be paid to the person entering the same in full satisfaction for such goods, or may permit such person, on his application for that purpose, to amend such entry at such value and on such terms as they may direct; and if the Commissioners shall retain such goods they shall and may dispose of them for the benefit of the crown, and if the proceeds arising therefrom, in case of sale, shall exceed the sums so paid and all charges incurred by the crown, one moiety of such surplus shall be paid to a separate fund at the disposal of the Commissioners of Customs, and be distributed by them at such periods and in such proportions to or amongst such meritorious officers as the Commissioners of Customs shall select as most deserving, and the other moiety shall be accounted for, paid, and carried to account as duties of customs under the direction of the Commissioners of Customs. — § 57.

As to the Entry of Goods intended to be warehoused without Payment of Duty on First Entry thereof.

Entry for the Warehouse. — The importer of any goods intended to be warehoused without payment of duty on the first entry thereof, or his agent, shall deliver to the collector or comptroller a bill of entry of such goods in the same manner and form and containing the same particulars as are before required on the entry of goods to be delivered for home use on the landing thereof as far as the same shall be applicable, and the name and description of the warehouse in which such goods are intended to be warehoused, and the name of the person in whose name they are to be warehoused; and such bill of entry, when signed by the collector or comptroller, shall be transmitted to the proper officer of customs, and be the warrant for the due warehousing of such goods. — § 58.

Goods entered for Warehouse may upon further Entry be delivered for Home Use or Exportation. — If after any goods shall have been duly entered and landed to be warehoused, though not actually deposited in the warehouse, the importer shall further duly enter the same, or any part thereof, for home use or for exportation, the same may be delivered and taken for home use or exportation, as the case may be. — § 59.

As to the Entry of Goods free of Duty.

Particulars of Entry. — The importer of any goods not subject to duties or customs, or his agent, shall deliver to the collector or comptroller a bill of entry of such goods in the same manner and form and containing the same particulars as before required on the entry of dutiable goods, so far as the same is applicable, which entry, so far as regards the goods, shall be a transcript of the report, and shall therein describe such goods according to the terms upon which such goods are free of duty, and the value of such goods as shall have been previously chargeable with duty at value; and such bill of entry, when signed by the collector or comptroller, shall be transmitted to the proper officer, and be his warrant for the delivery of the goods mentioned therein; and the importer, owner, or consignee of such goods, or his agent, shall, within 14 days after the entry and landing thereof, deliver to the collector, comptroller, or other proper officer of customs a full and true account of the goods so landed; provided, that at Liverpool, and with the sanction of the Commissioners of Customs at any other port where the docks, quays, and wharfs shall in like manner be wholly or principally under the control and management of one and the same corporate body, the owner, master, or consignee of the importing ship, or his agent, shall sign and leave with the collector of customs, within 14 days next after the final discharge of such goods, a full and accurate list thereof, stating the quantities and distinguishing the weight and contents by measurement of such goods, if any, comprised therein, as shall be chargeable by weight or by measurement for the freight payable thereon, and the names of the consignees (according to the bills of lading), or the names of the persons actually paying the freight for the same; and on failure to leave such list, such owner, master, consignee, or agent shall forfeit the sum of 20*l.* — § 60.

As to the Entry of Goods landed for Examination by Bill of Sight and perfecting Entry thereof.

Entry by Bill of Sight when Goods not known. — The importer of any goods or his agent, if unable for want of full information to make a perfect entry of such goods, on making and subscribing a declaration to that effect before the collector or comptroller, may make an entry by bill of sight for the packages or parcels of such goods in the form following, or to the same effect, and containing the several particulars indicated or required thereby. — § 61.

BILL OF SIGHT.

Port of [*Name of Port of Importation*].
Importer [*Name of Importer*].

Wharf, Dock, or Station.	Ship's Name.	Whether British or Foreign; if Foreign, the Country.	Master's Name.	Port or Place from whence imported.	Name of Importer or of his Agent.
Here state the Particulars according to the above Headings					

Marks.	Numbers.	Number of Packages, with the best Description of the Goods the Importer is able to give.
Here state the Particulars according to the above Headings.		

I , the importer (or agent to the importer) of the goods above-mentioned, do hereby declare that I have not (*if importer*), or that to the best of my knowledge he has not (*if agent*), received sufficient invoice, bill of lading, or other advice from whence the quality, quantity, or value of the goods above-mentioned can be ascertained.
Dated this day of 18 .

(Signed) _____ *Importer, or his Agent.*

(Signed) *Coll. or Comptr.* _____ . § 61.

Warrant for landing. — Such entry being delivered to the collector or comptroller, and signed by him, shall be the warrant for provisionally landing such goods to be examined by such importer in the presence of the proper officers, and the importer shall within 3 days after the landing thereof, and before the same shall be delivered, make full and perfect entry thereof, by endorsing upon such bill of sight such particulars of such goods as are before required on making perfect entry of goods, whether for payment of duty, or for warehousing, or for delivery free of duty, as the case may be, and to such indorsement he shall affix the date thereof, together with his signature and place of abode, and such indorsement, when signed by the collector or comptroller, shall be taken as the perfect entry for such goods. — § 62.

Goods entered by Bill of Sight not to be delivered, unless Duty is paid or deposited. — Where an entry for the landing and examination of goods for delivery on payment of duty shall be made by bill of sight such goods shall not be delivered until perfect entry thereof have been made and the duties due thereon paid, unless the importer or his agent shall have deposited with the proper officer of the customs a sum of money sufficient in amount to cover the duties payable thereon; and if the sum deposited on a bill of sight shall not be equal in amount to the duties payable upon all the goods contained in any single package landed or examined thereby, no part shall be delivered until a perfect entry or entries is or are made, and the duties paid or deposited for the whole of the goods contained in such package. — § 63.

Goods to be taken to Queen's Warehouse in default of perfect Entry within Three Days, &c. — If full and perfect entry of any goods landed by bill of sight as aforesaid be not made within three days after the landing thereof, such goods shall be taken to the Queen's warehouse by the officers of the customs; and if the importer shall not within 1 month after such landing make perfect entry or entries of such goods, and pay the duties thereon or on such parts as can be entered for home use, together with the charges of removal and of warehouse rent, such goods shall be sold for the payment of such duties and charges (or for exportation if they be such as cannot be entered for home use or shall not be worth the duties), and the overplus, if any, after payment of such duties and charges, or the charges if sold for exportation, shall be paid to the importer or proprietor thereof: provided always, that when entry be at any time made as and for a full and perfect entry for any goods provisionally landed by bill of sight or deposited in the Queen's warehouse, as aforesaid, if such entry shall not be made in manner herein required for the due landing of the goods, the same shall be deemed to be goods landed without entry, and shall be forfeited. — § 64.

As to the Entry of Goods re-imported into the U. K. as Foreign or by Bill of Store.

Re-importation of British Goods. — All British goods re-imported into the U. K. shall be deemed and taken to be and be entered as foreign, and shall be liable to the same duties, rules, regulations, and restrictions as such goods, if foreign, would be liable to on the first importation thereof, unless the same shall be re-imported within 10 years after the exportation thereof, and it shall be proved to the satisfaction of the Commissioners of Customs that the property in such goods has continued and still remains in the person by whom or on whose account the same have been exported, in which case the same may be entered as British goods, by bill of store containing such particulars and in such form and manner as the said commissioners may direct: provided always, that the following goods shall, on re-importation be deemed and taken to be foreign goods, namely, corn, grain, meal, flour, and hops, and also all goods for which any drawbacks of excise shall have been received on exportation, unless by special permission of the Commissioners of Customs, and on repayment of such drawback, and also all goods for which a bill of store connot be issued in manner directed by the said Commissioners, except remnants of British goods, with permission of the Commissioners of Customs. — § 65.

As to Entries of Goods in any of the foregoing Cases.

Bill of Entry to be in duplicate. — Upon the entry of any goods, the importer, his agent, or consignee of the ship, as the case may be, shall deliver 2 or more duplicates of the bill of entry thereof, as the case may require, in which duplicates all sums and numbers may be expressed in figures; and the number of duplicates shall be such as the collector or comptroller may require. — § 66.

Importer or Agent failing to comply with Regulations to forfeit 20l. — Every importer, agent, or other person entering any goods who shall wilfully fail to comply with the foregoing regulations, so far as they are respectively applicable to the goods so entered by him, shall forfeit and pay the sum of 20*l*. — § 67.

No Entry valid unless Goods properly described therein. — No entry or warrant for the landing of any goods shall be deemed valid unless the goods shall be properly described in such entry by the denominations and with the characters and circumstances according to which such goods are charged with duty or may be imported, either to be used in the U. K., or to be warehoused for exportation only. — § 68.

Goods concealed in Packages or delivered without Entry forfeited. — If any package or parcel shall have been landed by or in pursuance of any entry, and any goods or other things shall be found in such package or parcel concealed in any way or packed to deceive the officers, such package or parcel and all the contents thereof shall be forfeited; and if any goods be taken or delivered out of any ship or out of any warehouse, not having been duly entered, the same shall be forfeited: provided always, that no entry shall be required in respect of the baggage of passengers, which may be examined, landed, and delivered under such regulations as the Commissioners of Customs may direct, but if any prohibited or uncustomed goods shall be found concealed therein either before or after landing, the same shall be forfeited, together with the other contents of the package containing the same. — § 69.

Surplus Stores not excessive may be entered for private Use or Warehouse. — The proper officer may permit any surplus stores, not being merchandise, nor by him deemed excessive, to be entered for private use under and subject to the same duties, rules, and regulations as the like sort of goods would be subject to on importation as merchandise, or permit the master, owner, purser, or other officer of any ship, or any passenger of such ship, to whom any surplus stores belong, to enter and warehouse such surplus stores for future use as ship's stores, although the same could not be legally imported by way of merchandise. — § 70.

Entry of Goods by Agents without License or by unauthorised Persons not permitted. — If at any port where persons acting as agents for transacting any business relating to the clearance of any ship or goods or baggage shall be required to be licensed, any person not so licensed, or not being the duly appointed clerk to any person so licensed, shall act as such agent or clerk, or if any person, whether so licensed or appointed or not, shall make or cause to be made entry of any goods without being duly authorised for that purpose by the proprietor or consignee of such goods, every such person shall for every such offence forfeit the sum of 20*l.*; but no such penalty shall extend to any person acting under the direction of the several dock companies, or to any person otherwise authorised by law to pass entries, nor to any merchant, importer, or consignee of any goods, acting himself in respect thereof, or any clerk or servant exclusively employed by him or by any such persons in copartnership. — § 71.

Agent to produce Authority if required. — Whenever any person shall make application to any officer of the customs to transact any business on behalf of any other person, such officer may require of the person so applying to produce a written authority from the person on whose behalf such application shall be made, and in default of the production of such authority refuse to transact such business. — § 72.

Officers may take Samples. — The officers of customs may on the entry of any goods, or at any time afterwards, take samples of such goods for examination, or for ascertaining the duties payable on such goods, or for such other purpose as the Commissioners of Customs may deem necessary, and such samples shall be disposed of and accounted for in such manner as the Commissioners of Customs may direct. — § 73.

As to the Time within which Goods shall be entered and landed after the Arrival of the importing Ship.

Goods not entered within 14 *Days may be conveyed to Queen's Warehouse.* — If the importer of any goods shall not, within 14 days (exclusive of Sundays and holidays), after the arrival of the ship importing the same, make perfect entry or entry by bill of sight of such goods, or if, having made such entry, he shall not land such goods within such 14 days, or within such further period as the Commissioners of Customs shall direct, the officers of the customs may convey such goods to the Queen's warehouse; and whenever the cargo of any ship shall have been discharged within such 14 days, with the exception only of a small quantity of goods, the officers of the customs may forthwith convey such remaining goods to the Queen's warehouse; and also at any time after the arrival of such ship may convey any small packages or parcels of goods therein to the Queen's warehouse, there to remain for due entry during the remainder of such 14 days; and if the duties due upon any goods so conveyed to the Queen's warehouse shall not be paid within three months afterwards, or within such further period as the said Commissioners may direct, together with all charges of removal and warehouse rent, such goods may be sold, and the produce thereof applied, first to the payment of freight and charges, next of duties, and the overplus, if any, shall be paid to the proprietor of the goods on his application for the same; but if such goods or any of them shall be of a perishable nature, the Commissioners of Customs may forthwith direct sale thereof, and apply the proceeds in like manner: provided always, that for this purpose, if the importing ship and goods be liable to the performance of quarantine, the time for entry and landing of such goods shall be computed from the time at which such ship and goods shall have been released from quarantine: provided always, that if 48 hours or any earlier period after the report of any ship is specified in the bills of lading for the discharge of her cargo or any part thereof, and the importer, owner, or consignee of such goods, or his agent shall neglect to enter and land the same within such 48 hours at any port or place approved by the Commissioners of Customs, the master or owner of such ship may immediately, on the expiration of such 48 hours, enter and land such goods. — § 74.

If Goods remain on board importing Ship beyond 14 *Days, such Ship may be detained for Expenses.* — Whenever any goods shall remain on board any importing ship beyond the period of 14 days after the arrival of such ship, or beyond such further period as the Commissioners of Customs may allow, such ship shall be detained by the proper officer of customs until all expenses of watching or guarding such goods beyond such 14 days, or such further time, if any allowed as aforesaid, not exceeding 5*s.* per diem, and of removing the goods, or any of them, to the Queen's warehouse, in case the officers shall so remove them, be paid. — § 75.

As to Goods upon which any Abatement for Damage on the Voyage or by Wreck may be claimed.

Abatement of Duty on damaged Goods. — No claim for any abatement of duty in respect of any goods imported into the U. K. shall be allowed on account of damage, unless such claim shall be made on the first examination thereof, and in such form and manner as the Commissioners of Customs shall direct, nor unless it shall be proved to the satisfaction of the Commissioners of Customs or their officers that such damage was sustained after such goods had been shipped in the importing ship and before the landing thereof in the U. K.; and all goods derelict, jetsam, flotsam, and wreck brought or coming into the U. K., and all droits of Admiralty sold in the U. K., shall at all times be subject to the same duties as goods of the like kind on importation into the same part of the U. K. are subject to, unless it shall be shown to the satisfaction of the Commissioners of Customs that such goods are the growth, produce, or manufacture of any country or place by virtue whereof the same may be entitled to be admitted at less than the foreign duty, or duty free, or that the same, if liable to duty, are entitled to an abatement in respect of such damage; and the damage sustained by such goods, whether so imported or derelict, jetsam, flotsam, or wreck as aforesaid, shall be assessed by the officers of the customs, if competent thereto, but if not, or if the Commissioners of Customs or the collector or comptroller of the port into which the same shall be imported or brought as aforesaid shall entertain any doubt as to the amount of such damage, they may call upon two indifferent merchants to examine the goods and certify to what extent in their judgment the same are lessened in value by such damage, whereupon the officers of the customs may make an abatement not exceeding $\frac{2}{3}$ths of the duty originally chargeable thereon, but no allowance shall be made for damage on coculus indicus, nux vomica, rice, guinea grains, lemons, spirits, corn, grain, meal and flour, opium, sugar, cocoa, oranges, tea, coffee, pepper, tobacco, currants, raisins, wine, and figs. — § 76.

AS TO THE PRODUCTION OF CERTIFICATES OF ORIGIN IN RESPECT OF GOODS CLAIMING ANY BENEFIT THEREBY ON IMPORTATION.

Goods from Possessions abroad. — No goods shall be entered as being of or from any British possessions abroad, (if any benefit attach to such distinction,) except the territories subject to the government of the presidencies of Bengal, Madras, and Bombay respectively, unless the master of the ship importing the same shall have delivered to the collector or comptroller a certificate, under the hand of the proper officer of the place where such goods were taken on board, of the due clearance of such ship from thence, containing an account of such goods. — § 77.

Treasury may require Certificates of Production. — The Commissioners of the Treasury may by order under their hands declare that a certificate of production shall be required upon the exportation of any goods from any British possession abroad or other place, or upon the importation of such goods into the U. K., and frame such regulations respecting such certificates and goods as they may think fit; and if any goods in respect of which such certificates are required be imported without such certificate, they shall be deemed to be foreign goods and liable to any duty attaching to them as such; and such orders of the Treasury shall be published in the London and Dublin Gazettes 3 times at least within 3 months from the date thereof respectively. — § 78.

Certificate of Growth of Sugar and Spirits from British Possessions in America and the Mauritius. — Before any spirits or sugar, so long as any benefit shall attach to the distinction, shall be entered as being of the produce of any British possession in America or the island of Mauritius, the master of the ship importing the same shall deliver to the collector or comptroller a certificate, under the hand of the proper officer of the place where such goods were taken on board, testifying that proof had been made in manner required by law that such goods are of the produce of some British possession in America or of the island of the Mauritius, stating the name of the place where such goods were produced, and the quantity and quality of the goods, and the number and denomination of the packages containing the same, and the name of the ship in which they are laden and of the master thereof. — § 79.

Certificate of Sugar from Limits of East India Company's Charter. — Before any sugar shall be entered as being the produce of any British possession within the limits of the E. I. Company's charter, the master of the ship importing the same shall, so long as any benefit attach to such distinction, deliver to the collector or comptroller a certificate under the hand and seal of the proper officer at the place where such sugar was taken on board, testifying that a declaration in writing, the contents of which he believed to be true, had been made and signed before him by the shipper of such sugar, that the same was really and *bona fide* the produce of the British possession. — § 80.

East India Sugar warehoused at the Cape of Good Hope. — If any sugar, the produce of any British possession within the limits of the E. I. Company's charter, so long as any benefit attaches to such distinction, shall have been imported into the Cape of Good Hope from the place of its production, accompanied by such a certificate of origin as would be sufficient for its admission into the U. K. at the rate of duty payable upon such sugar, if imported direct from the place of its production, and shall have been warehoused at the Cape of Good Hope under the regulations there in force for the warehousing of goods, and shall have been exported from such warehouse, accompanied by a certificate from the proper officer of customs at the Cape of Good Hope, setting forth the particulars of the importation, and of the warehousing, and of the exportation of the same, and also setting forth the substance of the certificate of origin before mentioned, and if on the arrival in the U. K. of the ship importing such sugar, the master of such ship shall deliver to the collector or comptroller at the port of importation such certificate from the officer of the customs at the Cape of Good Hope, such sugar shall be admitted at such port of importation in the U. K. at the same rate of duty as would be payable if the same had been imported direct from the place of its production. — § 81.

Goods of Guernsey, Jersey, &c. — Any goods of the growth of the Channel Islands, and any goods manufactured in the said islands from materials of their growth, or from materials not subject to duty in the U. K., or from materials upon which the duty has been paid in the U. K., and upon which no drawback has subsequently been granted, may be imported into the U. K. from the said islands respectively without payment of any duty, and such goods shall not be deemed to be included in any charge of duties imposed by any act on the importation of goods generally from parts beyond the seas: but such goods shall be charged with any proportion of such duties as shall fairly countervail any duties of excise payable on the like goods the produce or manufacture of the part of the U. K. into which they shall be imported, or payable upon any of the materials from which such goods are manufactured; and all goods manufactured in any of the said islands from any other materials than the materials aforesaid shall be declared and taken to be foreign goods. — § 82.

Master to deliver Certificate of Produce. — Before any goods shall be entered as being the produce of the said islands, (if any benefit attach to such distinction,) the master of the ship importing the same shall deliver to the collector or comptroller of customs a certificate from the governor, lieutenant-governor, or commander-in-chief of the island from whence such goods were imported, that proof had been made in manner required by law that such goods were of the produce of such island, stating the quantity and quality of the goods, and the number and denomination of the packages containing the same. — § 83.

Certificate of Wine from British Possessions. — Before any wine shall be entered as being the produce of any of the British possessions abroad, the master of the ship importing the same shall deliver to the collector or comptroller a certificate under the hand of the proper officer of such possession, testifying that proof had been made in manner required by law that such wine is the produce of such possession, stating the quantity and sort of such wine, and the number and denomination of the packages containing the same. — § 84.

AS TO THE UNSHIPPING, LANDING, EXAMINATION, WAREHOUSING, AND CUSTODY OF GOODS.

Goods to be unshipped, carried, landed, weighed, &c., and deposited at the Expense of the Importer. — The unshipping, carrying, and landing of all goods, and bringing them to the proper place for examination, and weighing, putting them into the scales, opening, unpacking, repacking, bulking, sorting, lotting, marking, and numbering, where such operations respectively are necessary or permitted, and removing to and placing them in the proper place of deposit until duly delivered, shall be performed by or at the expense of the importer: and the importer or person entering any timber or wood to be charged with duty by measurement shall, at his expense, pile, sort, frame, or otherwise place the same in such manner as the Commissioners of Customs may deem necessary to enable the officers to measure and take the account thereof; and in all cases when the same is measured in bulk, the measurement shall be taken to the full extent of the pile, and no allowance shall be made by the officers on account of any interstices; but battens, boards, deals, and planks exceeding 21 feet in length may be measured by the piece, and the account thereof taken separately. — § 85.

Goods removed or carried into the Warehouse without Authority, forfeited. — If any goods shall be removed from any ship, quay, wharf, or other place previous to the examination thereof by the proper officer of customs, unless under the care or authority of such officer, or if any goods entered to be warehoused, or to be re-warehoused, shall be carried into the warehouse, unless with the authority or under the care of the proper officer of customs, and in such manner, by such persons, within such time, and by such roads or ways as such officer shall direct, such goods shall be forfeited. — § 86.

Landing Waiter to take Account of Goods for Warehouse. — Upon the entry and landing of any goods to be warehoused, or within such period as the Commissioners of Customs shall direct with respect to the same or any of them, the landing waiter or other officer of customs shall take a particular account of such goods at the quay or wharf, at which they shall be so landed, or in the warehouse, if they be goods of which the account is permitted to be taken in the warehouse, and shall cause to be marked on each package of which such account shall be taken the contents thereof, and shall enter in a book prepared for that purpose, containing the name of the import ship, and of the person in whose name they are entered, the marks, numbers, and contents of each such package, the description of the goods, and the warehouse or place in the warehouse in which the same shall be deposited, and when the same shall have been so deposited with the authority of such officer he shall certify that the entry and warehousing of such goods is complete, and such goods shall from that time be considered goods warehoused; and if any such goods shall be delivered, withheld, or removed from the proper place of examination before the same shall have been duly examined and certified by such officer, such goods shall be deemed to be goods not duly entered or warehoused, and shall be forfeited. — § 87.

Goods to be entered and Duties paid according to Landing Account. — The account of the goods so taken as aforesaid shall be the account upon which the duties payable upon such goods shall be ascertained when the same shall ultimately come to be delivered upon due entry for that purpose, and the same shall be entered and the full duties thereon be paid according to the quantity taken in such account, without any abatement for any deficiency, except as herein-after provided. — § 88.

Warehoused Goods to be deposited in original Packages, or those of which Account is taken. — All goods warehoused shall be deposited in the packages in which the same shall have been imported, except as to such goods as are permitted to be skipped on the quay, or bulked, sorted, lotted, packed, or repacked in the warehouse after the landing thereof, in which case they shall be deposited in the packages in which the same shall be when the account thereof is taken by the proper officer; and if such goods are not so deposited, or if any alteration shall afterwards be made in the goods so deposited, or in the packing thereof in the warehouse, or if the same shall be removed from the room in the warehouse in which the same are deposited, without the presence or sanction of the proper officers, except for delivery under the proper warrant, order, or authority for that purpose, they shall be forfeited. — § 89.

Commissioners to direct what Goods may be bulked, sorted, packed, &c. — The Commissioners of Customs may direct what goods may be skipped on the quay, or bulked, sorted, lotted, packed, or repacked, and determine in respect of what goods the account may be taken in any warehouse approved by them for that purpose, and within what time after the landing thereof, and on such conditions as they may deem necessary. — § 90.

Warehousekeeper neglecting to stow Goods properly to forfeit 5l. — If the occupier of any warehouse shall neglect to stow the goods warehoused therein so that easy access may be had to every package and parcel thereof he shall for every such neglect forfeit the sum of 5*l.* — § 91.

Warehousekeeper neglecting to produce Goods deposited, to forfeit 5l. — If the occupier of any warehouse shall not produce to any officer of customs on his request any goods deposited in such warehouse which, shall not have been duly cleared and delivered therefrom, such occupier shall for every such neglect forfeit the sum of 5*l.* in respect of every package or parcel not so produced, besides the duties due thereon. — § 92.

Goods not duly warehoused, or fraudulently concealed, or removed, forfeited. — If any goods entered to be warehoused shall not be duly warehoused in pursuance of such entry, or being duly warehoused shall be fraudulently concealed in or removed from the warehouse, or abstracted from any package, or transferred from one package to another, or otherwise, for the purpose of illegal removal or concealment, they shall be forfeited. — § 93.

Importer or Proprietor of warehoused Goods clandestinely gaining Access thereto to forfeit 100l. — If the importer or proprietor of any goods warehoused, or any person in his employ, shall clandestinely open the warehouse, or, except in the presence of the proper officer of customs acting in the execution of his duty, gain access to the goods, such importer or proprietor shall for every such offence forfeit the sum of 100*l.* — § 94.

Duty on Goods taken out of Warehouse without Entry to be paid by Warehousekeeper, &c. — If any goods shall be taken out of any warehouse without due entry of the same with the proper officer of customs, the occupier of such warehouse shall forthwith pay the duties due upon such goods; and every person so taking out any goods without payment of duty, or who shall aid, assist, or be concerned therein, and every person who shall wilfully destroy or embezzle any goods duly warehoused, shall be deemed guilty of a misdemeanor, and shall, upon conviction, suffer the punishment by law inflicted in cases of misdemeanor: but if such person shall be an officer of customs or excise not acting in the due execution of his duty, and shall be prosecuted to conviction by the importer, consignee, or proprietor of such goods, no duty shall be payable for or in respect of such goods, and the damage occasioned by such waste, spoil, or embezzlement shall, with the sanction of the Commissioners of the Treasury, be repaid or made good to such importer, consignee, or proprietor by the Commissioners of Customs. — § 95.

If Goods be damaged by Fire, Importer not entitled to Compensation. — No compensation shall be made by the Commissioners of Customs to any importer, proprietor, or consignee of any goods by reason of any damage occasioned thereto in the warehouse by fire or other inevitable accident. — § 96.

Commissioners may remit Duties on warehoused Goods lost or destroyed. — If any goods warehoused, or entered to be warehoused, or entered to be delivered from the warehouse, shall be lost or destroyed by unavoidable accident, either on shipboard or in landing, or in receiving into the warehouse, or in the warehouse, the Commissioners of Customs may remit or return the duties due thereon. — § 97.

As to the Removal of Warehoused Goods.

Goods may be removed from one Port to another. — Any goods warehoused at any port in the U. K. may be removed by sea or by inland carriage to any other port in which the like kind of goods may be warehoused on importation, to be rewarehoused at such other port, and again as often as may be required at any other such port, to be there rewarehoused, or, with the permission of the proper officers of customs, from any warehouse in any port to any other warehouse in the same port, under such regulations and with such security as the Commissioners of Customs may direct, on the delivery to the proper officer by the person requiring such removal of a request note, stating the particulars of the goods required to be removed, the name of the port, or of the warehouse, if in the same port, to which the same are intended to be removed, and with such other information and in such manner and form as the Commissioners of Customs or the proper officer may direct or require. — § 98.

Officers at Port of Removal to transmit Account of Goods to Officers at Port of Destination. — On the delivery of any goods for removal, an account, containing the particulars thereof, shall be transmitted by the proper officers of the port of removal to the proper officers of the port or place of destination, and the person requiring the removal thereof shall enter into bond, with one sufficient surety, in a sum equal at least to the duty chargeable on such goods, for the due arrival and re-warehousing thereof at the port or place of destination within such time as the Commissioners of Customs may direct, such bond to be taken by the collector, comptroller, or other proper officer, either of the port or place of removal, or the port or place of destination, as shall best suit the residence or convenience of the parties interested in

such removal; and if such bond shall have been given at the intended port or place of destination, a certificate thereof, under the hand of the collector or comptroller or other proper officer of such port, shall, at the time of the entering of such goods, be produced to the collector, comptroller, or other proper officer of the port of removal; and such bond shall not be discharged unless such goods shall have been produced to the proper officer, and duly re-warehoused at the port of destination, within the time allowed for such removal, or shall have been otherwise accounted for to the satisfaction of the Commissioners of Customs, nor until the full du ies due upon any deficiency of such goods not so accounted for shall have been paid; but any remover may enter into general bond, with such sureties, in such amount, and under such conditions, as the Commissioners of Customs may approve, for the removal from time to time of any goods from one warehouse to another, and for the due arrival, and re-warehousing of the same at the place of destination within such time or times as the said commissioners may direct. — § 99.

Goods, on Arrival at Port of Destination, to be subject to same Regulations as Goods on first Importation. — Upon the arrival of such goods at the port or place of destination the same shall be entered and warehoused in the same manner, and under and subject to the same laws, rules, and regulations, so far as the same are or can be made applicable, as are required on the entry and warehousing of goods on the first importation thereof. — § 100.

On Arrival of Goods at Port of Destination they may be entered for Exportation or for Home Use, on Payment of Duties. — If upon the arrival of goods so removed as aforesaid at the port of destination the parties shall be desirous forthwith to export the same, or to pay duty thereon for home use, without actually lodging the same in the warehouse for which they have been entered and examined to be re-warehoused, the officers of customs at such port may, after all the formalities of entering and examining such goods for re-warehousing have been duly performed, permit the same to be entered and shipped for exportation, or to be entered and delivered for home use, upon payment of the duties due thereon, as if such goods had been actually lodged in such warehouse; and all goods so exported, or for which the duties have been so paid, shall be deemed to have been duly cleared from the warehouse. — § 101.

No Spirits which shall have been imported into the U. K. shall be removed except from Warehouse. — No spirits which shall have been imported from parts beyond the sea into the U. K. upon which a higher duty is payable on their importation into England than on their importation into Scotland or Ireland, shall be brought from Scotland or Ireland into England; nor shall any such spirits upon which a higher duty is payable on their importation into Scotland than on their importation into Ireland be brought from Ireland into Scotland, except such as shall have been duly warehoused upon the first importation thereof, according to the laws in force for the warehousing of goods, and which shall be in the warehouse at the time of such intended removal, and which shall be removed from one warehousing port to another warehousing port, according to the regulations required by law; and all such spirits, when so removed, shall be liable to the duty payable thereon in that part of the U. K. into which they shall be so removed, if they be entered for home consumption therein; and all spirits removed contrary hereto shall be forfeited, and all persons concerned in such removal, or knowingly receiving or harbouring any spirits so removed, shall forfeit the penalty of 100*l.*, or treble the value of such spirits, at the election of the Commissioners of Customs or Inland Revenue. — § 102.

Warehoused Goods, if not cleared for home Use or Exportation within 5 Years, must be re-warehoused. — All warehoused goods shall be cleared either for home use or exportation at the expiration of 5 years from the day on which the same were so warehoused, or within such further period, and in such cases as the Commissioners of the Treasury shall direct, unless the owner or proprietor of such goods shall be desirous of re-warehousing the same, in which case the same shall be examined by the proper officers, and the duties due upon any deficiency or difference between the quantity ascertained on landing and the quantity found to exist on such examination, together with the necessary expense attendant thereon, shall, subject to such allowances as are by law permitted in respect thereof, be paid down, and the quantity so found shall be re-warehoused in the name of the then owner or proprietor thereof in the same manner as on first importation. — § 103.

Goods in Warehouse not cleared or re-warehoused, or Duties paid on Deficiencies, after 5 Years, to be sold. — If any warehoused goods shall not be duly cleared, exported, or re-warehoused, and the duties ascertained to be due on the deficiencies as aforesaid shall not be paid down at the expiration of 5 years from the previous entry and warehousing thereof, or within such further period as shall be directed as aforesaid, the same, if worth the duty due thereon, shall, after 1 month's notice to the warehousekeeper, with all convenient speed be sold either for home use or exportation, with or without the consent of the warehousekeeper, and the proceeds thereof shall be applied to the payment of the duties, warehouse rent, and charges, and the surplus, if any, shall be paid to the owner or proprietor of such goods, if known, but if such owner or proprietor cannot be found, such surplus shall be carried to the crown's account, to abide the claim of such owner or proprietor on his appearing and making good his claim thereto; and if such goods shall not be worth the duty, then the same, after such 1 month's notice as aforesaid, may be exported or destroyed, with or without the concurrence of the owner thereof, or the proprietor of the warehouse in which the same were so warehoused, as the Commissioners of Customs shall see fit; and the duties due upon any deficiency thereof not allowed by law shall be forthwith paid by the proprietor of the warehouse. — § 104.

Goods in Warehouse may be sorted, repacked, &c. — With the sanction of the Commissioners of Customs, and after such notice given by the respective importers or proprietors, and at such times and under such regulations and restrictions as the Commissioners of Customs shall from time to time require and direct, it shall be lawful in the warehouse to sort, separate, pack, and repack any goods, and to make such alterations therein as may be necessary for the preservation, sale, shipment, or disposal thereof; provided that such goods be repacked in the packages in which they were imported, or in such other packages as the Commissioners shall permit (not being less in any case, if the goods be to be exported or to be removed to another warehouse, than is required by law on the importation of such goods); and also to draw off any wine or any spirits into reputed quart or pint bottles for exportation only; and to draw off and mix brandy with any wine, not exceeding the proportion of 10 gallons of brandy to 100 gallons of wine; and also to fill up any casks of wine or spirits from any other casks of the same respectively secured in the same warehouse; and also to rack off any wine from the lees, and mix any wines of the same sort, erasing from the cask all import brands, unless the whole of the wine so mixed be of the same brand; and also to take such samples of goods as may be allowed by the Commissioners of Customs, with or without entry, and with or without payment of duty, except as the same may eventually become payable as on a deficiency of the original quantity; and the duty on the surplus, if any, of such goods as may be delivered for home use shall be immediately paid, and such surplus shall thereupon be delivered for home use accordingly; and after such goods have been so separated and repacked in proper or approved packages, the Commissioners of Customs may, at the request of the importer or proprietor of such goods, cause or permit any refuse, damage, or surplus goods occasioned by such separation or repacking, or, at the like request, any goods which may not be worth the duty, to be destroyed, and may remit the duty payable thereon. — § 105.

Foreign Import or Duty-paid Packages only to be used in repacking. — No foreign packages or materials whatsoever shall be used in the repacking of any goods in the warehouse, except such as shall

have been used in the importation of warehoused goods, unless the full duties thereon shall have been first paid. — § 106.

Goods in Warehouse may be taken out, under certain Regulations.—The Commissioners of Customs may permit any goods to be taken out of the warehouse without payment of duty, for such purpose or for such period as to them may appear expedient, and in such quantities, and under such regulations and restrictions, and with such security by bond for the due return thereof or the payment of the duties due thereon, as they may direct or require; and the officers of customs of any port where any premises shall be approved as a bonded sugar house may deliver any quantity of sugar, on the application of the proprietor or occupier of such bonded sugar house, and on entry of such sugar with the proper officer of customs, for the purpose of being there refined, under the locks of the crown, for removal to the Isle of Man or for exportation; and all sugars so delivered shall be lodged and secured in such premises, under such conditions, regulations, and restrictions, as the Commissioners of Customs shall from time to time direct. — § 107.

Refiner to give Bond. — Upon the entry of any sugar to be refined in any premises approved under this act, the proprietor or occupier shall give bond, to the satisfaction of the officers of the customs, in a sum equal to double the amount of the duty payable on a like quantity of sugar, with a condition that the whole of such sugar shall be actually subjected to the process of refinement upon the said premises, and that within 4 months from the date of such bond the whole of the refined sugar and treacle produced by such process shall be either duly removed to the Isle of Man or exported from the said premises, or delivered into an approved bonded warehouse under the locks of the crown, for the purpose of being eventually so removed or exported. — § 108.

AS TO THE ENTRY OF WAREHOUSE GOODS FOR HOME CONSUMPTION AND EXPORTATION, AND THE DELIVERY THEREOF.

Entry for Exportation. — No warehoused goods shall be taken or delivered from the warehouse, except upon due entry, and under the care of the proper officers, for exportation, or upon due entry and payment of the full duties payable thereon for home use, except goods delivered into the charge of the searchers to be shipped as stores, in such quantities as the collector or comptroller shall allow, subject to the directions of the Commissioners of Customs, and under such regulations as they may see fit to make. — § 109.

Persons entering warehoused Goods for Home Use to deliver Bill of Entry, and pay down Duties. — Upon the entry of any goods to be cleared from the warehouse for home use, the person entering such goods shall deliver a bill of entry, and duplicates thereof, in like manner and form, containing the same particulars as are before required on the entry of goods to be delivered for home use on the landing thereof, as far as the same may be applicable, and shall at the same time pay down to the proper officer of customs the full duties payable thereon, not being less in amount than according to the account of the quantity taken by the landing waiter or other proper officer on the first entry and landing thereof, except as to the following goods; viz., tobacco, wine, spirits, figs, currants, raisins, and sugar, the duties whereon, when cleared from the warehouse for home use, shall be charged upon the quantity of such goods ascertained by weight, measure, or strength at the time of actual delivery thereof, unless there is reasonable ground to suppose that any portion of the deficiency or difference between the weight, measure or strength ascertained on landing and first examination of any such last-mentioned goods, and that ascertained at the time of actual delivery, has been caused by illegal or improper means, in which case the proper officer of customs shall make such allowance only for loss as he may consider fairly to have arisen from natural evaporation or other legitimate cause. — § 110.

Value of Goods to be estimated by Officers at the Market Price. — When any deficiency occurs in goods chargeable to pay duty according to the value thereof, the value thereof shall be estimated as nearly as conveniently may be by the officers of customs according to the market price of the like sort of goods. — § 111.

Deficiencies in Goods entered for Exportation not to be charged with Duty unless fraudulent. — No duty shall be charged in respect of any deficiency in goods entered and cleared from the warehouse for exportation, unless the officers of customs have reasonable ground to suppose that such deficiency or any part thereof has arisen from illegal abstraction. — § 112.

Entries for Wood Goods restricted. — No entry for home consumption shall from and after the passing of this act be received for or in respect of any timber or wood goods deposited in any warehouse for security of duties, for any less quantity at any one time than 5 loads of such timber or wood goods, unless such wood goods shall be delivered by tale, in which case such entry may be passed for any quantity thereof not being less than 240 pieces, or 2 great hundreds of such wood goods; and no less quantity of such timber or wood goods shall be delivered in virtue of any such entry at any one time than 1 load of such timber or wood goods, or 90 pieces of such wood goods if delivered by tale. — § 113.

AS TO THE EXPORTATION AND ENTRY OF GOODS, AND THE CLEARANCE OF SHIPS FROM THE U. K. TO PARTS BEYOND SEAS.

Warehoused Goods not to be exported in Ships of less than 50 Tons Burden, except to Guernsey or Jersey. — No person shall export any warehoused goods, nor enter any such goods for exportation from the U. K. to parts beyond the seas, in any ship of less burden than 50 tons, except to the islands of Guernsey and Jersey in ships not being of less than 40 tons burden, regularly trading to those islands. — § 114.

Master to deliver Certificate of Clearance of last Voyage, and to make Entry outwards. — The master of every ship in which any goods are to be exported from the U. K. to parts beyond seas, or his agent, shall, before any goods be taken on board, deliver to the collector or comptroller a certificate from the proper officer of the due clearance inwards or coastwise of such ship of her last voyage, and shall also deliver therewith an entry outwards of such ship, verified by his signature, in the following form or to the same effect, and containing the several particulars indicated or required thereby.

ENTRY OUTWARDS.

Port of (*Name of Port of Exportation*):				
Ship's Name.		Tonnage.	Master's Name.	Port of Destination.
If British, Name of Port of her Registry.	If Foreign, Name of Country to which she belongs.			

Lying at (*Name of Station or Place in Port*)

Date of Entry

If Ship shall have commenced her lading in any other Port Name of such Port

(Signed) _____ Master or Agent.

and if such ship shall have commenced her lading at some other port, the master shall deliver to the searcher the clearance of such goods from such other port; and if any goods be taken on board any ship at any port before she shall have been entered outwards at such port (unless a *stiffening order*, when necessary, shall be issued by the proper officer to lade any heavy goods for exportation on board such ship), the master shall forfeit the sum of 100*l.* — § 115.

Goods not to be shipped except on proper Days and Places, nor until Entry and Clearance.—No goods shall be shipped, put off, or water-borne to be shipped for exportation, from any port or place in the U. K., except on days not being Sundays or holidays, nor from any place except some legal quay, wharf, or other place duly appointed for such purpose, nor without the presence or authority of the proper officer of customs, nor before due entry outwards of such ship, and due entry of such goods, nor before such goods shall have been duly cleared for shipment; and it shall be lawful for the searcher to open all packages, and fully to examine all goods shipped or brought for shipment at any place in the U. K.—§ 116.

AS TO THE ENTRY AND CLEARANCE OF GOODS FOR EXPORTATION.

On Entry outwards, Bond for due shipping and landing shall be given.—Before any warehoused goods, British-wrought plate, goods subject to duties of customs, or entitled to any drawback of customs, on exportation, or exportable only under particular rules, regulations, or restrictions, shall be permitted to be exported, the exporter or his agent shall deliver to the collector or comptroller a bond note or account of such goods, and give security by bond in double the amount of duty payable by law upon the importation of such goods, with one sufficient surety, that such goods shall be duly shipped and exported, and shall be landed at the place for which they are entered outwards, or otherwise accounted for to the satisfaction of the Commissioners of Customs; and such bond note, when certified by the proper officer, shall be the export entry for such goods. — § 117.

Exporter to deliver Shipping Bill. — Before any such goods shall be shipped or water-borne to be shipped for exportation, the exporter or his agent shall deliver to the searcher or other proper officer a SHIPPING BILL of such goods in the form following or to that effect, and containing the particulars indicated therein or required thereby. — § 118.

Shipping Bill for { 1. Warehoused or Drawback Goods. 2. Foreign Goods not for Drawback. 3. Goods exported under some particular Rule, Regulation, or Restriction. (*State as above described the Class to which the goods to be exported belong*).

Ship's Name.	Whether British or Foreign Ship; if Foreign, the Country.	Master's Name.	The Port or Place of Destination.
	Here state the particulars according to the above headings.		

Marks.	Numbers.	Description of Packages.	Quantity, Quality, and Description of Goods.
	Here state the particulars according to the above headings.		
	Total number of packages		

I claim drawback on { *Here state the quantity and description in words at length of any goods in respect of which drawback is claimed.*

(Signed) _____ Exporter or agent.

Station of clearance.

(Countersigned) _____ Searcher.

Dated day of

Inland Revenue Drawback. — No drawback of excise shall be allowed upon any goods cleared for exportation, unless the person intending to claim such drawback shall have given due notice to the officer of excise, and shall have produced to the searcher, at the time of clearing such goods a proper document under the hand of the officer of excise containing the description of such goods; and if such goods be found to correspond with the particulars of the goods contained in such document, and be duly shipped and exported, the searcher shall, if required, certify such shipment upon such document, and shall transmit the same to the officer of excise. — § 119.

Goods not entitled to Drawback if of less Value than claimed. — No drawback shall be allowed upon the exportation of any goods entered for drawback or as stores which shall be of less value than the amount of the drawback claimed; and all such goods so entered shall be forfeited, and the person who caused such goods to be entered shall forfeit the sum of 200*l.*, or treble the amount of drawback claimed in such case, at the election of the Commissioners of Customs. — § 120.

No drawback on Tobacco not properly manufactured, &c. — No drawback shall be allowed on any tobacco not wholly manufactured from tobacco on which the duty on importation shall have been paid, nor on any tobacco mixed with dirt, rubbish, or other substance; and every person who shall enter or ship, or caused to be entered or shipped, any tobacco contrary hereto, shall, over and above all other penalties which he may thereby incur, forfeit treble the amount of the drawback sought to be obtained, or 200*l.*, at the election of the Commissioners of Customs, and all such tobacco shall be forfeited. —§ 121.

Shipping Bill for Free Goods, &c. to be delivered to Searcher. — Before any goods in respect of which no bond is required shall be shipped or water-borne to be shipped for exportation, the exporter or his agent shall deliver to the searcher a shipping bill thereof, with such duplicates as may be required by him, in the following form or to that effect, and containing the several particulars indicated in or required thereby: —

SHIPPING BILL FOR BRITISH MANUFACTURES OR FOREIGN GOODS FREE OF DUTY.

Ship's Name.	Whether British or Foreign Ship; if Foreign, the Country.	Master's Name.	Port or Place of Destination.

Marks.	Numbers.	Description of Packages.	Quantity, Quality and Description of Goods.	The Value of British Goods and of Foreign Goods formerly charged with Duty at Value (if any).
				£ s. d.
Total number of packages -			Total value -	

I declare the value of the British goods above described to be

(Signed) _____ Exporter or agent.

Station of clearance

(Countersigned) _____ Searcher.

Dated this day of 18

and such shipping bill shall be the entry for the goods contained therein; provided, that at Liverpool, and (with the sanction of the Commissioners of Customs) at any other port where the docks, quays, and wharfs are in like manner wholly or principally under the control and management of one and the same corporate body, the owner, charterer, consignee, broker, agent, or other person acting in the loading and clearance of the exporting ship shall also prepare a full and accurate list or manifest of all such goods from the bills of lading and freight list thereof, and shall sign and leave with the collector of the customs, within 14 days after such ship shall have cleared outwards, a correct transcript of such last-mentioned list or manifest, with the addition of the value of such goods, if any, as shall have been previously chargeable with duty, at value, and of British goods, distinguishing therein the names of the several shippers of such goods, according to the bills of lading; and on failure to prepare such list or manifest, and to sign and deliver such transcript as aforesaid, such owner, charterer, consignee, broker, or other person as aforesaid shall forfeit the sum of 20*l.*—§ 122.

Shipping Bill signed by Searcher to be the Clearance for the Goods.— The shipping bill or bills, when filled up, and signed by the exporter or his agent, or the consignee of the ship, as the case may be, in such manner as the proper officer may require, and countersigned by the searcher, shall be the clearance for all the goods enumerated therein; and if any of such goods shall consist of tea, spirits, or tobacco, the exporter or his agent shall furnish to the searcher an account thereof, containing the number and description of the packages, and the respective quantities contained therein, which, when certified by the searcher, shall accompany the ship, and have the same force and effect as the cocket in use prior to the passing of this act; and if the exporter or his agent shall require a similar certificate in respect of any other goods shipped for exportation, the searcher shall, on its being presented to him for that purpose, certify the same in like manner: provided always, that if any such certificate be required to be in any particular form for goods destined for the Zollverein or any other foreign state, or under the name of Cocket, such certificate may be so prepared and denominated.—§ 123.

Licensed Lighterman to carry Goods.—If any goods cleared for drawback or from the warehouse shall be carried or water-borne to be put on board any ship for exportation by any person not at the time duly licensed and authorised to act as a licensed lighterman, either in the port of London or any other port at which lightermen are required to be so licensed, or by any person not being in the employ of such lighterman at the time duly authorised to act as such, every such person shall for every such offence forfeit the sum of 20*l.*—§ 124.

Warehoused Goods shipped for Exportation without Authority forfeited.— If any goods taken from the warehouse for removal or for exportation shall be removed or shipped, except with the authority or under the care of the proper officer of customs, and in such manner, by such persons, within such time, and by such roads or ways as such officer shall permit or direct, such goods shall be forfeited.—§ 125.

Duties may be remitted on warehoused Goods lost or destroyed in Removal or Shipment.— If any goods duly entered for delivery from the warehouse for removal or exportation shall be lost or destroyed by unavoidable accident, either in the delivery from the warehouse or the shipping thereof, the Commissioners of Customs may remit the duties due thereon.—§ 126.

AS TO THE ISSUE OF DEBENTURES FOR AND PAYMENT OF DRAWBACK ON GOODS EXPORTED.

Issuing and passing Debenture.—For the purpose of computing and paying any drawback claimed and payable upon any goods duly entered, shipped, and exported, a debenture shall in due time after such entry be prepared by the collector or comptroller, certifying in the first instance the entry outwards of such goods, and so soon as the same shall have been duly exported, and a notice containing the particulars of the goods shall have been delivered by the exporter to the searcher, the shipment and exportation thereof shall be certified to the collector or comptroller upon such debenture by the searcher, and the debenture shall thereupon be computed and passed with all convenient despatch.—§ 127.

Declaration as to Exportation and Right to Drawback.—The person entitled to any drawback on any goods duly exported, or his agent duly authorised by him for that purpose, shall make and subscribe a declaration upon the debenture that the goods mentioned therein have been actually exported, and have not been relanded, and are not intended to be relanded, in any part of the U. K., and that such person at the time of entry and shipping was and continued to be entitled to thedrawback thereon, and the name of such person shall be stated in the debenture, which shall then be delivered to such person or his agent, and the receipt of such person on the debenture, countersigned by the holder of such debenture, if the same shall have been transferred in the meantime, shall be the discharge for such drawback when paid.—§ 128.

Payment within Two Years.— No debenture for any drawback allowed upon the exportation of any goods shall be paid after the expiration of two years from the date of the shipment of such goods.—§ 129.

Warehouse or Debenture Goods not exported, &c., or relanded, &c., without Entry, forfeited.— If any goods which have been cleared to be exported for any drawback shall not be duly exported to parts beyond the seas, or shall be unshipped or relanded, in any part of the U. K. (such goods not being duly relanded or discharged as short-shipped under the care of the proper officers), or shall be carried to any of the Channel Islands (not having been duly entered, cleared, and shipped to be exported or carried directly to such islands), the same shall be forfeited, together with any ship, boat, or craft which may have been used in so unshipping, relanding, landing, or carrying such goods from the ship in which the same were shipped for exportation; the master of such ship, and any person by whom or by whose orders or means such goods shall have been so unshipped, relanded, landed, or carried, or who shall aid, assist, or be concerned therein, shall forfeit a sum equal to treble the value of such goods, or a penalty of 100*l.*, at the election of the Commissioners of Customs.—§ 130.

Drawbacks of Duties on Wine allowed for Officers in the Navy.— A drawback of the whole of the duties of customs shall be allowed for wine intended for the consumption of officers of H. Majesty's

navy on board such of H. Majesty's ships in actual service as they shall serve in, not exceeding the quantities of wine in any one year for the use of such officers herein-after respectively mentioned, viz.,

		Galls.
For every	Admiral	1,260
—	Vice-Admiral	1,050
—	Rear-Admiral	840
—	Captain of the 1st and 2d Rate	630
—	Captain of the 3d, 4th, and 5th Rate	420
—	Captain of an inferior Rate	210
—	Lieutenant and other Commanding Officer, and for Marine Officer, Master, Purser, and Surgeon	105

unless such wine be taken from the warehouse without payment of duty under such regulations as the Commissioners of Customs may direct: Provided always, that in either case such wine be shipped at ports approved of by the said commissioners.—§ 131.

Persons entering such Wine for Drawback to declare Name and Rank of Officer claiming the same.—The person entering such wine, and claiming the drawback for the same, shall state in the entry and declare on the debenture the name of the officer for whose use such wine is intended, and of the ship in which he serves; and such wine shall be delivered into the charge of the officers of the customs at the port of shipment, to be shipped under their care; and the commanding officer for the time being of such ship, having certified upon the debenture the receipt of such wine into his charge, and the proper officer of the customs having certified to the shipment on the debenture, the same shall be computed and passed, and be delivered to the person entitled to receive the same.—§ 132.

Officers leaving the Service, &c., Wine permitted to be transferred to others.—If any such officer shall leave the service, or be removed to another ship, the officers of the customs may permit the transfer of any such wine from one officer to another, as part of his proportion, whether on board the same ship or another, or the transhipment from one ship to another for the same officer, or the re-landing and warehousing for future reshipment; and the officers of customs at any port may receive back the duties for any such wine, and deliver the same for home use; but if any of such wine be not laden on board the ship for which the same was intended, or be unladen from such ship without permission of the proper officers of customs, the same shall be forfeited.—§ 133.

Pursers of Ships of War may Ship Tobacco for the Use of Crew free of Duty, on giving Bond.—The purser of any of H. M. ships of war in actual service may enter and ship, at any port approved by the Commissioners of Customs, in the proportions herein-after mentioned, any tobacco there warehoused in his name, or transferred into his name for the use of the ship in which he shall serve, provided such purser shall deliver to the collector or comptroller of such port a certificate from the captain of such ship, stating the name of the purser, and the number of men belonging to the ship, and also give bond, with one sufficient surety, in treble the duties payable on the tobacco, that no part thereof shall be re-landed without leave of the officers of customs.—§ 134.

Purser removed from one Ship to another may tranship Tobacco, with Permission of Collector.—If any purser be removed from one ship to another, the collector or comptroller of any port may permit the transhipment of the remains of any such tobacco, for the use of such other ship, upon due entry of such tobacco by such purser, setting forth the time when and the port at which such tobacco was first shipped; and if any such ship shall be paid off, the collector or comptroller of the port may permit the remains of any such tobacco to be landed, and to be entered by the purser of such ship, either for payment of duties, or to be warehoused for the term of 6 months, for the supply of some other such ship, in like manner as any tobacco may be warehoused and supplied at any such port, or for payment of all duties within such 6 months; and all tobacco warehoused for the purpose of so supplying ships of war shall be subject to the provisions of any act in force relating to the warehousing of tobacco generally, as far as the same are applicable, and are not expressly altered by any of the provisions herein particularly made.—§ 135.

Limiting the Quantity of Tobacco.—No greater quantity of such tobacco shall be allowed to any ship of war than 2 lbs. by the lunar month for each of the crew of such ship, nor shall any greater quantity be shipped at any one time than sufficient to serve the crew of such ship for 6 months after such rate of allowance; and the collector or comptroller of the port at or from which any such tobacco shall be supplied to any such ship, or landed from any such ship, or transferred from one such ship to another, shall transmit a particular account thereof to the Commissioners of Customs, in order that a general account may be kept of all the quantities supplied to and consumed on board each of such ships under the allowances before granted.—§ 136.

As to the Shipping of Stores for the Use of Foreign-bound Vessels.

Victualling Bill for Stores.—The master of every ship of the burden of 50 tons or upwards, departing from any port in the U. K. upon a voyage to parts beyond the seas, the duration of which out and home shall not be less than 40 days, shall, upon due application made by him, and upon such terms and conditions as the Commissioners of Customs may direct, receive from the searcher an order for the shipment of such stores as may be required and allowed by the collector or comptroller for the use of such ship, with reference to the number of the crew and passengers on board, and the probable duration of the voyage on which she is about to depart; and all demands for such stores shall be made in such form and manner as such collector or comptroller shall require, and shall be signed by the master or owner of the vessel; and after such stores are duly shipped the master or his agent shall make out an account of the stores so shipped, together with any other stores then already on board, and the same, when presented to the searcher, signed by him, and countersigned by the collector or comptroller, shall be the Victualling Bill; and no stores shall be shipped for the use of any ship, nor any articles taken on board any ship be deemed to be stores, except such as shall be borne upon such victualling bill.—§ 137.

As to the Clearance of Ships Outwards.

If inward Cargo reported for Exportation, Copy of Report thereof to be delivered to the Searcher.—If there be on board any ship any goods, being part of the inward cargo reported for exportation in the same ship, the master shall, before clearance outwards of such ship from any port in the U. K., deliver to the searcher a copy of the report inwards of such goods, certified by the collector or comptroller; and if such copy be found to correspond with the goods so remaining on board, the searcher shall sign the same, to be filed with the certificates or cockets, if any, and victualling bill of the ship.—§ 138.

Before Clearance Master to deliver Content.—Before any ship shall be cleared outwards from the U. K. with any goods shipped or intended to be shipped on board the same, the master shall deliver a *content* of such ship to the searcher, in the form or to the effect following, and containing the several particulars therein required, as far as the same can be known by him, and shall make and subscribe the declaration at the foot thereof, in the presence of the collector or comptroller, and shall answer such questions as shall be demanded of him concerning the ship, the cargo, and the intended voyage, by such collector or comptroller:

CONTENT.

Port of

Ship's Name.	Tonnage and Number of Guns.		If British, Port of Registry; if Foreign, the Country.	Number of Crew.	Name of Master.	Number of Passengers or Troops.
	Tons.	Guns.				
Here state the Particulars according to the above Headings.						

Warehoused Goods.	Drawback and restricted Goods.	British Goods and Foreign Goods free of Duty, and Foreign Goods not for Drawback.
If any, state Marks and Numbers of Packages.	*If any, state Description of Packages.*	*If any, state "Sundry Packages containing," either Class, as the Case may be.*
If any Goods shall have been reported inwards for Exportation in such Ship they must be so stated.		

Cleared_____. Examined_____.
(Signed)_____ Searcher.
Dated_____.

I do declare, that the above Content is a true account of all goods shipped or intended to be shipped on board the above-named ship, and correct in all other particulars.

(Signed)_____ Master.

Signed and declared, this_____ day of _____ before me,
(Signed)_____ Collector or Comptroller.

and before clearance the certificates, if any, shall be delivered to the searcher, who shall compare the shipping bills with the content and certificates, if any, and file such certificates, copy of report inwards, if any, of goods reported for exportation in such ship, and the victualling bill, with a label attached and sealed thereto, in the form or to the effect following:

(*Seal.*)

Number of Certificates (*Number in Figures*).
Ship (*Name of Ship*).
Master (*Name of Master*).
(*Signature*) _____ Searcher.
(*Date of Clearance.*)
(*Signature*) _____ Collector or Comptroller.

and such label, when filled up, and signed by the searcher and the collector or comptroller, shall, as to the goods comprised therein, be the clearance and authority for the departure of the ship; and the shipper of any British goods and such goods as were previously chargeable with duty at value laden in such ship shall, under a penalty of 20*l.*, deliver to the broker, agent, or other person clearing such ship, a duplicate of the bill of lading thereof at the time of signing thereof, with an endorsement thereon of the quantity and value of such goods; and such broker, agent, or other person as aforesaid shall, within 14 days after such final clearance of the ship, sign and deliver to the collector or comptroller of customs a full and accurate list of all such goods, with the quantities and value thereof, from the bills of lading so delivered to him, with such bill or bills of lading annexed thereto, and on failure thereof such broker, agent, or other person as aforesaid shall forfeit the sum of 20*l.*, and for this purpose the duplicate bill of lading so required shall not be liable to any stamp duty.—§ 139.

Goods on board to correspond with Content. — If any goods liable to duty on importation, or taken from the warehouse to be exported, or entitled to drawback on exportation, which are enumerated in the content of any ship, shall not be duly shipped before the departure of such ship, or shall not be duly certified by the proper officer as short-shipped, such goods shall be forfeited; or if any such goods shall be taken on board such ship, not being enumerated in such content, the master of such ship shall forfeit the sum of 5*l.* in respect of every package of such goods; and if any goods duly shipped on board such ship shall be landed at any other place than that for which they shall have been cleared, unless otherwise accounted for to the satisfaction of the Commissioners of Customs, the master of such ship shall forfeit a sum equal to treble the value of the goods so landed.—§ 140.

Goods shipped contrary to Provisions forfeited. — If any goods shall be shipped, put off or waterborne to be shipped, without being duly cleared, or otherwise contrary to the provisions of this act, the same shall be liable to forfeiture.—§ 141.

Ships leaving in Ballast. — Before any ship shall depart in ballast from the U. K. for parts beyond the seas, not having any goods on board, except stores from the warehouse borne upon the victualling bill of such ship, nor any goods reported inwards for exportation in such ship, the collector or comptroller shall clear such ship in ballast, by notifying such clearance and the date thereof on the victualling bill, and deliver the same to the master of such ship as the clearance thereof; and the master of such ship shall answer to the collector or comptroller such questions touching her departure and destination as shall be demanded of him; and ships having only passengers with their baggage on board, and ships laden only with chalk or slate, shall be deemed to be in ballast; and if any such ship, whether laden or in ballast, shall depart without being so cleared, if she have any such stores on board, the master shall forfeit and pay the sum of 100*l.*—§ 142.

As to the Boarding of Ships after Clearance Outwards.

Officers may board any Ship after Clearance. — Any officers of customs may go on board any ship after clearance outwards within the limits of any port in the U. K., or within 4 leagues of the coast thereof, and may demand the ship's clearance; and if there be any goods on board in respect of which certificates are required, not contained in such certificates, or any stores not endorsed on the victualling bill, such goods or stores shall be forfeited; and if any goods contained in such certificates be not on board, the master shall forfeit the sum of 20*l.* for every package or parcel of goods contained in such certificates, and not on board.—§ 143.

If Officers put Seals upon Stores, and such Seals be broken, Master to forfeit 20*l.* — If any officer of customs shall place any lock, mark, or seal upon any goods taken from the warehouse without payment of duty as stores on board any ship or vessel departing from any port in the U. K., and such

lock, mark, or seal be wilfully opened, altered, or broken, or if any such stores be secretly conveyed away, either while such ship or vessel remains at her first port of departure, or at any other port or place in the U. K., or on her passage from one such port or place to another, before the final departure of such ship or vessel on her foreign voyage, the master shall forfeit the sum of 20*l.*—§ 144.

Ships not bringing to at Stations, Penalty 20*l.*—If any ship departing from any port in the U. K. shall not bring to at such stations as shall be appointed by the Commissioners of Customs for the landing of officers from such ships, or for further examination previous to such departure, the master of such ship shall forfeit the sum of 20*l.*—§ 145.

Time of Exportation and Departure defined.—The time at which any goods shall be shipped on board any export ship shall be deemed to be the time of exportation of such goods, and the time of the last clearance of any ship shall be deemed to be the time of departure of such ship.—§ 146.

Goods prohibited by Proclamation.—The following goods may, by proclamation or order in council, be prohibited either to be exported or carried coastwise: arms, ammunition, and gunpowder, military and naval stores, and any articles which H. Majesty shall judge capable of being converted into or made useful in increasing the quantity of military or naval stores, provisions, or any sort of victual which may be used as food by man, and if any goods so prohibited shall be exported from the U. K. or carried coastwise, or be water-borne to be so exported or carried, they shall be forfeited.—§ 147.

Then follow the clauses in regard to the COASTING TRADE, COLONIAL TRADE, and SMUGGLING, which see.

The commissioners of customs, agreeably to the powers given them to that effect by the foregoing statute, and others, have appointed the undermentioned places, within the several ports of the U. K., at which vessels coming into or departing out of such ports shall bring to, for the boarding or landing of customs' officers.

The following clause in the act 16 & 17 Vict. c. 107. has reference to this matter.

If any ship coming into the U. K. or into the Channel Islands, shall not come as quickly up to the proper place of mooring or unlading as the nature of the port will admit, without touching at any other place, and in proceeding to such proper place shall not bring to at the stations appointed by the Commissioners of Customs for the boarding of ships by the officers of customs, or if after arrival at such place such ship shall remove from such place, except directly to some other proper place of mooring or unlading, and with the knowledge of the proper officer of the customs, or if the master of any ship on board of which any officer is stationed neglect or refuse to provide every such officer sufficient room under the deck in some part of the forecastle or steerage for his bed or hammock, the master of such vessel shall forfeit the sum of 20*l.*—§ 47.

ENGLAND.

Ports.	*Stations for bringing-to.*
LONDON	Gravesend Reach, below the Custom-house.
ABERYSTWITH	On the bar, or a little above the junction of the rivers Rhydol and Ystwith.
Aberdovey	A little to the westward of the town, in the river Dovey.
ALDBOROUGH	Orford haven, the entrance to the rivers Ore and Alde.
ARUNDEL	The piles on the eastern side of the river, between the revenue watch-house and the Duke of Norfolk's Quay, in the harbour of Littlehampton.
BARNSTAPLE	Skern and watch-house, Appledore.
BEAUMARIS	Opposite the town, at Fryar's Road.
Almwch	Within the harbour.
Conway	In the roadstead opposite the town.
Carnarvon	In the bay off the town, opposite the Bell Tower, and at Abermenol.
Pwllheli	At the entrance of the harbour, by the Gimblet Rock.
Barmouth	In the harbour.
Holyhead	In the harbour.
BERWICK	At the entrance of the harbour, near the pier head.
BIDEFORD	Skern and watch-house, Appledore.
BOSTON	Hob hole.
BRIDGEWATER	Between Botestall Point, on the coast of the Bristol Channel, and Black Rock, about a mile within the mouth of the river Parrott.
BRIDLINGTON	The bay or harbour.
BRIDPORT	The outer buoy, distant about 300 yards, abreast of the harbour.
BRISTOL	Pill and Kingsroad.
CARDIFF	Penrith Roads, a little to the eastward of the mouth of the river Taff.
CARDIGAN	At Pwllcarn, a little inside the bar or harbour's mouth.
CARLISLE	Fisher's Cross.
CHEPSTOW	At the entrance of the river Wye.
CHESTER	Dowpool, 6 miles from Hoylake.
CHICHESTER	Cockbush harbour.
CLAY	Blackey and Clay Harbour.
COLCHESTER	Coln River, off Mersea Stone, Mersea Island.
COWES (EAST)	Roadstead of Cowes, extending from east to west about 2½ miles.
DARTMOUTH	Between the mouth of the harbour and Sandquay Point.
Salcombe	At the mouth of the harbour and Snaps Point.
DEAL	In the Downs, in open roadstead.
DOVER	The outer harbour.
Folkestone	In the harbour.
EXETER	At the Passage Way, Exmouth.
Teignmouth	At the Point.
FALMOUTH	In the harbour, off Kiln Quay and watch-house.
FAVERSHAM	Between the mouth of Faversham Creek and the Horse Sand in the East Swale.
Milton	At the mouth of Milton Creek in the Swale.
FOWEY	Near the Custom-house, not far from the entrance of the harbour.
GLOUCESTER.	
GRIMSBY	At the outfall, near the entrance of the harbour.
GOOLE	Hull Roads.
GWEEK	Durgan Roads, just at the entrance of the river Hel.
HARWICH	In the harbour, between the Guard and Walton Ferry.
HULL	Hull Roads, between the east end of the citadel and the entrance to the Humber dock to the westward.
ILFRACOMBE	In the harbour.
IPSWICH	In the harbour, between the Guard and Walton Ferry.
ISLE OF MAN	
Douglas	In their respective bays.
Darby Haven	
Peel	
Ramsey	
LANCASTER	Glasson Dock, on the river Lune.
Poulton	Sea Dyke, entrance of the river Wyre.
Ulverston	Pile Cowdry, near the Isle of Walney.
LEIGH	Leigh Slade, or Leigh Swatch, which channel is formed by the spit of a sand called Marsh End, leading from the east end of Canvy Island, and nearly opposite to a windmill, called the Hamlet Mill, situate upon the Cliff, about ¼ a mile to the westward of Southend, and about 2 miles from Leigh.
LIVERPOOL	At the entrance of the respective docks.
LYME	The basin within the pier or cobb of Lyme Regis.
LYNN	Nottingham Point, intermediate space between Common Strath Quay, where the estuary narrows into a river, about 3 miles below the town, or as near as circumstances permit within the point.
MALDON	Barrow Hills, opposite Blackwater River, Maldon.
MILFORD	In the haven, opposite the town of Milford.
MINEHEAD	The entrance of the harbour.
NEWCASTLE	Opposite the watch-house, at the entrance of the river Tyne.
Shields	Low Lights, North Shields.
Blythmouth	At the entrance of the harbour.
NEWHAVEN	In the stream, between the piers and the tide surveyor's watch-house.
NEWPORT (Wales)	At the watch house, 1 mile from the Custom-house.
PADSTOW	Hawker's Cove, within the harbour.
PENZANCE	Gwavas Lake.
St. Michael's	St. Michael's Mount Roads.
PLYMOUTH	Within the line of the breakwater, viz. the Sound, Catwater, and Hamoaze.
POOLE	At the entrance of the harbour, between South Deep, opposite Brownsea Castle, and the Essex buoy, opposite the castle stables.
PORTSMOUTH	Between Blockhouse Point and the north end of her Majesty's dockyard.
Langstone	In the roadstead, within 1 mile of the Spit Buoy.
RAMSGATE	In the harbour.
Margate	In the harbour.

Ports.	Stations for bringing-to.
Sandwich	At the entrance of the harbour.
ROCHESTER	Sheerness.
RYE	The outer channel, and in Stag's Hole, in the inner channel.
Hastings	In the open roadstead.
Eastbourne	In the open roadstead.
SCARBOROUGH	Entrance of the harbour, opposite the light-house, at the end of Vincent's Pier.
SHOREHAM	Near the entrance of the harbour, in the western branch, opposite the customs watch-house and Kingston Wharf.
SOUTHAMPTON	Itchen buoy, or Bursledon buoy.
SOUTHWOLD	Opposite the jetty, near the entrance of the harbour.
STOCKTON	Ninth buoy, or opposite Cleveland Port.
ST. IVES	In the bay, within ½ mile of St. Ives pier.
Hayle	The same.
SUNDERLAND	At the entrance of the harbour, near the watch-house on the South pier.
SWANSEA	In the harbour.
Neath	Briton Ferry, near the entrance of Neath river.
TRURO	Falmouth Harbour.
WELLS	Between the entrance of the harbour and Wells Quay.
WEYMOUTH	Weymouth Roads.
WHITBY	The harbour.
WHITEHAVEN	In the harbour, between the tongue and bulwark.
Harrington, *Workington*, *Maryport*	In their respective harbours.
WISBEACH	At the light-houses about 3 miles below the station at Sutton Wash.
WOODBRIDGE	Bawdsey Ferry, the entrance of the river Deben.
YARMOUTH	Yarmouth Roads, between Nelson's monument and the haven's mouth,—on the Brush, a short distance within the haven's mouth, at the S. E. angle of the river.
	SCOTLAND.
ABERDEEN	That part of Aberdeen Bay which falls within a line beginning at the eastern-most point of the Girdle Ness, and running north 1½ mile, to a point due east of the centre of the Broad Hill.
Peterhead	The bay.
Newburgh	Within the river Ythan, opposite to the village Newburgh.
Stonehaven	Stonehaven Bay, within 800 yards of the entrance of the harbour.
AYR	South Quay at Ayr.
BANFF	The Legal Quays.
BORROWSTONESS	The harbour.
Inverkeithing	The harbour.
CAMPBELTOWN	The harbour.
DUMFRIES	The harbour.
DUNDEE	The harbour.
Newburgh and *Perth*	Caroline Roads, 1½ mile to the eastward of the harbour of Dundee.
GLASGOW	Entrance of the harbour.
GRANGEMOUTH	Entrance of the harbour.
Alloa	Alloa roadstead.
Kincardine	Kincardine roadstead.
GREENOCK	From Gravel Point, to the eastward of the town of Greenock, in the county of Renfrew, to Kempock Point, being the western point of Gourock Bay, including therein Cartsdyke Bay, Greenock Roads, the anchorage at the tail of the bank, and Gourock Bay.
Rothsay	Rothsay Bay, lying and being within Boyany Point, on the east of the town of Rothsay, in the Isle of Bute, county of Bute, and Ardmalish Point on the west of the said town.
Oban	Oban Bay, in the county of Argyle, as lies within Fishing-house Point on the eastern side, and Currick Point on the western side of the said bay.
Tobermory	The bay of Tobermory, lying and being within Leidag Point to the south-east, Fortmore Point to the north-west, and the Isle of Calve on the east of Tobermory, Isle of Mull, county of Argyle.
Inverary	The roadstead of Inverary, lying and being off the town of Inverary, in the county of Argyle, and extending ½ a mile north-east of the quay of the said town.
Lochgilphead	Lochgilphead Roads, at the east end of the Crinan Canal, lying and being within Ardrishaig Point, on the western side of Lochgilphead and Kilmory Point, on the eastern side of the said loch.
INVERNESS	The harbour.
IRVINE	The harbour.
KIRKALDY	Entrance of the harbour.
Aberdour and *Burntisland*	Burntisland Roads.
Pittenween, *Dysart*, *Wemyss*, *Methil*, *Leven*, *Largo*	Kirkaldy Bay.
Elie	Largo Bay.
Anstruther	Entrance to their respective harbours.
St. Andrew's	St. Andrew's Bay.
KIRKWALL	The Bay or Kirkwall Roads, extending along the beach, in a north east direction to Thief's Holm, and in a westerly direction to Quanterness Skerry, thence in a southerly direction to the Legal Quays.
Stromness	The bay called Cairston Roads.
LEITH	Between the martello tower and chain pier at Newhaven.
Dunbar	In the harbour.
Fisherrow	In the harbour.
LERWICK	In the bay, opposite the Custom-house.
MONTROSE	Within the bar, at the entrance of the river South Esk, which is called the Still.
Arbroath	The harbour.
PORT GLASGOW	Port Glasgow Roads, or roadstead, commencing at the black and white chequered buoy, on the east point of the bank called the Perch, distant from the harbour about 200 yards, and extending in a south-easterly direction by the course of the river Clyde to the old ruins called Newark Castle.
STORNAWAY	The harbour.
STRANRAER	The harbour.
Port Patrick	The harbour.
THURSO	Thurso Bay, within Holburn Head to the anchorage ground at Scrabster Roads.
Wick	Wick Bay, when abreast or within the headland called the Old Man of Wick.
	IRELAND.
BALTIMORE, *Castle Townsend*, *Crook Haven*, *Bere Haven*	At the entrance of the harbours of Castle Townsend, Baltimore, Crook Haven, and Bere Haven.
BELFAST (Floating Stn.)	Garmoyle Roads, in Belfast Lough.
COLERAINE	Port Rush Bay, outside the harbour.
CORK (COVE)	Between the Spit buoy and the town of Cove.
West Passage	Between Ferry Point to the southward and Horse Head to the north-west.
Kinsale	Upper Cove on the eastern side of the harbour.
Youghall	Within the entrance of the harbour, between Blackball Head to the eastward, and Ferry Point.
DROGHEDA	North Crook, at the entrance of the Boyne.
Queenborough	In the river Boyne, opposite Queenborough.
DUBLIN	Pigeon-house, between the harbour light-house and the end of the North Wall.
DUNDALK	Soldiers' Point.
GALWAY	To the eastward, or under the shelter of Mutton Island.
LIMERICK	Tarbert's Roads to the southward of Tarbert Island, in the county of Kerry.
LONDONDERRY	Greencastle, situate on the north side of Lough Foyle.
NEWRY	Warren Point Roads.
Strangford	Ballyheury Bay or Audley's Town Bay.
SLIGO	Oyster Island.
Killibegs	Anchorage of Killibegs.
Ballyshannon	In the river, abreast of Ward Townhouse.
Ballina	Moyne Pool.
Killala	Killala Pool.
WATERFORD, *New Ross*, *Dungarvan*	Passage.
WESTPORT	The harbour.
WEXFORD	The anchorage ground at Annagh Head, in Clew Bay.
	South Bay, about 10 miles from Wexford.

IMPORTS AND EXPORTS, the articles imported into and exported from a country. We have explained in another article (BALANCE OF TRADE) the mode in which the value of the imports and exports is officially determined by the Custom-house, and have shown the fallacy of the common notions as to the advantages of the exports exceeding the imports. The scale of prices according to which the official value of the imports and exports is determined having been fixed so far back as 1698, the account is of no use as showing their true value; but it is of material importance as showing the fluctuations in their quantity. We were anxious, had the means existed, to have given accounts of the quantities of the various articles imported and exported at different periods during the last century, that the comparative increase or diminution of the trade in each might have been exhibited in one general view. Unluckily, however, no means exist for completing such an account. The Tables published by Sir Charles Whit-

Trade of Great Britain with Foreign Countries, since 1760.

Years.	Imports. Official Value.	Exports of British and Foreign and Colonial Produce. Official Value.	Years.	Imports. Official Value.	Exports of British and Foreign and Colonial Produce. Official Value.
	£	£		£	£
1760	10,683,596	15,781,476	1772	14,508,716	17,720,169
1761	10,292,541	16,038,913	1773	12,522,643	16,375,431
1762	9,579,160	14,515,336	1774	14,477,876	17,298,486
1763	12,568,927	15,578,943	1775	14,815,856	16,326,564
1764	11,250,660	17,446,306	1776	12,443,435	14,755,704
1765	11,812,114	15,763,868	1777	12,643,831	13,491,006
1766	12,456,765	15,188,669	1778	11,033,898	12,253,890
1767	13,097,153	15,090,001	1779	11,435,265	13,530,703
1768	13,116,281	16,020,132	1780	11,714,966	13,694,178
1769	13,134,091	15,001,282	1781	12,722,862	11,332,296
1770	13,430,298	15,994,572	1782	10,341,629	13,009,459
1771	14,208,325	19,018,481	1783	13,122,235	14,681,495

Years.	Imports. Official Value.	Exports.—Official Value. British Produce and Manufactures.	Foreign and Colonial Produce.	Total Exports.
	£	£	£	£
1784	15,272,877	11,255,057	3,846,434	15,101,491
1785	16,379,419	11,081,811	5,035,358	16,117,169
1786	15,786,072	11,830,195	4,470,536	16,300,731
1787	17,804,025	12,053,900	4,815,889	16,869,789
1788	18,027,170	12,724,720	4,747,519	17,472,239
1789	17,821,103	13,779,506	5,561,013	19,340,549
1790	19,130,886	14,921,084	5,199,037	20,120,121
1791	19,669,783	16,810,019	5,941,977	22,751,996
1792	19,659,558	18,336,851	6,568,349	24,905,200
1793	19,255,117	13,892,269	6,496,560	20,388,829
1794	22,276,916	16,725,403	10,021,681	26,748,084
1795	22,736,889	16,338,213	10,785,126	27,123,339
1796	23,187,320	19,102,220	11,416,694	30,518,914
1797	21,013,957	16,905,103	12,013,907	28,917,010

An Account of the Value of the Imports into, and of the Exports from the U. Kingdom, during each of the undermentioned Years from 1798 to 1857, both inclusive, calculated at the Official Rates of Valuation, and distinguishing the Amount of the Produce and Manufactures of the U. Kingdom exported from the Value of the Foreign and Colonial Merchandise exported; exhibiting, also, the Real or Declared Value of the Produce and Manufactures of the U. K. annually exported therefrom.

Years.	Value of Imports into the U. Kingdom, at the official Rates of Valuation.	Value of Exports from the U. Kingdom, at the Official Rates of Valuation. Produce and Manufactures of U. Kingdom.	Foreign and Colonial Merchandise.	Total Exports.	Value of Produce and Manufactures of U. K. Exported according to the Real Value thereof.
1798	£27,857,889	£19,672,505	£13,919,275	£33,591,778	£33,148,682
1800	30,570,605	24,804,284	18,847,756	43,152,020	39,471,203
1805	27,354,029	22,907,571	7,615,120	30,520,491	37,234,396
1810	37,615,294	33,299,408	9,357,435	42,656,843	47,000,926
1815	31,822,053	41,712,002	15,708,435	57,420,437	49,655,245
1816	26,374,921	34,774,521	13,441,665	48,216,186	40,528,940
1817	29,910,502	39,235,467	10,269,271	49,502,738	40,349,235
1818	35,845,340	41,960,555	10,835,800	52,796,355	45,180,150
1819	29,681,640	32,985,699	9,879,256	42,862,925	34,252,251
1820	31,515,222	37,820,295	10,525,026	48,345,319	35,569,077
1821	29,769,122	40,194,681	10,802,090	50,796,771	35,825,127
1822	30,531,141	44,242,532	9,227,567	53,470,099	36,966,025
1823	35,798,433	43,826,607	8,603,905	52,430,512	33,557,041
1824	37,468,279	48,730,467	10,204,785	58,955,252	38,422,404
1825	44,208,803	47,150,690	9,169,492	56,320,182	38,870,945
1826	37,813,890	40,965,738	10,076,287	51,042,025	31,536,725
1827	44,908,173	52,221,354	9,850,821	62,052,755	37,181,335
1828	45,167,443	52,788,089	9,946,546	62,734,635	36,812,757
1929	43,995,286	56,217,962	10,620,165	66,838,127	35,842,623
1830	46,300,473	61,152,354	8,548,594	69,700,748	38,271,597
1831	49,727,828	60,686,364	10,745,126	71,451,490	37,164,372
1832	44,610,546	65,025,278	11,044,870	76,070,148	36,450,594
1833	45,944,426	69,987,357	9,833,753	79,821,110	39,607,548
1834	49,394,753	73,835,231	11,562,057	85,397,288	41,649,191
1835	49,029,354	78,360,059	12,797,724	91,157,783	47,372,270
1836	57,296,045	85,220,144	12,391,712	97,611,856	53,293,979
1837	54,762,285	72,544,071	13,255,497	85,779,568	42,069,245
1838	61,258,015	92,453,967	12,711,512	105,165,479	50,061,757
1839	62,048,121	97,304,666	12,795,990	110,190,656	53,253,580
1840	67,492,710	102,706,850	13,774,165	116,481,015	51,406,450
1841	64,444,288	102,119,154	14,723,373	116,902,887	51,454,623
1842	65,253,286	100,255,380	13,586,422	113,841,802	47,581,025
1843	70,214,912	117,876,659	13,956,288	131,832,947	52,279,709
1844	75,449,374	131,558,477	14.398,177	145,956,654	58,584,292
1845	85,297,508	134,598,584	16,279,518	150,877,902	60,111,092
1846	75,934,022	132,512,894	16,296,162	148,609,056	57,786,876
1847	90,921,866	126,151,029	20,040,979	146,172,008	58,842,377
1848	93,317,154	132,619,154	18,376,886	150,996,040	52,849,445
1849	105,874,607	164,539,504	25,561,890	190,101,394	63,596,025
1850	100,460,453	175,416,709	21,893,167	197,309,876	71,359,184
1851	110,679,125	190,658,314	23,732,703	214,391,017	74,448,722
1852	109,545,409	196,216,610	23,329,089	219,545,699	78,049,567
1853	123,099,315	214,327,452	27,735,537	242,060,989	98,953,781
1854	124,156,018	214,071,848	29,808,044	243,879,892	97,184,726
1855	117,284,881	236,920,202	31,494,391	268,414,653	95,688,035
1856	131,957,765	258,505,655	33,425,724	291,929,377	115,826,948
1857	156,215,849	255,396,715	30,797,818	286,194,531	122,066,107

N. B.—The account of the declared or real value of the exports was first taken in 1798, having been introduced by the Convoy Act of that year.

worth, Mr. Macpherson, and others, specify only the aggregate official value of the imports from and exports to particular countries, without specifying the articles or their values of which such imports and exports consisted. And on applying at the Custom-house, we found that the fire in 1814 had destroyed the records; so that there were no means of compiling any complete account of the value of the articles imported or exported previously to that period. We have, however, given in the preceding tables as complete a view of the trade of Great Britain with all parts of the world, from 1760 down to 1857, both inclusive, as can be derived from existing materials. And the subsequent tables, and those dispersed through the work, give a view of that trade in detail, that is, in particular articles, and with particular countries.

During the first half of last century, and previously, woollen goods formed the principal article of native produce exported from Great Britain; and next to it were hardware and cutlery, leather manufactures, linen, tin and lead, copper and brass manufactures, coal, earthenware, provisions, slops, &c. Corn formed a considerable article in the list of exports down to 1770; since which period the balance of the corn trade has been, with few exceptions, very decidedly on the side of importation. Cotton did not begin to be of any importance as an article of export till after 1770; but since then the extension and improvement of the cotton manufacture has been so great, that the exports of cotton stuffs and yarn amount, at this moment, to about one-third part or more of the entire exports of British produce and manufactures. The value of the exports of iron and other metallic products has also increased with extraordinary rapidity, and they are now, next to cotton stuffs and yarn, the leading articles in the list of exports. The export of woollen goods has latterly been very considerably augmented, after being for a while comparatively stationary.

The principal articles of import during the last half century have consisted of sugar, tea, corn, timber, and naval stores, cotton wool, sheep's wool, woods and drugs for dyeing, wine and spirits, tobacco, silk, tallow, hides and skins, coffee, spices, bullion, &c. Of the colonial and other foreign products imported into England, considerable quantities have always been re-exported.

Decline in the Real Value of the Exports.—The rapid increase in the official, compared with the slow increase in the real, value of the exports since 1815, has given rise to a great deal of irrelevant discussion. It has been looked upon as a proof that our commerce was becoming less prosperous, whereas, in point of fact, a precisely opposite conclusion should be drawn from it. We have already stated (art. Balance of Trade) that the rates according to which the official values of the exports are determined were fixed so far back as 1696, so that they have long ceased to be of importance as affording any criterion of their actual value. To remedy this defect, a plan was formed in 1798 for keeping an account of the real value of the exports as ascertained by the declarations of the exporters. Those who believe that our trade is getting into a bad condition, contend that the great increase in the official value of the exports since 1815 shows that the *quantity* of the articles exported has been proportionally augmented; while the slow increase of their real value shows that we are selling this larger quantity of produce for a proportionally smaller price,—a result which, they affirm, is most injurious. But the circumstance of a manufacturer or merchant selling a large or a small quantity of produce at the same price, affords no criterion by which to judge of the advantage or disadvantage of the sale; for if, in consequence of improvements in the arts or otherwise, a particular article may now be produced for half the expense that its production cost 20 or 30 years ago, it is obvious that double the quantity of it may be afforded for the same price, without injury to the producers. Now this is the case with some of the most important articles exported from England. Cotton and cotton yarn form, as stated above, a third part or more of the entire value of the exports; but since 1815 there has been an extraordinary fall in their price, occasioned partly by the fall in the price of the raw material, but more by the wonderful improvements that have been effected in all departments of the manufacture. (See art. Cotton, *passim.*) And a reduction, to a greater or less extent, proceeding from the like causes, has taken place in the price of other leading articles of export.

A fall having also taken place in the prime cost, and consequently also in the price, of most of the principal articles of import, we obtain, at this moment, a much larger quantity of the produce of other countries in exchange for the articles we send abroad, than at any former period. The fall has been particularly sensible in the great articles of cotton and sheep's wool, corn, sugar, indigo, pepper, &c. The imports of all sorts of foreign merchandise have been increasing rapidly since 1815; and it is material to bear in mind, that we had no gold coin in circulation at that epoch, and that besides the greater quantities of other articles, we have imported in the intervening period, from 80,000,000*l.* to 90,000,000*l.* of gold and silver for currency only. The truth is, therefore, that instead of the decline in the real value of some of our exports having been in any degree prejudicial, it has been, in all respects, distinctly and completely the reverse. It has insured for our goods a decided superiority in every market, while, as the cost of the goods has fallen in an equal degree, their production continues to be equally advantageous. It appears, too, that a similar fall has been going on in other countries; so that while we send more goods to the foreigner, we get back more of his in return. Instead of being an evidence of decline, increased facilities of production and increased cheapness are the most characteristic and least equivocal marks of commercial prosperity.

Account of the Real or Declared Value of the Various Articles of the Manufacture and Produce of the U. Kingdom, exported to Foreign Countries and British Possessions during each of the 5 Years ending with 1857, specifying the Countries to which they were exported, and the Value of those annually Shipped for each; and showing, also, the Average Amount of Exports during the said 5 Years to each Country, and the Average Proportion exported to each, supposing the whole Exports to be 1000.

Countries.	1853.	1854.	1855.	1856.	1857.	Average Annual Amount of Exports, 1853 57.	Average Annual Proportions exported to each Country, supposing the whole Exports to be 1000.
FOREIGN:	£	£	£	£	£	£	
Russia	1,228,404	54,301	- -	1,595,237	3,098,819	1,195,352	11·283
Sweden	245,869	334,518	545,384	629,697	559,699	462,633	4·367
Norway	312,514	402,290	487,400	488,489	441,704	426,459	4·025
Denmark	569,753	759,718	759,658	1,054,914	886,760	802,157	7·572
Danish West Indies	511,520	569,478	568,321	618,942	888,045	651,261	5·059
Prussia	579,588	798,454	1,100,021	933,715	1,741,044	1,030,561	9·728
Mecklenburg	48,614	56,945	64,788	73,065	71,806	63,044	·595
Hanover	472,179	238,504	337,354	1,021,485	1,637,741	741,453	6·999
Oldenburg	25,470	14,752	25,405	35,725	51,910	30,248	·285
Hanse Towns	7,093,514	7,413,715	8,350,228	10,134,815	9,506,962	8,517,606	80·400
Holland	4,452,935	4,573,054	4,558,210	5,728,253	6,384,594	5,139,369	48·512
Dutch West Indies and Guiana	25,064	60,172	27,953	32,769	52,077	39,607	·374
Java	558,212	636,844	529,815	764,282	744,492	646,729	6·104
Belgium	1,371,817	1,406,932	1,707,693	1,688,075	1,727,204	1,580,724	14·921
France	2,656,530	3,175,200	6,012,638	6,432,650	6,213,358	4,894,057	46·196
Algeria	11,262	12,367	21,248	20,233	19,406	16,903	·159
French West Indies and Guiana	3,521	4,546	3,013	3,773	4,689	3,909	·037
Other possessions	1,725	8,527	11,542	5,424	13,422	8,088	·076
Portugal	1,210,411	1,370,603	1,350,791	1,455,754	1,458,461	1,369,204	12 924
Azores	79,554	79,170	86,134	41,628	61,452	69,544	·656
Madeira	45,637	39,536	38,788	41,376	49,314	42,930	·405
Cape Verd Islands	15,565	10,698	8,670	11,283	16,540	12,511	·118
Spain and the Balearic Islands	1,360,719	1,270,464	1,158,800	1,734,485	2,012,528	1,507,399	14·229
Canary Islands	107,638	82,115	110,015	118,248	108,010	105,205	·993
Fernando Po	49,478	46,115	38,816	13,492	10,816	31,744	·291
Spanish West Indies, Cuba	1,124,864	1,038,159	1,059,606	1,317,062	1,714,095	1,250,757	11·797
Porto Rico	12,187	55,702	18,139	81,775	151,572	59,875	·565
Philippine Islands	386,552	350,945	398,037	621,945	534,234	458,203	4·325
Sardinia	1,112,447	1,054,513	853,916	1,143,689	1,350,210	1,102,955	10·412
Tuscany	659,794	505,852	620,307	756,538	807,069	661,912	6·248
Papal States	207,491	149,865	147,015	311,114	418,797	226,856	2·142
Two Sicilies	659,544	565,053	921,220	1,202,185	1,088,982	882,995	8·335
Austrian territories	637,353	635,951	717,713	988,145	1,112,559	814,540	7·687
Greece	155,315	80,150	222,460	261,777	200,666	180,070	1·700
Turkish dominions (exclusive of Wallachia, Moldavia, Syria, Palestine, and Egypt)	2,029,305	2,758,605*	5,659,898*	4,416,029	3,107,401	3,590,243	33·890
Wallachia and Moldavia	179,510	16,402	45,537	142,964	201,486	117,156	1·106
Syria and Palestine	506,580	366,993	946,604	757,774	703,575	616,265	5·817
Egypt (ports on the Mediterranean)	787,111	1,253,353	1,454,571	1,587,682	1,899,289	1,596,361	15·181
Morocco	75,257	75,076	135,697	131,042	148,809	112,776	1·065
United States: ports on the Atlantic	23,257,487	21,127,631	17,009,085	21,476,126	18,552,857	20,284,637	191·473
California	400,940	283,738	309,001	441,979	433,082	373,548	3·526
Mexico	791,040	450,936	585,898	887,862	567,311	652,789	6·162
Central America	186,968	175,616	266,191	275,516	315,371	243,533	2·299
Hayti	133,804	195,053	160,128	184,667	269,025	188,535	1·780
New Granada	450,804	270,722	588,935	488,589	550,730	469,956	4·436
Venezuela	248,490	309,899	378,491	353,590	377,711	351,766	3·152
Brazil	5,180,407	2,891,840	5,312,728	4,084,557	5,541,770	5,885,444	55·502
Uruguay (Monte Video)	539,883	462,210	294,038	391,525	515,902	438,851	4·142
Buenos Ayres	551,035	1,267,125	742,442	998,329	1,287,006	969,187	9·148
Chili	1,264,942	1,421,855	1,330,585	1,396,446	1,520,678	1,386,861	13·079
Peru	1,246,750	949,289	1,285,160	1,046,010	1,171,864	1,159,811	10·759
Ecuador	31,747	11,971	8,854	22,878	25,731	19,856	·187
China (exclusive of Hong Kong)	1,375,689	532,039	888,079	1,415,478	1,728,885	1,187,874	11·212
Western Coast of Africa (not particularly designated)	617,764	646,868	839,831	666,574	766,517	707,471	6·669
Other countries	40,944	62,229	53,641	59,383	102,862	63,812	·603
Total to foreign countries	65,601,057	63,352,528	69,135,210	82,526,509	84,911,419	73,101,345	690·026
BRITISH POSSESSIONS:							
Channel Islands	470,107	480,559	468,078	533,319	539,768	498,522	4·704
Heligoland	182	194	500	- -	- -	175	·002
Gibraltar	670,840	754,357	829,354	866,479	655,661	755,338	7·129
Malta and Gozo	297,906	413,285	625,823	541,097	458,547	467,552	4·411
Ionian Islands	116,567	128,975	211,886	351,344	253,202	212,595	2·005
British North America: Canada	3,244,290	3,957,085	1,515,823	2,418,250	2,467,810	2,720,652	25·681
New Brunswick	770,275	865,704	370,560	572,542	548,022	625,020	5·900
Prince Edward Island	75,246	100,678	78,6 8	76,284	85,128	83,205	·786
Nova Scotia and Cape Breton	398,546	597,778	456,145	522,513	564,551	507,782	4·793
Newfoundland and Coast of Labrador	524,529	358,847	381,152	420,959	565,176	410,129	3·872
Settlements of the Hudson's Bay Company	85,858	102,784	82,963	110,049	98,568	96,044	·907
Total exports to N. American colonies	4,898,544	5,980,876	2,885,531	4,120,577	4,529,035	4,442,832	41·937
British West India Islands	1,801,146	1,870,674	1,389,992	1,462,156	1,850,415	1,941,150	18·323
British Guiana			421,398	411,241	518,028		
Honduras (British Settlements)	105,493	137,706	168,566	205,000	156,877	154,728	1·461
Falkland Islands	9,158	8,065	1,608	6,237	4,269	5,866	·056
British Settlements in Australia:							
West Australia	100,917	58,451	73,241	60,242	65,740	71,714	·677
South Australia	1,182,885	1,146,115	621,788	809,257	915,117	954,628	8·925
New South Wales	4,597,775	3,649,972	1,928,735	2,584,879	3,130,709	3,164,034	29·867
Victoria	7,062,587	5,741,315	2,789,776	5,495,764	6,649,286	5,547,706	52·373
Tasmania	1,408,927	1,051,406	616,957	624,819	509,242	842,270	7·951
New Zealand	230,809	286,015	248,469	337,654	364,430	293,471	2·771
Total exports to Australian colonies	14,513,700	11,931,352	6,278,966	9,912,575	11,632,524	10,853,823	102·452

* Exclusive of stores in government transports.

I.—*Continued.*

Countries.	1853.	1854.	1855.	1856.	1857.	Average Annual Amount of Exports, 1853-57.	Average Annual Proportions exported to each Country, supposing the whole Exports to be 1000.
	£	£	£	£	£	£	
Hong Kong	375,908	468,077	389,265	800,645	721,097	550,998	5·201
British East Indies (exclusive of Singapore and Ceylon)	7,324,147	9,127,556	9,949,154	10,546,190	11,666,714	9,722,752	91·775
Singapore	595,566	516,137	672,964	872,814	896,282	710,753	6·709
Ceylon	265,982	382,276	505,576	398,435	516,657	371,785	3·510
Aden	13,979	25,105	22,315	58,825	37,367	28,517	·270
Mauritius	385,879	385,210	303,173	420,180	663,554	431,199	4·070
British Possessions in South Africa, Cape of Good Hope, and Natal	1,212,630	921,957	791,315	1,344,538	1,360,658	1,226,175	11·573
British Possessions on the River Gambia	52,106	55,365	47,641	46,580	55,576	51,454	·485
Sierra Leone	126,192	93,042	147,271	165,444	223,495	151,089	1·426
British Possessions on the Gold Coast	55,862	117,419	111,182	93,445	91,743	93,930	·887
St. Helena	26,784	24,754	31,715	29,003	29,267	28,501	·267
Ascension	9,046	4,928	6,408	5,002	15,374	7,752	·073
Ports of the Crimea (in the temporary occupation of the allied forces)	- -	26,571	493,398	139,725	- -	131,930	1·246
Total to British possessions	33,352,724	33,852,198	26,552,875	33,300,439	37,154,688	32,858,585	309·974
Total to Foreign countries and British possessions	98,933,781	97,184,726	95,688,085	115,826,948	122,066,107	105,939,930	1000

II.—Account of the Quantities of the Principal Articles of Foreign and Colonial Merchandise imported and entered for Consumption in the U. Kingdom in 1856, 1857, and 1858. (For the Duties on Imports, see *antè*, p. 477.)

Principal Articles.	Quantities imported.			Quantities entered for Consumption.		
	1856.	1857.	1858.	1856.	1857.	1858.
Animals, living:						
Oxen, bulls, and cows number	61,862	65,648	62,018			
Calves - - - -	21,444	27,315	26,983			
Sheep and lambs - -	145,059	177,207	184,482			
Swine and hogs - -	9,916	10,678	11,565			
Ashes, pearl and pot - cwts.	105,911	140,833	150,132			
Bark for tanners' or dyers' use -	354,168	381,245	349,838			
Bones (whether burnt or not, or as animal charcoal) tons	70,949	63,951	85,293			
Brimstone - - cwts.	1,410,607	987,811	1,156,476			
Bristles - - - lbs.	2,876,838	2,641,002	2,055,596			
Caoutchouc - - cwts.	28,765	24,000	25,155			
Clocks and watches:						
Clocks - - - number	245,250	266,545	247,616	243,580	251,27	242,180
Watches - - - -	90,000	88,614	99,329	84,881	71,99	88,710
Cocoa - - - lbs.	7,343,475	7,256,045	10,338,404	3,762,724	2,772,921	3,071,115
Coffee:						
From Ceylon - - lbs.	34,969,017	32,777,053	43,755,163	23,144,893	21,173,394	23,029,281
Other British possessions —	7,174,922	7,835,001	6,831,916	5,396,954	6,331,068	5,882,482
Brazil - - - —	9,126,656	6,747,630	3,145,953	1,477,120	581,109	333,438
Central America - —	3,627,677	4,560,555	1,713,142	3,237,253	3,395,488	2,790,253
Other countries - - —	2,093,844	6,972,487	5,251,090	1,884,052	3,031,626	2,302,657
Total - —	56,992,116	58,892,726	60,697,264	35,140,252	34,515,685	35,338,111
Corn:						
Wheat—						
From Russia - qrs.	759,459	706,375	612,217	765,746	715,734	623,225
Prussia - - —	222,681	866,311	625,978	225,673	869,544	630,383
Denmark - - —	177,216	287,466	299,785	178,658	289,032	301,697
Mecklenburg - - —	62,625	152,162	110,840	62,858	153,200	111,129
Hanse Towns - - —	157,326	251,575	155,295	158,128	234,010	158,747
Turkey and Wallachia and Moldavia - —	237,196	36,114	200,150	239,653	36,615	202,909
Egypt - - - —	534,605	201,236	461,614	538,853	205,445	466,931
United States - - —	1,279,150	650,754	591,614	1,286,574	665,032	597,322
Other countries - - —	662,277	322,654	1,178,168	673,998	326,622	1,182,894
Total - —	4,072,833	3,437,957	4,241,719	4,107,941	3,475,234	4,275,435
Barley - - - - —	731,412	1,701,470	1,661,392	735,892	1,720,532	1,672,602
Oats - - - - —	1,146,848	1,710,299	1,856,281	1,156,790	1,732,004	1,878,513
Peas - - - - —	86,092	159,899	157,975	86,890	161,896	159,484
Beans - - - - —	353,218	305,775	412,031	355,089	307,348	414,983
Indian corn, or maize - —	1,777,815	1,150,783	1,750,825	1,788,212	1,158,752	1,762,320
Wheat meal and flour:						
From Hanse Towns cwts.	130,013	139,990	167,113	131,906	143,911	169,923
Spain - - - —	460,823	17,003	584	466,008	17,191	584
United States - - —	2,892,517	1,464,867	1,764,795	2,929,125	1,489,359	1,780,231
Other countries - - —	486,747	556,288	1,923,635	489,814	561,707	1,939,514
Total - —	3,970,100	2,178,148	3,856,127	4,016,853	2,212,168	3,890,252
Indian corn meal - - —	7,880	109,2	4,637	7,885	1,093	4,720

II.—*Continued.*

Principal Articles.	Quantities imported.			Quantities entered for Consumption.		
	1856.	1857.	1858.	1856.	1857.	1858.
Cotton, raw:						
From United States - cwts.	6,964,643	5,846,054	7,439,623			
Brazil - - - —	494,917	267,061	166,231			
Egypt - - - —	307,151	219,058	341,560			
British East Indies - —	1,611,577	2,235,162	1,185,023			
Other countries - - —	65,571	87,318	102,961			
Total - —	9,141,842	8,654,635	9,235,198			
Cotton manufactures, not made up - - - value £	510,972	573,913	508,636			
Cream of tartar - - cwts.	28,628	19,258	17,455			
Cubic nitre.—[*See* Saltpetre.]						
Dyes and dyeing stuffs:						
Cochineal - - cwts.	18,123	22,792	22,237			
Indigo - - - - —	81,314	68,213	66,198			
Lac dye - - - - —	10,975	12,196	11,639			
Logwood - - tons	38,880	39,568	26,189			
Madder and madder root cwts.	321,416	403,058	321,580			
Garancine - - - —	25,342	30,998	42,700			
Shumac - - tons	18,658	18,909	11,901			
Terra japonica - - —	6,847	8,450	8,957			
Cutch - - - - —	1,689	2,597	2,248			
Valonia - - - - —	22,733	24,025	19,572			
Elephants' teeth - - cwts.	9,266	9,641	11,975			
Flax, dressed and undressed, and tow or codilla of flax:						
From Russia and Prussia cwts.	1,368,690	1,548,464	1,027,632			
Holland - - - —	152,358	146,484	110,251			
Belgium - - - —	112,062	122,328	96,985			
Other countries - - —	53,931	48,974	49,057			
Total - —	1,687,041	1,866,250	1,285,905			
Fruit:						
Currants - - cwts.	351,725	398,849	582,380	226,123	255,996	384,731
Lemons and oranges bushels	695,595	926,689	975,779	719,028	917,797	984,901
Raisins - - - cwts.	266,593	326,852	357,185	268,202	185,136	258,807
Guano - - - - tons	191,501	288,362	353,541			
Hair:						
Goats' hair or wool - lbs.	2,912,838	3,255,010	3,312,012			
Manufactures of hair and of goats' wool, wholly or in part made up - - value £	243,493	212,205	229,521	23,148	27,376	22,559
Hemp:						
Hemp (dressed and undressed), and tow or codilla of hemp.						
From Russia - cwts.	540,155	580,697	612,474			
Austrian Italy - —	54,566	28,819	26,001			
British East Indies - —	45,396	47,203	73,483			
Philippine Islands - —	28,208	56,117	143,181			
Other countries - —	142,806	79,365	26,971			
Total - —	791,131	792,201	882,110			
Jute and other vegetable substances of the nature of hemp - - - —	736,593	646,191	756,250			
Hides, untanned:						
Dry—						
From British East Indies - —	155,653	223,016	193,276			
Other countries - —	63,275	99,842	88,950			
Total - —	218,928	322,858	282,226			
Wet—						
From Buenos Ayres and Uruguay - - —	196,805	262,419	202,668			
Brazil - - - —	71,610	108,941	59,659			
Australia - - —	63,249	96,153	74,907			
Other countries - —	107,564	175,861	108,835			
Total - —	439,228	643,354	446,069			
Hides, tanned, tawed, curried, or dressed (except Russia hides) - - - lbs.	3,196,451	5,664,071	3,885,124			
Hops - - - - cwts.	15,987	18,711	13,000	10,610	14,426	16,587
Leather manufactures:						
Boots, shoes, and goloshes, of all kinds - - pairs	189,85[illegible]	194,991	165,466	174,953	176,022	145,688
Boot fronts - - - —	670,510	555,171	609,596	663,757	544,856	597,753
Gloves - - - - —	3,989,571	4,189,292	3,657,178	3,709,788	3,663,991	3,210,848
Mahogany - - tons	39,751	41,038	33,481			
Metals:						
Copper ore and regulus—						
From Spain - - tons	5,692	13,030	6,12[illegible]			
Cuba - - - —	19,836	16,352	14,72[illegible]			
Chili - - - —	33,227	39,295	48,32[illegible]			
Australia - - —	8,431	8,489	9,12[illegible]			
Other countries - —	15,614	17,928	18,792			
Total - —	82,803	95,094	97,099			

II.—*Continued.*

Principal Articles.	Quantities imported.			Quantities entered for Consumption.		
	1856.	1857.	1858.	1856.	1857.	1858.
Copper, unwrought and part wrought - cwts.	76,257	128,700	128,280			
Iron, in bars, unwrought tons	51,935	50,165	25,464			
Steel, unwrought - - —	1,599	2,030	1,788			
Lead, pig and sheet - - —	10,254	12,768	14,139			
Spelter - - - - —	18,213	18,001	23,725			
Tin, in blocks, ingots, bars, or slabs - - - cwts.	69,282	54,173	59,115			
Oil:						
Train, blubber, and sperma-ceti - - - tuns	18,294	21,175	19,445			
Palm - - - cwts.	786,701	854,791	778,230			
Cocoa Nut - - - —	150,690	207,259	197,788			
Olive - - - tuns	21,415	18,862	25,121			
Seed oil, of all kinds - - —	8,287	15,110	9,222			
Oil seed cakes - - tons	83,256	99,265	80,629			
Potatoes - - cwts.	109,838	955,057	1,721,955			
Provisions:						
Bacon and hams - - —	372,793	366,931	196,685			
Beef, salt - - - —	187,716	150,940	168,496			
Pork, salt - - - —	156,266	88,732	89,741			
Butter - - - - —	513,392	441,606	390,040	498,378	443,012	385,050
Cheese - - - - —	406,323	393,323	364,987	396,264	385,585	354,950
Eggs - - - number	117,230,600	126,318,600	134,684,800	117,396,600	127,011,000	134,647,800
Lard - - - cwts.	136,650	182,860	121,367			
Quicksilver - - lbs.	576,824	475,093	320,725			
Rice, not in the husk - cwts.	3,692,001	3,432,154	3,692,025	1,439,726	1,509,462	1,761,865
Saltpetre - - - —	387,639	454,143	354,218			
Cubic nitre - - - —	309,722	354,503	484,988			
Seeds:						
Clover - - - - —	169,419	171,585	150,377			
Flaxseed and linseed—						
From Russia, Northern Ports - qrs.	465,184	368,830	253,613			
„ Ports in the Black Sea —	144,579	316,739	281,496			
Prussia - - —	158,955	69,325	30,819			
British East Indies - —	342,407	209,277	416,757			
Other countries - —	69,055	86,944	35,159			
Total - —	1,180,180	1,051,113	1,017,844			
Rape - - - - qrs.	261,920	220,495	217,169			
Silk:						
Raw—						
From China - - lbs.	3,723,693	6,664,532	2,011,186			
British East Indies and Egypt - - —	3,124,778	4,678,415	3,652,617			
Other countries - —	535,201	734,984	613,773			
Total - —	7,383,672	12,077,931	6,277,576			
Waste, knubs, and husks cwts.	17,993	20,680	16,765			
Thrown—						
From France - - lbs.	331,048	289,800	124,129			
China - - —	428,553	262,494	185,990			
Other countries - —	93,414	88,642	48,150			
Total - - —	853,015	640,936	358,269			
Silk manufactures of Europe:						
Broad stuffs, silk or satin - —	230,568	201,297	277,165	229,288	197,550	270,914
gauze, crape, and velvet - —	39,529	27,598	32,762	38,294	26,282	31,681
Ribbons, of all kinds - - —	463,780	375,890	383,619	441,421	365,159	376,562
Plush for making hats - —	170,936	118,368	134,106	170,818	118,717	133,738
Silk manufactures of India:						
Bandannas, corahs, choppas, tu-sore cloths, romals, and taffaties - - pieces	601,461	370,295	207,031	108,193	93,014	83,012
Spices:						
Cassia Lignea - - lbs.	1,408,021	454,538	819,198	137,957	100,665	158,342
Cinnamon - - - —	781,231	745,515	651,056	44,532	39,343	56,380
Cloves - - - - —	1,502,316	900,057	1,832,669	214,708	204,459	305,280
Ginger - - - cwts.	14,035	22,337	29,944	14,374	11,922	15,504
Nutmegs - - - lbs.	462,600	462,972	421,784	232,345	181,060	232,833
Pepper - - - - —	10,810,598	5,463,738	12,357,509	3,766,783	3,656,445	4,030,062
Pimento - - - cwts.	14,683	31,013	42,310	4,014	4,056	5,135
Spirits:						
Rum - - proof gallons	7,169,005	6,515,683	7,312,643	3,424,078	3,397,115	3,427,583
Brandy - - - —	2,540,438	2,899,952	1,064,661	1,534,694	1,291,499	1,108,105
Geneva - - - —	195,895	178,041	130,172	27,312	25,929	26,238
Sugar, unrefined:						
1st quality (equal to white clayed) - - cwts.	92,526	101,875	175,911	21,819	71,118	102,771
2nd quality (not equal to white, but equal to brown clayed)						
From British West Indies and Guiana - - —	1,250,096	1,280,161	1,438,889	1,362,780	1,085,540	1,522,602
British East Indies - —	666,853	585,654	454,708	533,037	573,571	380,488
Mauritius - - - —	834,424	555,195	501,756	624,562	576,461	475,108
Cuba and Porto Rico - —	687,587	826,767	1,402,688	533,579	785,359	1,205,027
Brazil - - - —	32,946	56,205	80,508	15,578	50,357	52,593
Java and Philippine Islands - - —	4,387	13,728	9,977	4,566	16,865	10,236
Other countries - - —	78,823	235,528	265,783	141,636	178,885	295,031
Total - —	3,555,096	3,553,238	4,151,309	3,215,538	3,267,038	3,941,084

II.—*Continued.*

Principal Articles.	Quantities imported.			Quantities entered for Consumption.		
	1856.	1857.	1858.	1856.	1857.	1858.
Sugar, unrefined, 3rd quality (not equal to brown clayed)						
From British West Indies and Guiana - - cwts.	1,557,071	1,656,487	2,046,211	1,783,655	1,384,079	2,176,985
British East Indies - —	504,844	570,570	305,035	341,471	484,120	371,605
Mauritius - - —	809,590	598,886	535,893	814,374	491,898	546,618
Cuba and Porto Rico - —	256,689	335,576	481,380	208,117	302,405	444,458
Brazil - - - —	497,576	794,022	752,450	432,102	699,881	628,025
Java and Philippine Islands - - —	394,743	416,571	258,520	211,817	412,247	170,128
Other countries - —	120,505	565,471	501,124	211,740	234,147	365,232
Total - - —	4,115,618	4,735,583	4,680,593	4,003,279	4,008,777	4,703,079
Total of sugar, unrefined —	7,761,240	8,390,696	9,010,813	7,240,636	7,346,935	8,746,934
Sugar, refined, and sugar candy - - - - —	187,211	329,122	386,839	258,923	298,948	257,339
cane juice - - —	- -	60,656	56,418	- -	11,652	57,361
Molasses:						
From British West Indies and Guiana - - - —	264,996	286,160	331,997	267,904	184,000	380,290
Cuba and Porto Rico - —	624,572	556,714	389,735	47,151	361,314	365,951
Other countries - - —	55,277	162,924	53,925	627,173	54,183	75,005
Total - - —	942,645	1,005,798	775,657	*942,228	*599,497	*819,226
Tallow:						
From Russia - - cwts.	629,038	839,257	1,004,562	535,316	709,638	990,885
Prussia and Denmark - —	226,001	5,007	10,535	224,992	9,889	8,440
Australia - - —	81,998	73,955	46,973	81,679	74,555	48,749
South America - —	114,067	134,158	98,874	102,495	133,618	96,321
Other countries - - —	71,632	157,970	74,845	71,827	157,828	80,786
Total - - —	1,122,736	1,210,347	1,235,789	1,016,309	1,085,528	1,225,181
Tar - - - - lasts	16,135	18,239	10,107			
Tea - - - - lbs.	86,200,114	64,493,989	75,432,578	63,295,643	69,159,640	73,217,483
Timber and wood:						
Deals, battens, boards, or other timber or wood, sawn or split: —						
From Russia - - loads	251,394	249,955	256,664	138,711	219,908	259,308
Sweden and Norway - —	381,273	285,592	329,985	375,723	283,558	294,452
British North America - —	643,592	720,014	612,976	649,580	723,248	612,976
Other countries - - —	74,077	60,714	55,805	60,345	59,426	46,744
Total - - —	1,352,256	1,316,275	1,255,430	1,222,359	1,286,140	1,213,480
Staves not exceeding 72 inches long - - - —	81,987	111,545	105,256			
Timber or wood, not sawn or split, or otherwise dressed, except hewn, and not otherwise charged with duty: —						
From Sweden and Norway - —	147,343	172,101	152,698	165,148	147,180	159,594
Prussia - - —	288,242	284,926	265,176	278,729	274,957	262,343
British North America - —	570,669	620,605	482,795	575,015	623,604	482,795
Other countries - - —	74,969	101,057	71,157	64,315	96,964	65,746
Total - - —	1,081,223	1,178,689	971,826	1,081,207	1,142,705	970,478
Tobacco:						
Stemmed - - - lbs.	13,279,125	11,408,605	20,004,956	15,618,479	14,258,767	14,763,335
Unstemmed - - —	31,350,511	30,640,225	39,638,824	16,711,252	18,359,741	19,087,976
Manufactured and snuff - —	1,955,031	1,699,151	2,573,925	249,437	252,877	259,939
Turpentine, common - cwts.	215,872	212,710	246,458			
Wine:						
Of British possessions in South Africa - galls.	492,102	787,753	654,118	353,354	456,214	726,314
Of other British possessions —	2,060	1,509	3,704	1,721	1,677	2,938
Foreign:—From Holland - —	111,105	121,357	113,691	90,076	92,116	89,516
France - - - —	711,911	796,760	623,041	614,797	622,443	571,949
Portugal - - - —	3,284,369	2,964,033	1,326,609	2,559,025	2,304,886	1,921,677
Madeira - - - —	85,499	69,456	57,266	41,627	53,505	35,146
Spain - - - —	4,048,409	4,628,790	2,460,411	2,932,741	2,776,964	2,657,122
Canaries - - - —	24,231	12,358	6,996	6,901	5,994	5,359
Naples and Sicily - —	263,801	360,683	184,060	290,504	230,574	219,928
Other countries - - —	458,393	593,646	361,760	220,393	245,347	207,022
Various countries, mixed in bond for consumption (without intermixture of sorts) - - - —	- -	- -	- -	254,755	270,322	261,476
Total { Of wine - - —	9,481,880	10,336,845	5,791,656	7,365,874	7,042,042	6,697,146
Total { Red - - —	4,157,556	4,400,130	1,981,325	3,365,317	3,178,868	2,731,791
Total { White - - —	5,324,324	5,936,715	3,810,331	4,000,557	3,863,174	3,965,355
Wool, sheep and lambs:						
From Hanse Towns and other parts of Europe - lbs.	23,168,309	30,272,704	29,103,069			
British possessions in South Africa - —	14,305,188	14,287,828	16,597,504			
British East Indies - —	15,386,348	19,376,741	17,333,507			
Australia - - —	52,052,139	49,209,655	51,104,560			
Other countries - - —	8,324,915	14,249,957	10,390,200			
Total - - —	113,236,899	127,390,885	124,528,840			

* Including delivered duty-free for use in distilleries under 18 & 19 Vict. c. 94., in 1856, 134,682 cwts., in 1857, 5,225 cwts., in 1858, 17,553 cwts.

II.—*Continued.*

Principal Articles.	Quantities imported.			Quantities entered for Consumption.		
	1856.	1857.	1858.	1856.	1857	1858.
Wool, Alpaca and the Llama tribe - - lbs.	2,974,493	2,359,013	2,688,133			
Woollen manufactures: Manufactures not made up - - - value £	1,298,07?	1,267,608	817,112			
Articles wholly or partially made up: Shawls, scarfs, and handkerchiefs - - lbs.	20,97?	17,437	16,422	20,537	15,213	16,115
Yeast, dried - - cwts.	70,30?	77,582	82,425			

III.—Account of the Real or Declared Value of the Principal Articles of the Produce and Manufacture of the U. Kingdom, exported to Foreign Parts, in 1855, 1856, and 1857.

Species of Exports.	1855.	1856.	1857.
Agricultural implements	£112,231	£154,463	£190,857
Alkali of all sorts	416,613	620,801	775,773
Alum	23,633	26,871	37,229
Apothecary wares	492,520	509,184	498,256
Apparel, slops, and negro clothing	1,285,813	1,815,780	2,158,619
Arms and ammunition	505,689	710,394	940,068
Bacon and hams	148,040	215,195	247,686
Bags, empty	232,814	347,377	404,611
Beef and pork, salted	159,401	111,152	98,280
Beer and ale	1,391,022	1,449,684	1,585,285
Bichromate of potash	23,114	20,195	2,599
Bleaching materials	76,651	84,295	97,766
Books, printed	370,922	425,525	422,513
Brass and copper manufactures	2,110,906	2,647,980	3,123,777
Bread and biscuit	54,122	67,066	46,310
Bricks	60,580	70,333	82,569
Butter and cheese	576,187	769,176	579,290
Cabinet and upholstery wares	178,057	207,733	287,800
Caoutchouc and gutta percha, manufactures of	78,285	75,517	79,549
Carriages of all sorts	126,100	143,213	173,889
Cement	99,159	134,359	150,180
Coals and culm	2,444,902	2,834,869	3,207,897
Confectionery	80,863	9?,019	97,419
Cordage	259,524	276,5?5	244,128
Corn, meal, and flour	977,143	795,669	666,911
Cotton: manufactures	27,574,538	30,193,892	30,362,666
„ yarn	7,199,421	8,028,575	8,700,589
Earthenware of all sorts	1,000,758	1,334,097	1,492,029
Fish of all sorts	515,646	518,49?	648,842
Fishing tackle	54,495	57,923	63,825
Fuel, manufactured	58,985	42,648	53,457
Glass of all sorts	506,925	581,636	658,206
Haberdashery and millinery	2,682,537	3,637,735	3,893,469
Hardwares and cutlery	2,959,564	3,747,448	4,016,046
Hats: beaver and felt	84,713	96,099	129,250
„ of all other sorts	91,352	116,319	162,843
Hemp, dressed	34,086	87,410	87,545
Hops	49,781	56,518	50,111
Horses	178,398	100,549	117,422
Iron and steel, wrought and unwrought	9,442,339	12,915,488	13,584,718
Lard	19,566	10,814	25,612
Lead and shot	515,315	582,219	549,523
„ red	43,850	50,181	66,102
„ white	76,245	78,263	81,104
Leather: wrought and unwrought	915,033	1,492,585	1,991,875
„ saddlery and harness	226,409	263,003	297,423
Linen: manufactures	4,116,083	4,876,271	4,514,532
„ yarn	932,981	1,365,945	1,617,953
Machinery and mill-work	2,241,671	2,709,117	3,883,581
Mathematical and optical instruments	61,730	78,277	85,144
Molasses	36,835	51,250	35,711
Musical instruments	130,290	133,717	143,462
Oil: hempseed, linseed, and rapeseed	712,329	1,079,678	663,754
„ train and spermaceti	46,785	43,743	72,180
Painters' colours and materials	314,373	435,757	443,461
Perfumery	59,926	92,274	90,576
Pickles and sauces	325,671	394,017	353,759
Plate, plated ware, jewellery, and watches	480,523	481,517	545,423
Platting for hats of straw, chip, and willow	41,145	58,972	46,801
Potatoes	9,638	15,285	6,066
Provisions, not otherwise described	329,44	283,651	157,300
Salt	345,615	397,616	533,458
Saltpetre, refined in the U. Kingdom	81,062	80,855	85,779
Seeds of all sorts	44,493	53,751	6?,226
Silk manufactures	1,521,303	2,962,056	2,889,764
Soap and candles	507,971	625,815	556,747
Spelter, wrought and unwrought	69,986	93,395	98,392
Spirits	816,343	977,556	723,517
Stationery of all sorts	593,151	7?0,066	742,321
Sugar, refined	99,916	806,445	555,635
Tin, unwrought	152,737	238,936	290,721
Tin and pewter wares, and tin plates	1,135,438	1,432,497	1,535,055
Tobacco (manufactured) and snuff	8,293	15,619	18,794
Toys	26,007	34,666	40,616
Turnery and turners' wares	28,709	38,571	35,799
Twine	67,121	90,769	119,559
Umbrellas and parasols	92,469	148,587	184,885
Wool: sheep's	979,293	947,393	1,087,374
„ of other sorts	80,649	69,169	95,294
Woollen and worsted yarn	2,026,095	2,589,642	2,941,800
Woollen manufactures	7,716,707	9,499,337	10,701,662
All other articles	2,631,906	2,704,343	2,976,234
Exports from Ireland	311,656	282,794	296,711
Total declared value of the produce and manufactures of the U. K. exported to foreign parts £	95,688,085	115,826,948	122,066,107

IV. Account of the Computed Real Values of the Principal Articles imported into the U. Kingdom in each of the 5 Years ending with 1858.*

Articles.	1854.	1855.	1856.	1857.	1858.
Butter	2,171,194	2,049,522	2,635,182	2,061,280	1,842,266
Cheese	906,078	1,027,774	1,094,280	975,862	850,397
Cocoa	73,124	142,644	167,878	267,853	259,617
Coffee, of or from British possessions	1,197,690	1,316,268	1,162,791	1,265,699	1,508,404
foreign countries	377,495	375,229	335,317	454,766	233,743
Total of coffee	1,575,185	1,691,497	1,498,108	1,720,465	1,742,147
Copper ore and regulus	1,226,132	1,433,693	1,929,683	2,157,558	2,144,802
unwrought, and part wrought	388,090	975,196	423,627	733,953	644,854
Corn, wheat	11,693,737	9,629,578	12,716,349	9,563,099	9,050,467
other kinds	6,665,129	5,514,336	6,254,464	7,851,167	7,908,268
flour of wheat	3,970,549	2,304,106	4,077,728	1,963,622	3,189,626
other kinds	30,868	10,080	10,881	2,679	4,270
Cotton, raw	20,175,395	20,848,515	26,448,224	29,288,827	30,106,968
Dyeing stuffs, indigo	1,670,117	1,629,055	2,453,633	2,185,452	2,292,257
madder	224,802	220,062	290,645	289,243	159,756
madder root	411,369	331,745	540,537	766,361	590,861
Eggs	228,650	236,865	278,422	317,046	303,617
Flax, dressed and undressed	3,384,216	3,317,122	3,653,194	3,524,767	3,020,879
Fruits, currants	130,672	529,093	971,782	739,676	765,195
raisins	452,532	444,069	607,598	739,607	524,847
Guano	2,530,272	3,137,160	2,136,431	3,613,074	4,084,170
Hemp, undressed, and other like substances	1,817,905	1,471,649	1,319,307	1,216,664	1,222,593
jute, undressed	553,995	447,167	612,290	646,356	619,668
Hides, tanned and untanned	1,894,306	2,082,638	2,805,681	4,474,218	2,479,890
Lard	707,082	310,036	423,443	599,567	324,181
Oil, fish	1,076,692	1,117,286	1,165,410	1,112,923	921,259
palm	1,731,021	1,762,607	1,691,407	1,868,484	1,513,109
cocoa nut	511,626	555,610	274,449	490,289	375,870
olive	745,828	1,411,950	1,124,755	1,044,054	1,201,561
Potatoes	17,467	1,466	19,332	179,094	337,821
Rice	946,852	1,635,574	1,987,039	1,958,623	1,652,505
in the husk	36,466	30,511	44,608	35,261	23,727
Saltpetre and cubic nitre	1,015,546	531,930	941,632	1,260,903	1,051,918
Seeds, clover	365,893	590,573	655,208	613,416	435,512
flax and linseed	2,545,107	2,544,708	3,195,654	3,061,684	2,710,078
rape	300,923	579,178	784,122	685,305	571,931
Silk, raw	5,521,452	4,584,733	7,289,730	13,143,839	5,661,387
thrown	1,132,925	908,571	1,206,415	1,084,728	449,189
Silk manufactures: of Europe, broad stuffs	491,534	509,183	500,577	423,024	553,330
ribbons	1,136,140	975,003	1,229,793	963,269	986,551
Of India, bandannas, &c.	306,237	315,285	401,645	265,314	132,652
Skins, sheep, undressed	40,404	27,733	109,362	133,721	117,113
tanned or dressed	25,578	25,478	37,567	43,246	29,269
lamb, undressed	96,307	54,091	72,015	69,151	73,080
tanned or dressed	7,117	4,591	2,462	4,620	800
seal in the hair, undressed	185,717	201,720	278,450	273,654	274,661
goat, undressed	39,006	22,745	66,133	47,546	62,051
tanned or dressed	10,212	21,526	62,826	65,580	57,065
Spirits, rum	1,499,661	1,138,142	889,366	927,022	836,604
brandy	1,225,332	955,998	1,279,315	1,836,654	398,989
Geneva	26,089	31,031	28,568	24,153	14,667
other Foreign and Colonial spirits	48,965	35,570	61,947	133,670	107,998
Sugar, raw, from British possessions	6,189,903	6,522,422	8,437,503	9,562,318	7,362,335
Foreign countries	3,425,899	3,119,416	2,992,289	5,181,360	4,960,070
Total of sugar, raw	9,615,802	9,641,838	11,429,792	14,743,678	12,322,405
Sugar refined, and sugar candy	579,180	722,325	337,496	756,655	753,681
molasses	580,468	611,654	736,930	907,040	391,787
Spices, Cassia lignea	26,576	28,179	46,575	20,575	35,625
cinnamon	51,723	50,317	56,815	54,762	40,742
cloves	52,189	34,801	32,569	18,393	25,746
nutmegs	55,109	38,151	54,602	51,738	39,695
pepper	194,204	134,236	224,746	110,824	221,693
Tallow	2,348,311	2,647,173	2,926,275	3,285,048	3,042,381
Tea	5,540,735	5,225,411	5,248,934	4,677,470	5,206,621
Timber of Foreign countries	1,991,417	1,645,108	1,620,675	1,736,466	1,341,285
of British possessions	2,993,925	1,922,762	2,430,114	1,995,196	1,435,523
Total timber, not sawn or split	4,985,342	3,567,870	4,050,787	3,731,662	2,776,808
Timber sawn or split, as deals, battens, boards, &c. of Foreign countries	2,341,725	1,964,202	2,363,728	1,819,901	1,739,835
of British possessions	2,671,413	1,376,378	2,114,470	2,012,646	1,447,365
Total timber, sawn or split	5,013,138	3,340,580	4,478,198	3,832,547	3,187,200
Staves	676,757	559,935	642,575	885,598	780,069
Tobacco, manufactured, cigars and snuff	279,755	237,721	243,490	287,483	300,519
unmanufactured	1,668,694	1,803,004	1,980,672	1,895,104	2,230,143
Wine	3,616,369	3,497,767	3,740,767	4,080,744	2,040,554
Wool: sheep, lamb, and alpaca	6,499,004	6,527,325	8,664,420	9,681,541	8,972,218
Woollen manufactures not made up, entered at value	1,120,562	946,988	1,298,073	1,267,608	817,112
All other articles	26,917,161	24,385,080	27,677,821	30,141,068	25,952,721
Total	152,389,055	143,542,850	172,544,154	187,844,441	163,795,803

* The computed real value of imports was not ascertained before 1854.

Causes of the Magnitude of British Commerce.—The immediate cause of the rapid increase and vast magnitude of the commerce of Great Britain, is doubtless to be found in the extraordinary improvement, and consequent extension, of our manufactures since 1770. The cotton manufacture may be said to have grown up during the intervening period. It must also be borne in mind, that the effect of an improvement in the production of any article in considerable demand is not confined to that particular article, but extends itself to others. Those who produce it according to the old plan are undersold, unless they adopt the same or similar improvements; and the improved article,

V. Account of the Computed Values of Produce imported into the U. Kingdom from Foreign Countries and British Possessions in each of the 3 Years ending with 1858, specifying the Amounts imported from each.

Countries.	1856.	1857.	1858.	Countries.	1856.	1857.	1858.
Foreign.	£	£	£	Foreign.—*Continued.*	£	£	£
Russia, northern ports	9,999,579	9,929,104	8,546,405	Uruguay (Monte Video)	576,247	742,769	544,209
southern ports	1,562,345	3,518,486	3,199,603	Buenos Ayres	981,193	1,573,558	1,128,566
Sweden and Norway	2,979,795	2,754 313	2,499,945	Chili	1,700,776	1,932,682	1,931,515
Denmark (including Iceland)	2,201,851	2,715,520	2,071,257	Peru	3,048,694	4,412,599	4,852,882
Danish West Indies	46,528	55,577	101,440	China (including Hong Kong)	9,421,648	11,448,659	7,043,089
Prussia	4,554,815	6,732,078	4,062,577	Western Coast of Africa	1,657,375	1,822,162	1,567,616
Hanover	377,040	405,827	182,829				
Hanse Towns	5,302,739	5,822,188	4,114,810	Total of imports from the above and all other foreign countries	129,517,568	141,661,245	125,420,193
Holland	7,433,442	7,203,785	6,133,299				
Belgium	2,924,796	3,592,046	3,104,020				
France	10,586,522	11,965,407	13,911,401	British Possessions.			
Algeria	16,174	17,236	16,165	Channel Islands	294,678	377,738	442,011
French possessions in India	103,011	129,126	89,129	Gibraltar	52,695	48,159	51,822
Portugal	2,164,090	2,148,725	1,047,605	Malta	215,202	161,312	63,770
Azores and Madeira	266,228	289,487	335,253	Ionian Islands	307,975	208,571	321,629
Spain and the Balearic Islands	3,615,085	3,684,787	2,065,242	North American colonies	6,354,324	6,399,110	4,654,584
Canary Islands	162,729	151,723	124,063	Honduras (British settlements)	435,110	424,364	337,025
Cuba	2,320,784	3,094,954	3,261,460	West India Islands and Guiana	5,575,362	7,214,566	6,351,984
Porto Rico	335,796	376,379	559,058	Australia	5,756,043	5,925,305	5,255,687
Philippine Islands	866,550	881,648	735,819	East Indies (exclusive of Singapore and Ceylon)	17,262,851	18,650,223	14,972,952
Sardinia	238,258	206,786	135,559	Singapore	806,499	940,181	744,800
Australia	902,433	848,815	604,501	Ceylon	1,304,174	1,505,897	1,689,453
Tuscany	554,457	534,494	559,928	Mauritius	2,427,007	2,288,188	1,502,852
Papal States	184,591	60,805	80,859	Cape of Good Hope and Natal	1,502,828	1,793,717	1,715,814
Two Sicilies	1,505,582	1,597,660	1,709,526	Possessions on the Gold Coast	75,531	86,509	31,667
Greece	1,427,289	570,915	642,861	Possessions on the River Gambia	19,522	23,273	32,042
Turkey	2,385,029	2,347,252	2,632,716	Sierra Leone	99,982	107,062	139,988
Wallachia and Moldavia	684,782	569,858	985,617	Other possessions	8,383	31,041	106,620
Syria and Palestine	134,747	130,526	100,337	Ports in the Crimea (in the occupation of the allied forces)	48,420		
Egypt	5,753,518	7,853,876	6,067,329				
Morocco	452,940	344,501	299,295	Total of British possessions	45,026,586	46,185,196	38,375,610
United States and California	36,047,773	35,647,227	34,281,255				
Mexico	222,193	342,383	275,850				
Central America	222,411	320,010	138,966				
Hayti	153,361	121,855	65,115				
New Granada	486,453	478,765	504,111				
Venezuela	56,860	29,505	32,301				
Ecuador	49,125	62,057	128,648				
Brazil	2,229,048	3,502,594	2,284,579	Total	172,544,154	187,844,441	163,795,803

by coming into competition with others for which it may be substituted, infuses new energy into their producers, and impels every one to put forth all his powers, that he may either preserve his old or acquire new advantages. The cotton manufacture may be said to be the result of the stupendous inventions and discoveries of Hargreaves, Arkwright, Crompton, and a few others; but we should greatly under-rate the importance of their inventions, if we supposed that their influence was limited to this single department. They imparted a powerful stimulus to every branch of industry. Their success, and that of Watt and Wedgewood, gave that confidence to genius so essential in all great undertakings. After machines had been invented for spinning and weaving cottons, whose fineness emulates the web of the gossamer, and steam-engines had been made "to engrave seals, and to lift a ship like a bauble in the air," every thing seemed possible — *nil arduum visum est.* And the unceasing efforts of new aspirants to wealth and distinction, and the intimate connection of the various arts and sciences, have extended and perpetuated the impulse given by the invention of the spinning-frame and the steam-engine.

The immense accumulation of capital that has taken place since the close of the American war has been at once a cause and a consequence of our increased trade and manufactures. Those who reflect on the advantages which an increase of capital confers on its possessors can have no difficulty in perceiving how it operates to extend trade. It enables them to buy cheaper, because they buy larger quantities of goods, and pay ready money; and, on the other hand, it gives them a decided superiority in foreign markets, where capital is scarce, and credit an object of primary importance with the native dealers. To the manufacturer, an increase of capital is of equal importance, by giving him the means of constructing his works in the best manner, and of carrying on the business on such a scale as to admit of the most proper distribution of whatever has to be done among different individuals. These effects have been strikingly evinced in the commercial history of Great Britain during the last half century: and thus it is, that capital, originally accumulated by means of trade, gives it, in its turn, nourishment, vigour, and enlarged growth.

The improvement that has taken place in the mode of living during the last half century has been partly the effect, and partly the cause, of the improvement of manufactures, and the extension of commerce. Had we been contented with the same accom-

modations as our ancestors, exertion and ingenuity would long since have been at an end, and routine have usurped the place of invention. Happily, however, the desires of man vary with the circumstances under which he is placed, extending with every extension of the means of gratifying them, till, in highly civilised countries, they become all but illimitable. This endless craving of the human mind, its inability to rest satisfied with previous acquisitions, combined with the constant increase of population, renders the demand for new inventions and discoveries as intense at one period as at another, and provides for the continued advancement of society. What is a luxury in one age, becomes a necessary in the next. The fact of Queen Elizabeth having worn a pair of silk stockings was reckoned deserving of notice by contemporary historians; while, at present, no gentleman, how humble soever his circumstances, can go to dinner without them. The lower classes are continually pressing upon the middle; and these, again, upon the higher; so that invention is racked, as well to vary the modes of enjoyment, as to increase the amount of wealth. That this competition should be, in all respects, advantageous, is not to be supposed. Emulation in show, though the most powerful incentive to industry, may be carried to excess; and has certainly been ruinous to many individuals, obliged sometimes, perhaps, by their situation, or seduced by example, to incur expenses beyond their means. But the abuse, even when most extended, as it probably is in England, is, after all, confined within comparatively narrow limits; while the beneficial influence resulting from the general diffusion of a taste for improved accommodations adds to the science, industry, wealth, and enjoyments of the whole community.

We are also inclined to think that the increase of taxation, during the late war, contributed to the improvement of manufactures, and the extension of trade. The gradually increasing pressure of the public burdens stimulated the industrious portion of the community to make corresponding efforts to preserve their place in society; and produced a spirit of invention and economy that we should have in vain attempted to excite by any less powerful means. Had taxation been very oppressive, it would not have had this effect; but it was not so high as to produce either dejection or despair, though it was, at the same time, sufficiently heavy to render a considerable increase of exertion and parsimony necessary, to prevent it from encroaching on the fortunes of individuals, or, at all events, from diminishing the rate at which they were previously accumulating. To the excitement afforded by the desire of rising in the world, the fear of falling superadded an additional and powerful stimulus; and the two together produced results that could not have been produced by the unassisted operation of either. No evidence has been, or, probably, can be, produced to show that the capital of the country would have been materially greater than it is, had the tranquillity of Europe been maintained uninterrupted from 1793 to the present moment.

We do not state these circumstances to extenuate the evils of war, or of oppressive taxation; but merely to show the real influence of taxation on industry, when gradually augmented and kept within reasonable bounds. Under such circumstances, it has the same influence over a nation that an increase of his family, or of his unavoidable expenses, has over a private individual.

But after every fair allowance has been made for the influence of the causes above stated, and of others of a similar description, still it is abundantly certain that a liberal system of government, affording full scope for the expansion and cultivation of every mental and bodily power, and securing all the advantages of superior talent and address to their possessors, is the grand *sine quâ non* of commercial and manufacturing prosperity. Where oppression and tyranny prevail, the inhabitants, though surrounded by all the means of civilisation and wealth, are invariably poor and miserable. In respect of soil, climate, and situation, Spain is, perhaps, superior, or, at all events, but little inferior to Great Britain; and yet, what a miserable contrast does the former present, when compared with the latter! The despotism and intolerance of her rulers, and the want of good order and tranquillity, have extinguished every germ of improvement in the Peninsula, and sunk the inhabitants to the level of the Turks and Moors. Had a similar political system been established in England, we should have been equally depressed. Our superiority in science, arts, and arms, though promoted by subsidiary means, is, at bottom, the result of *freedom* and *security* — freedom to engage in every employment, and to pursue our own interest in our own way, coupled with an intimate conviction, derived from the nature of our institutions, and their opposition to every thing like arbitrary power, that acquisitions, when made, may be securely enjoyed or disposed of. These form the grand sources of our wealth and power. There have only been two countries — Holland and the U. States — which have, in these respects, been placed under nearly the same circumstances as England; and, notwithstanding they inhabit a

morass, defended only by artificial mounds from being deluged by the ocean, the Dutch have long been, and still continue to be, the most prosperous and opulent people of the Continent; while the Americans, whose situation is more favourable, are advancing in the career of improvement with a rapidity hitherto unknown. In Great Britain we have been exempted, for a lengthened period, from foreign aggression and intestine commotion; the pernicious influence of the feudal system has long been at an end; the same equal burdens have been laid on all classes; we have enjoyed the advantage of liberal institutions, without any material alloy of popular licentiousness or violence; our intercourse with foreign nations, though subjected to various restraints, has been comparatively free; full scope has been given to the competition of the home producers; the highest offices have been open to deserving individuals; and, on the whole, the natural order of things has been less disturbed amongst us by artificial restraints than in most other countries. But without security, no degree of freedom would have been of material importance. Happily, however, every man has felt satisfied, not only of the temporary, but of the permanent tranquillity of the country, and of the stability of its institutions. The plans and combinations of capitalists have not been affected by misgivings as to what might take place in future. Monied fortunes have not been amassed in preference to others, because they might be more easily sent abroad in periods of confusion and disorder; but all individuals have unhesitatingly engaged, whenever an opportunity offered, in undertakings of which a remote posterity was alone to reap the benefit. No one can look at the immense sums expended upon the permanent improvement of the land, on docks, warehouses, canals, &c., or reflect for a moment on the settlements of property in the funds, and the extent of our system of life insurance, without being deeply impressed with the vast importance of that confidence which the public have placed in the security of property and the good faith of government. Had this confidence been imperfect, industry and invention would have been paralysed; and much of that capital which feeds and clothes the industrious classes would never have existed. The preservation of this security entire, both *in fact and in opinion*, is essential to the public welfare. If it be anywise impaired, the colossal fabric of our prosperity will crumble into dust; and the commerce of London, Liverpool, and Glasgow, like that of Tyre, Carthage, and Palmyra, will, at no very remote period, be famous only in history. — (From the *Treatise on Commerce*, contributed by the author of this work to the Society for the Diffusion of Useful Knowledge.)

Supposed Danger to our Trade from Foreign Competition. — A great many statements have been circulated of late years respecting the rapid progress of manufactures in foreign countries, and many sinister auguries have at the same time been indulged in as to the decay of the manufactures and trade of this country. But though all branches of industry, and especially those dependent on foreign supply and demand, are necessarily exposed to vicissitudes which it is impossible to estimate *à priori*, or even to foresee; still we think there are no good grounds on which to anticipate that we are at all likely, within any reasonable period, to be outstripped by others in the career of industry. We have, it is true, something to fear from the spread of combinations and agitation at home; but, supposing domestic security and tranquillity to be preserved, we have little or nothing to fear from foreign competition. The previous tables show that our exports to France, Germany, and Italy, have increased rapidly of late years. And but for their restrictions, which, however, are ten times more injurious to themselves than to those with whom they deal, our exports to the continent would have been vastly increased. But it is impossible that these restrictions should be maintained for any very lengthened period. Their days are numbered, and they cannot be many. In the present state of Europe, and with the intimate intercourse that subsists among its different states, we may safely affirm that monopoly, and its necessary consequences, scarcity and high prices, cannot have a very lengthened existence.

We have occasionally seen statements on which some stress has been laid in regard to the progress of the cotton and other manufactures in the U. States and elsewhere. And we have no doubt that at some future period the Union will be a great manufacturing country. It has every means and every facility for eventually distinguishing itself in that career; but a result of this sort can only be slowly brought about, according as population increases, and as the preponderating advantages now on the side of the ruder species of industry are diminished. And supposing it to have arrived at the destined goal, there are no grounds for supposing that the consequences will be injurious to us. On the contrary, there is every reason to think, seeing the rapid increase of population and wealth in most parts of the world, that there will be "ample room and verge enough" for the fullest display of the manufacturing capacities of every people. But in the meantime and for a long while to come, the Americans

will export few cotton goods, except those coarse fabrics the value of which chiefly consists of that of the raw material. It is, indeed, an absurdity to suppose that a country like the U. States, where labour is comparatively scarce and profits and wages comparatively high, should be able to come into any thing like successful competition with a country like England, in the production of any description of articles requiring either a good deal of skill or of labour in their manufacture.

Establishment of Free Trade. — In the later editions of this work we showed that though much had been done, much remained to be done to carry out to its full extent the liberal and enlightened system of commercial policy on which we had entered. We, also, endeavoured to show that the necessary changes might be made in our corn laws and other restrictive regulations, without seriously imperilling the interests of agriculture, or of any other great department of industry. We confess, however, that we did not anticipate that the triumph of philosophy and sound sense over sophistry and selfishness was so near at hand. But *novus sæclorum nascitur ordo.* The scarcity in Ireland in 1845–46, coupled with the disinterestedness, the patriotism, and the ability of Sir Robert Peel made an end of the corn laws. And with them fell the whole system of protection in this country. A few shreds and patches of the fabric may be found here and there for a longer or a shorter period. But all men of sense saw that the idol had been thrown down without the smallest hope of its ever being again resuscitated; and that free commercial principles were everywhere destined to gain the ascendancy.

One thing only was wanted in 1846, to hasten the downfall of the old system—the experimental and practical success of the new — and that has been afforded in the most ample manner. It would be difficult to exaggerate the advance that has been made in commerce and in most sorts of industry, and the improvement in the condition of society, that has taken place during the last seven years. A considerable portion of this advance is no doubt due to the discovery of the Californian and Australian gold-fields. But that was an incident which might have been turned to an equally good account by France, Spain, or any other country. And if it has been peculiarly advantageous to us and to the Americans, it is because our transatlantic rivals and ourselves were in a situation to profit by it; because our free and untrammelled energies were ready to be directed towards any channel, how remote soever, which held out the promise of an adequate reward.

The moral influence of the new state of things is no less powerful and important than its economical influence. The extension of commerce will do more than anything else to diffuse the blessings of civilisation, to bind together the universal society of nations by sharpening, and at the same time gratifying their mutual wants and desires, and to maintain undisturbed that tranquillity so indispensable to its full development.

IMPRESSMENT, the forcible taking away of seamen from their ordinary employment, and compelling them to serve, against their will, in H. Majesty's ships.

1. *Regulations as to Impressment.* — This practice is not expressly sanctioned by any act of parliament; but it is so indirectly by the numerous statutes that have been passed, granting exemptions from it. According to Lord Mansfield it is "a power founded upon immemorial usage," and is understood to make a part of the common law. All *sea-faring* men are liable to impressment, unless specially protected by custom or statute. Seamen executing particular services for government not unfrequently get protections from the Admiralty, Navy Board, &c. Some are exempted by *local* custom; and *ferrymen* are every where privileged from impressment. The statutory exemptions are numerous.

1. *Every ship in the coal trade* has the following persons protected, viz. 2 able seamen (such as the master shall nominate) for every ship of 100 tons; and 1 for every 50 tons for every ship of 100 tons and upwards; and any officer who presumes to impress any of the above, shall forfeit, to the master or owner of such vessel, 10*l.* for every man so impressed; and such officer shall be incapable of holding any place, office, or employment in any of his Majesty's ships of war.—(6 & 7 *Will.* 3. c. 18. sect. 19.) *

2. *No parish apprentice* shall be compelled or permitted to enter into his Majesty's sea service till he arrives at the age of 18 years. — (2 & 3 *Anne*, c. 6. sect. 4.)

3. Persons *voluntarily* binding themselves apprentices to sea service, shall not be impressed for 3 years from the date of their indentures. But no person above 18 years of age shall have any exemption or protection from his Majesty's service, if they have been at sea before they became apprentices. — (2 & 3 *Anne*, c. 6. sect. 15.; 4 *Anne*, c. 19. sect. 17.; and 13 Geo. 2. c. 17. sect. 2.)

4. *Persons employed in the Fisheries.* — The act 50 Geo. 3. c. 108. grants the following exemptions from impressment, viz.:—

1st. *Masters of fishing vessels* or boats, who, either themselves or their owners, have, or within 6 months before applying for a protection shall have had, 1 apprentice or more under 16 years of age, bound for 5 years, and employed in the business of fishing.

2dly. All such *apprentices*, not exceeding *eight* to every master or owner of any fishing vessel of 50 tons or upwards,; not exceeding *seven* to every vessel or boat of 35 tons and under 50; not exceeding *six* to every vessel of 50 tons and under 35 tons; and not exceeding *four* to every vessel or boat under 30 tons burden during the time of their apprenticeship, and till the age of 20 years; they continuing, for the time, in the business of fishing only.

3dly. *One mariner*, besides the master and apprentices, to every fishing vessel of 10 tons or upwards, employed on the sea-coast, during his continuance in such service.

* In order that these men shall be thus protected, it is necessary for the master *to name them, before they are impressed:* this is to be done by going before the mayor or other chief magistrate of the place, who is to give the master a certificate, in which is contained the names of the particular men whom he thus nominates; and this certificate will be their protection.

4thly. *Any landsman* above the age of 18, entering and employed on board such vessel, from 2 years from his first going to sea; and to the end of the voyage then engaged in, if he so long continue in such service.

An affidavit sworn before a justice of the peace, containing the tonnage of such fishing vessel or boat, the port or place to which she belongs, the name and description of the master, the age of every apprentice, the term for which he is bound, and the date of his indenture, and the name, age, and description of every such mariner and landsmen respectively, and the time of such landsman's first going to sea, is to be transmitted to the Admiralty; who, upon finding the facts correctly stated, grant a separate protection to every individual. In case, however, "*of an actual invasion of these kingdoms or imminent danger thereof,*" such protected persons may be impressed; but except upon such an emergency, any officer or officers impressing such protected persons shall respectively forfeit 20*l.* to the party impressed, if not an apprentice, or to his master if he be an apprentice.—Sects. 2, 3, 4.

5. *General Exemptions.*—All persons 55 years of age and upwards, and under 18 years. Every person being a foreigner, who shall serve in any merchant ship, or other trading vessel, or privateer, belonging to a subject of the crown of Great Britain; and all persons, of what age soever, who shall use the sea; shall be protected for 2 years, to be computed from the time of their first using it.—(13 *Geo.* 2. c. 17.)

6. *Harpooners*, line managers, or boat steerers, engaged in the southern whale fishery, are also protected.—(26 *Geo.* 3. c. 50.)

7. *Mariners employed in the herring fishery* are exempted while actually employed.—(48 *Geo.* 3. c. 110.)

Policy of Impressment.—This practice, so subversive of every principle of justice, is vindicated on the alleged ground of its being absolutely necessary to the manning of the fleet; and if this allegation were really well founded it would be quite sufficient for its justification. But it may be doubted whether such was ever really the case, and, at all events, it is no longer so.

I. The difficulty formerly experienced in manning the fleet at the breaking out of a war, resulted from the sudden demand for a great number of sailors. This, however, has been more an artificial than a real difficulty, and was occasioned by the peace establishment being arranged on too low a scale. Had it been kept up at from a third to a half of the force usually required during war, and made to consist wholly, or almost wholly of thorough-bred seamen, it would have been an easy matter, by taking on board the usual complement of landsmen and marines, to have put the fleet on a war footing without resorting to impressment, or injuring the merchant service by offering high bounties to the men that entered the navy. It was not necessity, but an ill-judged spirit of parsimony, and the adoption of an improper system, that made impressment necessary in bygone times. But the secure asylum afforded to such of our seamen as choose to resort to the ships of the U. States, must, now, were there nothing else to be considered, make an end of impressment in time to come.

II. Apart from these considerations, the change which the introduction of steam has effected in navigation, has made the adoption of a new system alike easy and indispensable. Thorough-bred seamen, or those expert alike in the handling of sails and the manœuvring of ships, are no longer necessary to anything like the same extent as formerly. Ships are now navigated from the engine-room; and a small part only of the crews needs to be expert seamen. What are now mainly required in ships of war are crews thoroughly trained to the management of guns and the sword exercise; and these important qualifications may be attained in the highest perfection by those who can neither go aloft, nor distinguish one rope from another. All that they require are sea-legs, or such a degree of familiarity with the sea that they may be able to keep their footing, and perform their peculiar duties on board, without being annoyed by sickness or otherwise inconvenienced.

And hence the true plan is to keep the sailing ships on the peace establishment always fully manned with thorough-bred seamen, and to train a large proportion, if not the whole, of the army, to the sea as well as to the land service. The marines are equally serviceable at sea and on shore, and why not add largely to their numbers? In this view large bodies of troops might be kept in garrisons or in barracks in seaport towns, who being embarked occasionally in ships of war, instructed in the art of gunnery and the duty of marines, and accustomed to a sea-faring life, would not fail to become a most valuable and efficient description of force.

It may be worth while, perhaps, to mention that a plan similar to that now referred to, appears to have been adopted by Augustus and his successors at the great naval stations of Ravenna and Misenum.* And, however this precedent may apply, there can be no doubt that the course suggested above may be followed with equal facility and advantage. Supposing we had a sea-going militia of 50,000 men, that is 50,000 men having the use of sea-legs and familiar with the practice of gunnery on board ship, and with the ordinary parts of a seaman's duty, we should be able, by withdrawing a part, say a half, of the thorough-bred seamen employed in sailing ships, and distributing them among those impelled by steam, to send to sea the most powerful fleets at the shortest notice and with the least difficulty. The duty of a soldier should no longer be restricted to service on land. He should be a sort of amphibious animal; and be made to exhibit his courage and daring on sea or on shore as circumstances may require. If we adopt a system of this sort we shall do the most which, perhaps, can be done to strengthen our means of defence, and to render our coasts secure against invasion.

For further details and statements in regard to this matter we beg to refer to the very able paper of W. S. Lindsay, Esq., M.P., on the Manning of the Navy. (Papers printed by Command, Sess. 1859.) The subject is discussed in it by one who is equally at home in all that respects its theory and practice.

* Gibbon's Decline and Fall, cap. iv.

INDEMNITY, is where one person secures another from responsibility against any particular event; thus a policy of insurance is a contract of indemnity against any particular loss. Where one person also becomes bail for another, a bond of indemnity is frequently executed; and where a bond or bill of exchange has been lost or mislaid, the acceptor or obligee would not act prudently in paying it, without being secured by a bond of indemnity.

INDIAN RUBBER. See CAOUTCHOUC.

INDIGO (Fr. *Indigo*; Ger. *Indigo*; Sans. *Nili*; Arab. *Neel*; Malay, *Taroom*), the drug which yields the beautiful blue dye known by that name. It is obtained by the maceration in water of certain tropical plants; but the indigo of commerce is almost entirely obtained from leguminous plants of the genus *Indigofera*; that cultivated in India being the *Indigofera tinctoria*; and that in America the *Indigofera anil*. The Indian plant has pinnate leaves and a slender ligneous stem; and when successfully cultivated, rises to the height of 3, 5, and even 6 feet.

It appears pretty certain that the culture of the indigo plant, and the preparation of the drug, have been practised in India from a very remote epoch. It has been questioned, indeed, whether the *indicum* mentioned by Pliny (*Hist. Nat.* lib. xxxv. c. 6.) was indigo, but, as it would seem, without any good reason. Pliny states that it was brought from India; that when diluted it produced an admirable mixture of blue and purple colours (*in diluendo misturam purpuræ cæruleique mirabilem reddit*); and he gives tests by which the genuine drug might be discriminated with sufficient precision. It is true that Pliny is egregiously mistaken as to the mode in which the drug was produced; but there are many examples in modern as well as ancient times, to prove that the possession of an article brought from a distance implies no accurate knowledge of its nature, or of the processes followed in its manufacture. Beckmann (*Hist. of Inventions*, vol. iv. art. *Indigo*) and Dr. Bancroft (*Permanent Colours*, vol. i. pp. 241—252.) have each investigated this subject with great learning and sagacity; and agree in the conclusion that the *indicum* of Pliny was real indigo, and not, as has been supposed, a drug prepared from the *isatis* or woad. At all events, there can be no question that indigo was imported into modern Europe, by way of Alexandria, previously to the discovery of the route to India by the Cape of Good Hope. When first introduced, it was customary to mix a little of it with woad to heighten and improve the colour of the latter; but, by degrees, the quantity of indigo was increased; and woad was, at last, entirely superseded. It is worth while, however, to remark, that indigo did not make its way into general use without encountering much opposition. The *growers of woad* prevailed on several governments to prohibit the use of indigo! In Germany an imperial edict was published in 1654, prohibiting the use of indigo, or "*devil's dye*," and directing great care to be taken to prevent its clandestine importation, "because," says the edict, "the trade in woad is lessened, dyed articles injured, and money carried out of the country!" The magistrates of Nuremberg went further, and compelled the dyers of that city to take an oath once a year not to use indigo; which practice was continued down to a late period. In 1598, upon an urgent representation of the states of Languedoc, at the solicitation of the woad growers, the use of indigo was prohibited in that province; and it was not till 1737, that the dyers of France were left at liberty to dye with such articles, and in such a way, as they pleased.—(*Beckmann*, vol. iv. p. 142.) Let not those who may happen to throw their eyes over this paragraph, smile at the ignorance of their ancestors. — *Mutato nomine, de te fabula narratur.* How much opposition is made in most countries at this moment to the importation of many important articles, for no better reasons than were alleged in the sixteenth century against the importation of indigo!

Indigo is produced in Bengal, and the other provinces subject to the presidency of that name, from the 20th to the 30th degree of north latitude; in the province of Tinnevelly, under the Madras government; in Java; in Luconia, the principal of the Philippine Islands; and in Guatemala, and the Caraccas, in Central America. Bengal is, however, the great mart for indigo; and the quantity produced in the other places is comparatively inconsiderable.

Raynal was of opinion that the culture of indigo had been introduced into America by the Spaniards; but this is undoubtedly an error. Several species of *indigofera* belong to the New World; and the Spaniards used it as a substitute for ink, very soon after the conquest.—(*Humboldt, Essai Politique sur la Nouvelle Espagne*, tom. iii. p. 54. 2d. ed.)

For the first 20 years after the English became masters of Bengal, the culture and manufacture of indigo, now of such importance, was unknown as a branch of British industry; and the exports were but trifling. The European markets were, at this period, principally supplied from America. In 1783, however, the attention of the English began to be directed to this business; and though the processes pursued by them be nearly the same with those followed by the natives, their greater skill, intelligence, and capital give them immense advantages. In their hands, the growth and preparation of indigo has become the most important employment, at least in a commercial point of view, which can be freely carried on in the country.* The indigo made by the natives supplies the internal demand; but a portion of that which is raised by them, with all that is raised by Europeans, is exported.

In the Delta of the Ganges, where the best and largest quantity of indigo is produced, the plant lasts only for a single season, being destroyed by the periodical inundation; but in the dry central and western provinces, one or two *rattoon* crops are obtained; and owing to this circumstance, the latter are enabled to furnish a large supply of reed to the former.

During the 9 years which preceded the opening of the trade with India, in 1814, the annual average produce of indigo in Bengal, for exportation was nearly 5,600,000 lbs. But after the ports were opened, the indigo produced for exportation increased more than a half; the exports during the 16 years ending with 1829–30 being above 7,500,000 lbs. a year. The following statement shows the rate of this increase, taking the average produce of each 4 years:—

	Lbs.		*Lbs.*		*Lbs.*		*Lbs.*
1814, 1815, 1816, 1817	7,040,000	1818, 1819, 1820, 1821	6,000,000	1822, 1823, 1824, 1825	8,000,000	1826, 1827, 1828, 1829	9,000,000

* The culture and preparation of opium is a monopoly.

But it has latterly declined, as is evident from the following

Statement of the Quantities and Value in Rupees of the Indigo shipped from Calcutta in the Years 1856–57 and 1857–8.

	1856–57.		1857–58.	
	Quantity.	Value.	Quantity.	Value.
	Indian Mds.	*Rupees.*	*Indian Mds.*	*Rupees.*
To Great Britain	58,017	91,78,309	61,258	98,31,882
France	24,376	38,81,917	14,013	22,61,149
North America	6,449	10,40,866	3,223	5,24,490
Bombay	1,371	2,07,562	3,116	4,28,565
Arabian and Persian Gulphs	1,838	3,01,062	1,852	3,18,412
Hamburg	753	1,20,470	98	15,702
Other places	241	38,217	11	1,765
	93,068	1,47,61,103	83,611	1,33,71,965
Being in lbs.	7,658,112	or	lbs. 6,879,936	or
— cwts.	68,376	£1,476,410	cwts. 61,428	£1,337,197
— tons	3,419		tons 3,071	

It deserves to be remarked, that since the opening of the trade, Indian capitalists have betaken themselves to the manufacture of indigo on the European method, and that at present a considerable part of the whole annual produce is prepared by them.

The culture of indigo is very precarious, not only in so far as respects the growth of the plant from year to year, but also as regards the quantity and quality of the drug which the same amount of plant will afford even in the same season. Thus the produce of 1825–26 was 41,000 chests, while that of 1826–7 was but 25,000 chests; and in 1842 the produce was only 79,000 maunds, while that of the following year was no less than 172,249 maunds! The price of indigo in India increased, for a while, in a far greater ratio than the quantity. In 1813–14, the real value of that exported from Calcutta was 1,461,000*l.*; but in 1827–28, although the quantity had increased but 20 per cent., the value rose to 2,920,000*l.* or was about doubled. There was no corresponding rise in the price in Europe, but, on the contrary, a decline: and the circumstance is to be accounted for by the restraints that were then placed on the investment of capital in the production of colonial articles suited to the European market, the consequent difficulty of making remittances from India, and an unnatural flow of capital to the only great article of Indian produce and export that was supposed capable of bearing its application.

The consumption of indigo has varied but little in this country during the last 10 years. This stationary demand, notwithstanding the fall in the price of the drug and the increase of population, is principally to be ascribed to the decreasing use of blue cloth, in the dyeing of which it is principally made use of. Its consumption in France is about as great as in Britain. Besides the exports to Great Britain, France, and the United States, a good deal of Bengal indigo is exported to the ports on the Persian Gulph, whence it finds its way to southern Russia. It is singular that it is not used by the Chinese, with whom blue is a favourite colour. We subjoin

An Account of the Imports and Exports of Indigo into and from the U. K. in each of the 7 Years ending with 1858.

	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Imports - - - cwts.	83,565	66,409	70,173	59,760	81,514	68,243	66,198
Exports - - - ,,	67,184	59,588	50,551	64,167	52,815	55,487	49,968
Remains for home consumption -	16,381	6,821	19,622	-	28,499	12,756	16,230
Average for the 7 years - -	13,700 cwts. or 1,534,100 lbs. a year.						

The indigo of Bengal is divided into two classes, called, in commercial language, *Bengal* and *Oude*; the first being the produce of the southern provinces of Bengal and Bahar, and the last that of their northern provinces and of Benares. The first is, in point of quality, much superior to the other. This arose at one time, in a considerable degree, from the practice which prevailed in the northern provinces, of the European planter purchasing the wet fecula from the Ryot or native manufacturer, and completing the processes of curing and drying the drug. This is at present in a great measure discontinued; and the Oude indigo has, in consequence, considerably improved in quality. Its inferiority is probably more the result of soil and climate, than of any difference in the skill with which the manufacture is conducted. The production of indigo in Bengal and Oude is supposed to have amounted at an average of the 10 years ending with 1851 to 121,900 maunds (of 82 lbs. each) a year.

In addition to the indigo raised in Bengal, a very considerable quantity is now raised in Madras; the value of the exports from the latter, in 1856–57 and 1857–58 having amounted to 445,435*l.* and 366,087*l.* The indigo of Madras is not so good as that of Bengal, and brings a less price. Indigo is, also, exported from Java, the Philippine Islands, Central America, and other places. In 1854 the exports from Batavia amounted to 1,077,848 lbs., and, we believe, they have varied but little in the interval. In 1850 the exports from Manilla were estimated at about 450,000 lbs. According to Humboldt 1,800,000 lbs. indigo were exported from Guatemala in 1825. But if so, which is, perhaps, doubtful, its production must have fallen off greatly in the interval. It does not now probably exceed 500,000 lbs. in all Central America. In 1857 our imports of indigo from Central America, inc. Honduras, amounted to only 1,817 cwts., or 203,504 lbs. Indigo is produced in some of the West India islands, but in small quantities.

Good indigo is known by its lightness or small specific gravity, indicating the absence of earthy impurities; by the mass not readily parting with its colouring matter when tested by drawing a streak with it over a white surface; but above all, by the purity of the colour itself. The first quality, estimated by this last test, is called, in commercial language, *fine blue*; then follow *ordinary blue*, *fine purple*, *purple and violet*, *ordinary purple and violet*, *dull blue*, *inferior purple and violet*, *strong copper*, and *ordinary copper*. These distinctions refer to the Bengal indigo only, the Oude being distinguished only into *fine* and *ordinary*. The indigo of Madras, which is superior to that of Manilla, is about equal to ordinary Bengal indigo. The indigo of Java is superior to these.

We subjoin an Account of the Prices of Indigo in London, on the 15th April, 1859.

		s. d.	s. d.
Indigo: Bengal, fine purple and blue	lb.	8 0	8 6
good and middling	,,	7 3	7 9
good violet and copper	,,	7 0	7 3
middling and ordinary	,,	6 3	7 0
consuming, good and fine	,,	6 9	7 2
,, middling	,,	6 4	6 8
,, ordinary and low	,,	5 6	6 0
trash and washings	,,	2 6	5 0
Madras: good and fine	,,	4 0	5 2
middling to good middling	,,	3 0	3 9
ordinary and low	,,	1 3	2 9
Kurpah: good and fine	lb.	6 9	7 6
middling to good middling	,,	6 0	6 9
ordinary to middling	,,	5 0	5 9
low	,,	2 6	4 9
Oude: middling and good	,,	5 6	6 9
ordinary and low	,,	3 6	5 0
Guatemala, Flores	,,	6 6	6 9
Sobres	,,	5 6	6 4
Cortes	,,	2 6	5 5
Manilla	,,	2 6	3 10

Of 68,243 cwt. indigo imported into Great Britain in 1857, 54,208 cwt. were from India, 4,384 ditto from United States, 2,638 ditto from New Granada, &c. The duty to which it was formerly subject was repealed in 1845.—(7 *Geo.* 4. c. 48.)

For further information as to indigo, see *Colebrooke's Husbandry of Bengal*, p. 154.; *Milburn's Orient. Com.*; *Wilkinson's Commerce of Bengal*; *Wilson's Review of do.*; evidence of Gillian Maclaine, Esq.; East India Committee, 1830-31, &c.

The fixed capital required in the manufacture of indigo consists of a few vats of common masonry for steeping the plant, and precipitating the colouring matter; a boiling and drying house; and a dwelling house for the planter. These, for a factory of ten pair of vats, capable of producing, at an average, 12,500 lbs. of indigo, worth on the spot about 2,500*l.*, will not cost above 1,500*l.* sterling. The buildings and machinery necessary to produce an equal value in sugar and rum, would probably cost about 4,000*l.* This fact, therefore, without any reference to municipal regulations, affords a ready answer to the question which has been frequently put, why the British planters in India have seldom engaged in the manufacture of sugar.

INK (Du. *Ink, Inkt*; Fr. *Encre*; Ger. *Dinte*; It. *Inchiostro*; Lat. *Atramentum*; Rus. *Tschernilo*; Sp. *Tinta*; Sw. *Blak.*)

"Every liquor or pigment used for writing or printing is distinguished by the name of ink. Common practice knows only black and red. Of black ink there are three principal kinds: 1. Indian ink; 2. Printers' ink; and 3. Writing ink. The Indian ink is used in China for writing with a brush, and for painting upon the soft flexible paper of Chinese manufacture. It is ascertained; as well from experiment as from information, that the cakes of this ink are made of lampblack and size or animal glue, with the addition of perfumes or other substances not essential to its quality as an ink. The fine soot from the flame of a lamp or candle received by holding a plate over it, mixed with clean size from shreds of parchment or glove-leather not dyed, will make an ink equal to that imported. Good printers' ink is a black paint, smooth, and uniform in its composition, of a firm black colour, and possesses a singular aptitude to adhere to paper thoroughly impregnated with moisture.

"Common ink for writing is made by adding an infusion or decoction of the nut-gall to sulphate of iron, dissolved in water. A very fine black precipitate is thrown down, the speedy subsidence of which is prevented by the addition of a proper quantity of gum Arabic. Lampblack is the common material to give the black colour, of which 2½ ounces are sufficient for 16 ounces of the varnish. Vermilion is a good red. They are ground together on a stone with a muller, in the same manner as oil paints. Among the amusing experiments of the art of chemistry, the exhibition of sympathetic inks holds a distinguished place. With these the writing is invisible, until some reagent gives it opacity. These inks have been proposed as the instruments of secret correspondence. But they are of little use in this respect, because the properties change by a few days' remaining on the paper; most of them have more or less of a tinge when thoroughly dry; and none of them resist the test of heating the paper till it begins to be scorched."—(*Nicholson's Dictionary of Chemistry.*)

INKLE, a sort of broad linen tape, principally manufactured at Manchester and some other towns in Lancashire.

INSOLVENCY AND BANKRUPTCY. Insolvency is a term in mercantile law applied to designate the condition of all persons unable to pay their debts according to the ordinary usage of trade. A bankrupt is an insolvent; but persons may be in a state of insolvency without having committed any of the specific acts which bring them under the denomination of bankrupts.

We have, under the article BANKRUPTCY, explained the most important differences in the law as to insolvency and bankruptcy; and have also briefly stated in that article, and in the article CREDIT, some of the alterations which seem to be imperatively required to make these laws more in harmony, than they are at present, with the principles of justice, and more conducive to the interests of commerce and the public advantage. In the present article, therefore, we shall confine ourselves to a summary statement of the proceedings under the existing laws.

Under the bankrupt laws, the creditors have a compulsory authority to avail themselves of the entire possession of their debtor; under the insolvent laws, the debtor himself may make a voluntary surrender of his property for the benefit of his creditors, or his creditors may, on his incarceration, secure his property. From this diversity in the initiative process results the greatest diversity in the ultimate operation of the bankrupt and insolvent acts. The proceedings under a commission of bankruptcy being instituted by the creditors, they lose all future power over the property and person of the debtor after he has obtained his certificate, except in some particular cases; but the proceedings under the Insolvent Act having been commenced, either by himself, as is generally the case, or by the creditors when the insolvent is in custody and enabled to take advantage of the insolvent laws, the insolvent's future property is liable at all times, his person alone being freed. There are exceptions even to the freedom of the insolvent's person from engagements contracted before his application for relief under the law. The modern law as applied to bankruptcy and insolvency has created no little confusion, and the distinction between the two systems seems objectionable, and should be the subject of legislation.

Until the passing of the act 5 & 6 Vict. c. 116., no one could claim the benefit of the laws passed for relief of insolvent debtors, unless he were at the time in gaol under execution. But by this act, where the debts of a party do not exceed 300*l.* he may make a surrender of all his property, and claim protection against arrest; and this, whether he be a trader or not.

If a party owe a sum not exceeding 300*l.*, he may, on giving notice to one fourth in number and value of his creditors in the London Gazette, and in a local newspaper,

petition the Court of Bankruptcy if he have resided 12 months in the London district, or the country commissioner in whose district he may have resided 12 months, for his protection against arrest. The petition must set forth all his debts and credits and property, and any proposal he may have to make for payment; and a protection may be given to his person and property until the party shall appear in court to be finally protected against any process against his person and goods. On the presentation of the petition the property vests in the official assignee of the court, the commisioner in rotation appoints a certain day to examine the party on oath, and if satisfied with the allegations of the petitioner, may make a final order for his protection; provided the debts were not contracted by fraud or breach of trust, or in any action for the breach of the revenue laws, or other causes mentioned in the act. The commissioner may postpone the examination and renew the protection, may order an allowance for the support of the party until the final order, and may punish him for false statements. On the final order, all the estate, present and future, vests in 2 assignees, one of whom is to be chosen by the creditors, the other being the official assignee. The judges and commissioners were empowered to make rules to carry the act into execution, and rules have accordingly been published containing full directions to any party seeking the benefit of the act.

We will now refer to the proceedings under the act for relief of insolvent debtors who are unable to claim the benefit of the act spoken of.

1. *Proceedings under the existing Insolvent Act.*—A special tribunal, called the "Court for Relief of Insolvent Debtors," exists for the purpose of receiving the surrender of property and effects for the benefit of the creditors of insolvents. It consists of a chief and two other commissioners, appointed by the Crown, and is a court of record, with powers similar to those of the superior courts at Westminster, but it cannot award costs, unless in particular cases. The court sits in Portugal-street, or elsewhere as the court may think fit: no fees are taken, except those established by the court. The commissioners also severally make circuits 3 times a year; and attend at the towns and places appointed for insolvents in the country to appear: their judicial powers in the provincial towns are the same as those exercised in the metropolis.

The first step is the insolvent's petition. Any person detained within the walls of any prison upon any process, may, within 14 days after the arrest, petition for discharge. The petition must state the particulars of the first arrest and cause of detainer, and the amount of debts: the prisoner must give notice of his intention to the gaoler, and state that he is willing to vest all his property in the assignee of the court, and pray to be discharged from all demands.

Under this act, any creditor may get the property of a party in custody vested in the provisional assignee by petition, although the prisoner may not himself have applied.

At the time of the petition either by the prisoner or creditor, the court may order all the prisoner's property (except wearing apparel, &c. to the value of 20*l.*) to be vested in the provisional assignee, until his final discharge; and the court may, before the final hearing, discharge the prisoner on bail. Until discharge, the court may order an allowance for the prisoner for his support out of his estate.

The filing of a petition is an act of bankruptcy if issued within 2 months, and the bankruptcy shall divest the property from the provisional assignee; but a bankruptcy is not to prevent the court proceeding under this act so as to get his future property, if the prisoner should under the bankruptcy obtain his certificate.

The voluntary preference of a creditor, by conveyance of money, goods, bills, or other property, after the imprisonment of the petitioner, or before his imprisonment being in insolvent circumstances, is void, provided it were not 3 months before the imprisonment or with a view to petition. No warrant of attorney or execution to be enforced against property after imprisonment.

2. *The Assignees.* — Any time after the filing of the petition, the court appoints assignees from among the creditors, to whom, on their acceptance of the appointment, an assignment is made of the effects of the prisoner. In case of any real estate, the same, within the space of 6 months, must be sold by public auction, in such manner and place as the major part in value of the creditors approve; but when any part of the property is so circumstanced that the immediate sale of it would be prejudicial to the interests of the prisoner, the court may direct the management of such property till it can be properly sold; and if the debts can be paid by mortgage in lieu of sale, the court may give directions for that purpose, and a dividend is to be declared as soon as may be.

Goods in possession and disposal of the insolvent, whereof he is *reputed* owner, are deemed his property; but this does not affect the assignment of any ship or vessel, duly registered according to the 6 Geo. 4. c. 110.

An account upon oath before an officer of the court, or justice of peace, must be made up by the assignees within every 3 months at the furthest; and in case of a balance in hand, a dividend must be forthwith made, of which dividend 30 days' previous notice must be given; and every creditor is allowed to share in the dividend, unless objected to by the prisoner, assignees, or other creditors, in which case the court decides.

The assignees may execute powers which the insolvent might have executed, as the granting of leases, taking lives, transferring public stock or annuities; but they cannot nominate to a vacant ecclesiastical benefice.

The assignees, with the consent of one commissioner, and the major part of the creditors in value, may compound for any debt due to the prisoner; or may submit differences connected with the estate of the insolvent to arbitration.

Dividends payble to creditors, unclaimed for 12 months, are to be paid into court to the credit of the estate of the insolvent: in default of payment of the dividends by the assignees, their goods may be distrained; or, if no distress, they may be imprisoned.

The assignees, in case the insolvent is a beneficed clergyman or curate, are not entitled to the income of the benefice or curacy; but they may obtain a sequestration of the profits for the benefit of creditors. Neither are the assignees entitled to the pay, half-pay, pension, or other emolument of any person who is or has been in the army, navy, or civil service of the government or East India Company; but the court may order, subject to the approval of the heads of public offices, a portion of such pay, half-pay, pension, or emoluments to be set aside towards the liquidation of the debts of the insolvent.

The court may inquire into the conduct of the assignees, on the complaint of the insolvent or any of his creditors; and, in case of malversation, award costs against them.

Assignees who wilfully employ or retain any part of the proceeds of the insolvent's estate, may be charged with interest, at a rate not exceeding 20*l.* per cent. per annum.

3. *Discharge of the Insolvent.* — After the vesting order, the prisoner is within 14 days to prepare a

schedule of all his estate, effects, and debts, with great particularity, and of his past expenditure, and deposit all his books and papers; the court then appoints a time for hearing, and notice of the vesting order is given to all creditors whose debts amount to 5*l*. At the time of the hearing the schedule is examined, and the commissioners examine the prisoner on oath; and any creditor, having given 3 days' notice of intention to do so, may oppose or examine the prisoner: the hearing may be adjourned; affidavits may be made against his discharge in certain cases; the schedules and accounts may be referred for an investigation to an examiner, who may examine on oath; and the expenses may be paid out of insolvent's estate; the prisoner may be at once discharged from custody, or where no cause to the contrary, in not less than 6 months from the filing the petition; but in case of improper dealing with his creditors, or other misdeeds mentioned in the act, he may be detained 3 or 2 years, or the discharge may be conditional on the prisoner performing some engagement. If creditors improperly oppose, the court may make them pay the prisoner's costs. The adjudication is final, unless improperly obtained. Before the prisoner's discharge, he must execute a warrant of attorney to enable creditors to take any future property, and the act contains provisions for enforcing the warrant of attorney at the discretion of the court; so that all his future property may be made available; or if the insolvent become entitled to property not seizable under an execution, the assignees may obtain the assistance of the court to realise it.

The discharge extends to sums payable by annuity; the annuitants being admitted as creditors to the estate of the insolvent, at a fair valuation of their interest.

But the discharge does not extend to any debts due to the Crown, nor for any offence against the revenue laws; nor at suit of any sheriff or other public officer, upon any bail-bond entered into for any person prosecuted for such offence; unless the Treasury certify consent to the discharge.

Insolvents under writ of *capias* or extent, must apply to the Barons of the Exchequer to be discharged.

When the prisoner is not discharged, the court may, on application for that purpose, order the creditor at whose suit he is detained to pay any sum not exceeding 4*s*. weekly; and in default of payment, the prisoner to be liberated.

4. *Future Liabilities of the Insolvent.* — No person, after judgment entered up, is liable to imprisonment for any debt comprised in the schedule, unless the insolvent had entered into any covenant before the insolvency to pay any sum not then capable of valuation.

An insolvent, after his discharge, may, on the application of an assignee to the court, be again examined touching the effects set forth in the schedule; and if he refuse to appear or answer questions, he may be recommitted.

No uncertificated bankrupt, nor any person having had the benefit of the Insolvent Act, can have it a second time within *five years*, unless 3-4ths in number and value of the creditors consent thereto, or unless it appear to the court that the insolvent, since his bankruptcy or discharge, has done his utmost to pay all just demands; and that the debts subsequently incurred have been unavoidable, from inability otherwise to acquire subsistence for himself and family.

Married women are entitled to the benefit of the insolvent act, and may petition the court on executing a special assignment.

The act 1st & 2nd Victoria, prohibits any proceedings under what is called the Lord's Act, 32 G. 2. c. 28.

Statement of the Number of Petitions filed in the Court for Relief of Insolvent Debtors, and of Adjudications made by that Court, during each of the Seven Years ending with 1840.

Years.	Petitions filed.			Adjudications made.			
	From the Prisons in London, Middlesex, and Surrey.	From the other Prisons in England and Wales.	Total.	By the Court in London.	By Justices.	By Commissioners on Circuit.	Total.
1834	2,145	2,942	5,087	1,653	127	2,495	4,275
1835	1,919	2,705	4,624	1,613	49	2,228	3,890
1836	1,942	2,780	4,722	1,622	1	2,588	4,211
1837	2,127	3,078	5,205	1,645	1	2,601	4,247
1838	1,961	2,865	4,826	1,561	-	2,561	4,122
1839	1,645	2,031	3,676	1,397	-	1,686	3,083
1840	1,779	2,888	4,667	1,425	2	2,484	3,911

Our next object will be to present a brief exposition of the BANKRUPT LAWS.

BANKRUPTCY. — Blackstone defines a bankrupt — "A trader who secretes himself, or does certain other acts tending to defraud his creditors." But an intention to defraud is not now held to be essential to constitute a bankrupt; who may be either simply an insolvent, or a person who is guilty of certain acts tending to defraud his creditors.

There are, as already observed, some important distinctions between the bankrupt and insolvent laws, not only in their application to different descriptions of individuals, but also in the powers they exercise over the estates of persons subsequently to their being brought under their adjudication. The benefits of the Insolvent Act extend without distinction to every class of persons actually in prison for debt, and in cases before noticed of a debtor not owing 300*l*. to persons not in custody, whereas the benefits of the Bankrupt Act extend to traders only. But persons relieved under a commission of bankruptcy for the first time are for ever discharged from all debts proveable against them, that is to say, from all debts capable of being valued, (though repeated instances have occurred where settlements have been made, or covenants entered into, from the effect of which a bankrupt is not discharged,) and their property from any future liability; whereas, if relieved under the Insolvent Act, their persons only are protected from arrest, while any property they may subsequently acquire continues liable to their creditors till the whole amount of their debts be paid in full. It follows that the Insolvent Act affords, more immediately, personal relief only; while the Bankrupt Act discharges both person and property at once, and even returns the bankrupt a certain allowance out of the produce of his assets, proportioned to good behaviour, and the amount of his dividend.

Having already treated of insolvency, we now proceed to describe the proceedings under a commission of bankruptcy, as regulated by the acts 6 Geo. 4. c. 16., 1 & 2

W. 4. c. 56., 2 & 3 W. 4. c. 114., 5 & 6 W. 4. c. 29., 6 & 7 W. 4. c. 27., 1 & 2 Vict. c. 110., 2 & 3 Vict. c. 29., and 5 & 6 Vict. c. 122.; which are the last general acts on the subject, and by which former statutes have been consolidated, and several important improvements introduced; leaving, however, untouched, many radical defects inherent in this branch of the law. The chief points to be considered, are — 1. The persons who may become bankrupt: 2. Acts constituting bankruptcy; 3. Proceedings of petitioning creditor; 4 Courts of Bankruptcy; 5. Debts provable under the commission; 6. Official assignees; 7. Assignees chosen by creditors; 8. Property under bankruptcy; 9. Examination and liabilities of bankrupt; 10. Payment of a dividend; 11. Certificate and allowance to bankrupt.

1. *Who may become Bankrupt.* — Generally all persons in trade, capable of making binding contracts, whether natural-born subjects, aliens, or denizens, are within the jurisdiction of the bankrupt laws; but the statute expressly includes builders, bankers, brokers, packers, carpenters, scriveners, ship insurers, warehousemen, wharfingers, shipwrights, victuallers; keeper of inns, taverns, hotels, and coffee-houses, dyers, printers, bleachers, fullers, calenderers, cattle or sheep salesmen, factors, agents, livery stable keepers, coach proprietors, carriers, shipowners, auctioneers, apothecaries, market gardeners, cowkeepers, brickmakers, alum makers, lime burners, millers, and all persons who use the trade of merchandise by bargaining, bartering, commission, consignment, and otherwise, and also all persons who seek their living by buying and selling, letting for hire, or by the manufacturing of goods and commodities. Persons who cannot become bankrupt, are graziers, farmers, workmen for hire, labourers, receivers general of taxes, and subscribers to any commercial or trading company established by charter or act of parliament.

A clergyman, unless a trader, cannot be made a bankrupt; nor an attorney, in the common course of his profession; nor an infant, nor a lunatic, nor a married woman, except in those cases where she may be sued and taken in execution for her debts. — (8 *T. R.* 545.)

A single act of buying or selling is not sufficient to make a trader; as a schoolmaster selling books to his scholars only, or a keeper of hounds buying dead horses and selling the skin and bones. — (6 *Moore*, 56.) But the quantity of dealing is immaterial, where an intention to deal generally may be inferred. — (1 *Rose*, 84.) A buyer or seller of land, or any interest in land, is not a trader within the act; and on this principle it has been decided, that a brickmaker selling bricks made in his own field, or the owner of a mine selling minerals from his own quarry, is not liable, because such business is carried on only as a mode of enjoying the profits of a real estate. — (2 *Wils.* 169.)

Traders having privilege of parliament, are subject to the bankrupt laws, and may be proceeded against as other traders; but such persons cannot be arrested or imprisoned, except in cases made felony by the statute.

2. *Acts constituting Bankruptcy.* — In general, any act which is intended to delay or defraud creditors, is an act of bankruptcy; such as a trader concealing himself from his creditors, leaving the country, causing himself to be arrested or his goods taken in execution, or making any fraudulent conveyance, gift, or delivery of his property. A trader keeping house commits an act of bankruptcy, if he give a general order to be denied. So is closing the door, and not admitting persons till ascertained who they are from window, though no actual denial. — (1 *Bar. & Cres.* 54.) But it is no act of bankruptcy if the denial be on Sunday, or at an unseasonable hour of the night, or to prevent interruption at dinner time.

Traders held in prison for any really subsisting debt for the period of 21 days, or who, being arrested, make their escape out of prison or custody, commit acts of bankruptcy. A penalty due to the Crown is a sufficient debt, and the time is computed from the first arrest, where the party lies in prison immediately, and the day of arrest is included, and the whole of the last day.

Filing a petition, in order to take the benefit of the Insolvent Act, is an act of bankruptcy, and a fiat may be issued any time before the petition is heard by the Insolvent Court, or within 2 calendar months.

A trader may make a declaration of his insolvency, signed and attested by an attorney or solicitor, and afterwards to be filed in the Bankrupt Office; and the secretary signing a memorandum thereof, is authority for advertising it in the *Gazette*. Upon this act of bankruptcy no commission can issue, if not within 2 calendar months after such advertisement, and unless such advertisement be within 8 days after filing declaration; and no docket can be struck till 4 days after advertisement, if the commission is to be executed in London, and 8 if in the country. Such declaration of insolvency being concerted between bankrupt and creditor, does not invalidate the commission. A party may subject himself to the bankrupt laws, by refusing to pay, compound, or give security for a debt when summoned, as will be afterwards noticed.

The execution by a trader of any conveyance by deed, of all his estate and effects for the benefit of all his creditors, is not an act of bankruptcy, unless a commission be sued out within 6 months after, provided the deed be attested by an attorney or solicitor, and executed within 15 days after, and notice thereof within 2 months be given in the *Gazette*, and 2 daily newspapers; or, if the trader reside more than 50 miles from London, notice may be given in the *Gazette*, and nearest country newspaper.

3. *Proceedings of Petitioning Creditors.* — A person being a trader, and having committed an act of bankruptcy, the next step in the proceeding is to petition the Lord Chancellor to issue his fiat. No fiat is issued, unless the petitioning creditor's debt, if 1 person or 1 firm, amounts to 50*l.*, two creditors 70*l.*, and 3 or more creditors 100*l.*, and any person who has a security from a bankrupt for a sum not actually due, may, nevertheless, petition for a fiat. The petitioning creditor must make an affidavit before a Master in Chancery, of the truth of his debt, and give bond, if required by the Lord Chancellor, to prove his debt, the trading, and act of bankruptcy.

If a trader have committed no act of bankruptcy, a creditor may summon him before a commissioner in the manner pointed out by the act of 5 & 6 Victoria, cap 122., and compel him to admit the debt and pay or give security to defend an action, or in case of refusal the creditor may treat him as a bankrupt, and make this refusal a ground for a fiat; or if the trader sign an admission of the debt, and shall not within 14 days pay or give security, the same proceeding may be taken; or if a party disobey any order of any court of law or equity in bankruptcy or lunacy for payment of money, the refusal may be made the ground for a fiat. If the debt prove insufficient to support a fiat, the Lord Chancellor, upon the application of another creditor who has proved a sufficient debt, contracted posterior to that of the petitioning creditor, may order the bankruptcy to be proceeded in.

The petitioning creditor proceeds at his own cost until the choice of assignees, when his expenses are paid out of the first money received under the bankruptcy.

Creditors entitled to sue out a fiat against all the partners in a firm, may elect to petition only against 1 or more of such partners; and the commission may be superseded as to 1 or more partners, without affecting its validity as to the other partners.

Creditors who have sued out a fiat compounding with the bankrupt, or receiving more in the pound than other creditors, forfeit the whole of their debt, and whatever gratuity they received, for the benefit of the other creditors, and the Lord Chancellor may either order the commission to be proceeded in or superseded.

4. *Courts of Bankruptcy.*— The courts of bankruptcy now consist of a Court of Review in London, consisting of one judge only, who combines the duties of a vice chancellor in equity and a judge in bankruptcy. The Court of Review controls all the proceedings of minor courts, and adjudicates on all matters of bankruptcy. There is a court in London consisting of 5 commissioners, where the practical business of bankruptcy is performed; these commissioners conduct all the judicial business, and control all the operations of the bankruptcy from the time of the opening the fiat to the winding up of the estate. Their district embraces London and the eastern and southern parts of England. There are 7 other commissioners having courts at Birmingham, Liverpool, Manchester, Leeds, Bristol, Exeter, and Newcastle upon Tyne, and these districts comprehend within the jurisdiction of the commissioners the greater part of the northern and western parts of England. The commissioners have official assignees and registrars attached to each district court.

Let us now proceed with the powers and duties of the commissioners.

Commissioners are empowered to summon persons, examine them on oath, and call for any deeds or documents, necessary to establish the trading and act of bankruptcy; and upon full proof thereof, to adjudge the debtor a bankrupt. Notice of such adjudication must be given in the *Gazette*, and 3 public meetings appointed for the bankrupt to surrender; the last of which meetings to be the 42d day after. A bankrupt refusing to attend at the appointed time may be apprehended; and on refusing to answer any question touching his business or property, may be committed to prison.

By warrant of the commissioners, persons may break open any house, premises, door, chest, or trunk of any bankrupt, and seize on his body or property; and if the bankrupt be in prison or custody, they may seize any property (necessary wearing apparel excepted) in the possession of such bankrupt, or any other person. Authorised by a justice's warrant, premises may be searched not belonging to the bankrupt, on suspicion of property being concealed there; and persons suspected to have any of the bankrupt's property in their possession, refusing to obey the summons of commissioners, or refusing to answer interrogatories, or to surrender documents, without lawful excuse, may be imprisoned. The wife of the bankrupt may be examined, or, on refusal, committed, and the person against whom a fiat is issued on proof of probable cause, for believing that he is about to leave England, may be arrested.

Persons summoned are entitled to their expenses; and those attending, whether summoned or not, to assist the commissioners in their inquiries, are protected from arrest on any civil suit.

5. *Debts proveable under Commission.*— At the 3 meetings appointed by the commissioners, and at every other meeting appointed by them for proof of debts, every creditor may prove his debt by affidavit or by his own oath; incorporated bodies by an agent authorised for the purpose; and one partner may prove on behalf of the firm. Persons living at a distance may prove by affidavit before a Master in Chancery, or if resident abroad, before a magistrate where residing, attested by a public notary, or British minister or consul.

Clerks and servants, to whom the bankrupt is indebted for wages, are entitled to be paid 3 months' wages, and not exceeding 30*l.*, and for the residue they may prove under the commission.

Indentures of apprenticeship are discharged by bankruptcy; but in case a premium has been received, the commissioners may direct a portion of it to be repaid for the use of the apprentice, proportioned to the term of apprenticeship unexpired.

Debts upon bill, bond, note, or other negotiable security, or where credit has been given upon valuable consideration, though not due at the time the act of bankruptcy was committed, are proveable under the commission. Sureties, persons liable for the debts of, or bail for the bankrupt, may prove after having paid such debts, if they have contracted the liability without notice of any act of bankruptcy. Obligee in bottomry or respondentia bonds, and assured in policy of insurance, are admitted to claim; and after loss, to prove as if the loss or contingency had happened before commission had issued against the obligor or insurer. Annuity creditors may prove for the value of their annuities, regard being had to the original cost of such annuities. Persons having securities may have them valued, and prove for the difference. Plaintiffs in any action, having obtained judgment against the bankrupt, may prove for their costs.

When there are mutual debts between the bankrupt and a creditor, they may be set off against each other, and the balance, if in favour of the creditor, is provable against the bankrupt's estate.

Interest may be proved on all bills of exchange and promissory notes over-due at the time of issuing commission, up to the date of the commission.

Proving a debt under the commission bars the right to proceed against the bankrupt by action; and in case the bankrupt be in prison at the suit of a creditor, he cannot prove his debt without first discharging the bankrupt from confinement: but the creditor is not liable for the costs of the action so relinquished by him.

No debt barred by the statute of limitations is proveable under the commission.

6. *Official Assignees.*— An important alteration introduced by Lord Brougham's act, particularly to commercial men, is the appointment of official assignees. They are 12 in number, merchants and traders, resident in the metropolis or vicinity, and there are 4 in each country district except at Exeter, where there are only 3, and at Newcastle upon Tyne 1, and are selected by the Lord Chancellor. They are to act with the assignees chosen by the creditors. All the real and personal estates of the bankrupt, all the monies, stock in the public funds, securities and proceeds of sale, are transferred and vested in the official assignee, subject to the rules, orders, and direction of the Lord Chancellor, or a member of the Court of Bankruptcy. The official assignee gives security for the trust reposed in him; and is required to deposit all monies, securities, &c. in the Bank of England.

The official assignee is neither remunerated by a percentage nor a fixed salary, but a sum is paid to him for his trouble, at the discretion of the commissioners, and proportioned to the estates of the bankrupt and the duties discharged.

7. *Appointment of Assignees by Creditors.*— The official assignee is empowered to act as the sole assignee of the bankrupt's estates and effects until others are chosen by creditors, which must be at the 2d meetings. Every creditor to the amount of 10*l.* who has proved his debt, is eligible to vote; persons may be authorised by letters of attorney to vote, and the choice is made by the major part in value of the creditors: but the commissioners may reject any person they deem unfit; upon which a new choice must be made.

When only 1 or more partners of a firm are bankrupt, a creditor to the whole firm is entitled to vote, and to assent to or dissent from the certificate; but such creditor, unless a petitioning creditor, cannot receive any dividend out of the separate estate, until all the other creditors are paid in full.

Assignees may, with consent of creditors declared at any meeting duly summoned, compound or submit disputes to arbitration, and such reference be made a rule of the Court of Bankruptcy, or they may, with such consent of the creditors, commence suits in equity; but if 1-3d in value of creditors do not attend such meeting, the same powers are granted to assignees, with the consent, in writing, of commissioners.

Assignees to keep a book of account, where shall be entered a statement of all receipts and payments relating to bankrupt's estate, and which may be inspected by any creditor who has proved, and 14 days before any dividend shall be declared, the official assignee shall furnish a debtor and creditor account to the creditor's assignee. Commissioners may summon assignees with their books and papers, before them; and if they refuse to attend, may cause them to be committed till they obey the summons, and the official assignees may be removed at any time by the Lord Chancellor.

An assignee retaining or employing the money of the bankrupt, to the amount of 100*l.* or upwards, for his own advantage, may be charged 20*l.* per cent. interest.

The court is authorised, at the sitting for the last examination, or whenever after it shall think fit, to audit the assignee's accounts, of which audit 21 days' notice must be given in the *Gazette;* which accounts must be delivered on oath, and the commissioners may examine the asssignee touching the truth thereof.

8. *Property under Bankruptcy.* — The official assignee is vested with all the real and personal estate of the bankrupt, and with all such property as may be devised to him, or come into his possession, till the time he obtain his certificate. The commissioners may sell any real property of which the bankrupt is seised, or any estate tail in possession, reversion, or remainder; and the sale is good against the bankrupt, the issue of his body, and against all persons claiming under him after he became bankrupt, or whom he can cut off from any future interest. All property which the bankrupt has in right of his wife passes to the assignee, except such as is settled for her own sole benefit. Any property pledged, or securities deposited, may be redeemed for the benefit of the creditors.

If a bankrupt, being at the time insolvent, convey his land or goods to his children or others (except upon their marriage, or for a valuable consideration), or deliver securities, or transfer debts into other names, such transactions are void, but this does not extend to a *bonâ fide* sale or conveyance: a purchaser is there protected in a transaction with the bankrupt, if he have no notice of an act of bankruptcy.

A landlord after or out of bankruptcy cannot distrain for more than *one year's rent;* but he may prove under the commission for the residue.

The assignee may accept any lease to which the bankrupt is entitled, and his acceptance exonerates the bankrupt from any future liability for rent; or if the assignee decline the lease, and the bankrupt, within 14 days after, deliver the lease to the lessor, he is not liable for rent.

In general, all power which the bankrupt might lawfully execute in the sale and disposition of his property for the benefit of himself, may be executed by the assignee for the benefit of creditors, and the assignees are entitled to all or nearly all the benefits which the bankrupt could have; even a contract to employ a party has been held to pass to his assignees.

The circumstance of a commission appearing in the *Gazette*, and a fair presumption that the person to be affected thereby may have seen the same, is deemed sufficient legal notice of an act of bankruptcy having been committed.

9. *Examination and Liabilities of Bankrupt.* — A bankrupt having, after an act of bankruptcy or in contemplation of bankruptcy, obtained goods on credit on false pretences, is guilty of a misdemeanor, and a bankrupt not surrendering to the commissioners before 3 o'clock upon the 42d day after notice, or not making discovery of his estate and effects, not delivering up goods, books, papers, &c., or removing or embezzling to the value of 10*l.*, is guilty of *felony*, and liable to a discretionary punishment from imprisonment to transportation for life. The period for surrendering may be enlarged by the Lord Chancellor; and the commissioners, or assignees with approval of commissioners, may grant an allowance for support of the bankrupt and his family till he has passed his last examination. During his attendance on commissioners, the bankrupt is protected from arrest.

The bankrupt is required to deliver up his books of account to the assignees upon oath, and to attend them on reasonable notice; he may inspect his accounts, assisted by other persons, in presence of assignees. After certificate is allowed, he is required to attend assignees, in settling accounts, at 5*s.* per day; and may be committed for non-attendance.

A penalty of 100*l.* is imposed on persons concealing bankrupt's effects, and double the value of the property so concealed; and an allowance of 5*l.* per cent. to persons discovering such concealment, with such further reward as the major part of the creditors may think fit to grant.

The bankrupt, or any other person, wilfully swearing falsely, is liable to the penalties of perjury.

If the bankrupt shall not, if in the U. Kingdom at the time of adjudication, within 21 days after advertisement in the *Gazette*, or within 3 months after advertisement if in any other part of Europe at the date of the adjudication, or if elsewhere at this date, within 12 months after advertisement, dispute the fiat, the gazette to be conclusive.

At any meeting of creditors, after the last examination, the bankrupt or his friends may *tender a composition;* which, if accepted by 9-10ths in number and value of the creditors, at 2 separate meetings, the Lord Chancellor may supersede the commission. In deciding on such offer, creditors under 20*l.* are not entitled to vote; but their debts are computed in value. Persons residing out of England may vote by letter of attorney, properly attested; and the bankrupt may be required to make oath that no unfair means have been employed to obtain the assent of any creditor to such arrangement.

10. *Payment of a Dividend.* —The court, acting in the prosecution of any fiat, may declare a dividend at any time after the time for the last examination of the bankrupt, but 21 days' notice of the meeting to declare it must be regularly advertised; at which meeting, creditors who have not proved may prove their debts; and at such meeting commissioners may order the nett produce of bankrupt's estate to be shared among the creditors that have proved, in proportion to their debts; but no dividend to be declared unless the accounts of the assignees have been first audited and delivered in as before described.

If the estate is not wholly divided upon a first dividend, a second meeting must be called, not later than 18 months from the date of commission; and the dividend declared at such second meeting to be final, unless some suit at law be pending, or some part of bankrupt's property afterwards accrue to the assignees; in which case it must be shared among the creditors within 2 months after it is converted into money; but this may be controlled by the court.

Assignees having unclaimed dividends to the amount of 20*l.*, who do not within 3 calendar months from the expiration of a year from the order of payment of such dividends, either pay them to the creditors entitled thereto, or cause a certificate thereof to be filed in the Bankrupt Office, with the names, &c. of the parties to whom due, shall be charged with legal interest from the time the certificate ought to have been filed, and such further sum, not exceeding 20*l.* per cent. per annum, as the commissioners think fit. The Lord Chancellor may order the investment of unclaimed dividends in the funds; and the unclaimed dividends now are resorted to for the payment of salaries and expenses of the court. Any creditor claiming dividends due to him may obtain them upon application; but unless the dividend be considerable, the expense of the application is too great to render the attempt to obtain it prudent.

No action can be brought against assignees for any dividend; the remedy being by petition to the Lord Chancellor.

11. *Certificate and Allowance to Bankrupt.* — The bankrupt who has surrendered, and conformed in all things to the provisions of the bankrupt laws, is discharged by the certificate from all debts and demands proveable under the commission; but this does not discharge his partner, or one jointly bound, or in joint contract with him, nor does it debar a debt due to the Crown.

The creditors now do not sign the bankrupt's certificate; the mode of obtaining it is for the bankrupt to apply to the court acting in the fiat, to appoint a sitting for the allowance of the certificate, of which 21 days' notice shall be advertised in the *Gazette*, and at this sitting the creditors may be heard against the allowance; and the court, having regard to the conduct of the bankrupt before and after the bankruptcy, may either allow, or refuse, or suspend the allowance of the certificate. The allowance is to be of no force, if the court under hand and seal don ot certify to the Court of Review that the bankrupt has conformed to the law, and made a full discovery of his estate and effects. and that there appears no reason to doubt the truth of such discovey, and unless the bankrupt swear that the certificate was obtained fairly, and unless the allowance be confirmed by the Court of Review.

A bankrupt, after obtaining his certificate, cannot be arrested for any debt proveable under the com-

mission; nor is he liable to satisfy any debt from which he is discharged, upon any promise, contract, or agreement, unless made in writing.

In case a person has been bankrupt before, or compounded with his creditors, or taken benefit of Insolvent Act, unless the estate produced 15*s.* in the pound, the certificate only protects the person of bankrupt from arrest; and any future property he acquires may be seized by assignees for benefit of creditors.

If the produce of bankrupt's estate does not amount to 10*s.* in the pound, he is only allowed out of the assets, so much as assignees think fit, not exceeding 3 per cent., or 300*l.* in the whole; if it produce 10*s.*, 5 per cent., not exceeding 400*l.*; if 12*s.* 6*d.* is paid in the pound, 7½ per cent., not exceeding 500*l.*; if 15*s.* in the pound and upwards, 10 per cent., and not exceeding 600*l.* One partner may receive his allowance, if entitled, from the joint and his separate estate, though the others are not entitled.

A bankrupt is not entitled to certificate or allowance, if he has lost by gaming or wagering, in 1 day, 20*l.*, or within 1 year next preceding his bankruptcy, 200*l.*; or 200*l.* by stock-jobbing in the same period; or, in contemplation of bankruptcy, has destroyed or falsified his books, or concealed his property; or, if any person having proved a false debt under the commission, such bankrupt being privy thereto, or afterwards knowing the same, has not disclosed it to his assignees within 1 month after such knowledge.

Lastly, upon request by the bankrupt, the official assignee is required to declare to him how he has disposed of his property, and account to him for the surplus, if any: but before any surplus can be admitted, interest must be paid, first, on all debts proved that carry interest, at the rate payable thereon; and next, upon all other debts at the rate of 4*l.* per cent., to be calculated from the date of the commission.

Account of the Number and Description of Persons who became Bankrupt, in England and Wales, between the 1st of November, 1841, and the 1st of November, 1842.

Apothecaries, 3.
Army agent, 1.
Auctioneers, 4.
Bakers, 7.
Bankers, 18.
Bill brokers, 4.
Blacksmiths, 3.
Bookbinders, 2.
Booksellers, 15.
Boot and shoe makers, 12.
Brass founder, 1.
Brewers, 24.
Brick makers, 7.
Brush makers, 2.
Builders, 47.
Butchers, 5.
Canvas manufacturer, 1.
Carpenters, &c., 35.
Carpet dealers, 4.
Carriers, 4.
Carver 1.
Cattle dealers, 8.
Chain manufacturer, 1.
Cheesemongers, 4.
Chemists and druggists, 28.
China and glass dealers, 2.
Cider merchant, 1.
Clothiers, 13.
Coach makers, 9.
Coach proprietors, 5
Coach tire smith, 1.
Coal merchants and dealers, 24.
Commission agents, 32.
Confectioners, 3.
Coopers, 4.
Copper merchant, 1
Corn merchants, 28.
Cotton dealers and manufacturers, 36.
Curriers, 8.
Dairymen, 6.
Dealers, 21.
Drapers, 47.
Drysalters, 2.
Dyers, 5.
Earthenware manufacturers, 5.
Engineers, 14.
Engravers, 3.
Farmers, 11.
Feather merchant, 1.
Fishmongers and salesmen, 6.
Flax spinners, 2.
Flour dealers, 3.
Furriers, 2.
Gas manufacturer, 1.
Glass merchants, 6.
Glazier, 1.
Glove maker, 1.
Grocers, 67.
Gun maker, 1.
Hardwaremen, 17.
Hatters, 15.
Hop merchant, 1.
Horse dealers, 5.
Hosiers, 7.
India rubber manufacturer, 1.
Innkeepers, 46.
Iron and steel merchants, 5.
Ironfounders, 12.
Ironmongers, 18.
Jewellers, 4.
Lace dealers, 9.
Leather sellers, 5.
Lime merchants, 4.
Linen drapers, 34.
Livery stable keepers, 6.
Lodging-house keepers, 3.
Maltsters, 17.
Mercers, 8.
Merchants, 96.
Millers, 26.
Milliners, 5.
Money scriveners, 15.
Musical instrument makers, 3.
Oil cloth manufacturer, 1.
Oilmen, 4.
Oil merchants, 4.
Optician, 1.
Painters and glaziers, &c. 10.
Paper manufacturers, 7.
Paper stainer, 1.
Pawnbrokers, 3.
Picture dealers, 6.
Printers, 9.
Road contractor, 1.
Rope makers, 4.
Saddlers, 6.
Sail makers, 2.
Salt merchants, 3.
Schoolmistress, 1.
Ship brokers, 8.
Ship owners, 8.
Shipwrights, 11.
Silk manufacturers and dealers, 14.
Slaters, 3.
Soap boilers, 2.
Solicitor, 1.
Stationers, 10.
Stock brokers, 2.
Stone masons, 3.
Stone merchants, 2.
Sugar manufacturer, 1.
Surgeons, 8.
Tailors, 23.
Tallow chandlers, 5.
Tanners, 2.
Timber merchants, 19.
Tobacco manufacturers, 2
Toy manufacturers, 2.
Upholsterers, 18.
Victuallers, 41.
Vinegar manufacturer, 1.
Warehousemen, 11.
Watchmakers, 4.
Wharfingers, 3.
Wheelwrights, 2.
Wine and spirit merchants, 47.
Wire Workers, 2.
Woollen manufacturers and dealers, 50.
Wool merchants, 11.
Various 21.

Total bankrupts in England and Wales, 1573.

INSURANCE, a contract of indemnity, by which one party engages, for a stipulated sum, to insure another against a risk to which he is exposed. The party who takes upon him the risk, is called the *Insurer*, *Assurer*, or *Underwriter*; and the party protected by the insurance is called the *Insured*, or *Assured*; the sum paid is called the *Premium*; and the instrument containing the contract is called the *Policy*.

I. Insurance (General Principles of).
II. Insurance (Marine).
III. Insurance (Fire).
IV. Insurance (Life).

I. Insurance (General Principles of).

It is the duty of government to assist, by every means in its power, the efforts of individuals to protect their property. Losses do not always arise from accidental circumstances, but are frequently occasioned by the crimes and misconduct of individuals; and there are no means so effectual for their prevention, when they arise from this source, as the establishment of a vigilant system of police, and of such an administration of the law as may be calculated to afford those who are injured a ready and cheap method of obtaining every practicable redress; and, as far as possible, of insuring the punishment of culprits. But, in despite of all that may be done by government, and of the utmost vigilance on the part of individuals, property must always be exposed to a variety of casualties from fire, shipwreck, and other unforeseen disasters. And hence the importance of inquiring how such unavoidable losses, when they do occur, may be rendered least injurious.

The loss of a ship, or the conflagration of a cotton mill, is a calamity that would press heavily even on the richest individual. But were it distributed among several individuals, each would feel it proportionally less; and provided the number of those among

whom it was distributed were very considerable, it would hardly occasion any sensible inconvenience to any one in particular. Hence the advantage of combining to lessen the injury arising from the accidental destruction of property: and it is the diffusion of the risk of loss over a wide surface, and its valuation, that forms the employment of those engaged in insurance.

Though it be impossible to trace the circumstances which occasion those events that are, on that account, termed accidental, they are, notwithstanding, found to obey certain laws. The number of births, marriages, and deaths; the proportions of male to female, and of legitimate to illegitimate births; the ships cast away; the houses burned; and a vast variety of other apparently accidental events; are yet, when our experience embraces a sufficiently wide field, found to be nearly equal in equal periods of time: and it is easy, from observations made upon them, to estimate the sum which an individual should pay, either to guarantee his property from risk, or to secure a certain sum for his heirs at his death.

It must, however, be carefully observed, that no confidence can be placed in such estimates, unless they are deduced from a very wide induction. Suppose, for example, it happens that during the present year one house is accidentally burned, in a town containing 1,000 houses; this would afford very little ground for presuming that the *average* probability of fire in that town was 1 to 1,000. For it might be found that not a single house had been burned during the previous 10 years, or that 10 were burned during each of these years. But supposing it were ascertained, that, at an average of 10 years, 1 house had been annually burned, the presumption that 1 to 1,000 was the real ratio of the probability of fire would be very much strengthened; and if it were found to obtain for 20 or 30 years together, it might be held, for all practical purposes at least, as indicating the precise degree of probability.

Besides its being necessary, in order to obtain the true measure of the probability of any event, that the series of events, of which it is one, should be observed for a rather lengthened period, it is necessary also that the events should be numerous, or of pretty frequent occurrence. Suppose it were found, by observing the births and deaths of 1,000,000 individuals taken indiscriminately from among the whole population, that the mean duration of human life was 40 years; we should have but very slender grounds for concluding that this ratio would hold in the case of the next 10, 20, or 50 individuals that are born. Such a number is so small as hardly to admit of the operation of what is called the *law of average*. When a large *number of* lives is taken, those that exceed the medium term are balanced by those that fall short of it; but when the number is small, there is comparatively little room for the principle of compensation, and the result cannot, therefore, be depended upon.

It is found, by the experience of all countries in which censuses of the population have been taken with considerable accuracy, that the number of male children born is to that of female children in the proportion nearly of 22 to 21. But unless the observations be made on a very large scale, this result will not be obtained. If we look at particular families, they sometimes consist wholly of boys, and sometimes wholly of girls; and it is not possible that the boys can be to the girls of a single family in the ratio of 22 to 21. But when, instead of confining our observations to particular families, or even parishes, we extend them so as to embrace a population of 500,000, these discrepancies disappear, and we find that there is invariably a small excess in the number of males born over the females.

The false inferences that have been drawn from the doctrine of chances, have uniformly, almost, proceeded from generalising too rapidly, or from deducing a rate of probability from such a number of instances as do not give a fair average. But when the instances on which we found our conclusions are sufficiently numerous, it is seen that the most anomalous events, such as suicides, deaths by accidents, the number of letters put into the post-office without any address, &c., form pretty regular series, and consequently admit of being estimated *à priori*.

The business of insurance is founded upon the principles thus briefly stated. Suppose it has been remarked that of *forty* ships, of the ordinary degree of sea-worthiness, employed in a given trade, 1 is annually cast away, the probability of loss will plainly be equal to *one fortieth*. And if an individual wish to insure a ship, or the cargo on board a ship, engaged in this trade, he ought to pay a *premium* equal to the 1-40th part of the sum he insures, exclusive of such an additional sum as may be required to indemnify the insurer for his trouble, and to leave him a fair profit. If the premium exceed this sum, the insurer is overpaid; and if it fall below it, he is underpaid.

Insurances are effected sometimes by societies, and sometimes by individuals, the risk being in either case diffused amongst a number of persons. Companies formed for carrying on the business have generally a large subscribed capital, or such a number of proprietors as enables them to raise, without difficulty, whatever sums may at any time be required to make good losses. Societies of this sort do not limit their risks to small

sums; that is, they do not often refuse to insure a large sum upon a ship, a house, a life, &c. The magnitude of their capitals affords them the means of easily defraying a heavy loss; and their premiums being proportioned to their risks, their profit is, at an average, independent of such contingencies.

Individuals, it is plain, could not act in this way, unless they were possessed of very large capitals; and besides, the taking of large risks would render the business so hazardous, that few would be disposed to engage in it. Instead, therefore, of insuring a large sum, as 20,000*l.*, upon a single ship, a private underwriter or insurer may not, probably, in ordinary cases, take a greater risk than 200*l.* or 500*l.*; so that, though his engagements may, when added together, amount to 20,000*l.*, they will be diffused over from 40 to 100 ships; and supposing 1 or 2 ships to be lost, the loss would not impair his capital, and would only lessen his profits. Hence it is, that while one transaction only may be required in getting a ship insured by a company, 10 or 20 separate transactions may be required in getting the same thing done at Lloyd's, or by private individuals. When conducted in this cautious manner, the business of insurance is as safe a line of speculation as any in which individuals can engage.

To establish a policy of insurance on a fair foundation, or in such a way that the premiums paid by the insured shall exactly balance the risks incurred by the insurers, and the various necessary expenses to which they are put, including, of course, their profit, it is necessary, as previously remarked, that the experience of the risks should be pretty extensive. It is not, however, at all necessary, that either party should inquire into the circumstances that lead to those events that are most commonly made the subject of insurance. Such a research would, indeed, be entirely fruitless: we are, and must necessarily continue to be, wholly ignorant of the causes of their occurrence.

It appears, from the accounts given by Mr. Scoresby, in his valuable work on the Arctic Regions, that of 586 ships which sailed from the various ports of Great Britain for the northern whale fishery, during the 4 years ending with 1817, 8 were lost — (vol. ii. p. 131.), — being at the rate of about 1 ship out of every 73 of those employed. Now, supposing this to be about the average loss, it follows that the premium required to insure against it should be 1*l.* 7*s.* 4*d.* per cent., exclusive, as already observed, of the expenses and profits of the insurer. Both the insurer and the insured would gain by entering into a transaction founded on this fair principle. When the operations of the insurer are extensive, and his risks spread over a considerable number of ships, his profit does not depend upon chance, but is as steady, and may be as fairly calculated upon, as that of a manufacturer or a merchant; while, on the other hand, the individuals who have insured their property have exempted it from any chance of loss, and placed it, as it were, in a state of absolute security.

It is easy, from the brief statement now made, to perceive the immense advantage resulting to navigation and commerce from the practice of marine insurance. Without the aid that it affords, comparatively few individuals would be found disposed to expose their property to the risk of long and hazardous voyages; but by its means insecurity is changed for security, and the capital of the merchant, whose ships are dispersed over every sea, and exposed to all the perils of the ocean, is as secure as that of the agriculturist. He can combine his measures and arrange his plans as if they could no longer be affected by accident. The chances of shipwreck, or of loss by unforseen occurrences, enter not into his calculations. He has purchased an exemption from the effects of such casualties; and applies himself to the prosecution of his business with that confidence and energy which nothing but a feeling of security can inspire. "Les chances de la navigation entravaient le commerce. Le système des assurances a paru; il a consulté les saisons; il a porté ses regards sur la mer; il a interrogé ce terrible élément; il en a jugé l'inconstance; il en a pressenti les orages: il a épié la politique: il a reconnu les ports et les côtes des deux mondes; il a tout soumis à des calculs savans, à des théories approximatives; et il a dit au commerçant habile, au navigateur intrépide: certes, il y a des désastres sur lesquels l'humanité ne peut que gémir; mais quant à votre fortune, allez, franchissez les mers, déployez votre activité et votre industrie; je me charge de vos risques. Alors, Messieurs, s'il est permis de le dire, les quatre parties du monde se sont rapprochées. — (*Code de Commerce, Exposé des Motifs*, liv. ii.)

Besides insuring against the perils of the sea, and losses arising from accidents caused by the operation of natural causes, it is common to insure against enemies, pirates, thieves, and even the fraud, or, as it is technically termed, *barratry*, of the master. The risk arising from these sources of casualty being extremely fluctuating and various, it is not easy to estimate it with any considerable degree of accuracy; and nothing more than a rough average can, in most cases, be looked for. In time of war, the fluctuations in the rates of insurance are particularly great: and the intelligence that an enemy's squadron, or even a single privateer, is cruising in the course which the ships bound to or returning from any given port usually follow, causes an instantaneous rise in the premium. The appointment of convoys for the protection of trade during war, necessarily tends, by

lessening the chances of capture, to lessen the premium on insurance. Still, however, the risk in such periods is, in most cases, very considerable; and as it is liable to change very suddenly, great caution is required on the part of the underwriters.

Provision may also be made, by means of insurance, against loss by fire, and almost all the casualties to which property on land is subject.

But, notwithstanding what has now been stated, it must be admitted, that the advantages derived from the practice of insuring against losses by sea and land are not altogether unmixed with evil. The security which it affords tends to relax that vigilant attention to the protection of property which the fear of its loss is sure otherwise to excite. This, however, is not its worst effect. The records of our courts, and the experience of all who are largely engaged in the business of insurance, too clearly prove that ships have been repeatedly sunk, and houses burned, in order to defraud the insurers. In despite, however, of the temptation to inattention and fraud which is thus afforded, there can be no doubt that, on the whole, the practice is, in a public as well as private point of view, decidedly beneficial. The frauds that are occasionally committed raise, in some degree, the rate of insurance. Still it is exceedingly moderate; and it is most probable, that the precautions adopted by the insurance offices for the prevention of fire, especially in great towns, where it is most destructive, outweigh the chances of increased conflagration arising from the greater tendency to carelessness and crime.

The business of life insurance has been carried to a far greater extent in Great Britain than in any other country, and has been productive of the most beneficial effects. Life insurances are of various kinds. Individuals without any very near connections, and possessing only a limited fortune, are sometimes desirous, or are sometimes, from the necessity of their situation, obliged, annually to encroach on their capitals. But should the life of such persons be extended beyond the ordinary term of existence, they might be totally unprovided for in old age; and to secure themselves against this contingency, they pay to an insurance company the whole or a part of their capital, on condition of its guaranteeing them, as long as they live, a certain annuity, proportioned partly, of course, to the amount of the sum paid, and partly to their age when they buy the annuity.

But though sometimes serviceable to individuals, it may be questioned whether insurances of this sort are, in a public point of view, really advantageous. So far as their influence extends, its obvious tendency is to weaken the principle of accumulation; to stimulate individuals to consume their capitals during their own life, without thinking or caring about the interest of their successors. Were such a practice to become general, it would be productive of the most extensively ruinous consequences. The interest which most men take in the welfare of their families and friends affords, indeed, a pretty strong security against its becoming injuriously prevalent. There can, however, be little doubt that this selfish practice may be strengthened by adventitious means; such, for example, as the opening of government loans in the shape of life annuities, or in the still more objectionable form of tontines. But when no extrinsic stimulus of this sort is given to it, there do not seem to be any very good grounds for thinking that the sale of annuities by private individuals or associations can materially weaken the principle of accumulation.

Luckily, however, the species of insurance now referred to is but inconsiderable compared with that which has accumulation for its object. All professional persons, or those living on salaries or wages, such as lawyers, physicians, military and naval officers, clerks in public or private offices, &c., whose incomes must, of course, terminate with their lives, and a host of others, who are either not possessed of capital, or cannot dispose of their capital at pleasure, must naturally be desirous of providing, so far as they may be able, for the comfortable subsistence of their families in the event of their death. Take, for example, a physician or lawyer, without fortune, but making, perhaps, 1,000*l.* or 2,000*l.* a year by his business; and suppose that he marries and has a family: if this individual attain to the average duration of human life, he may accumulate such a fortune as will provide for the adequate support of his family at his death. But who can presume to say that such will be the case? — that he will not be one of the many exceptions to the general rule? — And suppose that he were hurried into an untimely grave, his family would necessarily be destitute. Now, it is against such calamitous contingencies that life insurance is intended chiefly to provide. An individual possessed of an income terminating at his death, agrees to pay a certain sum annually to an insurance office; and this office binds itself to pay to his family, at his death, a sum equivalent, under deduction of the expenses of management and the profits of the insurers, to what these annual contributions, accumulated at compound interest, would amount to, supposing the insured to reach the common and average term of human life. Though he were to die the day after the insurance has been effected, his family would be as amply provided for as it is likely they would be by his accumulations were his life of the ordinary duration. In all cases, indeed, in which those insured die before attaining to an average age, their gain is obvious. But even in those cases in which their lives

are prolonged beyond the ordinary term, they are not losers — they then merely pay for a security which they must otherwise have been without. During the whole period, from the time when they effect their insurances, down to the time when they arrive at the mean duration of human life, they are protected against the risk of dying without leaving their families sufficiently provided for; and the sum which they pay after having passed this mean term is nothing more than a fair compensation for the security they previously enjoyed. Of those who insure houses against fire, a very small proportion only have occasion to claim an indemnity for losses actually sustained; but the possession of a security against loss in the event of accident, is a sufficient motive to induce every prudent individual to insure his property. The case of life insurance is in no respect different. When established on a proper footing, the extra sums which those pay whose lives exceed the estimated duration is but the value of the previous security.

In order so to adjust the terms of an insurance that the party insuring may neither pay too much nor too little, it is necessary that the probability of his life failing in each subsequent year should be determined with as much accuracy as possible.

To ascertain this probability, various observations have been made in different countries and periods, showing, out of a given number of persons born in a particular country or place, how many complete each subsequent year and how many die in it, till the whole be extinct. The result of such observations, when collected and arranged in a tabular form, are called Tables of Mortality; being entitled, of course, to more or less confidence, according to the number and species of lives observed; the period when, and the care with which, the observations were made, &c. But, supposing these Tables to be formed with sufficient accuracy, the expectation of life at any age, or its mean duration after such age, may be readily learned from them; and hence, also, the value of an annuity, or an assurance on a life of any age. Thus, in the Table of Mortality for Carlisle, framed by Mr. Milne, of the Sun Life Office, and which is believed to represent the average law of mortality in England with very considerable accuracy, out of 10,000 persons, born together, 4,000 complete their 56th year; and it further appears, that the number of such persons who die in their 66th year is 124; so that the probability that a life now 56 years of age will terminate in the 10th year hence is $\frac{124}{4,000}$. But reckoning interest at 4 per cent., it appears (Table II. Interest and Annuities), that the present value of 100*l.* to be received 10 years hence is 67·556*l.*; consequently, if its receipt be made to depend upon the probability that a life now 56 years of age will fail in the 66th year, its present value will be reduced by that contingency to $\frac{124 \times 67{\cdot}566l.}{4,000} = 2{\cdot}094l.$, or 2*l.* 1*s.* 10½*d.* The present value of 100*l.* receivable upon the life of a party now 56 years of age terminating in the 57th or any subsequent year of his life, up to its extreme limit (which, according to the Carlisle Table, is the 105th year), being calculated in this way, the sum of the whole will be the present value of 100*l.* receivable whenever the life may fail, that is, of 100*l.* insured upon it, supposing no additions were made to it for the profits and expenses of the insurers.

More compendious processes are resorted to for calculating Tables of insurances at all ages; but the above statement sufficiently illustrates the principle on which they all depend. In practice, a life insurance is seldom made by the payment of a single sum when it is effected, but almost always by the payment of an *annual premium* during its continuance, the first being paid down at the commencement of the insurance.* If the Table of Mortality adopted by the insurers fairly represent the law of mortality prevailing among the insured, it follows that when a party insured does not attain to the average age according to the Table, the insurers will either lose by him, or realise less than their ordinary profit; and when, on the other hand, the life of an insured party is prolonged beyond the tabular average, the profits of the insurers are proportionally increased. But if their business be so extensive as to enable the law of average fully to apply, what they lose by premature death will be balanced by the payments received from those whose lives are prolonged beyond the mean duration of life for the ages at which they were respectively insured; so that the profits of the society will be wholly independent of chance.

The relief from anxiety afforded by life insurance very frequently contributes to prolong the life of the insured, at the same time that it materially augments the comfort and well-being of those dependent on him. It has, also, an obvious tendency to strengthen habits of accumulation. An individual who has insured a sum on his life, would forfeit all the advantages of the insurance, were he not to continue regularly to make his annual payments. It is not, therefore, optional with him to save a sum from his ordinary expenditure adequate for this purpose. He is compelled, under a heavy penalty, to do so; and having thus been led to contract a habit of saving to a certain extent, it is most probable that the habit will acquire additional strength, and that he will either insure an additional sum, or privately accumulate.

* For the method of calculating these annual premiums, see *post*, Interest and Annuities.

The practice of marine insurance, no doubt from the extraordinary hazard to which property at sea is exposed, seems to have long preceded insurances against fire and upon lives. We are ignorant of the precise period when it began to be introduced; but it appears most probable that it dates from the end of the fourteenth or the beginning of the fifteenth century. It has, however, been contended by Loccenius (*De Jure Maritimo*, lib. ii. c. 1.), Puffendorff (*Droit de la Nature et des Gens*, lib. v. c. 9.), and others, that the practice of marine insurance is of much higher antiquity, and that traces of it may be found in the history of the Punic wars. Livy mentions, that during the second of these contests, the contractors employed by the Romans to transport ammunition and provisions to Spain, stipulated that government should indemnify them against such losses as might be occasioned by the enemy, or by tempests, in the course of the voyage. — (*Impetratum fuit, ut quæ navibus imponerentur ad exercitum Hispaniensem deferenda, ab hostium tempestatisque vi, publico periculo essent.* — Hist. lib. xxiii. c. 49.) Malynes (*Lex Mercatoria*, 3d ed. p. 105.), founding on a passage in Suetonius ascribes the first introduction of insurance to the emperor Claudius, who, in a period of scarcity at Rome, to encourage the importation of corn, took upon himself all the loss or damage it might sustain in the voyage thither by storms and tempests. — (*Negotiatoribus certa lucra proposuit, suscepto in se damno, si cui quid per tempestates accidisset, et naves mercaturæ causâ, fabricantibus, magna commoda constituit.* — c. 18.) It is curious to observe that this stipulation gave occasion to the commission of acts of fraud, similar to those so frequent in modern times. Shipwrecks were pretended to have happened, that never took place; old shattered vessels, freighted with articles of little value, were purposely sunk, and the crew saved in boats: large sums being then demanded as a recompence for the loss. Some years after, the fraud was discovered, and some of the contfactors were prosecuted and punished. — (Lib. xxv. c. 3.) But none of these passages, nor a similar one in Cicero's letters — (*Ad Fam.* lib. ii. c. 17.), warrant the inferences that Loccenius, Malynes, and others have attempted to draw from them. Insurance is a contract between two parties; one of whom, on receiving a certain premium (*pretium periculi*), agrees to take upon himself the risk of any loss that may happen to the property of the other. In ancient no less than in modern times, every one must have been desirous to be exonerated from the chance of loss arising from the exposure of property to the perils of the sea. But though, in the cases referred to, the carriers were exempted from this chance, they were not exempted by a contract *propter aversionem periculi*, or by an insurance; but by their employers taking the risk upon themselves. And it is abundantly obvious that the object of the latter in doing this was not to profit, like an insurer, by dealing in risks, but to induce individuals the more readily to undertake the performance of an urgent public duty.

But with the exception of the instances now mentioned, nothing bearing the remotest resemblance to an insurance is to be met with till a comparatively recent period. If we might rely on a passage in one of the Flemish chroniclers, quoted by the learned M. Pardessus — (see his excellent work, *Collection des Loix Maritimes*, tome i. p. 356.), we should be warranted in concluding that insurances had been effected at Bruges so early as the end of the thirteenth century: for the chronicler states that, in 1311, the Earl of Flanders consented, on a requisition from the inhabitants, to establish a chamber of insurance at Bruges. M. Pardessus is not, however, inclined to think that this statement should be regarded as decisive. It is evident, from the manner in which the subject is mentioned, that the chronicler was not a contemporary; and no trace can be found, either in the archives of Bruges, or in any authentic publication, of any thing like the circumstance alluded to. The earliest extant Flemish law as to insurance is dated in 1537; and none of the early maritime codes of the North so much as alludes to this interesting subject.

Beckmann seems to have thought that the practice of insurance originated in Italy in the latter part of the fifteenth or the early part of the sixteenth century. — (*Hist. of Invent.* vol. i. art. *Insurance.*) But the learned Spanish antiquary, Don Antonio de Capmany, has given, in his very valuable publication on the History and Commerce of Barcelona (*Memorias Historicas sobre la Marina, &c. de Barcelona*, tomo ii. p. 383.), an ordinance relative to insurance, issued by the magistrates of that city in 1435; whereas the earliest Italian law on the subject is nearly a century later, being dated in 1523. It is, however, exceedingly unlikely, had insurance been as early practised in Italy as in Catalonia, that the former should have been so much behind the latter in subjecting it to any fixed rules; and it is still more unlikely that the practice should have escaped, as is the case, all mention by any previous Italian writer. We, therefore, agree entirely in Capmany's opinion, that, until some authentic evidence to the contrary be produced, Barcelona should be regarded as the birthplace of this most useful and beautiful application of the doctrine of chances. — (Tom. i. p. 237.)

A knowledge of the principles and practice of insurance was early brought into England. According to Malynes — (*Lex Mercat.* p. 105.), it was first practised amongst

us by the Lombards, who were established in London from a very remote epoch. It is probable it was introduced some time about the beginning of the sixteenth century; for it is mentioned in the statute 43 Eliz. c. 12., in which its utility is very clearly set forth, that it had been an *immemorial usage* among merchants, both English and foreign, when they made any great adventure, to procure insurance to be made on the ships or goods adventured. From this it may reasonably be supposed that insurance had been in use in England for at least a century previous. It appears from the same statute, that it had originally been usual to refer all disputes that arose with respect to insurances to the decision of "grave and discreet" merchants appointed by the Lord Mayor. But abuses having grown out of this practice, the statute authorised the Lord Chancellor to appoint a commission for the trial of insurance cases; and in the reign of Charles II. the powers of the commissioners were enlarged. But this court soon after fell into disuse; and, what is singular, no trace can now be discovered of any of its proceedings. — (*Marshall on Insurance*, Prelim. Disc. p. 26.)

Few questions as to insurance seem to have come before the courts at Westminster till after the middle of last century. The decisions of Lord Mansfield may, indeed, be said to have fixed, and in a considerable degree formed, the law upon this subject. His judgments were not bottomed on narrow views, or on the municipal regulations of England; but on those great principles of public justice and convenience which had been sanctioned and approved by universal experience. His deep and extensive information was acquired by consulting the most intelligent merchants, and the works of distinguished foreign jurists; and by carefully studying the famous French ordinance of 1681, the most admirably digested body of maritime law of which any country has ever had to boast. Hence the comprehensiveness and excellence of his Lordship's decisions, and the respect they have justly commanded in all countries.* In his hands the law of insurance became, in a far greater degree than any other department of English law, a branch of that national or public law, of which Cicero has beautifully said, "*Non erit alia, lex Romæ, alia Athenis, alia nunc, alia posthac, sed et omnes gentes et omni tempore una lex et sempiterna, et immortalis continebit, unusque erit communis quasi magister et imperator omnium Deus.*" — (*Fragm.* lib. iii. *de Republicâ.*)

Insurance against fire and upon lives is of much later origin than insurance against the perils of the sea. The former, however, has been known and carried on amongst us, to some extent at least, for nearly a century and a half. The Amicable Society, for insurance upon lives, was established by charter of Queen Anne, in 1706; the Royal Exchange and London Assurance Companies began to make insurances upon lives in the reign of George I.; and the Equitable Society was established in 1762. But the advantages of life insurance, and the principles on which the business should be conducted, were then very ill understood; and the practice can hardly be said to have obtained any firm footing amongst us, till the Equitable Society, by adopting the judicious suggestions of Dr. Price, began its career of prosperity about 1775. Notwithstanding the example of England, life insurance has made comparatively little progress on the Continent. It was, indeed, expressly forbidden by the French ordinance of 1681 (liv. iii. tit. 6. art. 10.); by the regulations as to insurance issued at Amsterdam in 1612 (art. 24.); and it is doubtful whether the practice be not inconsistent with the 334th art. of the *Code de Commerce*, though it be now extensively carried on in France. But we are inclined to think that the want of security, more than any positive regulations, has been the principal cause of the little progress of life insurance on the Continent. Of whatever disadvantages our large public debt may be productive, it is not to be doubted that the facilities it has afforded for making investments, and the punctuality with which the national engagements have been fulfilled, have been the principal causes of the extraordinary extent to which the business of life and even fire insurance has been carried in this country.

II. Insurance (Marine).

There are few persons who are not acquainted, in some degree, with fire and life insurances. The security which they afford to individuals and families is a luxury which nobody, in tolerably comfortable circumstances, is willing to be without. Hence the great increase, in our days, of companies professing to afford this security; and hence the knowledge, on the part of the public generally, of the nature and principles of the engagements into which these companies enter. But marine insurance is a subject which is of immediate interest only to merchants and ship owners; unless, indeed, we should refer to that small portion of the community, who have occasion to transport themselves beyond seas with capital and effects for purposes of colonisation, or to fill some official situation. Hence the comparative indifference, on the part of the public, as to this subject. The general principles, however, of all insurance are the same; and in treating of marine insurance, it will be necessary to notice little beyond such topics as are peculiar to that branch of the business.

Individual Insurers or Underwriters. — The first circumstance that cannot fail to strike the general inquirer into the practice of marine insurance in this country, is that, while all fire and life insurances are made at the risk of companies, which include within themselves the desirable requisites of security, wealth, and numbers, a large proportion of marine insurances is made at the risk of individuals.

Prohibition of Companies. — Till 1824, all firms and companies, with the exception of the 2 chartered

* See Emerigon's famous *Traité des Assurances*, tome ii. p. 67.

companies, the Royal Exchange and London, were prohibited by law from taking marine insurances. Towards the latter end of that year, the prohibition was removed, and the business of marine insurance was placed on the same legal footing as other descriptions of business. While the restriction lasted, the 2 chartered companies did so little business, that marine insurance might, in fact, be said to be wholly in the hands of individuals. These companies were so much higher in their premiums, and so much more exclusive in the risks they were willing to undertake, than their individual competitors, that even those merchants and ship owners, who would cheerfully have paid some trifling consideration to obtain the greater security of a company, were obliged to resort to individuals. And it was only when the repeal of this absurd restriction was proposed, that the companies showed, by defending it, that they set any value upon their privilege. The underwriters at Lloyd's joined them in this opposition; and pamphlets were written and speeches made, to demonstrate how much merchants and ship owners would suffer, were the law to allow them the free use of their discretion in insuring their property; and how much more conducive to their interests it was, that they should be forced up to Lloyd's, to pay premiums to individuals rather than companies. But these pamphlets and speeches are forgotten; and we should be sorry to wound the feelings of their authors, or to trespass on the patience of our readers, by referring to them more particularly.

Formation of Companies.—There are at present 5 marine insurance companies in London; viz., the two old chartered companies, the *Royal Exchange* and *London*; two established immediately upon the passing of the act of the year 1824, the *Alliance* and the *Indemnity Mutual*; the *Marine*, established in 1836. These companies number among their proprietors or shareholders some of the most eminent merchants and ship owners of the city of London, who have united for the double purpose of providing a more perfect security for their property, and of ascertaining whether the insurance business might not be made to yield a fair return to the capital employed in it.

It may be computed that these 5 companies draw to themselves more than half the marine insurance business effected in London; and as several similar companies have also been formed since 1824 in different parts of the kingdom, it may be inferred, when due allowance is made for the difficulties to be combated in breaking through established modes and habits of doing business, that the tendency in the public is practically to confirm what antecedent investigation would suggest,—that companies, while they must necessarily hold out better security, and greater liberality and punctuality in the settlement of claims, are capable of transacting a given amount of business with a saving both of labour and expense.

Mode of conducting Business.—We shall now give an account of the existing arrangements for conducting the business of marine insurance, as well by individuals as the companies in London.

Lloyd's.—The individual underwriters meet in a subscription room at Lloyd's. The joint affairs of the subscribers to these rooms are managed by a committee chosen by the subscribers. Agents (who are commonly styled Lloyd's agents) are appointed in all the principal ports of the world, who forward, regularly, to Lloyd's, accounts of the departures from and arrivals at their ports, as well as of losses and other casualties; and, in general, all such information as may be supposed of importance towards guiding the judgments of the underwriters. These accounts are regularly filed, and are accessible to all the subscribers. The principal arrivals and losses are, besides, posted in 2 books, placed in 2 conspicuous parts of the room; and also in another book, which is placed in an adjoining room, for the use of the public at large.

The rooms are open from 10 o'clock in the morning till 5 o'clock in the afternoon, but the most considerable part of the business is transacted between 1 and 4. Those merchants and ship owners who manage their own insurance business, procure blank policies at the government office, or of their stationers, which they fill up so as to meet the particular object in view, and submit them to those underwriters with whom they are connected; by whom they are subscribed or rejected. Each policy is handed about in this way until the amount required is complete. The form of the policy and of a subscription is subjoined to this article.

The premium is not paid to the underwriter in ready money, but is passed to account. Nor does the underwriter debit the account of the person to whom he subscribes a policy with the whole amount of the premium, but with the premium less 5 per cent. Whenever losses occur which more than absorb the premiums on any one account, the underwriter is called upon to pay the balance. But should the underwriter's account be what is called good, that is, should the premiums exceed the claims, he sends round, during the spring and summer, to collect from his various debtors either the balance of his last year's account, or money on account, according to his judgment; but, upon what he receives, he makes an allowance of 12 per cent. An underwriter, if prudent, therefore, before he consents to receive, will not only look to the goodness of his account, but to the probability of its continuing so.

Insurance Brokers.—Many merchants and shipowners do not transact their own insurance business. They give their orders for insurance to others, who undertake it for them, and are responsible for its proper management. These latter persons are called insurance brokers; and some of them manage the business of a number of principals. To them, likewise, are transmitted the orders for insurance from the outports and manufacturing towns. They charge the whole premium to their principals, and their profit consists in 5 per cent. upon the premium, 12 per cent. upon the money that they pay to the underwriters, and ½ per cent. that they deduct from all the claims which they recover from the underwriters. It is proper to remark, that this is the established or regular profit; but competition has occasioned numerous deviations from it by the brokers, many of whom consent to divide this profit with the principals who employ them. The insurance brokers are not unfrequently underwriters also; and as some insurances are considered far more lucrative than others to underwriters, and as the brokers have particular facilities, in some respects, of judging of the goodness of their own risks, so likewise have they an inducement to play into one another's hands, and they do so accordingly.—(See BROKERS.)

It will at once be seen, that the trouble of effecting insurances at Lloyd's is considerable; that a good deal of time must be consumed; and that merchants and ship owners, therefore, have great inducement to consign their insurance business to brokers. But where the business is transacted with a company, this inducement, if not destroyed altogether, is, at all events, very much diminished. Any party having property to insure, has merely to go to the manager of the company, and state the particulars of the risk to be insured; the premium, being agreed upon, the manager writes out a memorandum for the policy, which the party signs, and he is thus effectually insured. The companies procure the stamp and write out the policy, which is ready for delivery in 4 or 5 days. The companies, like the underwriters, charge the premium less 5 per cent. In other respects they vary. They allow 12 per cent. upon the profitable balance of each year's premiums with credit till March or June; or 10 per cent. for prompt payment.

Payment of Losses.—Losses are paid at all the offices promptly, and without deduction. A month's credit is allowed to the underwriters: and another month, and sometimes 2 months, are given to the broker, to collect from the underwriters, and pay over to his principals.

Clubs.—Besides the individual underwriters and companies above noticed, there are clubs or associations formed by ship owners, who agree, each entering his ships for a certain amount, to divide among themselves one another's losses. These clubs are institutions of long standing; but, since the alteration of the law in 1824, appear to be on the decline. Their formation originated in a twofold reason: 1st, that the underwriters charged premiums more than commensurate with the risk; and, 2ndly, that they did not afford adequate protection. To avoid the first of these two evils, instead of paying a fixed premium, they pay among themselves the actual losses of their several members as they occur; and to avoid the second, they lay down certain principles of settlement in accordance with their views of indemnity. Each member of one of these clubs gives his power of attorney to the selected manager: and this manager

issues a policy for each ship, which policy is subscribed by him as attorney for all the members, the premium inserted in the policy being understood to be nominal. These clubs are open to the leading objections that apply to individual underwriters; for the members are not collectively, but only individually, liable to those of their number who happen to sustain a loss; and the delay of settlement is such, that more than 12 months have been known to elapse before the payment of a loss has been obtained from all the members.

Rate of Premium. — But little need be said upon the circumstances that influence the rate of premium demanded by the insurers. It must be self-evident that premiums will vary according to the seasons, the quality of the vessel, the known character of the captain, the nature of the commodity, and the state of our political relations. All these, of course, are matters upon which each individual must exercise his own discretion, partly from general experience, and partly from particular information; exaggeration of risk, and consequent exorbitancy of premium for any length of time, being out of the question, where so many individual underwriters, in addition to the companies, are in competition with one another, and where the merchants have the means at hand of effecting their insurances abroad. We have already taken notice of the intelligence of which Lloyd's is the focus. In addition to this, there is a subscription register book for shipping maintained by the principal merchants, ship owners, and underwriters. This book professes to give an account of the tonnage, build, age, repairs, and quality of almost all the vessels that frequent our ports; and, although exceedingly defective in many respects, is a material assistance to the insurers, who have no means of ascertaining by their own observation the particulars of 1 in 100 of the ships they are called upon to insure.

Contract of Insurance.

Having thus given a general outline of the mode of transacting business between the insurers and insured, and the means used to enable both parties to come, as near as possible, to a due estimate of the risk to be insured against, our next step will be to explain the nature of the contract, and the bearing of its more important clauses.

It is unnecessary to state that the object of those who are engaged in commerce, or in moving articles of merchandise from one part of the world to another, is to *buy* at such a price that, after paying all the expenses of transport, the *sale* price may leave them a surplus in the shape of profit. If there were no such contrivance as insurance, merchants would be obliged to calculate upon the probability of the occasional loss of their property, and to regulate their transactions accordingly; but it must be obvious that enterprise, under such circumstances, would be very much crippled. Now, insurance, in as far as it approaches perfection in guaranteeing the merchant against all loss, except that of the market, substitutes a fixed charge for uncertain and contingent loss, and enables him to confine his attention exclusively to price and quality, and to charges of transport; in which latter, of course, the premium of insurance is included. As, however, in practice, insurance is by no means a perfect protection, either to the merchant or ship owner, against all loss that may occur *in transitu*, there is, even after insurance, some contingencies remaining to be taken into consideration: and we do not know that we can do better, by way of explaining the contract of insurance, than state, as briefly and succinctly as possible, what are the losses against which the merchant and ship owner are not protected by an insurance effected in this country.

1. *Acts of our own Government.* — All losses arising from the acts of our own government. Thus, if an embargo were laid on vessels about to sail for a particular quarter, and the merchant obliged to unload his goods; or if his goods were condemned to be destroyed in quarantine; or purposely destroyed at sea by some of our cruisers; no part of his loss would be made good by the insurer. The insurer in this country, although liable for the acts of foreign powers, is not liable for such acts directed against the property of their own subjects. Thus, if French property, insured in this country, were confiscated by the French government, the owner would have no remedy against his insurer.

2. *Breaches of the Revenue Laws.* — All losses arising from a breach of the revenue laws. It may be observed, that if the owner of the ship, by his act, expose the goods of the merchant to loss, the merchant so injured, although he cannot recover from his insurers, may claim from him. It may also be observed, that if the captain of the vessel, by his act, to which neither the owner of the ship nor the merchant is a party, expose the ship and cargo to loss, the insurers, in such case, are bound to make good the loss; the insurers being liable for all damage arising from illegal acts of the captain and crew, supposing the owner of the ship not to be accessory. The illegal acts of the captain and crew, contrary to the instructions and without the consent of the owners, are termed "barratry" in the policy. — (See Barratry.)

3. *Breaches of the Law of Nations.* — All losses arising from a breach of the law of nations. Thus, if any port is declared by a foreign power to be in a state of blockade, and such blockade is acknowledged by our government; and if a ship, in defiance of that notification, attempt to break the blockade, and is taken in the attempt; the insurer is not liable to the loss. It will often happen, when a port is under blockade, that the profit is so great upon goods introduced in defiance of the blockade, as to tempt adventurers to break it, and to enable them to afford a very high premium to insure against the risk. But as policies for such an object are not acknowledged in our courts of law, when effected, they are understood to be *policies of honour*. The same kind of policy is adopted by the underwriters, to protect foreign merchants who prefer insuring in this country against British capture.

4. *Consequences of Deviation.* — All losses subsequent to any deviation from the terms of the policy. Thus, if a merchant, in a policy on produce from the West Indies to London, warrant the ship to sail on or before the 1st of August, and the ship sail after that day and be lost, the insurer is exonerated. Or, if a merchant insure from London to Lisbon, and the ship call at Havre and is afterwards lost, the insurer is not liable. It will be understood, of course, that the owner of the ship is liable to the merchant for any breach of contract on his part, as well as that the insurer is liable for the barratry of the master; a deviation on the part of the master, not intended for the benefit of the owner, and contrary to his instructions, being considered barratry. Should the owner of the goods neglect to describe accurately the voyage for which he wishes to be insured, the loss would be a consequence of his own negligence.

There is a doctrine connected with barratry which it will here be proper to notice. A captain, owner or part owner of the ship in which he sails, cannot commit an act of barratry. In other words, the insurers are not, in such a case, liable for an act of his which would otherwise be barratrous. The equity of this doctrine, as far as regards the interests of the captain himself, cannot be called in question; but it is difficult to understand why the merchant who ships goods on board such a captain's vessel should not be permitted to insure, among other risks, against the captain's illegal acts. We have heard that a clause has occasionally been introduced into policies to protect merchants against captain-owners, and we do not suppose that our courts of law would refuse to enforce such a clause. Indeed, we cannot discover any reason why every party, saving the captain, should not have the power of insuring against the consequences of illegal acts of the captain. We believe, that among the life offices which protect themselves from loss by suicide and the hands of justice, there are some which make a distinction in favour of those who merely hold policies on the lives of others as a collateral security. The propriety of such a distinction must strike every body.

5. *Unseaworthiness.* — All losses arising from unseaworthiness. Unseaworthiness may be caused in various ways, such as want of repair, want of stores, want of provisions, want of nautical instruments, insufficiency of hands to navigate the vessel, or incompetency of the master. It might be supposed, at first sight, that insurance affords a much less perfect security than it really does, seeing on how many pleas it is possible for the insurer to dispute his liability; but when it is considered that the proof of unseaworthiness is thrown upon the defendant, and that the leaning of the courts is almost always in favour of the insured, it will be easy to suppose that no respectable insurers would ever plead unseaworthiness,

unless they could make out a case of more than ordinary strength and clearness. The degree of uneasiness felt by merchants and ship owners at their liability to be involved in loss by cases of unseaworthiness, may be guessed from the fact that although the Indemnity Assurance Company at one time precluded themselves from pleading unseaworthiness by a special clause in their policy, not only did they obtain no additional premium in consequence thereof, but they did not even obtain a preference over other companies and individuals at the same premium. At least, this fact must either be admitted as a proof of the absence of uneasiness on this head, or of that inveteracy of habit which seems to lead the great bulk of mankind always, if possible, to continue undeviatingly in those courses to which they are accustomed, even where the benefits to be derived from a deviation are undeniable.

6. *Protraction of the Voyage.* — All loss arising from unusual protraction of the voyage. Thus, if a ship meet with an accident in the Baltic, and the repairs detain the vessel till the close of the season, when the passage home is rendered impracticable by the ice till the opening of the ensuing season, no payment is made to the merchant, in mitigation of his loss from interest of money, loss of market (if the market fall), or deterioration in the quality of his goods (unless arising from actual sea damage); nor to the ship owner, in mitigation of his loss from the extra wages and maintenance of his crew. In most foreign countries the ship owner is remunerated by the insurers for the wages and maintenance of his crew while his ship is detained in consequence of any loss for the making good of which they are liable.

7. *Liability for doing Damage to other Vessels.*—All loss to which the ship owner is liable when his vessel does damage to others. According to our laws, the owner of every ship not in charge of a pilot, that does damage, by negligence of the master and crew, to any description of craft or vessel, is liable to make good the same to the extent of the value of his own ship and freight: for beyond this he is not liable. The common policy in use among the underwriters at Lloyd's and the companies does not protect the ship owner from this loss. But the clubs or associations before mentioned almost universally take this risk. Indeed, this is one of the purposes which gave rise to their formation. But even they limit their liability to the amount of the policy; so that if a ship insured with them were to run down another, and to sink herself in the collision, the owner would only receive the value of his own vessel from the club, and still be liable to the owner of the other vessel. A custom has gained ground of late years, both among the underwriters at Lloyds, and the Insurance Companies, to admit their liability by a clause in their policies for 3-4ths of the loss which the owner of the vessel insured with them may sustain from damage done by his vessel to those of others. If such a case as the one just supposed should occur, the insured would receive by virtue of this clause, the value of his own vessel and 3-4ths of the loss to be made good by him to the owner of the other vessel.

8. *Average Clause.* — The next description of loss of which we shall treat, against which the insured are not protected, is described in the following clause of the policy: — "Corn, fish, salt, seed, flour, and fruit, are warranted free from average, unless general, or the ship be stranded; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under 5 per cent., unless general, or the ship be stranded; and all other goods, also the ship and freight, are warranted free from average under 3 per cent., unless general, or the ship be stranded."

The language employed in this clause, being technical, requires explanation, to render it intelligible to the general reader. Average is a name applied to certain descriptions of loss, to which the merchant and ship owner are liable. There are two kinds of average, general and particular.

General Average comprehends all loss arising out of a voluntary sacrifice of a part of either vessel or cargo, made by the captain for the benefit of the whole. Thus, if a captain throw part of his cargo overboard, cut from an anchor and cable, or cut away his masts; the loss so sustained, being voluntarily submitted to for the benefit of the whole, is distributed over the value of the whole ship and cargo, and is called "general average."

Particular Average comprehends all loss occasioned to ship, freight, and cargo, which is not of so serious a nature as to debar them from reaching their port of destination, and when the damage to the ship is not so extensive as to render her unworthy of repair. Losses where the goods are saved, but in such a state as to be unfit to forward to their port of destination, and where the ship is rendered unfit to repair, are called "partial or salvage loss." The leading distinction, between particular average and salvage loss is, that, in the first, the property insured remains the property of the assured — the damage sustained, or part thereof, as the case may be, and as will be hereafter explained, being made good by the insurer; and in the second, the property insured is abandoned to the insurer, and the value insured claimed from him, he retaining the property so abandoned, or its value.

Particular Average on Goods. — A few cases illustrative of the method of stating a claim for particular average will best explain the nature of this description of loss, and will at the same time show the reader what the practical distinction is between particular average and salvage loss.

The property insured we shall suppose to be *a ton of hemp*, the cost of which at Petersburg is 30*l.*, for which sum it is insured from Petersburg to London, and that the duty, freight, and charges to which the merchant is subject on landing at London are 10*l.* We shall likewise suppose that the hemp, on its arrival, is so damaged as not to be worth more than half what it would have fetched had it been sound. The insurer would then be called upon to make good to the insured 15*l.*, or 50 per cent. upon the sum insured. But it does not follow that this payment of 15*l.* would indemnify the merchant, or that it would not more than indemnify him, for the loss sustained.

	£ s.	£ s.
If the hemp upon arrival in this country would have fetched in a sound state	50 0	
Less duty, freight, and charges	10 0	
		40 0
But in its damaged state is only worth	25 0	
Less duty, freight, and charges	10 0	
		15 0
The merchant's loss by the damage is		£25 0

Whereas he only receives from the insurer 15*l.* Upon the principle of a salvage loss he would also receive 15*l.*

	£ s.	£ s.
If the hemp would have fetched in a sound state	20 0	
Less duty, freight, and charges	10 0	
		10 0
But in its damaged state is only worth	10 0	
Less duty, freight, and charges	10 0	
The merchant's loss by the damage is		£10 0

Whereas he receives from the insurer 15*l.* Upon the ciple of a salvage loss he would receive 50*l.*

	£ s.	£
If the hemp would have fetched in a sound state	30 0	
Less duty, freight, and charges	10 0	
But in its damaged state is only worth	0 0	
Less duty, freight, and charges	10 0	
		5 0
The merchant's loss by the damage is		£15 0

And he receives from the insurer 15*l.* Upon the princip of a salvage loss he would receive 25*l.*

It will be observed that the merchant's loss by the damage of his goods varies with the state of the market. It may also be observed, that in general the merchant will not receive from the insurer the whole amount of the loss that he sustains. Whenever his market is a profitable one (and that it must usually be so will be obvious to every body), whenever, indeed, his market is not a decidedly losing one, his policy does not afford him a complete protection.

The argument in favour of this mode of settling claims for particular average — and it should be observed that the subject has been discussed, and the principle acknowledged in the courts of law —

is, that the insurer's liability is to be guided by the amount upon which he has received a premium or consideration; that he is not to be affected by the rise or fall of markets; but that the *gross* market price of the *sound*, and the *gross* market price of the *damaged* goods, are to be the test by which the rate of damage upon the amount insured is to be adjusted; the insurer being liable, besides, for all the extra charges arising out of the damage.

In the first case stated, the merchant's loss by damage is 25*l.* upon 40*l.*, or 62½ per cent.; in the second, 10*l.* upon 10*l.* or 100 per cent.; in the third, 15*l.* upon 20*l.* or 75 per cent. If the duty, freight, and charges were diminished in proportion to the diminished value of the goods, the loss in each case would be 50 per cent. upon the nett price, as it is 50 per cent. upon the gross price. As far as the duty is concerned, government, upon some articles, reduces it in proportion to the diminution in the value of the goods; and if the freight were reduced in a similar manner, the merchant would always be indemnified for his loss by the insurer. But the practice with regard to freight in this country admits of no such arrangement; freight being paid according to the quantity delivered.

To make the principle upon which claims for particular average are adjusted, and its bearing, still clearer, we shall illustrate it by a few more cases. Suppose two packages to be insured at cost price — a cask of rice and a cask of sugar — each weighing 10 cwt.; the cost of each at the port of shipment 10*l.*, the freight of each 10*s.* per cwt. at the port of delivery, both articles free from duty, and to arrive at a market where no more than the cost price is realised; assuming that both packages are damaged 50 per cent. — the rice by loss of quality, the sugar by loss of weight — the statement will be as follows: —

	£ s.	£ s.
10 cwt. of rice, had it arrived sound, would have produced	15 0	
Less freight on 10 cwt. at 10*s.* per cwt.	5 0	
		10 0
But being damaged, did only produce	7 10	
Less freight on 10 cwt. at 10*s.* per cwt.	5 0	
		2 10
Merchant's loss		£7 10

	£ s.	£ s.
10 cwt. of sugar, if sound, would have produced	15 0	
Less freight on 10 cwt. at 10*s.* per cwt.	5 0	
		10 0
The barrel, being damaged, did only weigh 5 cwt., and produce	7 10	
Less freight on 5 cwt. at 10*s.* per cwt.	2 10	
		5 0
Merchant's loss		£5 0

In each case the merchant is entitled to recover from his insurer 5*l.*, or 50 per cent., upon 10*l.*, the sum insured, which, although an indemnity to him for his loss on the sugar, is far from being so for his loss upon the rice. If the merchant would contrive so to shape his contract with the ship owner for freight, as to reduce the freight in proportion to the depreciation in the value of the damaged commodity, he would be completely protected. The ship owner might on his side protect himself by insurance from loss by reduction of quality, as he now does from loss by reduction of quantity. But we have already more than once adverted to the difficulty of breaking in upon established practices. The merchants go on from year to year complaining of the losses to which they are subjected from this awkward contrivance, while no steps are taken to improve it. To show that the principle is equitable as between the merchant and his insurer, we subjoin one more statement, where the damage is taken at 100 per cent.

	£ s.	£ s.
10 cwt. of rice, if sound, would have produced	15 0	
Less freight on 10 cwt. at 10*s.* per cwt.	5 0	
		10 0
Being totally spoiled, did produce nothing. The merchant being still liable for the freight		5 0
Making his loss		£15 0

He receives 10*l.* only from the insurer.

	£ s.	£ s.
10 cwt. of sugar, if sound, would have produced	15 0	
Less freight on 10 cwt. at 10*s.* per cwt.	5 0	
		10 0
The barrel being washed out produces nothing. The merchant, however, not being liable to pay freight		
His loss is only		£10 0

Which he recovers from the insurer.

It will be observed, that in each case the insurer pays 10*l.*, or the full sum upon which he receives the premium.

When whole cargoes, or parcels of goods of considerable value, are insured, the clause in the policy which protects the insurer from particular average under a certain percentage is often partially set aside. Thus, if a cargo of 500 hogsheads of sugar, valued at 10,000*l.* were damaged to the extent of 460*l.*, the merchant, supposing the protecting clause to remain in force, would recover nothing from the insurer, the loss not amounting to 5 per cent. The additional written clause, by which it is the practice to modify the printed clause, is as follows: — "Particular average, payable upon each 10 hhds. sugar, 10 casks and 50 bags coffee, and 10 bags cotton, following numbers, and upon each package of manufactured goods, chest of indigo, bag of wool or silk, the same as if separately insured." Such clauses may be, and are, introduced *ad libitum* by mutual consent of insurer and insured, the premium or consideration being arranged accordingly.

The protecting clause is considered, on the other hand, by the insurers, exceedingly unsatisfactory in some respects; and they, as occasion requires, insist upon additional protection. Thus, saltpetre, hides, cocoa, and tin plates, are generally warranted free from particular average, unless the ship be stranded; and upon tobacco, it is customary for the insurers to make themselves liable only to such part of the particular average as exceeds 5 per cent., throwing 5 per cent. upon the merchant.

Particular Average on Freight. — The clause, as far as it affects "freight," calls for no particular comment. Particular average upon freight can only arise, according to prevailing practice, from loss of weight; and whenever the loss of weight amounts to 3 per cent. or upwards, the ship owner is entitled to recover from his insurer. The ship owner, upon the arrival of the ship at its port of destination, is entitled to hold the goods as security until the freight is paid. If the owner of the goods should prove insolvent, and the goods should be entirely spoiled by sea damage during the voyage, and the ship owner thus lose his freight, he has no claim upon the insurer; because, although his collateral security is destroyed by a peril of the sea, his right to receive freight remains unimpaired, and it is against the loss or impairing of this right that the insurer protects him.

Particular Average on Ships. — Particular average upon ships is a subject somewhat more beset with difficulties. There is scarcely a ship that makes a voyage of any length, that does not sustain some damage. The clause in the policy warranting the ship free from particular average under 3 per cent., unless stranded, protects the insurer from the constant recurrence of petty claims; but in addition to this, it is the practice to class the damage that a ship sustains in the prosecution of her voyage under two heads: ordinary damage, or wear and tear; and extraordinary damage, or particular average. The splitting of sails, the breaking of anchors and cables, the upsetting of windlasses, are losses that come under the first head. The carrying away of masts and bulwarks, damage to the copper sheathing and hull from striking on rocks, come under the second.

When a ship sustains damage, if she be on her first voyage, the whole expense of the repairs is made good by the insurers. But if she be not on her first voyage, it is the established custom that the insurer pays no more than 2-3ds of the repairs, the owner of the vessel having, as it is thought, an equivalent for the 1-3d which falls upon him, in the substitution of new work for old. Where the nature of the damage is such as to require that the copper should be stripped off the ship's bottom, the insurer pays the difference between the price of the old and the new copper on the weight of the old copper stripped off; the excess in weight of the new over the old copper is paid for by the ship owner; and the labour of stripping and replacing the copper is paid for on the principle already mentioned. In any general

rule of this kind, it must be obvious that the ship owner will sometimes gain and sometimes lose by an accident. As soon as the ship owner, or his captain, learns that his vessel has met with an accident, or as soon after as possible, he summons regular surveyors to examine his vessel and report all defects, discriminating between those defects that have arisen from perils of the sea, and those from wear and tear. The first only are made good by the insurer, together with all charges, such as surveyors' fees, dock dues, &c., caused by the necessity of undergoing repair. It has been already observed, that when a ship is obliged, in the progress of her voyage, to put into port for the purpose of repair, although the owner of the ship be subjected to great expense for the wages and maintenance of his crew during the detention, he can recover no part of this expense from the insurer; the doctrine being, that the owner of the ship is bound to navigate his vessel, and that the insurer does not undertake to guarantee that the voyage shall be completed within any specific time. Such is the doctrine, at least, in this country, and the practice is founded upon it; but in all other countries the doctrine and practice are the reverse. For in them allowance is made to the ship owner for the wages and maintenance of the crew during the whole period that the ship is under repair. Where a vessel sustains damage and undergoes repair in the progress of her voyage, and is subsequently lost, the insurer is liable both for the particular average and a total loss. Or the owner of the ship may, if he please, insure the amount expended in repair; and then, in the event of subsequent loss, the insurer is liable for the total loss only; but in the event of subsequent safe arrival, the average is augmented by the charge of insurance.

The operation of the clause warranting the ship free from average under 3 per cent., unless general, or the ship be stranded, may now be clearly seen. If a ship be insured and valued at 10,000*l.*, and the repairs of the vessel do not, after all the deductions above referred to, amount to 3 per cent., there is no claim upon the insurer, unless the vessel shall have been stranded.—(See AVERAGE.)

Stranding.—The term stranded is not well chosen, admitting of more than one construction; and the clause of which it forms a part is imperfectly conceived. And in settlements of accounts, when differences arise, the parties who discuss them are more apt to strive for that interpretation of terms and clauses which is favourable to their interests, than for that which is best adapted for general purposes. It is commonly understood that merely striking the ground and coming off is not a stranding; it being necessary, in order to fall within that term, that the ship should remain on the ground or rock, as it may happen, and that efforts should be made to float her. Striking on an anchor and leaking dangerously is not a stranding. We shall only adduce two illustrations, for the purpose of showing how ill adapted this clause is as a means to an end. Corn and other such articles are warranted free from particular average, unless the ship be stranded, because the insurers, considering these articles to be peculiarly susceptible of damage, will not consent to take that risk, except on some extraordinary occasion. A ship, laden with corn, makes a very stormy passage from the Baltic to London, and damages the whole of her cargo. Upon arrival off our coast she is stranded, but got off without straining or sustaining any damage. The insurer is held to be liable for the damage to the corn, under the clause of the policy. On another occasion, after a very favourable passage to our coast, a ship strikes upon a shoal, but is not stranded, sustaining, however, so much damage that she arrives at London with 6 feet water in her hold, and her cargo almost wholly spoiled. The insurer is held not to be liable under the clause of the policy.

General Average.—The insurer is bound to make good all general average without exception, however trifling the account. General average is treated as though altogether unconnected with particular average; and damage to the goods not amounting to 3 per cent. is not payable by the insurer, although there may be also a general average, and the general and particular average together may amount to more than 3 or 5 per cent. General average is a charge which must be paid by the merchant and ship owner, even if uninsured; although, when insured, he transfers, as it were, in virtue of his insurance, the charge from himself to his insurer. All the elements that can by possibility enter into general average may be classed under four heads:—1. Sacrifice of part of the ship and stores; 2. Sacrifice of part of the cargo and freight; 3. Remuneration of services required for general preservation; 4. Expense of raising money to replace what has been sacrificed, and to remunerate services.

1. When any part of the ship is sacrificed for the general benefit, the owner is entitled to receive (deducting, of course, his share of contribution) the amount of his outlay in the replacing of such sacrifice; allowance being made, on the principle stated above, where old works and materials are replaced with new. The deduction of 1-3d, however, does not invariably apply. For instance, 1-6th only is taken off the price of an iron cable that is slipped from for the general benefit, because iron cables are calculated to last for a great number of years; and no reduction is ever made from the price of anchors. The charge of replacing the loss may amount to considerably more than the value lost, computing the value at the place where the ship was originally fitted. Thus, the cost of replacing an anchor and cable slipped from in the Downs, is frequently double the value of the anchor and cable at London. But whatever the charge may be, such charge forms the basis of settlement.

2. Sacrifice of the cargo and freight takes place in jettison, or where part of the cargo is flung overboard to lighten the vessel. Upon arrival in port, after such jettison, the owner of the goods jettisoned is entitled to receive (deducting his share of contribution) what the goods would have produced nett to him, supposing them to have arrived sound; and the owner of the ship is entitled to receive (deducting his share of contribution) the freight to which he would have been entitled upon the safe delivery of the goods.

3. Remuneration of services and other charges. When a ship loses her anchors and cables, very large sums are frequently awarded to boatmen who venture off to her with new ones at the imminent hazard of their lives. A ship disabled at sea is towed into port by another, and remuneration for such service is awarded according to the value saved, the detention occasioned, and the loss sustained. The ship rendering the service may be laden with fish or fruit, that may be totally spoiled by the detention, or may be in ballast. A ship captured by the enemy may be re-captured by a man of war or armed merchant vessel; here, again, salvage is awarded according to the circumstances of the case. All these charges are general average; that is to say, must be distributed over ship, freight, and cargo. When a ship, with her cargo, is driven on shore, the expense of attempting to get her off is general average. If she cannot be got off without discharging, the expense of discharging is general average; but the expense of getting the ship off after the cargo has been taken out falls exclusively upon the ship. The warehousing of the cargo, and other expenses incurred for its preservation, are charges exclusively upon the cargo. The expense of reloading is borne by the freight. When a ship puts into port in distress, the pilotage inwards is general average; the pilotage outwards is a charge upon the freight. This distribution of charges has settled into a tolerably well established practice; and upon this principle claims are settled at the offices, and at Lloyd's.

4. The money required to meet the above charges is sometimes attainable without expense. If the accident happen near home, and the ship owner be respectable, he advances the money and recovers from the various parties concerned so soon as the accounts can be made up: or if the accident happen in a foreign port, where the owner of the ship is well known, the captain's bill upon him will sometimes be received in payment of the charges incurred. But where such facilities do not exist, the captain is empowered to pledge his ship, freight, and cargo, as security to any one he may prevail upon to supply the necessary funds. This pledge is termed a bottomry bond. By it the captain admits the receipt of the money; consents to the payment of a premium (which varies with the distance of the port of destination, the risk of the voyage, the respectability of the owner and the necessities of the captain); and assigns the ship, freight, and cargo, as security for the repayment of the money advanced and the stipulated premium. Should the captain consider the bottomry premium demanded of him exorbitant, or should he deem it preferable in other respects, he may sell a portion of the cargo for the purpose of raising such

money as he may stand in need of towards the prosecution of his voyage. The expense of raising the requisite funds, whether by commission, by bottomry premium, or by loss on the sale of the cargo, is charged to those parties for whose interest the money is required. Thus, if a ship, having struck upon a rock, puts into port in distress, and is obliged to unload to repair; supposing the particular average upon the ship to amount to 500*l.*; the general average, consisting of assistance into port and expense of unloading, 200*l.*; particular charges on freight, consisting of expense of reloading and pilotage outwards, 100*l.*; and particular charges on cargo, consisting of warehouse rent and repair of packages, 200*l.*; and the expense of raising money should be 20 per cent.; — these sums would be severally increased by this addition, and would be raised to 600*l.*, 240*l.*, 120*l.*, and 240*l.* — (See BOTTOMRY.)

It still remains to be inquired in what proportion the general average is to be paid by the different owners of the cargo, and the owner of ship and freight. Almost all general averages are adjusted at the ship's port of destination, and the values of the ship and cargo are taken at what they would produce in their actual state upon arrival, and the freight according to what is actually receivable, less the wages of the captain and crew; the general average being distributed in proportion to these values. Should the cargo be altogether worthless, it cannot be made to contribute; and should the wages of the crew exceed the freight, then the freight is not liable to contribute. In case of jettison, the party whose property has been sacrificed for the general benefit receives indemnity on the same principle; the value to which he is entitled being what his property would have produced *nett*, supposing it to have been sold on the arrival of the vessel — the same value serving for the basis of his proportion of contribution. Some few cases occur where the general average is adjusted at the port of departure. Thus, if a ship, outward bound to the British colonies, cut from an anchor and cable in the Downs, or incur other general average on our own coast, the insurances being principally effected in this country, it is the custom to adjust it on the spot, by which means both delay and expense are avoided. On these occasions, the values at the port of shipment are taken as the basis of contribution. A total loss, subsequently to a general average, does not exonerate the insurer from his prior liability; and although it is customary with the ship owner, or his agent, specifically to insure the money expended in average, for the purpose of protecting the insurer against any greater liability than 100 per cent., he is not absolutely obliged to do so. When the average funds are raised by bottomry, the party advancing them takes the ship, freight, and cargo, as security, and charges a premium to cover the risk of the ship's non-arrival at her port of destination. And thus, on such an occasion, a subsequent total loss relieves the insurer from all liability to average.

The laws and customs by which averages are adjusted vary in different countries; but the insurer in this country is only liable for the averages adjusted according to our laws. The merchant, however, whose goods arrive at a foreign port, is obliged to submit to the laws of that port. He may thus be a considerable loser; paying general average according to one law, and receiving from his insurer according to another. And he never can be a gainer, because, before he is entitled to recover from his insurer, he must prove that he has paid to the owner of the ship. This is one of the many inconveniences to which mercantile men are exposed, which cannot be entirely removed without, what it may be hoped will gradually take place, an assimilation of the commercial laws of different countries. A partial remedy for this grievance has been found in the introduction of a clause, into policies when the ship is bound to a foreign port, to this effect: general average to be paid according to the foreign statement.

Proof of Loss.—The policy of insurance is the instrument upon which the merchant and ship owner claim indemnification for all losses that are not specially excepted." The proof that the loss has been sustained must also be exhibited; such as the title to the vessel and cargo, and the evidence of the captain and crew to establish the circumstances out of which the claim arises. If A. were to insure his vessel for the space of 12 months, and at the expiration of 6 months were to sell his ship to B.; A.'s interest in the vessel having ceased, so also does his insurer's liability, unless the policy be sold with the ship; and B., if he wish to be protected, must make a new insurance, or purchase A.'s policy. Proof of ownership, therefore, is an essential preliminary to the recovery of a claim. In general practice, no difficulty arises from this, because the fact of ownership is sufficiently notorious. The bill of ading is, in most cases, satisfactory proof that the cargo was on board, as well as of the amount of freight.

Valued and open Policies. — If an insurance for 2,000*l.* be effected upon 100 hhds. of sugar, valued at 20*l.* per hhd., the bill of lading, showing that the vessel had 100 hhds. on board, establishes the interest at 2,000*l.*, and the policy is termed a valued policy. But if an insurance for 2,000*l.* be effected on 100 hhds. of sugar, and nothing be expressed as to value, the bill of lading only establishes that 100 hhds. are on board, without establishing the amount of interest. The production of the invoice, showing the cost of the goods, is necessary to that end, the policy being termed an open one.

Return of Premium for short Interest. — In a valued policy, when the whole of the property insured does not appear to have been shipped, the difference between the quantity insured and the quantity shipped is termed short interest. Thus, if 2,000*l.* be insured upon 100 hhds. of sugar, valued at 20*l.* per hhd., and 80 hhds. only be shipped; as the insurer's liability does not extend beyond 1,600*l.*, so he is obliged to return the premium upon 400*l.* to which no risk attaches. This return of premium is called a return for short interest.

For Over-Insurance. — In an open policy, where the value shipped is not equal to the value insured, the difference is termed over-insurance. If a merchant, A., make an insurance for 5,000*l.* upon goods, without specifying any value, from Calcutta to London, the premium being 60*s.* and the stamp duty 4*s.* per cent., the amount of interest that attaches to the policy is so fixed, that he is neither to gain nor lose by the transaction in the event of the vessel's loss, supposing his insurance to be sufficient. To entitle him to recover a profit, the profit to be insured must be stipulated in the policy. The expense of insurance upon 100*l.* being 3*l.* 4*s.*, it is clear that every 100*l.* insurance covers 96*l.* 16*s.* original cost; that is to say, protects the merchant from loss to that extent in case of the loss of the vessel. If, then, we assume the invoice of the goods shipped to be 40,000 rupees, or, at the exchange of 2*s.* per rupee, 4,000*l.*, the interest attaching to the policy is ascertained as follows: If 96*l.* 16*s.* cost is insured by 100*l.* insurance, what will the 4,000*l.* cost be insured by? Answer, 4,132*l.* Under such circumstances, although a policy exists for 5000*l.*, the insured is not able to prove interest for more than 4,132*l.*; and consequently, the insured being entitled to recover no more than that sum in case of loss, the insurer is called upon to make a return of premium for over-insurance upon 868*l.*

Although we have treated separately of returns for short interest and over-insurance, we should observe that these terms in practice are used indiscriminately; and, indeed, we cannot say that we perceive much advantage in making the distinction, or preserving the distinctive appellations.

It sometimes happens that the property expected in a vessel is not all insured at one time or in one policy. But this makes no difference in the principle of settlement according to our law: although, according to the laws of most other countries, the policies take precedence of one another according to their dates, the whole short interest falling upon the policy or policies last effected. The foreign law, in this instance, appears to us the more equitable and reasonable of the two; and that our reason for thinking so may be intelligible, and thus gain assent or meet with refutation, we shall state a case of short interest upon a number of policies, such as not unfrequently appears. A merchant, A., orders his correspondent at Calcutta to ship for his account a quantity of sugar, not exceeding 1,000 tons, at a price not exceeding 20*l.* per ton. In due time he receives a letter from his correspondent acknowledging the receipt of his order, and expressing confident hopes of being able to purchase the quantity, or the greater part of it, at the limits prescribed, and promising to advise as he proceeds. A., on receipt of this letter, say on the 1st of January, makes a provisional insurance for 5,000*l.* upon sugar valued at 20*l.* per ton. Continuing without further advices, and fearing lest his correspondent's letter should have miscarried, and that he might have property afloat uninsured, on the 1st of February, 1st of March, and 1st of April, he effects similar

insurances, thus covering the whole 1,000 tons. He subsequently receives advice that his correspondent had not been able to purchase more than half the quantity ordered, at his limit, and he recovers from his insurers half the premium upon each policy. Now, it was not at all improbable that he might have received advice from his correspondent, as he expected, much sooner. And if he had received advice in the middle of February, of the shipment of 500 tons, and that the ship which contained them was totally lost in the river Hooghly, the insurers upon the two first policies would have been liable for a total loss. And it appears to us a defective arrangement, by which a party, who is at one time exposed to a total loss, should at another be compelled to return half his premium. It is true that the merchant may, if he please, insert in his policies a clause by which the policies shall be made to succeed one another; but we should say that the law, in insurance cases, as in the disposal of the property of deceased persons, ought to be the best general disposition, leaving to individuals the right of modification according to particular circumstances.

Return for Double Insurance.—Besides returns for short interest and over-insurance, there are returns for double insurance. They are, in fact, to all intents and purposes, the same thing. Double insurance exists where the party, through forgetfulness, makes an insurance upon his property twice over; or where the shippers and consignees of goods, when uncertain of one another's intentions, effect each an insurance upon them; or where the captain of a vessel in foreign parts, fearing lest his advices should not reach his owner, effects an insurance upon it, and the owner at the same time, acting with equal caution, effects one also. The observations already made upon returns for short interest, and upon the difference between our laws and those of other countries, apply with equal force here.

We have now gone over all the principal topics connected with marine assurance. Those who peruse this article with ordinary attention will, we hope, gain a tolerably clear insight into the principles and practice of the business. But a perfectly familiar acquaintance with it can only be acquired by those who are daily conversant with its details.

Duty on Policies of Marine Insurance.—This is regulated by the act of 1844, 7 Vict. c. 21.

	£	s.	d.
For every policy of assurance or insurance, or other instrument, whereby any insurance shall be made upon any vessel, or upon goods, or other property on board any vessel, or upon the freight of any vessel, or upon any other interest relating to any vessel which may lawfully be insured for any voyage whatever, the following duties, where the whole sum insured shall not exceed 100*l.*, and where the whole sum insured shall exceed 100*l.*, then for every 100*l.*, and also for any fractional part of 100*l.*, whereof the same shall consist; viz.—			
Where the premium or consideration for such insurance shall not exceed the rate of 10*s.* per cent on the sum insured - - - -	0	0	3
And where the same shall exceed 10*s.* per cent, and not exceed 20*s.* - - - -	0	0	6
20*s.* and not exceeding 30*s.* - -	0	1	0
30*s.* and not exceeding 40*s.* - -	0	2	0
40*s.* and not exceeding 50*s.* - -	0	3	0
50*s.* - - - -	0	4	0
But if the separate interests of 2 or more persons be insured by one policy or instrument, then the said respective duties, as the case may require, shall be charged thereon in respect of each fractional part of 100*l.*, as well as in respect of every full sum of 100*l.*, which shall be thereby insured upon any separate and distinct interest.			
And for every policy of assurance or insurance, or other instrument whereby any such insurance shall be made for any certain term or period of time, the following rates for every 100*l.*, and also for any fractional part of 100*l.*, whereof the same shall consist, viz.—			
Where any such insurance shall be made for any period not exceeding 6 calendar months -	0	2	6
Exceeding 6 calendar months -	0	4	0
And for every policy of assurance or insurance, or other instrument, whereby any insurance, commonly called a *mutual insurance*, shall be made, or whereby divers persons shall insure or agree to insure one another without any premium or pecuniary consideration from any loss, damage, or misfortune that may happen to any vessel, or any goods, or property on board of any vessel, or the freight of any vessel, or any other interest relating to any vessel which may lawfully be insured upon any voyage whatever, and not for any period of time.			
For every 100*l.*, and also for each fractional part of 100*l.*, thereby insured to any person or persons -	0	2	6

If any person shall become an assurer upon any insurance in respect whereof any duty is by this act made payable, or shall subscribe or underwrite, or otherwise sign or make or enter into any contract, agreement, or memorandum of any such insurance, or shall receive or contract for any premium or consideration for any such insurance, or shall receive or charge or take credit in account for any such premium or consideration, or any sum of money for any such premium or consideration as aforesaid, or shall wilfully or knowingly take upon himself any risk, or render himself liable to pay, or shall pay, or allow or agree to pay, or allow in account or otherwise, any sum of money upon any loss, peril, or contingency relative to any such insurance, unless such shall be written on vellum, parchment, or paper duly stamped, or if any person be concerned in any fraudulent contrivance or device, or shall be guilty of any wilful act, neglect, or omission with intent to evade the duties payable under this act on policies of insurance, or whereby any such duties shall be evaded, every person so offending shall for every such offence forfeit 100*l.*: provided, that nothing herein shall extend to subject any member, officer, or servant of the London Assurance or Royal Exchange Assurance Corporations respectively to any of the penalties by this act imposed, for his making any agreement to insure by any label, slip, or memorandum in writing upon unstamped paper; provided that in every such case the day on which such agreement shall be made shall be truly expressed in words at length on such label, slip, or memorandum, and a policy of insurance according to such agreement shall be made out in due form on vellum, parchment, or paper duly stamped, and which shall be duly executed within 3 office days from the time of making such agreement.

This duty was reduced in 1833, and again in 1844, and is now less than half what it was formerly. This reduction must, of course, be beneficial. But the tax is altogether wrong in principle, and should be repealed altogether. Its obvious tendency is to discourage the coasting trade, by imposing a duty on goods carried by sea, from which those carried by land and canals are exempted. But the influence of the tax on vessels engaged in the foreign or colonial trade is still more objectionable. It is immaterial to a merchant sending a ship to sea, whether he insure her in London, Amsterdam, or Hamburg; and as policies executed in the last two cities are either wholly exempted from duties, or subject to such as are merely nominal, the effect of the duty is to transfer to the Continent a considerable part of the business of marine insurance, that would otherwise be transacted in London. It is plain, therefore, that this duty operates to drive a valuable branch of business from amongst us; and though it had no such effect, still it is sufficiently clear that a tax on providence, or on the endeavour to guarantee the safety of property at sea, is not one that ought to exist in any country, and least of all in so commercial a country as England.*

Form of a Policy of Insurance executed at Lloyd's.

S. G.

£800.

In the Name of God, Amen. Charles Brown and Co., as well in their own names as for and in the name and names of all and every other person or persons to whom the same doth, may, or shall appertain, in part or in all, doth make assurance, and cause themselves and them and every of them to be insured, lost or not lost, at and from Petersburg to any port or ports in the United Kingdom, upon any kind of goods and merchandises, and also upon the body, tackle, apparel, ordnance, munition, artillery, boat, and other furniture, of and in the good ship or vessel called the Swift, whereof is master, under God, for this present voyage, Bright, or whoever else shall go for master in the said ship, or by whatsoever other name or names the said ship, or the master thereof, is or shall be named or called; beginning the adventure upon the said goods and merchandises from the loading thereof on board the said ship
upon the said ship, &c.

and so shall continue and endure during her abode there, upon the said ship, &c. And further, until the said ship, with all her ordnance, tackle, apparel, &c. and goods and merchandises whatsoever, shall be arrived at her final port of discharge (as above), upon the said ship, &c., until she hath moored at anchor twenty-four hours in good safety; and upon the goods and merchandises, until the same be there discharged and safely landed. And it shall be lawful for the said ship, &c. in this voyage, to proceed and sail to, and touch, and stay at any ports or places whatsoever, *without* prejudice to this insurance. The said ship, &c. *goods and merchandises*, &c. for so much as con-

* This very valuable article (on Marine Insurance) has been, as the reader will easily perceive, furnished by a gentleman thoroughly conversant with the principles and details of the business.

cerns the assured, by agreement between the assured and assurers in this policy, are and shall be valued at eight hundred pounds, being on the captain's one fourth share of said ship, said one fourth share valued at that sum. Touching the adventures and perils which we the assurers are contented to bear, and do take upon us in this voyage: they are of the seas, men-of-war, fire, enemies, pirates, rovers, thieves, jettisons, letters of mart and countermart, surprisals, takings at sea, arrests, restraints, and detainments of all kings, princes, and people, of what nation, condition, or quality soever, barratry of the master and mariners, and of all other perils, losses, and misfortunes, that have or shall come to the hurt, detriment, or damage of the said goods and merchandises and ship, &c. or any part thereof; offences against the revenue of the United Kingdom of Great Britain or Ireland excepted. And in case of any loss or misfortune, it shall be lawful for the assured, their factors, servants, and assignees, to sue, labour, and travel for, in, and about the defence, safeguard, and recovery of the said goods and merchandises and ship, &c. or any part thereof, without prejudice to this insurance; to the charges whereof we the assurers will contribute, each one according to the rate and quantity of his sum herein assured. And it is agreed by us, the insurers, that this writing, or policy of insurance, shall be of as much force and effect as the surest writing or policy of assurance heretofore made in Lombard Street, or in the Royal Exchange, or elsewhere in London. And so we the assurers are contented, and do hereby promise and bind ourselves, each one for his own part, our heirs, executors, and goods to the assured, their executors, administrators, and assigns, for the true performance of the premises, confessing ourselves paid the consideration due unto us for this assurance by the assured, at and after the rate of five guineas per cent., to return one pound per cent. if the voyage end on the east coast of England.

In Witness whereof, we, the assurers, have subscribed our names and sums assured in London.

N. B. — Corn, fish, salt, fruit, flour, and seeds, are warranted free from average, unless general, or the ship be stranded.—Sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under five pounds per cent.: and all other goods, also the ship and freight, are warranted free from average under three pounds per cent., unless general, or the ship be stranded.

£900. Joseph White, Five hundred pounds. 1st of Sept. 1855.

£300. Thomas Black by George Green, Three hundred pounds. 1st of Sept. 1855.

Policy by the Indemnity Mutual Marine Assurance Company. Established 1824.

£5,000. Whereas William Grey hath represented to us whose hands and seals are hereunto subscribed and affixed, and who are two of the directors of the Indemnity Mutual Marine Assurance Company, that he is interested in, or duly authorised as owner, agent, or otherwise, to make the assurance hereinafter mentioned and described, with the Indemnity Mutual Marine Assurance Company and hath covenanted or otherwise obliged himself to pay forthwith for the use of the said Company, at the office of the said Company, the sum of sixty-two pounds ten shillings as a premium or consideration, at and after the rate of twenty-five shillings per cent. for such assurance. Now this Policy of Assurance witnesseth, that in consideration of the premises and of the said sum of sixty-two pounds ten shillings, We do, for ourselves and each of us, covenant and agree with the said William Grey, his executors, administrators, and assigns, that the capital stock and funds of the said Company, shall, according to the provisions of the deed of settlement of the said Company, and the resolutions entered into at two extraordinary general courts of the said Company held on the twenty-ninth day of August, and the twentieth day of September, one thousand eight hundred and twenty-seven, be subject and liable to pay and make good, and shall be applied to pay and make good all such losses and damages herein-after expressed as may happen to the subject matter of this policy, and may attach to this policy in respect of the sum of five thousand pounds hereby assured, which assurance is hereby declared to be upon

Stamp £6. 5s. C 1/ 250. 250 hhds. of sugar valued at 20*l.* each, average payable upon each 10 hhds. following landing numbers, the same as if separately insured, laden or to be laden on board the ship or vessel called the Nelly, whereof Turner is at present master, or whoever shall go for master of the said ship or vessel, lost or not lost, at and from Grenada to London, including the risk of craft to and from the vessel, warranted to sail on or before the 1st of August, 1855. And We do covenant and agree, that the assurance aforesaid shall commence upon the said ship, at and from Grenada, and until she hath moored at anchor twenty-four hours in good safety; and upon the freight and goods or merchandise on board thereof, from the loading of the said goods or merchandise on board the said ship or vessel at London, and until the said goods or merchandise be discharged and safely landed at.

And that it shall be lawful for the said ship or vessel to proceed and sail to, and touch, and stay at any ports or places whatsoever, in the course of her said voyage, for all necessary purposes, without prejudice to this assurance. And touching the adventures and perils which the capital stock and funds of the said Company are made liable unto, or are intended to be made liable unto, by this assurance, they are, of the seas, men-of-war, fire, enemies, pirates, rovers, thieves, jettisons, letters of mart and countermart, surprisals, takings at sea, arrests, restraints, and detainments of all kings, princes, and people, of what nation, condition, or quality soever; barratry of the master and mariners, and of all other perils, losses, and misfortunes, that have or shall come to the hurt, detriment, or damage of the aforesaid subject matter of this assurance, or any part thereof. And in case of any loss or misfortune, it shall be lawful to the assured, their factors, servants, and assigns, to sue, labour, and travel for, in, and about the defence, safeguard, and recovery of the aforesaid subject matter of this assurance, or any part thereof, without prejudice to this assurance, the charges whereof the capital stock and funds of the said Company shall bear in proportion to the sum hereby assured. And it is declared and agreed, that corn, fish, salt, fruit, flour and seed, shall be and are warranted free from average unless general, or the ship be stranded; and that sugar, tobacco, hemp, flax, hides, and skins, shall be and are warranted free from average under five pounds per centum; that all other goods, also the ship and freight, shall be and are warranted free from average under three pounds per centum, unless general, or the ship be stranded. Provided Nevertheless, that the capital stock and funds of the said Company shall alone be liable, according to the provisions of the deed of settlement, and the resolutions above-mentioned, to answer and make good all claims and demands whatsoever, under or by virtue of this policy; and that no proprietor of the said Company, his or her heirs, executors or administrators, shall be in anywise subject or liable to any claims or demands, nor be in anywise charged by reason of this policy beyond the amount of his or her share or shares in the capital stock of the said Company, it being one of the original or fundamental principles of the said Company, that the responsibility of the individual proprietors shall, in all cases, be limited to their respective shares in the said capital stock.

In Witness whereof, We have hereunto set our hands and seals in London, the tenth day of January, 1855.

Sealed and delivered in the presence of E. F.

A. B. (L. S.)
C. D. (L. S.)

III. Insurance (Fire).

Insurance against fire is a contract of indemnity, by which the insurer, in consideration of a certain premium received by him, either in a gross sum or by annual payments, undertakes to indemnify the insured against all loss or damage he may sustain in his houses or other buildings, stock, goods, and merchandise, by fire, during a specified period.

Insurances against fire are almost invariably made by Joint Stock Companies, of which there are one or more in all the considerable towns, with few exceptions, throughout the empire. Of these, the *Sun*, *Phœnix*, &c. insure at their own risk and for their own profit: but there are others, which are called mutual insurance offices, such as the Norwich Union, County, Westminster, &c., in which every person insured becomes a member or proprietor, and participates in the profit or loss of the concern.

The conditions on which the different offices insure are contained in their *proposals*, which are printed on the back of every policy; and it is in most instances expressly conditioned, that they undertake to pay the loss, not exceeding the sum insured, "*according to the exact tenor of their printed proposals.*"

Nothing can be recovered from the insurers, in the event of loss, unless the party insuring had an interest or property in the thing insured at the time when the insurance was effected, and when the loss happened. It often occurs that one office will not insure to the full amount required by an individual who has a large property; and in such case the party, to cover his whole interest, is obliged to insure at different offices. But, in order to prevent the frauds that might be practised by insuring the full value in various offices, there is, in the proposals issued by all the companies, an article which declares, that persons insuring must give notice of any other insurance made elsewhere upon the same houses or goods, that the same may be specified and allowed by indorsement on the policy, in order that each office may bear its rateable proportion of any loss that may happen: and unless such notice be given of each insurance to the office where another insurance is made on the same effects, the insurance made without such notice will be void.

Any trustee, mortgagee, reversioner, factor, or agent, has sufficient interest in the goods under his custody, to effect a policy of insurance, provided the nature of such interest be distinctly specified at the time of executing such policy.

Most of the offices stipulate in their proposals against making good any loss occasioned by "invasion," "foreign enemy," "civil commotion," &c.; and under this condition the Sun Fire Office was exonerated from the loss occasioned by the disgraceful proceedings of the mob in 1780.

The risk commences in general from the time the proposal is *accepted* by the office, unless there be some other time specified.

Policies of insurance may be effected for any period. If for a year (which is most customary) or for a term of years by a single payment, it is usual for the office, by way of indulgence, to allow fifteen days after each year, or term of years, for the payment of the premium for the next period in succession; and provided the premium be paid within that time, the insured is considered within the protection of the office.

A policy of insurance is not in its nature assignable, nor can it be transferred without the *express consent* of the office. When, however, any person dies, his interest remains in his executors or administrators respectively, who succeed or become entitled to the property, provided such representatives respectively procure their right to be indorsed on the policy.

(For further details, see *Marshall on Insurance*, book iv.; *Park on Insurance*, c. 23.)

Insurances are generally divided into *common*, *hazardous*, and *doubly hazardous*. The distinguishing characteristics of these may be learned from the subjoined proposals of the Sun Fire Office. The charge for insuring property of the first description is now usually 1*s.* 6*d.* per cent., the second 2*s.* 6*d.*, and the third 4*s.* 6*d.* These charges are exclusive of the duty payable to government of 3*s.* per cent. on the amount of the policy. There is also a stamp duty of 1*s.* on each policy, which is borne by the office.

We subjoin a copy of a policy of insurance on a house valued at 1000*l.* and furniture, plate, hooks, &c. in the same, valued also at 1000*l.*, executed by the Sun Fire Office, and of the proposals and conditions endorsed on the same.

The latter correspond in most particulars with those issued by the other offices.

*Sun Fire Insurance Office.

Received, for the Insurance of the property undermentioned, from Michs. 1854 to Michs. 1855,

	£	s.	d.
Policy	0	0	0
Annual Premium	1	16	0
Odd Time	0	0	0

SUN FIRE OFFICE.

	£	s.	d.
Annual Duty	3	0	0
Odd Time	0	0	0
Total present payment	4	16	0

No. ——

Whereas A. B. Esq. of No. —— Street, has paid the sum stated in the margin of this policy to the Society of the Sun Fire Office in London, and has agreed to pay, or cause to be paid to them, at their said office, the sum of one pound and sixteen shillings on the 29th of September yearly, during the continuance of this policy, for insurance from loss or damage by fire, on

	£
His now dwelling-house and offices, all communicating, situate as aforesaid, brick	1000
Household goods, wearing apparel, printed books, and plate therein only	760
Musical instruments therein only	40
Pictures and prints therein only	90
China and glass therein only	110
	£2000

Now, know ye, That from the date of these presents, and so long as the said assured shall duly pay, or cause to be paid, the said sum at the times and place aforesaid; and the trustees or acting members of the said Society for the time being shall agree to accept the same; the stock and fund of the said Society shall be subject and liable to pay to the said assured, his executors, administrators, and assigns, all such damage and loss which the said assured shall suffer by fire, not exceeding upon each head of insurance, the sum or sums above-mentioned, amounting in the whole to no more than two thousand pounds, according to the exact tenor of their printed proposals, endorsed on this policy, and of an act of parliament of the 55th of George the Third, for charging a duty on persons whose property shall be insured against loss by fire. In Witness whereof, we (three of the trustees or acting members for the said Society) have hereunto set our hands and seals, the 1st day of November, 1854.

Signed and sealed (being stamped according to act of parliament) in the presence of G. H.

A.B.
C.D.
E.F.

N.B.—The interest in this policy may be transferred by indorsement, made and entered at the office, if the trustees or acting members approve thereof, but not otherwise.

(INDORSEMENT ON THE POLICY.)

SUN FIRE OFFICE.

This office insures against loss or damage by fire, in Great Britain and Ireland, and also in foreign countries, all descriptions of buildings, including mills and manufactories, and goods, wares, and merchandise, in the same; ships in harbour, or in dock; craft on navigable rivers and canals, and the goods laden on the same; wagons travelling the roads, and their contents; and farming stock of all descriptions, upon the following terms and conditions:—

Common Insurances.

1. Buildings covered with slates, tiles, or metals, and built on all sides with brick or stone, or separated by party-walls of brick or stone, and wherein no hazardous trade or manufacture is carried on, or hazardous goods deposited.

2. Goods in buildings as above described, such as household goods, plate, jewels in private use, apparel, and printed books; liquors in private use, merchandise, stock and utensils in trade, not hazardous.

At 1*s.* 6*d.* per cent. per annum, with certain exceptions.

Hazardous Insurances.

1. Buildings of timber or plaster, or not wholly separated by partition-walls of brick or stone, or not covered with slates, tiles, or metals; and buildings falling under the description of common insurance, but in which hazardous goods are deposited or some hazardous trade or manufacture is carried on.

2. Ships and craft, with their contents (lime barges, with their contents, alone excepted).

At 2*s.* 6*d.* per cent. per annum, with certain exceptions.

Doubly Hazardous Insurances.

1. Buildings. — All thatched buildings having chimneys, or communicating with, or adjoining to, buildings having one, although no hazardous trade shall be carried on, nor hazardous goods deposited therein: and all hazardous buildings in which hazardous goods are deposited, or hazardous trades carried on.

2. Goods. — All hazardous goods deposited in hazardous buildings, and in thatched buildings having no chimney, nor adjoining to any building having a chimney.

At 4*s.* 6*d.* per cent. per annum, with certain exceptions.

Agricultural produce, farming stock, and implements and utensils of husbandry, on any farm, may be insured, without the average clause, exempt from duty, provided it be insured to a fair value. This office will not be subject to loss on goods or utensils damaged or destroyed whilst undergoing any process in which the application of fire-heat is necessary, nor will the office be liable for loss on hay, corn, seeds, or other property, occasioned by its own natural heating, but the loss on any property in consequence, (except that which, by its own natural heating, has been the cause of the fire), will be made good; as well as losses from lightning, where the buildings, or other effects insured, have been actually set on fire thereby.

Insurances may also be made by special agreement on the following risks, and on others of a similar description, not included in the 2d and 3d heads of insurances, viz. on mills of all kinds, and the stock and utensils in them; also on buildings, containing kiln, steam-engine, stove, or oven, used in the process of any manufacture, and the stock therein; sugar refiners, sea biscuit bakers, distillers, varnish makers, chemists' laboratories, theatres, coach painters, colour manufacturers, varnishers, musical instrument makers, refiners of saltpetre, spermaceti, wax, and oil, barge and boat builders, carpenters, cabinet makers, coach makers, coopers, cork burners, floor-cloth painters, japanners, lampblack makers, letter-press printers, machine makers, melters of tallow and of rough fat, candle makers, cart-grease makers, oilmen, soap-boilers, rope and sail makers, ship chandlers, hemp and flax dressers, oil leather dressers, medals, curiosities, pictures, prints, drawings, statuary work, spinners of cotton, flax, lint, and wool, throughout all the operations attending the manufacturing of these materials, from the raw state into thread for the weaver, and such other risks as, by reason of the nature of the trade, the narrowness of the situation, or other dangerous circumstances, may increase the hazard thereof: all which special hazards must be inserted in the policy, to render the same valid and in force.

N. B. — Gunpowder, and buildings in which it is made, cannot be insured on any terms; neither does this office insure writings of any kind, books of accounts, ready money, bonds, bills, or any other securities for money.

N. B. — By an act of the 55th of Geo. 3. a duty of 3*s.* per annum is to be levied on every 100*l.* of property insured against fire; but by an act of the 3d & 4th Will. 4. agricultural produce, farming stock, and implements and utensils of husbandry, are exempt from duty.

N. B.—Insurances may be made for more years than one by a single payment, and in such cases there will be a discount allowed on the premium and duty for every year except the first.

N. B. — Rent may be insured by a special agreement for a term not exceeding 1 year, the amount being specified in the policy. Persons insured in this office are not liable for any calls to make good losses.

CONDITIONS.

Art. I.—Any person desirous of effecting insurances upon buildings or goods must furnish the office, or its agents, with a particular description thereof, and of the process of manufacture, if any such process be carried on therein; and if there be any omission or misrepresentation in describing the building or goods, or process of manufacture, whereby the same may be charged at a different rate of premium than they otherwise would be, this office will not be responsible in case of any loss or damage. And if any alteration be made in the state of the buildings or goods, or process of manufacture, after such insurance shall have been effected, then the insured shall give due notice thereof, in writing, to the office or its agents, or in default of such notice, such insurance shall become void, and no benefit be derived therefrom.

Art. II.—All policies shall be signed and sealed by three or more trustees or acting members; and no receipts are to be taken for any premiums of insurance, but such as are printed and issued from the office, and signed by one of its clerks or agents.

Art. III.—Houses, buildings, and goods in trust, and merchandise on commission (except as aforesaid), may be insured, provided the same are declared in the policy to be in trust or on commission, but not otherwise.

Art. IV.—On bespeaking policies, all persons shall pay the premium to the next quarter day, and from thence for one year more at least, or shall make a deposit for the same, and shall, as long as the managers agree to accept the same, make all future payments annually at the said office, within fifteen days after the day limited by their respective policies, upon forfeiture of the benefit thereof.

Art. V.—Any number of houses and out-houses, and household goods, printed books, wearing apparel, plate, prints, jewels and trinkets in private use, stock in trade, goods in trust, or in commission, may be insured in one policy.

Art. VI. — Persons insured by this office shall receive no benefit from their policies, if the same houses, or goods, &c. are insured in any other office, unless such insurance, and the amount thereof, be first specified and allowed by indorsement on the policy, in which case this office will pay its rateable proportion on any loss or damage.

Art. VII. — When any person dies, the policy and interest therein shall continue to the heir, executor, or administrator, respectively, to whom the right of the property insured shall belong, provided, before any new payment be made, such heir, executor, or administrator do procure his or her right to be indorsed on the policy at the said office, or the premium to be paid in the name of the said heir, executor, or administrator.

Art. VIII. — Persons changing their habitations or warehouses may preserve the benefit of their policies, if the nature and circumstance of such policy be not altered; but such insurance will be of no force till such removal or alteration is allowed at the office, by indorsement on the policy.

Art. IX.— No loss or damage will be paid on fire happening by any invasion, foreign enemy, riot, civil commotion, or any military or usurped power whatever.

Art. X. — Persons insured sustaining any loss or damage by fire are forthwith to give notice thereof at the office; and, as soon as possible afterwards, deliver in as particular an account of their loss or damage as the nature of the case will admit of, and make proof of the same by their solemn declaration, according to the form practised in the said office, and by their books of accounts, or such other proper vouchers as shall be reasonably required, until the production of which, the loss money shall not be payable. And if there appear any fraud or false-swearing, or that the fire shall have happened by the procurement, or wilful act, means, or contrivance of the insured or claimants, he, she, or they shall be excluded from all benefit from their policies. And, in case any difference shall arise between the office and the insured, touching any loss or damage, such difference shall be submitted to the judgment and determination of arbitrators, indifferently chosen, whose award in writing shall be conclusive and binding on all parties, and in every case of loss the company reserves the right of reinstatement in preference to the payment of claims, if it should judge the former course to be more expedient; but when any loss is settled and adjusted, the insured will receive immediate payment for the same, without any deduction or discount.

Insurance of Mills, Factories, &c.— The principal insurance offices agreed, in 1842, upon certain rates for the insurance of cotton, woollen, flax, and other mills and factories. We subjoin a table of the rates for cotton mills; but the others are too voluminous, and embrace too many particulars to be given in this place. The rates for woollen mills may, however, be considered as varying from 8*s.* to 10*s.* per cent. and upwards; and those for flax mills 12*s.* per cent. and upwards, subject to a discount of 15 per cent. thereon.

Rates for Cotton Mills. (England.)

	Not Fire-proof.		
	Class I. Not spinning lower than 80's.	Class II. Not spinning lower than 34's.	Class III. Spinning lower than 34's.
Cotton Mills conforming to the following description, viz.			
1. Built of brick or *stone*, and covered with slate, tile, or metal			
2. In one tenure only			
3. Heated by steam			
4. The boiler and fire-place being *outside* the mill; or in a fire-proof compartment within the mill, but separated therefrom by an *iron* door			
5. Lighted by gas			
6. No internal communication by hoist, spout, well-hole, or otherwise through the floors			
7. Working single time only (viz. during the hours from 5 A.M. to 8 P.M. only, or by one set of adult hands only each day)			
8. No process previous to carding (except mixing by hand only) being performed within the mill			
Or if the processes previous to carding are performed in a detached building			
Or if in a building *separate* from the mill, but communicating by an *external fire-proof gangway* of not less than 10 feet in length, with an iron door at each end thereof, no window in the mill overlooking the blowing room, &c.			
Or if in a building adjoining and communicating only by holes of not more than sufficient size to admit the shafts, straps, and steam and gas pipes—no window in the mill overlooking the blowing room, &c., nor any window or opening in the blowing-room walls so as to endanger the mill	9*s.*	11*s.*	14*s.*
Or if in a building adjoining and communicating by holes of not more than sufficient size to admit the shafts, straps, and steam and gas pipes—no window in the *mill* overlooking the blowing-room, &c., nor any window or opening in the blowing-room walls, so as to endanger the mill—and communicating by an *external fire-proof gangway* of not less than 10 feet in length, with an iron door at each end thereof			
Or if in a building communicating by a gangway (not fire-proof) exceeding 21 feet in length, with an iron door at each end thereof			
Or if in a *fire-proof* building nearer than 10 feet to the mill, having a blank wall towards the mill and no communication therewith			
Or if in a *fire-proof* building adjoining to the mill, and communicating with it by a stone staircase, having a wrought-iron door only, set in stone or metal, and by aperture for shaft and steam-pipe as aforesaid			
9. Not spinning waste other than that produced by the occupier of the mill			
10. Not containing more than six floors in height, including basement and attics			
Staircases, whether of stone or wood, are allowed without charge.			
Mills not conforming to the above description will be charged in addition to the above, viz.			
As to No. 2. If in the occupation of two tenants	3*s.*	4*s.*	5*s.*
Mem.—When a mill is occupied by two or more tenants carrying on the same processes or others of equal hazard, these additional rates will apply; but it shall be at the discretion of each office to charge such extra rate for plurality of tenure as it may think proper, *in those cases only* where the additional trade or process carried on is of a less degree of hazard than that charged for under this tariff.			
As to No. 3. If heated otherwise than by steam	Special.	Special.	Special.
As to No. 4. If the boiler or fireplace is *within* the mill, except in a fire-proof compartment as above described	1*s.*	1*s.*	1*s.*
As to No. 5. If lighted otherwise than by gas	2*s.*	3*s.*	4*s.*
As to No. 6. If having therein any hoist, well-hole, spout, or other communication through the floors of the mill	1*s.*	1*s.*	2*s.*
As to No. 7. If working more than single time	1*s.*	3*s.*	3*s.*
Mem.—Any mill which may be worked between the hours of 8 in the evening and 5 in the morning, or by more than one set of adult hands each day, will be liable to the charge for "working more than single time."			
As to No. 8. If any of the processes previous to carding be performed			
In a fire-proof building adjoining to the mill, and communicating by wrought-iron doors set in stone or metal, and by apertures for shaft and steam-pipe as aforesaid	2*s.*	4*s.*	6*s.*
In a fire-proof room, *within the mill*, communicating by wrought-iron doors and apertures for shafts and steam-pipe as aforesaid	3*s.*	6*s.*	7*s.*
Not according to one or other of the above descriptions	5*s.*	7*s.*	9*s.*
As to No. 9. If spinning bought flyings or strippings	Special.	1*s.*	1*s.*
If spinning other bought waste	Special.	Special.	Special.
The additional rates under "As to No. 9." will only apply to those mills which are subject to any charge for preparatory processes, and to blowing houses.			
As to No. 10. If containing more than six floors in height, including basement and attics	1*s.*	1*s.*	1*s.*
Mem.—The assured may have permission, on payment of 1*s.* per cent. extra, to spin *occasionally, and upon not more than four mules or frames* at any one time, for the purpose of making up an order, yarns of lower numbers than 34 hanks (*or* 80 *as the case may be*), provided *the same preparation of cotton only* be used as is required for the ordinary production of the mill.			

Fire-proof Mills.—Each floor (building and contents) to be rated as mills of ordinary construction according to the numbers spun and the processes performed therein. If *weaving only* be done on a floor of a fire-proof mill, that floor to be charged 7*s.* 6*d.* per cent. per annum. If insured in one sum with the average clause, special. *N.B.* In fire-proof mills with a sum insured on each floor, the extra charge for height will only apply to the stories above six. Mills are denominated fire-proof in the construction of which no timber is used, except in the roof. If any part of the mill has a wooden flooring, that story, and the one below it, will be charged the highest rate applicable to either.

Spinning Mills, in which *no roving*, nor any process preparatory thereto is carried on,—class 1., 7*s.* 6*d.*; class 2., 9*s.*; class 3., 10*s.* 6*d.*; subject to such of the above-mentioned additions as apply thereto.

Blowing-houses, &c.—Buildings in which any processes preparatory to carding is carried on, to be charged the maximum

rate according to the number of hanks to the pound to be spun from the cotton prepared in them.

Cotton mills having more than two tenants, or otherwise not included in the above several classifications, will be considered special.

Sheds.—Sheds used as cotton mills, having only a ground floor, class 1., 7*s.* 6*d.*; class 2., 9*s.*; class 3., 10*s.* 6*d.*: with the additional rates above given for ordinary mills.

Power-loom Factories and Sheds.—Detached, brick-built and tiled or slated, heated by steam, in single tenure, 6*s.* per cent. per annum. If adjoining to, but not communicating with a cotton mill, special, but not less than 7*s.* 6*d.* per cent. per annum. If communicating with a cotton mill, the same rate as the mill.

No return of premium will be allowed on account of the working of a mill being suspended during intermediate portions of the term for which the insurance is effected.

The above rates are to be applied to all existing insurances as they become due, as well as to new orders.

Discounts.—The following discounts will be allowed upon the rates charged under this tariff:—On cotton mills, 1st class, not spinning lower than 80's, 20 per cent.; 2nd and 3rd classes, 15 per cent.; on power-loom factories, 15 per cent.

Amount of Property insured. Duty.—Insurance against fire, though practised in France, Holland, and some other countries, is not general any where except in Great Britain. It has been known amongst us for a century and a half, and is now very widely extended. It appears from the official accounts, that the *gross* duty received on policies of insurance against fire in the United Kingdom, in 1852, amounted to 1,162,913*l.*, which, as the duty is 3*s.* per cent., shows that the property insured was valued at the immense sum of 775,275,000*l.* But notwithstanding the magnitude of this sum, it is still true that most buildings are not insured up to their full value; even in towns, many are not insured at all; and in the country it is far from being customary to insure farm buildings or barn-yards. It is difficult to imagine that this can be owing to any thing other than the exorbitance of the duty. On common risks the duty is no less than 200 per cent. upon the premium; or, in other words, if a person pay to an insurance office 15*s.* for insuring 1,000*l.* worth of property, he must at the same time pay a duty of 30*s.* to government! On hazardous and doubly hazardous risks, the duty varies from about 120 to 75 and 80 per cent. upon the premium. Such a duty is in the last degree oppressive and impolitic. There cannot, in fact, be the slightest doubt that, were it reduced, as it ought to be, to *one third* its present amount, the business of insurance would be very much extended; and as it could not be extended without an increase of security and without lessening the injurious consequences arising from the casualties to which property is exposed, the reduction of the duty would be productive of the best consequences in a public point of view; while the increase of business would prevent the revenue from being materially diminished.

During the session of 1833, the duty on the insurance of farming stock was repealed. But the relief thence arising is immaterial; and the repeal is, besides, highly objectionable in point of principle, inasmuch as there is no ground whatever for exempting farming stock from duty in preference to any other description of stock. A duty on

Duties paid to Government by the different London Fire Insurance Offices, during each of the Years ending with 1854.

Offices.	1846.	1847.	1848.	1849.	1850.	1851.	1852.	1853.	1854.
	£	£	£	£	£	£	£	£	£
Alliance	28,067	31,644	32,264	36,122	44,545	44,161	43,809	44,141	44,237
Anchor	-	-	-	-	‡1,190	1,650	2,407	4,353	7,039
Atlas	32,858	32,781	32,834	33,171	35,038	35,105	35,471	36,754	37,234
Athenæum	-	-	-	-	-	-	‡44	342	813
Beacon	-	-	-	-	-	-	-	155	231
Brewers (*discon.*)	-	-	-	-	-	*89	-	-	-
British (*discon.*)	-	-	‡1,029	2,026	2,348	2,666	‡2,217	-	-
British Empire	-	-	‡624	1,578	2,095	2,918	3,705	4,631	5,475
British Provident	-	-	-	-	-	‡49	28	‡27	‡66
Cambrian and University	-	-	-	-	-	‡45	176	225	276
Church of England	2,856	3,033	3,132	3,160	3,273	3,412	3,719	4,013	4,038
County	49,485	50,003	50,350	51,065	52,247	54,069	55,387	57,006	58,292
Defender	-	2,816	4,220	4,938	5,766	6,590	7,050	7,543	7,818
Eclipse	-	-	-	-	-	-	-	-	‡19
English and Cambrian (*discon.*)	-	-	-	-	-	*62	-	-	-
Equitable	-	-	-	-	*309	1,336	1,744	2,093	2,559
Era	-	-	-	-	-	-	‡38	138	140
General	10,183	10,591	10,638	10,552	10,663	10,949	10,902	11,050	11,040
Globe	32,355	32,693	31,435	31,993	32,896	33,105	34,599	35,233	36,822
Guardian	31,242	31,261	30,974	31,029	31,368	31,179	31,307	31,594	31,995
Hand-in-Hand	11,141	10,439	9,663	9,758	10,268	9,347	10,820	10,050	9,841
Imperial	46,735	44,834	44,698	44,215	45,516	47,186	47,176	47,285	48,193
Law	10,380	13,416	15,365	17,594	19,216	21,345	23,605	25,019	26,789
Law Union	-	-	-	-	-	-	-	-	‡1,471
Legal and Commercial (*discon.*)	-	‡2,042	4,845	6,459	7,990	9,020	10,291	10,782	*3,085
London	19,732	20,157	19,756	20,445	22,305	23,683	24,731	24,985	26,513
London and County	-	-	-	-	-	-	‡80	380	232
Monarch	10,386	11,004	10,793	11,075	11,284	11,755	12,395	12,672	12,882
National Guardian (*discon.*)	-	-	-	-	-	‡281	341	‡344	400
National Merc. (*discon.*)	-	-	-	1,918	3,111	3,772	4,584	‡2,568	-
National Provincial	-	-	-	-	-	-	-	‡745	2,343
Phœnix	124,829	124,133	120,719	120,194	120,410	121,865	121,950	122,061	125,743
Preserver	129	94	56	32	37	38	47	31	28
Protestant	-	-	-	-	-	-	-	‡148	‡130
Royal Exchange	74,718	75,337	73,972	74,297	75,169	75,988	75,096	75,592	77,631
Royal Farmers	10,346	10,190	13,572	12,517	12,762	12,075	11,852	12,516	11,553
Sceptre (*discon.*)	-	-	-	-	-	-	‡90	-	-
Star (*discon.*)	2,064	3,162	3,910	4,611	5,110	5,622	5,917	‡4,447	-
Sun	182,798	184,484	181,270	180,802	181,148	182,471	180,580	185,474	190,915
Times	-	-	-	-	-	*114	566	1,099	1,451
Union	22,581	21,969	22,488	22,648	23,175	23,860	24,589	25,850	25,830
Unity	-	-	-	-	-	-	*350	3,092	14,558
Westminster	23,622	21,945	22,175	23,078	23,054	24,935	26,028	25,487	25,734
Total	726,487	738,021	740,794	755,055	782,003	800,740	813,878	831,971	851,483

* One Quarter. ‡ Two Quarters. † Three Quarters.

insurance is not, in itself, objectionable. We do not wish to see it repealed, but to have it effectually reduced. Were it fixed at 1s. per cent., it would hardly be felt as a burden; while the revenue would suffer little or nothing from the measure.

Duties paid to Government by the following Country Fire Insurance Offices, during each of the Years ending with 1854.

Offices.	1850.	1851.	1852.	1853.	1854.
English Offices.	£	£	£	£	£
Birmingham	12,634	13,179	13,510	14,014	14,233
Birmingham District	6,578	6,652	7,003	7,311	7,729
Brighton and Sussex (*discon.*)	*395	481	630	749	†364
Durham and Northumberland	-	-	-	-	*35
Essex Economic	4,047	4,158	4,257	4,634	4,666
Essex and Suffolk	6,035	6,007	6,054	6,052	6,131
Halifax, Bradford, and Keighley (*discon.*)	4,278	4,797	5,518	6,247	-
Hants, Sussex, and Dorset	2,588	2,613	2,553	2,591	2,370
Kent	12,770	‡9,553	13,602	13,595	14,192
Kent Mutual	2,594	‡1,649	2,482	2,621	2,473
Lancashire	-	-	‡2,850	11,502	15,714
Leeds and Yorkshire	14,390	14,804	15,165	16,178	17,275
Lincolnshire	-	358	862	1,349	1,579
Liverpool and London	13,373	15,081	16,132	17,992	18,916
Manchester	19,228	20,017	20,387	22,591	24,924
Newcastle-upon-Tyne	5,949	6,113	6,055	6,128	6,118
North of England	‡2,560	4,241	4,550	4,569	4,933
Norwich Equitable	2,497	2,580	2,563	2,664	2,697
Norwich Union	73,395	74,101	74,037	73,971	74,766
Notts and Derbyshire	3,163	3,244	3,390	3,436	3,590
Provincial	-	-	1518	1,274	1,798
Royal, Liverpool	14,040	16,134	17,720	21,870	23,476
Salop	3,694	3,751	3,797	3,817	3,883
Sheffield	2,337	2,430	2,465	2,639	2,819
Shropshire and North Wales	1,710	1,703	1,717	1,737	1,754
West of England	46,376	47,189	47,534	48,257	50,258
Yorkshire	17,089	17,823	18,109	18,652	19,592
Scotch Offices.					
Scottish Union	24,252	24,324	24,473	24,827	25,897
North British	17,185	17,185	17,558	18,447	19,314
Caledonian	8,106	8,050	8,460	8,676	8,894
Hercules (*discon.*)	16	-	-	-	-
Forfarshire and Perthshire	2,277	2,171	2,253	2,080	2,486
Scottish Provincial	4,336	4,519	4,663	5,496	6,097
Northern	5,817	6,031	6,499	7,836	9,221
National	4,276	4,517	4,575	5,064	5,349
Morayshire (*discon.*)	151	150	174	179	*44
Irish Offices.					
National	5,847	5,788	5,691	5,678	5,554
Patriotic	3,800	3,668	3,643	3,960	4,398
Total	317,589	354,863	371,253	397,463	425,509

* One Quarter. † Two Quarters. ‡ Three Quarters.

No fewer than 69 fire offices, chiefly those of recent formation, have discontinued their fire insurance business.

IV. Insurance (Life).

That part of the business of life insurance which consists of granting annuities upon lives, is treated of under Interest and Annuities; so that we have only to treat, in this place, of the insurance of sums payable at the death of the insurers or their nominees.

Suppose an individual of a given age wishes to insure 100*l.* payable at his death, the single premium, or the series of annual premiums, he ought to pay an office for such insurance, must plainly depend on the expectation of life of such individual, and on the rate of interest or nett profit which the insurers may make by investing the premiums.

With respect to the first of these conditions, or the *expectation of life*, it is usual in estimating it to have recourse to Tables framed from the mortality observed to take place in particular cities or districts, as in Northampton, Carlisle, &c.—(See Interest and Annuities.) But though the actual decrement and expectation of life among an average population, at every year of their lives, were accurately determined, it is doubted whether it would form a fair basis for an insurance office to proceed upon. The general opinion seems to be, that insured lives are decidedly above the average; for insurance offices invariably profess to act on the principle of rejecting bad lives or of making them pay a proportional increase of premium; and it may besides, it is said, be fairly presumed that persons insuring their lives are of a superior class, and are not, generally speaking, engaged in those manual and laborious occupations that are esteemed most injurious to health. But, on the other hand, the friends of parties whose lives are supposed to be bad, and the parties themselves, are most anxious they should be insured. It is also far from being an uncommon practice, for certain individuals to prevail on persons whom they happen to know, or believe to be bad lives, to insure; and then to get a legal assignment of the policy in their favour, on their giving the "men of straw" a bonus for their share in the fraud. At all events, there can be no question that large numbers of such lives are perpetually offered for insurance; and every individual conversant with the business knows that, in despite of all precautions, policies are very frequently effected upon them. Mr. Milne, on whose judgment every reliance may be placed, states distinctly that "all the caution and selection which the

offices in general can exercise, is necessary to keep the lives insured up to the average goodness of the bulk of the population."—(*Ency. Brit.* new ed. art. *Annuities.*) Since the competition among the different offices became so very keen as it has been of late years, there are but few lives so bad that they will not be taken by one office or another; and we doubt, were the results of their experience made public, whether it would be found that there is much foundation for the opinion as to the superiority of insured lives.

With respect to the second condition in valuing an insurance, or the rate at which the interest of money may be estimated, it is impossible to arrive at any thing like accurate conclusions. At an average, perhaps, transactions in life insurance may extend over a period of 30 years from the time when they are entered into; and in such a lengthened term the greatest changes may take place in the rate of profit and the rate of interest. Mr. Finlaison, of the National Debt Office, appears to think that $4\frac{1}{2}$ per cent. may be taken as the true average rate in this country; and that $4\frac{1}{4}$ is a rate at which no loss need be apprehended. – (*Parl. Paper*, No. 284. Sess. 1829.). But this is not a point on which (as Mr. Finlaison seems to suppose) previous experience can be safely depended upon in forming engagements for the future; and were this the proper place for entering upon such discussions, we think we could assign pretty solid grounds for concluding that no institution, intended to last for the next half century, would be warranted in reckoning upon realising more than 3 per cent. upon its investments. We should look upon this as the *maximum*, and of course could expect nothing but ruin to fall upon any institution founded upon the hypothesis of realising $4\frac{1}{4}$ per cent. of interest. At the same time, we would not be understood as laying any undue stress upon this opinion; and are ready to admit that there must always be more of conjecture than of certainty in such conclusions.

Security being the principal object to be aimed at by every insurance office established on sound principles, they would not act wisely, if they did not calculate their premiums considerably higher than may appear necessary to those who look only at what has taken place during the last 30 or 40 years. Societies contracting prospective engagements that may extend for half a century or more are exposed to innumerable unforeseen contingencies; and they would be highly censurable, and altogether unworthy of the public confidence, were they so to conduct their affairs, that they might be liable to serious embarrassments from fluctuations in the rate of interest, or an increase of sickness, or any other cause. The success that has hitherto attended the Equitable, and some of the long-established offices, must not be taken as any criterion of what may befall them and others during the next 100 years. Mr. Morgan, the late able actuary of the Equitable, in his account of the rise and progress of that institution, published in 1828, has satisfactorily shown that its peculiar prosperity has been in a very great degree owing to circumstances which cannot possibly occur again. The premium, for example, charged by the Society, so late as 1771, for insuring 100*l.* on the life of a person aged 30, was 4*l.* 1*s.* $5\frac{1}{2}$*d.*, whereas it is now only 2*l.* 13*s.* 4*d.*; and there was a corresponding difference in the premiums for other ages. —(p. 36.) But the excessive magnitude of the premiums was not the only extraordinary source of profit enjoyed by this Society in the earlier part of its career. We learn from the same unquestionable authority, that *half the insurances made during the first twenty-five years of the Society's existence were abandoned by the insurers*, in many cases, after the premiums upon them had been paid for a considerable number of years, *without any valuable consideration being given for them by the Society!*—(p. 38.) So copious a source of profit was alone adequate to enrich any society; but such things rarely occur now,—people are become too familiar with life insurance, and sales of policies are of too frequent occurrence, to allow any office to realise any thing considerable in this way. Now, we ask, can any one who takes these facts into view, and couples them with the frugal and cautious management which has hitherto always distinguished the Equitable Society, be surprised at its success? and can any thing be more absurd than to appeal to its experience in casting the horoscope of the societies that have sprung into existence within the last few years? But, independently of these considerations, there are other circumstances sufficient to account for the great success of some of the old offices. Since the close of the American war, a very decided diminution has taken place in the rate of mortality; the public tranquillity has neither been disturbed by foreign invasion nor intestine commotion; cholera excepted, we have not been once visited by any epidemic disorder; and the investments in the funds, during the war made at from 50 to 60, may now be realised at from 80 to 90. We do not to presume to say that circumstances may not be even more advantageous for the insurance offices during the next half century; but we should not, certainly, think very highly of the prudence of those who proceeded to insure on such an assumption. Security, we take leave again to repeat, is, in life insurance, the paramount consideration. It is, we believe, admitted on all hands, that the premiums were at one time too high; but we doubt whether the

tendency at present be not to sink them too low. A great relaxation has taken place, even in the most respectable offices, as to the selection of lives. And the advertisements daily appearing in the newspapers, and the practices known to be resorted to in different quarters to procure business, ought to make every prudent individual consider well what he is about before he decides upon the office with which he is to insure. Attractive statements, unless where they emanate from individuals of unquestionable character and science, ought not to go for much. Life insurance is one of the most deceptive of businesses; and offices may for a long time have all the appearance of prosperity, which are, notwithstanding, established on a very insecure foundation. If a man insure a house or a ship with a society, or an individual, of whose credit he gets doubtful, he will forthwith insure somewhere else. But life insurance is quite a different affair. The bargain is one that is not to be finally concluded for, perhaps, 50 years; and any inability on the part of an establishment in extensive business to make good its engagements, would be productive of a degree of misery not easy to be imagined.

Life insurance companies are divided into three classes. The first class consists of joint stock companies, who undertake to pay *fixed* sums upon the death of the individuals insuring with them; the profits made by such companies being wholly divided among the proprietors. The second class are also joint stock companies, with proprietary bodies; but instead of undertaking, like the former, to pay certain specified sums upon the death of the insured, they allow the latter to participate, to a certain extent, along with the proprietors, in the profits made by the business. The mode in which this sort of *mixed* companies allot the profits granted to the insured is not the same in all; and in some, the principle on which the allotment is made is not disclosed. The Rock, Sun, Royal Exchange, Globe, Alliance, Guardian, Atlas, &c. belong to this mixed class. The third species of company is that which is formed on the basis of mutual insurance. In this sort of company there is no proprietary body distinct from the insured; the latter share among themselves the whole profits of the concern, after deducting the expenses of management. The Equitable Society, the Amicable, the Norwich Life, &c. belong to this class.

The advantage to a person insuring in any one office as compared with another, must plainly depend on a comparison between the premiums demanded, the conditions of the policy, and, above all, the security which it holds out. It may appear, on a superficial view, as if the mutual insurance companies would be in all respects the most eligible to deal with, inasmuch as they have no proprietors to draw away any share of the profits from the insured. It is doubtful, however, whether this advantage be not more than balanced by disadvantages incident to such establishments. Every one being a partner in the concern, has not only his own life insured, but is part insurer of the lives of all the other members, and may in this capacity, should the affairs of the society get into disorder, incur some very serious responsibilities. The management, too, of such societies, is very apt to get into the hands of a junto, and to be conducted without the greater number of those interested knowing any thing of the matter. There is, also, considerable difficulty, in constituting such societies, in distinguishing clearly between the rights of old and new members; for supposing a society to be prosperous, it is but reasonable that those who have belonged to it while it has accumulated a large fund, should object to new entrants participating in this advantage. But the affairs of a society conducted in this way, or making distinctions in the rights of the members during a long series of years, could hardly fail of becoming at last exceedingly complicated; nor is it, indeed, at all improbable that the conflicting claims of the parties in some of the societies of this sort now in existence, may ultimately have to be adjusted in the courts of law, or by an act of the legislature.

Supposing the premiums demanded by the societies which retain the whole profits to themselves, to be fairly proportioned to the values insured, we should be inclined to think that they are, on the whole, the most advisable to insure in. The subscribed capital of such associations as the Royal Exchange, Sun, Globe, Scottish Union, &c., and the wealth of the partners (which is all liable, except in the case of the chartered companies, to the claims of the insured,) afford unquestionable security. Individuals dealing with them know exactly what they are about. They know the precise premiums they will have to pay, and the exact amount of the sums that will be paid to their assignees in the event of their death. They incur no responsibility of any kind whatever. For, unless some very unprecedented and unlooked-for change should take place in the condition of the country, they may reckon with certainty on the terms of the policy being fulfilled to the letter.

But, as already observed, every thing depends, in matters of this sort, on a comparison of the premium with the advantages to be realised. And where the premiums are believed, either through carelessness, or intentionally, in order to provide for the safety of the establishment, to be a little too high, it may be more expedient, perhaps, to deal with a mixed company. The subscribed capital and fortunes of the proprietary body

afford a guarantee on which the public may depend in dealing with any *respectable* company of this sort; while by receiving a share of the profits, the insured gain by the flourishing condition of the association, and it is of less consequence to them though the premiums should be too high.

It should, however, be borne in mind, that an individual insuring with a mixed company, on condition of his getting a proportion of the profits, becomes a *partner of such company;* and being so, incurs responsibilities. In dealing with such associations as the Alliance, the Rock, and a few others, this responsibility can hardly be said to amount to any thing. But there are companies of this class in the field, and holding out very tempting baits to the unwary, those insured in which may find, at some future period, that this responsibility is by no means a light matter.

A highly respectable company of this mixed class, with a large subscribed capital,—the Guardian,—inserts in all its policies the following condition, viz.—"That the responsibility of the individual members shall, in all cases, be limited to their respective shares." It may be doubted whether this condition be good in law; but if it be, it materially affects the security afforded by the company, which otherwise would justly claim a place in the very first class of offices. As no one attempts to secure himself against a contingency which he is satisfied cannot happen, the existence of a condition of this sort implies a doubt, on the part of the proprietary body, of the perfect solidity of the establishment. Such a doubt may be, and we believe really is, very ill-founded; but the public will, most likely, be inclined to think that the proprietors ought to know better than any one else. The Albion Assurance Company also inserts in its policies a condition to the same effect.

The allotment of profit to the insured made by the mixed companies, is sometimes effected by a diminution of the premiums, and sometimes by increasing the sum in the policy; and individuals should, in dealing with such societies, select, other things being equal, the association with which to insure, according as they wish to insure a large sum, or to get the premiums reduced.

We subjoin, from Mr. Babbage's work on *Life Assurance**, the following statement of the terms of the various mixed companies, as to the division of the profits with the insured. They are, for the most part, exceedingly vague. We also subjoin an account of the conditions, in respect of profits, under which new entrants are admitted into the Equitable.

Alliance.—At the periods of participation of the Company in the profits of its concerns, every policy for the whole term of life, which shall have paid 5 entire annual premiums, shall, if the allowance be made in reduction of annual premium, be entitled to such reduction from the original charge as shall, then, and from time to time, be declared; but if the allowance be in addition to the amount assured, that addition shall also be continually declared from time to time.

Persons assuring their own lives have the option of declaring at the time of effecting the assurance, whether they will participate in the profits by an addition to their policy, or by a reduction of premium.

Atlas.—Persons assuring for the whole term of life for 100*l.* and upwards, in Great Britain and Ireland respectively, will be entitled, at the end of every 5th year, to participate in the surplus premiums, to be then ascertained by actual valuation.

Asylum.—The directors have power to divide such portion of the profits quinquennially as may not imprudently check the growth of the funds intended for the benefit of the assured.

Crown.—Two thirds of such profits as shall periodically be declared divisible, will be apportioned amongst assurers for the whole term of life, and may be applied to the reduction of the future annual premiums, or to the increase of the sum assured, as may be desired.

Economic.—At present 3-4ths of the savings and profits divided amongst the assured entitled to participate therein, by additions to their policies, proportioned to their respective contributions, and in order to afford them the immediate benefit of such additions, interest thereon applied annually in reduction of their premiums.

Equitable.—That in case any prospective addition shall hereafter be ordered to be made to the claims upon policies of assurance in this Society, such order shall not take effect with respect to any policy granted after the 31st of December, 1816, until the assurances existing in the Society prior in number and date to such policy, and if of the same date, prior in the number thereof, shall be reduced to 5,000; but as soon as such reduction shall have been ascertained, in manner hereinafter mentioned, the said policy shall be within the effect and operation of the order for such addition, as to the payments made thereon subsequent to such ascertained reduction; so that if such order should be made to take effect generally from the 1st of January, 1820, for the space of 10 years then next following, a policy effected in the year 1817 shall not be within the operation of such order, until the assurances existing prior to the number and date of the policy, as aforesaid, shall have been reduced to 5,000; but such policy shall be within the operation thereof from the time when the reduction shall have been ascertained, in manner hereinafter mentioned, as to the payments made thereon subsequent to such ascertained reduction. And the like as to other cases. And this by-law shall be considered as a part of every such order, and shall be virtually incorporated therein, although the same may not be thereby expressly referred to.

That in case any retrospective addition shall hereafter be ordered to be made to claims upon policies of assurance in this Society, such order shall not take effect with respect to any policy granted after the 31st of December, 1816, until the assurances existing prior in number and date, and if of the same date, prior in the number thereof, shall be reduced to 5,000; but when the said reduction shall have been ascertained in manner hereinafter mentioned, such policy shall be within the effect and operation, and entitled to the benefit of such order, with respect to every payment made thereon subsequent to such ascertained reduction; so that if such order shall be made to take effect generally as to payments made before the 1st of January, 1820, a policy effected in the year 1817 shall not be within the effect and operation thereof, unless the life assured shall exist, and the payments continue to be made, until the assurances existing in the Society prior to the number and date of the policy, as aforesaid, shall be reduced to 5,000; but as soon as such reduction shall have been ascertained, in manner hereinafter mentioned, such policy shall be within the effect and operation of such order for the several payments made thereon as aforesaid. And the like as to other cases. And this by-law shall be considered as a part of every such order, and be virtually incorporated therein, although the same may not be thereby expressly referred to.

That an inquiry be made on the 1st of April in every year in order to ascertain the number of assurances made and existing in the Society; and when it shall have been ascertained by such inquiry that the assurances existing prior to the 1st of January, 1817, were, on the 31st of December immediately preceding such inquiry, reduced below the number of 5,000, the actuary do report the same to the court of directors, who shall communicate such report to the quarterly general court, to be holden in the June following; and that as many of such policies as had been made subsequent to the 31st of December, 1816, and which were existing in the Society on the 31st of December immediately preceding such inquiry, be added, according to the priority in their dates and numbers, and if of the same date, according to the priority in their numbers, to those above mentioned, as shall be sufficient to complete the number to 5,000; and that the persons holding the policies so added shall be considered thenceforward as entitled to such additions as shall be thereafter made in respect of all the payments made subsequent to such ascertained reduction, and, under the same restrictions, to the same privileges of attending at the general courts, and of being eligible to the office of director.

That after the vacant numbers in the assurances existing in the Society on the 1st of January, 1817, shall have been filled up agreeably to the foregoing order, the actuary, on the 1st of

* This work of Mr. Babbage contains a good deal of useful information, intermixed, however, with not a few errors and mis-statements. It was most ably reviewed in the 90th Number of the *Edinburgh Review*.

April in every succeeding year, do ascertain the vacancies which have taken place in the preceding year in the policies constituting the 5,000 mentioned in the 5th resolution, and report the same to the court of directors, who shall communicate such report to the quarterly general court in the month of June following; and that as many policies shall be added, according to the priority of their dates and numbers, and if of the same date, according to the priority in their numbers, as shall be sufficient to complete the number to 5,000; and that the persons holding those policies shall thenceforward be considered as entitled to such additions as shall be thereafter made in respect of all payments made subsequent to the 31st of the preceding December, and, under the same restrictions to the same privileges of attending the general courts, and being eligible to the office of director.

Provided that nothing hereby ordered shall be construed to authorise an addition to the sum assured by any policy, upon which policy the number of payments required in that respect by the present by-laws of the Society shall not have been made.

N. B. — Those by-laws require that 6 annual payments at the least shall have been made before any addition to a claim can take place; and when such payments shall have been made, the party will be qualified to be received, in his turn, into the number of persons entitled to additions as aforesaid.

European. — The profits derived by this Company are distributed amongst the several persons connected with the establishment, according to the contingency or certainty of their contract.

Life insurers derive an immediate benefit by the reduction of the premiums generally taken, with the prospect of a liberal addition to their policies, or a further reduction of the premium, in 10 years.

Guardian. — Persons assured for the whole term of life will be entitled at the end of every 5 years to participate in the profits of the Company, after a deduction of such sum per annum, for the guaranty of the capital, as the directors may think reasonable; the extent of which is, however, limited by the deed of settlement.

The share of the profits to be so allowed to the insured may either be added to the amount of their respective policies, or the value thereof be applied in reduction of the premiums hereafter to be payable on such policies, provided such option be declared in writing within 3 calendar months next after the dividend shall have been declared; but if such option be not declared, such share of profits will be added to the amount of policies.

Hope. — The business of this office has been transferred to the Imperial.

Imperial. — Upon every policy effected for the whole term of life, the assured will participate in the profits of the Company, by having periodical additions made to the sums insured to the amount of 2-3d parts of such clear gains and profits.

Law Life. — At stated periods, the surplus of the fund arising from the premiums of assurance, and their accumulation beyond what may be thought necessary to answer the expected claims upon the Society, will be ascertained; and as large a portion of the savings as may be deemed consistent with the security of the institution, will be divided between the proprietors and the assured in the following manner: — 1-5th will be transferred to the proprietors' guaranty fund; and reversionary sums, equivalent to the remaining 4-5ths, will be added to the policies of those who shall have been 3 years assured for the whole term of life.

London Life Association. — The distinguishing principle of this Society is, that the benefits resulting from its transactions shall be enjoyed by the members during life, so as to render life assurance as easy to the assured as a due regard to security will admit.

Medical and Clerical. — Persons assured for the whole term of life will be entitled to share with the original proprietors the general profits of the business, in proportion to the amount of their respective assurances.

Norwich Union. — The whole of the surplus premiums is added at stated periods to the policies of the members, in proportion to the sums they have respectively contributed.

Palladium. — A general investigation of the affairs of the Society is to take place every 7th year, when 4-5ths of the declared profits of the life department will be appropriated by way of bonus or addition, to be placed to the credit of the policies then in force for the whole term of life, upon the most equitable principles of division.

Rock. — That the said bonus shall be short of the actual surplus profits at the time of making the same, by the sum of 5,000*l.* at least.

That the bonus so declared shall be divided into 3 equal parts.

That one of the said parts shall be added to and consolidated with the subscription capital stock. (This is the proprietors' fund.)

That the remaining 2-3ds be allotted to the policies in the manner described in the deed.

That the sum to which any person assured by the Company may become entitled under any such distribution, shall be paid by the Company without interest, at the time when the sum assured by the policy shall become payable, and not before.

Union. — Those who assure with this Company will participate with the proprietors in the profits of the establishment, which will be added every 7 years to the respective policies.

United Empire. — Persons effecting assurances for the whole continuance of life will, at the end of the first 5 years, and of every subsequent 5 years, be entitled to participate in whatever nett surplus profits it may be declared by the directors expedient to divide.

Two-fifths of the aforesaid profits will be divided amongst the said assured, in proportion to the premiums they may respectively have paid, and will, at their option, be either added to the amount of their policies, or applied in reduction of their future premiums.

University. — As it is intended that the capital advanced shall be repaid to the shareholder, with a bonus of 100*l.* per cent., 1-10th of the profits, when ascertained by a valuation of all existing risks, will every 5 years be applied to form a fund for that purpose.

The remaining 9-10ths of the profits to be divided between the assured and the shareholder, in the proportion of 8 parts to the former and 1 to the latter.

The profit or bonus to the assured to be given either by a diminution of the rate of premium, or by an increase of the amount of policy, at the option of the party.

Westminster. — By a regulation taking effect from the 9th of May, 1832, this Society makes a positive addition of 10 per cent. every 10th year to all sums insured on single lives, for the whole term of life, by policies issued after that date; but it no longer grants any new policies.

In order to hinder the growth of gambling transactions upon life insurance, it was judiciously enacted, by stat. 14 Geo. 3. c. 48., that

No insurance shall be made by any person or persons, bodies politic or corporate, on the life or lives of any person or persons, or any other event or events whatsoever, where the person or persons, for whose use or benefit, or on whose account, such policy or policies shall be made, *shall have no interest*, or by way of gaining or wagering; and that every insurance made contrary to the true intent and meaning of this act, shall be null and void to all intents and purposes whatsoever. — Sect. 1.

It shall not be lawful to make any policy or policies on the life or lives of any person or persons, or other event or events, *without inserting in such policy or policies, the name or names of the person or persons interested therein, or for what use, benefit, or on whose account such policy is so made or underwrote.* — Sect. 2.

In all cases where the insured has an interest in such life or lives, event or events, no greater sum shall be recovered or received from the insurer or insurers, than the amount or value of the interest of the insured in such life or lives, or other event or events. — Sect. 3.

A creditor has an insurable interest in the life of his debtor; but it was decided, in a case which arose out of a policy on the life of the late Mr. Pitt, that if, after the death of a debtor whose life is insured by a creditor, and before any action is brought on the policy, the debt be paid, no action will lie.

All insurance offices either insert in their policies or refer in them to a declaration signed by the insured, setting forth his age, or the age of the party upon whom he is making an insurance; whether he has or has not had the small-pox, gout, &c.; "that he is not afflicted with any disorder that tends to the shortening of life;" that this declaration is to be the basis of the contract between him and the society; and that, if there be any untrue averment in it, all the monies paid to the society upon account of the insurance shall be forfeited to them. — (See Form, *post.*)

The condition as to the party not being afflicted with any disorder that tends to the shortening of life is vague, and has given rise to a good deal of discussion. But it is now settled that this condition is sufficiently complied with, if the insured be in a reasonably good state of health; and although he may be afflicted with some disease, yet if it can be shown that this disease does not tend to shorten life, and was not, in fact, the cause of the party's death, the insurer will not be exonerated: "Such a warranty," said Lord Mansfield, "can never mean, that a man has not in him the seeds of some disorder. We are all born with the seeds of mortality in us. The only question is, whether the insured was in a *reasonably good state of health*, and such a life as ought to be insured on common terms."—(See *Marshall on Insurance*, book iii.; *Park on Insurance*, c. 22.)

Policies of life insurance must be on stamped paper, the duty being as follows: — viz.

When the sum insured shall not exceed 500*l.*, for every 50*l.*, and any fractional part of 50*l.*, 6*d.*

Exceeding 500*l.* and not exceeding 1000*l.*, for every 100*l.* and any fractional part of 100*l.*, 1*s.*

Exceeding 1000*l.*, for every 1000*l.* and any fractional part of 1000*l.*, 10*s.*

We subjoin a statement of the terms and conditions on which the Sun Life Assurance Society transacts business, and a copy of one of its policies upon the life of a person aged 30, insuring his own life for 1000*l*. The conditions of most of the other societies are similar, and may be learned by any one, on applying either at the head offices in town, or at their agents' in the country. The premiums demanded by the principal offices are exhibited in the Table, page 759.

Sun Life.—An assurance for a term of years, or for the whole continuance of life, is a contract on the part of the office to continue the assurance during that term, on the payment of a certain annual premium, but the assured may drop it, whenever the end is answered for which the assurance was made.

The person whose life is proposed for assurance, is required to appear either before the managers at the office in London, or before an agent in the country; in default of which the non-appearance fine must be paid when the assurance is effected; which, when the term is 1 year, is 10*s.* for every 100*l.* assured. When the term exceeds 1 year, but does not exceed 7 years, it is 15*s.* for every 100*l.* And when the term exceeds 7 years, the fine is 1 per cent.

Reference to be made to 2 persons of repute, to ascertain the identity of the person appearing.

Any premium remaining unpaid more than 15 days after the time stipulated in the policy, such policy becomes void; but the defaulter producing satisfactory proof to the managers, of the health of the person on whose life the assurance was made, and paying the said premium within 3 calendar months, together with the additional sum of 10*s.* upon every 100*l.* assured by such policy, then such policy is revived, and continues in force.

Conditions of Assurance made by Persons on their own lives.

The assurance to be void if the person whose life is assured shall depart beyond the limits of Europe; shall die upon the seas except (not being a seafaring person by occupation) in passing during peace from any part of Europe to any other part of Europe; or shall enter into or engage in any military or naval service whatsoever, other than in the militia or in any yeomanry or volunteer corps acting within the United Kingdom of Great Britain and Ireland, without the previous consent of the society; or shall not be, at the time the assurance is made, in good health; or shall die by suicide, duelling, or the hands of justice, so far as respects such person, but shall remain in force so far as any other person or persons shall then have a *bonâ fide* interest therein, acquired three months previously to such decease by assignment, or legal or equitable lien, upon due proof of the value of such interest being made to the satisfaction of the managers, according to the claimant's debt or purchase money, with interest, and premiums paid by him; and if any person assured upon his own life, and who shall have been so for at least five years, shall die by his own hands, and not *felo de se*, the managers shall be at liberty, if they shall think proper, to pay for the benefit of his family, any sum not exceeding what the society would have paid for the purchase of his interest in the policy, if it had been surrendered to the society the day previous to his decease, provided the interest in such assurance shall then be in the assured, or in any trustee or trustees for him, or for his wife, or children.

N. B.—The above conditions apply equally to all policies of the society now in force.

Conditions of Assurance made by Persons on the lives of others.

The party on whose behalf the assurance is made, must be interested in the life of the other to the full amount assured thereon.

The assurance to be void, if the person whose life is assured shall depart beyond the limits of Europe; shall die upon the seas except (not being a seafaring person by occupation) in passing during peace from any part of Europe to any other part of Europe, or shall enter into or engage in any military or naval service whatsoever, other than in the militia or in any yeomanry or volunteer corps acting within the United Kingdom of Great Britain and Ireland without the previous consent of the society; or shall not be, at the time the assurance is made, in good health.

All claims are paid within 3 months after certificates (according to the required forms) of the death and burial of the deceased are approved by the managers.

No assurance can take place until the first payment is made.

Form of a Proposal for Assurance.

Name, and rank or profession, of the life to be assured.
Present residence.
Place of birth.
Date of birth.
Age next birth-day.
Sum.
Term.
Name and addition { of the usual medical attendant of the person whose life is proposed to be assured. / of a friend or acquaintance who knows well his habits of life.
Have you ever had gout or asthma, or any fit or fits?
Have you ever been afflicted with rupture?
Have you ever exhibited any symptom of consumption of the lungs?
Have any of your near relations died of consumption of the lungs, or other pulmonary disease?
Are you afflicted with any disorder tending to shorten life?
Are you afflicted with disease or disorder of any kind?
What is the state of your health generally?
Have you had the small-pox or the cow-pox?
Whether the person whose life is proposed to be assured, intends to appear at the office?
In whose name or behalf the policy is desired?
Date of proposal.
Annual Notices to be sent to

Form of Declaration to be made and signed by or on behalf of a Person who proposes to make an Assurance on the Life of another.

I
now resident at
in the county of being
desirous of assuring with the Sun Life Assurance Society, the sum of £ on the life of
born in the parish of
in the county of on the
day of in the year
and now resident at in the county of
Do declare, that I have an interest in the life of the said to the full amount of the said sum of £ ; that to the best of my knowledge and belief the age of the said does not exceed years; that he has had the * that he had the gout, asthma, rupture, nor any fit or fits, that he is sober and temperate in h habits of life, and that he is not afflicted with any disorder tending to shorten life; and this declaration is to be the basis of the Contract between me and the said Society; and if there be any untrue averment therein, all monies which shall have been paid to the Society upon account of the assurance made in consequence thereof, shall be forfeited. Dated the day of 18 .

* Insert small-pox or cow-pox, as the case may require.

**Policy by the Sun Life Assurance Society for* 1,000*l.*, *on the Life of A.B., aged Thirty, insuring his own Life.*

No.——

SUN LIFE ASSURANCE SOCIETY.

THIS POLICY OF ASSURANCE WITNESSETH, that, whereas A. B., Esq., of —— Square, London, being desirous of making an assurance upon his own life for the whole duration thereof, and having subscribed, or caused to be subscribed, and delivered into this office, a declaration setting forth his ordinary and present state of health, wherein it is declared that the age of the said A. B. did not then exceed 30 years; and having paid to the managers for the Sun Life Assurance Society, at their office, in the city of London, the sum of twenty-four pounds eleven shillings and eight-pence sterling, as a consideration for the assurance of the sum under-mentioned for *one year*, from the twentieth day of January, 1843.

NOW KNOW ALL MEN BY THESE PRESENTS, that in case the said assured shall happen to die at any time within the term of *one year*, as above set forth, the stock and funds of this Society shall be subject and liable to pay and make good to the executors, administrators, or assigns of the said assured, within three months after the demise of the said assured shall have been duly certified to the managers aforesaid, at their said office, the sum of one thousand pounds sterling, of lawful money of Great Britain, with such additions or additions as the managers for the said Society may from time to time make thereto, under the powers vested in them by an Act of Parliament made and passed in the Seventh Year of King William IV. cap. 47.

It is hereby agreed, that this policy may continue in force from *year* to *year*, until the expiration of the term first above-mentioned, provided that the said assured shall duly pay, or cause to be paid, to the managers, at their said office, on or before the nineteenth day of October next ensuing, the sum of twenty-four pounds eleven shillings and eight-pence sterling, and the like sum annually, on or before the day aforesaid; which annual payments shall be accepted, at every such period, as a full consideration for such assurance.

And it is hereby further agreed, that the assurance by this policy shall be extended during peace, to the risk of the above-named A. B., Esq. dying upon the sea in passing between any one part of Europe to any other part of Europe.

PROVIDED NEVERTHELESS, that should the said assured, within the term for which this policy is granted, depart beyond the limits of Europe, die upon the seas (except as above stated), or engage in any military or naval service whatsoever, other than in the militia or in any yeomanry or volunteer corps acting within the United Kingdom of Great Britain and Ireland; or should the assurance have been

obtained through any misrepresentation of the age, state of health, or description of the said assured; or should the said assured die by duelling, suicide, or the hands of justice; then this policy, and every thing appertaining thereto, shall cease, be void, and of none effect, so far as respects the said assured, but in case the said assured die by suicide, duelling, or the hands of justice, this policy shall remain in force so far as any other person or persons shall then have a *bonâ fide* interest therein, acquired three months previously to such decease by assignment, or by legal or equitable lien, upon due proof of the value of such interest being made to the satisfaction of the managers according to the claimant's debt or purchase money, with interest, and premiums paid by him. And if the said assured shall have been so for at least five years, and shall die by own hands, and not *felo de se*, the managers shall be at liberty, if they shall think proper, to pay for the benefit of family, any sum not exceeding what the society would have paid for the purchase of interest in the policy if it had been surrendered to the society the day previous to decease, provided such interest shall then be in the assured, or in any trustee or trustees for .

In WITNESS WHEREOF, we, three of the managers for the said Society, have hereunto set our hands and seals, this day of 18 .

N.B. This Society is in no case bound by notice of any Assignment of this Policy, unless the same be delivered in writing at their Office in Threadneedle-Street, London.

Signed, Sealed, and Delivered,
being first duly Stamped,
in the presence of
Their own Lives.

The following are the premiums demanded by the Sun Life Assurance Society, for insurances on joint lives and survivorships.

Joint Lives.—A Table of Annual Premiums payable during the joint Continuance of Two Lives, for assuring One Hundred Pounds, to be paid as soon as either of the Two shall drop.

Age next Birthday.	Age next Birthday.	Annual Premium.	Age next Birthday.	Age next Birthday.	Annual Premium.	Age next Birthday.	Age next Birthday.	Annual Premium.
		£ s. d.			£ s. d.			£ s. d.
10	10	2 7 5	20	35	3 17 3	35	45	5 7 5
	15	2 11 0		40	4 6 1		50	6 1 11
	20	2 14 6		45	4 16 1		55	7 6 5
	25	2 19 4		50	5 11 7		60	9 0 6
	30	3 5 3		55	6 16 8	40	40	5 5 8
	35	3 11 11		60	8 11 1		45	5 13 10
	40	4 1 1	25	25	3 9 6		50	6 7 9
	45	4 11 5		30	3 14 10		55	7 11 8
	50	5 7 2		35	4 0 11		60	9 5 5
	55	6 12 5		40	4 9 6			
	60	8 6 11		45	4 19 3	45	45	6 1 0
15	15	2 14 5		50	5 14 7		50	6 13 11
	20	2 17 9		55	6 19 7		55	7 16 11
	25	3 2 5		60	8 13 11		60	9 9 8
	30	3 8 3	30	30	3 19 10	50	50	7 5 6
	35	3 14 9		35	4 5 6		55	8 7 4
	40	4 3 10		40	4 13 10		60	9 18 11
	45	4 14 0		45	5 3 2	55	55	9 8 2
	50	5 9 8		50	5 18 3		60	10 18 11
	55	6 14 11		55	7 3 1			
	60	8 9 6		60	8 17 5	60	60	12 8 10
20	20	3 0 11	35	35	4 10 9			
	25	3 5 4		40	4 18 6			
	30	3 10 11						

Survivorship.—A Table of Annual Premiums payable during the joint Continuance of Two Lives, for assuring One Hundred Pounds, to be paid at the Decease of One Person, A., provided another, B. be then living.

Age of A., the Life to be assured.	Age of B., the Life against which the Assurance is to be made.	Annual Premium.	Age of A., the Life to be assured.	Age of B., the Life against which the Assurance is to be made.	Annual Premium.	Age of A., the Life to be assured.	Age of B., the Life against which the Assurance is to be made.	Annual Premium.
		£ s. d.			£ s. d.			£ s. d.
10	10	1 3 9	30	10	2 2 5	50	10	4 7 2
	20	1 4 7		20	2 2 1		20	4 7 0
	30	1 2 10		30	1 19 11		30	4 3 3
	40	1 1 6		40	1 18 6		40	4 1 7
	50	1 0 0		50	1 15 0		50	3 12 9
	60	0 18 5		60	1 12 2		60	3 1 6
	70	0 16 11		70	1 9 10		70	2 11 4
	80	0 15 7		80	1 7 4		80	2 3 2
20	10	1 9 11	40	10	2 19 7	60	10	7 8 6
	20	1 10 6		20	2 19 6		20	7 8 5
	30	1 8 10		30	2 15 4		30	7 5 3
	40	1 6 7		40	2 12 10		40	7 4 11
	50	1 4 7		50	2 6 2		50	6 17 5
	60	1 2 8		60	2 0 6		60	6 4 5
	70	1 0 9		70	1 16 3		70	5 8 8
	80	0 19 3		80	1 13 6		80	4 14 4

From the specimens of premiums in the two preceding Tables, the reader will easily judge of the proportional premiums for any combination of two ages not inserted in them.

Instead of a gross sum payable at the decease of A. provided B. be then living, a reversionary annuity on the remainder of the life of B. after the decease of A. may be insured by the payment of an annual premium during the joint continuance of the two lives; which annual premium may be learnt by application at the office.

TABLE OF PREMIUMS.

The following tabular statement shows the premiums demanded by the principal Life Insurance Societies for insuring 100*l.* at every different age from 15 to 60, for the whole term of life.

Age.	Alliance and Sun.			Amicable.			Asylum.			British Commercial.			Crown.			Economic.			Equitable.			Eagle. Male.			Eagle. Female.			European.			Guardian.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
15	1	12	8	1	15	6	1	7	9	1	10	0	1	15	9	1	10	8	1	18	7	1	18	9	-	-	-	1	13	7	1	16	2
16	1	13	6	1	16	6	1	8	3	1	11	6	1	16	7	1	11	5	1	19	8	1	19	5	-	-	-	1	14	4	1	17	2
17	1	14	3	1	17	6	1	9	3	1	12	0	1	17	5	1	12	3	2	0	8	2	0	5	-	-	-	1	15	4	1	18	2
18	1	15	1	1	18	6	1	10	1	1	13	0	1	18	3	1	13	0	2	1	8	2	1	4	-	-	-	1	16	4	1	19	2
19	1	16	0	1	19	6	1	10	11	1	14	0	1	19	1	1	13	10	2	2	8	2	2	3	-	-	-	1	17	1	2	0	1
20	1	16	11	2	0	6	1	11	9	1	15	0	1	19	11	1	14	7	2	3	7	2	3	2	1	12	7	1	18	1	2	1	0
21	1	17	11	2	1	6	1	12	7	1	16	0	2	0	10	1	15	5	2	4	6	2	4	2	1	13	5	1	19	0	2	1	10
22	1	18	11	2	2	6	1	13	6	1	17	0	2	1	9	1	16	3	2	5	3	2	5	4	1	14	4	1	19	11	2	2	8
23	2	0	1	2	3	6	1	14	5	1	18	0	2	2	9	1	17	2	2	6	3	2	6	4	1	15	4	2	0	10	2	3	6
24	2	1	5	2	4	6	1	15	5	1	19	0	2	3	9	1	18	1	2	7	4	2	7	5	1	16	5	2	1	10	2	4	5
25	2	2	6	2	5	6	1	16	5	2	0	0	2	4	10	1	19	0	2	8	1	2	8	7	1	17	6	2	2	9	2	5	4
26	2	3	7	2	6	6	1	17	6	2	1	0	2	5	10	2	0	0	2	9	1	2	9	8	1	18	8	2	3	9	2	6	4
27	2	5	2	2	7	6	1	18	6	2	2	0	2	6	11	2	1	0	2	10	1	2	11	0	1	19	9	2	4	10	2	7	4
28	2	6	7	2	8	6	1	19	8	2	3	0	2	8	1	2	2	0	2	11	1	2	12	3	2	0	9	2	5	10	2	8	4
29	2	7	11	2	9	6	2	0	10	2	4	0	2	9	2	2	3	1	2	12	3	2	13	0	2	1	8	2	6	11	2	9	7
30	2	9	2	2	10	6	2	2	0	2	5	0	2	10	4	2	4	3	2	13	5	2	15	0	2	2	6	2	8	1	2	10	7
31	2	10	6	2	11	6	2	3	3	2	6	0	2	11	6	2	5	5	2	14	7	2	16	6	2	3	4	2	9	3	2	11	10
32	2	11	10	2	12	6	2	4	6	2	7	0	2	12	9	2	6	8	2	15	9	2	18	0	2	3	10	2	10	0	2	13	0
33	2	13	4	2	14	0	2	5	10	2	8	0	2	14	0	2	8	0	2	17	1	2	19	0	2	4	4	2	11	0	2	14	8
34	2	14	11	2	15	6	2	7	3	2	9	0	2	15	4	2	9	5	2	18	5	3	1	0	2	5	4	2	12	0	2	15	8
35	2	16	8	2	17	6	2	8	9	2	11	0	2	16	0	2	10	11	2	19	10	3	3	5	2	6	6	2	13	0	2	17	0
36	2	18	5	2	18	6	2	10	3	2	13	0	2	18	0	2	12	6	3	1	4	3	5	5	2	7	8	2	14	0	2	18	6
37	3	0	4	3	0	6	2	11	10	2	15	0	2	19	10	2	14	2	3	3	2	3	7	7	2	9	0	2	15	0	2	19	4
38	3	2	2	3	1	6	2	13	6	2	16	0	3	0	2	2	15	11	3	5	0	3	9	10	2	10	10	2	16	0	3	0	8
39	3	4	5	3	3	0	2	15	3	2	18	0	3	3	10	2	17	9	3	8	2	3	11	8	2	12	4	2	17	0	3	2	0
40	3	6	6	3	5	0	2	17	1	3	0	0	3	4	7	2	19	9	3	7	11	3	15	0	2	15	0	2	19	0	3	3	4
41	3	8	7	3	7	6	2	19	0	3	2	0	3	6	5	3	1	10	3	9	9	3	17	9	2	18	2	3	0	9	3	6	8
42	3	10	9	3	10	0	3	1	0	3	4	0	3	8	4	3	3	1	3	11	8	4	1	0	2	21	0	3	2	8	3	8	8
43	3	12	11	3	12	6	3	3	2	3	6	0	3	10	3	3	5	0	3	13	8	4	4	4	2	23	3	3	4	8	3	10	8
44	3	15	3	3	15	0	3	5	3	3	8	0	3	12	2	3	7	0	3	15	9	4	7	11	2	25	7	3	6	8	3	12	8
45	3	17	8	3	18	6	3	7	4	3	10	0	3	14	1	3	9	0	3	17	11	4	11	8	2	27	11	3	8	7	3	14	11
46	4	0	5	4	1	6	3	10	3	3	12	0	3	17	0	3	14	7	4	0	2	4	15	9	2	30	2	3	10	7	3	17	3
47	4	3	3	4	5	0	3	12	11	3	14	0	4	0	1	3	17	8	4	2	7	4	19	7	2	32	7	3	12	7	3	19	8
48	4	6	6	4	9	6	3	15	9	3	17	0	4	2	11	4	0	11	4	5	1	5	4	6	2	35	0	3	14	7	4	0	8
49	4	10	2	4	12	6	3	18	3	3	19	6	4	5	10	4	4	4	4	7	10	5	9	6	2	37	6	3	16	7	4	2	9
50	4	14	2	4	16	6	4	2	0	4	6	0	4	8	11	4	8	0	4	10	8	5	14	7	3	4	4	4	5	6	4	5	10
51	4	18	9	5	0	0	4	5	5	4	10	0	4	12	1	4	11	11	4	13	6	6	0	3	3	6	5	4	8	6	4	11	0
52	5	3	6	5	4	6	4	9	2	4	13	2	4	15	6	4	16	1	4	16	5	6	6	4	3	8	4	4	11	0	4	14	2
53	5	8	7	5	8	6	4	13	2	4	15	6	4	18	6	5	0	6	4	19	7	6	12	9	3	10	8	4	13	0	4	17	5
54	5	14	1	5	13	0	4	17	7	5	1	0	5	1	11	5	5	3	5	2	10	6	19	2	3	13	0	4	15	0	5	0	11
55	5	19	11	5	18	0	5	2	3	5	5	0	5	5	7	5	10	0	5	6	4	7	7	2	3	15	8	4	16	8	5	3	4
56	6	6	4	6	3	0	5	7	4	5	9	6	5	13	7	5	15	0	5	10	1	8	3	6	3	18	4	5	2	8	5	6	8
57	6	13	2	6	8	6	5	12	9	5	13	2	5	13	6	6	1	5	5	14	0	8	12	7	4	1	7	5	11	8	5	9	11
58	7	0	5	6	14	0	5	18	5	5	18	0	6	7	4	6	7	4	5	18	2	8	12	2	4	8	0	5	15	8	6	2	2
59	7	7	9	7	0	0	6	4	5	6	2	4	6	13	9	6	13	9	6	2	8	9	2	4	4	8	7	6	0	8	6	7	2
60	7	14	11	7	6	6	6	10	9	6	7	2	6	17	2	7	0	7	6	7	4	9	13	0	4	12	4	6	5	8	6	7	2

Age.	London, Birchin Lane.			London, Life for Members.			Norwich.			Pelican.			Promoter.			United Empire.			University.			West of England.			Scottish Widows' Fund.			Scottish Union.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
15	-	-	-	-	-	-	1	14	9	1	11	11	1	7	11	1	14	10	1	16	8	1	14	9	1	16	6	1	11	9
16	1	17	1	-	-	-	1	15	9	1	12	9	1	8	8	1	15	9	1	17	9	1	15	9	1	17	6	1	12	6
17	1	18	1	-	-	-	1	16	9	1	13	6	1	9	5	1	16	8	1	18	8	1	16	8	1	18	7	1	13	7
18	1	19	0	-	-	-	1	17	8	1	14	4	1	10	1	1	17	8	1	19	7	1	17	6	1	19	7	1	14	8
19	1	19	11	-	-	-	1	18	6	1	15	3	1	10	11	1	18	7	2	0	7	1	18	6	2	0	7	1	15	9
20	2	0	9	-	-	-	1	19	6	1	16	1	1	11	8	1	19	6	2	1	5	1	19	5	2	1	6	1	16	10
21	2	1	5	2	4	6	2	0	6	1	16	10	1	12	6	2	0	5	2	2	4	2	0	0	2	2	5	1	17	9
22	2	2	7	2	5	6	2	1	3	1	17	7	1	13	5	2	2	1	2	3	1	2	0	10	2	3	3	1	18	10
23	2	2	7	2	6	6	2	2	0	1	18	4	1	14	4	2	2	1	2	4	0	2	1	3	2	4	1	2	0	0
24	2	3	1	2	7	0	2	2	9	1	19	2	1	15	5	2	3	0	2	4	9	2	2	6	2	4	11	2	1	1
25	2	3	8	2	8	0	2	3	8	2	0	1	1	16	6	2	3	11	2	5	6	2	3	0	2	5	10	2	2	2
26	2	4	3	2	9	0	2	4	8	2	1	5	1	17	6	2	4	11	2	6	4	2	4	0	2	6	10	2	3	3
27	2	5	1	2	10	0	2	5	8	2	2	3	1	18	8	2	5	11	2	7	7	2	5	0	2	7	10	2	4	4
28	2	5	11	2	11	0	2	6	8	2	3	11	1	19	11	2	7	0	2	8	7	2	6	0	2	8	11	2	5	5
29	2	6	10	2	12	6	2	7	9	2	5	2	2	1	1	2	8	1	2	9	8	2	7	0	2	9	0	2	6	6
30	2	7	10	2	13	6	2	8	10	2	6	4	2	2	2	2	9	2	2	10	9	2	8	0	2	10	1	2	7	8
31	2	8	10	2	14	6	2	10	0	2	7	7	2	3	3	2	10	4	2	11	11	2	9	0	2	11	1	2	8	9
32	2	9	11	2	16	0	2	11	1	2	8	10	2	4	5	2	11	6	2	13	0	2	10	3	2	12	5	2	9	5
33	2	11	1	2	17	0	2	12	3	2	10	3	2	5	8	2	12	9	2	14	3	2	11	3	2	13	9	2	10	2
34	2	12	4	2	18	6	2	13	6	2	11	9	2	7	1	2	14	1	2	15	6	2	12	9	2	14	9	2	11	4
35	2	13	8	3	0	0	2	14	10	2	13	5	2	8	7	2	15	6	2	16	11	2	13	10	2	15	10	2	12	6
36	2	15	1	3	1	6	2	16	2	2	15	1	2	10	1	2	16	11	2	18	4	2	15	3	2	17	0	2	13	8
37	2	16	8	3	3	0	2	17	6	2	16	10	2	11	8	2	18	4	2	19	9	2	16	8	2	18	3	2	14	11
38	2	18	2	3	4	6	2	19	0	2	18	6	2	13	6	2	19	11	3	1	4	2	18	1	2	19	6	2	16	2
39	2	19	11	3	5	0	3	0	6	2	19	9	2	15	6	3	1	6	3	3	2	2	19	6	3	1	3	2	17	7
40	3	1	8	3	8	0	3	2	0	3	2	8	2	17	0	3	3	2	3	4	7	3	1	3	3	3	6	3	1	1
41	3	3	6	3	10	0	3	3	2	3	5	2	2	18	10	3	4	10	3	6	4	3	2	10	3	5	3	3	3	8
42	3	5	6	3	12	0	3	5	2	3	7	8	3	0	8	3	6	8	3	8	1	3	4	6	3	7	1	3	5	8
43	3	7	8	3	14	0	3	7	0	3	10	4	3	2	6	3	8	8	3	10	0	3	6	4	3	9	2	3	7	9
44	3	10	0	3	16	0	3	9	0	3	13	1	3	4	6	3	10	4	3	12	0	3	8	2	3	11	4	3	9	10
45	3	12	6	3	18	0	3	11	1	3	16	3	3	6	4	3	12	10	3	14	1	3	10	3	3	13	9	3	11	6
46	3	15	2	4	0	0	3	13	3	3	18	8	3	8	11	3	15	3	3	16	2	3	12	2	3	15	7	3	13	7
47	3	18	2	4	2	6	3	16	3	4	1	6	3	11	5	3	17	7	3	18	6	3	14	6	3	17	6	3	15	9
48	4	1	5	4	5	0	3	19	6	4	4	2	3	14	2	4	0	7	4	1	4	3	16	9	4	0	3	3	18	3
49	4	4	10	4	8	0	4	2	9	4	4	8	3	17	3	4	3	6	4	4	4	3	19	3	4	2	9	4	0	4
50	4	8	5	4	11	0	4	3	2	4	6	0	4	0	8	4	6	6	4	7	6	4	1	8	4	5	4	4	4	5
51	4	12	3	4	14	0	4	4	0	4	9	8	4	16	7	4	9	9	4	10	9	4	4	3	4	8	2	4	6	1
52	4	16	1	4	17	0	4	5	0	4	13	3	4	18	5	4	13	0	4	14	1	4	7	10	4	11	4	4	8	2
53	5	0	1	5	0	6	4	6	0	4	17	0	5	1	4	4	16	1	4	17	8	4	11	4	4	14	4	4	10	3
54	5	4	2	5	5	0	4	7	0	4	20	5	5	11	3	4	17	10	5	0	6	4	14	9	4	17	8	4	11	4
55	5	8	4	5	9	6	4	8	0	5	3	7	5	17	4	5	2	9	5	4	6	4	17	7	4	20	9	4	13	5
56	5	12	8	5	14	0	4	9	0	5	6	11	6	3	7	5	8	4	5	7	6	4	20	6	4	23	9	4	16	6
57	5	17	2	5	19	0	4	10	0	5	10	4	6	10	4	5	14	2	5	12	6	5	14	0	5	2	6	4	19	7
58	6	1	10	6	4	0	4	11	0	5	13	6	6	17	5	6	0	4	5	17	0	5	18	2	5	6	6	5	2	8
59	6	6	10	6	9	6	4	12	0	5	16	9	6	24	6	6	6	7	6	1	9	5	10	6	5	10	6	5	8	10
60	6	12	2	6	15	0	4	13	0	5	20	3	7	11	7	6	12	10	6	7	0	5	20	3	5	14	9	5	14	0

Equitable Assurance Society.—The following is the

*Declaration required to be made and signed in the Office, by or on the Behalf of a Person * who proposes to make an Assurance on his or her own Life.*

I

being desirous of becoming a member of the Society for Equitable Assurances on Lives and Survivorships, and intending to make assurance in the Sum of

upon and for the continuance of my own life, and having perused and considered that * clause of the deed of settlement of the said Society which requires a declaration in writing of the age, state of health, and other circumstances attending the person whose life shall be proposed to be assured, do hereby declare and set forth, that my age does not exceed ; that I have had the small-pox ; and have had the gout; and that I am not afflicted with any disorder which tends to the shortening of life; and I do hereby agree that this declaration be the basis of the contract between the said Society and me, and that if any untrue averment is contained in this declaration, all monies which shall have been paid to the Society upon account of the assurance made in consequence thereof, shall be forfeited. Dated the day of in the year of our Lord .

* *The Clause which is referred to in the Declaration.*

That every person desirous of making assurance with the Society, shall sign or execute a declaration in writing (in the presence of one credible witness, who shall attest the same), setting forth the age, state of health, profession, occupation, and other circumstances attending the person or persons whose life or lives shall be proposed to be assured; which declaration shall be the basis of the contract between the said Society and the person desiring to make assurance with them; in which declaration if any artful, false, or fraudulent representation shall be used, and the same shall at any time thereafter be discovered, from thenceforth the sums which shall have been paid to the Society on account of any assurance so fraudulently obtained, shall be forfeited to the use of the Society; and all claims to be made on that behalf shall cease, determine, and be void, to all intents and purposes whatsoever.

Form of a Proposal to be presented to a Weekly Court of Directors.

Name and profession of the life to be assured.
Place and date of birth.
Place of residence.
Age. Sum. Term.
By whom made.
To give reference to two † persons of good repute, (one, if possible, of the medical profession,) to ascertain the present and general state of health of the life to be assured.
If had the small-pox. If vaccinated.
If afflicted with the gout. If ever ruptured.

† Parties who do not appear before the Court of Directors are required to give a reference to 3 persons for an account of the present and general state of their health.

A Table of Annual Premiums payable during the Continuance of Two Joint Lives for assuring One Hundred Pounds, to be paid when either of the Lives shall drop.

Age.	Age.	£ s. d.	Age.	Age.	£ s. d.	Age.	Age.	£ s. d.	Age.	Age.	£ s. d.	Age.	Age.	£ s. d.
10	10	2 17 1	15	35	4 3 1	20	67	9 13 9	30	60	7 15 0	45	45	6 7 4
	15	3 1 1		40	4 10 4	25	25	4 0 10		67	9 18 1		50	6 17 9
	20	3 5 7		45	4 19 5		30	4 5 0	35	35	4 19 0		55	7 11 0
	25	3 9 3		50	5 11 3		35	4 10 3		50	5 5 6		60	8 9 6
	30	3 13 9		55	6 6 1		40	4 17 4		45	5 18 10		67	10 11 1
	35	3 19 6		60	7 6 0		45	5 6 2		50	6 5 0	50	50	7 7 8
	40	4 6 10		67	9 9 5		50	5 17 10		55	6 19 2		55	8 0 3
	45	4 15 11	20	20	3 13 11		55	6 12 6		60	7 18 6		60	8 18 2
	50	5 7 10		25	3 17 5		60	7 12 5		67	10 1 2		67	10 18 10
	55	6 2 8		30	4 1 9		67	9 15 9	40	40	5 11 9	55	55	8 12 2
	60	7 2 9		35	4 7 3	30	30	4 8 11		45	5 19 9		60	9 9 0
	67	9 6 3		40	4 14 6		35	4 14 1		50	6 10 8		67	11 8 5
15	15	3 5 0		45	5 3 6		40	5 0 11		55	7 4 5	60	60	10 4 9
	20	3 9 6		50	5 15 4		45	5 9 6		60	8 3 4		67	12 2 1
	25	3 13 1		55	6 10 2		50	6 1 0		67	10 5 6	67	67	13 15 8
	30	3 17 6		60	7 10 2		55	6 15 5						

An addition of 22 per cent., *computed upon the premium*, is charged upon military persons; and an addition of *eleven per cent.* on officers on half-pay, officers in the militia, fencibles, and the like levies; also on persons not having had the small-pox, or having had the gout.

Persons preferring the payment of a gross sum or single premium upon an assurance for any certain term, are chargeable in a due proportion to the annual premium for such term.

Every person making any assurance with the Society, pays 5*s.* in the name of entrance money; and if the sum assured exceeds 100*l.*, the entrance money is charged after the rate of 5*s.* for every 100*l.* But if the person upon whose life an assurance is proposed, does not appear before the directors, the entrance money is charged after the rate of 1*l.* for every 100*l.*

The following are the premiums demanded by the Equitable Society for insuring 100*l.*, or an equivalent annuity on the contingency of one life's surviving the other: —

Ages.		Premium.	Annuity equivalent to 100*l.* to be paid from the Death of the Life assured, during the Remainder of the other Life.
Life to be assured.	Life against which the Assurance is to be made.	£. s. d.	£ s. d.
10	10	1 8 6	5 14 6
	20	1 9 1	6 14 10
	30	1 8 3	7 14 11
	40	1 7 8	9 5 6
	50	1 6 11	11 13 0
	60	1 6 0	15 13 5
	70	1 4 11	23 13 0
	80	1 3 4	40 10 8
20	10	1 16 6	5 6 11
	20	1 17 0	6 4 1
	30	1 15 9	7 0 6
	40	1 14 8	8 4 11
	50	1 13 6	10 1 9
	60	1 12 1	13 0 7
	70	1 10 6	18 12 8
	80	1 8 3	30 9 6
30	10	2 5 5	5 5 8
	20	2 6 0	6 2 9
	30	2 4 6	6 19 6
	40	2 2 9	8 3 8
	50	2 0 11	10 0 6
	60	1 18 10	13 0 0
	70	1 16 7	18 12 10
	80	1 13 9	30 9 3
40	10	2 19 2	5 3 6
	20	2 19 10	5 19 9
	30	2 18 2	6 16 8
	40	2 15 11	8 1 0
40	50	2 12 10	9 16 6
	60	2 9 4	12 14 3
	70	2 5 11	18 5 6
	80	2 1 10	29 19 10
50	10	4 0 11	5 1 4
	20	4 1 10	5 16 2
	30	4 0 1	6 12 2
	40	3 17 10	7 16 9
	50	3 13 10	9 12 8
	60	3 7 7	12 6 8
	70	3 1 6	17 11 5
	80	2 15 0	28 12 6
60	10	5 16 9	4 19 3
	20	5 18 1	5 12 10
	30	5 16 3	6 7 7
	40	5 14 0	7 10 10
	50	5 10 7	9 8 0
	60	5 2 4	12 5 6
	70	4 9 10	17 5 8
	80	3 17 11	27 19 10
70	10	8 1 0	4 17 8
	20	8 2 9	5 10 5
	30	8 0 10	6 4 0
	40	7 18 7	7 5 5
	50	7 15 6	9 0 6
	60	7 8 8	12 0 3
	70	6 10 8	17 1 8
	80	5 8 9	27 5 11

It is stated by Mr. Morgan, in his Account of the Equitable Society already referred to, that the number of insurances in that institution for terms of years does not much exceed the *one hundredth part* of those for the whole period of life; and that the business of the office at present is almost wholly confined to the assurance of persons on *their own lives*—those on the lives of *others*, whether for terms or for continuance, being, in consequence of the commission money allowed to agents and attorneys, engrossed by the new offices.—(*Account of the Equitable Society*, p. 53.)

INTEREST AND ANNUITIES. Interest is the sum paid by the borrower of a sum of money, or of any sort of valuable produce, to the lender, for its use.

The rate of interest, supposing the security for and facility of re-possessing the principal, or sum lent, to be equal, must obviously depend on what may be made by the employment of capital in industrious undertakings, or on the rate of profit. Where profits are high, as in the United States, interest is also high; and where they are comparatively low, as in Holland and England, interest is proportionally low. In fact, the rate of interest is nothing more than the *nett* profit on capital: whatever returns are obtained by the borrower, beyond the interest he has agreed to pay, really accrue to him on account of risk, trouble, or skill, or of advantages of situation and connection.

But besides fluctuations in the rate of interest caused by the varying productiveness of industry, the rate of interest on each particular loan must, of course, vary according to the supposed solvency of the borrowers, or the degree of risk supposed to be incurred by the lender, of either not recovering payment at all, or not recovering it at the stipulated term. No person of sound mind would lend on the personal security of an individual of doubtful character and solvency, and on mortgage over a valuable estate, at the same rate of interest. Wherever there is risk, it must be compensated to the lender by a higher premium or interest.

And yet, obvious as this principle may appear, all governments have interfered with the adjustment of the terms of loans: some to prohibit interest altogether, and others to fix certain rates which it should be deemed legal to charge, and illegal to exceed. The prejudice against taking interest seems to have principally originated in a mistaken view of some enactments of the Mosaical law—(see *Michaelis on the Laws of Moses*, vol. ii. pp. 327—353. Eng. ed.), and a statement of Aristotle, to the effect that, as money did not produce money, no return could be equitably claimed by the lender! But whatever may have been the origin of this prejudice, it was formerly universal in Christendom; and is still supported by law in all Mohammedan countries. The famous reformer, Calvin, was one of the first who saw and exposed the absurdity of such notions—(see an extract from one of his epistles *in Principles of Political Economy*, by the author of this work, 3d ed. p. 520.); and the abuses caused by the prohibition, and the growing conviction of its impolicy, soon after led to its relaxation. In 1554, a statute was passed authorising lenders to charge 10 per cent. interest. In 1624, the legal rate was reduced to 8 per cent.; and in the reign of Queen Anne it was further reduced to 5 per cent., at which it still continues. It is enacted, by the statute (12 Ann. c. 16.) making this reduction, that "all persons who shall receive, by means of any corrupt bargain, loan, exchange, chevizance, or interest of any wares, merchandise, or other thing whatever, or by any deceitful way or means, or by any covin, engine, or deceitful conveyance for the forbearing or giving day of payment, for one whole year for their money or other thing, above the sum of 5*l.* for 100*l.* for a year, shall forfeit for every such offence, the *treble* value of the monies, or other things, so lent, bargained," &c.

It is needless to waste the reader's time by entering into any lengthened arguments to show the inexpediency and mischievous effect of such interferences. This has been done over and over again. It is plainly in no respect more desirable to limit the rate of interest, than it would be to limit the rate of insurance, or the prices of commodities. And though it were desirable, it cannot be accomplished. The real effect of all legislative enactments having such an object in view, is to increase, not diminish, the rate of interest. When the rate fixed by law is less than the market or customary rate, lenders and borrowers are obliged to resort to circuitous devices to evade the law; and as these devices are always attended with more or less trouble and risk, the rate of interest is proportionally enhanced. During the late war it was not uncommon for a person to be paying 10 or 12 per cent. for a loan, which, had there been no usury laws, he might have got for 6 or 7 per cent. Neither was it by any means uncommon, when the rate fixed by law was more than the market rate, for borrowers to be obliged to pay more than they really stipulated for. It is singular that an enactment which contradicted the most obvious principles, and had been repeatedly condemned by committees of the legislature, should have been allowed to preserve a place in the statute book, for so long a period; but at length it was substantially repealed by the act 2 & 3 Victoria, c. 37., which exempts bills of exchange not having more than 12 months to run, and contracts for loans of money above 10*l.*, from its operation.

Distinction of Simple and Compound Interest.—When a loan is made, it is usual to stipulate that the interest upon it should be regularly paid at the end of every year, half year, &c. A loan of this sort is said to be at simple interest. It is of the essence of such loan, that no part of the interest accruing upon it should be added to the principal to form a new principal; and though payment of the interest were not made when it becomes due, the lender would not be entitled to charge interest upon such unpaid interest. Thus, suppose 100*l.* were lent at simple interest at 5 per cent., payable at the end of each year;

the lender would, at the end of 3 or 4 years, supposing him to have received no previous payments, be entitled to 15*l.* or 20*l.*, and no more.

Sometimes, however, money or capital is invested so that the interest is not paid at the periods when it becomes due, but is progressively added to the principal; so that at every term a new principal is formed, consisting of the original principal, and the successive accumulations of interest upon interest. Money invested in this way is said to be placed at *compound interest*.

It appears not unreasonable, that when a borrower does not pay the interest he has contracted for, at the period when it is due, he should pay interest upon such interest. This, however, is not allowed by the law of England; nor is it allowed to make a loan at compound interest. But this rule is often evaded, by taking a new obligation for the principal with the interest included, when the latter becomes due. Investments at compound interest are also very frequent. Thus, if an individual buy into the funds, and regularly buy fresh stock with the dividends, the capital will increase at compound interest; and so in any similar case.

Calculation of Interest. — Interest is estimated at so much per cent. per annum, or by dividing the principal into 100 equal parts, and specifying how many of these parts are paid yearly for its use. Thus, 5 per cent., or 5 parts out of 100, means that 5*l.* are paid for the use of 100*l.* for a year, 10*l.* for the use of 200*l.*, and 2*l.* 10*s.* for the use of 50*l.* for the same period, and so on.

Suppose, now, that it is required to find the interest of 210*l.* 13*s.* for $3\frac{1}{4}$ years at 4 per cent. simple interest. In this case we must first divide the principal, 210*l.* 13*s.* into 100 parts, 4 of which will be the interest for 1 year; and this being multiplied by $3\frac{1}{4}$ will give the interest for $3\frac{1}{4}$ years. But instead of first dividing by 100, and then multiplying by 4, the result will be the same, and the process more expeditious, if we first multiply by 4, and then divide by 100. Thus,—

£	s.					
210	13	principal				
	4	rate per cent.				
		£	s.	d.		
1,00) 8,12	12 (	8	8	$6\frac{1}{2}$		1 year's interest.
20				3[1]		
8,52		25	5	$6\frac{3}{4}$		3 years' interest.
12		4	4	3		$\frac{1}{4}$ a year's interest.
6,24		£29	9	$9\frac{3}{4}$		$3\frac{1}{4}$ years' interest.
4						
96						

It is almost superfluous to observe, that the same result would have been obtained by multiplying the product of the principal and rate by the number of years, and then dividing by 100.

Hence, to find the interest of any sum at any rate per cent. for a year, multiply the sum by the rate per cent., and divide the product by 100.

To find the interest of any sum for a number of years, multiply its interest for one year by the number of years; or, without calculating its interest for one year, multiply the principal by the rate per cent. and that product by the number of years, and divide the last product by 100.

When the interest of any sum is required for a number of days, they must be treated as fractional parts of a year; that is, we must multiply the interest of a year by them, and divide by 365.

Suppose that it is required to find the interest of 210*l.* for 4 years 7 months and 25 days, at $4\frac{1}{2}$ per cent.—

Principal -	£210	Interest for 4 years	= £37·8000
Rate per cent. -	$4\frac{1}{2}$	6 months = $\frac{1}{2}$ of 1 year	= 4·7250
	840	1 month = $\frac{1}{6}$ of 6 months	= ·7875
	105	25 days	= ·6472
Interest for 1 year	£9·45 × 4 = £37·80 do. for 4 years.		£43·9597 = £43 19*s.* 2$\frac{1}{4}$*d.*

The interest for 25 days is $\frac{9{\cdot}45 \times 25}{365} = {\cdot}6472$; that is, it is equal to the interest for a year multiplied by the fraction $\frac{25}{365}$.

Division by 100 is performed by cutting off two figures to the right.

Many attempts have been made to contrive more expeditious processes than the above for calculating interest. The following is the best: —

Suppose it were required to find the interest upon 172*l.* for 107 days at 5 per cent.

This forms what is called in arithmetical books a double rule of three question, and would be stated as follows: —

£ Days. £ £ Days.
100 × 365 : 5 :: 172 × 107 : 2*l.* 10*s.* 4$\frac{1}{2}$*d.*, the interest required.

Hence, to find the interest of any sum for any number of days at any rate per cent., multiply the sum by the number of days, and the product by the rate, and divide by 36,500 (365×100); the quotient is the interest required.

When the rate is 5 per cent., or 1-20th of the principal, all that is required is to divide the product of the sum multiplied by the days by 7,300 (365, the days in a year, multiplied by 20).

Five per cent. interest being found by this extremely simple process, it is usual in practice to calculate 4 per cent. interest by deducting 1-5th; 3 per cent. by deducting 2-5ths; $2\frac{1}{2}$ per cent. by dividing by 2; 2 per cent. by taking the half of 4, and so on.

In calculating interest upon accounts current, it is requisite to state the number of days between each receipt, or payment, and the date (commonly the 31st of December) to which the account current is made up. Thus, 172*l.* paid on the 15th of September, bearing interest to the 31st of December, 107 days. The amount of such interest may, then, be calculated as now explained, or by the aid of Tables. The reader will find, in the article BOOKKEEPING (p. 155.) an example of interest on an account current computed as above, without referring to Tables.

The 30th of June is, after the 31st of December, the most usual date to which accounts current are made up, and interest calculated. In West India houses, the 30th of April is the common date, because at that season the old crop of produce is generally sold off, and the new begins to arrive.

It is of great importance, in calculating interest on accounts current, to be able readily to find the number of days from any day in any one month to any day in any other month. This may be done with the utmost ease by means of the annexed Table. (See next page.)

By this Table may be readily ascertained the number of days from any given day in the year to another. For instance, from the 1st of January to the 14th of August (first and last days included), there are 226 days. To find the number, look down the column headed January, to Number 14, and then look along in a parallel line to the column headed August, you find 226, the number required.

To find the number of days between any other two given days, when they are both after the 1st of January, the number opposite the 1st day must, of course, be deducted from that opposite to the second. Thus, to find the number of days between the 13th of March and the 19th of August, deduct from 231, the number in the Table opposite to 19 and under August, 72, the number opposite to 13 and under March, and the remainder, 159, is the number required, last day included.

In leap years, *one* must be added to the number after the 28th of February.

For the mode of calculating discount, or of finding the present values of sums due at some future date, at simple interest, see DISCOUNT.

In counting-houses, Interest Tables are very frequently made use of. Such publications have, in consequence, become very numerous. Most of them have some peculiar recommendation; and are selected according to the object in view.

When interest, instead of being simple, is compound, the first year's or term's interest must be found

and being added to the original principal, makes the principal upon which interest is to be calculated for the second year or term; and the second year's or term's interest being added to this last principal, makes that upon which interest is to be calculated for the third year or term; and so on for any number of years.

But when the number of years is considerable, this process becomes exceedingly cumbersome and tedious, and to facilitate it Tables have been constructed, which are subjoined to this article.

The first of these tables (No. I.) represents the amount of 1*l.* accumulating at compound interest, at 3, 3½, 4, 4½, and 5 per cent. every year, from 1 year to 70 years, in pounds and decimals of a pound. Now, suppose that we wish to know how much 500*l.* will amount to in 7 years at 4 per cent. In the column marked 4 per cent. and opposite to 7 years, we find 1·315,932*l.*, which shows that 1*l.* will, if invested at 4 per cent. compound interest amount to 1·315,932 in 7 years; and consequently, 500*l.* will, in the same time, and at the same rate, amount to 500 × 1·315,932*l.* or 657·966*l.*; that is 657*l.* 19*s.* 4*d.*

For the same purpose of facilitating calculation, the present value of 1*l.* due any number of years hence, not exceeding 70, at 3, 3½, 4, 4½, and 5 per cent. compound interest, is given in the subjoined Table, No. II. The use of this Table is precisely similar to the one below. Let it, for example, be required to find the present worth of 560*l.* due 7 years hence, reckoning compound interest at 4 per cent. Opposite to 7 years, and under 4 per cent., we find ·75291,781*l.*, the present worth of 1*l.* due at the end of 7 years; and multiplying this sum by 500*l.*, the product, being 379·9589*l.*, or 379*l.* 19*s.* 2*d.*, is the answer required.

Table for ascertaining the Number of Days from any one Day in the Year to any other Day.

Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	60	91	121	152	182	213	244	274	305	335	17	48	76	107	137	168	198	229	260	290	321	351
2	33	61	92	122	153	183	214	245	275	306	336	18	49	77	108	138	169	199	230	261	291	322	352
3	34	62	93	123	154	184	215	246	276	307	337	19	50	78	109	139	170	200	231	262	292	323	353
4	35	63	94	124	155	185	216	247	277	308	338	20	51	79	110	140	171	201	232	263	293	324	354
5	36	64	95	125	156	186	217	248	278	309	339	21	52	80	111	141	172	202	233	264	294	325	355
6	37	65	96	126	157	187	218	249	279	310	340	22	53	81	112	142	173	203	234	265	295	326	356
7	38	66	97	127	158	188	219	250	280	311	341	23	54	82	113	143	174	204	235	266	296	327	357
8	39	67	98	128	159	189	220	251	281	312	342	24	55	83	114	144	175	205	236	267	297	328	358
9	40	68	99	129	160	190	221	252	282	313	343	25	56	84	115	145	176	206	237	268	298	329	359
10	41	69	100	130	161	191	222	253	283	314	344	26	57	85	116	146	177	207	238	269	299	330	360
11	42	70	101	131	162	192	223	254	284	315	345	27	58	86	117	147	178	208	239	270	300	331	361
12	43	71	102	132	163	193	224	255	285	316	346	28	59	87	118	148	179	209	240	271	301	332	362
13	44	72	103	133	164	194	225	256	286	317	347	29		88	119	149	180	210	241	272	302	333	363
14	45	73	104	134	165	195	226	257	287	318	348	30		89	120	150	181	211	242	273	303	334	364
15	46	74	105	135	166	196	227	258	288	319	349	31		90		151		212	243		304		365
16	47	75	106	136	167	197	228	259	289	320	350												

Annuities.

1. *Annuities certain.* — When a sum of money is to be paid yearly for a certain number of years, it is called an annuity. The annuities usually met with are either for a given number of years, which are called *annuities certain*; or they are to be paid so long as one or more individuals shall live, and are thence called *contingent annuities.*

By the amount of an annuity at any given time, is meant the sum to which it will then amount, supposing it to have been regularly improved at compound interest during the intervening period.

The present value of an annuity for any given period, is the sum of the present values of all the payments of that annuity.

Numbers III. and IV. of the subjoined Tables represent the amount and present value of an annuity of 1*l.* reckoning compound interest at 2½, 3, 3½, 4, 4½, 5, and 6 per cent. from 1 year to 70. They, as well as Nos. I. and II., are taken from "Tables of Interest, Discount, and Annuities, by John Smart, Gent. 4to. London, 1726." They are carried to 8 decimal places, and enjoy the highest character, both here and on the Continent, for accuracy and completeness. The original work is now become very scarce.

The uses of these Tables are numerous; and they are easily applied. Suppose, for example, it were required to tell the amount of an annuity of 50*l.* a year for 17 years at 4 per cent. compound interest.

Opposite to 17 (Table III.) in the column of years, and under 4 per cent., is 23·69751,239, being the amount of an annuity of 1*l.* for the given time at the given rate per cent.; and this multiplied by 50 gives 1184 8756195, or 1,184*l.* 17*s.* 6*d.*, the amount required.

Suppose, now, that it is required what sum one must pay down to receive an annuity of 50*l.* to continue for 17 years, compound interest at 4 per cent.?

Opposite to 17 years (Table IV.) and under 4 per cent. is 12·16566,886, the present value of an annuity of 1*l.* for the given time and at the given rate per cent.; and this multiplied by 50 gives 608·283443, or 608*l.* 5*s.* 8*d.*, the present value required.

When it is required to find the *time* which must elapse, in order that a given sum improved at a specified rate of compound interest may increase to some other given sum, divide the latter sum by the former, and look for the quotient, or the number nearest to it, in Table No. I. under the given rate per cent., and the years opposite to it are the answer. — Thus,

In what time will 523*l.* amount to 1,087*l.* 5*s.* 7*d.* at 5 per cent. compound interest?

Divide 1087·2794, &c. by 523, and the quotient will be 2·0789, &c., which under 5 per cent. in Table I. is opposite to 15 years, the time required.

If it had been required to find the time in which a given annuity, improved at a certain rate of compound interest, would have increased to some given sum, the question would have been answered by dividing, as above, the given sum by the annuity; and looking for the quotient (not in Table No. I., but) in Table No. III., under the given rate per cent., it would be found on a line with the time required. Thus,

A. owes 1,000*l.* and resolves to appropriate 10*l.* a year of his income to its discharge: in what time will the debt be extinguished, reckoning compound interest at 4 per cent.?

1,000 divided by 10 gives 100, the number in Table No. III. under 4 per cent., and nearest to this quotient is 99·8265, &c. opposite to 41 years, the required time. Had the rate of interest been 5 per cent., the debt would have been discharged in somewhat less than 37 years. This example is given by Dr. Price (*Annuities*, 6th ed. vol. ii. p. 289.); and on this principle the whole fabric of the sinking fund was constructed. Of the abstract truth of the principle there cannot, indeed, be a doubt. But every thing depends on the increasing sums annually produced being immediately invested on the same terms; and this, when the sum is large, and the period long, is altogether impracticable.

Let it next be required to find an annuity which, being increased at a given rate of compound interest during a given time, will amount to a specified sum: in this case we divide the specified sum by the amount of 1*l.* for the time and rate given, as found in Table III., and the quotient is the answer. — Thus,

What annuity will amount to 1,087*l.* 5*s.* 7*d.* in 15 years at 5 per cent. compound interest?

Opposite to 15 years in Table III., and under 5 per cent., is 21·5785, &c., the amount of 1*l.* for the given time and rate; and dividing 1087·2794, &c. by this sum, the quotient 50·387, &c., or 50*l.* 7*s.* 9*d.*, is the annuity required.

Deferred Annuities are those which do not commence till after a certain number of years; and *reversionary annuities*, such as depend upon the occurrence of some uncertain event, as the death of an individual, &c.

The present value of a deferred annuity is found by deducting, from the value of an annuity for the whole period, the value of an annuity to the term at which the reversionary annuity is to commence. — Thus,

What is the present value of an annuity of 50*l.* to continue for 25 years, commencing at 7 years from the present time, interest at 4 per cent.?

According to Table No. IV., the value of an annuity of 1*l.* for 25 years at 4 per cent. is 15·62207,995, and that of 1*l.* for 7 years is 6·00205,467, which being deducted from the other, leaves 9·62002,528, which multiplied by 50 gives 481*l.*, the answer required.

Supposing the annuity, instead of being for 25 years, had been a perpetuity, it would have been worth 1,250*l.*, from which deducting 300*l.* 2*s.*, the value of an annuity for 7 years at 4 per cent., there remains 949*l.* 18*s.*, the value of the reversion.

For a selection of problems that may be solved by Tables of annuities certain, see *Smart's Tables*, pp. 92—100.

2. *Life Annuities.* — After what has been stated in the article on INSURANCE (GENERAL PRINCIPLES OF), respecting Tables of mortality, it will be easy to see how the value of a life annuity is calculated. Supposing — to revert to the example given before (p. 739.) — that it were required to find the present value of 1*l.*, the receipt of which is dependent on the contingency of a person, now 56 years of age, being alive 10 years hence, taking the Carlisle Table of mortality, and interest at 4 per cent.: Now, according to that Table, of 10,000 persons born together, 4,000 attain to 56, and 2,894 to 66 years of age. The probability that a person, now 56 years, will be alive 10 years hence, is, consequently, $\frac{2,894}{4,000}$; and the present value of 1*l.*, to be received certain 10 years hence being 0·675564*l.*, it follows, that if its receipt be made to depend on a life 56 years of age, attaining to 66, its value will be reduced by that contingency to $\frac{2,894 \times 0{\cdot}675564l.}{4,000} = 0{\cdot}48877l.$, or 9*s.* 9¼*d.* If, then, we had to find the present value of an annuity of 1*l.* secured on the life of a person now 56, we should calculate in this way the present value of each of the 48 payments, which, according to the Carlisle Table, he might receive, and their sum would, of course, be the present value of the annuity.

This statement is enough to show the principle on which all calculations of annuities depend; and this also was, in fact, the method according to which they were calculated, till Mr. Simpson and M. Euler invented a shorter and easier process, deriving from the value of an annuity at any age, that of an annuity at the next younger age. There is a considerable discrepancy in the sums at which different authors, and different insurance offices, estimate the present value of life annuities payable to persons of the same age. This does not arise from any difference in the mode of calculating the annuities, but from differences in the Tables of mortality employed. These can only be accurate when they are deduced from multiplied and careful observations made, during a long series of years, on a large body of persons; or when the average numbers of the whole population, and of the deaths at every age, for a lengthened period, have been determined with the necessary care. It is to be regretted, that governments, who alone have the means of ascertaining the rate of mortality by observations made on a sufficiently large scale, have been singularly inattentive to their duty in this respect. And until a very few years since, when Mr. Finlaison was employed to calculate Tables of the value of annuities from the ages of the nominees in public tontines, and of individuals on whose lives government had granted annuities, all that had been done in this country to lay a solid foundation on which to construct the vast fabric of life insurance had been the work of a few private persons, who had, of course, but a limited number of observations to work upon.

The celebrated mathematician, Dr. Halley, was the first who calculated a Table of mortality, which he deduced from observations made at Breslaw, in Silesia. In 1724, M. De Moivre published the first edition of his tract on *Annuities on Lives*. In order to facilitate the calculation of their values, M. De Moivre assumed the annual decrements of life to be equal; that is, he supposed that out of 86 (the utmost limit of life on his hypothesis) persons born together, one would die every year till the whole were extinct. This assumption agreed pretty well with the true values between 30 and 70

years of age, as given in Dr. Halley's Table; but was very remote from the truth in the earlier and later periods. Mr. Thomas Simpson, in his work on *Annuities and Reversions*, originally published in 1742, gave a Table of mortality deduced from the London bills, and Tables founded upon it of the values of annuities. But at the period when this Table was calculated, the mortality in London was so much higher than in the rest of the country, that the values of the annuities given in it were far too small for general use. In 1746, M. Deparcieux published, in his *Essai sur les Probabilités de la Durée de la Vie Humaine*—a work distinguished by its perspicuity and neatness—Tables of mortality deduced from observations made on the mortuary registers of several religious houses, and on lists of the nominees in several tontines. In this work, separate Tables were first constructed for males and females, and the greater longevity of the latter rendered apparent. M. Deparcieux's Tables were a very great acquisition to the science; and are decidedly superior to some that are still extensively used. Dr. Price's famous work on *Annuities*, the first edition of which was published in 1770, contributed powerfully to direct the public attention to inquiries of this sort; and was, in this respect, of very great utility. Of the more recent works, the best are those of Mr. Baily and Mr. Milne, which, indeed, are both excellent. The latter, besides all that was previously known as to the history, theory, or practice of the science, contains much new and valuable matter; and to it we beg to refer such of our readers as wish to enter fully into the subject.

The Table on which Dr. Price laid the greatest stress, was calculated from the burial registers kept in the parish of All Saints in Northampton, containing little more than half the population of the town. There can be no doubt, however, as well from original defects in the construction of the Table, as from the improvement that has since taken place in the healthiness of the public, that the mortality represented in the Northampton Table is, and has long been, decidedly above the average rate of mortality in England. Mr. Morgan, indeed, the late learned actuary of the Equitable Society, contended that this is not the case, and that the Society's experience shows that the Northampton Table is still remarkably accurate. But the facts Mr. Morgan disclosed in his *View of the Rise and Progress of the Equitable Society* (p. 42.), published in 1828, are quite at variance with this opinion: for he there states, that the deaths of persons insured in the Equitable Society, from 50 to 60 years of age, during the 12 years previously to 1828, were 339; whereas, according to the Northampton Table, they should have been 545! And Mr. Milne has endeavoured to show (Art. *Annuities*, new ed. of *Ency. Brit.*) that the discrepancy is really much greater.

The only other Table used to any extent in England for the calculation of life annuities, is that framed by Mr. Milne from observations made by Dr. Heysham on the rate of mortality at Carlisle. It gives a decidedly lower rate of mortality than the Northampton Table; and there are good grounds for thinking that the mortality which it represents is not very different from the actual rate throughout most parts of England; though it cannot be supposed that a Table founded on so narrow a basis should give a perfectly fair view of the average mortality of the entire kingdom.

In life insurance, the first annual premium is always paid at the commencement of the assurance, and the others at the termination of each year so long as the party assured survives. Hence, at the beginning of the assurance, the whole of the annual premiums payable for it exceed the value of an equal annuity on the life by one year's purchase. And, therefore, when the value of an assurance in present money is given, to find the equivalent annual premium during the life, the whole present value must be divided by the number of years' purchase an annuity on the life is worth, increased by 1. Thus, for an assurance of 100*l.* on a life 40 years of age, an office, calculating by the Carlisle Table of mortality, and at 4 per cent. interest, requires 53·446*l.* in present money. Now, according to that Table and rate of interest, an annuity on a life just 40 years of age is worth 15·074 years' purchase, so that the equivalent annual premium is $\frac{53 \cdot 446l.}{15 \cdot 074 + 1} = 3 \cdot 325l.$, or 3*l.* 6*s.* 8*d.* The annual premium may, however, be derived directly from the value of an annuity on the life, without first calculating the total present value of the assurance. —(See Mr. Milne's *Treatise on Annuities*, or the art. *Annuities* in the new edition of the *Ency. Britannica.*)

In order to exhibit the foundations on which Tables of life annuities and insurance have been founded in this and other countries, we have given, in No. V. of the following Tables, the rate of mortality that has been observed to take place among 1,000 children born together, or the numbers alive at the end of each year, till the whole become extinct, in England, France, Sweden, &c., according to the most celebrated authorities.* The rate of mortality at Carlisle, represented in this Table, is less than that observed any

* The greater part of this Table was originally published by Dr. Hutton in his *Mathematical Dictionary*, art. *Life Annuities*. Mr. Baily inserted it with additions in his work on *Annuities*; and it was published, with the column for Carlisle added, in the *Report of the Committee of the House of Commons on Friendly Societies*.

where else: the rates which approach nearest to it are those deduced from the observations already referred to, of M. Deparcieux, and those of M. Kersseboom, on the nominees of life annuities in Holland.

In order to calculate from this Table the chance which a person of any given age has of attaining to any higher age, we have only to divide the number of persons alive at such higher age, given in that column of the Table selected to decide the question, by the number of persons alive at the given age, and the fraction resulting is the chance.

We have added, by way of supplement to this Table, Mr. Finlaison's Table (No. VI.) of the rate of mortality among 1,000 children born together, according to the decrement of life observed to take place among the nominees in government tontines and life annuities in this country, distinguishing males from females. The rate of mortality which this Table exhibits is decidedly less than that given in the Carlisle Table; but the lives in the latter are the average of the population, while those in the former are all picked. The nominees in tontines are uniformly chosen among the healthiest individuals; and none but those who consider their lives as good ever buy an annuity. Still, however, the Table is very curious; and it sets the superiority of female life in a very striking point of view.

Tables VII. and VIII. give the *expectation of life*, according to the mortality observed at Northampton and Carlisle; the former by Dr. Price, and the latter by Mr. Milne.

The next Table, No. IX., extracted from the *Second Report of the Committee of the House of Commons on Friendly Societies*, gives a comparative view of the results of some of the most celebrated Tables of mortality, in relation to the rate of mortality, the expectation of life, the value of an annuity, &c. The coincidence between the results deduced from M. Deparcieux's Table, and that for Carlisle, is very striking. And to render the information on these subjects laid before the reader as complete as the nature of this work will admit, we have given Tables (Nos. X.—XV.) of the value of an annuity of 1*l.* on a single life, at every age, and at 3, 4, 5, 6, 7, and 8 per cent., according to the Northampton and Carlisle Tables; we have also given Tables of the value of an annuity of 1*l.* on 2 equal lives, and 2 lives differing by 5 years, at 3, 4, 5, and 6 per cent., according to the same Tables. It is but seldom, therefore, that our readers will require to resort to any other work for the means of solving the questions that usually occur in practice with regard to annuities; and there are not many works in which they will find so good a collection of Tables. —We subjoin one or two examples of the mode of using the Tables of life annuities.

Suppose it were required, what ought a person, aged 45, to give, to secure an annuity of 50*l.* a year for life, interest at 4 per cent., according to the Carlisle Table?

In Table No. XI., under 4 per cent., and opposite 45, is 14·104, the value of an annuity of 1*l.*, which being multiplied by 50, gives 705·2, or 705*l.* 4*s.*, the value required. According to the Northampton Table, the annuity would only have been worth 614*l.* 3*s.*

The value of an annuity on 2 lives of the same age, or on 2 lives differing by 5 years, may be found in precisely the same way.

Some questions in *reversionary* life annuities admit of an equally easy solution. Thus, suppose it is required to find the present value of A.'s interest in an estate worth 100*l.* a year, falling to him at the death of B., aged 40, interest 4 per cent. according to the Carlisle Table?

The value of the perpetuity of 100*l.* a year, interest 4 per cent., is 2,500*l.*; and the value of an annuity of 100*l.* on a person aged 40, interest at 4 per cent., is 1,507*l.* 8*s.*, which deducted from 2,500*l.* leaves 992*l.* 12*s.*, the present value required.

A person, aged 30, wishes to purchase an annuity of 50*l.* for his wife, aged 25, provided she survive him; what ought he to pay for it, interest at 4 per cent. according to the Carlisle Table?

The value of an annuity of 1*l.* on a life aged 30 is 16·852*l.*; from which subtracting the value of an annuity of 1*l.* on 2 joint lives of 25 and 30, 14·339, the difference, 2·513 × 50 = 125·650, or 125*l.* 13*s.*, the sum required.

For the solution of the more complex cases of survivorship, which do not often occur in practice, recourse may be had to the directions in Mr. Milne's *Treatise on Annuities*, and other works of that description. To attempt explaining them here would lead us into details quite inconsistent with the objects of this work.

TABLES OF INTEREST AND ANNUITIES.

I. Table showing the AMOUNT of £1 improved at Compound Interest, at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent., at the End of every Year, from 1 to 70.

Years.	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	1·02500,000	1·03000,000	1·03500,000	1·04000,000	1·04500,000	1·05000,000	1·06000,000
2	1·05062,500	1·06090,000	1·07122,500	1·08160,000	1·09202,500	1·10250,000	1·12360,000
3	1·07689,062	1·09272,700	1·10871,787	1·12486,400	1·14116,612	1·15762,500	1·19101,600
4	1·10381,289	1·12550,881	1·14752,300	1·16985,856	1·19251,860	1·21550,625	1·26247,696
5	1·13140,821	1·15927,407	1·18768,631	1·21665,290	1·24618,194	1·27628,156	1·33822,558
6	1·15969,342	1·19405,230	1·22925,533	1·26531,902	1·30226,012	1·34009,564	1·41851,911
7	1·18868,575	1·22987,387	1·27227,926	1·31593,178	1·36086,183	1·40710,042	1·50363 026
8	1·21840,290	1·26677,008	1·31680,904	1·36856,905	1·42210,061	1·47745,544	1·59384,807
9	1·24886,297	1·30477,318	1·36289,735	1·42331,181	1·48609,514	1·55132,822	1·68947,896
10	1·28008,454	1·34391,638	1·41059,876	1·48024,428	1·55296,942	1·62889,463	1·79084,770
11	1·31208,666	1·38423,387	1·45996,972	1·53945,406	1·62285,305	1·71033,936	1·89829,856
12	1·34488,882	1·42576,089	1·51106,866	1·60103,222	1·69588,143	1·79585,633	2·01219,647
13	1·37851,104	1·46853,371	1·56395,606	1·66507,351	1·77219,610	1·88564,914	2·13292,826
14	1·41297,382	1·51258,972	1·61869,452	1·73167,645	1·85194,492	1·97993,160	2·26090,396
15	1·44829,817	1·55796,742	1·67534,883	1·80094,351	1·93528,244	2·07892,818	2·39655,819
16	1·48450,562	1·60470,644	1·73398,604	1·87298,125	2·02237,015	2·18287,459	2·54035,168
17	1·52161,826	1·65284,763	1·79467,555	1·94790,050	2·11337,681	2·29201,832	2·69277,279
18	1·55965,872	1·70243,306	1·85748,920	2·02581,652	2·20847,877	2·40661,923	2·85433,915
19	1·59865,019	1·75350,605	1·92250,132	2·10684,918	2·30786,131	2·52695,020	3·02559,950
20	1·63861,644	1·80611,123	1·98978,886	2·19112,314	2·41171,4 2	2·65329,771	3·20713,547
21	1·67958,185	1·86029,457	2·05943,147	2·27876,807	2·52024,116	2 78596,259	3·39956,360
22	1·72157,140	1·91610,341	2·13151,158	2·36991,879	2·63365,201	2·92526,072	3·60353,742
23	1·76461,068	1·97358,651	2·20611,448	2·46471,555	2·75216,635	3·07152,376	3·81974,966
24	1·80872,595	2·03279,411	2·28332,849	2·56330,417	2·87601,383	3·22509,994	4·04893,464
25	1·85394,410	2·09377,793	2·36324,498	2·66583,633	3·00543,446	3·38635,494	4·29187,072
26	1·90029,270	2·15659,127	2·44595,856	2·77246,979	3·14067,901	3·55567,269	4·54938,296
27	1·94780,002	2·22128,901	2·53166,711	2·88336,858	3·28200,056	3·73345,632	4·82234,594
28	1·99649,502	2·28792,768	2·62017,696	2·99870,332	3·42969,999	3·92012,914	5·11168,670
29	2·04640,739	2·35656,551	2·71187,798	3·11865,145	3·58403,649	4·11613,560	5·41838,790
30	2·09756,758	2·42726,247	2·80679,370	3·24339,751	3·74531,813	4·32194,238	5·74349,117
31	2·15000,677	2·50000,035	2·90503,148	3·37313,341	3·91385,745	4·53803,949	6·08810,064
32	2·20375,694	2·57508,276	3·00670,759	3·50805,875	4·08998,104	4·76494,147	6·45338,668
33	2·25885,086	2·65233,524	3·11194,235	3·64838,110	4·27403,018	5·00318,854	6·84058,988
34	2·31532,213	2·73190,530	3·22086,033	3·79431,634	4·46636,154	5·25334,797	7·25102,528
35	2·37320,519	2·81386,245	3·33359,045	3·94608,899	4·66734,781	5·51601,537	7·68608,679
36	2·43253,532	2·89827,833	3·45026,611	4·10393,255	4 87737,846	5·79181,614	8·14725,200
37	2·49334,870	2·98522,668	3·57102,543	4·26808,986	5·09686,049	6·08140,694	8·63608,712
38	2·55568,242	3·07478,348	3·69601,132	4·43881,345	5·32621,921	6·38547,729	9·15425,235
39	2·61957,448	3·16702,698	3·82537,171	4·61636,599	5·56589,908	6·70475,115	9·70350,749
40	2·68506,384	3·26203,779	3·95925,972	4·80102,063	5·81636,454	7·03998,871	10·28571,794
41	2·75219,043	3·35989,893	4·09783,381	4·99306,145	6·07810,094	7·39198,815	10·90286,101
42	2·82099,520	3·46069,589	4·24125,799	5·19278,391	6·35161,548	7·76158,755	11·55703,267
43	2·89152,008	3·56451,677	4·38970,202	5 40049,527	6·63743,818	8·14966,693	12·25045,463
44	2·96382,808	3·67145,227	4·54334,160	5·61651,508	6·93612,290	8·15715,028	12·98548,191
45	3·03790,328	3·78159,584	4·70235,855	5·84117,568	7·24824,843	8·98500.779	13·76461,083
46	3·11385,086	3·89504,372	4·86694,110	6·07482,271	7·57441,961	9·43425,818	14·59048,748
47	3·19169,713	4·01189,503	5·03728,404	6·31781,562	7·91526,849	9·90597,109	15·46591,673
48	3·27148,956	4·13225,188	5·21358,898	6·57052,824	8·27145,557	10·40126,965	16·39387,173
49	3·35327,680	4·25621,944	5·39606,459	6·83334,937	8·64367,107	10·92133,313	17·37750,403
50	3·43710,872	4·38390,602	5·58492,686	7·10668,335	9·03263,627	10·46739,978	18·42015,427
51	3·52303,644	4·51542,320	5·78039,930	7·39095,068	9·43910,490	12·04076,977	19·52536,353
52	3·61111,235	4·65088,590	5·98271,327	7·68658,871	9·86386,463	12·64280,826	20·69688,534
53	3·70139,016	4·79041,247	6·19210,824	7·99405,226	10·30773,853	13·27494,868	21·93869,846
54	3·79392,491	4·93412,485	6·40883,202	8·31381,435	10·77158,677	13·93869,611	23·25502,037
55	3·88877,303	5·08214,859	6·63314,114	8·64636,692	11·25630,817	14·63563,092	24·65032,159
56	3·98599,236	5·23461,305	6·86530,108	8·99222,160	11·76284,204	15·36741,246	26·12934,089
57	4·08564,217	5·39165,144	7·10558,662	9·35191,046	12·29216,993	16·13578,308	27·69710,134
58	4·18778,322	5·55340,098	7·35428,215	9·72598,688	12·84531,758	16·94257,224	29·35892,742
59	4·29247,780	5·72000,301	7·61168,203	10·11502.636	13·42335,687	17·78970,085	31·12046,307
60	4·39978,975	5·89160,310	7·87809,090	10·51962,741	14·02740,793	18·67918,589	32·98769,085
61	4·50978,419	6·06835,120	8·15382,408	10·94041,251	14·65864,129	19·61314,519	34·96695,230
62	4·62252,910	6·25040,173	8·43920,793	11·37802,901	15·31828,014	20·59380,245	37·06496,944
63	4·73809,233	6·43791,379	8·73458,020	11·83315,017	16·00760,275	21 62349,257	39·28886,761
64	4·85654,464	6·63105,120	9·04029,051	12·30647,617	16·72794,487	22·70466,720	41·64619,967
65	4·97795,826	6·82998,273	9·35670,068	12·79873,522	17·48070,239	23·83990,056	44·14497,165
66	5·10240,721	7·03488,222	9·68418,520	13·31068,463	18·26733,400	25·03189,559	46·79366,994
67	5·22996,739	7·24592,868	10·02313,168	13·84311,201	19·08936,403	26·28349,036	49·60129,014
68	5·36071,658	7·46330,654	10·37394,129	14·39683,649	19·94838,541	27·59766,488	52·57736,755
69	5·49473,449	7·68720,574	10·73702,924	14·97270,995	20·84606,276	28·97754,813	55·73200,960
70	5·63210,286	7·91782,191	11·11282,526	15·57161,835	21·78413,558	30·42642,553	59·07593,018

H. Table showing the PRESENT VALUE of £1 receivable at the End of any given Year, from 1 to 70 reckoning Compound Interest at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent.

Years.	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	0·97560,976	0·97087,379	0·96618,357	0·96153,846	0·95693,780	0·95238,095	0·94339,623
2	·95181,440	·94259,591	·93351,070	·92455,621	·91572,995	·90702,948	·88999,644
3	·92859,941	·91514,166	·90194,270	·88899,636	·87629,660	·86383,760	·83961,928
4	·90595,064	·88848,705	·87144,223	·85480,419	·83856,134	·82270,247	·79209,366
5	·88385,429	·86260,878	·84197,317	·82192,711	·80245,105	·78352,616	·74725,817
6	·86229,687	·83748,426	·81350,064	·79031,453	·76789,574	·74621,540	·70496,054
7	·84126,524	·81309,151	·78599,096	·75991,781	·73482,846	·71068,133	·66505,711
8	·82074,657	·78940,923	·75941,156	·73069,020	·70318,513	·67683,936	·62741,237
9	·80072,836	·76641,673	·73373,097	·70258,674	·67290,443	·64460,892	·59189,846
10	·78119,840	·74409,391	·70891,881	·67556,417	·64392,768	·61391,325	·55839,478
11	·76214,478	·72242,126	·68494,571	·64958,093	·61619,874	·58467,929	·52678,753
12	·74355,589	·70137,988	·66178,330	·62459,705	·58966,386	·55683,742	·49696,936
13	·72542,038	·68095,134	·63940,415	·60057,409	·56427,164	·53032,135	·46883,902
14	·70772,720	·66111,781	·61778,179	·57747,508	·53997,286	·50506,795	·44230,096
15	·69046,556	·64186,195	·59689,062	·55526,450	·51672,044	·48101,710	·41726,506
16	·67362,493	·62316,694	·57670,591	·53390,818	·49446,932	·45811,152	·39364,628
17	·65719,506	·60501,645	·55720,378	·51337,325	·47317,639	·43629,669	·37136,442
18	·64116,594	·58739,461	·53836,114	·49362,812	·45280,037	·41552,065	·35034,379
19	·62552,772	·57028,603	·52015,569	·47464,242	·43330,179	·39573,396	·33051,301
20	·61027,094	·55367,575	·50256,588	·45638,695	·41464,286	·37688,948	·31180,473
21	·59538,629	·53754,928	·48557,090	·43883,360	·39678,743	·35894,236	·29415,540
22	·58086,467	·52189,250	·46915,063	·42195,539	·37970,089	·34184,987	·27750,510
23	·56669,724	·50669,175	·45328,563	·40572,633	·36335,013	·32557,131	·26179,726
24	·55287,535	·49193,374	·43795,713	·39012,147	·34770,347	·31006,791	·24697,855
25	·53939,059	·47760,556	·42314,699	·37511,680	·33273,000	·29530,277	·23299,863
26	·52623,472	·46369,473	·40883,767	·36068,923	·31840,248	·28124,073	·21981,003
27	·51339,973	·45018,906	·39501,224	·34681,657	·30469,137	·26784,832	·20736,795
28	·50087,778	·43707,675	·38165,434	·33347,747	·29157,069	·25509,364	·19563,014
29	·48866,125	·42434,636	·36874,815	·32065,141	·27901,502	·24294,632	·18455,674
30	·47674,269	·41198,676	·35627,841	·30831,867	·26700,001	·23137,745	·17411,013
31	·46511,481	·39998,714	·34423,035	·29646,026	·25550,241	·22035,947	·16425,484
32	·45377,055	·38833,703	·33258,971	·28505,794	·24449,991	·20986,617	·15495,740
33	·44270,298	·37702,625	·32134,271	·27409,417	·23397,121	·19987,254	·14618,622
34	·43190,534	·36604,490	·31047,605	·26355,209	·22389,589	·19035,480	·13791,153
35	·42137,107	·35538,340	·29997,686	·25341,547	·21425,444	·18129,029	·13010,522
36	·41109,372	·34503,243	·28983,272	·24366,872	·20502,817	·17265,741	·12274,077
37	·40106,705	·33498,294	·28003,161	·23429,685	·19619,921	·16443,563	·11579,318
38	·39128,492	·32522,615	·27056,194	·22528,543	·18775,044	·15660,536	·10923,885
39	·38174,139	·31575,355	·26141,250	·21662,061	·17966,549	·14914,797	·10305,552
40	·37243,062	·30655,684	·25257,247	·20828,904	·17192,870	·14204,568	·09722,219
41	·36334,695	·29762,800	·24403,137	·20027,792	·16452,507	·13528,160	·09171,905
42	·35448,483	·28895,922	·23577,910	·19257,493	·15744,026	·12883,962	·08652,740
43	·34583,886	·28054,294	·22780,590	·18516,820	·15066,054	·12270,440	·08162,962
44	·33740,376	·27237,178	·22010,231	·17804,635	·14417,276	·11686,133	·07700,908
45	·32917,440	·26443,862	·21265,924	·17119,841	·13796,437	·11129,651	·07265,007
46	·32114,576	·25673,652	·20546,787	·16461,386	·13202,332	·10599,668	·06853,781
47	·31331,294	·24925,877	·19851,968	·15828,256	·12633,810	·10094,921	·06465,831
48	·30567,116	·24199,880	·19180,645	·15219,476	·12089,771	·09614,211	·06099,840
49	·29821,576	·23495,029	·18532,024	·14634,112	·11569,158	·09156,391	·05754,566
50	·29094,221	·22810,708	·17905,337	·14071,262	·11070,965	·08720,373	·05428,836
51	·28384,606	·22146,318	·17299,843	·13530,059	·10594,225	·08305,117	·05121,544
52	·27692,298	·21501,280	·16714,824	·13009,672	·10138,014	·07909,635	·04831,645
53	·27016,876	·20875,029	·16149,589	·12509,300	·09701,449	·07532,986	·04558,156
54	·26357,928	·20267,019	·15603,467	·12028,173	·09283,683	·07174,272	·04300,147
55	·25715,052	·19676,717	·15075,814	·11565,551	·08883,907	·06832,640	·04056,742
56	·25087,855	·19103,609	·14566,004	·11120,722	·08501,347	·06507,276	·03827,115
57	·24475,957	·18547,193	·14073,433	·10693,002	·08135,260	·06197,406	·03610,486
58	·23878,982	·18006,984	·13597,520	·10281,733	·07784,938	·05902,291	·03406,119
59	·23296,568	·17482,508	·13137,701	·09886,282	·07449,701	·05621,230	·03213,320
60	·22728,369	·16973,309	·12693,431	·09506,040	·07128,901	·05353,552	·03031,434
61	·22174,009	·16478,941	·12264,184	·09140,423	·06821,915	·05098,621	·02859,843
62	·21633,179	·15998,972	·11849,453	·08788,868	·06528,148	·04855,830	·02697,965
63	·21105,541	·15532,982	·11448,747	·08450,835	·06247,032	·04624,600	·02545,250
64	·20590,771	·15080,565	·11061,591	·08125,803	·05978,021	·04404,381	·02401,179
65	·20088,557	·14641,325	·10687,528	·07813,272	·05720,594	·04194,648	·02265,264
66	·19598,593	·14214,879	·10326,114	·07512,760	·05474,253	·03994,903	·02137,041
67	·19120,578	·13800,853	·09976,922	·07223,809	·05238,519	·03804,670	·02016,077
68	·18654,223	·13398,887	·09639,538	·06945,970	·05012,937	·03623,495	·01901,959
69	·18199,242	·13008,628	·09313,563	·06678,818	·04797,069	·03450,948	·01794,301
70	·17755,358	·12629,736	·08998,612	·06421,940	·04590,497	·03286,617	·01692,737

III. Table showing the AMOUNT OF AN ANNUITY of 1*l.* per Annum, improved at Compound Interest, at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent., at the end of each Year, from 1 to 70.

Years.	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	1·00000,000	1·00000,000	1·00000,000	1·00000,000	1·00000,000	1 00000,000	1·00000,000
2	2·02500,000	2·03000,000	2·03500,000	1·04000,000	2·04500,000	2·05000,000	2·06000,000
3	3·07562,500	3·09090,000	3·10622,500	3·12160,000	3·13702,500	3·15250,000	3·18360,000
4	4·15251,562	4·18362,700	4·21494,287	4·24646,400	4·27819,112	4·31012,500	4·37461,600
5	5·25632,852	5·30913,581	5.36246,588	5·41632,256	5 47070,973	5·52563,125	5·63709,296
6	6·38773,673	6·46840,988	6.55015,218	6·63297,546	6·71689,166	6·80191,281	6.97531,854
7	7·54743,015	7·66246,218	7·77940,751	7·89829,448	8·01915,179	8·14200,845	8·39383,765
8	8·73611,590	8·89233,605	9·05168,677	9·21422,626	9·38001,362	9·54910,888	9·89746,791
9	9·95451,880	10·15910,613	10·36849,581	10·58279,531	10·80211,423	11·02656,432	11·49131,598
10	11·20338,177	11·46387,931	11·73139,316	12·00610,712	12·28820,937	12·57789,254	13·18079,494
11	12·48346,631	12·80779,569	13·14199,192	13·48635,141	13·84117,879	14·20678,716	14·97164,264
12	13·79555,297	14·19202,956	14·60196,164	15·02580,546	15·46403,184	15·91712,652	16·86994,120
13	15·14044,179	15·61779,045	16·11303,030	16 62683,768	17·15991,327	17·71298,285	18·88213,767
14	16·51895,284	17·08632,416	17·67698,636	18·29191,119	18·93210,937	19·59863,199	21·01506,593
15	17·93192,666	18·59891,389	19·29568,088	20·02358,764	20·78405,429	21·57856,359	23·27596,988
16	19·38022,483	20·15688,130	20·97102,971	21·82453,114	22·71933,673	23·65749,177	25 67252,808
17	20·86473,045	21·76158,774	22·70501,575	23·69751,239	24·74170,689	25·84036,636	28·21287,976
18	22·38634,871	23·41443,577	24·49969,130	25·64541,288	26·85508,370	28·13238,467	30·90565,255
19	23·94600,743	25·11686,844	26·35718,059	27·67122,940	29·06356,246	30·53900,391	33 75999,170
20	25·54465,761	26·87037,449	28·27968,181	29·77807,858	31·37142,277	33·06595,410	36·78559,120
21	27·18327,405	28·67648,572	30·26947,068	31·96920,172	33·78313,080	35·71925,181	39·99272,668
22	28·86285,590	30 53678,030	32·32890,215	34·24796,979	36·30337,795	38·50521,440	43·39229,028
23	30·58442,730	32·45288,370	34·46011,373	36·61788,858	38·93702,096	41·43047,512	46·99582,769
24	32·34903,798	34·42647,022	36·66652,821	39·08260,413	41·68919,631	44·50199,887	50·81557,735
25	34·15776,393	36·45926 432	38·94985,669	41·64590,830	44·56521,014	47·72709,882	54·86451,200
26	36·01170,803	38·55304,225	41·31310,168	44·31174,463	47·57064,460	51·11345,376	59·15638,372
27	37·91200,073	40·70963,352	43·75906,024	47·08421,441	50·71132,361	54·66912,645	63·70576,568
28	39·85980,075	42·93092,252	46·29063,734	49·96758,299	53·99333,317	58·40258,277	68 52811,162
29	41·85629,577	45·21885,020	48·91079,930	52·96628,631	57 42303,316	62·32271,191	73·63979,832
30	43·90270,316	47·57541,571	51·62267,728	56·08493,776	61·00706,966	66·43884,750	79·05818,622
31	46·00027,074	50·00267,818	54.42947,098	59·32833,527	64·75238,779	70·76078,988	84·80167,739
32	48·15027,751	52·50275,852	57·33450,247	62·70146,868	68·66624,524	75·29882,936	90·88977.803
33	50·35403,445	55·07784,128	60 34121,005	66·20952,743	72·75622,628	80·06377,083	97·34316,471
34	52·61288,531	57·73017,652	63.45315,240	69·85790,853	77·03025,646	85·06695,937	104·18375,460
35	54·92820,744	60·46208,181	66·67401,274	73·65222,487	81·49661,800	90·32030,734	111·43477,987
36	57·30141,263	63·27594,427	70·00760,318	77·59831,387	86·16396,581	95·83632,271	119·12086,666
37	59·73394,794	66·17422,259	73·45786,930	81·70224,642	91·04134,427	101·62813,884	127 26811,866
38	62·22729,664	69·15944,927	77·02889,472	85·97033,628	96·13820,476	107·70954,579	135·90420,578
39	64·78297,906	72·23423,275	80·72490,604	90·40914,973	101·46442,398	114·09502,308	145·05845,813
40	67·40255,354	75·40125,973	84·55027,775	95·02551,572	107·03032,306	120·79977,423	154·76196,562
41	70·08761,737	78·66329,753	88·50953,747	99·82653,635	112·84668,759	127·83976,294	165·04768,356
42	72·83980,781	82·02319,645	92·60737,128	104·81959,781	118·92478,854	135·23175,109	175 95054,457
43	75·66080,300	85·48389,234	96·84862,928	110·01238,171	125·27640,402	142·99333,864	187·50757,724
44	78·55232,308	89·04840,911	101·23833,130	115 41287,6 8	131 91384,220	151·14300,558	199·75803,188
45	81·51613,116	92·71986,139	105·78167,290	121·02939,206	138·84996,510	159·70015.586	212·74351,379
46	84 55403,443	96·50145,723	110·48403,145	126·87056,774	146·09821,353	168·68516,365	226 50812,462
47	87·66788,529	100·39650,095	115·35097,255	132·94539,045	153·67263,314	178·11942,183	241·09861,209
48	90·85958,243	104·40839,598	120·38825,659	139·26320,607	161·58790,163	188·02539,292	256·56452,882
49	94·13107,199	108 54064,785	125·60184,557	145·83373,431	169·85935,720	198·42666,257	272·95840,055
50	97·48434,879	112·79686,729	130·99791,016	152·66708,368	178·50302,828	209·34759,570	290·33590,458
51	100·92145,751	117·18077,331	136·58283,702	159·77376,703	187·53566,455	220·81539,548	308 75605,886
52	104·44449,395	121·69619,651	142·36323,631	167·16471,771	196·97476,946	232·85616,526	328·28142,239
53	108·05560,029	126·34708,240	148·34594,958	174·85130,642	206·83863,408	245·49897,352	348·97830,773
54	111·75699,645	131·13749,488	154·53805,782	182·84535,868	217·14637,261	258·77392,220	370·91700,620
55	115·55092,136	136·07161,972	160·94688,984	191·15917,302	227·91795,938	272·71261,831	394·17202,657
56	119·43969,440	141·15376,831	167·58003,099	199·80553,994	239 17426,755	287·34824,922	418·82234,816
57	123·42268,676	146·38838,136	174·44533,207	208 79776,154	250·93710,959	302·71566,168	444·95168,905
58	127·51132,893	151·78003,280	181·55091,869	218·14967,200	263·22927,953	318·85144,477	472·64879,039
59	131·69911,215	157·33343,379	188·90520,085	227·87565,888	276·07459,710	335 79401,700	502·00771,782
60	135·99158,995	163,05343,680	196·51688,288	237·99068,524	289·49795,397	353·58371,785	533·12818,089
61	140·39137,970	168·94503,991	204·39497,378	248·51031,265	303·52536,190	372·26290,375	566·11587,174
62	144·90116,419	175·01339,110	212·54879,786	259·45072,516	318·18400,319	391·87604,893	601·08282,404
63	149·52369,330	181·26379,284	220·98800,579	270·82875,416	333·50228,333	412·46985,138	638·14779,349
64	154·26178,563	187·70170,662	229·72258,599	282·66190,433	349·50988,608	434 09334,895	677·43666,110
65	159·11833,027	194·33275,782	238·76287,650	294·96838,050	366·23783,096	456·79801,115	719·08286,076
66	164·09628,853	201·16274,055	248·11957,718	307·76711,572	383·71853,335	480·63791,170	763·22783,241
67	169·19869,574	208·19762,277	257·80376,238	321·07780,035	401·98586,735	505·66980,729	810·02150,235
68	174·42866,313	215·44355,145	267·82689,406	334·92091,236	421·07523,138	531·95329,765	859·62279,249
69	179·78937,971	222·90685,800	278·20083,535	349·31774,886	441·02361,679	559·55096,254	912·20016,004
70	185·28411,421	230·59406,374	288·93786,459	364·29045,881	461·86967,955	588·52851,066	967·93216,964

IV. Table showing the PRESENT VALUE OF AN ANNUITY of 1*l.* per Annum, to continue for any given Number of Years, from 1 to 70, reckoning Compound Interest at 2½, 3, 3½, 4, 4½, 5, and 6 per Cent

Years.	2½ per Cent.	3 per Cent.	3½ per Cent.	4 per Cent.	4½ per Cent.	5 per Cent.	6 per Cent.
1	0·97560,976	0·97087,379	0·96618,357	0·96153,846	0·95693,780	0·95238,095	0·94339,623
2	1·92742,415	1·91346,969	1·89969,427	1·88609,467	1·87266,775	1·85941,043	1·83339,267
3	2·85602,356	2·82861,135	2·80163,698	2·77509,103	2·74896,435	2·72324,803	2·67301,195
4	3·76197,421	3·71709,840	3·67307,921	3·62989,522	3·58752,570	3·54595,050	3·46510,561
5	4·64582,849	4·57970,719	4·51505,237	4·45182,233	4·38997,674	4·32947,667	4·21236,378
6	5·50812,536	5·41719,144	5·32855,302	5·24213,686	5·15787,248	5·07569,207	4·91732,432
7	6·34939,060	6·23028,295	6·11454,398	6·00205,467	5·89270,094	5·78637,340	5·58238,144
8	7·17013,717	7·01969,219	6·87395,553	6·73274,488	6·59588,607	6·46321,276	6·20979,381
9	7·97086,553	7·78610,892	7·60768,651	7·43533,161	7·26879,049	7·10782,167	6·80169,227
10	8·75206,393	8·53020,284	8·31660,532	8·11089,578	7·91271,818	7·72173,493	7·36008,705
11	9·51420,871	9·25262,410	9·00155,103	8·76047,671	8·52891,692	8·30641,422	7·88687,457
12	10·25776,460	9·95400,398	9·66333,433	9·38507,376	9·11858,078	8·86325,164	8·38384,393
13	10·98318,497	10·63495,532	10·30273,848	9·98564,785	9·68285,242	9·39357,299	8·85268,295
14	11·69091,217	11·29607,312	10·92052,027	10·56312,293	10·22282,528	9·89864,094	9·29498,392
15	12·38137,773	11·93793,507	11·51741,089	11·11838,744	10·73954,573	10·37965,804	9·71224,898
16	13·05500,266	12·56110,201	12·09411,681	11·65229,561	11·23401,505	10·83776,956	10·10589,526
17	13·71219,772	13·16611,845	12·65132,058	12·16566,886	11·70719,143	11·27406,625	10·47725,968
18	14·35336,363	13·75351,306	13·18968,172	12·65929,698	12·15999,180	11·68958,690	10·82760,347
19	14·97889,134	14·32379,909	13·70983,741	13·13393,940	12·59329,359	12·08532,086	11·15811,648
20	15·58916,228	14·87747,484	14·21240,330	13·59032,635	13·00793,645	12·46221,034	11·46992,121
21	16·18454,857	15·41502,412	14·69797,420	14·02915,995	13·40472,388	12·82115,271	11·76407,661
22	16·76543,824	15·93691,662	15·16712,483	14·45111,534	13·78442,476	13·16300,258	12·04158,171
23	17·33211,048	16·44360,837	15·62041,047	14·85684,167	14·14777,489	13·48857,388	12·30337,897
24	17·88498,583	16·93554,210	16·05836,760	15·24696,314	14 49547,837	13·79864·179	12·55035,752
25	18·42437,642	17·41314,766	16·48151,459	15·62207,995	14·82820,896	14·09394,457	12·78335,615
26	18·95061,114	17·87684,239	16·89035,226	15·98276,918	15 14661,145	14·37518,530	13·00316,618
27	19·46401,087	18·32703,145	17·28536,450	16·32958,575	15·45130,282	14·64303,362	13·21053,413
28	19·96488,865	18·76410,820	17·66701,884	16·66306,322	15·74287,351	14·89812,726	13·40616,428
29	20·45354,991	19·18845,456	18·03576,700	16·98371,464	16·02188,853	15·14107,358	13·59072,101
30	20·93029,259	19·60044,132	18·39204,541	17·29203,330	16·28888,854	15 37245,103	13·76483,115
31	21·39540,741	20·00042,847	18·73627,576	17·58849,356	16·54439,095	15·59281,050	13·92908,599
32	21·84917,796	20·38876,550	19·06886,547	17·87355,150	16·78889,086	15·80267,667	14·08404,338
33	22·29188,093	20·76579,175	19·39020,818	18·14764,567	17·02286,207	16·00254,921	14·23022,961
34	22·72378,628	21·13183,665	19 70068,423	18·41119,776	17·24675,796	16·19290,401	14·36814,114
35	23·14515,734	21·48722,004	20·00066,109	18·66461,323	17·46101,240	16·37419,429	14·49824,636
36	23·55625,107	21·83225,247	20·29049,381	18·90828,199	17·66604,058	16·54685,171	14 62098,713
37	23·95731,811	22·16723,541	20·57052,542	19·14257,880	17·86223,979	16·71128,734	14·73678,031
38	24·34860,304	22·49246,156	20·84108,736	19·36786,424	18·04999,023	16·86789,271	14·84601,916
39	24·73034,443	22·80821,510	21·10249,987	19·58448,484	18·22966,572	17·01704,067	14·94907,468
40	25·19277,505	23·11477,195	21·35507,234	19·79277,389	18·40158,442	17·15908,636	15·04629,687
41	25·46612,200	23·41239,995	21·59910,371	19·99305,181	18·56610,949	17·29436,796	15·13801,591
42	25·82060,683	23·70135,917	21·83488,281	20·18562,674	18·72354,976	17·42320,758	15·22454,331
43	26·16644,569	23·98190,211	22·06268,870	20·37079,494	18·87421,029	17·54591,198	15·30617,294
44	26·50384,945	24·25427,389	22·28279,102	20·54884,129	19·01838,306	17·66277,331	15·38318,202
45	26·83302,386	24·51871,251	22·49545,026	20·72003,970	19·15634,742	17·77406,982	15·45583,209
46	27·15416,962	24·77544,904	22·70091,812	20·88465,356	19·28837,074	17 88006,650	15·52436,980
47	27·46748,255	25·02470,780	22·89943,780	21·04293,612	19·41470,884	17·98101,571	15·58902,821
48	27·77315,371	25·26670,660	23·09124,425	21·19513,088	19·53560,655	18·07715,782	15·65002,661
49	28·07136,947	25·50165,689	23·27656,449	21·34147,200	19·65129,813	18·16872,173	15·70757,227
50	28·36231,168	25·72976,397	23·45561,787	21·48218,462	19·76200,778	18·25592,546	15·76186,063
51	28·64615,774	25·95122,716	23·62861,630	21·61748,521	19·86795,003	18·33897,663	15·81307,607
52	28·92308,072	26·16623,996	23·79576,454	21·74758,193	19 96933,017	18·41807,298	15·86139,252
53	29·19324,948	26·37499,025	23·95726,043	21·87267,493	20·06634,466	18·49340,284	15·90697,407
54	29·45682,877	26·57766,043	24·11329,510	21·99295,667	20·15918,149	18·56514,556	15·94997,554
55	29·71397,928	26·77442,761	24·26405,323	22·10861,218	20·24802,057	18·63347,196	15·99054,296
56	29·96485,784	26·96540,370	24·40971,327	22·21981,940	20·33303,404	18·69854,473	16·02881,412
57	30·20961,740	27 15093,563	24·55044,767	22·32674,943	20·41438,664	18·76051,879	16·06491,898
58	30·44840,722	27·33100,546	24·68642,281	22·42956,676	20·49223,602	18·81954,170	16·09898,017
59	30·68137,290	27·50583,055	24·81779,981	22·52842,957	20·56673,303	18·87575,400	16·13111,336
60	30·90865,649	27·67556,364	24·94473,412	22·62348,997	20·63802,204	18 92928,953	16·16142,770
61	31·13039,657	27·84035,304	25·06737,596	22·71489,421	20·70624,119	18 98027,574	16·19002,613
62	31·34672,836	28·00034,276	25·18587,049	22·80278,289	20·77152,267	19·02883,404	16·21700,579
63	31·55778,377	28·15567,258	25·30035,796	22·88729,124	20·83399,298	19·07508,003	16·24245,829
64	31·76369,148	28·30647,823	25·41097,388	22·96854,927	20·89377,319	19·11912,384	16·26647,008
65	31·96457,706	28·45289,149	25·51784,916	23·04668,199	20·95097,913	19·16107,033	16·28912,272
66	32·16056,298	28·59504,028	25·62111,030	23·12180,959	21·00572,165	19·20101,936	16·31049,313
67	32·35176,876	28·73304,881	25·72087,951	23·19404,768	21·05810,685	19·23906,606	16·33065,390
68	32·53831,099	28·86703,768	25·81727,489	23·26350,739	21·10823,622	19·27530,101	16·34967,349
69	32·72030,341	28·99712,396	25·91041,053	23·33029,556	21·15620,691	19·30981,048	16·36761,650
70	32·89785,698	29·12342,132	26·00039,664	23·39451,497	21·20211,187	19·34267,665	16·38454,387

V. Table of MORTALITY; showing the Number of Persons alive at the End of every Year, from 1 to 100 Years of Age, out of 1,000 born together, in the different Places, and according to the Authorities undermentioned.

Ages.	England.			France.			Sweden.	Vienna.	Berlin.	Switzerland.	Silesia.	Holland.
	Simpson. London.	*Price.* Northampton.	*Heysham.* Carlisle.	*Deparcieux.* Annuitants, &c.	*Buffon.* Part Population.	*Duvillard.* Whole Population.	*Wargentin.* Whole Population.	*Suemilch.*	*Suemilch.*	*Muret.* Pays de Vaud.	*Halley.* Breslaw.	*Kersseboom.* Life Annuitants.
1	680	743	846	745	731	768	780	542	633	811	769	804
2	548	625	778	709	632	672	730	471	528	765	638	768
3	492	582	725	682	591	625	695	430	485	735	614	736
4	452	553	700	662	557	599	671	400	434	715	585	709
5	426	536	680	647	540	583	656	377	403	701	563	689
6	410	521	668	634	523	573	644	357	387	688	546	676
7	397	509	659	624	511	566	634	344	376	677	532	664
8	388	499	654	615	501	560	625	337	367	667	523	652
9	380	492	649	607	494	556	618	331	361	659	515	646
10	373	487	646	600	489	551	611	327	356	653	508	639
11	367	483	643	595	486	547	606	322	353	648	502	633
12	361	478	640	590	482	543	602	318	350	643	497	627
13	356	474	637	585	479	538	597	314	347	639	492	621
14	351	470	634	581	476	534	594	310	344	635	488	616
15	347	465	630	578	472	529	590	306	341	631	483	611
16	343	461	626	574	468	524	586	302	338	626	479	606
17	338	457	622	570	464	519	582	299	335	622	474	601
18	334	452	618	565	459	514	578	295	332	618	470	596
19	329	446	613	561	455	508	574	291	328	614	465	590
20	325	441	609	556	449	502	570	288	324	610	461	584
21	321	434	605	551	445	496	565	284	320	606	456	577
22	316	428	601	545	438	490	560	280	315	602	451	571
23	310	421	596	540	432	484	555	276	310	597	446	566
24	305	415	592	534	430	478	551	273	305	592	441	559
25	299	409	588	529	419	471	546	269	297	587	436	551
26	294	402	584	523	414	465	541	265	293	582	431	543
27	288	396	579	517	408	458	535	261	287	577	426	535
28	283	389	575	512	402	452	530	256	281	572	421	526
29	278	383	570	506	398	445	525	251	275	567	415	517
30	272	376	564	500	388	438	519	247	269	563	409	508
31	266	370	559	495	384	432	513	243	264	558	403	499
32	260	364	553	490	377	425	507	239	259	553	397	490
33	254	357	547	484	371	418	501	235	254	548	391	482
34	248	351	542	479	366	411	495	231	249	544	384	474
35	242	344	536	474	355	404	488	226	243	539	377	467
36	236	338	531	460	339	397	482	221	237	533	370	460
37	230	331	525	464	341	390	477	216	230	527	363	453
38	224	325	519	459	334	383	471	211	223	520	356	446
39	218	318	514	454	330	376	465	205	216	513	349	439
40	212	312	508	449	314	369	459	199	209	506	342	432
41	207	305	501	444	310	362	453	194	203	500	335	425
42	201	299	499	439	302	355	445	189	197	494	328	419
43	194	292	487	434	297	348	437	185	192	488	321	413
44	187	285	480	429	292	341	430	181	187	482	314	407
45	180	279	473	424	279	334	422	176	182	476	307	400
46	174	272	466	419	273	327	414	171	177	469	299	393
47	167	265	459	413	269	320	407	165	172	461	291	386
48	159	259	452	408	262	312	400	159	167	451	283	378
49	153	252	456	402	258	305	392	153	162	441	275	370
50	147	245	440	396	242	297	385	147	157	431	267	362
51	141	238	434	390	239	289	376	142	152	422	259	354
52	135	231	428	384	233	282	367	137	147	414	250	345
53	130	224	421	378	229	274	358	133	142	406	241	336
54	125	217	414	371	224	265	349	128	137	397	232	327
55	120	210	407	363	212	258	340	123	132	388	224	318
56	116	203	400	355	207	249	331	117	127	377	216	309
57	111	196	392	346	202	240	322	111	121	364	209	300
58	106	189	384	338	194	232	312	106	115	348	201	291
59	101	182	375	329	190	223	303	101	109	331	193	282
60	96	175	364	319	168	214	293	96	103	314	186	273
61	92	168	352	309	165	204	282	91	97	299	178	264
62	87	161	340	299	157	195	271	87	92	286	170	255
63	83	154	327	288	150	186	259	82	88	274	163	245
64	78	147	314	278	144	176	247	77	84	262	155	235
65	74	140	302	267	135	166	235	72	80	250	147	225
66	70	133	289	256	126	157	224	67	75	236	140	215
67	65	126	277	245	117	147	212	62	70	220	132	205
68	61	119	265	234	106	137	200	57	65	202	124	195
69	56	113	251	222	96	129	187	52	60	184	117	185
70	52	106	240	211	90	118	175	48	55	168	109	175
71	47	99	228	199	86	108	162	44	51	153	101	165
72	43	92	214	187	75	99	149	40	47	140	93	155
73	39	85	200	175	70	89	135	36	43	129	85	145
74	35	78	184	162	63	80	121	33	39	119	77	135
75	32	71	168	148	52	72	108	30	35	109	69	125

Table of Mortality — (*continued.*)

Ages.	England			France.			Sweden.	Vienna.	Berlin.	Switzerland.	Silesia.	Holland.
	Simpson. London.	*Price.* Northampton.	*Heysham.* Carlisle.	*Deparcieux.* Annuitants, &c.	*Buffon.* Part Population.	*Duvillard.* Whole Population.	*Wargentin.* Whole Population.	*Süssmilch.*	*Süssmilch.*	*Muret.* Pays de Vaud.	*Halley.* Breslaw.	*Kersseboom.* Life Annuitants.
76	28	65	152	134	47	63	96	27	32	98	61	114
77	25	58	136	120	42	56	84	24	29	85	53	103
78	22	52	121	106	36	48	75	21	26	71	45	92
79	19	46	108	94	34	41	65	18	23	58	38	82
80	17	40	95	81	23	35	56	16	20	46	32	72
81	14	35	84	70	21	29	47	14	18	36	26	62
82	12	30	73	59	18	24	38	12	16	29	22	53
83	10	25	62	49	15	19	31	10	14	24	18	45
84	8	20	53	40	12	15	24	8	12	20	15	38
85	7	16	45	33	10	12	19	7	10	17	12	31
86	6	12	37	26	8	9	14	6	8	14	9	25
87	5	9	30	21	7	7	11	5	7	11	6	19
88	4	7	23	16	5	6	8	4	6	9	4	14
89	3	5	18	12	4	5	6	3	5	7	2	10
90	2	4	14	8	3	4	5	2	4	5	1	7
91	1	3	10	5	3	3	3	1	3	4		5
92		2	8	3	2	3	2		2	3		4
93		1	5	1	2	2	1		1	2		2
94		1	4	1	1	2				1		1
95			3		1	1						
96			2			1						
97			2			1						
98			1									
99			1									
100												

VI. Table of the PROGRESSIVE DECREMENT OF LIFE among 1,000 Infants of each Sex, born together, according to Mr. Finlaison's Observations on the Mortality of the Nominees in the Government Tontines and Life Annuities in Great Britain.

Age.	Males.	Females.	Age.	Males.	Females.	Age.	Males.	Females.	Age.	Males.	Females.	Age.	Males.	Females.	Age.	Males.	Females.
0	1,000	1,000	17	860	870	34	696	748	51	552	616	68	322	443	85	56	117
1	981	981	18	854	863	35	687	740	52	542	608	69	305	428	86	44	103
2	963	967	19	846	856	36	679	732	53	531	601	70	288	412	87	34	89
3	949	955	20	837	848	37	670	724	54	520	593	71	270	395	88	24	76
4	937	945	21	827	841	38	662	716	55	508	585	72	253	377	89	17	64
5	927	935	22	816	834	39	653	708	56	495	576	73	235	358	90	11	52
6	919	926	23	804	827	40	644	700	57	482	568	74	218	339	91	7	41
7	912	919	24	793	820	41	636	693	58	468	559	75	202	319	92	4	30
8	906	913	25	782	813	42	627	685	59	454	549	76	185	298	93	3	21
9	901	908	26	771	805	43	619	677	60	440	539	77	171	277	94	1	14
10	896	903	27	761	798	44	610	669	61	426	529	78	156	255	95		8
11	891	899	28	751	791	45	602	661	62	413	519	79	141	233	96		5
12	886	895	29	742	784	46	594	654	63	399	508	80	125	210	97		2
13	881	892	30	732	777	47	586	646	64	385	496	81	110	189	98		1
14	876	887	31	725	770	48	578	638	65	370	484	82	95	168	99		
15	872	883	32	714	763	49	570	631	66	355	471	83	81	149	100		
16	866	876	33	705	755	50	561	623	67	339	457	84	68	132			

VII. Table showing the EXPECTATION OF LIFE at every Age, according to the Observations made at Northampton.

Age.	Expect.	Age.	Expect.	Age.	Expect.	Age.	Expect.	Age.	Expect.	Age.	Expect.
0	25·18	17	35·20	33	26·72	49	18·49	65	10·88	81	4·41
1	32·74	18	34·58	34	26·20	50	17·99	66	10·42	82	4·09
2	37·79	19	33·99	35	25·68	51	17·50	67	9·96	83	3·80
3	39·55	20	33·43	36	25·16	52	17·02	68	9·50	84	3·58
4	40·58	21	32·90	37	24·64	53	16·54	69	9·05	85	3·37
5	40·84	22	32·39	38	24·12	54	16·06	70	8·60	86	3·19
6	41·07	23	31·88	39	23·60	55	15·58	71	8·17	87	3·01
7	41·03	24	31·36	40	23·08	56	15·10	72	7·74	88	2·86
8	40·79	25	30·83	41	22·56	57	14·63	73	7·33	89	2·66
9	40·36	26	30·33	42	22·04	58	14·15	74	6·92	90	2·41
10	39·78	27	29·82	43	21·54	59	13·68	75	6·54	91	2·09
11	39·14	28	29·30	44	21·03	60	13·21	76	6·18	92	1·75
12	38·49	29	28·79	45	20·52	61	12·75	77	5·83	93	1·37
13	37·83	30	28·27	46	20·02	62	12·28	78	5·48	94	1·05
14	37·17	31	27·76	47	19·51	63	11·81	79	5·11	95	0·75
15	36·51	32	27·24	48	19·00	64	11·35	80	4·75	96	0·50
16	35·85										

VIII. Table showing the EXPECTATION OF LIFE at every Age, according to the Observations made at Carlisle.

Age.	Expect.	Age.	Expect.	Age.	Expect.	Age.	Expect.	Age.	Expect.	Age.	Expect.
0	38·72	18	42·87	36	30·32	53	18·97	70	9·19	87	3·71
1	44·68	19	42·17	37	29·64	54	18·28	71	8·65	88	3·59
2	47·55	20	41·46	38	28·96	55	17·58	72	8·16	89	3·47
3	49·82	21	40·75	39	28·28	56	16·89	73	7·72	90	3·28
4	50·76	22	40·04	40	27·61	57	16·21	74	7·33	91	3·26
5	51·25	23	39·31	41	26·97	58	15·55	75	7·01	92	3·37
6	51·17	24	38·59	42	26·34	59	14·92	76	6·69	93	3·48
7	50·80	25	37·86	43	25·71	60	14·34	77	6·40	94	3·53
8	50·24	26	37·14	44	25·09	61	13·82	78	6·12	95	3·53
9	49·57	27	36·41	45	24·46	62	13·31	79	5·80	96	3·46
10	48·82	28	35·69	46	23·82	63	12·81	80	5·51	97	3·28
11	48·04	29	35·00	47	23·17	64	12·30	81	5·21	98	3·07
12	47·27	30	34·34	48	22·50	65	11·79	82	4·93	99	2·77
13	46·51	31	33·68	49	21·81	66	11·27	83	4·65	100	2·28
14	45·75	32	33·03	50	21·11	67	10·75	84	4·39	101	1·79
15	45·00	33	32·36	51	20·39	68	10.23	85	4·12	102	1·30
16	44·27	34	31·68	52	19·68	69	9·70	86	3·90	103	0·83
17	43·57	35	31·00								

IX. Table giving a COMPARATIVE VIEW of the Results of the undermentioned Tables of Mortality, in relation to the following Particulars.

	By Dr. Price's Table, founded on the Register of Births and Burials at Northampton.	By the First Swedish Tables, as published by Dr. Price; for both Sexes.	By Mr. Deparcieux's Table, founded on the Mortality in the French Tontines, prior to 1745.	By Mr. Milne's Table, founded on the Mortality observed at Carlisle.	By Mr. Griffith Davies's Table, founded on the Experience of the Equitable Life Insurance Office.	By Mr. Finlaison's Table, founded on the Experience of the Government Life Annuities.	
						According to his *First* Investigation, as mentioned in his Evidence in 1825.	According to his *Second* Investigation, as mentioned in his Evidence in 1827.
						Mean of both Sexes.	*Mean of both Sexes.*
Of 100,000 persons aged 25 there would be alive at the age of 65 - -	34,286	43,137	51,033	51,335	49,330	53,470	53,950
Of 100,000 persons aged 65, there would be alive at the age of 80 - -	28,738	23,704	29,837	31,577	37,267	38,655	37,355
Expectation of life at the age of 25 - years	30·85	34·58	37·17	37·86	37·45	38·35	38·52
Expectation of life at the age of 65 - years	10·88	10·10	11·25	11·79	12·35	12·81	12·50
Value of an annuity on a life aged 25, interest being at 4 per cent. -	£15·438	£16·839	£17·420	£17·645	£17·494	£17·534	£17·634
Value of an annuity on a life aged 65, interest being at 4 per cent. -	£7·761	£7·328	£8·039	£8·307	£8·635	£8·896	£8·751
Value of a deferred annuity commencing at 65, to a life now aged 25, interest at 4 per cent. -	£0·55424	£0·65842	£0·85452	£0·88823	£0·88723	£0·99078	£0·98334

Note.—In all the Tables above mentioned, it is to be observed that the mortality is deduced from an equal, or nearly equal, number of each sex; with the single exception of Mr. Davies's Table, founded on the experience of the Equitable, in which office, from the practical objects of life insurance, it is evident the male sex must have composed the vast majority of lives subjected to mortality. But as it is agreed on all hands that the duration of life among females exceeds that of males, it follows that the results of Mr. Davies's Table fall materially short of what they would have been, if the facts on which he has reasoned had comprehended an equal number of each sex. The Tables have not, in all cases, been computed at 4½ per cent., the rate allowed by government.

X. Table showing the VALUE OF AN ANNUITY ON A SINGLE LIFE, according to the Northampton Table of Mortality.

Age.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Age.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Age.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.
1	16·021	13·465	11·563	33	16·343	14·347	12·740	65	8·304	7·761	7·276
2	18·599	15·633	13·420	34	16·142	14·195	12·623	66	7·994	7·488	7·034
3	19·575	16·462	14·135	35	15·938	14·039	12·502	67	7·682	7·211	6·787
4	20·210	17·010	14·613	36	15·729	13·880	12·377	68	7·367	6·930	6·536
5	20·473	17·248	14·827	37	15·515	13·716	12·249	69	7·051	6·647	6·281
6	20·727	17·482	15·041	38	15·298	13·548	12·116	70	6·734	6·361	6·023
7	20·853	17·611	15·166	39	15·075	13·375	11·979	71	6·418	6·075	5·764
8	20·885	17·662	15·226	40	14·848	13·197	11·837	72	6·103	5·790	5·504
9	20·812	17·625	15·210	41	14·620	13·018	11·695	73	5·794	5·507	5·245
10	20·663	17·523	15·139	42	14·391	12·838	11·551	74	5·491	5·230	4·990
11	20·480	17·393	15·043	43	14·162	12·657	11·407	75	5·199	4·962	4·744
12	20·283	17·251	14·937	44	13·929	12·472	11·258	76	4·925	4·710	4·511
13	20·081	17·103	14·826	45	13·692	12·283	11·105	77	4·652	4·457	4·277
14	19·872	16·950	14·710	46	13·450	12·089	10·947	78	4·372	4·197	4·035
15	19·657	16·791	14·588	47	13·203	11·890	10·784	79	4·077	3·921	3·776
16	19·435	16·625	14·460	48	12·951	11·685	10·616	80	3·718	3·643	3·515
17	19·218	16·462	14·334	49	12·693	11·475	10 443	81	3·499	3·377	3·263
18	19·013	16·309	14·217	50	12·436	11·264	10·269	82	3·229	3·122	3·020
19	18·820	16·167	14·108	51	12·183	11·057	10·097	83	2·982	2·887	2·797
20	18·638	16·033	14·007	52	11·930	10·849	9·925	84	2·793	2·708	2·627
21	18·470	15·912	13·917	53	11·674	10·637	9·478	85	2·620	2·543	2·471
22	18·311	15·797	13·833	54	11·414	10·421	9·567	86	2·461	2·393	2·328
23	18·148	15·680	13·746	55	11·150	10·201	9·382	87	2·312	2·251	2·193
24	17·983	15·560	13·658	56	10·882	9·977	9·193	88	2·185	2·131	2·080
25	17·814	15·438	13·567	57	10·611	9·749	8·999	89	2 015	1·967	1·924
26	17·642	15·312	13·473	58	10·337	9·516	8·801	90	1·794	1·758	1·723
27	17·467	15·184	13·377	59	10·058	9·280	8·599	91	1·501	1·474	1·447
28	17·289	15·053	13·278	60	9·777	9·039	8·392	92	1·190	1·171	1·153
29	17·107	14·918	13·177	61	9·493	8·795	8·181	93	0·839	0·827	0·816
30	16·922	14·781	13·072	62	9·205	8·547	7·966	94	0·536	0·530	0 524
31	16·732	14·639	12·965	63	8·910	8·291	7·742	95	0·242	0·240	0·238
32	16·540	14·495	12·854	64	8·611	8·030	7·514	96	0·000	0·000	0·000

XI. Table showing the VALUE OF AN ANNUITY ON A SINGLE LIFE, according to the Carlisle Table of Mortality.

Age.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Age.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Age.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.
1	20·085	16·556	13·995	36	18·183	15·856	13·987	70	7·123	6·709	6·336
2	21·501	17·728	14·983	37	17·928	15·666	13·843	71	6·737	6·358	6·015
3	22·683	18·717	15·824	38	17·669	15·471	13·695	72	6 373	6·026	5·711
4	23·285	19·233	16·271	39	17·405	15·272	13·542	73	6·044	5·725	5·435
5	23·693	19·592	16·590	40	17·143	15·074	13·390	74	5·752	5·458	5·190
6	23·846	19·747	16·735	41	16·890	14·883	13·245	75	5·512	5·239	4·989
7	23·867	19·790	16·790	42	16·640	14·694	13·101	76	5·277	5·024	4·792
8	23·801	19·766	16·786	43	16·389	14·505	12·957	77	5·059	4·825	4·609
9	23·677	19·693	16·742	44	16·130	14·308	12·806	78	4 838	4·622	4·422
10	23·512	19·585	16·669	45	15·863	14·104	12·648	79	4·592	4·394	4·210
11	23·327	19·460	16·581	46	15·585	13·889	12·480	80	4·365	4·183	4·015
12	23·143	19·336	16·494	47	15·294	13·662	12·301	81	4·119	3·953	3·799
13	22·957	19·210	16·406	48	14·986	13·419	12·107	82	3·898	3·746	3·606
14	22·769	19·082	16·316	49	14·654	13·153	11·892	83	3·672	3·534	3·406
15	22·582	18·956	16·227	50	14·303	12·869	11·660	84	3·454	3·329	3·211
16	22·404	18·837	16·144	51	13·932	12 566	11·410	85	3·229	3·115	3·009
17	22·232	18·723	16·066	52	13·558	12.258	11·154	86	3·033	2·928	2·830
18	22·058	18·608	15·987	53	13·180	11·945	10·892	87	2·873	2·776	2·685
19	21·879	18·488	15·904	54	12·798	11·627	10·624	88	2·776	2·683	2·597
20	21·694	18·363	15·817	55	12·408	11·301	10·347	89	2·665	2·577	2·495
21	21·504	18·233	15·726	56	12·014	10·966	10·063	90	2·499	2·416	2·339
22	21·304	18·095	15·628	57	11·614	10·625	9·771	91	2·481	2·398	2·321
23	21·098	17·951	15·525	58	11·218	10·286	9·478	92	2·577	2·492	2·412
24	20·885	17·801	15·417	59	10·841	9·963	9·199	93	2·687	2·600	2·518
25	20·665	17·645	15·303	60	10·491	9·663	8·940	94	2·736	2·650	2·569
26	20·442	17·486	15·187	61	10·180	9·398	8·712	95	2·757	2·674	2·596
27	20·212	17·320	15·065	62	9 875	9·137	8·487	96	2·704	2·628	2·555
28	19·981	17·154	14·942	63	9·567	8·872	8·258	97	2·559	2·492	2·428
29	19·761	16·997	14·827	64	9·246	8 593	8·016	98	2·388	2·332	2·278
30	19·556	16·852	14·723	65	8·917	8·307	7·765	99	2·131	2·087	2·045
31	19·348	16·705	14·617	66	8·578	8·010	7·503	100	1·683	1·653	1·624
32	19·134	16·552	14·506	67	8·228	7·700	7·227	101	1·228	1·210	1·192
33	18·910	16·390	14·387	68	7 869	7·380	6 941	102	0·771	0·762	0·753
34	18·675	16·219	14·260	69	7·499	7·049	6·643	103	0·324	0·321	0·317
35	18·433	16·041	14·127								

XII. Table showing the VALUE OF AN ANNUITY ON THE JOINT CONTINUANCE OF TWO LIVES OF EQUAL AGES according to the Northampton Table of Mortality.

Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.
1 & 1	9·490	8·252	7·287	33 & 33	12·079	10·902	9·919	65 & 65	5·471	5·201	4 960
2 — 2	12·789	11·107	9·793	34 — 34	11·902	10·759	9·801	66 — 66	5·231	4·982	4·759
3 — 3	14·191	12·325	10·862	35 — 35	11·722	10·612	9·680	67 — 67	4·989	4·760	4·555
4 — 4	15·181	13·185	11·621	36 — 36	11·539	10·462	9·555	68 — 68	4·747	4·537	4·348
5 — 5	15·638	13·591	11·984	37 — 37	11·351	10·307	9·427	69 — 69	4·504	4·312	4·140
6 — 6	16·099	14·005	12·358	38 — 38	11·160	10·149	9·294	70 — 70	4·261	4·087	3·930
7 — 7	16·375	14·224	12·596	39 — 39	10·964	9·986	9·158	71 — 71	4·020	3·862	3·719
8 — 8	16·510	14·399	12·731	40 — 40	10·764	9·820	9·016	72 — 72	3·781	3·639	3·510
9 — 9	16·483	14·396	12·744	41 — 41	10·565	9·654	8·876	73 — 73	3·548	3·421	3·304
10 — 10	16·339	14·277	12·669	42 — 42	10·369	9·491	8·737	74 — 74	3·324	3·211	3·105
11 — 11	16·142	14·133	12·546	43 — 43	10·175	9·326	8·599	75 — 75	3·114	3·015	2·917
12 — 12	15·926	13·966	12·411	44 — 44	9·977	9·161	8·457	76 — 76	2·926	2·833	2·750
13 — 13	15·702	13·789	12·268	45 — 45	9·776	8·990	8·312	77 — 77	2·741	2·656	2·583
14 — 14	15·470	13·604	12·118	46 — 46	9·571	8·815	8·162	78 — 78	2·550	2·470	2·410
15 — 15	15·229	13·411	11·960	47 — 47	9·362	8·637	8·008	79 — 79	2·338	2·271	2·217
16 — 16	14·979	13·212	11·793	48 — 48	9·149	8·453	7·849	80 — 80	2·122	2·068	2·018
17 — 17	14·737	13·019	11·630	49 — 49	8·930	8·266	7·686	81 — 81	1·917	1·869	1·827
18 — 18	14·516	12·841	11·483	50 — 50	8·714	8·080	7·522	82 — 82	1·719	1·681	1·642
19 — 19	14·316	12 679	11·351	51 — 51	8·507	7·900	7·366	83 — 83	1·538	1·510	1·472
20 — 20	14·133	12·535	11·232	52 — 52	8·304	7·723	7·213	84 — 84	1·416	1·387	1·357
21 — 21	13·974	12·409	11·131	53 — 53	8·098	7·544	7·056	85 — 85	1·309	1·339	1·256
22 — 22	13·830	12·293	11·042	54 — 54	7·891	7·362	6·897	86 — 86	1·218	1·195	1·171
23 — 23	13·683	12·179	10·951	55 — 55	7·681	7·179	6·735	87 — 87	1·141	1·124	1·098
24 — 24	13·534	12·062	10·858	56 — 56	7·470	6·993	6·571	88 — 88	1·103	1·030	1·063
25 — 25	13·383	11·944	10·764	57 — 57	7·256	6·805	6·404	89 — 89	1·036	1·015	1·001
26 — 26	13·230	11·822	10·667	58 — 58	7·041	6·614	6·234	90 — 90	0·938	0·922	0·909
27 — 27	13·074	11·699	10·567	59 — 59	6·826	6·421	6·062	91 — 91	0·769	0·756	0·748
28 — 28	12·915	11·573	10·466	60 — 60	6·606	6·226	5·888	92 — 92	0·591	0·583	0·576
29 — 29	12·754	11·445	10·362	61 — 61	6·386	6·030	5·712	93 — 93	0 369	0·365	0·361
30 — 30	12·589	11·313	10·255	62 — 62	6·166	5·831	5·533	94 — 94	0·203	0·201	0·199
31 — 31	12·422	11·179	10·146	63 — 63	5·938	5·626	5·347	95 — 95	0·060	0·060	0·059
32 — 32	12·252	11·042	10·034	64 — 64	5·709	5·417	5·158	96 — 96	0·000	0·000	0·000

XIII. Table showing the VALUE OF AN ANNUITY ON THE JOINT CONTINUANCE OF TWO LIVES OF EQUAL AGES, according to the Carlisle Table of Mortality.

Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.
1 & 1	14·079	11·924	10·299	36 & 36	14·477	12·919	11·627	70 & 70	4·556	4·367	4·191
2 — 2	16·155	13·671	11·793	37 — 37	14·231	12·724	11·470	71 — 71	4·217	4·050	3·893
3 — 3	18·030	15·260	13·162	38 — 38	13·981	12·525	11·309	72 — 72	3·904	3·755	3·615
4 — 4	19·065	16·147	13·932	39 — 39	13·727	12·322	11·144	73 — 73	3·631	3·497	3·371
5 — 5	19·815	16·801	14·507	40 — 40	13·481	12·125	10·984	74 — 74	3·400	3·279	3·165
6 — 6	20·156	17·112	14·789	41 — 41	13·254	11·945	10·839	75 — 75	3·231	3·119	3·015
7 — 7	20·280	17·242	14·917	42 — 42	13·036	11·772	10·701	76 — 76	3·068	2·966	2·870
8 — 8	20·261	17·251	14·942	43 — 43	12·822	11·602	10 566	77 — 77	2·927	2·833	2·744
9 — 9	20·146	17·179	14 808	44 — 44	12·600	11·426	10·425	78 — 78	2·784	2·698	2·617
10 — 10	19·963	17·049	14·803	45 — 45	12·371	11·243	10·278	79 — 79	2·610	2·533	2·460
11 — 11	19·748	16·891	14·684	46 — 46	12·128	11·047	10·119	80 — 80	2·459	2·390	2·324
12 — 12	19·538	16·737	14·568	47 — 47	11·870	10·837	9·947	81 — 81	2·283	2·222	2·163
13 — 13	19·327	16·582	14·450	48 — 48	11·591	10·607	9·756	82 — 82	2·135	2·079	2·027
14 — 14	19·115	16·425	14·331	49 — 49	11·279	10·345	9·535	83 — 83	1·978	1·929	1·882
15 — 15	18·908	16·272	14·215	50 — 50	10·942	10·059	9·291	84 — 84	1·825	1·782	1·741
16 — 16	18·719	16·134	14·112	51 — 51	10·579	9·748	9·023	85 — 85	1·657	1·619	1·583
17 — 17	18·542	16·007	14·018	52 — 52	10·215	9·434	8·751	86 — 86	1·509	1·476	1·444
18 — 18	18 365	15·880	13·925	53 — 53	9·849	9·117	8·474	87 — 87	1·389	1·359	1·331
19 — 19	18·182	15·748	13·827	54 — 54	9·480	8·796	8·192	88 — 88	1·328	1·301	1·275
20 — 20	17·993	15·610	13·724	55 — 55	9·103	8·465	7·900	89 — 89	1·248	1·223	1·199
21 — 21	17·797	15·466	13·616	56 — 56	8 721	8·128	7·600	90 — 90	1·088	1·066	1·045
22 — 22	17·588	15·310	13·497	57 — 57	8·334	7·783	7·293	91 — 91	1·050	1·028	1·007
23 — 23	17·372	15·148	13·372	58 — 58	7 954	7·444	6·988	92 — 92	1·120	1·096	1·073
24 — 24	17·148	14·978	13·240	59 — 59	7·605	7·131	6·705	93 — 93	1·226	1·199	1·173
25 — 25	16·916	14·800	13·101	60 — 60	7·295	6·854	6·456	94 — 94	1·302	1·273	1·245
26 — 26	16·681	14·620	12·960	61 — 61	7·044	6·630	6·257	95 — 95	1·383	1·353	1·323
27 — 27	16·437	14·431	12·811	62 — 62	6·804	6·417	6·067	96 — 96	1·424	1·394	1·364
28 — 28	16·196	14·244	12·663	63 — 63	6·563	6·202	5·875	97 — 97	1·395	1·366	1·339
29 — 29	15·976	14·075	12·530	64 — 64	6·308	5·974	5·669	98 — 98	1·375	1·349	1·323
30 — 30	15·784	13·930	12·419	65 — 65	6·047	5·738	5·456	99 — 99	1·294	1·272	1·251
31 — 31	15·591	13·784	12·308	66 — 66	5·774	5·490	5·230	100 — 100	0·991	0·976	0·962
32 — 32	15·392	13·632	12·191	67 — 67	5·486	5·228	4·990	101 — 101	0·687	0·679	0·670
33 — 33	15·180	13·469	12·064	68 — 68	5·188	4·954	4·737	102 — 102	0·387	0·383	0·379
34 — 34	14·954	13·294	11·926	69 — 69	4·877	4·666	4·471	103 — 103	0·108	0·107	0·106
35 — 35	14·720	13·111	11·780								

XIV. Table showing the VALUE OF AN ANNUITY on the joint Continuance of Two Lives, when the DIFFERENCE OF AGE IS FIVE YEARS, according to the Northampton Table of Mortality.

Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.
1 & 6	12·346	10·741	9·479	32 & 37	11·775	10·659	9·716	62 & 67	5·503	5·285	4·986
2 — 7	14·461	12·581	11·100	33 — 38	11·591	10·508	9·591	63 — 68	5·265	5·017	4·786
3 — 8	15·300	13·319	11·755	34 — 39	11·404	10·354	9·463	64 — 69	5·025	4·798	4·585
4 — 9	15·809	13·775	12·165	35 — 40	11·213	10·196	9·331	65 — 70	4·782	4·573	4·378
5 — 10	15·974	13·933	12·315	36 — 41	11·021	10·037	9·198	66 — 71	4·540	4·349	4·169
6 — 11	16·110	14·068	12·447	37 — 42	10·828	9·877	9·062	67 — 72	4·298	4·124	3·960
7 — 12	16·137	14·111	12·498	38 — 43	10·634	9·716	8·927	68 — 73	4·059	3·901	3·752
8 — 13	16·089	14·089	12·492	39 — 44	10·437	9·550	8·787	69 — 74	3·825	3·683	3·547
9 — 14	15·957	13·992	12·421	40 — 45	10·235	9·381	8·643	70 — 75	3·599	3·471	3·347
10 — 15	15·762	13·841	12·302	41 — 46	10·033	9·210	8·497	71 — 76	3·386	3·270	3·159
11 — 16	15·538	13·664	12·158	42 — 47	9·829	9·037	8·350	72 — 77	3·175	3·070	2·971
12 — 17	15·308	13·480	12·009	43 — 48	9·623	8·862	8·200	73 — 78	2·963	2·869	2·780
13 — 18	15·086	13·303	11·864	44 — 49	9·414	8·683	8·046	74 — 79	2·743	2·659	2·580
14 — 19	14·870	13·130	11·723	45 — 50	9·204	8·503	7·891	75 — 80	2·526	2·448	2·381
15 — 20	14·660	12·961	11·585	46 — 51	8·997	8·326	7·737	76 — 81	2·325	2·258	2·195
16 — 21	14·457	12·799	11·452	47 — 52	8·790	8·147	7·582	77 — 82	2·131	2·077	2·013
17 — 22	14·265	12·646	11·327	48 — 53	8·579	7·965	7·424	78 — 83	1·947	1·899	1·838
18 — 23	14·082	12·500	11·209	49 — 54	8·366	7·780	7·262	79 — 84	1·792	1·751	1·750
19 — 24	13·908	12·361	11·096	50 — 55	8·151	7·593	7·098	80 — 85	1·645	1·608	1·573
20 — 25	13·741	12·229	10·989	51 — 56	7·910	7·409	6·936	81 — 86	1·510	1·478	1·447
21 — 26	13·584	12·105	10·890	52 — 57	7·730	7·225	6·774	82 — 87	1·385	1·356	1·329
22 — 27	13·433	11·987	10·796	53 — 58	7·518	7·039	6·609	83 — 88	1·284	1·259	1·235
23 — 28	13·280	11·866	10·699	54 — 59	7·304	6·850	6·442	84 — 89	1·187	1·104	1·145
24 — 29	13·124	11·743	10·600	55 — 60	7·088	6·659	6·272	85 — 90	1·074	1·054	1·038
25 — 30	12·966	11·618	10·499	56 — 61	6·870	6·465	6·100	86 — 91	0·921	0·902	0·892
26 — 31	12·805	11·489	10·396	57 — 62	6·651	6·270	5·925	87 — 92	0·755	0·738	0·734
27 — 32	12·641	11·359	10·289	58 — 63	6·427	6·070	5·744	88 — 93	0·561	0·554	0·547
28 — 33	12·474	11·225	10·181	59 — 64	6·201	5·867	5·561	89 — 94	0·377	0·373	0·369
29 — 34	12·304	11·088	10·069	60 — 65	5·970	5·658	5·372	90 — 95	0·179	0·177	0·175
30 — 35	12·131	10·948	9·954	61 — 66	5·737	5·447	5·180	91 — 96	0·000	0·000	0·000
31 — 36	11·955	10·805	9·837								

XV. Table showing the VALUE OF AN ANNUITY on the joint Continuance of Two Lives, when the DIFFERENCE OF AGE IS FIVE YEARS, according to the Carlisle Table of Mortality.

Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.	Ages.	3 ℘ Cent.	4 ℘ Cent.	5 ℘ Cent.
1 & 6	16·828	14·269	12·331	34 & 39	14·290	12·773	11·508	67 & 72	4·580	4·386	4·207
2 — 7	18·087	15·341	13·258	35 — 40	14·048	12·581	11·354	68 — 73	4·297	4·123	3·961
3 — 8	19·100	16·214	14·019	36 — 41	13·812	12·394	11·204	69 — 74	4·035	4·878	3·731
4 — 9	19·584	16·644	14·402	37 — 42	13·579	12·209	11·056	70 — 75	3·804	3·661	3·528
5 — 10	19·874	16·913	14·649	38 — 43	13·346	12·024	10·907	71 — 76	3·568	3·439	3·319
6 — 11	19·935	16·989	14·731	39 — 44	13·107	11·833	10·753	72 — 77	3·353	3·237	3·127
7 — 12	19·889	16·975	14·736	40 — 45	12·868	11·641	10·598	73 — 78	3·152	3·047	2·948
8 — 13	19·771	16·900	14·689	41 — 46	12·630	11·450	10·444	74 — 79	2·952	2·857	2·767
9 — 14	19·606	16·785	14·606	42 — 47	12·389	11·256	10·287	75 — 80	2·790	2·704	2·623
10 — 15	19·410	16·643	14·500	43 — 48	12·139	11·053	10·121	76 — 81	2·618	2·540	2·467
11 — 16	19·208	16·495	14·389	44 — 49	11·868	10·830	9·937	77 — 82	2·471	2·400	2·333
12 — 17	19·014	16·354	14·284	45 — 50	11·580	10·591	9·737	78 — 83	2·318	2·255	2·194
13 — 18	18·820	16·213	14·178	46 — 51	11·271	10·332	9·519	79 — 84	2·155	2·099	2·045
14 — 19	18·622	16·068	14·069	47 — 52	10·955	10·065	9·292	80 — 85	1·993	1·943	1·895
15 — 20	18·423	15·922	13·959	48 — 53	10·628	9·787	9·054	81 — 86	1·834	1·790	1·747
16 — 21	18·230	15·781	13·853	49 — 54	10·284	9·492	8·799	82 — 87	1·704	1·664	1·626
17 — 22	18·036	15·639	13·746	50 — 55	9·924	9·181	8·528	83 — 88	1·606	1·569	1·535
18 — 23	17·838	15·493	13·636	51 — 56	9·550	8·855	8·242	84 — 89	1·496	1·464	1·433
19 — 24	17·633	15·341	13·520	52 — 57	9·172	8·524	7·950	85 — 90	1·835	1·307	1·279
20 — 25	17·421	15·182	13 398	53 — 58	8·797	8·194	7·657	86 — 91	1·255	1·229	1·203
21 — 26	17·204	15·019	13·272	54 — 59	8·439	7·876	7·375	87 — 92	1·245	1·218	1·192
22 — 27	16·977	14·846	13·137	55 — 60	8·098	7·574	7·106	88 — 93	1·272	1·245	1·219
23 — 28	16·747	14·670	13·000	56 — 61	7·788	7·299	6·860	89 — 94	1·266	1·240	1·214
24 — 29	16·524	14·500	12·867	57 — 62	7·480	7·025	6·615	90 — 95	1·217	1·191	1·167
25 — 30	16·311	14·339	12·742	58 — 63	7·175	6·752	6·370	91 — 96	1·210	1·185	1·161
26 — 31	16·097	14·176	12·615	59 — 64	6·875	6·482	6 127	92 — 97	1·230	1·205	1·181
27 — 32	15·875	14·006	12·482	60 — 65	6·589	6·225	5·89	93 — 98	1·262	1·238	1·215
28 — 33	15·648	13·830	12·344	61 — 66	6·323	5·986	5·678	94 — 99	1·234	1·212	1·191
29 — 34	15·424	13·657	12·206	62 — 67	6·054	5·743	5·458	95 — 100	1·072	1·055	1·038
30 — 35	15·209	13·491	12·078	63 — 68	5·779	5·493	5·230	96 — 101	0·851	0·839	0·828
31 — 36	14·989	13·321	11·944	64 — 69	5·490	5·229	4·988	97 — 102	0·568	0·562	0·555
32 — 37	14·764	13·146	11·806	65 — 70	5·193	4·956	4·737	98 — 103	0·254	0·252	0·249
33 — 38	14·531	12·964	11·661	66 — 71	4·882	4·667	4·469				

The Northampton Table (No. VII.), by under-rating the duration of life, was a very advantageous guide for the insurance offices to go by in insuring lives; but to whatever extent it might be beneficial to them in this respect, it became equally injurious when they adopted it as a guide in selling annuities. And yet, singular as it may seem, some of the insurance offices granted annuities on the *same* terms that they insured lives; not perceiving that, if they gained by the latter transaction, they must obviously lose by the former. Government also continued for a lengthened period to sell annuities according to the Northampton Tables, and without making any distinction between male and female lives! A glance at the Tables of M. Deparcieux ought to have satisfied them that they were proceeding on entirely false principles. But, in despite even of the admonitions of some of the most skilful mathematicians, this system was persevered in till within these few years! We understand that the loss thence arising to the public may be moderately estimated at 2,000,000*l.* sterling. Nor will this appear a large sum to those who recollect that, supposing interest to be 4 per cent., there is a difference of no less than 91*l.* 1*s.* in the value of an annuity of 50*l.* for life, to a person aged 45, between the Northampton and Carlisle Tables.

INVOICE, an account of goods or merchandise sent by merchants to their correspondents at home or abroad, in which the peculiar marks of each package, with other particulars, are set forth. — (See example, *antè*, p. 157.)

IONIAN ISLANDS, the name given to the islands of Corfu, Paxo, Santa Maura, Ithaca, Cephalonia, Zante, Cerigo, and their dependent islets. With the exception of Cerigo, which lies opposite to the south-eastern extremity of the Morea, the rest lie pretty contiguous, along the western coasts of Epirus and Greece; the most northerly point of Corfu being in lat. 39° 48′ 15″ N., and the most southerly point of Zante (Cape Kieri, on which there is a light-house) being in lat. 37° 38′ 35″ N. Kapsali, the port of Cerigo, is in lat. 36° 7′ 30″ N., lon. 23° E.

The area and population of the different islands may be estimated as follows: —

Islands.	Area in Square Miles 15 to a degree.	Population in 1852.
Corfu	10·76	79,581
Cephalonia	16·20	70,870
Zante	5·60	41,992
Santa Maura	4·25	18,966
Ithaca and Calamos	3·32	11,264
Cerigo and Cerigotto	4·50	12,836
Paxo and Antipaxo	1·90	5,111
Totals	47·12*	240,620

* This is equal to 1001·3 English square miles of 69·15 to the degree.

Soil and Climate. — These are very various — Zante is the most fruitful. It consists principally of an extensive plain, occupied by plantations of currants, and having an air of luxuriant fertility and richness. Its climate is comparatively equal and fine, but it is very subject to earthquakes. Corfu and Cephalonia are more rugged and less fruitful than Zante; and the former from its vicinity to the snowy mountains of Epirus, and the latter from the Black Mountain (the Mount Ænos of antiquity) in its interior, are exposed in winter to great and sudden variations of temperature; the frost sometimes damaging to a great extent the oranges and vines of these islands and those of Santa Maura. The latter is, in the hot season, exceedingly unhealthy, — a consequence of the vapours arising from the marshes and the shallow seas to the N. E. Cerigo is rocky and sterile; it is subject to continued gales, and the currents seldom permit its waters to remain unruffled.

History, Government, &c. — These islands have undergone many vicissitudes. Corfu, the ancient Corcyra, was famous in antiquity for its naval power, and for the contest between it and its mother state Corinth, which eventually terminated in the Peloponnesian war. Ithaca, the kingdom of Ulysses; Cephalonia, sometimes called Dulichium, from the name of one of its cities; Zante, or Zacynthus; Santa Maura, known to the ancients by the names of Leucas or Leucadia, celebrated for its promontory, surmounted by a temple of Apollo, whence Sappho precipitated herself into the ocean; and Cerigo, or Cythera, the birth-place of Helen, and sacred to Venus; — have all acquired an immortality of renown. But, on comparing their present with their former state, we may well exclaim, —

Heu quantum hæc Niobe, Niobe distabat ab illâ!

After innumerable revolutions, they fell, about 360 years ago, under the dominion of Venice. Since the downfall of that republic, they have had several protectors, or rather masters, being successively under the dominion of the Russians, the French, and the English. By the treaty of Paris, in 1815, they were formed into a sort of semi-independent state. They enjoy an internal government of their own, under the protection of Great Britain; a Lord High Commissioner, appointed by the queen of England, having charge of the foreign relations, and of the internal, maritime, and sanitary police. Her Majesty's commander-in-chief has the custody of the fortresses, and the disposal of the forces. It is stipulated in the treaty of Paris, that the islands may be called upon for the pay and subsistence of 3,000 men, as well as for the repair of their fortresses occupied by the British troops. The executive government is vested in a president nominated by the commissioner, and a senate of 5 members, (1 for each of the larger islands of Corfu, Cephalonia, Zante, and Santa Maura, and 1 representing collectively the smaller ones of Ithaca, Cerigo, and Paxo, by each of which he is elected in rotation). The senators are elected at the commencement of every quinquennial parliament (subject to a negative from the commissioner) from a legislative chamber of 40 members, themselves elected by the constituencies of the different islands, for 5 years. The senate and legislative assembly, together with the commissioner, are thus the supreme authority: they are, when united, termed the Parliament, and, as such, pass, amend, and repeal laws, in the mode prescribed by the constitution of 1817. Besides the general government, there is in each island a local administration, composed of a regent, named by the senate, and from 2 to 5 municipal officers elected by their fellow citizens.

The State of Society in these islands is far from being good, and was formerly the most depraved imaginable. The people, when they were placed under the ægis of England, were at once lazy, ignorant, superstitious, cowardly, and bloodthirsty. Their vices may, we believe, be, in great degree ascribed to the government and religion established amongst them. The latter consisted of little more than a series of fasts and puerile observances; while the former was both weak and corrupt. The Venetians appointed to situations of power and emolument belonged mostly to noble and decayed families, and looked upon their offices merely as means by which they might repair their shattered fortunes. Hence the grossest corruption pervaded every department. There was no crime for which impunity might not be purchased. Justice, in fact, was openly bought and sold; and suits were decided, not according to the principles of law or equity, but by the irresistible influence of faction or of gold. In consequence, the islands became a prey to all the vices that afflict and degrade a corrupt and semi-barbarous society. Saudys, one of the best English travellers who ever visited the Levant, having touched at Zante in 1610, expresses himself with respect to the inhabitants as follows:—"In habite they imitate the Italians, but transcend them in

their revenges, and infinitely less civil. They will threaten to kill a merchant that will not buy their commodities; and make more conscience to breake a fast than commit a murther. He is weary of his life that hath a difference with any of them, and will walke abroad after daylight. But cowardice is joined with their crueltie, who dare doe nothing but sodainly upon advantage; and are ever privately armed. They are encouraged to villainies by the remissnesse of their laws. The labourers do go into the fields with swords and partizans, as if in an enemie's countrey; bringing home their oils and wines in hogskins, the inside turned out."—(p. 7. ed. 1637.)

If the Zantiotes did not deteriorate during the next 2 centuries, which, indeed, was hardly possible, they certainly did not improve. Dr. Holland, by whom they were visited in 1812, tells us that he heard, "on sure authority, that the number of assassinations in Zante has been more than 1 for each day of the year, though the population was only 40,000!"—(*Travels in the Ionian Isles, &c.* 4to ed. p. 23.)

Matters were, if not quite so bad, very little better in the other islands. In Cephalonia, the inhabitants were divided into factions, entertaining the most implacable animosities, and waging a war of extermination against each other. A little vigour on the part of their rulers would have served to suppress their murderous contests. But this was not an object they wished to attain: on the contrary, their selfish and crooked policy made them seek to strengthen their own power by fomenting the dissensions that prevailed amongst their subjects.—(*Bellin, Description du Golfe de Venise*, p. 165.) Considering the state of society at home, we need not wonder that the Cephalonians, who were distinguished among the islanders for activity and enterprise, were much addicted to emigration. The Venetians attempted to check its prevalence; but, as they neglected the only means by which it could be prevented,—the establishment of security and good order at home,—their efforts were wholly unsuccessful.

The islanders did not, however, satisfy themselves with attempting to stab and prey upon each other. They were much addicted to piracy, particularly the inhabitants of Santa Maura and Cerigo; and it has been alleged that the Venetian government participated in the profits of this public robbery, which, at all events, they took little pains to suppress.

A long series of years will be required to eradicate vices so deeply rooted, and to effect that thorough change in the habits and morals of the people that is so indispensable. The power and influence of the British government has already, however, had a very decided effect. Piracy has been suppressed; and assassination, though still bursting forth, especially in periods of political excitement, with renewed violence, is, speaking generally, a good deal less prevalent. A spirit of industry, sincerity, and fair dealing is beginning to manifest itself. The present generation of nobles possess a degree of information, and a knowledge of the true interests of their country; which, though not all that might be wished for, was, at least, unknown to their fathers. But there is, notwithstanding, a vast deal of intrigue and faction, which is kept alive and fostered by the contentions in their mock parliament. It is not easy to exaggerate the difficulties with which the successive British governors, from Sir Thomas Maitland down to Sir Henry Ward, have had to contend. They have been opposed by every means that feudal rancour, corruption, and pseudo-patriotism could throw in their way. Not that we mean to say they have always acted discreetly, or that the public expenditure has been as judicious and economical as it might have been. But they have, at all events, acted openly and in a straightforward manner; and with an earnest desire to maintain the public tranquillity, and to promote the prosperity of the commonwealth. And it may be hoped that the influence of our example, of the unbiassed execution of the law, and of the education now so generally diffused, may in the end accomplish the regeneration of the islanders.

Manufactures, &c.—These islands possess few manufactures properly so termed. The wives of the villani, or peasants, spin and weave a coarse kind of woollen cloth, sufficient in great part for the use of their families. A little soap is made at Corfu and Zante. The latter manufactures a considerable quantity of silk gros-de-Naples and handkerchiefs; the art of dyeing is, however, too little studied, and the establishments are on too small a scale. The peasantry, in general, are lazy, vain, delighting in display, and very superstitious. Those of Zante and Cephalonia are more industrious than the Corfiotes; in the first, particularly, their superior condition is probably to be ascribed, in part at least, to the nobles residing more on their estates in the country, and contributing, by their example, to stimulate industry. In Corfu, the taste for the city life, which prevailed in the time of the Venetian government, still operates to a great degree. The Corfiote proprietor resides but little in his villa; his land is neglected, while he continues in the practice of his forefathers, who preferred watching opportunities at the seat of a corrupt government, to improving their fortunes by the more legitimate means of honourable exertion and attention to their patrimony. In this respect, however, a material change for the better has taken place during the last 20 years.

Imports of Grain, &c.—Great part of the land is held under short tenures, on the *metayer system*, the tenant paying half the produce to the landlord. Owing to the nature of the soil, and the superior attention given to the culture of olives and currants, the staple products of the islands, most part of the grain and cattle required for their consumption is imported. The hard wheat of Odessa is preferred, and large sums are annually sent to the Black Sea in payment. The parliament, in March, 1833, repealed the duties on the introduction of corn; and the grain monopoly of Corfu, which had been established in favour of government, in order to provide against the possibility of a general or partial scarcity, was then also suffered to expire. These 2 sources of revenue, while they existed, did not probably produce less than 20,000*l.* annually.

Cattle.—They are similarly dependent upon Greece and Turkey for supplies of butcher's meat; a small number only of sheep and goats being bred in the islands. Oxen, whether for agriculture or the slaughter-house, are principally brought from Turkey. The beeves eaten by the troops are 6 weeks or 2 months walking down from the Danube, and the provinces that skirt it, to the shores of Epirus, where they remain in pasture until fit for the table.

Exports.—The staple exports from these islands are oil, currants, wine, soap, salt, and valonia. The first is produced in great abundance in Corfu and Paxo, and in a less quantity in Zante, Santa Maura, and Cephalonia. Corfu has, in fact, the appearance of a continuous olive wood; a consequence, partly, of the extraordinary encouragement formerly given to the culture of the plant by the Venetians. Although there is a harvest every year, the great crop is properly biennial; the tree generally reposing for a year after its effort. (In France and Piedmont the period of inactivity is of 2 and 3 years.) During 5 or 6 months, from October till April, the country, particularly in Corfu, presents an animated appearance, persons of all ages being busily employed in picking up the fruit. The average price may be about 1*l.* 11*s.* per barrel. Under the old Venetian system, the oil could only be carried to Trieste. It is charged with an *ad valorem* duty of 18 per cent., payable on the export. The quality might be much improved by a little more care in the manufacture, the trees being generally finer than in any other country.

Currants, originally introduced from the Morea, are grown in Zante, Cephalonia, and Ithaca, but principally in the first. The plant is a vine of small size and delicate nature, the cultivation of which requires much care. Six or 7 years elapse after a plantation has been made before it yields a crop. In the beginning of October, the earth about the roots of the plant is loosened, and gathered up in small heaps, away from the vine, which is pruned in March; after which the ground is again laid down smooth around the blight called the "brina," and rainy weather in harvest produces great mischief. The currants are gathered towards September, and after being carefully picked, are thrown singly upon a stone floor, exposed to the sun in the open air. The drying process may occupy a fortnight or longer, if the weather be not favourable. A heavy shower or thunder storm (no unfrequent occurrence at that season) not only interrupts it, but sometimes causes fermentation. The fruit is then only fit to be given to animals. Should it escape these risks, it is deposited in magazines called "*seraglie*," until a purchaser casts up.

The "*seragliente*," or warehouse keeper, delivers to the depositor a paper acknowledging the receipt for the quantity delivered, which passes currently in exchange from hand to hand till the time of export. Under the old Venetian government, the liberty of traffic in this produce was exceedingly restricted. In Zante 5 persons chosen out of the council of nobles assembled in presence of the *proveditore*, regulated what should be the price; and those who wished to purchase were under the necessity of describing to the government the quantity they desired. This system was called the "*collegetto*." The export duties consisted of an original duty of 9 per cent. *ad valorem*; a *dazio fisso*, or fixed duty of about 4*s*. 4*d*. per cwt.; and afterwards of a *novissimo*, or most recent duty, of 2*s*. 2*d*. per cwt. This latter was remitted in favour of vessels bringing salt fish, &c., from the northern ports (chiefly English, Danes, and Dutch): it was afterwards relaxed in favour of Russian vessels from Odessa, and abandoned altogether as vexatious and unproductive. The *proveditore* received in addition 2 per cent., and each of his 2 Venetian councillors 1 per cent.; so that the fruit, the original cost of which was about 9*s*. the cwt., stood the exporter in little less than 18*s*. or 19*s*. Even under British protection, the fruit, which some years before had fetched as much as 30*s*. or 32*s*. the cwt., but had declined in 1832 to 8*s*. the cwt., was burdened with the *dazio fisso* of 4*s*. 4*d*., and a duty of 6 per cent. *ad valorem*, being equivalent together, *at that price*, to an *ad valorem* duty of nearly 60 per cent: In the mean time the import duties in England were raised, in 1829, to the enormous amount of 44*s*. 4*d*. the cwt., which, at the same low price, made an *ad valorem* duty of 500 per cent. The consequences were rapidly visible; a decline took place in the culture of the plant, as well as in the circumstances of the proprietors, whose staple export and means of existence were almost annihilated. As the prices fell, and the distress became greater, the necessitous grower was obliged to borrow money at high interest from foreign merchants, or from the Jews, who were, consequently, able to dictate the price at which they would take his produce. A legislative enactment on a scale commensurate with the difficulties which it had to grapple with, was, after much deliberation, matured and adopted by the Ionian legislature in 1834. It commuted the duties upon currants for an *ad valorem* tax of 19½ per cent. (since reduced to 18 per cent.), being the same as that laid upon oil. The same act increased, in a small degree, the duties previously paid on the importation of coffee, tea, and sugar, and upon foreign wines, silks, and gloves, articles which, being chiefly consumed by the affluent, were more appropriately subjected to an increase of duty, to supply in part the defalcation of revenue consequent to the reduction of the currant duty The good effects of this enactment have been universally admitted. The duty on currants imported into the U. K. was reduced by Sir Robert Peel, in 1844, from 22*s*. 6*d*. to 15*s*. 9*d*. a cwt. (15*s*. +5 per cent.), and it is now 15*s*. Certainly, however, either the duty on currants should be reduced to 10*s*., the new duty on raisins, or the latter should be again raised to the level of the former. The fruits are so nearly allied, and may for most practical purposes be so conveniently substituted for each other, that it is manifestly unfair, and, in fact, unjust, to impose higher duties on the one than on the other.

Salt may be obtained in considerable quantities in Corfu, Zante, and Santa Maura, for exportation: the latter island alone produced it until the late act of parliament, which provided that government should let the salt pans in all the islands to those bidders who should offer, by sealed tenders, to supply it at the lowest rate to the consumer, paying at the same time the highest price to government. No export duty is charged upon it.

These statements show that heavy duties are levied upon the exportation of the staple products of the islands, — an objectionable system, and one which, if it is to be excused at all, can only be so by the peculiar circumstances under which they are placed. There is no land tax or impost on property in the Ionian Islands, such as exists in many other rude countries: and, supposing it were desirable to introduce such a tax, the complicated state of property in them, the feudal tenures under which it is held, and the variety of usages with respect to it, oppose all but invincible obstacles to its imposition on fair and equal principles. At the same time, too, a large amount of revenue is required to meet the expenses of the general and local governments, to maintain an efficient police, and to prevent smuggling and piracy. However, we cannot help thinking that some very material retrenchments might be made from the expenditure; and it is to this source, more, perhaps, than to any other, that the inhabitants must look for any real or effectual relief from their burdens.

The Duties on Exports from the Ionian Islands are regulated by acts dated 8th June, 1855, 26th April, 1837, and 29th May, 1847.

Oil and currants - - pay 18 per cent. *ad valorem*.
Wine (excepting that of the Cefalonia Wine Company) - — 6 — —
Soap - - - pay 8 per cent. *ad valorem*.
Valonia - - - — 6 — —
All other articles - - Free.

N. B. Oil shipped in vessels under Ionian colours for the purpose of being conveyed from one island to another of the states pays only 7 per cent. *ad valorem*.

Account of the Revenue of the Ionian Islands in 1851 and 1852, specifying the different Items, and the Amount of each.

Duties,	Revenue in 1851.	Revenue in 1852.
	£	£
Customs - - -	30,040	22,113*
Export duty —		
on olive oil - -	20,735	11,106*
on currants - -	34,491	13,618*
on Island wines -	454	670
Import duty —		
on Foreign wines and spirits -	1,872	1,120
on tobacco - - -	2,909	2,583
on grain - - -	23,504	22,141
Stamp duties - -	12,431	10,360
Sale of gunpowder (monopoly) -	725	379
Receipts for tariff dues —		
Health Office - - -	4,749	4,216
Post Office - - -	2,205	2,048
Executive Police - -	2,683	2,251
Judicial - - -	1,076	571
Free port warehouse rents - -	1,203	1,223
Mortgage and registration dues -	507	398
Printing office receipts -	343	263
Freights of government steam packets -	2,250	1,823
Receipts for public instruction -	1,599	1,581
Miscellaneous - - -	311	538
Total - -	144,086	99,031

Account of the Expenditure of the Ionian Islands in 1851 and 1852, specifying the different Items, and the Amount of each.

Heads of Expenditure.	1851.	1852.
	£	£
Military protection (paid by England) - - - -	25,000	25,000
Lord H. Commissioner's civil list -	14,448	13,000
Legislative Assembly - - -	311	4,720
Civil establishment - - -	42,615	40,460
Judicial establishment - - -	15,629	15,566
Education - - - -	11,894	11,499
Rents of public offices - - -	1,853	1,662
Public works - - - -	2,381	722
Packet service, coals, repairs, &c. -	4,580	2,643
Collection of revenue, inc. paper for stamps - - -	1,889	432
Health office, lazarettos and light houses - - - -	1,322	1,830
Post-offices - - - -	337	333
Executive police - - -	1,460	1,949
Courts of justice - - -	1,353	2,069
Contingent expenditure of general and local governments - -	20,028	14,434
Total - - - -	145,596	136,119

* The diminution of the duties was wholly owing to the failure in the crops of oil and currants.

Account of the Quantities and Values of the principal Articles exported from the Ionian Islands in 1852

Articles exported.	Quantities.	Value in Sterling. Total.	Articles exported.	Quantities.	Value in Sterling. Total.
		£			£
Olive oil - bar. of 16 imp. gal.	27,178	61,652	Soap - - - lbs.	1,291,687	16,693
Currants - - - lbs	7,885,903*	75,014	All other articles - - -	15,377	8,985
Wine - - - - bar.	39,062	9,512	Foreign manufactures - - -	- -	3,717
Spirits - - - - —	720	554			
Salt - - - - bush.	109,797	1,145	Total - - - -	- -	182,372
Hides - - - - No.	6,087	1,788			
Casks of currants - - - —	8,779	2,382	Merchandise in transit - -	- -	223,454
Barrels for oil - - inc. butts	6,240	932			

* A very bad season. In favourable years the exports amount to 15,000,000 or 16,000,000 lbs.

Account of the Quantities and Values of the various Articles imported into the Ionian Islands, in 1852

Articles.	1852. Quantities.	Value.	Articles.	1852. Quantities.	Value.
		£			£
Produce, sugar - - lbs.	1,885,307	30,738	Cheese - - - lbs.	474,452	5,751
coffee - - - —	695,383	15,617	Butter - - - —	71,767	2,885
drugs, gums, &c - - £	- -	10,286	Salt meat - - - —	28,745	823
Manufactures - - - £	- -	114,468	Stock fish and baccala - - —	1,038,519	9,192
Raw silk - - - lbs.	95	38	Bottarga and Caviare - - —	59,013	4,230
raw cotton - - - —	50,555	1,256	Sardinias and anchovies - - —	1,244,326	16,964
Wool - - - - —	25,824	280	Onions and garlic - - mil.	9,614	2,559
Hemp and flax - - - —	52,583	1,143	Dried fruits - - - £	- -	4,862
Staves for large casks - No.	398,572	5,795	Poultry - - - No.	17,197	952
Hoops for do. - - - —	346,070		Wines, foreign - - barrels	682	4,299
Iron - - - - lbs.	296,880	2,410	Spirits - - - —	1,154	3,200
Timber - - - - £	- -	17,251	Horned cattle - - No.	9,966	32,741
Firewood - - - pass.	9,541	3,703	Horses, mules, and asses - —	2,023	2,673
Wheat - - - - kilog.	925,332	201,646	Sheep, goats, and pigs - —	316	2,071
Indian corn - - - —	167,828	23,189	Tobacco - - - lb.	59,142	5,394
Barley and oats - - - —	73,558	6,751	Rye - - - kilog.	290,821	6,328
Beans and other pulse - - —	13,644	3,248	All other articles - - £	- -	12,873
Potatoes - - - lbs.	1,151,084	4,337			
Rice - - - - —	891,727	9,219	Total - -	- -	585,283
Maccaroni - - - - —	271,514	2,543			
Flour - - - - —	372,817	5,252	Value of merchandise in transit -	- - -	198,128
Biscuits - - - - —	34,828	313			

Ports. — The principal ports in the Ionian republic are Corfu and Zante, in the islands of the same names, and Argostoli in Cephalonia. The city and port of Corfu lie on the east side of the island, on the canal or channel between it and the opposite continent, which is here about 5 miles wide. The citadel, which projects into the sea, is furnished with a light-house, 240 feet high; the latter being in lat. 39° 37′ N., lon. 19° 56′ E. The town is but indifferently built. Population about 18,000, exclusive of the military. The fortifications are very strong, both towards the sea and the land. The canal has deep water throughout; its navigation, which is a little difficult, has been much facilitated by the erection of a light-house on the rock of Tignoso in the northern entrance, where the channel is less than a mile in width; and by the mooring of a floating light off Point Leschimo, in the s uthern entrance. Ships anchor between the small but well fortified island of Vido and the city, in from 12 to 17 fathoms water.

The port, or rather gulph, of Argostoli in Cephalonia, lies on the south-west side of the island. Cape Aji, forming its south-western extremity, is in lat. 38° 8′ 40″ N., lon. 20° 23′ 30″ E. Cape San Nicolo, forming the other extremity, is about 4¾ miles from Cape Aji; and between them, within about 1½ mile of the latter, is the small islet of Guardiani, on which is a light-house. From this island the gulph stretches N. ¼ W., from 7 to 8 miles inland. The town of Argostoli lies on the west side of a haven on the east side of the gulph formed by Point Statura. The situation is low and rather unhealthy. Population about 5,000. Its appearance and police, particularly the latter, have have been much improved since its occupation by the English. There is deep water and good anchorage ground in most parts of the gulph. The best entrance is between Cape San Nicolo and Guardiani, keeping rather more than a mile to the eastward of the latter, on account of a reef that extends N. E. and S.W. from it nearly that distance.

The port and city of Zante are situated on the eastern side of the island, in lat. 37° 47′ N. lon. 20° 54′ 42″ E. The city, the largest in the Ionian islands, extends along the shore for nearly 1½ mile, but it is no where above 300 yards in breadth, except where it ascends the hill on which the citadel is erected. The style of building is chiefly Italian; and the interior of the city displays every where great neatness, and even a certain degree of magnificence. Population estimated by Dr. Burgess at about 20,000. It has a mole or jetty of considerable utility, at the extremity of which a light-house is erected; and a lazaretto, situated a little to the south-west. The harbour is capacious. Ships anchor opposite the town at from 500 to 1,000 yards' distance, in from 12 to 15 fathoms, availing themselves of the protection of the mole when the wind is from the N. E. When our troops took possession of Zante, in 1810, the fortifications were found to be in very bad repair; but immense sums have since been expended upon their improvement and extension.

Trade with England. — This is but of very limited extent. During the year 1850 we imported from the Ionian Islands 138,202 cwt. currants, 305,970 gallons olive oil, and 7,324 qrs. Indian corn. The imports of currants fluctuate with the crop, and are sometimes much larger. The real or declared value of the articles of British produce and manufacture exported to them in 1852, amounted to only 138,642*l.*

The total value of the imports from all countries in 1852 was estimated at 585,283*l.* and that of the exports at 182,372*l.* But a considerable part of the imports is not destined for the consumption of the islands, but is sent thither merely as to a convenient *entrepôt*, being intended for the supply of the contiguous provinces of Greece and Turkey. The amount of exports depends materially on the circumstance whether the year be one in which there is, or is not, a crop of olives, and on the goodness of the currant crops.

In 1852, 566,817 tons shipping entered the ports of the Ionian Islands, of which 27,916 were English. The others were Ionian, Greek, Turkish, &c.

Money. —Accounts are kept in sterling money, or in Spanish dollars and oboli, 100 oboli being = 1 doll. = 4*s.* 4*d.*: a doubloon = 1 dollar.—(*Tate's Cambist.*)

Weights. — English weights and measures are sometimes made use of, though with Italian denominations; but the following are most generally used.

The pound *peso grosso*, or great weight of 12 oz. = 7,384 grains Troy: 94·8 lbs. = 100 lbs. avoirdupois.

The pound *peso sottile*, or small weight used for precious metals and drugs, is 1-3d lighter than the foregoing; 12 oz. peso sottile corresponding to 8 oz. peso grosso.

The oke, used in the southern islands, weighs about 18,900 grains Troy, or 27/10 lbs. avoirdupois. The Levant cantar, or quintal, should contain 44 okes.

The migliajo (1,000 lbs.), for currants in Zante, is 1 per cent. lighter than for other articles.

Measures of Length.—

The Venetian foot is 12 onze = 13¾ inches English.

Passo = 5 Venetian feet.

Braccio, for cloths, &c. = 27 3/16 inches English.

Do. for silks. = 25 3/8

Land is measured by the *misura* or 1/8 of a moggio, or bacile

400 square *passi* being 1 misura, or bacile, about 3/10 of an acre English.

Vineyards are measured by the zappada; 3 zappade (a computed day's work) being 1 misura.

Fire-wood is measured by the square passo, usually, however, only 2 feet thick, this depending on the quality of the wood.

Stone is measured by the passo cubo.

Measures of Capacity.—

Corn.—Corfu and Paxo: Moggio of 8 misure, about 5 Winchester bushels.

Cephalonia: Bacile should contain 80 lbs. peso grosso, best quality wheat.

Santa Maura: Cado, of 8 crivelli, 4 = 3 mog.; 1 cado = 3⅔ bushels English.

Ithaca: 5 Bacile = 1 moggio.

Cerigo: Chilò, the measure of Constantinople, = 1 bushel English.

Wine.—Corfu and Paxo: 32 quartucci = 1 jar, and 4 jars = 1 barrel = 18 English wine gallons.

Cephalonia and Ithaca: 2 quartucci = 1 boccale; 12 boccali = 1 secchio; 6 secchio = 1 barrel = 18 English wine gallons.

Zante: 13 1/3 quartucci = 1 lire; 40 quartucci = 1 jar; 3 jars = 1 barrel = 17 5/8 English wine gallons.

Santa Maura: 22 quartucci = 1 stamno; 6 stamni = 1 barrel = 18 English wine gallons.

Cerigo 2 agosten = 1 boccia; 30 boccie = 1 barrel = 18 English wine gallons.

Oil.—Corfu and Paxo: 4 quartucci = 1 miltro; 6 miltri = 1 jar; 4 jars = 1 barrel = 18 English wine gallons.

Cephalonia: 9 pagliazzi = 1 barrel = 18 Eng. wine galls.

Zante: 9 lire, or 3 jars of 45 qu. each = 1 barrel = 17 5/8 English wine gallons.

Santa Maura: 7 stamni	= 1 barrel	= 18	Eng. wine galls.
Ithaca: 13 pagliazzi	= 1 —	= 18	—
Cerigo: 24 bozze	= 1 —	= 14 9/5	—

Salt. — Centinajo, about 4,000 lbs. Venetian peso grosso.

Lime.—Corfu, measure of 4 English cubic feet.

In compiling this article, we have consulted, besides the works referred to above, the *Voyage Historique, Pittoresque, &c.*, by Saint Sauveur,—a diffuse but valuable work. The account of Zante, in the last volume (tome iii. pp. 101—278.), is particularly good. We have also looked into the *Voyage en Grèce* of Scrofani, 3 tomes, Paris, 1801; the *Archives du Commerce*; the *Papers laid before the Finance Committee, &c.* But the most important part of the information we have been able to lay before the reader was derived from manuscript notes obligingly communicated by Earl Lovelace, who (when Lord King) was secretary to the British government in these islands.

IPECACUANHA (Fr. *Ipecacuanha*; Ger. *Amerikanische brechwurzel*; It. *Ipecoacanna*; Port. *Cipo de camaras, Ipecacuanha*; Sp. *Ipecacuana, Raiz de oro*), the root of a perennial plant (*Cephaëlis ipecacuanha*) growing in Brazil and other parts of South America. It is, from its colour, usually denominated *white, grey*, or *ash-coloured*, and *brown*. Little of the first variety is found in the shops. The grey and brown varieties are brought to this country in bales from Rio Janeiro. Both are in short, wrinkled, variously bent and contorted pieces, which break with a resinous fracture. The grey is about the thickness of a small quill, full of knots and deep circular fissures, that nearly reach down to a white, woody, vascular cord that runs through the heart of each piece; the external part is compact, brittle, and looks smooth: the brown is smaller, more wrinkled, of a blackish brown colour on the outside, and whitish within: the white is woody, and has no wrinkles. The entire root is inodorous; but the powder has a faint disagreeable odour. The taste is bitter, sub-acrid, and extremely nauseous. In choosing ipecacuanha, the larger roots, which are compact and break with a resinous fracture, having a whitish grey, somewhat semi-transparent, appearance in the outside of the cortical part, with a pale straw-coloured medullary fibre, are to be preferred. When pounded, ipecacuanha forms the mildest and safest emetic in the whole materia medica. Though probably employed in America from time immemorial, it was not introduced into Europe till the time of Louis XIV., when one Grenier, a French merchant, brought 150 lbs. of it from Spain, with which trials were made at the Hôtel Dieu. Helvetius first made known its use in dysentery, for which Louis XIV. munificently rewarded him by a douceur of 1,000*l.* sterling.—(*Thomson's Dispensatory; Thomson's Chemistry.*)

IRON (Dan. *Jern*; Du. *Yzer*; Fr. *Fer*; Ger. *Eisen*; It. *Ferro*; Lat. *Ferrum, Mars*; Pol. *Zelazo*; Por. *Ferro*; Rus. *Scheleso*; Sp. *Hierro*; Sw. *Jern*; Gr. Σίδηρος; Sans. *Loha*; Arab. *Hedeed*; Pers. *Ahun*), the most abundant and most useful of all the metals. It is of a bluish white colour; and, when polished, has a great deal of brilliancy. It has a styptic taste, and emits a smell when rubbed. Its hardness exceeds that of most other metals; and it may be rendered harder than most bodies by being converted into steel. Its specific gravity varies from 7·6 to 7·8. It is attracted by the magnet or loadstone, and is itself the substance which constitutes the loadstone. But when iron is perfectly pure, it retains the magnetic virtue for a very short time. It is malleable in every temperature, and its malleability increases in proportion as the temperature augments; but it cannot be hammered out nearly as thin as gold or silver, or even as copper. Its ductility is, however, more perfect; for it may be drawn out into wire as fine at least as a human hair. Its tenacity is such, that an iron wire 0·078 of an inch in diameter, is capable of supporting 549·25 lbs. avoirdupois without breaking.

Historical Notice.—Iron, though the most common, is the most difficult of all the metals to obtain in a state fit for use; and the discovery of the method of working it seems to have been posterior to the use of gold, silver, and copper. We are wholly ignorant of the steps by which men were led to practise the processes required to fuse it and render it malleable. It is certain, however, that it was prepared in ancient Egypt, and some other countries, at a very remote epoch; but it was very little used in Greece till after the Trojan war.—(See the admirable work of *M. Goguet* on the *Origin of Laws, Arts, &c.*, vol. i. p. 140.)

Species of Iron.—There are many varieties of iron, which artists distinguish by particular names; but all of them may be reduced under one or other of the 3 following classes: *cast* or *pig iron*, *wrought* or *soft iron*, and *steel*.

1. Cast or pig iron is the name given to this metal when first extracted from its ores. The ores from which iron is usually obtained are composed of oxide of iron and clay. The object of the manufacturer is to reduce the oxide to the metallic state, and to separate all the clay with which it is combined. This is effected by a peculiar process; and the iron, being exposed to a strong heat in furnaces, and melted, runs out into moulds prepared for its reception, and obtains the name of cast or pig iron.

The cast iron thus obtained is distinguished by manufacturers into different varieties, from its colour and other qualities. Of these the following are the most remarkable:—

a. White cast iron, which is extremely hard and brittle, and appears to be composed of a congeries of small crystals. It can neither be filed, bored, nor bent, and is very apt to break when suddenly heated or cooled

b. Grey or *mottled* cast iron, so called from the inequality of its colour. Its texture is granulated. It is much softer and less brittle than the last variety; and may be cut, bored, and turned on the lathe. Cannons are made of it.

c. Black cast iron is the most unequal in its texture, the most fusible, and least cohesive, of the three.

2. Wrought or soft iron is prepared from cast iron by a process termed a refinement or finery. The wrought iron manufactured in Sweden is reckoned the finest in the world.

3. Steel consists of pieces of wrought iron hardened by a peculiar process. The Swedish iron imported into this country is mostly used in the manufacture of steel. — (See STEEL.) — (*Thomson's Chemistry.*)

Uses of Iron. — To enumerate the various uses of iron would require a lengthened dissertation. No one who reflects for a moment on the subject, can doubt that its discovery and employment in the shape of tools and engines has been of the utmost importance to man; and has done more, perhaps, than any thing else, to accelerate his advance in the career of improvement. Locke has the following striking observations on this subject: — "Of what consequence the discovery of one natural body, and its properties, may be to human life, the whole great continent of America is a convincing instance: whose ignorance in useful arts, and want of the greatest part of the conveniences of life, in a country that abounded with all sorts of natural plenty, I think may be attributed to their ignorance of what was to be found in a very ordinary despicable stone — I mean the mineral of iron. And whatever we think of our parts or improvements in this part of the world, where knowledge and plenty seem to vie with each other, yet, to any one that will seriously reflect upon it, I suppose it will appear past doubt, that, were the use of iron lost among us, we should in a few ages be unavoidably reduced to the wants and ignorance of the ancient savage Americans, whose natural endowments and provisions came no way short of those of the most flourishing and polite nations; so that he who first made use of that one contemptible mineral, may be truly styled the father of arts and author of plenty." — (*Essay on the Understanding*, book iv. c. 12.)

Manufacture of Iron in Great Britain. — We are ignorant of the period when iron began to be made in England, but there is authentic evidence to show that iron works were established by the Romans in the Forest of Dean, in Gloucestershire, and in other parts of the kingdom. — (*Pennant's Wales*, ed. 1810, vol. i. p. 89.) They were also established, at an early period, in Kent and Sussex; these counties being well supplied, not only with iron ore, but (which was at the time of still more importance) with timber, the only species of fuel that was then used in the furnaces. It is to this latter circumstance that the slow increase in the production of iron in England, during a lengthened period, is to be ascribed. Complaints were very early made of the destruction of timber by the iron works; and in the reign of Elizabeth, when an unusual demand for timber for the navy, and for merchant vessels also, took place, the decrease of timber excited a great deal of attention. At length, in 1581, an act was passed prohibiting the manufacturers of iron from using any but small wood, and from establishing any new works any where within 22 miles of the city of London, and 14 miles of the river Thames, and in several parts of Sussex specified in the act. Soon after this, Edward, Lord Dudley, invented a process for smelting iron ore with pit-coal instead of timber; and it is difficult to point out many inventions that have been so advantageous. The patent which his lordship obtained in 1619, was exempted from the operation of the act of 1623 (21 James 1. c. 23.), setting aside monopolies; but though, in its consequences, it has proved of immense value to the country, the works of the inventor were destroyed by an ignorant rabble, and he was well nigh ruined by his efforts to introduce and perfect his process. — (*Report of Committee of House of Commons on Patents*, p. 168, &c.) The invention seems, in consequence, to have been for many years almost forgotten. The complaints of the destruction of timber continued; so much so, that, in 1637, the exportation of iron without licence was prohibited, and fresh restrictions were laid on the felling of timber. But the evil could not be abated by such means; and, in the early part of last century, complaints of the destruction of timber by the iron works became more prevalent than ever, and their total suppression began to be contemplated as a lesser evil than the continued decrease of the stock of timber. At this period more than two thirds of the iron made use of was imported, and the condition of the manufacture was most unprosperous. But the growing scarcity and high price of timber, coupled with the increasing demand for iron, at last succeeded in drawing the attention of some ingenious persons to Lord Dudley's process; and, about 1740, iron was made at Colebrook Dale, and one or two other places, by means of pit-coal, of about as good a quality as that made with timber. From this period the business steadily increased; at first, however, its progress was comparatively slow, and the furnaces of Kent and Sussex were not wholly relinquished for more that 80 years after iron began to be largely produced by means of pit-coal. The great demand for iron occasioned by the late war, and the obstacles which it threw in the way of supplies from abroad, gave the first extraordinary stimulus to the manufacture, which has now become of vast importance and great value. In 1740 the quantity of pig-iron made in England and Wales amounted to about 17,000 tons, produced by 59 furnaces Since this epoch the increase is believed to have been nearly as follows; viz: — in 1750. 22,000 tons; in 1788, 68,000 tons, produced by 85 furnaces; in 1796, 125,000 tons, produced by 121 furnaces; in 1806, 250,000 tons, produced by 169 furnaces; and in 1820. about 400,000 tons, were produced, but their is no account of the number of furnaces. From extensive inquiries made by government and others connected with the iron trade, the following statements have been deduced, which exhibit the districts in which iron is made, the number of furnaces, and the total quantity produced in 1825, 1840, and 1848.

Account of the Number of Furnaces, and of the Quantities of Iron in Tons produced in Great Britain, in 1825, 1840, and 1848.

	Total Furnaces in 1825.	Produce of Iron in 1825.	Total Furnaces in 1840.	Produce of Iron in 1840.	Total Furnaces in 1848.	Produce of Iron in 1848.
Forest of Dean	-	-	4	15,000	-	-
South Wales	107	230,412	163	505,000	196	706,680
North Wales	14	17,756	15	26,500	11	16,170
Northumberland	-	-	6	11,000	36	100,000
Yorkshire	34	39,104	32	56,000	28	66,560
Derbyshire	19	22,672	18	31,000	30	95,000
Staffordshire	107	182,156	151	427,650	158	385,840
Shropshire	48	89,596	31	82,750	34	88,000
Scotland	25	33,540	70	241,000	130	550,000
Totals	354	615,236	490	1,395,900	623	2,008,200

The increase in the interval has been, if possible, still greater than that exhibited above. And in proof of this we have merely to direct the reader's attention to the following, compiled from returns collected by Mr. Hunt, Keeper of Mining Records, the highest authority on such subjects.

Number of Iron Furnaces and make of Iron in the U. Kingdom in 1857.

County.	No. of Iron Works.	No. of Furnaces built.	No. of Furnaces in blast.	Produce of Pig-iron.
England: Northumberland	8	18	6	63,250
Durham	15	51	35	284,500
Yorkshire, North Riding	10	32	25	296,858
Do. West Riding	13	36	25	
Lancashire	1	2	2	1,255
Cumberland	5	9	6	30,515
Derbyshire	15	34	25	112,160
Shropshire	13	31	26	117,141
North Staffordshire	7	27	23	154,057
South do. and Worcestershire	66	180	153	657,295
Northamptonshire	2	5	5	11,500
Gloucestershire	5	10	5	23,382
Somersetshire	1	1	1	300
Wiltshire	1	2	0	
	162	436	333	1,732,670
Wales	57	221	170	1,007,776
Scotland	32	165	124	918,000
Ireland	1	1	1	1,000
Totals	252	823	628	3,659,447

This astonishing increase has been owing to a great variety of causes, among the more prominent of which may be specified the greater cheapness of iron, and its consequent application to a great many purposes, including the construction of various descriptions of agricultural implements, pipes for the conveyance of water, and the building of ships, for which it was not formerly supposed to be applicable. Unquestionably, however, the unprecedented demand of iron for railways in this country, and in the United States and the Continent, has, within the last 10 years, given the most powerful stimulus to the manufacture; and, if only half the railway projects on foot in 1847 had been executed, the production of the iron, vast as it has been, would have been quite inadequate to supply the demand.

It will, however, readily occur to the reader that a demand for iron for railways, depending as the formation of the latter does on many varying circumstances, must necessarily be both capricious and fluctuating; and hence it is not really possible to infer from the state of the iron trade at any given period what may be its state a few months after. In 1842 and 1843 the price of pig-iron had sunk to from 2*l.* to 2*l.* 10*s.* per ton, and the manufacturers in the least favoured districts were involved in the greatest difficulties. But subsequently the price of iron doubled or trebled; and though it has again receded, larger fortunes have been made in this than in any other department of industry. Similar mutations will, doubtless, take place in future. On the whole, however, the fair presumption seems to be that the manufacture will go on increasing for an indefinite period. The uses to which iron may be applied seem to be all but infinite; and every fall of its price stimulates invention and introduces it into new channels. Most probably, indeed, the works situated in the least favoured districts, or those where iron is produced at the greatest expense, will, in the course of time, have to be abandoned. This, however, is merely a local and accidental grievance, and can in nowise affect the general well-being of the business.

The employment of the hot-blast, or of air heated to a high temperature, instead of common atmospheric air in the working of furnaces, has been one of the greatest improvements in the manufacture, and has at once reduced the cost of iron and increased its quantity. It was first used in Lanarkshire, in Scotland, and has been one of the principal causes of the extraordinary extension of the trade in that part of the empire, where it is now universally made use of.

Taking the annual produce of pig-iron in the United Kingdom at 3,500,000 tons,

and supposing that about 3 tons of coal are required for the production of each ton of iron, the consumption of coal in this branch of the iron trade will, on this hypothesis, amount to 10,500,000 tons a year; and adding to this quantity 6,000,000 tons for the coal required for the conversion of pig-iron into bar-iron, it follows that a supply of no fewer than 16,500,000 tons of coal will be annually required in this single department of industry! And hence, also, the fact that the consumption of coal in the production of iron is nearly four times as great as its consumption in the metropolis!

From 3-10ths to 4-10ths of the total quantity of iron produced is used in the state of pig, or cast-iron, and is consumed principally in Great Britain and Ireland. The exports of pig-iron, however, amounted in 1857 to about 422,000 tons, sent principally to France, the United States, Holland, Prussia, and British N. America. The residue is converted into wrought iron, being formed into bars, bolts, rods, &c. The exports of bar-iron amounted, in 1857, to 737,000 tons! and during the same year, the exports of all sorts of iron reached the prodigious amount of 1,539,386 tons! which, at 8*l.* a ton, would be worth above 12,000,000*l.* And their declared value did in fact amount, in 1857, to 13,603,337*l.*, and in 1858 to 11,197,072*l.*

Supposing the total quantity of pig-iron produced in Great Britain to amount to 3,500,000 tons a year, and to be worth, at an average, 4*l.* a ton, its total value will be 14,000,000*l.*; and the additional labour expended in forming the pig-iron into bar-iron, that is, into bars, bolts, rods, &c., may probably add about 5,000,000*l.* more to its value; making it worth in all about 19,000,000*l.* And if we recollect that wrought iron is to the hardware manufacture what malt is to the manufacture of beer, and leather to that of shoes, we shall be satisfied alike of its paramount importance in the arts and as a most prolific source of employment and of public wealth.

Account of the different Descriptions of Iron (including unwrought Steel) exported from the U. Kingdom during 1857, specifying the Quantities sent to the different Countries.

Countries to which exported.	Iron, Pig.	Bar Iron.	Bolt and Rod Iron.	Cast Iron.	Iron Wire.	Wrought Iron.			Iron, old, for re-manufacture.	Steel, unwrought.
						Anchors, Hoops, Boiler Plates, &c.	Nails.	Of all other sorts (except Ordnance).		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Russia	2,497	4,945	147	1,187	146	1,805	145	2,320	-	888
Sweden	5,292	6,752	-	667	-	527	-	502	-	
Norway	4,720	1,099	422	-	259	2,061	-	425		
Denmark	16,044	9,922	629	5,586	81	2,738	-	1,081	-	205
Prussia	67,297	25,257	751	1,988	-	4,020	68	1,655	20,010	554
Mecklenburg	-	721	-	-	-	390	-	228		
Hanover	10,759	14,006	-	1,417	-	1,769	-	983	2,507	279
Oldenburg	4,858	114	-	-	-	229	-	221		
Hanse Towns	27,065	19,261	1,074	1,423	492	6,567	71	6,021	1,836	1,260
Holland	85,615	27,938	168	1,756	506	10,095	97	2,471	7,735	775
Belgium	3,425	-	-	116	722	-	-	404		
France	88,341	50,537	281	518	82	10,047	-	2,216	12	1,259
Portugal, Azores, and Madeira	2,919	9,185	2,088	307	-	2,434	-	1,408	-	862
Spain and the Canaries	10,154	30,048	251	2,358	769	5,128	259	1,599		
Sardinia	7,418	18,584	686	286	147	2,609	-	590	-	99
Tuscany	1,486	2,142	222	-	-	643	-	191	591	122
Papal States	-	3,663	-	-	-	510	-	174		
Two Sicilies	8,778	12,578	1,071	85	534	1,721	345	238		
Austrian Territories	3,852	13,321	256	1,886	-	1,851	-	599	-	139
Greece	-	1,510	252	-	-	762				
Turkey	1,018	10,690	2,509	96		2,700	184	1,047		9
Wallachia and Moldavia	-	3,566	453	107	-	856				
Syria and Palestine	-	456								
Egypt	-	13,279	489	869	94	178	-	1,078		
Morocco	-	129								
Western Coast of Africa (Foreign)	-	766	-	456	-	909	-	163		
Java	-	2,498	264	220	-	534	102			
Philippine Islands	-	1,688	179	-	-	526	222			
China (exclusive of Hong-Kong)	-	687	3,049	111	53	41				
Cuba	-	12,966	-	3,258	-	1,958	136	746		
Porto Rico	-	-	-	-	-	-	127	127		
St. Thomas	-	260	-	405	-	-	314	100		
United States	46,752	225,473	4,574	2,587	1,748	50,634	469	6,658		
Venezuela	-	-	-	152	-	-	-	-	345	13,366
Mexico	-	624	-	-	-	-	42	126	-	
Brazil	1,599	8,778	133	4,719	91	2,200	648	1,514	-	93
Uruguay (Monte Video)	-	957	-	224	-	-	-	76	-	111
Buenos Ayres	-	4,197	-	625	722	813	111	559		
Chili	-	4,851	-	948	395	452	184	700		
Peru	-	1,653	-	1,268	-	-	90	1,745		
Channel Islands	-	808	-	579	-	219	132	277	2,313	
Gibraltar	-	354	-	-	-	532	-	103		
Malta	-	1,528	-	-	-	185				
Ionian Islands	-	196								
Western Coast of Africa (British)	-	581	-	295	-	151	-	49		
British Possessions in South Africa	-	1,596	-	856	-	958	281	1,601		
Mauritius	-	911	-	1,054	-	200	295	993		
Aden	-	-	-	-	-	-	-	55		
British East Indies	2,778	116,225	5,934	18,529	2,383	14,650	342	5,678	-	
Hong-Kong	-	601	1,820	307	61	279			-	760
Australia	2,510	37,016	459	7,795	1,676	4,012	3,444	7,767	-	
British North America	15,925	50,354	212	5,656	159	11,975	2,060	5,732	-	415
British West India Islands, and British Guiana	-	2,643	-	1,578	-	962	1,256	1,278		665
Other countries	4,230	1,708	1,057	1,021	655	4,416	860	694	1,124	564
Totals	422,086	737,121	29,410	72,855	11,333	155,622	12,762	59,372	36,471	22,374

Making a grand total of 1,539,386 tons.

Previously to 1845, the imports of foreign iron usually varied from 20,000 to 25,000 tons a year. But at that epoch the duties on foreign iron (20*s.* a ton on iron in bars) were repealed; and there has since been an increase in the imports of Swedish bar-iron, which is especially well fitted for being made into steel. The imports of all sorts of foreign iron amounted, in 1857, to 50,163 tons, whereof 44,282 tons were from Sweden.

Perhaps in nothing has the fall of price, consequent to the diminution of the cost of production, that has taken place since the peace of 1815, been more conspicuous than in hardware. At an average, articles of hardware are at present (1859) from 50 to 75 per cent. lower than in 1820. And it may be safely affirmed that there are very few descriptions of articles in which a fall of price would have been so advantageous.

IRON-WOOD (Ger. *Eisenholz;* Du. *Yserhout;* Fr. *Bois de fer;* It. *Legno di ferro;* Sp. *Plo hierro;* Lat. *Sideroxylon, Lignum ferreum*), a species of wood of a reddish cast, so called on account of its corroding as that metal does, and its being remarkably hard and ponderous,—even more so than ebony. The tree which produces it grows principally in the West India Islands, and is likewise very common in South America, and in some parts of Asia, especially about Siam.

ISINGLASS (Ger. *Hausenblase, Hausblase;* Fr. *Colle de Poisson, Carlock;* It. *Cola di pesce;* Rus. *Klei rübiii, Karluk*), one of the purest and finest of the animal glues. It is a product the preparation of which is almost peculiar to Russia. It is made of the air-bladders and sounds of different kinds of fish which are found in the large rivers that fall into the North Sea and the Caspian. That prepared from the sturgeon is generally esteemed the best; next to that the beluga; but isinglass is also prepared from sterlets, shad, and barbel, though not so good. The best is usually rolled in little ringlets; the second sort is laid together like the leaves of a book; and the common sort is dried without any care. When fine, it is of a white colour, semi-transparent and dry. It dissolves readily in boiling water, and is used extensively in cookery. It is also used for stiffening silk, making sticking-plaster, &c. The duty on isinglass, which formerly amounted to 47*s.* 6*d.* a cwt., was wholly repealed in 1853. In 1857 the imports and exports were respectively 1,493 cwt. and 166 do. The price varies from 5*s.* to 15*s.* per lb.—(See *Thomson's Chemistry; Tooke's View of Russia*, 2d. ed. iii. 343, &c.)

ISLE OF MAN. See MAN, ISLE OF.

JUICE OF LEMONS, LIMES, OR ORANGES. The 9th section of the act 6 Geo. 4. c. 111. is as follows:—"For ascertaining the degrees of specific gravity or strength, according to which the duty on the juice of lemons, limes, and oranges shall be paid, it is enacted that the degrees of such specific gravity or strength shall be ascertained by a glass citrometer, which shall be graduated in degrees in such manner that distilled water being assumed as unity at the temperature of 60° by Fahrenheit's thermometer, every degree of the scale of such citrometer shall be denoted by a variation of $\frac{4}{1000}$ parts of the specific gravity of such water."

JUNIPER BERRIES. See BERRIES.

IVORY, the name given to the teeth or tusks of the elephant, and of the walrus or sea-horse. Each male elephant come to maturity has 2 tusks. These are hollow at the root, tapering, and of various sizes, depending principally on the age of the animal. Colour externally yellowish, brownish, and sometimes dark, internally white. The best are large, straight, and light-coloured, without flaws; not very hollow in the stump, but solid and thick. The most esteemed come from Africa, being of a closer texture, and less liable to turn yellow, than those from the East Indies.

The trade in London thus divide them:—

First sort, weighing 70 lbs. or upwards; second sort, weighing 56 lbs. to 60 lbs.; third sort, weighing 38 lbs. to 56 lbs.; fourth sort, weighing 28 lbs. to 37 lbs.; fifth sort, weighing 18 lbs. to 27 lbs.

All under 18 lbs. are called *scrivelloes*, and are of the least value. In purchasing elephants' teeth, those that are very crooked, hollow, and broken at the ends, of cracked and decayed in the inside, should be rejected; and care taken that lead or any other substance has not been poured into the hollow. The freight is rated at 16 cwt. to the ton.—(*Milburn's Orient. Com.*)

Supply of Ivory.—The imports of elephants' teeth amounted in 1857 to 9,890 cwt., of which 2,576 cwt. were exported. The medium weight of a tusk may be taken at about 60 lb., so that the importation of 1857 may be taken at 18,400 tusks; a fact which presumes the destruction of at least 9,200 male elephants! But, supposing the tusks could only be obtained by killing the animal, the destruction would really be a good deal greater, and would most probably, indeed, amount to about 12,000 elephants. Occasionally, however, tusks are accidentally broken, one lost in this way being replaced by a new one; a good many are also obtained from elephants that have died in the natural way; and some more are the produce of the walrus. Still it is sufficiently certain, that the supply from the last mentioned sources is not very large; and if to the quantity of ivory required for Great Britain, we add that required for the other countries of Europe, America, and Asia, the slaughter of elephants must, after every reasonable deduction is made, appear immense. Inasmuch, however, as this destruction falls only on the males, there is less foundation than might at first be supposed, for the surprise that has sometimes been expressed that the breed of this noble animal has not been more diminished. The western and eastern coasts of Africa, the Cape of Good Hope, Ceylon, India, and the countries to the eastward of the Straits of Malacca, are the great marts whence supplies of ivory are derived. The imports from Western Africa into

Great Britain in 1857, amounted to 1,543 cwt.; the Cape, &c. furnished 1,192 cwt., and India and Ceylon, 3,349 do. The Chinese market is principally supplied with ivory from Malacca, Siam, and Sumatra.

The chief consumption of ivory in England is in the manufacture of handles for knives; but it is also extensively used in the manufacture of musical and mathematical instruments, chess-men, billiard-balls, plates for miniatures, toys, &c. Ivory articles are said to be manufactured to a greater extent, and with better success, at Dieppe than in any other place in Europe. But the preparation of this beautiful material is much better understood by the Chinese than by any other people. No European artist has hitherto succeeded in cutting concentric balls after the manner of the Chinese: and their boxes, chess-men, and other ivory articles, are all far superior to any that are to be met with anywhere else.

Historical Notice.—It is a curious fact, that the people of all Asiatic countries in which the elephant is found, have always had the art of taming the animal and applying it to useful purposes, but that no such art has ever been possessed by any native African nation. Is this owing to any difference between the Asiatic and African elephants, or to the inferior sagacity of the African people? We incline to think that the latter is the true hypothesis. Alexander the Great is believed to have been the first European who employed elephants in war. It appears pretty certain that the elephants made use of by the Carthaginians were mostly, if not wholly, brought from India; and that they were managed by Indian leaders. Some of the latter were captured by the Romans, in the great victory gained by Metellus over Asdrubal.—(See, on this curious subject, two very learned and valuable notes in the *Ancient Universal History*, 8vo. ed. vol. xvii. p. 429. and p. 549. *Buffon's Article on the Elephant* is a splendid piece of composition.)

The duty of 1*l.* per cwt. on ivory was repealed in 1866.

The price per cwt. of elephants' teeth in the London market, in April 1859, was—

	£	s.	d.		£	s.	d.		£	s.	d.		£	s.	d.
75 to 120 lbs.	40	0	0	to 44	0	0		40 to 52 lbs.	34	0	0	to 40	0	0	
56 - - 70 —	38	0	0	— 42	0	0		20 — 35 —	28	0	0	— 35	0	0	

K.

KELP. A substance composed of different materials, of which the fossil or mineral alkali, or, as it is commonly termed soda, is the chief. This ingredient renders it useful in the composition of soap, in the manufacture of alum, and in the formation of crown and bottle glass. It is formed of marine plants, which, being cut from the rocks with a hook, are collected and dried on the beach to a certain extent; they are afterwards put into kilns prepared for the purpose, the heat of which is sufficient to bring the plants into a state of semi-fusion. They are then strongly stirred with iron rakes; and when cool, condense into a dark blue or whitish mass, very hard and solid. Plants about 3 years old yield the largest quantity of kelp. The best kelp has an acrid caustic taste, a sulphurous odour, is compact, and of a dark blue greenish colour. It yields about 5 per cent. of its weight of soda.—(*Barry's Orkney Islands*, p. 377.; *Thomson's Dispensatory.*)

The manufacture of kelp is, or rather *was*, principally carried on in the Western Islands, and on the western shores of Scotland, where it was introduced from Ireland, about the middle of last century. Towards the end of the late war, the kelp shores of the island of North Uist let for 7,000*l.* a year. It has been calculated that the quantity of kelp annually manufactured in the Hebrides only, exclusive of the mainland, and of the Orkney and Shetland Isles, amounted, at the period referred to, to about 6,000 tons a year; and that the total quantity made in Scotland and its adjacent isles amounted to about 20,000 tons. At some periods during the war, it sold for 20*l.* a ton; but at an average of the 23 years ending with 1822, the price was 10*l.* 9*s.* 7*d.*—(Art. *Scotland*, *Edinburgh Encyclopædia.*)

Unluckily, however, the foundations on which this manufacture rested were altogether factitious. Its existence depended on the maintenance of the high duties on barilla and salt. Inasmuch, however, as kelp could not be substituted, without undergoing a very expensive process, for barilla, in a great many departments of industry in which the use of mineral alkali is indispensable, it became necessary materially to reduce the high duty laid on barilla during the war. The ruin of the kelp manufacture has been ascribed to this reduction; but though barilla had been altogether excluded from our markets, which could not have been done without great injury to many most important manufactures, the result would have been perfectly the same, in so far as kelp is concerned, unless the high duty on salt had also been maintained. It was the repeal of the latter that gave the kelp manufacture the *coup de grace*. The purification of kelp, so as to render it fit for soap-making, is a much more troublesome and expensive process than the decomposition of salt; and the greatest quantity of alkali used, is now obtained by the latter method. Had the duty on salt not been repealed, kelp might still have been manufactured, notwithstanding the reduction of duty on barilla.

The manufacture is now almost extinct. Shores that formerly yielded the proprietors a rent of 200*l.* to 500*l.* a year, are now worth next to nothing. The price of kelp since 1822 has not been, at an average, above 4*l.* a ton; and the article will, most probably, soon cease to be produced.

This result, though injurious to the proprietors of kelp shores, and productive of temporary distress to the labourers employed in the manufacture, is not to be regretted. It could not have been obviated, without keeping up the price of some of the most important necessaries of life at a forced and unnatural elevation. The high price of kelp was occasioned by the exigencies of the late war, which, besides obstructing the supply of barilla, forced government to lay high duties on it and on salt. The proprietors had not the vestige of a ground for considering that such a state of things would be permanent; they did right in profiting by it while it lasted; but they could not expect that government was to subject the country, during peace, to some of the severest privations occasioned by the war, merely that *they* might continue to enjoy an accidental advantage.

KENTLEDGE, the name sometimes given to the iron pigs cast in a particular form for ballasting ships, and employed for that purpose.

KERMES (Ger. *Scharlachbeeren*; Du. *Grein Scharlakenbessen*; It. *Grana, Chermes, Cremese, Cocchi*; Sp. *Grana Kermes, Grana de la coscoja*), an insect (*Coccus ilicis* Lin.) of the same species as the true Mexican cochineal, found upon the *quercus ilex*, a species of oak growing in Spain, France, the Levant, &c. Before the discovery of America, kermes was the most esteemed drug for dyeing scarlet, and had been used for that purpose from a very remote period. Beckmann inclines to think that it was employed by the Phœnicians, and that it excelled even the famous Tyrian purple. — *Hist. of Invent.* vol. ii. p. 197. Eng. ed.) From the name of *coccum* or *coccus*, cloth dyed with kermes was called *coccinum*, and persons wearing this cloth were said by the Romans to be *coccinati*. — (*Mart.* lib. i. epig. 97. lin. 6.) It is singular, however, notwithstanding its extensive use in antiquity, that the ancients had the most incorrect notions with respect to the nature of kermes; many of them supposing that it was the grains (*grana*) or fruit of the *ilex*. This was Pliny's opinion: others, after him, considered it in the same light, or as an excrescence formed by the puncture of a particular kind of fly, like the gall nut. It was not till the early part of last century that it was finally and satisfactorily established that the kermes is really nothing but an insect, assuming the appearance of a berry in the process of drying. The term kermes is of Persian origin. The Arabians had been acquainted with this production from the earliest periods in Africa; and having found it in Spain, they cultivated it extensively as an article of commerce, as well as a dye drug for their own use. But since the introduction of cochineal, it has become an object of comparatively trifling importance. It is still, however, prepared in some parts of Spain. Cloths dyed with kermes are of a deep red colour; and though much inferior in brilliancy to the scarlet cloths dyed with real Mexican cochineal, they retain the colour better, and are less liable to stain. The old tapestries of Brussels, and other places in Flanders, which have scarcely lost any thing of their original vivacity, though 200 years old, were all dyed with kermes. The history of this production has been treated with great learning by Beckmann (*Hist. of Invent.* vol. i. pp. 171—191. 1st ed. trans.); and by Dr. Bancroft (*Permanent Colours*, vol. i. pp. 393—409.)

KINO (Fr. *Gomme de Kino*; Ger. *Kinoharz*; It. *Chino*), a gum, the produce of trees that grow in the East and West Indies, Africa, Botany Bay, &c. The kino now found in the shops is said by Dr. A. T. Thomson to come from India, and to be the produce of the *nauclea gambir*. The branches and twigs are bruised and boiled in water. The decoction is then evaporated until it acquires the consistence of an extract, which is kino. It is imported in chests containing from 1 to 2 cwt.; and on the inside of the lid of each chest is a paper, inscribed with the name of John Brown, the month and year of its importation, and stating that it is the produce of Amboyna. It is inodorous, very rough, and slightly bitter when first taken into the mouth; but it afterwards impresses a degree of sweetness on the palate. It is in small, uniform, deep brown, shining, brittle fragments, which appear like portions of a dried extract broken down; being perfectly uniform in their appearance. It is easily pulverised, affording a powder of a lighter brown colour than the fragments. But it may be doubted whether the inspissated juice of the *nauclea gambir* ought to be considered as kino. Dr. Ainslie says that Botany Bay kino is the only kind he had seen in an Indian bazaar. The tree which yields it grows to a great height: it flows from incisions made into the wood of the trunk. — (*Thomson's Dispensatory*; *Ainslie's Materia Indica.*)

KNIVES. (Ger. *Messer*; Du. *Messen*; Fr. *Couteaux*; It. *Coltelli*; Sp. *Cuchillos*; Rus. *Noshi*) well known utensils made of iron and steel, and employed to cut with: they are principally manufactured in London and Sheffield. Knives are made for a variety of purposes, as their different denominations imply; such as table knives, penknives, oyster knives, pruning knives, &c. Although England at present excels every part of the world in the manufacture of knives, as in most branches of cutlery, the finer kinds were imported until the reign of Elizabeth. It is stated by Mr. Macpherson (*Annals of Com., Anno* 1563), that knives were not made for use in England till 1563; but there can be no doubt that this is an error. They had been made, though probably of a rude and clumsy pattern, for centuries before, in the district called Hallamshire, of which Sheffield is the centre; and the cutlers of London were formed into a corporation in 1417. — (*Manufactures in Metal*, vol. ii. c. i., in *Lardner's Cyclopædia.*)

KÖNIGSBERG, the capital of East Prussia, in lat. 54° 42′ 11″ N., lon. 20° 29′ 15″ E. Population, in 1855, 77,748.

Port, &c.—Königsberg is situated on the Pregel, which flows into the Frische Haff, or Fresh Bay, a large lake having from 10 to 14 feet water. The bar at the mouth of the Pregel has only from 10 to 11 feet water, so that vessels of more than that draught of water require to be lightered to come up to Königsberg. Pillau, in lat. 54° 33′ 39″ N., lon. 15° 52′ 30″ E. on the north side of the entrance from the Baltic to the Frische Haff, is properly the port of the town. Within these few years, a lighthouse

has been erected on a rising ground, a little to the south of Pillau, the lantern of which is elevated 95 feet above the level of the sea. The light is fixed and brilliant. The entrance to the harbour is marked by buoys; those on the larboard side being surmounted by small flags. A Gothic building, 120 feet above the level of the sea, has been erected to serve for a land-mark; at a distance it looks like a three-masted ship under sail. There is usually from 15 to 16 feet water between the buoys on entering the harbour; but particular winds occasion material differences in this respect.

Trade of Königsberg.—Being situated on a navigable river of considerable importance, Königsberg has a large command of internal navigation, and is the principal emporium of a large extent of country. Wheat, rye, and other species of grain are the chief articles of export. The wheat is somewhat similar to that of Dantzic, but of inferior quality, being larger in the berry, and thicker skinned. The rye is of good quality, but barley, with few exceptions, is thin and light. A few remarkably large and fine peas are exported; but the bulk are of small size and inferior. Oats are common feed, with a slight admixture of tares, but as these last answer in some degree the purpose of beans, the value of the oats is rather enhanced than otherwise by the circumstance. More tares are shipped here than from any other port in the Baltic. The price of all sorts of grain is usually lower at Königsberg than at the neighbouring Prussian ports. Linseed and rapeseed, hemp, flax, linens, oil-cake, oil, bristles, refined sugar, &c., are largely exported; with smaller quantities of bones, mats, ashes, feathers, wax, hides and skins, &c. The bristles are the best in the Baltic. Timber, deals, and staves are as good as at Memel, but being scarce, few or none are exported. The imports are sugar, tea, herrings, iron and steel, coffee, wines, tin and tin plates, dye woods, tobacco, spices, drugs, coals, &c. Salt is a government monopoly; any person being allowed to import it, but he must either sell it to government at a price fixed by them, or export it again.

Money, Weights, and Measures, same as at DANTZIC; which see.

We subjoin some statements with respect to the trade of Königsberg in 1858.

Exports. — The exportation by sea of corn, grain, and seeds, was as follows, viz.,

	Lasts.	Quarters.		Lasts.	Quarters.
Wheat	12,670	142,500	Tares	362	4,070
Rye	24,816	279,180	Linseed	4,903	55,150
Barley	3,177	35,740	Other seeds	1,437	16,160
Oats	7,979	90,000			
Peas	4,187	47,100	Total	60,563	681,500
Beans	1,052	11,600			
			In 1857	52,492	590,000

The year 1858 was the most important for the quantity of grain exported for many years past, exceeding even that of 1843, which was considered as the greatest on record. The exportation in that year amounted to 60,078 lasts. In 1858, 1,500 lasts were forwarded to Germany by railway.

Prices of Wheat, of good mixed and red quality, of 130 to 132 lbs., Dutch weight, rose from April to July from 36*s.* 7*d.* to 39*s.* 11*d.* per quarter to 44*s.* 1*d.* to 47*s.* 3*d.* per quarter, and then declined again to 39*s.* 10*d.* to 43*s.* High mixed wheat was worth 1*s.* to 3*s.* per quarter more.

Flax and Hemp. — The trade in flax was more than usually lively. The German spinners consumed considerably more than usual. The export by sea was about 2,300 tons to foreign countries, 500 tons by steam boats to Stettin, and 1,800 tons by rail to Germany, — total, 4,600 tons. About 1,200 tons of flax and codilla, chiefly of lower quality, remained on stock on 31st December. The average value of the exported flax was about 45*l.* per ton. Only about 150 tons of hemp were exported by sea to foreign countries in this year. The inland consumption, including the interior of Germany, was nearly 2,000 tons; the finer sorts were sparingly imported from Russia, and prices continually receded. Stocks on hand on 31st December about 2,200 tons.

Oil Cakes. — The trade in this article was from various reasons much curtailed, although the price of linseed cake rose to 8*s.* per cwt.; the low price of oil interfered with the profits of the manufacturers, and but little came for exportation. The export of cake by sea was 4,500 tons.

The imports consist principally of sugar, coffee, and other articles of colonial produce; cottons and cotton yarn; iron and hardware, and machinery; herrings, and other salt fish; spirits and wine; tea and tobacco; coals; with a great variety of other articles. In consequence of the preference accorded to beet root, and its increased cultivation, the imports of colonial sugar have been progressively diminishing.

In 1855, 65 vessels imported about				14,780 tons.
1856, 49	"	"		6,696 "
1857, 32	"	"		4,674 "
1858, 22	"	"		3,158 "

For an account of the shipping belonging to Königsberg, see DANTZIC.

L.

LAC, OR GUM LAC (Ger. *Lack, Gummilack;* Fr. *Lacque, Gomme lacque;* It. *Lacca, Gommalacca;* Sp. *Goma laca;* Rus. *Laka, Gummilak;* Arab. *Laak;* Hind. *Lak'h;* Sans. *Lākshā*), a substance, which has been improperly called a gum, produced in Bengal, Assam, Pegu, Siam, &c. on the leaves and branches of certain trees, by an insect (*Chermes lacca*). The trees selected by the insect on which to deposit its eggs are known by the names of the bihar tree (*Croton laccíferum* Lin.), the pepel (*Butea frondosa*), bott, and coosim trees, &c. After being deposited, the egg is covered by the insect with a quantity of this peculiar substance, or lac, evidently intended to serve, in the economy of nature, as a nidus and protection to the ovum and insect in its first stage, and as food for the maggot in its more advanced stage. It is formed into cells, finished with as much art as a honeycomb, but differently arranged. Lac yields a fine red dye, which, though not so bright as the true Mexican cochineal, is said to be more permanent; and the resinous part is extensively used in the manufacture of sealing wax and hats, and as a varnish.

Lac, when in its natural state, encrusting leaves and twigs, is called *stick lac:* it is collected twice a-year; and the only trouble in procuring it is in breaking down the leaves and branches, and carrying them to market. When the twigs or sticks are large, or only partially covered, the lac is frequently separated from them, as it always ought to be when shipped for Europe, to lessen the expense of freight. The best stick lac is of a deep red colour. When held against the light, it should look bright, and when broken should appear in diamond-like points. If it be not gathered till the insects have left their cells, it becomes pale, and pierced at the top; and it is of little use as a dye, though probably better for a varnish.

Lac dye, lac lake, or *cake lac,* consists of the colouring matter extracted from the stick lac. Various processes have been adopted for this purpose. It is formed into small square cakes or pieces, like those of indigo. It should, when broken, look dark-coloured, shining, smooth, and compact; when scraped or powdered, it should be of a bright red colour, approaching to that of carmine. That which is sandy, light-coloured, and spongy, and which, when scraped, is of a dull brickdust colour, should be rejected.

Notwithstanding the continued fall in the price of cochineal, the use of lac dye has been extending in this country. The annual consumption may at present (1853) amount to about 1,200,000 lbs., having more than quintupled since 1818. The finest qualities of lac dye are seldom met with for sale in Calcutta, being generally manufactured under contract for the European market.

When stick lac has been separated from the twigs to which it naturally adheres, and coarsely pounded, the native silk and cotton dyers extract the colour as far as it conveniently can be done by water. The yellowish, hard, resinous powder which remains, having somewhat of the appearance of mustard seed, is called *seed lac.* When liquefied by fire, it is formed into cakes, and denominated *lump lac.* The natives use the latter in making bangles, or ornaments in the form of rings, for the arms of the lower class of females; the best *shellac* being used in manufacturing these ornaments for the superior classes.

Shellac is produced from seed lac, by putting the latter into bags of cotton cloth, and holding it over a charcoal fire, when the lac melts, and being strained through the bag, the resinous part, which is the most liquefiable, is obtained in a considerable degree of purity; it is formed into thin sheets or plates. Thin, transparent, or amber-coloured shellac is best; avoid that which is thick, dark, or speckled; it should always, when broken, be amber-coloured on the edge; that which has a dark brown fracture, however thin, should be rejected. When laid on a hot iron, shellac, if pure, will instantly catch fire, and burn with a strong but not disagreeable smell. It used to be principally employed in this country in the manufacture of sealing wax, and as a varnish; but it is now very extensively used in the manufacture of hats: the quantity retained for consumption in 1851 amounted to 11,868 cwts.

In Bengal, lac is chiefly produced in the forests of Sylhet and Burdwan. The finest dye is said to be obtained from the stick lac of Siam and Pegu; but the shellac, or resinous part obtained from the latter, is inferior to that produced from Sylhet stick lac. It may be obtained in almost any quantity.

The duties formerly charged on lac when entered for consumption were repealed in 1845.

In 1857, 19,736 cwts. of shellac were imported, and 11,483 cwts. exported. During the same year the imports and exports of lac dye were respectively 12,196 cwts. and 4,293 cwts.

The finest lac dye is distinguished by the mark D.I., the 2d by D. T., the 3d by J. Mc. R., C. E., &c. The prices vary from 6d. to 2s. 5d. per lb.

The duties used to be 5 per cent. on lac dye, seed lac, and stick lac; and 20 per cent. on shellac; but it was obviously absurd to charge shellac, which, as already seen, is prepared from the refuse of lac dye, with *four* times the duty laid upon the latter. In 1842, the duties were reduced to 1s. a cwt., and, as already seen, were repealed in 1845.—(*Bancroft on Permanent Colours*, vol. ii. pp. 1—60.; *Ainslie's Mat. Med.*; *Milburn's Orient. Com.*; and *private information.*)

LACE (Du. *Kanten;* Fr. *Dentelle;* Ger. *Spitzen;* It. *Merletti, Pizzi;* Rus. *Krushewo;* Sp. *Encajes*), a plain or ornamented net-work, tastefully composed of many fine threads of gold, silver, silk, flax, or cotton, interwoven, from *Lacinia* (Lat.), the guard hem or fringe of a garment.

The origin of this delicate and beautiful fabric is involved in considerable obscurity; but there is no doubt it lays claim to high antiquity. In Mr. Hope's Costumes of the Ancients, many beautiful lace patterns are portrayed on the borders of the dresses of

Grecian females; and from the derivation of the word "*lace*," it is probable it was not unknown to the Romans. It is supposed that Mary de' Medici was the first who brought lace into France, from Venice, where, and in the neighbouring states of Italy, it is understood to have been long previously worn; but we find that in England, so early as 1483, "laces of thread, and laces of gold, and silk and gold," were enumerated among the articles prohibited to be imported.—(1 *Rich.* 3. c. 10.) It is, therefore, fair to presume that this manufacture had begun in England *prior* to that period, as this and many subsequent acts were passed—(19 Hen. 7. c. 21.; 5 Eliz. c. 7.; 13 & 14 Car. 2. c. 18.; 4 & 5 W. & M. c. 10., &c.)—for the encouragement and protection of our home manufacture; but it may equally be concluded, that as *pins* (which are indispensable in the process of lace making) were not used in England till 1543, the manufacture of lace must have been vulgar in fabric, and circumscribed in its extent. Tradition says that the lace manufacture was introduced into this country by some refugees from Flanders, who settled at or near Cranfield, now a scattered village on the west side of Bedfordshire, and adjoining Bucks; but there is no certain evidence that we are indebted to the Flemings for the introduction of this beautiful art, though we undoubtedly owe to them most part of our manufactures of articles of dress; we have also imitated many of their lace fabrics, and greatly improved our manufacture, by profiting by the superior taste which they have displayed in the production of this article. In 1626, Sir Henry Borlase founded and endowed the free school at Great Marlow, for 24 boys, to read, write, and cast accounts; and for 24 girls, to knit, spin, and make *bone lace*—(*Lewis' Topography*); so that there is reason to suppose that at this time the manufacture had commenced in Buckinghamshire, which by degrees extended to the adjoining counties of Bedford and Northampton. In 1640, the lace trade was a flourishing interest in Buckinghamshire—(*Fuller's Worthies*, and different *Itineraries*); and so greatly had it advanced in England, that by a royal ordinance in France, passed in 1660, a mark was established upon the thread lace *imported from this country* and from Flanders, and upon the point lace from Genoa, Venice, and other foreign countries, in order to secure payment of the customs duties.—(*Universal Dictionary.*)

Pillow Lace—the original manufacture—is worked upon a hard stuffed pillow, with silk, flax, or cotton threads, according to a parchment pattern placed upon it, by means of pins, bobbins, and spindles, which are placed and displaced, twisting, and interweaving the threads, so as to imitate the pattern designed. This manufacture has been long pursued in almost every town and village in the midland counties, particularly in Buckinghamshire, Bedfordshire, and Northamptonshire, besides at Honiton, in Devon, and various other places in the west of England. The principal places where it is made in the Netherlands are Antwerp, Brussels, Mechlin, Louvaine, Ghent, Valenciennes, and Lisle. It is also made at Chantilly near Paris (celebrated for veils), Charleville, Sedan, Le Comptè de Bourgoyne, Liege, Dieppe, Havre, Harfleur, Pont l'Evesque, Gosors, Fecamp, Caen. Arras, Bapaume, &c. in France; and at various places in Spain, Portugal, and Italy. In England and Ireland, besides the laws passed at different times to encourage and protect the manufacture, associations were formed in various places, with the view of exciting a spirit of emulation and improvement, by holding out premiums for the production of the best pieces of bone lace; and although smuggling of foreign lace was carried on to a great extent, (in 1772, 72,000 ells of French lace were seized in the port of Leigh, and lodged in the king's warehouse there, besides numerous other seizures,) the British manufacture advanced in an unparalleled degree.—(*Gentleman's Mag.* 1751, vol. xxi. p. 520.; vol. xlii. p. 434.) It is imagined that the first lace ever made in this country was of the sort called *Brussels Point*, the net work made by bone bobbins on the pillow, and the pattern and sprigs worked with the needle. Such appears to have been the kind worn by the nobility and people of high rank, as is evident by the different portraits now in existence, painted by Vandyke, in the time of Charles I., and afterwards by Sir Peter Lely and Sir Godfrey Kneller, in the succeeding reigns of Charles II., Queen Anne, and George I. About a century since, the *grounds* in use were the old Mechlin, and what the trade termed the *wire ground*, which was very similar, if not identical, with the *modern* Mechlin, the principal article in the present French manufacture. The laces made in these grounds were singularly rich and durable: the designs of the *old Mechlin* resembled the figures commonly introduced in ornamental carving. Between 70 and 80 years ago, a great deterioration was occasioned by the introduction of the *Trolly* ground, which was exceedingly coarse and vulgar, the figures angular, and altogether in the worse taste conceivable. An improvement, however, took place about the year 1770, when the ground, which is probably the most ancient known, was re-introduced; this was no other than the one still in partial use, and denominated the *old French ground*. About 1777, or 1778, quite a *new* ground was attempted by the inhabitants of Buckingham and its neighbourhood, which quickly superseded all the others; this was the *point ground*, which had (as is supposed) been imported from the Netherlands. From the first appearance of this ground may be dated the origin of the modern pillow-lace trade; but it was not until the beginning of the present century that the most striking improvements were made; for during the last quarter of the eighteenth century, the article, though certainly much more light and elegant from the construction of the ground, was miserably poor and spiritless in the design. Soon after the year 1800, a freer and bolder style was adopted; and from that time to 1812, the improvement and consequent success were astonishing and unprecedented. At Honiton, in Devon, the manufacture had arrived at that perfection, was so tasteful in the design, and so delicate and beautiful in the workmanship, as not to be excelled even by the best specimens of Brussels lace. During the late war, veils of this lace were sold in London at from 20 to 100 guineas; they are now sold at from 8 to 15 guineas. The effects of the competition of machinery, however, were about this time felt; and in 1815, the broad laces began to be superseded by the new manufacture. The pillow-lace trade has since been gradually dwindling into insignificance, compared with its condition 30 years back. It is difficult to form an estimate of the number of persons employed in pillow-lace making during its prosperity; but in a petition from the makers in Buckingham and the neighbourhood, presented to her late Majesty in 1830, it was stated that 120,000 persons were dependent on the trade; but this number has since been very greatly diminished.

Nottingham Lace.—A frame-work knitter of Nottingham, named Hammond, about the year 1768, was the first who made lace by machinery. Though dissipated and destitute of money, employment, or credit, the idea struck him, while looking at the broad lace on his wife's cap, that he could fabricate a similar article by means of his stocking frame.—(*Gravenor Henson on Hosiery, Lace, &c.* p. 295.) He tried, and succeeded. The first machine ostensibly for lace (introduced at Nottingham about the same

period), was called a pin machine, for making single press *point net* in imitation of the Brussels ground. This machine, although lost here, is still used in France in manufacturing the net called *tulle*. This was the age of experiments; and workmen at their leisure hours employed themselves in forming new meshes on the hand, in the hope of perfecting a complete hexagon, which had hitherto eluded all their efforts to discover. In 1782, the warp frame was introduced, which is still in use for making *warp lace*; and in 1799 it was first attempted to make *bobbin net* by machinery; but this was not found to answer. During the succeeding 10 years many alterations were made in the construction of the machines, with no better success, until at length, in 1809, Mr. Heathcoat of Tiverton succeeded in discovering the correct principle of the bobbin-net frame, and obtained a patent for 14 years for his invention. Steam power was first introduced by Mr. John Lindley, in 1815–16; but did not come into active operation till 1820. It became general in 1822–23; and a great stimulus was at this period given to the trade, owing to the expiration of Mr. Heathcoat's patent, the increased application of power, and the perfection to which the different hand frames had by this time been brought. A temporary prosperity shone on the trade; and numerous individuals — clergymen, lawyers, doctors, and others — readily embarked capital in so tempting a speculation. Prices fell in proportion as production increased; but the demand was immense; and the Nottingham lace frame became the organ of general supply, — rivalling and supplanting, in plain nets, the most finished productions of France and the Netherlands.

Bobbin Net Manufacture. — In the last edition of this work, it was estimated that in 1843 there were employed in the production of machine lace, 4,000 hands, receiving 165,000*l.* in wages — that the trade was confined to about 15 houses in Nottingham and the neighbourhood, and that the "estimated total value of the bobbin net and warp lace trade amounted to 2,740,000*l.*" A remarkable advance has taken place since that period, owing to the improvements which have been made in the machinery. In an admirable paper on the history of this manufacture, read by Mr. William Felkin, of Nottingham (a most competent authority), before the Society of Arts, and published in their Journal for May 1856, he says, — "The æra of ornamenting lace upon the machine has certainly been ushered in — the results are now startling and of incalculable importance. Every fancy article, from the narrow lace edging to the two-yard wide store curtain, requiring some thousands of yards to complete the design, are now as much familiarised to our mechanicians, designers and workpeople, as they were twenty years ago unthought of or unknown." Nothing can establish more conclusively the benefit which has resulted to the trade, owing to the improvements in the machinery, than the periodical reduction which has taken place in the price of the square yard. Mr. Felkin says — "The second patented machine was a complex one; it required 60 motions to the formation of a mesh. A workman in one of these machines, 36 inches in width, could produce 1000 meshes a minute. The motions have gradually been reduced to *six*, — and a machine 5 yards wide will turn off 40,000 meshes per minute with ease. The first finished pieces were sold at 100*s.* the square yard; in 1813, 40*s.*; in 1815, 30*s.*; 1818, 20*s.*; 1821, 12*s.*; 1824, 8*s.*; 1827, 4*s.*; 1830, 2*s.*; 1833, 1*s.* 4*d.*; 1836, 10*d.*; 1842, 6*d.*; 1850, 4*d.*; 1856, 6*d.*; the last is about a natural average price." These reductions, however, have been greatly promoted by the improvements simultaneously made in the spinning of fine yarns. In 1810, No. 220 doubled yarn was worth 100*s.* per lb.; in 1856, only 10*s.* per lb.; and No. 240 in 1810 brought 140*s.*, while in 1856 its selling price was 13*s.* only. Mr. Felkin adds: —

"In 1831 embroidering and finishing of lace employed wholly, or in part, about 150,000 hands. They received wages 1,500,000*l.* in the year. This fell, in 1833, to 550,000*l.*, and 55,000 hands; and, in 1836, to 350,000*l.*, and 35,000 hands. Including wages at the machines, as well as the subsequent processes, there has been paid to at least 130,000 hands in 1856, 2,200,000*l.* in wages alone, in this department of the Nottingham lace trade.

"In conclusion, the manufacture of bobbin-net lace by machinery is scarcely half a century old. The following will give an approximate idea of what in this brief interval it has become in this country: —

"At several periods an account of the machines has been taken. In 1815 there were 140; 1820, 1,008; 1826, 2,469; 1831, 4,500 — making a return of 3,417,000*l.*; 1833, 5,000, returning 2,620,000*l.*; 1836, 3,800, returning 2,212,000*l.*; in 1844, 3,200, returning 2,995,000*l.* In 1851 Mr. Birkin, reporting to Section 19 of the Great Exhibition, found 3,200 (34,382 quarters width) at work, returning 2,300,000*l.*, employing about 2,965,945*l.* capital, and 133,015 hands. Capital in bobbin-net machinery alone was estimated at 1,329,445*l.*

"In 1856 the machinery is increased to 3,500 (full 40,000 quarters in width), and greater power in production in the new ones. Also a far larger proportion is employed upon silk materials, and the number of frames making fancy goods forms now far the largest proportion. These changes will serve to account for the very large increase in the returns of the trade this year beyond 1850. 1,350 machines at least are rotary circulars, making plain goods by power in factories. At least 1,050 making fancies are worked by power, probably many more. About 2,158 machines in all, partly "levers," partly circulars, some pushers, and some traverse warps, make fancy goods now. The materials are all imported, and cost on importation during the past year 920,000*l.* The returns were 3,680,000*l.*, or thereabouts. This left for wages, interest and profits, 2,760,000*l.*

"If to these figures be added the cost of materials (all imported) in the warp-lace trade, 60,000*l.*, and the ultimate returns, 360,000*l.*, the result of the operations of the entire machine-wrought English lace trade will be: — Raw materials used cost, 980,000*l.*; total returns, 4,040,000*l.*; paid in wages, interest, wear and tear, and profits, 3,060,000*l.* The entire number of hands employed may be stated at 135,000.

"The trade was, until 1850 or thereabouts, cooped up in small unsightly workshops and warehouses for the most part, but has been transferred to a large extent into some of the noblest buildings of which any manufacturing town can boast. Factories, dressing-rooms, and warehouses are all becoming spacious, airy, and, I trust, healthy; at least 250,000*l.* has been expended within the last seven years in this class of improvements."

Since 1856, when the above account of the trade was written, the wholesale houses have increased from 115 to upwards of 200; and a great many patents have been taken out for improvements in machinery for making fancy lace*, for fabrics to be produced from lace machines, for gloves, shirts, &c., and also for making gloves complete on the machines without seams. This class of machinery has gradually been increasing in Nottingham, Stoptford near Nottingham, and Melbourne in Derbyshire; and from the great variety of articles produced it is likely to go on increasing. At this time (1859) the machinery in Nottingham and its suburbs has increased by upwards of 800, making an additional amount of 4,200 quarters in width. This number would have been considerably greater, had not the panic in 1857 prevented it. At present very few machines are being built. The increase of machinery may be classed as follows — viz. 200 for making fancy lace, and 100 for plain nets. A few have been exported to France and Barcelona in Spain. The population of Nottingham and its suburbs is now about 159,000, the majority of which is employed in the lace and hosiery trades, and it is believed that the number of hands employed, as well as the amount of capital, are increased beyond Mr. Felkin's estimate, in proportion to the additional number of machines which have since been introduced. Such has been the progress in the manufacture during the last few years, that some descriptions of lace, viz. Spanish, Maltese, and Plat, are produced by machinery in such perfection, that they can scarcely be recognised from cushion-made goods. Looking, however, at the competition which exists in the trade, the manufacturers very generally complain of the anomalous position in which they are placed with respect to the French machine-made lace, which is allowed to be imported at a nominal duty,

* At this moment, a new combination, by four different machines, of an imitation of Maltese lace is produced, and sold at 7*s.* per yard, which in Paris is readily sold for 35 francs.

while the English manufacture is strictly prohibited from entering France. They complain also of the present mode of registering patents, as it prevents that easy investigation into the character of the machines, which is so essential towards their improvement.

The *Embroidery* branch of the lace trade gave employment to many thousands of females in Nottingham and London, and their neighbourhoods, and also at Coggeshall in Essex. In 1813 Mr. Felkin estimated that not less than 73,000 were employed. At the Great Exhibition in 1851 (Class XIX) a most interesting display of choice specimens of this industrial art was presented to the public, and a very able paper on the lace trade generally was contributed by the reporter of that Section (Richard Birkin, Esq., of Nottingham). There are, however, no statistics which furnish any accurate estimate of the number of persons (women and children) now engaged in that department. Owing to the great perfection to which machine-made lace has arrived, particularly since the successful introduction of the Jacquard mounting, it is understood that the embroidery branch of the trade has very greatly declined of late years, although in numerous articles of dress "*Limerick lace*" still continues to maintain its established character.

The remarkable improvements which have been gradually introduced into the manufacture of machine-made lace, have seriously interfered with the *pillow lace* trade—and many thousands of women and children in the counties of Bedford and Buckingham are now finding a better reward for their labour in straw plaiting. This applies, however, rather to the *narrow* hand-made lace than to the highest description of this industrial art, which continue in great favour with the fashionable classes. At the Great Exhibition in 1851 specimens of Honiton lace (the most tasteful and flourishing of the British pillow-lace production) were exhibited in flouncings, shawls, scarfs, handkerchiefs, berthes, and a variety of other articles, varying in price from 10 to 200 guineas each; and there is a strong feeling, from the refinement displayed in the production of elegant designs in this department, that it will continue to hold its ground notwithstanding the remarkable improvements in machinery, which from its low price brings it within the demand of the lower classes,—as, like works of high art, it is recognised by the higher classes as the work of a master.* It is the *original* picture and not the *copy*, and is consequently held in highest estimation. But although on the whole the fabrication of *pillow lace* has unquestionably fallen off, a new department of a kindred nature has sprung up, which has given employment to many thousands of women and children in the United Kingdom, but especially in Ireland. A description of lace termed "*crochet work*," has been introduced to a great extent of late years, and has been taught very generally in the industrial schools, both in the south and north of Ireland. The famine of 1847 directed the attention of humane persons to the expediency of providing employment for the starving class in that country,—and this new department of industrial art is now pursued there to a great extent. At the present time it is believed that not less than 250,000 women and children are engaged in that branch and in the embroidery of fine muslins, to meet the prevailing taste, not only required by our own female population, but for export to all parts of the world. The crisis in 1857, which was attended by the failure of several of the larger houses in Glasgow, engaged in the embroidered muslin trade, each of whom employed from 50,000 to 70,000 persons in the North of Ireland, led to great privations to those who were engaged in that branch,—but they are now recovering from the depression which on that occasion befel the trade.

Foreign Lace Trade.—The application of the Jacquard mounting to the bobbin-net machine has been attended with a great increase in the French manufacture, and in a very superior taste, in imitation of the most favoured "*grounds*," particularly at Calais, St. Pierre de Calais, Lyons, and Cambray. The Calais machines numbered in 1839, 705; 1844, 801; 1851, 603. Many have been replaced by wider and speedier machines. They had 3 pushers, 14 traverse warps, 124 common circulars, 141 Jacquard circulars, and 321 levers; 50,000 females are employed, besides the ordinary proportion of machine hands and attendants. There are 800 other machines at Boulogne, St. Omer, Douay, Lille, St. Quentin, Caen, and Lyons. More expensive goods are produced on French machines, than on ours; and English plain nets, which were formerly extensively smuggled into France, are now supplanted by their own. They have applied the Jacquard apparatus to their machinery with much success, and of late years have ceased to copy Nottingham patterns, turning their own taste in designs to good use and profit. There were at Brussels in 1850, 16; at Termonde, 8; at Malines, 5; at St. Josse, 4—in all 31 machines in Belgium,—chiefly making three-twist Brussels net, upon which cushion flowers are applied. In bobbin-net machinery there are probably in Switzerland, 80; in Saxony, 70; Austria, 100; Prussia and Russia, 30; in Spain and other countries, 80—altogether 360—(Felkin). Since 1856 these branches have been steadily increasing. *Embroidery work* has also considerably increased, and for some years past has extended to the departments of La Meurthe, La Moselle, La Meuse, and Des Vosges. In the latter, forming the ancient province of Lorraine, this beautiful branch of industry has arrived at great perfection. It is estimated to give employment to from 150,000 to 180,000 females, spread over more than twenty departments of France, who earn from 8*d.* to 1*s.* per day, and double that sum in Paris.—(Birkin).

Hand-made Lace may give employment to upwards of 200,000 females of all ages, who earn from 6*d.* to 1*s.* a day. It is principally carried on at Caen and Bayeux, Chantilly and neighbourhood, Lille, Arras, Mirecourt, Du Puy, Boilleul, and Alençon. The lace of Alençon is the only fabric not made on the pillow, being worked entirely with the needle. It was introduced by Colbert in 1660 from Venice and Genoa,—is the only lace made with pure linen thread (handspun)—the thread is worth from 100*l.* to 120*l.* per pound (Birkin). Some beautiful specimens of hand-made lace were exhibited from Switzerland,—and so great is now the demand for the article, that the manufacturers are forced to employ great numbers of females in the western provinces of Austria and the southern provinces of the Duchy of Baden. Perhaps 40,000 persons earn their living by the embroidery branch, first-class hands receiving 1*s.* per day, and second class from 3*d.* to 8*d.* 100,000 pairs of curtains alone are estimated to be imported into Great Britain. But the Swiss also export largely to America, Germany, Italy, Spain, and other southern countries. Specimens of lace and embroidery were also exhibited from Saxony, Spain, Hamburg, Austria, and Malta. Belgium continues to sustain its high character in the production of that beautiful art, and (with the exception of Point d'Alençon, made in the north of France), Brussels produces the most valuable known lace. Mechlin laces are made at Malines, Antwerp, and the vicinity; Valenciennes, at Ypres, Menin, Courtrai, Bruges, Ghent, and Alost. The village of Grammont is remarkable for great improvements made in white thread lace, and also in Blackpoint trimming laces. Some beautiful specimens of hand-made lace are now also imported from Madeira.

The cotton lace and patent net exported in 1857 was of the estimated value of 400,336*l.*

We are indebted for this learned and very excellent article to our friend Mr. Robert Slater, of Fore Street, London.

LACK, a word used in the East Indies to denote the sum of 100,000 rupees, which, supposing them standards, worth 2*s.* each, amounts to 10,000*l.* sterling.

LADING, BILL OF. See BILL OF LADING.

LAGAN. See FLOTSAM.

LA GUAYRA, the principal sea-port of the republic of Venezuela, in the province of Caraccas, on the Caribbean Sea, lat. 10° 36′ 19″ N., lon. 67° 6′ 45″ W. Population 8,000? In 1810; the population is believed to have amounted to 13,000; the reduction being a consequence of the loss of life caused by the tremendous earthquake of 1812,

and the massacres and proscriptions incident to the revolutionary war. The population of the city of Caraccas, of which La Guayra may be considered as the port, fell off, from the same causes, from 43,000 in 1810, to 23,000 in 1830; but they are now both increasing.

Port. — There is neither quay nor mole at La Guayra. Ships moor E. N. E. and W. S. W., with their heads to the north, at from ¼ to ¾ of a mile from the land, in from 9 to 18 fathoms. The holding ground is good; and notwithstanding the openness of the road, vessels properly found in anchors and cables run very little risk of being driven from their moorings.

Trade. — The principal articles of export are coffee, cocoa, indigo, hides, sarsaparilla, &c. The principal imports are cotton, linen, woollen and silk stuffs, with hardware and cutlery, wines, haberdashery, &c. La Guayra shares the trade of Venezuela with the ports of Cumana, Puerto Cabello, Maracaybo, &c., having about a half of its entire amount, which, however, is insignificant. In 1857, the estimated values of our imports and exports from and to Venezuela amounted, the former to only 29,505*l.*, and the latter to 377,711*l.*

Port Regulations. — On casting anchor, a visit is paid by the collector of customs, or his agent, accompanied by other officers, who take from the master his register, manifest, and muster-roll, and an officer is left on board until the cargo is discharged. The master must swear to his manifest within 24 hours after his arrival, when the permit to discharge is granted, and within 3 days all invoices must be presented. The discharge completed, the same officers repair on board to examine the vessel, and all being found in order, the officer is withdrawn. The clearing of a vessel outwards (that has entered with cargo) in ballast is then completed by paying the port charges; proof whereof being produced, the permission to sail is signed by the governor and harbour master. If the vessel take cargo on board, then the same formality, as to visiting, is pursued, as on the entry of a vessel.

Credit. — Goods imported are almost invariably sold upon credit; those exported are, on the other hand, always sold for ready money. The terms of credit vary from 2 to 6 months, or more. Bankruptcy is very rare.

Money, Weights, and Measures. — The currency of the country consists of silver money, known by the name of *macuquena*, divided into dollars of 8 reals, ½ do. of 4 reals, besides reals, ½ reals, and quartillas or ¼ reals. This money is of very unequal weight and purity, the coins issued since the commencement of the revolutionary war having been often a good deal defaced. The real should be worth 5*d.* sterling.

Weights and measures same as those of Spain.

Tares. — Real tare is taken both at the custom-house and by the merchant.

Commercial Prospects. — The commerce and industry of Venezuela suffered severely from the revolutionary struggle of which she was the theatre. But the country has been for some time past comparatively tranquil. As the riches of Venezuela consist entirely of the products of her agriculture, the legislature has wisely exerted itself to give it encouragement, by abolishing tithes, the tobacco monopoly, &c. But the want of a supply of efficient labour, arising out of the measures in progress for the abolition of slavery, is the grand obstacle to the progress of industry. The English consul at Puerto Cabello, in adverting to the deficiency of labour, in a communication dated June, 1843, says that an able-bodied man can earn enough by a day's labour to keep himself for a week; and such being the case, can any one expect industry to flourish, unless some sort of system for the supply of compulsory labour be resorted to? Indeed, the consul, though a warm advocate for the abolition of slavery, is, though not very consistently, alive to the necessity of what he calls "a mild compulsory system!" The truth is, that in countries like this, freedom and idleness are synonymous.

We have derived these details partly from *Consular Returns*, and partly from *private information*.

LAMAR, formerly COBIJA; a sea-port of the republic of Bolivia, the ci-devant Upper Peru, on the west coast of South America, lat. 22° 39′ 30″ S., long. 70° 12′ W. Population, 5,000. ?

In 1833 Lamar was declared a free port, and in it centres almost the whole direct foreign trade of the republic. Its situation is, however, very unfavourable. It labours under a great want of fresh water; and is obliged to import all its provisions by sea, either from Valparaiso, on the one hand, or from Arica on the other. The desert of Atacama lies between it and the internal and populous part of the country, where the towns of Potosi, Cochabamba, Charcas, &c. are situated. The produce imported at Lamar is conveyed across the desert on the backs of mules to the interior; the gold and silver of the mines being brought in the same way to the port to be shipped. These, with copper, saltpetre, chinchilli, skins, and wool, form the principal articles of export. Saltpetre is found in large quantities in the desert; the copper is found near the coast, and, owing to the scarcity of fuel, most part of it is exported in the shape of ore.

Peru possesses a long narrow slip of land, stretching along the coast of the Pacific from Arequipa to the Bay of Pica, which ought naturally to belong to Bolivia, being, in fact, the *littoral* of the latter. The Bolivian government has set on foot various negotiations to obtain the cession of this tract, which, besides greatly improving the frontier of the republic, would, at the same time, render her mistress of Arica, which is, in all respects, much better fitted than Lamar for becoming the entrepôt of her trade. Hitherto, however, these negotiations have proved abortive, so that, as already stated, Lamar, at present, engrosses most part of the foreign trade of the state, which, however, is but inconsiderable.

We subjoin the decree constituting Lamar a free port: —

1. From and after the 1st of July of this present year, 1833, Port Lamar shall be absolutely free and open.
2. Vessels of every nation may enter this port and remain as long as they please, without being subjected to any tax whatever, either on entrance, or during their stay, or on their departure.
3. They shall be free from all duties of anchorage, tonnage, shifting, unloading, or reloading of cargo, deposit, storage, or any other of whatever denomination.
4. Goods may be deposited in private warehouses, without any intervention on the part of the government.
5. The custom-house of Port Lamar is suppressed. In its stead will be a commissioner's office, for the purpose of distributing permits for the transportation of goods into the interior.
6. Whenever goods are to be sent into the interior, they must first be submitted to the commissioner, together with the invoice corresponding.
7. The commissioner will register them in a book, together with their valuation made by two merchants of the place, and the names of their owners, of the person to whom, and the place where they are to be sent. This is to be signed by the person entering the goods, who at the same time binds himself to have them transported direct to the custom-house for which they are destined, without opening any of the cases, bags, or other envelopes, each of which shall be sealed, marked, and numbered before departure. These points are to be expressed in the permit.
8. The commissioner shall by the earliest post send a notice to the collector of the custom-house for which any merchandise is destined, specifying the numbers, characters, quantities, and qualities of the several articles.
9. The goods must not be carried by any unaccustomed roads, but only through Calama and the public thoroughfares: and whenever they pass through any place at which a guard or commissioner is stationed, the permits must be exhibited, in order that their arrival with their seals unbroken may be ascertained.
10. Merchants, either in person or by a representative, must produce to the commissioner of the port a certificate of the delivery of the goods at the custom-house for which they are destined within 6 months from the day of their entry; in case they do not, they must at the end of that period pay the whole of the duties on them.
11. From and after the 1st of July, 1833, all goods entered at Port Lamar shall pay a duty of only 5 per cent. over and above that of half per cent. to the consulado.
12. The duty of 5 per cent. shall be paid thus: at the port, 2 per cent. on the valuation made as aforesaid; and the other 3 at the custom-house in the interior for which the goods are destined. In each case one half at the end of 3, the other half at the end of 5 months.
13. All goods carried from Port Lamar by land to any of the adjoining republics shall only pay a transit duty of 2 per cent.
14. A duty of 2 per cent. shall be paid on three-fourths of all

gold and silver money entered at any of the custom-houses in the interior for exportation through Port Lamar.

15. It is absolutely prohibited to export gold or silver, in bullion or plate, except in small quantities for the use of the person carrying it out. It will be seized wherever it is found on this side the districts of San Antonio, San Vincente, Atoca, Agua, de Castilla, Lequepate, or the line of the canal.

16. All hardware for agriculture and mining, machinery, instruments of science or the arts, iron, steel, quicksilver, and moral books, may be introduced free of duty into the republic, and productions of Bolivia may be exported likewise free.

17. A premium of 2 per cent. on their value shall be allowed on the exportation through Port Lamar of cascarilla, wool, tin, cocoa, and coffee, in the shape of remission from duties to the amount on goods carried into the interior from the same port.

The remaining articles of the decree are of a purely local nature.

LAMB-SKINS (Ger. *Lammsfelle;* Fr. *Peaux d'agneaux;* It. *Pelli agnelline;* Sp. *Pielles de corderos*). The value of lamb-skins varies according to the fineness, brilliancy, and colour of the wool. Black lamb-skins are more generally esteemed than those of any other colour. English lamb-skins are seldom to be met with perfectly black; but since the introduction of Merino sheep into this country, many of the white fleeces have, in point of quality, arrived at a pitch of perfection which justly entitles them to be ranked with some of the best fleeces in Spain. The importation of lamb-skins is immense. The great bulk are supplied by Italy. Thus of 1,600,308 undressed skins imported in 1857, no fewer than 1,303,185 were from Italy, and mostly from Tuscany. They are mostly used in the glove manufacture.

LAMP (Ger. *Lampe;* Fr. *Lampe;* It. *Lucerna;* Sp. *Lampara;* Rus. *Lampadu*), an instrument used for the combustion of liquid inflammable bodies, for the purpose of producing artificial light.

It is unnecessary to give any description of instruments that are so well known. We may, however, remark that the discovery of Sir H. Davy, who, by covering the flame with wire gauze, succeeded in producing a lamp that may be securely used in coal mines charged with inflammable gas, is one of the most ingenious and valuable that has ever been made. The following extracts from a communication of the late Mr. Buddle, an able and well-informed coal engineer, evince the great importance of Sir Humphry Davy's invention.

"Besides the facilities afforded by this invention to the working of coal mines abounding in fire damp, it has enabled the directors and superintendents to ascertain, with the utmost precision and expedition, both the presence, the quantity, and correct situation of the gas. Instead of creeping inch by inch with a candle, as is usual, along the galleries of a mine suspected to contain fire damp, in order to ascertain its presence, we walk firmly on with the safe lamps, and, with the utmost confidence, prove the actual state of the mine. By observing attentively the several appearances upon the flame of the lamp, in an examination of this kind, the cause of accidents which happened to the most experienced and cautious miners is completely developed; and this has hitherto been in a great measure matter of mere conjecture.

"It is not necessary that I should enlarge upon the national advantages which must necessarily result from an invention calculated to prolong our supply of mineral coal, because I think them obvious to every reflecting mind; but I cannot conclude without expressing my highest sentiments of admiration for those talents which have developed the properties, and controlled the power, of one of the most dangerous elements which human enterprise has hitherto had to encounter."

LAMP-BLACK (Ger. *Kienruss;* Fr. *Noir de fumée; Nero di fumo, Negro-fumo; Negro de humo*). "The finest lamp-black is produced by collecting the smoke from a lamp with a long wick, which supplies more oil than can be perfectly consumed, or by suffering the flame to play against a metallic cover, which impedes the combustion, not only by conducting off part of the heat, but by obstructing the current of air. Lamp-black, however, is prepared in a much cheaper way for the demands of trade. The dregs which remain after the eliquation of pitch, or else small pieces of fir wood, are burned in furnaces of a peculiar construction, the smoke of which is made to pass through a long horizontal flue, terminating in a close boarded chamber. The roof of this chamber is made of coarse cloth, through which the current of air escapes, while the soot remains." — (*Ure's Dictionary of Chemistry.*)

LAND-WAITER, an officer of the Custom-house, whose duty it is, upon landing any merchandise, to taste, weigh, measure, or otherwise examine the various articles, &c., and to take an account of the same. They are likewise styled searchers, and are to attend, and join with, the patent searchers, in execution of all cockets for the shipping of goods to be exported to foreign parts; and, in cases where drawbacks or bounties are to be paid to the merchant on the exportation of any goods, they, as well as the patent searchers, are to certify the shipping thereof on the debentures.

LAPIS LAZULI. See ULTRAMARINE.

LAST, an uncertain quantity, varying in different countries, and with respect to different articles. Generally, however, a last is estimated at 4,000 or 6,000 lbs.; but there are great discrepancies.

The following quantities of different articles make a last, viz. — 14 barrels of pitch, tar, or ashes; 12 dozen of hides or skins; 12 barrels of cod-fish, potash, or meal; 20 cades, each of 1,000 herrings, every 1,000 ten hundred, and every 100 five score; 10½ quarters of cole-seed; 10 quarters of corn or rape-seed. In some parts of England, 21 quarters of corn go to a last; 12 sacks of wool; 20 dickers (every dicker 12 skins) of leather; 18 barrels of unpacked herrings; 10,000 pilchards; 24 barrels (each barrel containing 100 lbs.) of gunpowder; 1,700 lbs. of feathers or flax.

Last is sometimes used to signify the burden of a ship.

LATH, LATHS (Du. *Latten;* Fr. *Lattes;* Ger. *Latten;* It. *Correnti;* Rus. *Slegü*), long, thin, and narrow slips of wood, nailed to the rafters of a roof or ceiling, in order to sustain the covering. Laths are distinguished into various sorts, according to the different kinds of wood of which they are made, and the different purposes to which they are to be applied. They are also distinguished according to their length, into 5, 4, and 3 feet laths. Their ordinary breadth is about an inch, and their thickness ¼ of an inch. Laths are sold by the bundle, which is generally called a hundred: but 7 score, or 140, are computed in the hundred for 3 feet laths; 6 score, or 120, in such as are 4 feet; and for those which are denominated 5 feet the common hundred, or 5 score.

LATTEN, a name sometimes given to tin plates; that is, to thin plates of iron, tinned over.—(See TIN.)

LAWN (Ger. and Fr. *Linon;* It. *Linone, Rensa;* Sp. *Cambray clarin*), a sort of clear or open worked cambric, which, till of late years, was exclusively manufactured in France and Flanders. At present, the lawn manufacture is established in Scotland, and in the north of Ireland, where articles of this kind are brought to such a degree of perfection as nearly to rival the productions of the French and Flemish manufactories. In the manufacture of lawns finer flaxen thread is used than in that of cambric.

LAZARETTO. See QUARANTINE.

LEAD (Ger. *Bley, Blei;* Du. *Lood, Loot;* Fr. *Plomb;* It. *Piombo;* Sp. *Plomo;* Rus. *Swinetz;* Pol. *Ołów;* Lat. *Plumbum;* Arab. *Anuk;* Hind. *Sisa;* Pers. *Surb*), one of the most useful metals. It is of a bluish white colour, and when newly melted is very bright, but it soon becomes tarnished by exposure to the air. It has scarcely any taste, but emits, on friction, a peculiar smell. It stains paper or the fingers of a bluish colour. When taken internally it acts as a poison. It is one of the softest of the metals; its specific gravity is 11·35. It is very malleable, and may be reduced to thin plates by the hammer; it may also be drawn out into wire, but its ductility is not very great. Its tenacity is so small that a lead wire $\frac{1}{128}$ inch diameter is capable of supporting only 18·4 lbs. without breaking. It melts at 612°.—(*Thomson's Chemistry.*)

Lead is a metal of much importance in the arts. Its durability and malleability make it very suitable for the roofing of buildings, the construction of gutters and such like purposes. It used to be very extensively employed in the formation of water-pipes and cisterns. But though water has no direct action on lead, it facilitates the action of the external air; and hence the lead of cisterns and of pipes from which the air is not entirely excluded becomes oxidised, and is covered with a white crust at the point where the surface of the water comes into contact with the air. Inasmuch, however, as this oxide is extremely deleterious, lead pipes and cisterns are now very generally superseded by those of cast iron. At present, perhaps, lead is more extensively used in the manufacture of small shot than in any other way. Its salts, though poisonous, are used in medicine to form sedative external applications; and frequently not a little, by the disreputable wine merchant, to stop the progress of acetous fermentation. Wine thus poisoned may, however, be readily distinguished; a small quantity of the bicarbonate of potass producing a white precipitate, and sulphuretted hydrogen a black one. Pure wine will not be affected by either of these tests. "The oxide of lead enters into the composition of white glass, which it renders clearer and more fusible: it is also used in glazing common earthen vessels; hence the reason that pickles kept in common red pans become poisonous. Lead, with tin, and a small quantity of some of the other metals, forms pewter; with antimony, it forms the alloy of which printing types are made."—*Joyce's Chem.* (*Mineralogy.*)

Mines of this valuable mineral have been wrought in England from the æra of the Romans. It does not, however, appear that it was obtained anywhere except in Derbyshire, till 1289, when it was discovered in Wales; and the fact that silver was found intermixed with the Welsh ores having transpired, gave a new stimulus to the business; but in other respects the discovery of silver was of no use; the quantity obtained being insufficient to defray the cost of its separation from the lead. At present, the most productive English lead mines are situated in Allendale, and other western parts of Northumberland; at Aldstone Moor, &c., in Cumberland; in the western parts of Durham; in Swaledale, Arkendale, and other parts of Yorkshire; in the hundred of High Peak in Derbyshire, in Salop, and in Cornwall. The Welsh mines are principally situated in the counties of Flint, Cardigan, and Montgomery; those of Scotland in Ayr, Kirkcudbright, and Lanark; and those of Ireland, in Wicklow, Down, and Limerick. Lead mines are also wrought to considerable advantage in the Isle of Man. We subjoin an abstract deduced from the accounts furnished by the Museum of Practical Geology, of the

Quantities of Lead, Lead Ore, and Silver produced in the U. Kingdom in 1857.

	Lead.		Lead Ore.		Silver.
	tons	*cwts.*	*tons*	*cwts.*	*ounces.*
England	48,308	10	68,453	2	417,543
Wales	16,124	3	21,455	3	60,097
Scotland	1,351	4	1,890	9	4,206
Ireland	1,407	3	2,298	19	3,071
Isle of Man	2,027	15	2,656	0	48,016
Uncertain origin	48		67		133
Totals	69,266	15	96,820	18	532,866

In 1857, 12,678 tons of lead were imported, and 22,637 tons (inc. 240 tons foreign) were exported. It consequently follows that the produce of our own mines is sufficient not only to supply the home demand, but to furnish a surplus of 9,629 tons for exportation. Pig lead was worth, in the London market, in April, 1859, 23*l.* a ton. In 1832 it was only worth 13*l.* 10*s.* a ton.

Account of the Real Value of the Lead exported from the U. Kingdom in each of the 3 Years ending with 1858.

	1856.	1857.	1858.
Lead and shot	£582,269	£549,525	£459,952
Lead, red	50,081	66,402	59,314
Lead, white	78,263	81,176	76,681
Totals	£710,613	£697,101	£595,947

Russia, the British East Indies, the U. States, China, Australia, &c., are the marts to which our exports of lead are principally exported.

Lead, when first extracted from its ore, always contains a certain portion of silver, varying from a few grains to 45 oz. or more in the ton. When the silver mixed up with the lead is sufficient to repay the expense, it is usual to separate it, which is effected by the process termed *refining*. The lead of some of the English mines, especially those of Cornwall, and, also, of the Isle of Man, contains very considerable quantities of silver, and our readers will, perhaps, be surprised to learn that it has been estimated by the highest authority that, in 1857, the U. Kingdom furnished no fewer than 532,866 oz. of silver, worth, at 5*s.* an oz., 132,216*l.* 10s., obtained from lead.—(*Statement compiled by Robert Hunt, Esq., of the Museum of Practical Geology.*)

Of 12,768 tons lead imported in 1857, Spain sent us 11,343 tons. The lead mines of Granada would, in truth, were they properly wrought, be among the most productive in the world. And as it is, lead is, next to wine and wool, the most important article which Spain has to offer in exchange for foreign products. In 1851, for example, the value of the exports of wool from Spain was estimated at 45,428,491 reals, and that of the exports of lead at 43,888,370 do.

The consumption of lead in France has greatly increased within the last 20 years. In 1852, about 30,000 tons of ore were imported, of which from 8-10ths to 9-10ths were brought from Spain.

The lead mines of the U. States are principally situated in Illinois and Wisconsin, on the Upper Mississippi. Their produce and that of the other mines in the Union may, perhaps, amount to from 18,000 to 20,000 tons a year.

LEAD, BLACK, OR PLUMBAGO. See BLACK LEAD.

LEAD, RED, OR MINIUM. See MINIUM.

LEAGUE, a measure of length, containing more or fewer geometrical paces, according to the customs of different countries.—(See WEIGHTS AND MEASURES.)

LEAKAGE, in commerce, an allowance in the customs, granted to importers of wine, for the waste and damage the goods are supposed to receive by keeping.—(See *Warehousing Act*, in Art. WAREHOUSING SYSTEM.)

LEATHER (Ger. *Leder*; Du. *Leder, Leêr*; Da. *Læder*; Sw. *Läder*; Fr. *Cuir*; It. *Cuojo*; Sp. *Cuero*; Rus. *Kosha*; Lat. *Corium*), the skins of various quadrupeds, dressed in a particular manner for the use of manufacturers, whose business it is to make them up, according to their different employments.

The leather manufacture of Great Britain is of very great importance, and ranks either third or fourth on the list; being inferior only in point of value and extent to those of cotton, wool, and iron, if it be not superior to the latter. Sir F. M. Eden, in his work on *Insurance*, estimated the value of the different articles manufactured of leather, in 1803, at 12,000,000*l.*; and there is reason to think that this statement was not very wide of the mark. The total quantity of all sorts of leather tanned, tawed, dressed, and curried, in Great Britain, may at present (1859) be estimated at about 80,000,000 lbs.; which, at 1*s.* 6*d.* per lb., gives 6,000,000*l.* as the value of the leather only. Now, supposing, as is sometimes done, the value of the leather to amount to *one third* part of the value of the finished articles produced from it, that would show the value of the manufacture to be about 18,000,000*l.*: but if, as others contend, the value of the leather does not exceed *one fourth* part of the value of the finished articles, then

the value of the manufacture would amount to 24,000,000*l.* We, however, are inclined to think that we shall be nearer the truth if we take the smaller sum, and estimate the value of the manufacture at 18,000,000*l.* To get the number of persons employed, we have first to deduct from this sum, 6,000,000*l.* for the material, which leaves 12,000,000*l.* as the aggregate amount of profits, wages, &c. And setting aside 33⅓ per cent. as profit, rent of workshops, compensation for capital wasted, &c., we have a sum of 8,000,000*l.* remaining as wages: and supposing those employed as shoemakers, saddlers, glovers, &c. to make at an average 35*l.* a year each, the entire number of such persons will amount to 228,000.

This, however, does not give the total number of persons employed in the leather trade, inasmuch as it excludes the tanners, curriers, &c. employed in dressing and preparing the leather. But if, from the value of the prepared leather, 6,000,000*l.*, we deduct 2,000,000*l.* for the value of the hides, and 2,500,000*l.* for tanners' and curriers' profits, including the expense of lime, bark, pits, &c., we shall have 1,500,000*l.* left as wages. Now, as the wages of tanners, curriers, leather dressers, &c. may, we believe, be taken at 50*l.* a year at an average, we shall have 30,000 as the number employed in these departments. And adding these to the persons employed in manufacturing the leather, we have a grand total of 258,000 persons employed in the various departments of the business.

Those who may be inclined to suspect these estimates of exaggeration, would do well to reflect on the value of the shoes annually manufactured. It is generally supposed that the expenditure upon shoes may be taken, at an average of the whole population, at 10*s.* each individual, young and old; which, supposing the population to amount to 23,000,000, would give, 11,500,000*l.* for the value of shoes only; but taking the value of the shoes at only 8*s.* each individual, it gives 10,200,000*l.* for the amount. Mr. Stevenson (art. *England, Edin. Ency.*) supposes that the value of the saddlery, harness, gloves, &c. may be assumed to be at least equal to that of the shoes; but we believe this is much too high, and that it cannot be fairly estimated at above 5,000,000*l.* or 5,500,000*l.*, which leaves about 2,000,000*l.* for the value of the exports. In estimating the value of the entire manufacture at 18,000,000*l.*, or 18,500,000*l.*, we incline to think that we are as near the mark as it is easy to come in such investigations.

In speaking of the leather manufacture, Dr. Campbell has the following striking observations:—"If we look abroad on the instruments of husbandry, on the implements used in most mechanic trades, on the structure of a multitude of engines and machines; or if we contemplate at home the necessary parts of our clothing—breeches, shoes, boots, gloves—or the furniture of our houses, the books on our shelves, the harness of our horses, and even the substance of our carriages; what do we see but instances of human industry exerted upon leather? What an aptitude has this single material in a variety of circumstances for the relief of our necessities, and supplying conveniences in every state and stage of life? Without it, or even without it in the plenty we have it, to what difficulties should we be exposed?"—(*Political State of Great Britain*, vol. ii. p. 176.)

ç Leather was long subject to a duty; the manufacture being, in consequence, necessarily conducted under the *surveillance* of the excise. In 1812, the duty, which had previously amounted to 1¼*d.* per lb., was doubled; and continued at 3*d.* per lb. till July, 1822, when it was again reduced to 1½*d.* per lb. The reduced duty produced a nett revenue of about 360,000*l.* It is clear, however, that either the duty ought not to have been reduced in 1822, or that it ought to have been totally repealed. The continuance of any part of the duty rendered it necessary to continue all the vexatious regulations required to insure the collection of the revenue, while the reduction of 1½*d.* in the cost of preparing a pound of leather was so trifling as hardly to be sensible. It is, however, unnecessary to enter into any discussion to show the extreme inexpediency of laying any duty on an article so indispensable to the labouring class, and to the prosecution of many branches of industry, as leather; and still less to show the inexpediency of subjecting so very important and valuable a manufacture to a vexatious system of revenue laws, for the sake of only 360,000*l.* a year. Luckily, however, these have become matters of history. The leather duties were totally abolished in 1830; and as the manufacture has since been relieved from every sort of trammel and restraint, it has rapidly increased. It is to be hoped that no future necessity may arise to occasion the reimposition of the leather duty.

Account of the Number of Pounds' Weight of Leather charged with Duties of Excise in England, in 1824—1829.

1824	-	53,429,539	1826	-	44,927,216	1828	-	50,233,689
1825	-	52,274,957	1827	-	47,616,316	1829	-	46,200,843

The quantity annually charged with duty in Scotland during the same period was, at an average, about 6,000,000 lbs. We subjoin

An Account of the Real Value of the Leather exported from the U. Kingdom, in each of the 3 Years ending with 1858.

	1856.	1857.	1858.
Leather: wrought and unwrought	£1,493,209	£1,991,875	£1,690,873
Saddlery and harness	263,242	297,613	322,043
Totals	£1,756,451	£2,289,488	£2,012,916

Australia is by far the most extensive market for our exports of leather; and next to it, but at a great distance, are the Cape Colony, B. N. America, the W. Indies, Brazil, &c.

LEDGER, the principal book of accounts kept by merchants and tradesmen, wherein every person's account is placed by itself, after being extracted from the Journal.—(See Book-Keeping.)

LEECH FISHERY. The demand for the medicinal leech (*Hirudo medicinalis*) is so great as to afford employment to a considerable number of persons in catching and selling the animal. It is common throughout Europe, America, and India, inhabiting lakes and pools. Norfolk supplies the greater part of the leeches brought to the London market; but some are taken in Kent, Suffolk, Essex, and Wales; and large quantities are imported from Bordeaux and Lisbon. They are caught in spring and autumn, by people who wade into the pools and allow them to fasten on their limbs; or more generally the catchers beat, as they wade in, the surface of the water with poles, which sets the leeches in motion, and brings them to the surface; when they are taken with the hand and put into bags. As they come to the surface just before a thunder storm, this is regarded a good time for collecting them.—(*Thomson's Dispensatory.*)

We extract from the *Gazette des Hopitaux* the following interesting account of the fishery of leeches at La Brenne, in France:—

"The country about La Brenne is, perhaps, the most uninteresting in France. The people are miserable looking, the cattle wretched, the fish just as bad—but the leeches are admirable.

"If ever you pass through La Brenne, you will see a man, pale and straight haired, with a woollen cap on his head, and his legs and arms naked; he walks along the borders of a marsh, among the spots left dry by the surrounding waters, but particularly wherever the vegetation seems to preserve the subjacent soil undisturbed: this man is a leech fisher. To see him from a distance,—his woe-begone aspect—his hollow eyes—his livid lips—his singular gestures,—you would take him for a patient who had left his sick bed in a fit of delirium. If you observe him every now and then raising his legs, and examining them one after the other, you might suppose him a fool; but he is an intelligent leech fisher. The leeches attach themselves to his legs and feet as he moves among their haunts; he feels their presence from their bite, and gathers them as they cluster about the roots of the bulrushes and sea weeds, or beneath the stones covered with green and gluey moss. Some repose on the mud, while others swim about; but so slowly, that they are easily gathered with the hand. In a favourable season, it is possible, in the course of 3 or 4 hours to stow 10 or 12 dozen of them in the little bag which the gatherer carries on his shoulder. Sometimes you will see the leech fisher armed with a kind of spear or harpoon; with this he deposits pieces of decayed animal matter in places frequented by the leeches; they soon gather round the prey, and are presently themselves gathered into a little vessel half full of water. Such is the leech fishery in spring.

"In summer, the leech retires into deep water, and the fishers have then to strip themselves naked, and walk immersed up to the chin. Some of them have little rafts to go upon; these rafts are made of twigs and rushes, and it is no easy matter to propel them among the weeds and aquatic plants. At this season, too, the supply in the pools is scanty; the fisher can only take the few that swim within his reach, or those that get entangled in the structure of his raft.

"It is a horrid trade, in whatever way it is carried on. The leech gatherer is constantly more or less in the water, breathing fog and mist and fetid odours from the marsh; he is often attacked with ague, catarrhs, and rheumatism. Some indulge in strong liquors, to keep off the noxious influence, but they pay for it in the end by disorders of other kinds. But, with all its forbidding peculiarities, the leech fishery gives employment to many hands; if it be pernicious, it is also lucrative. Besides supplying all the neighbouring *pharmaciens*, great quantities are exported, and there are regular traders engaged for the purpose. Henri Chartier is one of those persons; and an important personage he is when he comes to Meobecq, or its vicinity; his arrival makes quite a fête—all are eager to greet him.

"Among the interesting particulars which I gathered in La Brenne relative to the leech trade, I may mention the following:—One of the traders—what with his own fishing and that of his children, and what with his acquisitions from the carriers, who sell quantities *second-hand*—was enabled to hoard up 17,500 leeches in the course of a few months; he kept them deposited in a place where, in one night, they all became frozen *en masse*. But the frost does not immediately kill them; they may generally be thawed into life again. They easily, indeed, bear very hard usage. I am told by one of the carriers, that he can pack them as closely as he pleases in the moist sack which he ties behind his saddle; and sometimes he stows his cloak and boots on top of the sack. The trader buys his leeches *pêle mêle*, big and little, green and black—all the same; but he afterwards sorts them for the market. Those are generally accounted the best which are of a green ground, with yellow stripes along the body."

A tract published at Paris in 1843, by M. Joseph Martin, leech merchant, contains a great variety of curious and instructive details in regard to the natural history of leeches, the trade carried on in them, and the frauds of the dealers. They are, we believe, much more extensively used in medical practice in France than in England; and, at all events, their consumption in the former seems to be quite immense. Notwithstanding the exhaustion of some of the marshes and ponds in different parts of the country, whence supplies of leeches were formerly procured, great numbers are still obtained at home. By far the larger portion of the necessary supplies is, however, brought from abroad; principally from Germany, Spain, Sardinia, Turkey in Europe, Algiers, Asia Minor, &c. In the French Custom-house

the imports are estimated at 500 leeches per kilog.; but M. Martin affirms that 1000 leeches do not, at an average, weigh more than a kilog. Hence the numbers and values of the leeches imported into France during each of the 5 years ending with 1847, will be,

	Numbers, according to official Returns.	Numbers corrected.	Official Value.
			Fr.
1843	17,607,696	35,215,392	528,231
1844	15,232,673	30,465,346	456,980
1845	13,843,433	27,686,961	415,304
1846	12,721,545	25,145,090	381,647
1847	11,790,840	23,581,680	353,710

(*French Official Returns.*)

LEGHORN, a city and sea-port of Italy, in Tuscany, lat. 43° 33′ 5″ N., lon. 10° 16¾′ E. Population, in 1858, 114,081.

Harbour, Road, &c.—Leghorn has an outer harbour, protected by a fine mole, running in a N. N. W. direction upwards of ½ a mile into the sea, and a small inner harbour or basin. The water in the harbour is rather shallow, varying from 8 feet in the inner basin to 18 or 19 feet at the end of the mole. The rise of the tides is about 14 inches. Ships lie within the mole with their sterns made fast to it by a cable, and an anchor out ahead. The light-house is built on a rock a little to the S. W. of the mole. It is a conspicuous object, being about 170 feet above the level of the sea. The roadstead lies W. N. W. of the harbour, between it and the Melora bank. The latter is a sand, lying N. and S., 4 miles in length by 2 in breadth, the side nearest the shore being about 4 miles from it. It consists, for the most part, of sand and mud, and has from 3 fathoms to ½ do. water over it; but towards its southern extremity it is rocky; and there, on some of the points which project above the water, the Melora tower has been constructed to serve as a sea-mark; it bears from the light-house W. ¼ N., distant about 4 miles. The best course for entering the roads is to keep to the northward of the Melora bank at about a mile from it, and then, having doubled it, to stand on for the light-house about 2½ miles, anchoring in from 7 to 9 fathoms, the light-house bearing S.S.E. ½ E. 4 miles off. The entrance by the channel to the south of the Melora bank is also quite safe; but it is not so suitable for large ships as that by the north. During southerly winds there is sometimes a heavy sea in the roads, but the holding ground is good; and with sufficient anchors and cables, and ordinary precaution, there is no danger. The lazaretto lies to the south, about 1 mile from the tower, and is said to be one of the best in Europe.

Trade, &c.—The comparative security and freedom which foreigners have long enjoyed in Tuscany, still more than its advantageous situation, render Leghorn the greatest commercial city of Italy. Its exports are similar to those from the other Italian ports; consisting principally of raw and manufactured silks, olive oil, borax, fruits, shumac, valonia, wines, rags, brimstone, cheese, marble, argol, anchovies, manna, juniper berries, hemp, skins, cork, &c. Leghorn platting for straw hats is the finest in the world; and large quantities are imported into Britain.—(See HATS, STRAW.) Besides the above, all sorts of articles the produce of the Levant may be had at Leghorn. Recently, however, this trade has fallen off; the English and other nations who used to import Levant produce at second hand from Italy, preferring now, at least for the most part, to bring it direct from Smyrna, Alexandria, &c. The imports are exceedingly numerous and valuable, comprising all sorts of commodities, with the exception of those produced by Italy. Sugar, coffee, and all sorts of colonial produce; cotton stuffs, yarn, and wool; corn, woollen stuffs, spices, dried fish, indigo, dye woods, rice, iron, tin, hides, &c.; are among the most prominent articles. Ships with corn on board may unload within the limits of the lazaretto, without being detained to perform quarantine; a circumstance which has contributed to make Leghorn one of the principal *depôts* for the wheat of the Black Sea. Hard wheat, particularly from Taganrog, is in high estimation here and in the other Italian ports. It is particularly well fitted for making vermicelli, maccaroni, &c. The government do not publish any official account of the imports and exports of Leghorn; and no mercantile circulars that we have been fortunate enough to fall in with, supply the deficiency.

Money.—Down to 1837 accounts were generally kept in *pezze da otto reali* (or dollars of 8 reali), the pezza being divided into 20 soldi or 240 denari; but this money has been discontinued since the above date, and accounts are now kept *in lire Toscane*. The lire of 100 centesimi is worth 7·82*d.*; so that the par of exchange with London is 30·69 lire per *l.* The lira is divided in 20 soldi di lira each of 5 centesimi.—(*Pratt's Cambist*, p. 57.)

Weights and Measures.—The pound by which gold and silver and all sorts of merchandise are weighed is divided into 12 ounces, 96 drachms, 288 denari, and 6,912 grani. It is =339·542 French grammes, or 5,240 English grains. Hence 100 lbs. of Leghorn=74·864 lbs. avoirdupois; but in mercantile calculations it is usual to reckon 100 lbs. of Leghorn =77 lbs. avoirdupois: this, perhaps, has arisen from taking the tares and other allowances, as to which there is a good deal of uncertainty, into account. Thus it is found that the English cwt. seldom renders more than 140 or 142 lbs. at Leghorn, though it is =160 lbs.; in the instances of logwood, tobacco and a few others, it does not render more than 155 lbs. The quintal, or centinaio = 100 lbs. The cantaro is generally 150 lbs.; but a cantaro of sugar = 151 lbs.; that of oil = 88 lbs.; of brandy = 120 lbs.; of stock-fish, and some other articles = 160 lbs. The rotolo = 3 lbs.

Corn is sold by the sacco or sack; = 2·0739 Winch. bushels; hence 4 sacks = 1 Imperial quarter very nearly.

The liquid measures are—

2 Mezzette = 1 Boccale.
2 Boccale = 1 Fiasco.
20 Fiaschi = 1 Barile = 12 English wine gallons.

The barile of oil is 16 fiaschi, of two boccali each, = 8·83 wine gallons; it weighs about 60 lbs. avoirdupois. A large jar of oil contains 30 gallons; a small one 15; and a box with 30 bottles = 4 gallons.

The long measure is the braccio, which is divided into 20 soldi, 60 quattrini, or 240 denari; it contains 22·98 English inches. 85·5 braccia = 100 English yards. The canna of 4 braccia = 92 English inches.

Credit, Charges, &c.—Goods in general are bought and sold for silver money; between which, and the money in which bills of exchange are bought, there is a difference of 7 per cent. (agio) against silver; *i. e.* 107 dollars in silver are equal to 100 in gold.

On goods bought or sold (unless it be in effective money, where there is no discount) there is, generally speaking, a discount of 3 per cent.; on all cotton manufactures, 4 per cent.

Charges on sales, including commission, are generally from 6 to 8 per cent.; on fish, 8 or 10 per cent.

Taxes. Cinnamon lb. 12 to 14 per ½ bale; Moka coffee, 5 to 7 per cent.; indigo serdons, lb. 20, 30 to 40 per seron; sugar Havannah, 14 per cent.; crushed, 12 per cent. or real tare of package; loaf package, and 4 per cent. for paper; Brazil of 90 inches, 18 per cent. upwards 20 per cent.; tobacco, 10 per cent.; rosin, 12 per cent. For most other articles specified in the price current the real tare is allowed.

Exchanges, Three Months' Date.—London, liv. @ per £ stg. Spanish dollars, 6*l.* 11*s.*; Paris, liv. @ per 100 francs.; doubloons, 101*l.*; Genoa, liv. @ per 100 Ln.; Trieste, liv. @ per 100 G. Flor.

In 1836 a joint-stock bank was established in Leghorn, with a capital of 2,000,000 lire (66,666*l.* sterling, taking the lira at 8*d.*) in shares of 1,000 lire each. The whole of the capital is paid up, and the responsibility is limited to the capital. The managers have the power of issuing promissory notes to the extent of 6,000,000 lire. These notes, though received by the government, are not legal tender. The operations of the bank are confined to the discounting bills of exchange not having more than four months to run, and to the purchase and sale of foreign coins. The rate of discount is fixed at 5 per cent. The superintendence is vested in a director and eight regents, nominated by the shareholders; and the government appoints a commissary and 3 censors (from among the shareholders), who exercise the highest authority, to secure obedience to the statutes. An annual report and balance sheet is produced, and is accessible to all shareholders. The maximum amount for which notes are issued is 2,000 lire=66*l.* 13*s.* 4*d.* sterling, the lowest, 200 lire=6*l.* 13*s.* 4*d.* sterling. It is a profitable establishment; its shares are at a considerable premium, and it has a fair prospect of farther success.

Account of the Imports of some of the leading Articles into Leghorn during each of the 6 Years ending with 1858.

Articles.	1853.	1854.	1855.	1856.	1857.	1858.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Sugar: Havanna	2,810,600	2,740,000	3,263,000	3,343,000	2,600,000	5,627,000
crushed	10,846,000	17,201,000	15,673,000	13,730,000	12,792,000	20,295,000
loaf	22,000	68,000	38,000	35,000	17,000	18,000
Brazil	283,000	296,000	—	—	1,764,000	55,000
East India and Santos	487,000	1,230,000	561,000	2,202,000	600,000	412,000
Coffee	2,066,000	3,513,000	3,925,000	5,799,000	2,560,000	4,521,000
Cotton	251,700	250,500	260,700	282,600	386,100	277,200
Pepper	879,000	501,000	188,500	216,600	274,000	250,000
Indigo {cases	121	196	352	462	281	317
Indigo {seroons	96	116	111	173	252	235

Account of some of the Principal Articles of Export from Leghorn, with their Prices, free on board, in Italian and English Money, 4th March 1859.—(*Circular of Grant, More, & Co., Leghorn.*)

Articles.	Prices in Italian Money.	Prices in English Money.	English Weights and Measures.
	Livres.	£ *s. d.*	
Anchovies, Gorgona	dble bar. 25 to 26	0 18 3	dble. bar.
"	100 lb. 55 —	4 0 8	per drum of 160 lbs.
Argol: Bologna, white in boxes	100 lb. 90 — 95	5 1 1	cwt.
Florence, red in casks, garbled	— 80 — 90	4 15 0	—
Boracic acid	— 45 — 0	2 7 3	—
Borax	— 0 — 0	0 0 0	—
Brimstone, viz.:—			
Sicily, rough	— 8 — 0	8 18 0	ton
Tuscan, do.	— 0 — 0	0 0 0	—
Rolls	— 11 — 0	11 19 3	—
Bark, viz.:—			
Cork tree, sun-dried,	1000 lb. 0 — 0	0 0 0	lb.
Oak tree	— 0 — 0	0 0 0	cwt.
Citron, preserved	100 lb. 50 — 0	0 0 $5\frac{3}{5}$	lb.
Cream of Tartar	— 125 —130	6 16 0	—
Essence of lemon	lb. 0 — 0	0 8 9	ton
bergamot	— $10\frac{1}{2}$ — 0	0 10 2	cwt.
Flax, Egyptian	100 lb. 28 — 50	53 8 6	—
Galls: in sorts	— 65 — 70	3 12 8	—
blue and green	— 80 — 85	4 8 4	—
blue	— 0 — 0	0 0 0	—
Gum Arabic: picked	— 60 — 70	3 15 4	—
in sorts	— 30 — 32	1 14 6	—
Grain, viz.:—			
Wheat, Tuscan white,	sack 18 — $18\frac{1}{2}$	2 12 3	Imp. qr.
Red	— 17 — 18	2 10 9	—
Roman	— 0 — 0	0 0 0	—
Barletta	— 0 — 0	0 0 0	—
Marian and Berdianska	— 15 — $15\frac{1}{2}$	2 3 3	—
Odessa	— 14 — 15	2 1 10	—
Polish	— 14 — 15	2 1 10	—
Salonicco	— 12 — $12\frac{1}{2}$	1 15 0	—
Danube	— 13 — 14	1 19 1	—
Romelia	— 13 — $13\frac{1}{2}$	1 17 10	—
Hard Taganrog	— $16\frac{1}{2}$ — $17\frac{1}{2}$	2 3 8	—
Marianople	— $14\frac{1}{2}$ — $15\frac{1}{2}$	2 3 2	—
Odessa	— $13\frac{1}{2}$ — $14\frac{1}{2}$	2 0 1	—
Meschiglie	— $11\frac{1}{2}$ — 13	1 16 5	—
Beans: Italian	— 0 — 0	0 0 0	—
Egyptian	— $11\frac{1}{2}$ — 12	1 15 4	—
Barley	— 7 — 8	1 3 5	—
Oats	— 8 — $8\frac{1}{2}$	1 5 2	—
Indian corn: Tuscan	— 8 — $8\frac{1}{2}$	1 4 9	—
Danube	— 10 — $10\frac{1}{2}$	1 10 2	—
Odessa	— 0 — 0	0 0 0	—
Linseed: Italian	— 19 — 20	2 15 7	—
Egypt and Black Sea	— 16 — 18	2 10 2	—
Hemp, viz.:—			
Bologna, Londrina, and Fioretto	100 lb. 50 — 51	53 13 8	ton

Articles.	Prices in Italian Money.	Prices in English Money.	English Weights and Measures.
	Livres.	£ *s. d.*	
Bologna, Londrina, 2nd and 1st	100 lb. 47 — $48\frac{1}{2}$	51 1 0	ton
— cordage, 1st	— 42 — 43	45 3 8	—
— 3rd and 2nd	— 38 — 41	43 1 8	—
Ferrara	— 35 — 39	40 19 8	—
Juniper berries	B. lb. 170 $9\frac{3}{4}$ — $10\frac{1}{2}$	0 7 0	cwt.
Liquorice paste, Calabria,	lb. 100 68 — 80	4 6 6	—
Madder roots: Tripoli	— 37 — 38	2 0 4	—
Syria	— 34 — 35	1 15 0	—
Manna: in flakes	— 4 — $4\frac{1}{2}$	0 4 3	—
in sorts	— $1\frac{1}{6}$ — 0	0 1 1	lb.
Oil, viz.:—			
Tuscan, in jars, 20 gal.	jar $162\frac{7}{10}$ — $192\frac{7}{10}$	6 14 6	—
chests, 30 flasks	— $\frac{1}{2}$ chest $22\frac{1}{2}$ — $25\frac{1}{2}$	0 18 1	jar
— with ribbons	— $23\frac{9}{10}$ — $27\frac{1}{2}$	0 19 1	$\frac{1}{2}$ chest
Fancy flasks, large size,	— $24\frac{9}{10}$ — $28\frac{1}{2}$	0 19 1	—
in pipes	— B. lb. 88 56 — 67	84 2 7	252 imp. gal.
Naples, Spain, Barbary, and Levant	— 40 — 60	75 12 8	—
basket of 12 bottles of 2 lbs.	basket 19 — $21\frac{2}{3}$	0 15 4	basket
Opium: Turkey	lb. 22 — 23	1 1 5	lb.
Egyptian	— 7 — 8	0 7 5	—
Paper: Fioretto	bale 150 — 155	0 5 7	rm. of 425 sheets
Medio	— 130 — 135	0 4 11	—
Al Masso, 1st and 2nd	— 135 — 170	0 6 3	—
Wrapping	— 34 — 36	0 1 4	—
Potash	100 lb. 27 — 0	1 10 8	cwt.
Rags: linen, 1st	— 27 — 0	1 8 3	—
2nd	— 23 — 0	1 4 2	—
3rd	— $18\frac{3}{4}$ — 0	0 19 10	—
Shumac, Sicily	— $10\frac{1}{2}$ — 0	0 11 5	—
Soap: white	— $36\frac{3}{4}$ — 0	1 19 8	—
Marbled	— $30\frac{1}{2}$ — 0	1 13 5	—
Tallow, Tuscan	— $45\frac{1}{2}$ — 0	2 7 5	—
Valonea: $\frac{1}{2}$ camata and camata	1000 lb. 170 — 0	18 4 4	ton
Smyrna, large	— 0 — 0	0 0 0	—
Morea and island	— 150 — 0	16 1 4	—
Wools, viz.:—			
Bistosa of Creta	100 lb. 0 — 0	0 0 0	lb.
Matricina and bistosa of Marem	— 0 — 0	0 0 0	—
Lamb do.	— 0 — 0	0 0 0	—
Merinos, Roman	— 0 — 0	0 0 0	—
Bastard do.	— 0 — 0	0 0 0	—
Vissane and sopravissane	— 0 — 0	0 0 0	—
Lamb	— 0 — 0	0 0 0	—
Tangarock, washed	— 0 — 0	0 0 0	—
Tunis	— 0 — 0	0 0 0	—
Bengasi, Derna, & Tripoli	— 0 — 0	0 0 0	—

The navigation of the Port of Leghorn for 1851, comprised in the arrivals 231 British vessels of 43,948 tons, with crews of 2,524 seamen; 1,210 Tuscan vessels; 348 French; 51 Austrian; 30 Spanish; 28 Dutch; 26 Swedish; 23 American; 80 Roman; 287 Neapolitan; 675 Sardinian; 168 Greek; 27 Ottoman, &c. &c., making in all 3,418 vessels.

Account of the Quantities and Values of the Principal Articles Imported from Tuscany into the U. Kingdom during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Computed Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Argol	cwts.	8,291	6,551	6,454	3,859	37,309	22,847	22,589	14,928
Boracic acid	—	23,709	26,776	25,060	24,912	106,691	121,163	110,264	87,192
Copper ore	tons	414	604	794	1,227	5,175	3,488	8,464	25,395
Corn: wheat	qrs.	9,276	16,253	2,165	4	33,389	57,156	6,929	11
„ maize or Indian corn	—	—	14,937	4,467	1,999	—	35,048	7,147	3,596
„ wheatmeal and flour	cwts.	55,594	37,326	12,849	2	60,690	43,859	12,849	2
Fish, anchovies	lbs.	222,966	181,789	176,561	248,612	5,972	4,545	4,414	6,215
Hats or bonnets of straw	—	5,940	7,078	4,519	2,983	17,820	21,233	13,558	8,948
Hemp, undressed	cwts.	7,494	6,927	326	559	18,296	14,502	578	847
Lard	—	1,545	1,761	2,760	3,418	3,978	4,623	6,900	8,944
Oil, olive	tuns	885	1,986	1,975	1,464	68,853	142,895	130,711	105,914
Platting of straw, chip, or other materials	lbs.	20,856	3,007	4,745	4,853	20,248	3,007	4,745	4,852
Rags for making paper	tons	2,002	1,331	745	1,024	51,051	35,493	19,097	26,125
Seeds, flax and linseed	qrs.	20,650	7,270	—	216	63,240	22,900	—	581
Silk: raw	lbs.	610	734	861	824	656	855	1,399	1,401
„ waste, imubs, and husks	cwts.	507	736	647	735	2,129	4,121	10,874	15,597
Skins, lamb, undressed	no.	913,594	397,543	623,040	958,127	45,680	17,613	28,940	44,114
Stones: marble, sawn or otherwise manufactured	cwts.	8,863	5,319	10,494	9,820	11,079	7,979	20,988	19,640
„ „ in rough blocks or slabs	solid ft.	106,601	99,231	56,801	84,524	66,627	54,577	31,242	46,488
Tallow	cwts.	7,572	2,203	2,344	2,290	23,853	4,848	5,566	6,405
Vermicelli and maccaroni	—	1,607	1,498	373	851	3,750	4,269	1,044	2,085
Wood and timber, not sawn	loads	1,658	3,808	4,256	3,051	6,302	13,898	13,131	9,799
Wool, sheep and lambs'	lbs.	129,807	195,499	80,057	53,598	6,220	8,757	3,795	2,820
Total value of the above and of all other articles	£	—	—	—	—	731,595	747,957	554,437	534,494

Account of the Quantities and Values of the Principal Articles of the Growth and Manufacture of the U. Kingdom exported to Tuscany during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Apothecary wares, &c.	cwts.	428	809	—	—	2,301	3,952	3,365	2,162
Apparel, slops, and haberdashery	value	—	—	—	—	6,370	9,800	11,455	13,662
Coals, cinders, and culm	tons	12,318	5,524	9,079	14,089	7,926	2,649	4,504	7,541
Copper, wrought and unwrought	cwts.	548	645	919	1,479	3,615	4,170	5,466	8,748
Cottons: entered by the yard	yards	15,740,713	19,628,768	18,233,026	19,565,671	191,751	243,275	245,775	277,384
„ „ at value	value	—	—	—	—	17,961	21,778	26,337	25,439
Cotton yarn	lbs.	3,138,339	3,621,040	4,636,897	3,905,613	95,152	101,160	135,465	146,009
Earthenware and porcelain	value	—	—	—	—	3,325	3,106	4,016	3,165
Fish: herrings	barrels	11,915	7,537	10,636	19,458	11,930	7,687	10,751	19,467
„ pilchards	hhds.	1,263	1,070	2,210	2,263	2,930	3,200	5,667	5,326
Hardwares and cutlery	cwts.	1,071	1,794	2,216	1,904	7,500	9,798	13,513	13,045
Iron, inc. unwrought steel	tons	3,502	3,874	4,395	5,100	33,888	30,657	38,077	45,241
Linens, entered by the yard	yards	358,681	535,422	518,961	782,364	12,339	16,690	18,388	30,050
Linen yarn	lbs.	102,639	793,756	265,041	535,071	3,969	18,202	10,900	24,538
Machinery: steam engines	value	—	—	—	—	200	2,308	782	2,668
„ all other sorts	—	—	—	—	—	2,870	4,412	1,541	3,222
Painters' colours	—	—	—	—	—	2,031	3,879	2,739	3,970
Silk manufactures	—	—	—	—	—	10,070	11,590	17,725	16,113
Tin plates	—	—	—	—	—	5,906	5,022	5,602	9,092
Woollens: entered by the piece	pieces	14,501	16,386	21,947	18,071	23,398	22,514	40,068	36,527
„ „ by the yard	yards	1,152,893	1,244,502	1,394,841	1,396,114	33,570	39,934	51,728	61,726
„ „ at value	value	—	—	—	—	3,651	12,558	20,769	15,582
Total value of the above and of all other articles	£	—	—	—	—	505,852	620,307	736,538	807,069

Straw Hats.—The most interesting, and perhaps also the most important industrial pursuit carried on in Tuscany, consists in the manufacture of straw hats and straw plaiting. The straw grown in the country is peculiarly well adapted for the purpose, and the peasantry have attained to an unrivalled degree of skill in its manipulation. The value of the exports of the article increased from 9,833,000 lire in 1851, to 23,187,000 ditto in 1855, being about 1-3rd part of the entire exports from the duchy in the course of the latter year, and we are informed that they have since continued to increase. It is said that about 1-4th part of the population of Tuscany derive their principal support from this manufacture; and though this be probably an exaggerated statement, it shows the importance of the business. Various efforts have been made in this and other countries to raise straw similar to that employed in Tuscany in the manufacture. Hitherto, however, these efforts have had but little success, and the superiority of Tuscany in this interesting branch of industry was never more conspicuous than at present.—(*Annuaire de l'Economie Politique pour* 1858, p. 501.)

In 1858, there belonged to Tuscany, and principally to Leghorn, 959 ships of the agg. burden of 59,024 tons.

LEMONS (Ger. *Limonen;* Du. *Limoenen;* Fr. *Limons, Citrons;* It. *Limoni;* Sp. *Limones;* Port. *Limões;* Rus. *Limonii;* Arab. *Lémōn*), the fruit of the lemon tree. (*Citrus medica*, var. *β.* C.)

It is a native of Assyria and Persia, whence it was brought into Europe; first to Greece, and afterwards to Italy. It is now cultivated in Spain, Portugal, and France, and is not uncommon in our greenhouses. Lemons are brought to England from Spain, Portugal, and the Azores, packed in chests, each lemon being separately rolled in paper. The Spanish lemons are most esteemed.—(For an account of the imports, see ORANGES.)

LEMON JUICE, OR CITRIC ACID (Ger. *Zitronensaft;* Fr. *Jus de limon;* It. *Agro o Sugo de' limone;* Sp. *Jugo de limon*), the liquor contained in the lemon.

It may be preserved in bottles for a considerable time by covering it with a thin stratum of oil; thus secured, great quantities of the juice are exported from Italy to different parts of the world; from Turkey also, where abundance of lemons are grown, it is a considerable article of export, particularly to Odessa. The discovery of the antiscorbutic influence of lemon juice is one of the most valuable that has ever been made. The scurvy, formerly so fatal in ships making long voyages, is now almost wholly unknown; a result that is entirely to be ascribed to the regular allowance of lemon juice served out to the men. The juice is also frequently administered as a medicine, and is extensively used in the manufacture of punch.

LEMON PEEL (Ger. *Zitronenshalen, Limonschellen;* Fr. *Lames d'écorce de citron;* It. *Scorze de' limone;* Sp. *Courtezas de citra*). The outward rind of lemons is warm, aromatic, and slightly bitter,—qualities depending on the essential oil it contains. It is turned to many uses; and when well candied, constitutes a very good preserve. In Barbadoes, a *liqueur*, known under the name of *Eau de Barbade*, is manufactured from lemon peel, which the inhabitants have the art of preserving in a manner peculiar to themselves. Both the liqueur and the conserve used to be in high repute, especially in France.

LETTER. (See POST OFFICE.)

LETTER OF CREDIT, a letter written by one merchant or correspondent to another, requesting him to credit the bearer with a certain sum of money. Advice by post should always follow the granting of a letter of credit; a duplicate of it accompanying such advice. It is prudent, also, in giving advice, to describe the bearer of the letter, with as many particulars as possible, lest it fall improperly into other hands.

LETTERS OF MARQUE AND REPRISAL, "are grantable by the law of nations, whenever the subjects of one state are oppressed and injured by those of another, and justice is denied by that state to which the oppressor belongs."—(*Chitty's Com. Law*, vol. iii. p. 604.) Before granting letters of marque, government is directed by the 5 Hen. 5. c. 7., to require that satisfaction be made to the party aggrieved; and in the event of such satisfaction not being made within a reasonable period, letters of marque and reprisal may be issued, authorising the aggrieved party to attack and seize the property of the aggressor nation, without hazard of being condemned as a robber or pirate. Such letters are now only issued to the owners or captains of privateers during war, or when war has been determined upon. They may be revoked at the pleasure of the sovereign; and when hostilities terminate, they cease to have any effect.

LICENCES, in commercial navigation. The rules and regulations to be observed in the granting of licences to ships embodied in the act 8 & 9 Vict. c. 87. given in the former edition of this work, have been repealed. The only regulation with reference to this subject in the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107. § 201., will be found in the art. SMUGGLING.

The statute now referred to has the following clauses in regard to the licensing of agents for the transacting of business relating to the entry and clearance of ships, goods, and baggage, and of lightermen for the carriage of goods to and from importing and exporting ships:—

Treasury to appoint in what Ports Agents shall be licensed.—The Commissioners of the Treasury may by their warrant appoint and declare in what ports or places in the U. K. persons acting as agents in the entry or clearance of any ships, or of any goods or baggage, or any business relating thereto, shall be required to be duly licensed for that purpose, and may from time to time revoke such warrants or appointments, and make others in lieu thereof, when and as they may see fit; and such warrants, if they relate to ports or places in Great Britain, shall be published in the London Gazette, if to ports or places in Ireland in the Dublin Gazette, and if to ports and places in Great Britain and Ireland in both those gazettes: provided always, that the appointments already made as to London, Dublin, Dover, Folkestone, Southampton, and Shoreham shall continue as if such appointments had been made under this act, until the same shall be revoked.—§ 15.

Commissioners of Customs to grant Licences to Agents.—The Commissioners of Customs may and they are hereby authorised to grant licences, in such form and manner and to such persons as they shall think fit, to act as agents for transacting business which shall relate to the entry or clearance of any ship, or of any goods or of any baggage, in any of the ports or places in respect of which such appointments as aforesaid now are or hereafter shall be made, so long as such appointments shall remain in force, and, by order under their hands, may cancel or revoke any licence so granted to any such person for fraud or misconduct; a copy of such order stating the cause of dismissal shall be delivered to such person, or to his clerk, or left at his usual place of abode or business, but such person shall be at liberty to appeal to the Commissioners of Customs in manner provided by sections 53 and 54 of this act for an investigation and reconsideration of the case; and if no such appeal be made within 3 days after the delivery of a copy of such order, or if such order shall be confirmed, such licence shall be void; and the Commissioners of Customs on granting any such licence are hereby empowered to require bond to be given by every person to whom such licence shall be granted (not being one of the sworn brokers of the city of London, and acting as such agent in the port of London), with one sufficient surety, in the sum of 1000*l.*, for the faithful and incorrupt conduct of such person and of his clerks, acting for him, both as regards the customs and his employers; and all licences heretofore granted by the Commissioners of Customs to any persons to act as agents shall be valid until revoked, and all bonds taken for the faithful and incorrupt conduct of such persons shall remain in full force: provided always, that any person, or any persons in copartnership, may, with the approval of the Commissioners of Customs, appoint a clerk or servant to transact such business on his or their behalf, and the name, residence, and date of appointment of such clerk or servant shall thereupon be endorsed on the licence of such person or persons, and shall be signed by him or them in the presence of and attested by the collector or comptroller of customs at the port for which such licence is granted, and all such appointments shall be recorded in a register to be kept at the custom-house for that purpose; and no person shall act as such clerk or servant unless so appointed, endorsed, and recorded, nor act for or on behalf of any other than the person or persons so appointing him; and every such appointment may be revoked by the Commissioners of Customs at any time, by order under their hands.—§ 16.

Commissioners to specify Ports in which Goods may be water borne by authorised Persons.—The Commissioners of Customs may order and direct in what ports or places in the U. K. goods cleared for drawback or from the warehouse shall be carried or water-borne to be put on board any ship for exportation, or goods carried or water-borne from any importing ship to, or to be landed at any wharf, quay, or other place, shall be so carried or water-borne only by persons authorised for that purpose by licence under the hands of the Commissioners of Customs, and may revoke any such orders or directions, or make others in lieu thereof, when and as they may deem expedient; and the Commissioners of Customs may grant such licences in such form and manner and to such persons as they may deem proper, and may revoke the same when and as they shall think fit; and before granting any such licence the commissioners may require such security by bond for the faithful and incorrupt conduct of such person as they shall deem necessary; and all such licences in force at the time of the commencement of this act shall continue in force as if the same had been granted under the authority of this act.—§ 17.

LIGHTHOUSE, a tower situated on a promontory, or headland, on the sea coast, or on rocks or banks in the sea, for the reception of a light for the guidance of ships at night.* There are also floating-lights, or lights placed on board vessels moored in certain stations, and intended for the same purposes as those on shore.

Historical Notices.—The lighting of fires for the direction of ships at night is of such obvious utility, that we need not wonder at the practice having originated at a very remote æra. The early history of lighthouses is, however, involved in much obscurity; but it is reasonable to suppose that no long period would elapse after fires were lighted for the premonition and guidance of mariners, till towers would begin to be constructed for their reception. The most celebrated of all the ancient lighthouses was that erected by Ptolemy Soter, on the small island of Pharos, opposite to Alexandria,—*nocturnis ignibus cursum navium regens.*—(*Plin.* lib. v. cap. 31.) It was of great height, and is said to have cost 800 talents.† Its celebrity was such, that Pharos rapidly became, and

* *Usus ejus, nocturno navium cursu ignes ostendere, ad prænuntianda vada, portusque introitum.*—(*Plin. Hist. Nat.* lib. xxxvi. cap. 12.)

† Dr. Gillies tells us (*Hist. of Alexander's Successors*, vol. ii. p. 138. 8vo. ed.) that the tower was 450 feet in height; that each side of its square base measured 600 feet, and that its "beaming summit" was seen at the distance of 300 miles! It is almost needless to add, that there is no authority for such statements, which, indeed, carry absurdity on their face.

An Account showing the Trades that cannot be carried on in the U. Kingdom without Excise Licences; the Sums charged for such Licences; and the Number of Licences granted for carrying on each Trade in the Year ending 31st March, 1858; with the Total Amount of Revenue derived therefrom.

Description of Licence.	Rate of Duty per per Annum.	England. Number of Licences granted.	Scotland. Number of Licences granted.	Ireland. Number of Licences granted.	U. K. Total Number of Licences granted.
	£ s. d.				
Auctioneers	10 0 0	3,581	425	352	4,358
Brewers of table beer only—					
Not exceeding 20 barrels	0 10 6	157	1	1	159
50	1 1 0	28	-	-	28
100	1 11 6	6	-	-	6
Exceeding 100 barrels	2 2 0	2	-	1	3
Brewers of strong beer—					
Not exceeding 20 barrels	0 10 6	7,166	25	5	7,196
50	1 1 0	6,865	8	2	6,875
100	1 11 6	8,457	18	-	8,475
1,000	2 2 0	15,639	82	16	15,737
2,000	3 3 0	602	34	11	647
5,000	7 17 6	575	27	24	626
7,500	11 16 3	165	9	10	184
10,000	15 15 0	113	7	3	123
20,000	31 10 0	125	10	4	139
30,000	47 5 0	39	2	5	46
40,000	63 0 0	10	1	3	14
Exceeding 40,000	78 15 0	31	2	6	39
Brewers using sugar	1 0 0	359	12	18	389
Brewers for sale by retail, not to be consumed on the premises	5 10 3	30	20	5	55
Total brewers	-	40,418	259	117	40,794
Sellers of beer only, not being brewers	3 6 1¾	1,480	31	244	1,755
Beer retailers (publicans) whose premises are rated—					
Under 20*l.* per annum	1 2 0½	32,579	-	15,559	48,138
At 20*l.* per annum or upwards	3 6 1¾	31,059	-	1,555	32,591
Retailers of beer, cider, or perry, whose premises are rated—					
Under 10*l.* per annum	2 10 0	-	180	-	180
At 10*l.* per annum or upwards	4 4 0	-	137	-	137
Retailers of beer, cider, and perry, under 4 & 5 Will. 4. c. 85—					
To be drunk on the premises	3 6 1¾	39,945	-	-	39,945
Not to be drunk on the premises	1 2 0½	2,788	-	-	2,788
Retailers of cider and perry only	1 2 0½	362	-	-	362
Total beer, cider, and perry dealers	-	108,804	333	18,165	127,352
Maltsters—					
Making not exceeding 50 quarters	0 7 10½	475	37	18	580
100 "	0 15 9	507	15	2	524
150 "	1 3 7½	510	15	3	528
200 "	1 11 6	515	21	7	543
250 "	1 19 4½	437	7	3	447
300 "	2 7 3	390	15	2	407
350 "	2 15 1½	319	9	4	332
400 "	3 3 0	298	15	4	317
450 "	3 10 10½	249	10	6	265
500 "	3 18 9	213	9	2	224
550 "	4 6 7½	217	2	6	225
Exceeding 550 quarters	4 14 6	1,696	159	105	1,965
Beginners (and a surcharge)	0 7 10½	270	16	4	290
not exceeding 5 quarters	0 2 7½	51	268	-	319
Total maltsters	-	6,157	648	161	6,966
Malt roasters	20 0 0	11	1	9	21
Dealers in roasted malt	10 0 0	19	1	-	20
Every maker of paper or pasteboard	4 4 0	318	52	16	386
Every maker of soap	4 4 0	188	23	138	349
Distillers	10 10 0	19	129	37	185
Rectifiers	10 10 0	92	9	45	146
Makers of stills	0 10 6	-	38	4	42
Chemist or any other person requiring the use of a still	0 10 0	182	14	21	217
Spirit dealers, not retailers	10 10 0	2,843	358	514	3,715
Retailers of foreign liqueurs	2 2 0	70	-	-	70
Makers of methylated spirits	10 10 0	9	-	-	9
Retailers of spirits whose premises are rated—					
Under 10*l.* per annum	2 4 1	9,139	-	11,572	20,711
At 10*l.* and under 20*l.* per annum	4 8 2½	19,853	-	3,635	23,488
At 20*l.* and under 25*l.* "	6 12 3½	6,523	-	463	6,986
At 25*l.* and under 30*l.* "	7 14 4	3,936	-	286	4,222
At 30*l.* and under 40*l.* "	8 16 4½	5,789	-	332	6,121
At 40*l.* and under 50*l.* "	9 18 5½	3,568	-	163	3,731
At 50*l.* or upwards "	11 0 6	10,854	-	265	11,119
Retailers of spirits and beer whose premises are rated—					
Under 10*l.* per annum	4 4 0	-	4,696	-	4,696
At 10*l.* and under 20*l.* per annum	5 5 0	-	4,748	-	4,748
At 20*l.* and under 25*l.* "	9 9 0	-	514	-	514
At 25*l.* and under 30*l.* "	10 10 0	-	436	-	436
At 30*l.* and under 40*l.* "	11 11 0	-	532	-	532
At 40*l.* and under 50*l.* "	12 12 0	-	274	-	274
At 50*l.* or upwards "	13 13 0	-	642	-	642
Retailers of spirits in Ireland being duly licensed to sell coffee, tea, &c. whose premises are rated—					
Under 25*l.* per annum	9 18 5½	-	-	167	167
At 25*l.* and under 30*l.* per annum	11 0 6	-	-	5	5
At 30*l.* and under 40*l.* "	12 2 6½	-	-	9	9
At 40*l.* and under 50*l.* "	13 4 7	-	-	2	2
At 50*l.* or upwards "	14 6 7⅞	-	-	29	29

Table of Licensed Trades, &c.—*continued.*

Description of Licence.	Rate of Duty per Annum. £ s. d.	England. Number of Licences granted.	Scotland. Number of Licences granted.	Ireland. Number of Licences granted.	U. K. Total Number of Licences granted.
Licences for fractional periods of a year, and surcharges	- - -	661	168	871	1,700
Total spirit dealers	- - -	63,255	12,368	18,313	93,936
Retailers of sweets	1 2 0½	8,786	104	109	8,999
Tea dealers, dealers in tea, coffee, cocoa-nuts, chocolate, or pepper	0 11 6½	106,915	16,583	18,098	141,426
Licences for fractional periods of a year	- - -	7,374	1,199	1,976	10,549
Manufacturers of tobacco and snuff:—					
Not exceeding 20,000 lbs.	5 5 0	107	94	56	257
Exceeding 20,000 lbs., and not exceeding 40,000 lbs.	10 10 0	47	17	28	92
Exceeding 40,000 lbs., and not exceeding 60,000 lbs.	15 15 0	21	5	12	38
Exceeding 60,000 lbs., and not exceeding 80,000 lbs.	21 0 0	16	5	8	29
Exceeding 80,000 lbs., and not exceeding 100,000 lbs.	26 5 0	9	3	6	18
Exceeding 100,000 lbs.	31 10 0	73	2	11	86
Beginners (and a surcharge on the quantity made)	5 5 0	33	3	9	45
Dealers in tobacco and snuff	0 5 3	199,930	17,314	18,291	235,555
Licences for fractional periods of a year	- - -	12,714	1,217	2,017	15,948
Total tobacco manufacturers and dealers	- -	212,950	18,660	20,438	252,048
Makers of vinegar or acetous acid	5 5 0	56	6	1	63
Dealers in foreign wine:—					
Not having licences to retail spirits and beer	10 10 0	1,442	19	116	1,577
Having a licence to retail beer, but not for retailing spirits	4 8 2½	32	7	29	68
Having licences to retail beer and spirits	2 4 1	25,338	2,915	2,831	31,084
Grocers selling wine not to be drunk or consumed on the premises:—					
Having the justice's certificate to retail beer, but not spirits	4 8 2½	- -	13	- -	13
Having the justice's certificate to retail beer and spirits	2 4 1	- -	909	- -	909
Licences for fractional periods of a year	- - -	634	74	192	900
Total wine dealers	- - -	27,446	3,937	3,168	34,551
Retailers of liquors or tobacco on board passage vessels	1 1 0	234	86	45	365
Postmasters. — Persons licensed to let horses for hire; viz.					
Persons keeping 1 horse or 1 carriage	7 10 0	217	41	- -	258
Not exceeding—					
2 horses or 2 carriages	12 10 0	176	52	- -	228
4 or 3	20 0 0	113	19	- -	132
8 or 6	30 0 0	80	18	- -	98
12 or 9	40 0 0	24	5	- -	29
16 or 12	50 0 0	9	5	- -	14
20 or 15	60 0 0	4	- -	- -	4
Exceeding 15 carriages	70 0 0	1	1	- -	2
Exceeding 20 horses, then for every additional number of 10 horses, and for any additional number less than 10, over and above 20, or any other multiple of 10 horses, the further additional duty of	10 0 0	5	1	- -	6
Postmasters (Ireland)	2 2 0	- -	- -	1,765	1,765
And 1*s.* in the £ thereon	- - -	- -	- -	- -	- -
Licences for fractional periods of a year, and supplementary licences	- -	24,114	2,380	217	26,711
Total postmasters	- - -	24,743	2,522	1,982	29,247
Licence to run stage carriages	3 3 0	3,004	323	- -	3,327
Supplementary licences	0 1 0	4,009	294	- -	4,303
Licence to keep hackney carriages (London)	1 0 0	5,474	- -	- -	5,474

Total revenue derived from excise licences in 1858, England, 1,172,850*l.* 7*s.* 1*d.*; Scotland, 127,805*l.* 9*s.* 4*d.*; Ireland, 124,446*l.* 10*s.* 11*d.*; total U. K., 1,425,102*l.* 7*s.* 4*d.*

There are, also, in the U. K., sundry businesses which cannot be carried on without a stamp licence, such as bankers, attorneys, pawnbrokers, &c. The licence duty paid by these parties amounted in the year ended 31st March, 1859, to 218,500*l.*

still continues to be in many countries, a generic term equivalent to lighthouse. In the ancient world, there were lighthouses at Ostia, Ravenna, Puteoli, Caprea, Rhodes, on the Thracian Bosphorus, &c.—(See *Suetonii Opera*, ed. *Pitisci*, tom. i. p. 755.; and the *Ancient Universal History*, ix. 366. 8vo. ed.)

The *Tour de Cordouan*, at the entrance of the Gironde, the Eddystone lighthouse, opposite to Plymouth Sound, and that more recently constructed on the Bell Rock, opposite to the Frith of Tay, are the most celebrated modern lighthouses. The Tour de Cordouan was begun in 1584, by order of Henry IV., and was completed in 1611. It was at first 169 feet (Fr.) high; but in 1727 it was enlarged, by the addition of an iron lantern, to the height of 175 French, or 186⅓ English feet. It used to be lighted by a coal fire, but it is now a revolving dioptric light of the first order. It is altogether a splendid structure;

and is, besides, remarkable for being the first lighthouse on which a revolving light was exhibited.—(See BORDEAUX.)

The first lighthouse erected on the Eddystone rocks only stood about 7 years, having been blown down in the dreadful storm of the 27th of November, 1703; a second, erected in 1708, was burnt down in 1755. The present lighthouse, constructed by the celebrated engineer Smeaton, was completed in 1759. It is regarded as a masterpiece of its kind; and bids fair to be little less lasting than the rocks on which it stands.

The Bell Rock lighthouse was built by Mr. Stevenson on the model of the Eddystone.

Numerous lighthouses, marking the most dangerous points and the entrance to the principal harbours, are now erected in most civilised maritime countries. They are particularly abundant in the Baltic and in the Sound, and have contributed, in no ordinary degree, to render their navigation comparatively safe. Within these few years several new ones have been erected on the British coasts, and on those of France, the United States, &c.

Precautions as to Lighthouses.—Many fatal accidents have arisen from ships mistaking one light for another; and hence the importance of those on the same coast being made to differ distinctly from each other, and of their position and appearance being accurately laid down and described. The modern inventions of revolving, intermitting, and coloured lights, afford facilities for varying the appearance of each light unknown to our ancestors, and have been, in that respect, of the greatest importance.

Chart of Lighthouses, &c.—A good descriptive work on lighthouses, beacons, &c., is a desideratum. That of Coulier, *Guide des Marins pendant la Navigation nocturne*, Paris, 1829, is perhaps the best. It must not be judged by its preface, which is as bad as possible; consisting of scraps from the most fantastical parts of Bryant's Mythology, and of attacks on us for our conduct in relation to Parga, and the alleged ill-treatment of the crew of a vessel wrecked on the island of Alderney! The book is really pretty good, which could not be anticipated from such a commencement. The reader will find the existing English and Irish lighthouses, and the greater number of those belonging to Scotland, laid down in the chart attached to the article CANALS in this work. Its accuracy may be depended upon; for it has been copied from the official chart of the lighthouses on the British and contiguous coasts published by the Trinity House.

Law as to British Lighthouses.—The 8 Eliz. c. 13. empowered the corporation of the Trinity House to erect beacons, &c. to prevent accidents to ships; and though the act does not expressly mention lighthouses, it has been held to extend to them; and on its authority, and the privileges attached to the office of buoyage and beaconage conferred on the Trinity House in 1594, the corporation erects lighthouses. The tolls for their maintenance have been generally collected under the authority of letters patent from the Crown; those for the support of the Eddystone light, and some others in different parts of the kingdom, being, however, established by act of parliament. The first lighthouse erected by the Trinity Corporation was in 1675; but several had been previously erected by private parties in virtue of letters patent.

All the lighthouses, floating-lights, &c., exclusive of harbour lights, from the Fern Islands, on the coast of Northumberland, round by Beachy Head and the Land's End, to the coast of Lancashire, have always belonged to the Trinity House, with the exception of about a dozen lights, viz., Tynemouth, Spurn (shore), Winterton and Orford, Harwich, Dungeness, Skerries, &c. These lights have been partly public and partly private property; but they have latterly been all acquired by the Trinity House.—(See below.) The duties on their account have been, for the most part, always payable to the Trinity collectors.

The act of 1853, 16 & 17 Vict. c. 131., and the Mercantile Shipping Act of 1854, have made the Trinity House directly subordinate in many respects to the Board of Trade. The dues for lights, ballastage, beaconage, &c., hitherto payable to the Trinity House, are in future to be carried to the account of the Mercantile Marine Fund, which is to be charged with the cost of maintaining lights, buoys, &c., and it, also, is to be charged with the pensions hitherto paid by the Trinity House. The latter is in future to prepare estimates; and no expense is to be allowed which has not previously been sanctioned by the Board of Trade. The charges for lights, &c., are to be revised and fixed by H. Majesty in Council, who who is, also, to fix the tolls to be taken for new lights. The attention that will thus be drawn to the different charges on shipping cannot fail to be advantageous; and will, no doubt, bring about their reduction to the lowest point consistent with the realisation of the important objects for which they have been imposed. The most important clauses in the Mercantile Shipping Act, the 17 & 18 Vict. c. 104., having reference to lighthouses, are as follows, viz.:

Management of Lighthouses, Buoys, and Beacons to be in Trinity House, &c.—Subject to the provisions herein contained, and subject also to any powers or rights now lawfully enjoyed or exercised by any person or body of persons having by law or usage authority over local lighthouses, buoys, or beacons, herein termed "local authorities," the superintendence and management of all lighthouses, buoys, and beacons shall be vested in the following bodies, viz.,

In England and Wales, and the islands of Jersey, Guernsey, Sark, and Alderney, and the adjacent seas and islands, and in Heligoland and Gibraltar, in the Trinity House:

In Scotland and the adjacent seas and islands, and in the Isle of Man, in the Commissioners of Northern Lighthouses.

In Ireland and the adjacent seas and islands, in the Port of Dublin Corporation:

And, subject to the provisions herein contained, the said Trinity House, Commissioners, and Corporation (herein termed General Lighthouse Authorities) shall respectively continue to hold and maintain all property now vested in them in that behalf in the same manner and for the same purposes as they have hitherto held and maintained the same.—§ 389.

Commissioners of Northern Lighthouses.—The persons holding the following offices shall be a body corporate, under the name of the Commissioners of Northern Lighthouses; that is to say,

(1.) The Lord Advocate and the Solicitor-General for Scotland;

(2.) The Lords Provosts of Edinburgh and Glasgow, and the Provosts of the Cities of Aberdeen, Inverness, and Campbeltown;

(3.) The eldest Bailies of Edinburgh and Glasgow;

(4.) The Sheriffs of the counties of Edinburgh, Lanark, Renfrew, Bute, Argyle, Inverness, Ross, Orkney, Caithness, Aberdeen, Ayr, Fife, Forfar, Wigton, Sutherland, Kincardine, Kircudbright, and Elgin;

And shall have a common seal; and any 5 of such commissioners shall constitute a quorum, and shall have power to do all such matters and things as might be done by the whole body of commissioners.—§ 390.

Power to Elect certain new Members.—In addition to the persons above mentioned, it shall be lawful for the said commissioners at any time after this act comes into operation to elect the provost or chief magistrate of any royal or parliamentary burgh, on or near any part of the coasts of Scotland, and the sheriff of any county abutting on such coasts.—§ 391.

Trinity House may inspect Lighthouses in Scotland and Ireland.—The Trinity House, their engineers, workmen, and servants, may at all times enter any lighthouses within the jurisdiction of the said commissioners or corporation, to view the condition thereof, or otherwise, for the purposes of this act.—§ 392.

B. of Trade may appoint Persons to inspect Lighthouses, &c.—The B. of Trade may, upon complaint to the effect that any lighthouse, buoy, or beacon under the management of any of the said general light-

house authorities, or any work connected therewith, is inefficient or improperly managed or unnecessary, authorise persons to inspect the same; and every person so authorised may inspect the same accordingly, and make such inquiries in respect thereof, as he may think fit; and all officers and others having the care of such lighthouses, buoys, or beacons, or concerned in the management thereof, shall furnish all such information and explanations in relation thereto as he may require; and the said general lighthouse authorities and their respective officers shall at all times give to the B. of Trade all such returns, explanations, or information in relation to the lighthouses, buoys, or beacons within their jurisdiction and the management thereof, as such Board may from time to time require.—§ 393.

Power to General Lighthouse Authorities to control local Authorities.—Each of the said general lighthouse authorities, upon giving due notice of their intention, shall have power, with the sanction of the B. of Trade, to compel any local authority having jurisdiction in the matter of lighthouses, buoys, or beacons at any place situate within the jurisdiction of such general lighthouse authority, to lay down buoys, or to remove or discontinue any existing lighthouse or beacon, or to make any variation in the character of any lighthouse or in the mode of exhibiting lights therein; and no such local authority as aforesaid shall erect any new lighthouse, or remove or discontinue any lighthouse, or vary the character of any lighthouse or the mode of exhibiting lights therein, without the sanction of the general lighthouse authority within whose jurisdiction the same is situate.—§ 394.

In case of Default by local Bodies local Lighthouses may be transferred to General Lighthouse Authorities.—If any local authority having power to erect, maintain, or place any local lighthouse, buoy, or beacon at any place within the jurisdiction of one of the said general lighthouse authorities fails so to do, or fails to obey any direction given by such authority under the last preceding section, H. M. may, upon application from such general lighthouse authority, by order in council direct that such power as aforesaid shall be transferred to such last-mentioned authority; and such power, together with all powers of levying and receiving dues in respect of such lighthouse, buoy, or beacon, shall thereupon become vested in such last-mentioned authority; and such lighthouse, with its appurtenances, and also such buoy or beacon, and all dues leviable in respect thereof, shall thenceforth be subject in all respects to the same regulations as other lighthouses and light dues, buoys and beacons provided for by this act.—§ 395.

Dues to be levied.—Subject to any alterations to be made under the powers hereinafter contained, the said general lighthouse authorities shall, in respect of the existing lighthouses, buoys, or beacons within their respective jurisdictions, continue to levy dues, herein called light dues, after the rate at which the same are levied at the time when this act comes into operation; and such light dues shall be payable in respect of all ships whatever, except ships belonging to H. M. and ships hereby exempted from payment thereof.—§ 396.

Light Dues to be subject to Revision by H. M. in Council.—H. M. may, with the advice of Her Privy Council, from time to time reduce all or any of the dues for the time being payable in respect of existing or future lighthouses, buoys, or beacons, for the time being under the management of the said general lighthouse authorities; and may also, with the like advice, from time to time increase or vary any of such dues, so that no dues payable in respect of any lighthouse, buoy, or beacon existing at the time when this act comes into operation, are made to exceed the amount which has at any period previous to such time been received in respect thereof, or to which the said dues might during any part of such period as last aforesaid lawfully have been raised.—§ 397.

Powers of General Lighthouse Authorities to alter and regulate Dues.—Each of the said general lighthouse authorities shall have power, with the consent of H. M. in council, to do any of the following things; that is to say,

To exempt any ships or any classes of ships from the payment of light dues receivable by such authority, and to annex any terms or conditions to such exemptions:

To alter the times, places, and modes at and in which the light dues receivable by such authority are payable:

To substitute any other dues or class of dues, whether by way of annual payment or otherwise, in respect of any ships or classes of ships, for the dues payable to such authority for the time being.—§ 398.

Publication of Dues and Regulations.—Tables of all light dues, and a copy of the regulations for the time being in force in respect thereof, shall be posted up at all custom houses within the U. K.; and each of the said general lighthouse authorities shall from time to time, as occasion requires, furnish copies of such tables and regulations to the C. of Customs in London, and to the principal officers of customs resident at all places where light dues are collected on account of such lighthouse authority; and such copies shall be posted up by the commissioners at the custom house in London, and by such officers at the custom houses of the places at which they are respectively resident.—§ 399.

Ship not to be cleared without Production of Receipt for Light Dues.—A receipt for light dues shall be given by the person appointed to collect the same to every person paying the same, and no officer of customs at any port where light dues are payable in respect of any ship shall grant a clearance or transire for any such ship, unless the receipt for the same is produced to him.—§ 400.

Power of Distress for Light Dues.—If the owner or master of any ship fails on demand of the authorised collector to pay the light dues due in respect thereof, it shall be lawful for such collectors, in addition to any other remedy which he or the authority by whom he is appointed is entitled to use, to enter upon such ship, and distrain the goods, guns, tackle, or any other thing of or belonging to or on board such ship, and to detain such distress until the said light dues are paid; and if payment of the same is not made within the period of 3 days next ensuing such distress, he may, at any time during the continuance of such nonpayment, cause the same to be appraised by two sufficient persons or sworn appraisers, and thereupon sell the same, and apply the proceeds in payment of the light dues due, together with all reasonable expenses incurred by him under this section, paying the surplus (if any) on demand to the said owner or master.

Clause 402 regulates the mode in which light dues are to be paid over and accounted for.

Application of Light Dues.—All light dues coming to the hands of any of the said general lighthouse authorities under this act shall be carried to the account of the mercantile marine fund herein-after mentioned, and shall be dealt with in manner herein-after described.—§ 403.

Power to Lighthouse Authorities to erect and alter Lighthouses, Buoys, and Beacons.—Each of the said general lighthouse authorities shall have power, within its jurisdiction, to execute the following works and do the following things; (that is to say,)

(1.) To erect or place new lighthouses, with all requisite works, roads, and appurtenances, or alter or remove any existing lighthouses:

(2.) To erect or place any new buoys or beacons, or alter or remove any existing buoys or beacons:

(3.) To take and purchase any land which may be necessary for the above purposes, or for the maintenance of the works or the residence of the light keepers:

(4.) To vary the character of any lighthouse or the mode of exhibiting lights therein:

(5.) To sell any land belonging to it:

But the exercise of the above power shall, in the case of the said commissioners and corporation, be subject to the restrictions herein-after contained.—§ 404.

Clause 405 directs that the powers given by the foregoing clause shall, in the case of the commissioners and corporation, be subject to approval by Trinity House, with appeal to B. of Trade.

Clauses 406 to 409 relate to proceedings between commissioners, &c., and B. of Trade.

H. M. may by Order in Council fix Dues to be taken for new Lighthouses.—Upon the completion of any new lighthouse, buoy, or beacon, H. M. may by order in council fix such dues in respect thereof to be paid by the master or owner of every ship which passes the same or derives benefit therefrom, as H. M. may deem reasonable, and may from time to time alter the amount thereof; and such dues shall be paid and collected in the same manner, by the same means, and subject to the same conditions in, by, and subject to which the light dues authorised to be levied by this act are paid and collected.—§ 410.

No Dues to be levied in the Channel Islands without Consent of the States.—No dues for any lighthouse, buoy, or beacon to be erected or placed in or near the islands of Guernsey, Jersey, Sark, or Alderney shall be taken in the said islands of Guernsey or Jersey without the consent of the states of the said islands respectively; nor shall any powers herein-before given to the Trinity House in respect of any lighthouse, buoy, or beacon erected or placed in the islands of Guernsey or Jersey, or hereafter to be erected or placed in such islands, be exercised without the consent of H. M. in council.—§ 411.

Incorporation of 8 *&* 9 *Vict. cc.* 18 *&* 19.—The Lands Clauses Consolidation Act, 1845, and the Lands Clauses Consolidation Act (Scotland), 1845, shall be incorporated in this act, and shall apply to all lighthouses to be constructed and all land to be purchased under the powers thereof.—§ 412.

Clause 413 relates to the surrender of local lighthouses to general lighthouse authorities.

Penalty for injuring Lights, Buoys, and Beacons.—If any person wilfully or negligently commits any of the following offences, (that is to say,)

(1.) Injures any lighthouse or the lights exhibited therein, or any buoy or beacon;

(2.) Removes, alters, or destroys any light ship, buoy, or beacon;

(3.) Rides by, makes fast to, or runs foul of any light ship or buoy;

He shall, in addition to the expenses of making good any damage so occasioned, incur a penalty not exceeding 50*l.*—§ 414.

Lighthouse Authorities may prohibit false Lights.—Whenever any fire or light is burnt or exhibited at such place or in such manner as to be liable to be mistaken for a light proceeding from a lighthouse, it shall be lawful for the general lighthouse authority within whose jurisdiction such place is situate, to serve a notice upon the owner of the place where the fire or light is burnt or exhibited, or on the person having the charge of such fire or light, either personally or by delivery at the place of abode of such owner or person, or by affixing the same in some conspicuous spot near to such fire or light, and by such notice to direct such owner or person, within a reasonable time to be therein specified, to take effectual means for the extinguishing or effectually screening such existing light, and for preventing for the future any similar fire or light; and any owner or person disobeying such notice shall be deemed guilty of a common nuisance, and in addition to any other penalties or liabilities of any kind thereby incurred, shall incur a penalty not exceeding 100*l.*—§ 415.

If not obeyed they may abate such Lights.—If any owner or person served with such notice as aforesaid neglects for a period of 7 days to extinguish or effectually screen the fire or light therein mentioned, it shall be lawful for the general lighthouse authority within whose jurisdiction the same may be, by their servants or workmen, to enter upon the place whereon the same may be, and forthwith to extinguish such fire or light, doing no unnecessary damage; and all expenses incurred by such authority in such extinction may be recovered from such person or owner as aforesaid in the same way as penalties are hereby directed to be recoverable.—§ 416.

The next part of the act, that which refers to the MERCANTILE MARINE FUND, is so much mixed up with the law as to light-houses, that it may be appropriately introduced in this place.

Sums to be carried to Mercantile Marine Fund.—The following sums shall be carried to a common fund, to be entitled the "Mercantile Marine Fund," viz.:

(1.) All fees and other sums (other than fines and forfeitures) received by the B. of Trade under the provisions of the third and fourth parts of this Act:

(2.) All light dues or other sums received by or accruing to the Trinity House, the Commissioners of Northern Lighthouses, and the Port of Dublin Corporation:

(3.) All rates and annuities received by the Trinity House under the local Act of the 7 Vict. c. 57, for the regulation of lastage and ballastage in the river Thames:

(4.) All fees and other sums mentioned in the table annexed hereto, which are received by receivers appointed under this act, viz:

Fees and Remuneration of Receivers.—For every examination on oath instituted by a receiver with respect to any ship or boat which may be or may have been in distress, a fee not exceeding — — — £ s. d. 1 0 0

But so that in no case shall a larger fee than 2*l.* be charged for examinations taken in respect of the same ship and the same occurrence, whatever may be the number of the deponents.

For every report required to be sent by the receiver to the Secretary of the Committee for managing the affairs of Lloyd's in London, the sum of — — £ s. d. 0 10 0

For wreck taken by the receiver into his custody, a per-centage of 5 per cent upon the value thereof,

But so that in no case shall the whole amount of per-centage so payable exceed 20*l.*

In cases where any services are rendered by a receiver, in respect of any ship or boat in distress, not being wreck, or in respect of the cargo or other articles belonging thereto, the following fees instead of a per-centage, viz.:

If such ship or boat with her cargo equals or exceeds in value 600*l.*, the sum of 2*l.* for the first, and the sum of 1*l.* for every subsequent day during which the receiver is employed on such service, but if such ship or boat with her cargo is less in value than 600*l.*, one moiety of the above-mentioned sum.

and an account of the said fund, intituled "The Mercantile Marine Fund Account," shall be kept with her Majesty's Paymaster General.—§ 417.

Application of Mercantile Marine Fund.—Subject to any prior charges that may be subsisting thereon by virtue of any act or acts of parliament or otherwise, the said fund shall be chargeable with the following expenses, viz.:

(1.) The salaries and other expenses connected with the local marine boards, the examinations, and the shipping offices, provided for by the third part of this act:

(2.) The salaries of surveyors, and other expenses connected with the survey of passenger steam ships provided for by the fourth part of this act.

(3.) All expenses incurred by the general lighthouse authorities aforesaid in the works and services of lighthouses, buoys, and beacons provided for by this act, or in the execution of any works necessary or expedient for the purpose of permanently reducing the expense of such works and services.

(4.) All expenses incurred by the Trinity House in respect of lastage and ballastage in the river Thames.

(5.) Such expenses for establishing and maintaining on the coasts of the U. K. proper life-boats, with the necessary crews and equipments, and for affording assistance towards the preservation of life and property in cases of shipwreck and distress at sea, and for rewarding the preservation of life in such cases, as the B. of Trade directs.

(6.) Any expenses incurred in carrying into effect the provisions with regard to receivers and the performance of their duties contained in this act.

(7.) Any expenses which by this or any other act of parliament are specially charged thereon.

And shall, save as herein-after mentioned, be applicable to no other purpose whatever.—§ 418.

Clause 419. relates to ballast and ballastage rates. (See BALLAST.)

Establishments for Lighthouses and Ballastage charged on Fund to be fixed by H. M. in Council.—H. M. may from time to time, with the advice of Her Privy Council, fix the establishments to be maintained by each of the said general lighthouse authorities on account of the services of lighthouses, buoys and beacons, and also as regards the Trinity House, on account of the service of lastage and ballastage in the river Thames, or the annual or other sums to be paid out of the said fund, in respect of such establishments; and if it appear that any part of the establishments of the said lighthouse authorities is maintained for the purposes of such duties and also for other purposes, to fix and from time to time alter the portion of the expense of such establishments to be paid out of the said fund; and no increase of any establishment or part of an establishment so fixed shall be made without the consent of the B. of Trade.—§ 420.

Clause 421. gives power to the general lighthouse authorities to grant superannuation allowances.

Clause 422. directs that estimates of all expenses to be incurred by lighthouse authorities shall be prepared and laid before the B. of Trade.

No Expense to be allowed unless sanctioned by B. of Trade.—No expense of any of the said general lighthouse authorities in respect of the said services shall be paid out of the mercantile marine fund, or allowed in account, other than the sums so allowed for establishment expenses as aforesaid, or included in estimates or accounts approved by the B. of Trade.—§ 423.

For the Purpose of erecting and repairing Lighthouses, &c., Treasury may advance Money.—For the purpose of the construction and repair of lighthouses, and of other extraordinary expenses connected with the said services, the Treasury may from time to time, upon the application of B. of Trade, advance

out of the produce of the consolidated fund of the U. K. such sums of money, upon such terms, and at such rate of interest as they think fit, and to pay the same into the mercantile marine fund account, so nevertheless that the whole sum for the time being due in respect of such advances shall never at any one time exceed 200,000*l.*; and upon any advance so made the sum advanced and the interest shall be a charge on the mercantile marine fund, and upon the dues, rates, fees, and payments carried thereto as aforesaid; and the B. of Trade shall make such provision for the repayment thereof out of the said fund, either by forming a sinking fund or otherwise, as the Treasury may require; provided that no such advance shall prevent any lawful reduction of any of the said dues, rates, fees, or payments, if such reduction be assented to by the Treasury.—§ 424.

Clause 425. gives power to the B. of Trade to borrow money on the credit of the fund.

Clause 426. gives power to public works loan commissioners to advance money for such purposes on the credit of the fund.

Lighthouse Authorities to account for Receipt and Expenditure to B. of Trade.—Each of the said general lighthouse authorities shall account to the B. of Trade for their receipts from the said light dues and ballastage rates, and for their expenditure as regards expenses paid out of the said fund, in such form, and at such times, and with such details, explanations, and vouchers, as the B. of Trade requires, and shall, when required by such Board, permit all books of accounts kept by or under their respective direction to be inspected and examined by such persons as the said Board appoints for that purpose.—§ 427.

Clause 428 directs that the accounts of the mercantile marine fund be audited by commissioners of audit.

Clause 429. directs that the accounts of the fund be laid before parliament.

Clause 430. directs that all property used for the purposes of lighthouses, buoys, beacons, light dues, &c., is to be exempt from all rates and taxes.

Fees on account of Light-houses.—A wish to keep the charges on native ships as low as possible, and to insure them a preference, seems to have given rise to the practice that has long existed, of exacting comparatively high duties from the foreign shipping entering our ports. But whatever may have been the motives for making this distinction, its policy seems more than questionable. It is quite right that the foreign ships coming to our shores for commercial purposes should be made to pay the *same* light and harbour duties as British vessels; but the imposition of comparatively high duties on them is decidedly injurious, inasmuch as it provokes retaliatory measures on the part of other states, obstructs the resort of foreigners to our markets, and, consequently, checks the growth of commerce.

This system was very properly condemned in a report by a committee of the House of Commons, in 1822. There is, in the evidence annexed to that report, some well authenticated instances of foreign ships having been totally lost, from the disinclination of the captains to enter a British port, while it was in their power, on account of the heavy charges to which they would have been exposed for lights, &c. ! Down, indeed, to 1835, all ships, whether native or foreign, coming into any British port by *stress of weather*, were charged with full light duties; but this inhospitable regulation was repealed by an order in council of the 7th of February of that year issued at the recommendation of the Trinity House, which exempts such vessels from all charges on account of lights. Our whole policy as to light duties, port charges, &c. has, within these few years, been materially improved, and is now the very reverse of illiberal. It is true that the discriminating duties on foreign ships are still kept up: but in consequence of the general establishment of reciprocity treaties, the distinction has become nominal rather than real, and affects very few of the ships using our seas.

We are glad, also, to have to announce, that large deductions have been, at different times made from the light duties; and after being still farther augmented, these deductions were fixed by an Order in Council, of the 2nd February, 1859, at 50 per cent. on vessels making Oversea, and at 35 per cent. on those making Coasting voyages. It is, indeed, quite essential to their utility that these duties should be moderate. They have the same influence upon the intercourse carried on by sea, that tolls have upon that carried on by land; and it is needless to add, that oppressive tolls are amongst the most effectual of all the engines by which rapacious ignorance has contrived to injure a country.*

Charges on account of Collection, &c.—The lighthouse revenue is believed to be, at this moment, much greater than is necessary for keeping the establishment in a state of perfect efficiency. The surplus revenue has been, in so far at least as depends on the Trinity House, very judiciously expended in maintaining decayed seamen, and other useful purposes. But, considering the vast importance of low shipping charges, such persons should be provided for in some less onerous way, and the light duties further reduced. Instead of reducing the charges generally on all lights, it has been proposed to make some of the more important lights duty free, as by this means the expense of collection would be saved, and business materially facilitated. This, however, would in effect impose a proportionally heavy charge on the ships belonging to the less frequented ports; so that, on the whole, the general reduction of the rates, or their abolition, would seem to be the better plan.

Lighthouses erected by Private Parties.—Private individuals erecting lighthouses have generally obtained a lease of the same from the Crown for a definite number of years, with authority to charge certain fees on shipping. Owing to the great increase of navigation, some of these lighthouses became very valuable properties. The most valuable were—

The Skerries, on a small islet or rock, to the north-west of the Island of Anglesey, was granted to the ancestor of its late proprietor, to be *for ever* holden by him, his heirs and assignees, by the act 3 Geo. 2. c. 36., which also gave the proprietor power to charge certain rates on all vessels passing the light. Previously to its purchase by the Trinity House, this light produced a nett revenue of about 20,000*l.* a year.

Harwich Lights, were held by General Rebow, under lease from the Crown, for 22 years from the 5th of January, 1827, paying the Crown 3-5ths of the nett duty collected.

Dungeness Light, was held under lease from the Crown by the Earl of Leicester for 20 years from Midsummer, 1829. Nett produce of the duties equally divided between the Crown and the lessee. The duties were reduced at the renewal of the lease from 1*d.* to ½*d.* per ton; and it was provided, that at its termination the lighthouses and buildings connected therewith, and the ground on which they are erected, should become the property of the Crown.

Winterton ness and Orfordness Lights, were held by Lord Braybrooke under a lease from the Crown, which would have expired on the 1st of June, 1849. Nett produce of the duties equally divided between the Crown and his lordship. The duties were reduced at the last renewal of the lease in 1828, from 1*d.* to ½*d.* per ton. At the expiration of the lease, the lighthouses, grounds, &c. were to become the property of the Crown.

Hunstanton Cliff Light, was held by S. Lane, Esq., under a lease from the Crown, which would have expired in 1849. From the 16th of October, 1837, 4-15th parts of the nett produce would have gone to the Crown; and the lighthouses, &c. would have become, at the expiration of the lease, the property of the Crown, as in the case of the Dungeness and Winterton lights.

* There is nothing new in this statement:—"*Avara manus portus claudit; et cum digitos contrahit, navium simul vela concludit; meritò enim illa mercatores cuncti refugiunt quæ sibi dispendia esse cognoscunt.*"—(*Cassiodorus*, lib. vii. cap. varia, 9.)

Account of the Lighthouses and Floating Lights under the Management of the Corporation of the Trinity House of Deptford Strond, the Commissioners of Northern Lighthouses and the Port of Dublin Corporation, specifying the Rates of Toll charged on British and Foreign Ships passing such Lights; with the gross Amount of Duties collected on account of such Lights during 1857.

Lights, &c.	Oversea. Rate per Ton. 16ths of a 1d. British and Foreign Privileged Vessels.	Coasting. Rate per Ton. 16ths of a 1d. Per Ton.	Per Vessel.
East Coast.			
Shetland to Thames Entrance.			
North Unst - - 1 lighthouse	16	2	
Whalsey - - ditto	16	2	
Bressay Sound - ditto	8	1	
Sumburgh Head - ditto	8	1	
North Ronaldshay - ditto	8	1	
Start Point - - ditto	8	1	
Pentland Skerries - 2 lighthouses	8	1	
Noss Head - - 1 lighthouse	8	1	
Tarbetness - - ditto	8	1	
Covesea Skerries - ditto	8	1	
Kinnairds Head - ditto	8	1	
Buchanness - - ditto	8	1	
Girdleness - - a double light	8	1	
Bell Rock - - 1 lighthouse	16	2	
Isle of May - - ditto	8	1	
Inchkeith - - ditto	8	1	
Fern - - - 5 lighthouses	4	2	
Tinmouth - - 1 lighthouse	2	1	
Whitby - - 2 lighthouses	3	1	
Flambro' - - 1 lighthouse	4	1	
Spurn Shore - - 2 lighthouses	8	1	
Dudgeon - - 1 floating light	4	1	
Foulness - - 1 lighthouse	4	1	
Lennan and Ower - 1 floating light	8		
Haisbro' Sand (N. end) ditto	4	1	
Winterton and Orford 3 lighthouses	8	3	
Haisbro' and Newarp 2 lighthouses and 1 floating light	4	2	
Cockle Gatt - - 1 floating light	2	1	
St. Nicholas Gatt - ditto	2	1	
Ditto Buoys - - - -	2	2	
Lowestoft - - 3 lighthouses and 1 floating light.	4	2	
N. E. Shipwash - 1 floating light	2	1	
Harwich - - 2 lighthouses	4	1	
Cork - - - 1 floating light	2	1	
Sunk and Galloper - 2 floating lights and buoys.	8	2	
Kentish Knock - 1 floating light	4	1	
English Channel.			
Forelands - - 3 lighthouses	4	2	
Goodwin and Gull 2 floating lights Stream	8	-	6
South Sand Head - 1 floating light	4	1	
Dungeness - - 1 lighthouse	4	1	
Beachy Head - ditto	4	-	6
Owers - - 1 floating light	8	-	6
Needles - - 1 lighthouse, 2 lighthouses at Hurst; 1 lighthouse at St. Katherine's Point.	8	-	6
Portland - - 2 lighthouses	4	-	6
Casketts - - 3 ditto	4	-	6
Start - - - 1 lighthouse	4	-	6
Eddystone and Breakwater - 2 lighthouses	8	-	6
Lizard - - ditto	4	-	6
Longships - - 1 lighthouse	8	1	
Scilly - - - ditto	4	-	6
Seven Stones - 1 floating light	4	1	
Atlantic, Bristol, and St. George's Channels, Irish Sea, &c.			
Trevose - - 1 lighthouse	4	1	
Lundy - - ditto	4	1	
Helwicks - - 1 floating light	2	1	
Nash - - - 2 lighthouses	4	1	
Flatholm - - 1 lighthouse	4	1	or 6
Bristol Channel - buoys, beacons, 1 floating light, and 1 lighthouse.	4 or 2	2 or 4	
Milford - - 2 lighthouses	4	-	6
Smalls - - 1 lighthouse	16	1	
Hook Tower - - 1 ditto	3	1	
Coningbeg - - 1 floating light	3	1	
South Bishop - 1 lighthouse	-	1	

Lights, &c.	Oversea. Rate per Ton. 16ths of a 1d. British and Foreign Privileged Vessels.	Coasting. Rate per Ton. 16ths of a 1d. Per Ton.	Per Vessel.
Atlantic, &c., *continued*.			
Tuskar Rock - 1 lighthouse	3	1	
Blackwater - ditto	3	1	
Bardsey - ditto	4	1	
Arklow Bank - 1 floating light	3	1	
Wicklow, Lower - 1 lighthouse	3	1	
Wicklow, Upper - ditto	3	1	
Kish Bank - 1 floating light	3	1	
Howth Bailey - 1 lighthouse	3	1	
South Stack - - ditto	4	1	
Skerries - - ditto	16	1	
Balbriggan - - ditto	3	1	
Calf of Man, (I. of Man) 2 lighthouses	8	1	
Carlingford - - 1 lighthouse	3	1	
St. John's Point - ditto	3	1	
South Rock - - ditto	3	1	
Bahama Bank - 1 floating light	2	1	
Point of Ayr, (I. of Man) 1 lighthouse	8	1	
Little Ross - ditto	8	1	
Mull of Galloway - ditto	8	1	
Copeland Island - ditto	3	1	
Maiden Rocks, S. - ditto	3	1	
Maiden Rocks, N. - ditto	3	1	
Corsewall - - ditto	8	1	
Scuda - - ditto	8	1	
Pladda - - 2 lighthouses	8	1	
Mull of Kintyre - 1 lighthouse	8	1	
Rathlin Island - ditto	3	1	
Innishtrahul - - ditto	3	1	
Rhinns of Islay - ditto	8	1	
Rhu Vaal - - ditto	8	1	
Lismore - - ditto	8	1	
Skerryvore - - ditto	16	2	
Sound of Mull - ditto	8	1	
Ardnamurchan - ditto	8	1	
Barrahead - - ditto	8	1	
Isle Oransay - - ditto	8	1	
Uchertish - - ditto	8	1	
Kyleakin - - ditto	8	1	
Rona - - - ditto	8	1	
Island Glass - - ditto	8	1	
Stornoway - - ditto	8	1	
Cape Wrath - - ditto	8	1	
Dunnethead - - ditto	8	1	
Cantickhead - - ditto	8	1	
Hoy Sound - - 2 lighthouses	8	1	
S. and W. Coast of Ireland.			
Minehead - - 1 lighthouse	3	1	
Ballycotton - - ditto	3	1	
Cork - - - ditto	3	1	
Old Head, Kinsale - ditto	3	1	
Fastnet Rock - ditto	3	1	
Skelligs Rock, Lower - ditto	3	1	
Skelligs Rock, Upper - ditto	3	1	
Loophead - - ditto	3	1	
Arran Islands - 2 lighthouses	3	1	
Slyne Head, South - 1 lighthouse	3	1	
Slyne Head, North - ditto	3	1	
Clare Island - - ditto	3	1	
Eagle Island, South - ditto	3	1	
Eagle Island, North - ditto	3	1	
Rathlin O'Birne - ditto	3	1	
Tory Island - - ditto	3	1	
Fannet Point - ditto	3	1	
Lights, the duties for which are payable only for special voyages.			
Coquet - - 1 lighthouse	8	4 or 1	
Spurn Floating - 1 floating light	4	1	
Heligoland - - 1 lighthouse	16		
Gunfleet - - 1 floating light	2	1	
Swin Middle - - ditto	2	1	
Maplin - - 1 lighthouse	2	1	
Mouse - - 1 floating light	2	1	
Tongue - - ditto	2	1	
Girdler - - ditto	2	1	
Gibraltar - - 1 lighthouse	1*s.* per vessel		

Gross amount collected in 1857, 311,551*l.* 4*s.* 11*d.*

The Smalls lighthouse in St. George's Channel belonged originally to the Trinity Corporation; but having been leased by that body to private individuals, it became, in consequence of the great increase of navigation, a most valuable property. In proof of this it is only necessary to state that the Trinity House having, in 1822, proposed to purchase the reversion of the lease, which had then 54 years to run, the lessees demanded for it no less than 148,430*l.* The Trinity House subsequently effected the purchase; but, owing to the increase of commerce in the interim, they had to pay a larger sum, notwithstanding the diminished length of the lease!

Local Duties.

Lights, &c.	Oversea. British and Foreign Privileged.	Coasting. British and Foreign Privileged.
Cromarty. 1 Lighthouse. On all vessels arriving at or departing from any port or place in the Firth of Cromarty, within the Sutors of Cromarty, of and under 50 tons.	6d. per vessel.	
And for every additional 50 tons or part of 50 tons.	6d. —	
Chanonry. 1 Lighthouse. On all vessels which shall pass or derive benefit from the said light, of and under 50 tons.	6d. —	
And for every additional 50 tons or part of 50 tons - - - -	6d. —	
Carr Rock Beacon, and Isle of May Leading light. On all vessels for each time of crossing a line drawn from Buttonness to Fifeness; and on all vessels—to or from the Northward—for each time of crossing a line drawn from Fifeness to Whiteberryness, under 100 tons.	4d. —	
Of 100 and under 200 tons - - - - - - -	6d. —	
Of 200 tons and upwards - - - - - - -	8d. —	
But vessels may cross both of these lines on the same voyage for one payment.		
Loch Ryan. 1 Lighthouse. On all vessels arriving at or departing from any port or place within Loch Ryan, of and under 50 tons	6d. —	
And for every additional 50 tons or part of 50 tons - - - -	6d. —	
Devaar. 1 Lighthouse. On all vessels arriving at or departing from any port or place in the Bay of Campbeltown, of and under 50 tons.	6d. —	
And for every additional 50 tons or part of 50 tons.	6d. —	
There shall also be paid for the said lights in Loch Ryan and on Devaar, by every vessel of and under 50 tons that shall pass into or out of the great basin of the Clyde (which shall be considered to be bounded on the S.E. by a line drawn from Corsewall to Glenarm in Ireland, on the N. W. by another line drawn from the Mull of Kintyre to Fairhead in Ireland, and on the N. by a third line from Kintyre to the Heads of Air) a toll—being 3d. for each light—of.	6d. —	
And for every additional 50 tons or part of 50 tons - - - -	6d. —	
But vessels liable to the first toll for either of these lights are not chargeable with this in addition.		
Tees Buoys. On all vessels *passing* the buoys to or from the ports of Newcastle, Shields, Sunderland, Hartlepool, Stockton, or Whitby, under 40 tons, for each time of passing.	1d. —	
Of 40 tons and upwards, for each time of passing - - - - -	6d. —	
Lynn Well. Floating Light. On all vessels trading to or from the ports of Lynn or Wisbeach, or to or from the port of Boston if navigated to the southward of the Longsand, also on all vessels entering or departing from Lynn Deeps southward of the Longsand.	1d. per ton.	
Hunstanton. 1 Lighthouse. On all vessels passing to or from the ports of Lynn, Wisbeach, or Wells; or to or from the port of Boston southward.	1d. per 20 tons, or 1d. per 5 tons.	
Woodbridge Buoys. On all vessels *entering* the port of Woodbridge under 50 tons.	1s. per vessel.	
Of 50 and under 100 tons - - - - - -	2s. —	
„ 100 tons and upwards - - - - - -	3s. —	
Trinity Duties. Buoyage and Beaconage. On all vessels *entering* the port of London. (On coasting vessels, the duty is levied on those conveying goods or passengers from any port beyond Leigh or Faversham.)	1d. per ton.	8-16ths*d.* per ton.
Wholly laden with coals - - - - - - - -	- - -	4-16ths*d.* —
On all vessels *entering* the ports of Sheerness, Rochester, Faversham, Leigh, Maldon, Colchester, Harwich, Ipswich, Woodbridge, or Aldbro'.	8-16ths*d.* per ton.	4-16ths*d.* —
Nore. Floating light. On all vessels *passing* the light *on their upward passage only*, under 100 tons.	1s. per vessel.	1s. per vessel.
Of 100 and under 200 tons - - - - -	2s. —	2s. —
„ 200 „ 300 „ - - - - -	3s. —	3s. —
„ 300 „ 400 „ - - - - -	4s. —	4s. —
„ 400 „ 500 „ - - - - -	5s. —	5s. —
„ 500 tons and upwards - - - - -	6s. —	6s. —
Thames River. Sea Reach lights. On all vessels, *on their upward passages only*, passing by or through Sea Reach, of 50 and under 100 tons.	6d. —	6d. —
Of 100 „ 200 „ - - - -	1s. —	1s. —
„ 200 „ 300 „ - - - -	1s. 6d. —	1s. 6d. —
„ 300 „ 400 „ - - - -	2s. —	2s. —
„ 400 „ 500 „ - - - -	2s. 6d. —	2s. 6d. —
„ 500 tons and upwards - - - -	3s. —	3s. —
Calshot Spit. Floating light. On all vessels entering or departing from Southampton Water.	8-16ths*d.* per ton.	
Exeter Buoys. On all vessels navigating to or from the river Exe, per voyage -	8-16ths*d.* —	
St. Anthony's Point. 1 Lighthouse. On all vessels trading to or from the ports of Falmouth, Truro, or Gweek.	8-16ths*d.* —	
On all vessels entering the said ports, for other purpose than that of trading, for each time of passing the light.	4-16ths*d.* —	
Bideford Bar. 2 Lighthouses. On all vessels *entering* the harbours of Bideford or Barnstaple, or any place within the bar.	1d. 8-16ths*d.* —	
Caldy. 1 Lighthouse. On all vessels entering into, or going out of any port or place between Worms Head and St. Gowan's Head.	8-16ths*d.* —	
Carmarthen Buoys. On all vessels entering or departing from the port of Carmarthen, or any place within the bar.	12-16ths*d.* —	
Usk. 1 Lighthouse. On all vessels trading to or from the port of Newport, or any place within the mouth of the river Usk.	4-16ths*d.* —	
Burnham. 2 Lighthouses. On all vessels *entering* Bridgwater River - -	5s. per vessel.	
On all vessels entering or departing from the port of Bristol, under 100 tons -	3s. —	
Of 100 and under 250 tons - - - - - -	5s. —	
„ 250 tons and upwards - - - - - -	7s. 6d. —	
Aberdovey Buoys. On all vessels crossing the bar at the entrance of the river Dovey	1d. per ton.	
Conway Buoys. On all vessels entering or departing from the port of Conway -	12-16ths*d.* —	
Menai. 1 Lighthouse. On all vessels passing through the Straits of Menai, or entering or departing therefrom at the N. E. entrance thereof, or entering or departing from Beaumaris Bay, or any port, harbour, roadstead, creek, or place, between the N.E. entrance of the said Straits and Black Point on the West side, and Great Ormes Head on the east side, for each time of passing or crossing the said lighthouse or light in any direction.	8-16ths*d.* —	
On all vessels from or to the ports of Liverpool or Chester, or any port, harbour, roadstead, creek, or place, between Liverpool and Great Ormes Head, and navigating to or from the westward between the Isle of Anglesea and the Isle of Man,—for each time of passing or crossing the said lighthouse or light, in any direction.	6d. per vessel.	
On all such vessels, so navigating, which, though not destined to any such port or place, shall enter into, or depart from Beaumaris Bay, for each time of passing or crossing the said lighthouse or light, in any direction, the like sum of.	6d. —	
Air. 1 Lighthouse and Dee Buoys. On all vessels passing over Chester Bar, or between the S.W. part of Hoyle Sands, and the mainland on the coast of Wales.	2d. per ton.	
St. Bees. 1 Lighthouse. On all vessels passing to or from the ports of Whitehaven, Parton, Workington, or Maryport, per annum.	2d. —	

The following Duties for the Irish Local Lights are payable only on entering or departing from the Places which are set against their Names :—

Lights.	Places.	Oversea. British and Foreign Privileged.	Coasting. British and Foreign Priv.
		per ton. d. 16ths.	per ton. d. 16ths.
Crookhaven - -	Crookhaven -	— 3	— 1
Charlesfort - -	Kinsale - -	— 3	— 1
Cork Spit Bank -	Cork, Queenstown	— 3	— 1
Youghal - -	Youghal - -	— 3	— 1
Dungarvan - -	Dungarvan -	— 3	— 1
Duncannon Fort -	Waterford, Ross -	— 3	— 1
Duncannon, North -	Waterford, Ross -	— 3	— 1
King-town, 2 lights (one only charged) -	Kingstown Harbour.	— 3	— 1
Poolbeg (no charge) -	Dublin.		
Howth Pier (no charge)			
Drogheda, 3 lights -	Drogheda - -	— 9	— 3
Dundalk - -	Dundalk - -	— 3	— 1
Gremore Point -	Newry, Carlingford	— 3	— 1
Ardglass - -	Ardglass - -	— 3	— 1
Donaghadee (no charge)			
Larne Lough - -	Larne - -	— 3	— 1
Innishowen Head, 2 lights.	Londonderry -	— 6	— 2
Rotten Island -	Killybegs - -	— 3	— 1
Killybegs - -	Killybegs, Donegal, Ballyshannon	— 3	— 1
Oyster Island, 2 lights	Sligo - -	— 6	— 2
Black Rock - -	Sligo - -	— 3	— 1
Broadhaven - -	Broadhaven -	— 3	— 1
Inishgort Island -	Westport, Newport -	— 3	— 1
Mutton Island -	Galway - -	— 3	— 1
Arran Islands -	Galway - -	— 6	— 2
Beeves Rock -	Limerick, Clare -	— 3	— 1
Tarbert Rock -	Limerick, Clare -	— 3	— 1
Kilkadraan - -	Limerick, Clare, Kilrush.	— 3	— 1
Samphire Island -	Tralee - -	— 3	— 1
Dunmore (no charge)			
Valentia Island -	Valentia Harbour.	— 3	— 1
Berehaven - -	Berehaven, Bantry.	— 3	— 1

Abatement.—Until Her Majesty, with the advice of Her Privy Council, may see fit otherwise to determine, there shall be allowed to every person paying such tolls (being those specified in the foregoing tables) an abatement or discount upon the amount payable by him; which abatement or discount shall, in the case of every Oversea vessel, be 50 per cent.; and on every Coasting vessel 35 per cent.

The Scotch or Northern Lights are under the management of a set of parliamentary commissioners. The act 6 & 7 Will. 4. c. 79. s. 40. enacts, that from the 1st of January, 1837, all British and foreign privileged vessels, not wholly in ballast, which shall pass any Scotch lighthouse, or derive any benefit therefrom, shall pay ¼d. per ton for each time of passing every such lighthouse, except that on the Bell Rock, for which they are to pay 1d. per ton each time of passing. Foreign vessels, not privileged, pay double these rates.

Irish Lights.— The rates of charge are as follows :—

Foreign vessels, ½d. per ton for each light passed; except harbour lights, which are only chargeable to vessels entering the ports within which they are situated.

British and Irish, ¼d. per ton (½d. if in ballast), for each light, except as above.

With a duty of 2s. on every entry, cocket, or warrant, when from foreign ports, but not otherwise.

Compensation to Private Parties.— The authority acquired by certain individuals and public bodies under letters patent, acts of parliament, and otherwise, of levying certain duties on account of lights, beacons, pilotage, harbour dues, &c. entitled them, for the most part, to demand higher fees from foreign than from British shipping. When, therefore, we entered into reciprocity treaties with foreign powers, government had to compensate the parties in question for the diminution that consequently took place in their charges on foreign ships. But this payment has now ceased, the Trinity Corporation having long since relinquished their claim to compensation; and the act 6 & 7 Will. 4. c. 79. having forbid such compensation being made to them, the Commissioners of Northern Lights, and the commissioners for *managing* the Irish lights.—(For some account of the Trinity Corporation, the reader is referred to that article; and for accounts of the charges on account of Beaconage, Ballastage, Pilotage, &c. see these titles.)

The following account of the British and Irish Light-Houses and Floating Lights has been taken from the official statement published by the Admiralty, corrected to 1858.

I. English Light-Houses. 1858.

Those marked * are what are called first-class lights.

Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl. Int., Alt. Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light house.	Height in Feet Centre of Lantern bove High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
		° ′ ″	° ′ ″								
Scilly Isles. Bishop Rock.*	On the Rock.	49 52 50	6 27 20	1	Fixed.	- -	14	- -	110	- -	1858
Scilly Isles. St. Agnes.*	Summit of the Island.	49 53 37	6 20 39	1	Revolving.	Every minute.	16	White.	158	68	1680
Seven Stones, Light-Vessel.	E. side of the rocks. Moored in 40 fathoms.	50 3 10	6 5 20	2	Fixed.	- -	10	Red; carries a ball at each mast head.	F. 20 M. 38	- -	1841
Longships.*	On the highest rock, off Land's End.	50 4 4	5 44 44	1	Fixed.	- -	14	White.	79	49	1795
Penzance.	S. Pier Head, outer part. E. extension.	50 7 0	5 31 0	1	Fixed.	- -	9	White.	33	22	1817 Improved 1855
Lizard.*	On the Cliff.	49 57 40 Western	5 12 6 Light.	2	Fixed.	- -	20	White.	E. 229 W. 232	Both 58	1751
Falmouth.	St. Anthony Point.	50 8 0	5 1 0	1	Revolving.	Every 20 seconds.	12	White.	72	60	1835
Eddystone.*	On the Rock.	50 10 4	4 15 33	1	Fixed.	- -	13	Red and white in alternate horizontal bands	72	85	1759
Plymouth.	On the W. end of Breakwater.	50 20 0	4 9 12	2	Fixed.	- -	9	Stone.	63 48	74	1844
Plymouth.	W. Barbican Pier Head.	50 22 0	4 7 0	1	Fixed.	- -	6	Gas.	29	20	1822
Start Point.*	140 yards inside of the S. E. extreme of the Point.	50 13 2	3 37 43	1	Fixed and flashing.	Every minute.	19	White.	204	90	1836
Dartmouth.	W. side of entrance.	50 20 0	3 33 0	1	Fixed.	- -	10	- -	80	40	1837 Rebuilt
Torbay. Brixham.	Pier Head, 600 or 700 feet from the land.	50 24 0	3 30 0	1	Fixed.	- -	6	On an iron stand.	20	- -	1857 1859
Torbay. Torquay.	Pier Head.	50 27 30	3 31 0	1	Fixed.	- -	5	Ditto.	15	- -	1852
Teignmouth.	S. W. end of the Denn.	50 33 0	3 28 0	2	Fixed.	- -	6	Limestone tower.	34	37	1845

English Light-Houses—*continued.*

Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-House.	Height in Feet, centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
		° ′ ″	° ′ ″								
Lyme Regis.	Inner Pier Head and Custom House.	50 43 30	2 55 52	2	Fixed.	- -	4	Iron stand. Lamp on pier, lamp on Custom House.	11 21	- - - -	1853
Portland.*	Near the Bill.	50 31 22	2 26 49	2	Fixed.	- -	19 16	White. White.	222 145	35 79	1716 1789
	On the Breakwater at the extremity of Stage.	- -	- -	1	Fixed.	- -	8	- -	30	- -	1851
Weymouth.	S. Pier Head.	50 37 0	2 26 0	1	Fixed.	- -	about 2	- -	23	- -	1853
Casquets.*	Highest of the rocks.	49 43 22	2 22 29	3	Revolving.	Every 20 seconds.	15	White.	113 each	One 45; the others 68	1723
Guernsey.	St. Pierre, Pier Head, S. side of entrance.	49 27 0	2 33 0	1	Fixed.	- -	11	White.	40	30	1832
	Hanois, or Hanoveaux Rocks.	49 25 50	2 43 20	1							
	Verclut Breakwater, St. Catherine's Bay. Outer End.	49 13 18	2 1 12	1	Fixe .	- -	7 to 10	Octagonal iron white.	60	30	1857
Jersey.	Gorey Pier Head.	- -	- -	1	Fixed.						
	St. Helier, N. or Albert Pier.	49 10 36	2 7 15	1	Fixed.	- -	2	Iron lamp post.	16	- -	1839
	St. Helier, Old N. Pier.	49 10 33	2 7 18	1	Fixed.	- -	2	Ditto.	29		
Poole.	N. side of entrance.	50 41 0	1 56 0	2	Fixed.	- -	6	Lamp posts.	37 16	- -	1848
Needles Channel * Isle of Wight.*	On the Needles Point.	50 39 53	1 33 55	1	Fixed.	- -	12	White.	479	36	1716
	Outer Needle Rock.	- -	- -	-	- -	- -	- -	- -	- -	- -	1858
Hurst.	On the Beach of Hurst Point.	50 42 26	1 32 56	2	Fixed.	- -	12 9	Red.	76 29	82 53	1812 1786
Calshot, light-vessel.	Off Calshot Castle. Moored in 3½ fathoms.	50 48 0	1 16 0	1	Revolving.	Every minute.	9	Red; carries a ball.	31	- -	1842
Southampton.	Royal Pier.	50 54 0	1 24 0	2	Fixed.	- -	- -	- -	- -	- -	1841
Ryde.	On the Pier.	- -	- -	1	Fixed.	- -	12	Lamp post.	21	- -	1852
Southsea.	In the Castle.	50 47 0	1 5 0	1	Fixed.	- -	9	- -	51	- -	1822
Warner, light-vessel.	On the eastern part of the Shoal. Moored in 13 fathoms.	50 45 50	1 4 0	1	Revolving.	Every minute.	8	Red; carries a ball.	38	- -	1854
Bembridge, or Nab, light-vessel.	Off the Point near the Nab Rock. Moored in 5 fathoms.	50 41 40	1 1 40	2	Fixed.	- -	8 6	Red; carries a ball at each mast head.	Main 38 Fore 28	- -	1812
St. Catherine, Isle of Wight.	On the Point.	50 34 30	1 18 6	1	Fixed.	- -	18	Stone.	178	118	1840
Owers, light-vessel.	S. E. end of the Shoals. Moored in 19 fathoms.	50 30 42	0 40 0	1	Fixed.	- -	10	Red; carries a ball.	38	- -	1788
Littlehampton.	N. end of E. Pier.	50 48 0	0 32 0	1	Fixed.	- -	7	- -	30	30	1848
Shoreham.	Opposite the entrance of harbour.	50 50 0	0 15 0	2	Fixed.	- -	10	White greystone.	42 23	38 5	1825
Brighton.	Chain Pier Head.	50 50 0	0 8 0	1	Fixed.	- -	10	- -	35	22	1824
Newhaven.	West Pier.	47 0	0 4 0	2	Fixed.	- -	8 7	- - - -	28 17		
Beachy Head.*	Belletout Cliff.	50 44 0	0 13 0	1	Revolving.	Every 2 minutes.	22	White.	285	45	1828
Eastbourne.	- - -	50 45 0	0 17 0	1	Fixed.	- -	2	A small hand lantern.	10		
Hastings.	Upper light in the Town; lower on the Beach.	50 52 0	0 36 0	2	Fixed.	- -	7 4	- - - Octagonal.	60 30	Lower 25	
Rye.	Camber. N. side of entrance.	50 57 0	0 44 0	2	Fixed	- -	4 3	White.	26 16	20 10	
Dungeness.*	Extreme Point.	50 54 59	0 58 0	1	Fixed.	- -	14	Red.	92	103	1792
Folkestone.	S. Pier Head.	51 5 0	1 11 0	1	Fixed.	- -	6	White.	36	26	1848
	Cheeseman Head, outer extremity of W. Pier.	- -	- -	1	Fixed.	- -	2	- -	- -	- -	1849
Dover.	S. Pier.	51 7 0	1 19 0	1 2	Fixed. Fixed.	- - - -	12	White.	60	12	1852
	N. Pier.	- -	- -	1	Fixed.	- -	5	- -	12	- -	1842
	Near Clock Tower.	- -	- -	1	Fixed.	- -	- -	- -	- -	- -	1852
South Foreland.*	On the Head.	51 8 26	1 22 22	2	Fixed.	- -	25 22	White.	372 275	69 49	1793 1795 improved 1842
Goodwin Sand.* S. Sand Head, light-vessel.	Off S. end of the Sand. Moored in 13 fathoms.	51 10 0	1 28 0	1	Fixed.	- -	10	Red; carries a ball.	38	- -	1832
Gull Stream, light-vessel.	Near W. edge of the Sand. Moored in 8½ fathoms.	51 17 0	1 30 0	2	Fixed.	- -	7	Red; carries a ball at each mast head.	14	- -	1809
N. Sand Head, light-vessel.	Off N. end of the Sand. Moored in 9 fathoms.	51 19 0	1 35 0	3	Fixed.	- -	10	Red; carries a ball at each mast head.	Fore 28 Main 42 Mizen 28	- -	1793
Ramsgate.	W. Pier Head.	51 20 0	1 26 0	1	Fixed.	- -	6	Granite.	37		
River Thames North Foreland.*	On the Head.	51 22 29	1 26 47	1	Fixed.	- -	18	White.	184	70	1790
Margate.	W. end of the Pier.	51 24 0	1 23 0	1	Fixed.	- -	10	Octagonal. Stone column.	85	70	1829

English Light-Houses—*continued.*

Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-House.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane	Year lighted.
Mouth of and River Thames.		° ′ ″	° ′ ″								
	E. Tongue Sand. Moored in 10 fathoms.	51 29 0	1 19 0	2	Fixed.	- -	10	Red; carries a ball.	58 14	- -	1848
Princes Channel, light-vessels.	N. side of the Channel between the Tongue and Girdler Lights.	- -	- -	1	Revolving.	- -	- -	- -	- -	- -	1856
	W. Girdler Sand. Moored in 5½ fathoms.	51 29 0	1 7 0	1	Revolving.	Every ½ minute.	10	Red; carries a ball.	58	- -	1848
Nore, light-vessel.	E. end of the Sand. Moored in 3 fathoms.	51 29 0	0 48 0	1	Revolving.	Every ½ minute.	10	Red; carries a ball.	38	- -	1734
Sea Reach.	Southend Pier Head.	- -	- -	1	Fixed.	- -	- -	- -	- -	- -	1840
	Chapman Head.	- -	- -	1	Fixed.	- -	10	Red; on piles.	40	- -	1849
	Mucking Flat.	- -	- -	1	Fixed.	- -	10	White; on piles.	40	53	1849
Hope Point.	In the Fort on a Flagstaff.	- -	- -	1	Fixed.	- -	- -	Lamp.	- -	- -	1852
Mouse, light-vessel.	On W. end of the Sand. Moored in 4½ fathoms.	51 32 0	1 0 0	1	Fixed.	- -	10	Red; carries a ball.	58	- -	1838
Maplin.	S.E. part of Sand.	31 35 0	1 3 0	1	Fixed.	- -	10	Red; on screw piles.	36	- -	1841
Swin, Middle, light-vessel.	W. end of the Sand. Moored in 4 fathoms.	51 39 0	1 7 0	1	Revolving.	Every minute.	10	Red; carries a ball.	58	- -	1837
Gunfleet.	S. E. part of Sand.	51 45 50	1 20 0	1	Revolving.	Every 30 seconds.	10	Red; on piles of six sides.	41	- -	1856
Sunk, light-vessel.	Fairway of E. Swin. Moored in 11 fathoms.	51 46 40	1 28 0	1	Fixed.	- -	10	Red; carries a ball.	57	- -	1802
Kentish Knock light-vessel.	E. side of the Sand. Moored in 12 fathoms.	51 40 50	1 40 50	1	Revolving.	Every minute.	10	Red; carries 2 balls vertical.	57	- -	1840
Galloper, light-vessel.	S. W. part of the Shoal. Moored in 19 fathoms.	51 45 0	1 56 0	2	Fixed.	- -	10	Red; carries a ball at each mast head.	36 each	- -	1803
Harwich.	At entrance of the Harbour S. of the Town.	51 56 39	1 17 23	2	Fixed.	- -	12 9	White. White.	69 25	80 37	1818
	From one of the Barracks in Landguard Fort.	51 56 15	1 19 0	1	Fixed.	- -	- -	- -	- -	- -	1848
Cork, light vessel.	Near the Cork Ledge. Moored in 4 fathoms.	51 56 0	1 23 0	1	Revolving.	Every half minute.	10	Red; carries a ball.	58	- -	1844
Shipwash, light vessel.	Off N.E. end of the Sand. Moored in 9½ fathoms.	52 1 30	1 38 0	1	Fixed.	- -	10	Red; carries a ball.	58	- -	1837
Orfordness.*	On the Ness.	52 5 0 High Light.	1 34 30	2	Fixed.	- -	12 each	Red. Red.	85 63	87 68	1792
Pakefield.	S. part of Cliff.	52 26 0	1 44 0	1	Fixed.	- -	9	White.	68	33	1832
Lowestoft.*	On each Pier of Harbour.	- -	- -	2	Fixed.	- -	- -	- -	- -	- -	1847
	High Light is on the Cliff. Lower on the Beach.	52 29 10 High Light.	1 45 30	2	Fixed.	- -	18 10	White. White.	119 45	52 45	1609 rebuilt 1676
Stanford, light vessel.	Towards in Mid Channel near N. end of Newcome Sand, off Lowestoft. Moored in 6 fathoms.	52 29 0	1 47 10	2	Fixed.	- -	9	Red; carries a ball at each mast head.	23	- -	1802
Nicholas Gat, light vessel.	N. end of Kettle Bottom Sand. Moored in 6 fathoms.	52 35 30	1 47 0	2	Fixed.	- -	10 4	Red; carries a ball.	40 12	- - - -	1837 1856
Yarmouth. Cockle, light vessel.	S. Pier at Gorleston N. entrance, Eastern side. Moored in 6½ fathoms.	52 34 25 52 41 30	1 44 20 1 47 0	1 1	Fixed. Revolving.	- - Every minute.	2 10	- - Red; carries a ball.	- - 36	- - - -	1852 1841
Winterton.*	On the Point.	52 43 0	1 41 30	1	Fixed.	- -	14	Red.	- -	59	1790
Newarp, light vessel.	Near N. end of the Sand. Moored in 19 fathoms.	52 45 0	1 53 0	3	Fixed.	- -	10	Red; carries a ball at each mast head.	Main 36; the others 22.	- -	1791
Hasborough.*	S.S.E. of Hasborough Church.	52 49 0	1 32 0	2	Fixed.	- -	18 15	White. - -	137 100	93 72	1791
Hasborough, light vessel.	Near N. end of Sand. Moored in 15 fathoms.	52 58 0	1 36 0	2	Fixed.	- -	10	Red; carries a ball at each mast head.	38	- -	1832
Leman and Ower, light vessel.	Between Leman and Ower Sands. Moored in 16 fathoms.	53 8 30	2 1 30	2	High Revolving. Low Fixed.	Every minute.	10	Red; carries a ball at each mast head.	38 27	- -	1840
Cromer.*	Near the Cliff.	52 56 0	EAST. 1 19 0	1	Revolving.	Every minute.	22	White.	274	61	1719 rebuilt 1840
Hunstanton.*	On the Point.	52 56 54	0 29 50	1	Fixed.	- -	13	White.	109	61	1677 rebuilt 1840

English Light-Houses—*continued.*

	Name of Light.	Place.	N. Latitude.	E. Longitude.	Number of Lights.	Fixed Flashing, Fix. & Fl., Int., Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-house.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
			° ′ ″	° ′ ″								
	Lynn Well, light vessel.	Off the Hook of the Long Sand, Lynn Deeps. Moored in 27 fathoms.	53 1 40	0 25 0	2	Fixed.	- -	10	Red; carries a ball at each mast head.	34	- -	1828
	Dudgeon, light vessel.	Near the Shoal. Moored in 9 fathoms.	53 15 0	0 56 0	1	Fixed.	- -	10	Red; carries a ball.	38	- -	1736
	Spurn, light vessel.	Off the Point. Moored in 9 fathoms.	53 34 0	0 13 0	1	Revolving.	Every half minute.	10	Red; carries a ball.	38	- -	1820
	Spurn *	On the Point.	53 34 44 High Light.	0 7 10	2	Fixed.	- -	15 11	Red.	93 54	108 60	1776 1851
Humber River.*	Bull Sand, light vessel.	S.E. end of the Sand. Moored in 5½ fathoms.	53 34 0	0 5 0	1	Fixed.	- -	10	Red; carries a ball.	21	- -	1832
				WEST.								
	Stallingborough.	At the Ferry.	53 37 0	0 10 0	1	Fixed.	- -	- -	- -	- -	- -	1849
	Killingholm.	S. Killingholm.	53 39 0	0 12 0	3	Fixed.	- - -	11	Red.	68 55 37	77 45 45	1830 1856 1852
	Paull.	Near the S.W. end of village.	53 43 0	0 13 0	1	Fixed.	- -	7	Red.	36	30	1836
	Hebbles, light vessel.	S. side of Channel. Moored in 5 fathoms.	53 44 0	0 16 0	1	Fixed.	- -	5	Red; carries a ball.	16	- -	1839
	Bridlington.	N. Pier Head.	54 5 12	0 11 42	1	Fixed.	- -	8	- -	24	- -	1852
	Flamborough.*	On the Head.	54 7 0	0 5 0	1	Revolving.	Every two minutes.	19	White.	214	86	1806
	Scarborough.	Vincent Pier.	54 17 0	0 23 0	1	Fixed.	- -	13	White.	58	56	1806 raised 1813
	Whitby.*	W. Pier Head.	54 30 0	0 37 0	1	Fixed.	- -	13	Yellowish stone.	83	60	1831
		E. Pier Head.	- - -	- - -	1	- -	- -	10	- -	54	- -	1855
		Near Ling Hill.	54 28 40	0 34 0	2	Fixed.	- -	23	- -	240 each 50	50 50	1858
Tees River and Bay.*	Bran Sand.	W. part of the Sand.	54 38 0	1 13 0	2	Fixed.	- -	11 10	Wood. High Light striped Buck and White *vertically*; Low Light Red and White *horizontally*.	53 38	60 45	1839
	Care Sand, light vessel.	Within S.W. part of N. Care Sand, W. side of entrance.	54 38 0	1 13 0	1	Fixed.	- -	7	Red; carries a ball.	20	- -	1836
	Seaton.	High Light half a mile inland, and Low Light on the shore near Seaton Carew.	54 40 0	1 12 0	2	Fixed.	- -	13	Stone.	89 54	70	1839
	Hartlepool.*	N. Pier Head, West Harbour.	- - -	- - -	1	Fixed.	- -	- -	- -	26	- -	1855
		Pier Head, Old Harbour.	54 41 0	1 11 0	1	Fixed.	- -	7	Yellow.	37	- -	1836
		On the Heugh.	54 41 51	1 10 19	2	Fixed.	- -	15 4	Yellow.	84 62	69	1847
	Seaham.	S. Pier Head.	54 50 0	1 19 0	1	Fixed.	- -	- -	- -	- -	- -	1846
		Red Acre Point.	- - -	- - -	2	High Fixed low Rev.	Everyhalf minute.	14 11	Stone.	94 49	58 - -	1845 1857
	Sunderland.	N. and S. Pier Heads.	54 55 0	1 20 0	2	Fixed.	- -	15 3 to 4	Yellow.	73 58	64 28	1802 New 1857
	Tynemouth.*	Castle Yard.	55 1 0	1 25 0	1	Revolving.	Every minute.	17	White.	154	78	1802
	Tyne, or N. Shields.	Front of Dockwray Square; lowest near Clifford Fort.	55 0 0	1 26 0	2	Fixed.	- -	16 15	White.	123 77	49 76	1808 1810
	Blyth.	S. end of the Town.	55 7 0	1 30 0	2	Fixed.	- -	11 7	White.	48 26	41 35	1788
	Coquet.	S.W. part of Island.	55 22 0	1 32 0	1	Fixed.	- -	14	White tower, with turreted parapet.	83	70	1841
	Warkworth.	N. End of S. Pier.	55 21 0	1 35 0	1	Fixed.	- -	1	- -	- -	- -	1848
Farn Islands.	Farn.*	Highest near S.W. Point of Island; Lowest near its N. W Point.	55 37 0	1 59 0	2	Highest. Revolving Lowest Fixed.	Everyhalf minute.	14 10	White.	Revolving 87, the other 45	42 26	1809 1810
	Longstone.*	On the Rock.	55 39 0	1 37 0	1	Revolving.	Everyhalf minute.	13	Red.	75	82	1827
	Berwick.	Pier Head.	55 46 0	1 59 0	2	Fixed.	- -	11 8	Stone.	48 28	44	
	Carlisle Port.	On Pier Head.	54 57 0	3 11 0	1	Fixed.	- -	- -	Lamp.	- -	- -	1841
	Skinburness, or Cott.	In Siloth Bay.	54 52 30	3 23 0	1	Fixed.	- -	9	White Wood.	40	52	1841
	Lee Scar.	On the Rocks.	54 52 0	3 25 0	1	Fixed.	- -	6	On Piles.	25	45	1841
	Solway, light vessel.	Robin Rigg Channel. Moored in 4½ fathoms.	54 48 0	3 52 0	1	Fixed.	- -	6	- -	25	25	1841
	Maryport.	Outer Pier extremity, inner stone Pier	54 43 0	3 30 20	2 1	Fixed. Fixed.	- -	12 10	Brown.	51	17	1796 1856
		Jetty or S. side. North Tongue.	- - -	- - -	1	Fixed.	- -	- -	- -	- -	- -	1856
	Workington.	Ends of John and Wooden Piers.	54 39 0	3 35 0	2	Fixed.	- -	11	- -	53	23	1825

English Light-Houses—*continued.*

	Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl., Int., Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour or any Peculiarity of Light-house.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
			° ′ ″	° ′ ″								
	Harrington.	Stone Pier Head	54 37 0	3 34 0	-	Fixed.	- -	11	In an iron pedestal.	44	36	1797 improved 1848
	Whitehaven.	W. Pier Head, Old Quay Head and N. Pier Head.	54 33 0	3 36 0	3	One Revolving on W. pier, Two Fixed.	Every 2 minutes.	11	White.	47 each	37	1821
	St. Bees.*	On the Head.	54 30 50	3 38 0	1	Fixed.	- -	23	White.	353	46	1718
Morecambe Bay.	Walney.*	S. Point of Walney Island.	54 2 56	3 10 32	2	One revolving; one fixed	Every minute.	13	Stone.	70	60	1790
	Poulton.	Ring Scar Jetty, Pier end.	54 4 20	2 52 30	1	Fixed.	- -	8	White.	48	50	1851
	Clark Wharf Spit.	On Wedge of Sand.	54 1 20	3 0 0	1	Fixed.	- -	6	Red. Screw piles.	30	30	1854
	Lune River.	Cookerham Promontory, and on Plover Scar Rock.	53 59 0	2 53 0	2	Fixed.	- -	9	H. wood. L. stone.	54 20	- -	1847
	Wyre River.	N.E. elbow of N. Wharf Bank.	53 57 14	3 1 46	1	Fixed.	- -	10	On screw piles. Red.	50	- -	1840
	Fleetwood.	High Light in the Town; Low Light on the Esplanade.	53 55 36	3 1 0	2	Fixed.	- -	13 9	Upper, stone colour, red lantern; Lower, stone colour.	90 30	- -	1841
Entrance to Mersey and Dee Rivers.	Ribble River.	On Stanner Point, N. side of entrance.	53 44 38	3 1 5	2	Fixed.	- -	12 9	Stone.	72 35	- -	1848
	Formby,* light-vessel.	Lytham.	53 44 10	2 58 30	1	Fixed.						
		At the elbow of the Crosby and Queen's Channels. Moored in 22 feet.	53 31 40	3 11 12	2	Fixed.	- -	8	Red; carries a red ball.	30 2	- -	1834
	Crosby.	Near Crosby Point.	53 31 25	3 3 27	1	Fixed.	- -	12		83	74	1856
	Crosby, light-vessel.	N.E. elbow of Great Burbo Bank. Moored in 44 feet.	53 30 40	3 6 57	1	Fixed.	- -	8	Red; carries a red ball.	29	- -	1840
	Rock.	On the Point W. side of the entrance of the Mersey.	53 26 43	3 2 27	1	Revolving.	Every minute.	14	White.	61	94	1830
	Leasowe.	On the shore, mid way between the Rivers Mersey and Dee.	53 24 49	3 7 27	1	Fixed.	- -	15	White.	94	110	1763
	Bidstone.*	On Bidston Hill.	53 24 0	3 4 27	1	Fixed.	- -	23	Stone.	228	68	1771
	Hoylake.	Near the Church.	53 23 40	3 10 42	2	Fixed.	- -	13	White.	55	64	1765
								11	White.	31	42	
	Liverpool, N.W. light-ship.	Off the Horse and Helbre Channels. Moored in 7½ fathoms.	53 27 0	3 17 25	3	Fixed.	- -	10	Black with a broad white streak. Carries a black ball.	35 30 22	- -	1814
	Air.*	On the Point, at low-water mark.	53 22 0	3 19 24	1	Fixed.	- -	10	Red. On piles.	42	- -	1844
	Menai.	Trwyn Du Point.	53 18 51	4 2 21	1	Fixed.	- -	10	White.	61	94	1837
	Lynus.*	On the Point.	53 25 0	4 17 16	1	Fixed and flashing.	Ten seconds. visible 8 seconds; obscured 2.	16	Castellated building with white base.	128	36	1835
	Almwch Port.	N. Pier.	53 25 0	4 20 0	1	Fixed.	- -	9	White.	26	9	1817
	Skerries.*	Highest Island.	53 25 18	4 36 24	1	Fixed.	- -	15	White.	117	75	1714
	Holyhead.	Pier Head.	53 20 0	4 37 0	1	Fixed.	- -	11	Stone.	44	87	1820
		Western part of Breakwater, New Harbour.	- -	- -	1	Fixed.	- -	4	- -	20	- -	1856
		New Breakwater, eastern extremity.	- -	- -	1	Fixed.	- -	4	- -	20	- -	1850
	Stack.*	S. Stack Rock, off the N.W. point of Holyhead I.	53 18 0	4 42 0	1	Revolving.	Every minute.	19	White.	201	83	1809
	Caernarvon.	On Llanddwyn Island.	53 8 0	4 24 40	1	Fixed.	- -	5	- -	50	- -	1845
	Bardsey.*	On the Island.	52 45 0	4 48 0	1	Fixed.	- -	17	Octagonal white tower.	129	90	1821
	Aberystwith.	Entrance of the Harbour.	52 25 0	4 5 0	2	Fixed.						
	South Bishop.*	On the Rock.	51 51 0	5 25 0	1	Revolving.	Every 20 seconds.	17	White.	144	36	1839
	Smalls.*	On the Rock.	51 43 0	5 40 0	1	Fixed.	- -	13	Red.	65	70	1778
Bristol Channel.	St. Ann's.*	On Point, Milford Haven.	51 41 0	5 10 25	2	Fixed.	- -	19 17	White.	192 159	71 32	1714 Rebuilt 1800
	Caldy.*	On Island, S part.	51 37 56	4 40 57	1	Fixed.	- -	19	White.	210	54	1829
	Tenby.	- -	- -	- -	1	Fixed.	- -	3	- -	14	- -	1856
	Saundersfoot.	On Pier Head.	51 43 0	4 42 0	1	Fixed.	- -					
	Pembrey Harbour.	Entrance of Burry River.	51 41 0	4 15 0	1	Fixed.	- -	9	White, black top.	35	18	
	Llanelly.	S. end of Breakwater.	51 40 0	4 10 25	1	Fixed.	- -	- -	- -	- -	- -	1850
		Whiteford Point or Sker.	- -	- -	1	Fixed.	- -	7	On piles.	80	- -	1854

English Light-Houses—*continued.*

	Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl., Alt., Int., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-house.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
Bristol Channel.	Helwick, light-vessel.	Off W. end of the Sand. Moored in 16½ fathoms.	° ′ ″ 51 31 0	° ′ ″ 4 24 0	1	Revolving.	Every minute.	10	Red; carries a ball.	88	- -	1846
	Mumbles.*	On the Head.	51 34 3	3 58 10	1	Fixed.	- -	15	White.	114	56	1798
	Swansea.	Upon or near the Swivel Bridge across the New Cut.	51 37 0	3 56 0	1	Fixed.	- -	9	White, black top.	28	20	1803
	Nash.*	On the Point.	51 24 0 High Light.	3 33 0	2	Fixed.	- -	18 16	White.	167 122	97 66	1832
	Cardiff.	On the Pier.	51 28 0	3 10 0	1	Fixed.						
	Usk.*	W. side of entrance of the River.	51 32 0	3 0 0	2	Fixed.	- -	10	White.	39 29	53 - -	1821 1855
	Flatholm.*	On the Island, S. Point.	51 22 35	3 7 3	1	Fixed.	- -	17	White.	156	87	1737 Improved 1839
	English and Welsh Grounds, light-vessel.	S. side of Bristol Channel. Moored in 6 fathoms.	51 26 30	2 58 0	1	Revolving.	Every minute.	10	Red; carries a ball.	38	- -	1838
	Avon.	E. side of entrance.	51 30 0	2 42 0	1	Fixed.	- -	13	White.	70	77	1840
	Bridgewater or Burnham.*	E. side of the entrance of the River Parret.	51 15 0	3 0 0	2	Upper Intermitting, Lower fixed	Visible 5½ minutes, then obscured half a minute.	16 12	Upper white, Lower with black streak.	91 23	96	1832
	Ilfracombe.	Lantern Hill, N. side of Harbour.	51 13 0	4 7 0	1	Fixed.	- -	15	White.	100	8	
	Bideford.	Braunton Sands, N. side of the river.	51 4 0	4 12 0	2	Fixed.	- -	14 11	White.	86 40	85 40	1820
	Lundy.*	On the ridge of the Island.	51 10 7	4 40 15	2	Upper Revolving, Lower fixed	Every 2 minutes.	30	White.	540 470	95	1820
	Trevose Head.*	On N.W. part.	50 33 0	5 1 30	2	Fixed.	- -	19	White.	204 129	85	1847
	Godrevy.	On the Island.	50 14 0	5 24 0	1	Fixed and flashing.	Flashing every 15 seconds.	- -	- -	-	- -	1858
	Hayle.	On Lelant sand hills or Towans.	50 11 30	5 26 0	2	Fixed.	- -	6	Wood, triangular-red, square-black.	80 59	15 11	1840
	St. Ives.	On Pier Head, 36 feet from the end.	50 12 0	5 28 0	1	Fixed.	- -	7	- -	23	25	1831

II. Scotch Light-Houses.

Firth of Forth.	Eyemouth.	Corner of a house.	55 52 25	2 5 0	1	Fixed.	- -	- -	- -	- -	- -	1857
	Dunbar.	Old Harbour.	56 0 0	2 30 40	1	Fixed.	- -	- -	- -	- -	- -	1857
		Victoria Harbour.	- -	- -	1	Fixed.	- -	- -	- -	- -	- -	
	Inchkeith.*	Summit of Island.	56 2 0	3 8 0	1	Revolving.	Every minute.	21	Stone.	220	58	1804
	Fisherrow.	Pier Head.	- -	- -	1	Fixed.	- -	5	Lamp-post.	20	- -	1839
	Leith.	E. Pier, inner part, about 674 yards from extremity.	55 59 0	3 10 0	1	Fixed.	- -	8	White.	22	019	1758
		Extremity of W. Pier.	- -	- -	1	Fixed.	- -	10	- -	23	19	1829
	Newhaven.	On the Pier.	55 59 0	3 11 0	1	Fixed.	- -	5	White.	20	11	
	Granton.	On the Pier Head.	55 59 0	3 15 0	1	Fixed.	- -	6	Stone.	33	40	1845
	Grange mouth.	Entrance of River Carron, end of S. embankment.	- -	- -	1	Fixed.	- -	10	White. Stone.	34	30	1847
	Inverkeithing.	W. Quay of Harbour.	- -	- -	2	Fixed.	- -	- -	- -	- -	- -	1856
	Burntisland.	E. Pier.	56 4 0	3 14 0	1	Fixed.	- -	8	White.	13	16	1845
		Ferry Pier.	- -	- -	1	Fixed.	- -	- -	Stone.	28	- -	1843
	Kirkcaldy.	On E. Pier Head.	56 7 0	3 9 0	1	Fixed.	- -	8	Lamp-post. Gas.	29		
	Buckhaven.	On Parapet, E. Pier Head.	56 10 6	3 1 41	1	Fixed.	- -	9	Iron Tower. White.	17	9	1854
	St. Monance.	One on Pier Head; the other on the side of a house.	56 12 30	3 46 45	2	Fixed.	- -	- -	Gas on a Lamp-post.	20	- -	1855
	Pittenween.	Pier Head.	56 13 0	2 43 30	2	Fixed.	- -	6	Lamp-post.	25	7	1855
		S.W. angle of a disused Saw-mill.	- -	- -	1	Fixed.	- -	6	Lantern in the Wall.	72	- -	1855
	Anstruther.	W. Pier Head, and Shore Street.	56 13 16	2 41 53	2	Fixed.	- -	4	White. Lamp-post. Gas.	16 20	- -	1848
	Cellardyke.	On side of house on W. part of the Harbour.	56 14 0	2 40 0	1	Fixed.	- -	- -	Gas.			
	Isle of May.*	Summit of the Isle, N.E. side.	56 11 8	2 33 20	1	Fixed.	- -	21 15	Stone. - -	240 110	78 36	1816 1844
	Bell Rock.*	A sunk Reef.	56 26 3	2 23 6	1	Revolving.	Every 2 minutes.	15	White.	93	117	1811
	St. Andrews.	Pier Head.	56 20 3	2 47 0	1	Fixed.	- -	6	Black with white top.	30	18	1825
		Turret in Cathedral Wall.	- -	- -	1	Fixed.	- -	5	- -	100	- -	1849

Scotch Light-Houses—*continued.*

	Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl. Int., Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-House.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
			° ′ ″	° ′ ″								
Firth of Tay.	Buddonness, or Tay.*	On the Ness.	56 28 0	2 45 0	2	Fixed.	- -	14 12	White.	85 65	70 50	1820
	Port-on-Craig.	S. Side of the Ferry.	56 27 0	2 49 0	2	Fixed.	- -	16 11	White. Wooden Frame.	80 35	53 38	1820 1845
	Newport.	On the W. Ferry Pier.	56 26 0	2 57 0	2	Fixed.	- -	7 8	White.	10 16		
	Dundee Harbour.	Middle and E. Piers.	56 28 0	2 58 0	2	Fixed.	- -	7	Green Post. Grey Tower.	10 12	- -	1827
	Arbroath.	N. Pier.	56 33 0	2 35 0	1	Fixed.	- -	8	Grey Stone.	24	22	1826
	Montrose.	N. side of the entrance.	56 42 0	2 27 0	2	Fixed.	- -	10 11	White.	61 35	54 30	1813
	Stonehaven.	On the inner side of Harbour.	56 58 0	2 12 0	2	Fixed.	- -	6	- -	18 24	- -	1839
	Girdleness.*	On the Ness.	57 8 15	2 3 2	2	Fixed.	-	20 16	- -	185 115	120	1833
	Aberdeen.	N. Pier Head.	57 8 20	2 3 55	1	Fixed.	- -	8	On a Mast.	40		
		Half a mile up the Harbour on S. Shore.	- -	- -	2	Fixed.	- -	3	White.	47 30	- -	1842
	Buchanness,* or Boddom Point.	On the Ness.	57 28 15	1 46 11	1	Fixed and Flashing.	Every 5 seconds.	16	Stone.	130	115	1827
	Peterhead.	S. Harbour, elbow of W. Pier.	57 30 0	1 46 0	1	Fixed.	- -	10	Stone.	24	24	1834
		N. Harbour W. Pier Head.	- -	- -	1	Fixed.	- -	10	Stone.	26	24	1849
	Fraserburgh.	Pier Head and Middle Pier.	57 41 30	2 0 0	2	Fixed.	- -	5	Two Pillars.	34 16	29 9	1841
	Kinnaird Head.*	On the Head.	57 42 0	2 1 0	1	Fixed.	- -	15	Stone.	120	76	1787 improved 1851
	Macduff.	W. Pier Head.	57 40 0	2 30 0	1	Fixed.	- -	6	- -	25	- -	1829
		On N. Pier Head.	57 40 0	2 31 0	1	Fixed.	- -	8	Stone.	28	14	1852 altered 1851
	Banff.	Upper part of new Harbour.	57 40 5	2 31 6	2	Fixed.	- -	- -	Posts.	- -	- -	1851
	Covesea Skerries *	Craig Head.	57 43 15	3 20 20	1	Revolving.	Every minute.	18	Stone.	160	118	1846
	Chanonry.	On the Point.	57 34 30	4 5 0	1	Fixed.	- -	11	Stone.	40	42	1846
	Cromarty.	On the Point at the Town.	57 41 0	4 2 0	1	Fixed.	- -	9	Stone.	50	42	1846
	Tarbet Ness.*	On the Ness Point.	57 51 0	3 48 0	1	Intermit.	Visible 2½ min., dark ½ minute.	15 to 18	Stone.	175	134	1830
	Little Ferry.	One on the Point.	57 56 0	4 0 0	2	Fixed.	- -	4 8	Common Lanterns.	19 14		
	Latheronwheel.	S. Head.	58 16 10	3 22 55	1	Fixed.	- -	- -	White.	- -	- -	1852
	Wick or Pulteneytown.	N. Pier Head.	58 26 0	3 5 0	1	Fixed.	- -	8	Stone.	35	34	1851
	Noss Head.*	On the Head.	58 28 38	3 3 5	1	Revolving.	Everyhalf minute.	20	- -	175	68	1849
	Pentland Skerries.*	On the Island.	58 41 22 High Light.	2 55 25	2	Fixed.	- -	18 16	Stone.	170 140	118 88	1794
	Dunnet.*	On the Head.	58 40 16	3 22 20	1	Fixed.	- -	23	Stone.	346	66	1831
	Holburn.*	On the Head.	58 37 30	3 31 50	1							
Orkney Islands.	Cantick.	On the Head.	58 47 0	3 7 45	1	Revolving.	Every minute.	16	Brick.	116	73	1857
	Hoy Sound.	The High Light stands on the N.E. point of Gremsa I. and the Low Light on its N.W. point.	58 56 9	3 16 33	2	Fixed.	- -	10 7	Stone.	115 55	108 38	1851
	Kirkwall.	Pier Head.	58 59 10	2 57 30	1	Fixed.	- -	9	Stone.	22	27	1854
	Start Point.*	On the E. Point of Sanda Island.	59 16 39	2 22 25	1	Fixed.	- -	15	Stone.	100	91	1806
	North Ronaldsha.*	On N. Point.	59 23 15	2 23 38	1	Fixed and Flashing.	Every 10 seconds.	18	Brick.	140	139	1854
Shetland Islands.	Sumburgh Head.*	On the S.W. Point of the Shetlands.	59 51 0	1 16 0	1	Fixed.	- -	21	Stone.	300	55	1821
	Bressay Sound or Kirkabister Ness.	- - -	- -	- -	1	Revolving.	Every minute.	15	Brick.	111	53	1858
	Whalsey Skerries.	Bound Skerry.	60 25 24	0 44 0	1	Revolving.	Every minute.	18	Brick.	108	40	1856
	N. Unst.	Muckle Flugga, N. part of Island.	60 51 20	0 55 3	1	Fixed.	- -	21	White.	230	64	1855
	Cape Wrath.*	On the Cape, N.W. Point of Scotland.	58 37 30	5 0 0	1	Revolving.	Every 2 minutes.	30	White.	409	65	1828
	S. Rona.	N. E. Point of Island.	57 32 0	5 58 0	1	Fixed and Flashing.	Every 12 seconds.	20	White.	222	42	1857
	Kyle Akin, Loch Alsh.	S.W. point, Gillean I., W. Entrance.	57 16 30	5 45 0	1	Fixed.	- -	11	White.	53	70	1857
	Ornsay Island.	On the Island, S. E. part of Sleat Sound.	57 9 0	5 47 0	1	Fixed.	- -	12	White.	58	63	1857
Hebrides, or Western Islands.	Stornoway, Lewis Isle.	Arnish Point and Rock.	58 11 28	6 22 10	2	Revolving.	Everyhalf minute.	12 14	White.	56 32	45	1852
	Glass Island.*	N. E. Point of Island, Harris Isles.	57 52 0	6 33 0	1	Fixed.	- -	17	Stone.	150	100	1789
	Usbenish, S. Uist.	S. W. Point E. side.	57 15 0	7 10 0	1	Fixed.	- -	18	White.	176	39	1857
	Barra Head.*	Highest part of Berneva I., S. Point of Hebrides.	56 48 0	7 38 0	1	Intermit.	Visible 2½ minutes, dark ½ minute.	33	Stone.	680	60	1833
	Ardnamurchan.*	On the Point.	56 43 45	6 13 30	1	Fixed.	- -	18	Stone.	180	118	1849

Scotch Light-Houses—*continued.*

Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl. Int., Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-House.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
		° ′ ″	° ′ ″								
Runa Gal Rock, Sound of Mull.	On the Rock, 50 yards seaward of high-water mark.	- -	- -	1	Fixed.	- -	12	Wh.	55	63	1857
Lismore.*	Musdile Island.	56 27 19	5 36 22	1	Fixed.	- -	15	Stone.	103	86	1833
Skeneyvore.*	On the Rock, 12 miles W.S.W. from Tyree I.	56 19 22	7 6 32	1	Revolving.	Every minute.	18	Stone.	150	158	1844
Crinan Canal.	E. side.	56 5 30	5 33 0	1	Fixed.	- -	4	Stone.	25	- -	1851
Islay Sound.*	Rudha Mhail Point.	55 56 6	6 7 30	1	Fixed.	- -	15	White.	147	113	1858
Rhynns of Islay.*	Oversay I., off S.W. Point of Islay.	55 40 20	6 30 0	1	Fixed and Flashing.	Every 5 seconds.	17	Stone.	150	96	1825
Port Ellen or Loch Leodamis.	Carraig Fadda Point, W. entrance of the harbour.	55 36 0	6 12 0	1	Fixed.	- -	11	Square Tower.	45	60	1853
Mull of Cantyre.*	S. W. Headland of Cantyre.	55 19 0	5 49 0	1	Fixed.	- -	22	Stone.	297	38	1787
Sanda Island.*	Ship Rock.	54 16 30	5 34 55	1	Fixed.	- -	15	Stone.	165	48	1850
Devar Island.*	E. part.	55 25 45	5 32 16	1	Revolving.	Everyhalf minute.	17	Stone.	120	65	1851
Campbellton.	N. Pier Head.	55 25 30	5 35 30	1	Fixed.	- -	2	Common Lamp.	12	9	
Ardrishaig.	Pier Head.	56 0 45	5 26 30	1	Fixed.	- -	4	Stone.	25	19	1850
Pladda.*	On the Island off S.E. Point of Arran Island.	55 26 0	5 7 9	2	Fixed.	- -	17 14	Stone.	130 77	95 43	1790
Clyde River. Cumbrae.*	W. side of Little Cumbrae I.	55 43 16	4 58 0	1	Fixed.	- -	15	White.	115	36	1757 Rebuilt 1791
Toward.*	On the Point.	55 51 45	4 59 17	1	Revolving.	Every minute.	11	White.	55	50	1812
Cloch.*	On the Point.	55 56 35	4 52 39	1	Fixed.	- -	13	White.	76	76	1797
Greenock.	About a mile N.N.W. of Custom-house.	55 57 0	4 45 0	2	Fixed.	- -	6	White.	40	30	1834
	Quay in front of the Custom-house.	- -	- -	1	Fixed.	- -	4	Lamp on iron pillar	26	20	1829
Port Glasgow.	On the W. Quay.	55 56 15	4 14 0	1	Fixed.	- -	3	Lamp.	18	12	
Cardross.†	On the Pillar Bank.	- -	+ -	1	Fixed.	- -	4	Red stone	22	34	1849
Bowling Bay.	E. entrance of Bowling Harbour or Firth of Clyde Canal.	- -	- -	1	Fixed.	- -	2	Lantern on a pillar. Brown.	12	8	1849
- - -	Donalds Quay, 200 feet from the end.	- -	- -	1	Fixed.	- -	- -	Lamp.	26	16	1849
Broomielaw.	- - -	- -	- -	1	Fixed.	- -	- -	Iron.	- -	- -	1844
Ardrossan.	Extreme end of Breakwater.	55 38 27	4 49 28	1	Fixed.	- -	5	White.	25	23	1840 Rebuilt 1856
Saltcoats.	On the Arm of the Pier.	55 37 52	4 47 21	1	Fixed.	- -	6	A spire.	26	18	1840
Troon Harbour.	Inner end of the Pier; and at the Pier Head.	55 33 0	4 41 0	2	Revolving. Fixed.	Every minute; 40 seconds bright and 20 eclipsed.	9 6	White. Red.	35 each.	25 each.	1827 1848
Ayr Harbour.	N. Pier.	55 28 17	4 38 26	2	Fixed.	- -	Tide 4, the others 10	White.	12 55 53	8 47	1790 1826
Loch Ryan.*	Cairn Ryan Point.	54 57 45	5 2 0	1	Fixed.	- -	10	Stone.	46	36	1847
Corsewall.*	On the Point, W. side entrance to Loch Ryan.	55 0 29	5 9 28	1	Revolving.	Every two minutes.	15	Stone.	112	110	1817
Port Patrick.	Inner Lighthouse S.E. angle of the Harbour 130 yards within the outer Lighthouse, which is not lighted.	54 50 20	5 7 2	1	Fixed.	- -	8	Stone. White.	37	30	1790 relighted 1856
Mull of Galloway.*	S. Point.	54 38 9	4 51 20	1	Intermit.	Two minutes and a half visible, and half minute eclipsed.	23	Stone.	325	86	1830
Kirkcudbright.*	Little Ross Island.	54 46 0	4 5 0	1	Fixed and Flashing.	Every 5 seconds.	18	Stone.	175	65	1843
Southerness.*	On the Point.	54 52 25	3 55 30	1	Fixed.	- - -	11	White Square Tower.	50	50	1805
Annan River.	Barnkirk or Annan Foot.	54 57 40	3 16 0	1	Fixed.	- -	- -	- -	- -	- -	1841

III. ISLE OF MAN LIGHT-HOUSES.

Ayre.*	A quarter of a mile S.W. of the Point.	54 24 56	4 22 1	1	Revolving.	Every 2 minutes.	15	Stone.	106	99	1818
Peel.	E. side of Entrance.	54 13 0	4 42 0	1	Fixed.	- -	8	White.	21	15	1811
Calf of Man.*	W. Side of Calf I.	54 3 0	4 50 0	2	Revolving.	Every 2 minutes.	24 22	Stone.	375 282	70 55	1818
Port Mary.	S. side of Entrance.	54 4 0	4 44 0	1	Fixed.	- -	9	White.	25	18	1812
Castletown Harbour.	S. side of Entrance.	54 5 0	4 39 0	1	Fixed.	- -	8	White.	22	16	1765
Derby.	Entrance of the Harbour, S. end of new Pier.	54 5 0	4 36 0	1	Fixed.	- -	11	White.	50	45	1850

† There are three Lights between Port Glasgow and Bowling Bay:—the 1st at Auchenlech, nearly three-quarters of a mile above Port Glasgow—the 2nd a floating Light, called the Garmoyle Light, 2¼ miles further up—and the 3d Dickies Light, about a mile above Dumbarton. All these are to be left on the Starboard hand, going up the River.

Isle of Man Light-Houses—*continued.*

Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl., Int.. Alt., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-house.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
		° ′ ″	° ′ ″								
Douglas.*	On the Head.	54 9 0	4 28 0	1	Fixed.	- -	14	Brown. Stone.	104	65	1832
	N. Pier Head.	54 10 0	4 28 0	1	Fixed.	- -	10	Buff.	34	23	1796
Ramsey.	S. side of Entrance.	54 20 0	4 23 0	1	Fixed.	- -	10	White.	25	29	1800
Bahama Bank, light-vessel.	A third of a mile off the S.E. tail of Shoal. Moored in 11 fathoms.	54 20 0	4 12 0	2	Fixed.	- -	10	Red; carries a ball at each mast-head.	F. 20 M. 33	- -	1848 -

IV. Irish Light-Houses.

Fastnet.*	On the summit of the Rock.	51 23 18	9 36 25	1	Revolving.	Every two minutes.	18	Circular: in the middle a broad horizontal red belt.	148	92	1854
Kinsale.*	On the S. point of Old Head.	51 36 11	8 31 58	1	Fixed.	-	21	White, with two red belts.	256	100	1805 erected on Sept. 1853
	Fort Charles, E. side of the Harbour.	51 41 48	8 29 50	1	Fixed.	- -	14	White.	98	48	1804
	Roche Point, E. side of entrance.	51 47 33	8 15 14	1	Fixed.	- -	14	White.	92	49	1817
Cork Harbour or Queenstown.*	E. Elbow of Spit Bank, off Queenstown, in 9 feet.	51 50 41	8 16 26	1	Fixed.	- -	8	On Screw piles; upper part grey, piles red.	52	- -	1848 1855
Ballycottin.*	On the Outer Island.	51 49 30	7 59 0	1	Fixed and Flashing.	Every ten seconds.	18	Red projecting gallery and up to bottom of lantern sash. Circular.	195	50	1850
Youghal.	W. side of Entrance.	51 56 34	7 50 34	1	Fixed.	- -	6	Circular, stone colour.	78	- -	1852
Minehead.*	S. side of Head.	51 59 33	7 35 8	1	Intermittent.	Every minute.	21	- -	285	68	1850
Dungarvan.	Ballynacourty Point.	52 4 30	7 33 0	1	Fixed.						
	Hook Tower.* E. side of Entrance.	52 7 25	6 55 53	1	Fixed.	- -	16	White.	152	115	1791
	Dunmore, Pier Head. W. side of Entrance.	52 9 0	6 59 30	1	Fixed.	- -	11	White.	44	51	1826
Waterford.*	In Duncannon Fort. E. side of Channel.	52 13 13	6 56 0	2	Fixed.	- -	10	White	53	25	1803
	Duncannon, N. half a mile N.N.E. ½ E. of the Fort.	- -	- -	1	Fixed.	- -	10	White.	128	35	1838
Saltees,* light-vessel.	Off Coningbeg Rock the southernmost of the Saltee Islands. Moored in 32 fathoms.	52 2 25	6 40 0	2	Fixed.	- -	10	Carries a ball.	38	- -	1824
Tuskar.*	On the Rock.	52 12 9	6 12 21	1	Intermittent.	Every two minutes.	15	White.	101	108	1815
Blackwater Bank, light vessel, in 18 fathoms.	N.E. part.	52 29 30	6 7 0	2	Revolving and Fixed.	Every minute.	10	Black, with white band. Carries two balls.	39 M. 26 F.	- -	1857
Arklow,* light-vessel.	S. end of the Bank. Moored in 22 fathoms.	52 42 0	6 0 0	1	Fixed.	- -	10	Carries a ball.	36	- -	1824
Wicklow.*	On the Head.	52 57 50	6 0 5	2	Fixed.	- -	21 16	White.	250 121	75 46	1818
Dublin Bay. Kish,* light-vessel.	Off N. point of the Kish Bank. Moored in 10 fathoms.	53 19 0	5 56 20	3	Fixed.	- -	10	Carries a ball.	38	- -	1811
Kingstown.	Centre of E. Pier Head of Harbour.	53 18 0	6 8 0	1	Revolving.	Every half minute.	9	Granite.	41	41	1822
	W. Pier Head.	- -	- -	1	Fixed.	- -	2	Granite.	36	29	1815
Poolbeg.*	End of S. wall, at the entrance to the River Liffey.	53 20 30	6 9 16	2	Fixed.	- -	12	White.	68 each.	63	1765
	End of N. wall, or Quay.	53 21 0	6 14 0	1	Fixed.	- -	10	White.	35	38	1820
Bailey.*	S.E. point of Howth Peninsula.	53 21 40	6 3 20	1	Fixed.	- -	15	White.	134	42	1813
Howth.	E. Pier Head.	53 24 0	6 4 0	1	Fixed.	- -	11	White.	43	37	1818
Balbriggan.	Pier, S. side of entrance.	53 36 45	6 11 0	1	Fixed.	- -	10	White.	42	53	1769
Rockabill.	On the Rock.	53 35 45	6 0 30	1	- -	- -	- -	Stone.			
Drogheda.	Sand hills S. side of River Boyne.	53 43 0	6 15 0	3	Fixed.	- -	6 to 7	On timber framings.	27 40 23	30	1842
Dundalk.	N. side of Channel within the entrance.	53 58 40	6 18 0	1	Fixed and Flashing.	Every 15 seconds.	9	On screw piles. Red.	33	-	1855

Irish Light-Houses—*continued*.

Name of Light.	Place.	N. Latitude.	W. Longitude.	Number of Lights.	Fixed, Flashing, Fix. & Fl., Alt., Int., Revolving.	Interval of Revolution or Flash.	Miles seen in clear Weather.	Colour, or any Peculiarity of Light-House.	Height in Feet, Centre of Lantern above High Water.	Height in Feet of Building from Base to Vane.	Year lighted.
		° ′ ″	° ′ ″								
Carlingford.*	Haulbowline Rock	54 1 0	6 5 0	2	Fixed.	- - -	15	White.	101	111	1823
	Greenore Point.	54 1 55	6 7 52	1	Revolving.	Every 45 seconds.	9	White.	29	41	1830
Dundrum Bay.*	St. John's Point.	54 13 10	5 46 0	1	Revolving.	Every minute.	12	White, with red belt.	62	- -	1844
Ardglass.	Inner shore of Harbour, two cables' length from the entrance N. by W.	54 15 10	5 36 50	1	Fixed.	- -	6	- -	18	- -	1816
South Rock.*	On the Rock.	54 23 55	5 25 4	1	Revolving.	Every minute and half.	12	White.	52	60	1797
Donaghadee Harbour.	S.E. Pier Head.	54 38 45	5 32 1	1	Fixed.	- -	12	Grey.	56	53	1836
Copeland.*	Small Copeland I.	54 41 44	5 32 0	1	Fixed.	- -	16	White.	131	52	1796
Belfast Bay.	Hollywood Bank.	54 39 0	5 53 0	1	Fixed.	- -	5	On screw piles.	27	- -	1848
Larne Lough.	Farres Point.	54 51 0	5 48 0	1	Fixed.	- -	11	White.	42	50	1839
Maidens.*	On the Rocks.	54 55 47 Western Light.	5 45 0	2	Fixed.	- -	14 13	Red and white belts.	94 E. 84 W.	76 68	1828
Rathlin.*	N. E. point of Island.	55 18 0	6 10 45	2	Intermit. Upper, Fixed.	Every minute. bright 50" dark 10."	21	A red belt under the gallery.	243 182	88	1856
Lough Foyle. Inishowen.	Donagree Point.	55 14 0	6 56 0	2	Fixed.	- -	13 each.	White.	671 each	49	1857
Red Castle.	On the outer edge of the Ridge Shoal.	- -	- -	1	Fixed.	- -	- -	Red wood piles.	25	- -	1852
White Castle, light-vessel.	E. side of Channel.	- -	- -	1	Fixed.	- -	- -	Black.	26	- -	1848
Ture.	On the flats, S. E. side of Channel.	- -	- -	1	Fixed.	- -	- -	Black wood piles.	25	- -	1850
Cunnyberry.	On the flats, N. W. side of Channel.	- -	- -	1	Fixed.	- -	- -	Red wood piles.	25	- -	1848
Culmore.	On the Point.	- -	- -	1	Fixed.	- -	- -	Red-mast and lantern.	45	- -	1848
Culkeeragh.	E. side of entrance.	- -	- -	1	Fixed.	- -	- -	Red brick.	50	- -	1851
Innistrahul.*	On the N.E. part of Island.	55 25 55	7 14 25	1	Revolving.	Every 2 minutes.	18	White.	167	45	1812
Lough Swilly.*	Fannet Point.	55 16 33	7 38 0	1	Fixed.	- -	14	White.	90	26	1816
Tory Island.*	N.W. point of Island.	55 16 26	8 15 0	1	Fixed.	- -	16	Stone.	125	87	1832
Rathlin-o-Birne.*	On the Island.	54 39 47	8 49 52	1	Fixed and Flashing.	Every 20 seconds.	16	Circular. Red, dome and under the light room.	116	65	1856
Killybegs.*	St. John's Point.	54 34 8	8 27 33	1	Fixed.	- -	14	White.	98	54	1841
Sligo.*	Rotten I.	54 36 51	8 26 23	1	Fixed.	- -	13	White.	66	50	1838
	Black Rock, in Sligo Bay.	54 18 0	8 37 0	1	Fixed.	- -	13	White.	73	94	1835
	Oyster Island.	54 18 5 N. Light.	8 34 4	2	Fixed.	- -	11	White.	34 49	45 each	1837
Broadhaven.	Gubacashel Point on W. side of entrance.	54 16 0	9 53 0	1	Fixed.	- -	12	Stone colour.	87	50	1855
Eagle.*	On Eagle Rock, W.S.W., 3 miles from Erris Head.	54 17 0	10 6 0	2	Fixed.	- -	20	White.	220	87 64	
Clew Bay. Clare Island.*	N. Point of Island.	53 49 30	9 59 30	1	Fixed.	- -	27	White.	341	39	1806
Inishgort.	On the Island entrance to Westport.	53 49 4	9 40 12	1	Fixed.	- -	10	White.	36	26	1827
Slyne Head.*	On the outermost Island off the Head.	53 23 58 North Light.	10 14 1	2	One Revolving, one Fixed.	Every 2 minutes.	15 14	White.	126 115	79 each	1836
Galway Bar. Eeragh Island.	W. Point.	53 8 55	9 51 30	1	Revolving.	Bright Flash every 3 minutes.	16	Circular. Two red horizontal belts.	115	101	1857
Inisheer.	S. Point.	53 2 4	9 31 30	1	Fixed.	- -	15	Circular.	110	112	
Mutton Island	On Centre of Island off the Town of Galway.	53 15 13	9 3 10	1	Fixed.	- -	10	White. Railing red.	33	34	1817
River Shannon. Loophead.*	On the Head, 500 yards E. by S. from the extremity of the Head.	52 33 38	9 55 54	1	Fixed.	- -	22	Circular. White.	277	75	1802 rebuilt 1853
Kilcradan.	On the Point.	52 34 47	9 42 34	1	Fixed	- -	16	White.	133	43	1824
Tarbert.	On the Rock.	52 35 30	9 21 47	1	Fixed.	- -	13	White.	58	54	1834
Beeves.	On the Rock, S.W. side.	52 39 0	9 1 18	1	Fixed.	- -	10 to 12	- -	40	- -	1854
Tralee.	On little Samphire I.	52 16 19	9 53 14	1	Fixed.	- -	9	Circular. Blue stone.	56	- -	1854
Valentia.	Cromwell's Fort.	51 56 0	10 19 16	1	Fixed.	- -	12	White.	54	43	1841
Skelligs.*	On the Highest Rock, 7½ miles off Shore.	51 46 14	10 32 45	2	Fixed.	- -	25 18	White.	372 175	48 46	1826
Bantry Bay, Bearhaven.	Eastern entrance on Roancarrig I.	51 39 10	9 44 49	1	Fixed.	- -	12	Circular. White, with red belt.	55	62	1847
Crookhaven.	Rock Island Point N. side of entrance.	51 28 35	9 42 39	1	Fixed.	- -	13	- -	67	45	1843

LIMA, the capital of Peru, on the west coast of South America, lat. 12° 2′ 42″ S., lon. 77° 7′ 15″ W. Population variously estimated; but may probably amount to from 50,000 to 60,000.

Callao, the port of Lima, is about 6 miles W. from the latter. The harbour lies to the north of a projecting point of land, in the angle formed by the small uninhabited island of San Lorenzo. Previously to the emancipation of Peru, and the other *ci-devant* Spanish provinces in the New World, Lima was the grand *entrepôt* for the trade of all the west coast of South America: but a considerable portion of the foreign trade of Peru is now carried on through Buenos Ayres, and the former is also in the habit of importing European goods at second hand from Valparaiso and other ports in Chili. The exports from Lima consist principally of silver, which is by far the most important article, copper ore, bark, soap, Alpaca wool, &c. Guano is found in large quantities on some parts of the coast of Peru, but is principally imported from some small islands, opposite to Piseo, where it is found in vast quantities. The great value of guano as a manure is now generally recognised, and it is hardly of less importance as an article of commerce, no fewer than 288,362 tons having been imported in 1857 into the U.K., of which 264,230 tons, estimated as being worth 3,434,990*l.*, were from Peru. That which she supplies is decidedly the best. The imports consist principally of cotton stuffs, linens, woollens, and hardware, principally from England; silks, brandy, wine, and quicksilver from Spain and France; stock-fish and flour from the United States, indigo from Mexico, Paraguay herb from Paraguay, spices, dye-stuffs, &c. Timber for the construction of ships and houses is brought from Guayaquil. The declared value of the different articles of British produce and manufacture exported to Peru in 1857, amounted to 1,171,864*l.*

Monies, Weights, and *Measures,* same as those of Spain; for which, see CADIZ.

LIME (Ger. *Kalk;* Fr. *Chaux;* It. *Calcina, Calce;* Sp. *Cal;* Rus. *Iswest*), an earthy substance of a white colour, moderately hard, but which is easily reduced to powder, either by sprinkling it with water or by trituration. It has a hot burning taste, and in some measure corrodes and destroys the texture of those animal bodies to which it is applied. Specific gravity, 2·3. Calcium, the metallic basis of lime, was discovered by Sir H. Davy.

There are few parts of the world in which lime does not exist. It is found purest in limestone, marble, and chalk. None of these substances is, however, strictly speaking, lime; but they are all easily converted into it by a well-known process; that is, by placing them in kilns or furnaces constructed for the purpose, and keeping them for some time in a white heat, — a process called the burning of lime. — (*Thomson's Chemistry.*)

The use of lime as mortar in building, has prevailed from the earliest antiquity, and is nearly universal. It is also very extensively used in this country, and in an inferior degree in some parts of the Continent and of North America, as a manure to fertilise land. But it is a curious fact that the use of lime as a manure is entirely a European practice; and that its employment in that way has never been so much as dreamed of in any part of Asia or Africa, unless by Europeans. Lime is of much importance in the arts, as a flux in the smelting of metals, in the shape of chlorate in bleaching, in tanning, &c. Lime and limestones may be carried and landed coastwise without any customs document whatever. Its consumption in this country is very great.

LIME (Fr. *Citronier;* Ger. *Citrone;* Hind. *Neemdo*), a species of lemon (*Citrus medica,* var. δ C.), which grows in abundance in most of the West India islands, and is also to be met with in some parts of France, in Spain, Portugal, and throughout India, &c. The lime is smaller than the lemon, its rind is usually thinner, and its colour, when the fruit arrives at a perfect state of maturity, is a fine bright yellow. It is uncommonly juicy, and its flavour is esteemed superior to that of the lemon; it is, besides, more acid than the latter, and to a certain degree acrid.

LINEN (Ger. *Linnen, Leinwand;* Du. *Lynwaat;* Fr. *Toile;* It. *Tela, Panno, lino;* Sp. *Lienza, Tela de lino;* Rus. *Polotno*), a species of cloth made of thread of flax or hemp. The linen manufacture has been prosecuted in England for a very long period; but though its progress has been considerable, particularly of late years, it has not been so great as might have been anticipated. This is partly, perhaps, to be ascribed to the efforts that have been made to bolster up and encourage the manufacture in Ireland and Scotland, and partly to the rapid growth of the cotton manufacture — fabrics of cotton having to a considerable extent supplanted those of linen.

In 1691, both houses of parliament addressed his Majesty (William III.), representing that the progress of the woollen manufacture of Ireland was such as to prejudice that of this country; and that it would be for the public advantage were the former discouraged, and the linen manufacture established in its stead. His Majesty replied,—"I shall do all that in me lies to discourage the woollen manufacture in Ireland, and encourage the linen manufacture, and to promote the trade of England!" We may remark, by the way, that nothing can be more strikingly characteristic of the illiberal and erroneous notions that were then entertained with respect to the plainest principles of public economy, than this address and the answer to it. But whatever the people of Ireland might think of their sovereign deliberately avowing his determination to exert himself to

crush a manufacture in which they had begun to make some progress, government had no difficulty in prevailing upon the legislature of that country to second their views, by prohibiting the exportation of all woollen goods from Ireland, except to England, where prohibitory duties were already laid on their importation! It is but justice, however, to the parliament and government of England, to state that they have never discovered any backwardness to promote the linen trade of Ireland; which, from the reign of William III. downwards, has been the object of regulation and encouragement. It may, indeed, be doubted whether the regulations have been always the most judicious that might have been devised, and whether Ireland has really gained any thing by the forced extension of the manufacture. Mr. Young and Mr. Wakefield, two of the highest authorities as to all matters connected with Ireland, contend that the spread of the linen manufacture has not really been advantageous. And it seems to be sufficiently established, that though the manufacture might not have been so widely diffused, it would have been in a sounder and healthier state, had it been less interfered with.

Bounties. — Besides premiums and encouragements of various kinds, bounties were granted on the exportation of linen for a very long period previously to 1830. In 1829, for example, notwithstanding it had then been very much reduced, the bounty amounted to about 300,000*l.*, or to nearly *one seventh* part of the entire real or declared value of the linen exported that year! It is not easy to imagine a greater abuse. A bounty of this sort, instead of promoting the manufacture, rendered those engaged in it comparatively indifferent to improvements: and though it had been otherwise, what is to be thought of the policy of persisting for more than a century in supplying the foreigner with linens for less than they cost? We have not the least doubt that were the various sums expended in well-meant but useless attempts to force this manufacture, added together, with their accumulations at simple interest, they would be found sufficient to yield an annual revenue, little, if at all, inferior to the entire value of the linens we now send abroad. And after all, the business never began to do any real good, or to take firm root, till the manufacture ceased to be a domestic one, and was carried on principally in mills, and by the aid of machinery, a change which the old forcing system tended to counteract. The only real and effectual legislative encouragement the manufacture has ever met with, has been the reduction and repeal of the duties on flax and hemp, and the relinquishing of the absurd attempts to force their growth at home.

Irish Linen Manufacture.—Spinning by the hand is now almost unknown in Ireland, and the manufacture has disappeared from several parts of the country, where it had been largely introduced. On the whole, however, there can be no doubt that the introduction of the factory system has been, and will continue to be, most advantageous. Belfast has long been the great seat of the manufacture in Ireland, and there it is carried on in large factories furnished with the best machinery, and conducted on the most approved principles. In 1841, there were in the town and its immediate vicinity, 25 steam mills for spinning linen yarn, one of which employed 800 hands; and in 1854, the number of mills had increased to 33, while their size and efficiency have also been considerably augmented. The value of the exports of all sorts of linen manufactures from Belfast in 1850, has been stated at 2,804,106*l.* And the exports from all Ireland were supposed to amount, in 1857, to about 106,000,000 yards, worth about 4,400,000*l.* Only an inconsiderable part of the exports goes direct to foreign countries; by far the greater portion is sent by the Cross-channel trade to Great Britain, or rather to Liverpool. According to the latest returns, there were in Ireland, in 1858, 76 flax mills, employing, in all, about 32,000 hands. We may add that in 1825 the trade between Great Britain and Ireland was placed on the footing of a coasting trade, and no official details of the linens imported or exported from or to either country has since been kept at the Custom-house; but, though not official, such of the foregoing statements, as refer to them are, we believe, nearly accurate.

The culture of flax in Ireland, which increased very rapidly down to 1853, has since declined with nearly equal rapidity. In 1858 it extended over about 91,500 acres, of which about 86,000 were in Ulster. (For further details, see *Thom's Irish Almanac for* 1859, p. 576.)

Scotch Linen Manufacture. — In 1827, a Board of Trustees was established in Scotland for the superintendence and improvement of the linen manufacture. It is not easy to suppose that the institution of this Board could of itself have been of any material service; but considerable bounties and premiums being at the same time given on the production and exportation of linen, the manufacture went on increasing. Still, however, it did not increase so fast as cotton and some others, which have not received any adventitious support, until machinery began to be extensively employed in the manufacture; so that it is very doubtful whether the influence of the bounty has been so great as it would at first sight appear to have been. The regulations as to the manufacture, after having been long objected to by those concerned, were abolished in 1822; and the bounties ceased in 1830.

Dundee is the grand seat of the Scotch linen manufacture; and its progress there during the last few years has been so extraordinary, that the following details in respect to it may not be unacceptable.

The manufacture appears to have been introduced into Dundee some time towards the beginning of last century; but, for a lengthened period, its progress was comparatively slow. In 1745 only 74 tons of flax were imported, without any hemp; the shipments of linen cloth during the same year being estimated at about 1,000,000 yards, no mention being made either of sail-cloth or of bagging. In 1791, the imports of flax amounted to 2,444 tons, and those of hemp to 299 tons; the exports that year being 7,842,000 yards linen, 280,000 yards sail-cloth, and 65,000 do. bagging. From this period the trade began to extend itself gradually, though not rapidly. Previously to the peace of 1815, no great quantity of machinery was employed in spinning; but about this period, in consequence, partly and principally, of the improvement of machinery, and its extensive introduction into the manufacture, and partly of the great regularity with which supplies of the raw material were obtained from the Northern Powers, the trade began rapidly to increase. Its progress has, indeed, been quite astonishing; the imports of flax and hemp having increased from about 3,000 tons in 1814 to 15,000 tons in 1830, and to 46,361 tons at an average of 1857 and 1858.

The particulars of the imports in these years were

	1857.	1858.		1857.	1858.
Flax - - - tons.	29,656	27,289	Brought forward - tons.	36,692	34,163
Flax Codilla - - „	6,123	6,064	Hemp Codilla - - „	25	28
Hemp - - - „	913	810	Jute - - - - „	15,459	6,358
Carried forward - „	36,715	34,163	Total - - - „	52,174	40,549

Of this quantity about 40,000 tons were spun by the mills in the town, and the residue by those in the vicinity.

We gave in a former edition an account of the number of pieces of the different descriptions of linen goods annually exported from Dundee. But large quantities are now sent off by railway; and as the carriage on them is charged by weight, no account is kept of the pieces so dispatched; and, consequently, no account can now be given of the total quantities exported. We have, however, been assured, by a high authority in the town, that the total value of the linens exported from Dundee in 1858 may be safely estimated at 3,100,000*l.*

It is not easy to give any satisfactory explanation of the wonderful progress of the linen manufacture at Dundee. Something must be ascribed to the convenient situation of the port for obtaining supplies of the raw material; and more, perhaps, to the manufacture having been long established in the towns and villages of Strathmore, the Carse of Gowrie, and the northern parts of Fife, of which Dundee is the emporium. But these circumstances do not seem adequate to explain the superiority to which she has recently attained in this department; and, however unphilosophical it may seem, we do not really know that we can ascribe it to anything else than a concurrence of fortunate accidents. Nothing, in fact, is so difficult to explain as the superiority to which certain towns frequently attain in particular departments of industry, without apparently possessing any peculiar facilities for carrying them on. But from whatever causes their pre-eminence may arise in the first instance, it is very difficult, when once they have attained it, for others to come into competition with them. They have, on their side, established connections, workmen of superior skill and dexterity in manipulation, improved machinery, &c. Recently, indeed, the advantages in favour of old establishments have been, to a considerable extent, neutralised by the prevalence of combinations amongst their workmen; but it is to be hoped that means may be devised for obviating this formidable evil.

Dunfermline, in Fife, with the contiguous district, is the principal seat of the manufacture of napery. The table-cloths which it supplies are of the best quality, and their patterns have latterly been greatly improved. They are now fully equal to, if they do not surpass, the very best specimens furnished by Germany and the Low Countries. In fact, table-linen is now shipped from this country for Germany; so that the duty of 10 per cent. on the importation of German damasks and such like fabrics might be reduced, or even repealed, without the measure having any injurious influence over the manufacturer.

In England the linen manufacture is principally seated in Leeds and its immediate vicinity, where there are some very large mills, and in other parts of the W. Riding. It is also carried on in parts of Lancashire, Dorset, Durham, and Salop.

It is, perhaps, needless to add that the state of the linen trade in 1854 affords no fair criterion of its ordinary state. Probably no branch of industry has suffered so much from the war; partly and principally by the obstacles it threw in the way of the importation of flax and hemp, and partly also by its unfavourable influence in sundry foreign markets.

Value of the Manufacture. Number of Persons employed.—There are no means by which to form an accurate estimate of the entire value of the linen manufacture of Great Britain and Ireland. Dr. Colquhoun estimated it at 15,000,000*l.*, but there cannot be a doubt that this estimate was, at the time, much exaggerated. In the first edition of this work we estimated the annual value of the manufacture at 7,500,000*l.** But it has increased very rapidly in the interval, and its value is at present (1858) probably not under, if it do not exceed, 12,000,000*l.* But taking it at this amount, and setting aside a third part of this sum for the value of the raw material, and another third for profits, wages of superintendence, wear and tear of capital, coal, &c., we have 3,333,000*l.* to be divided as wages amongst those employed in the manufacture. And supposing each individual to earn, at an average, 30*l.* a year, the total number employed would be about 130,000. It may be thought, perhaps, that 25*l.* is too low an estimate for wages; and such, no doubt, would be the case, were not Ireland taken into the average. But as many persons are there employed in the manufacture at very low wages, we believe that 30*l.* is not very far from the mean rate.† We may add that according to the returns under the census of 1851, 98,860 persons were then employed in the linen manufacture in G. Britain, of whom 72,535 were employed in Scotland, and 26,325 in England.

Export of Linens to France.—Previously to 1833 the export of linens and linen-yarn

* Sir F. M. Eden estimated the entire value of the linen manufacture of Great Britain in 1800 at 2,000,000*l.*—(*Treatise on Insurance*, p. 76.)

† A great number of persons in Ireland are only partly employed in the manufacture; but the above estimate supposes that the 130,000 individuals are wholly employed in it.

from this country to France was quite inconsiderable. It then, however, began to increase; and the oppressive duties that previously existed on the importation of these articles into France having been materially reduced in 1834-36, so powerful a stimulus was given to the trade, that the exports of yarn from the U. K. to France rose from 4,012,141 lbs. in 1836, to 22,202,292 lbs. in 1842. This influx of foreign yarn having, of course, subjected the French spinners to considerable temporary difficulties, they set up a cry for the reimposition of the duties; and the government being weak enough, or ignorant enough, to listen to their interested representations, the duties were again largely augmented in 1842. In consequence the exports of yarn, &c., from this country to France declined even more rapidly than they had increased. But we may shortly state, that the injury which the French government has done by this measure to our spinners is but trifling compared with that which they have done to their own subjects; for, while they have stopped all progress in the manufacture, and deprived the producers of the articles sent hither in exchange for yarns of their best market, they have about doubled the price of linens to the consumers. Had the French government wished to favour the manufacture, and been actuated by anything save the narrowest prejudices, it would have allowed the reduced duties to remain as they were, and have opened their ports to the free importation of foreign iron and machinery. In this way they might, perhaps, by reducing the cost of spinning mills and power-loom factories, have had some chance of rivalling us; but the attempts that have been made to bolster up the manufacture by means of duties, must necessarily fail; and will have no effect but to perpetuate exploded practices and promote the trade of smuggling. We beg to subjoin

An Account of the Pounds Weight of Linen Yarn exported from the U. Kingdom to France during each of the undermentioned Years ending with 1857.

Years.	British Linen Yarn exported from U. K. to France.	Years.	British Linen Yarn exported from U. K. to France.
1831	17,503 *lbs.*	1842	22,202,292 *lbs.*
1832	76,512	1843	13,824,285
1833	867,288	1844	15,546,757
1834	1,430,369	1845	9,155,188
1835	2,384,678	1850	690,602
1840	13,137,367	1855	295,501
1841	20,832,875	1857	490,004

Account of the Quantities and Values of the Linen Manufactures and Linen Yarn of British Produce exported from the U. Kingdom in each of the 7 Years ending with 1858.

Quantities.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Linen manufactures —							
White or plain - - yds.	125,176,250	124,705,793	101,721,729	108,827,938	133,170,996	119,847,975	110,986,886
Printed or dyed (stained, striped, and ticking) - - „	4,117,166	4,042,858	4,043,774	3,027,862	5,786,409	6,364,079	5,008,675
Sailcloth - - „	5,759,233	3,904,950	3,794,528	3,851,636	4,752,181	5,442,327	3,619,035
Thread for sewing - - lbs.	3,852,083	4,348,827	3,190,223	3,068,907	4,163,037	3,561,498	3,176,134
Linen yarn - - - „	23,928,592	22,893,586	17,696,567	18,177,484	25,118,349	28,847,811	32,047,492
Values.							
Linen manufactures —	£	£	£	£	£	£	£
White or plain - - yds.	3,514,800	3,960,715	3,541,010	3,450,177	3,955,606	3,643,785	3,373,016
Printed or dyed - - „	119,646	120,899	128,509	96,654	177,528	190,614	159,477
Sailcloth - - „	140,535	176,522	193,569	174,100	216,758	234,845	156,882
Thread for sewing - - lbs.	542,714	388,374	315,685	294,322	381,670	322,158	322,143
Other kinds - - - „	114,091	111,922	129,684	122,760	156,218	125,498	112,838
Total of linen manufactures -	4,231,786	4,758,432	4,108,457	4,118,013	4,887,780	4,516,880	4,124,356
Linen yarn - - -	1,140,565	1,154,977	944,502	932,981	1,365,980	1,647,953	1,746,340

The U. States, Brazil, Cuba, and the Hanse Towns, but especially the first, are by far the largest importers of manufactured linens. The above table shows that the falling off in the export of yarn to France has been more than compensated by its increased exportation to other places. The great outlets for yarn are at present (1859) the Hanse Towns, Spain, inc. Gibraltar, Holland, and Belgium.

LIQUORICE (Ger. *Sussholz*; Fr. *Réglisse, Racine douce*; It. *Regolizia, Ligorizia, Liquirizia*; Sp. *Regaliz Orozuz*), a perennial plant (*Glycirrhiza glabra*), a native of the south of Europe, but cultivated to some extent in England, particularly at Mitcham in Surrey. Its root, which is its only valuable part, is long, slender, fibrous, of a yellow colour, and when fresh very juicy. The liquorice grown in England is fit for use at the end of 3 years; the roots, when taken up, are either immediately sold to the brewers' druggists, or to common druggists, by whom they are applied to different purposes, or they are packed in sand, like carrots or potatoes, till wanted. Liquorice-root was charged till 1853 with a duty of 5*s.* per cwt., when it became duty free.

LIQUORICE JUICE (*Succus Liquoritiæ*), popularly *black sugar*, the inspissated juice of the roots just mentioned. Very little of this extract is prepared in Britain, by far the greater part of our supply being imported from Sicily. The juice obtained by crushing the roots in a mill, and subjecting them to the press, is slowly boiled till it becomes of a proper consistency, when it is formed into rolls of a considerable thickness, which are usually covered with bay leaves. This is the state in which we

import it. Most part of it is afterwards redissolved, purified, and cast into small cylindrical rolls of about the thickness of a goose quill, when it is called *refined liquorice*. It is then of a glossy black colour, brittle, having a sweet mucilaginous taste. It is used in the *materia medica*, particularly in coughs, colds, &c. What is called *liquorice paste* is an inferior or coarser variety of the same article, mostly brought from Turkey.—(*Thomson's Chemistry; Thomson's Dispensatory.*)

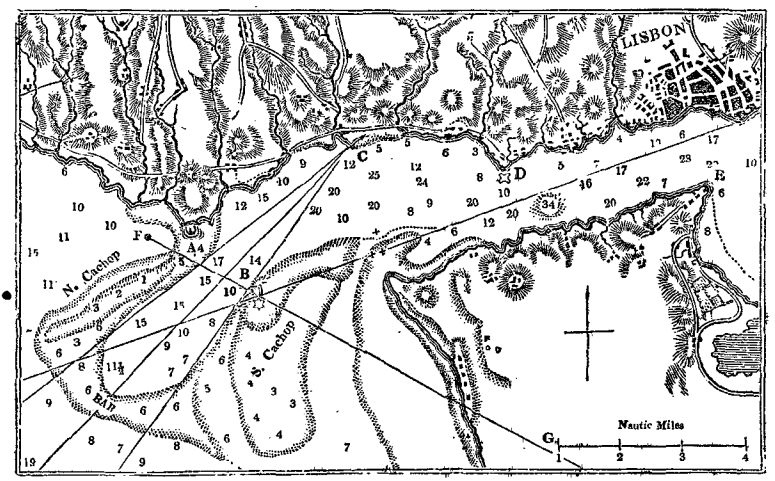
The oppressive duty of 3*l.* 15*s.* a cwt., with which it was loaded down to 1842, was reduced in that year to 27*s.* 6*d.*; and in 1853 to 20*s.*

The imports of juice and paste amounted together in 1857 to 12,770 cwt., whereof 7,964 cwt. of the former, and 1,533 do. of the latter, were entered for consumption.

LISBON, the capital of Portugal, on the N. bank of the Tagus, the observatory of the fort being in lat. 38° 42′ 24″ N., long. 9° 5′ 50″ W. The city proper is surrounded by walls with gates or barriers, at which articles of food, drink, and firing for the use of the town pay octrois or duties. Total population, in 1855, about 220,000, whereof 170,000 are within and 50,000 without the walls.

Lisbon, within the walls, paid in 1854-55, from 1st July, 1854, to 30th June, 1855, 95,000*l.* public taxes, 200,000*l.* town dues, and 46,000*l.* municipal charges: it consumed, during the same period, 11,877 sheep; 13,139 pigs; 19,826 oxen; 3,656 calves; 141,000 gallons of wine, and 143,000 imp. qrs. of wheat: the town dues are received by government.

Port.—The harbour, or rather road, of Lisbon is one of the finest in the world, and the quays are at once convenient and beautiful. Fort St. Julian marks the northern entrance of the Tagus. It is built on a steep projecting rock. There is a light-house in the centre, 120 feet above the level of the sea. At the mouth of the Tagus are two large banks, called the North and South *Cachops*. There are two channels for entering the river; the north or little, and the south or great channel, exhibited in the subjoined plan. On the middle of the South Cachop, about 1¼ mile from Fort St. Julian, is the Bugio fort and light-house, the latter being 66 feet in height. The least depth of water in the north channel on the bar is 4 fathoms, and in the south, 6. The only danger in entering the port arises from the strength of the tide; the ebb running down at the rate of 7 miles an hour; and after heavy rains, when there is a great deal of fresh water in the river, the difficulty of entering is considerably augmented. When, at such periods, there is a strong wind from the sea, there is a complete break all over the bar; vessels moor up and down the river with open hawse to the southward. In some parts they may come within 200 yards of the shore, being guided by the depth of water, which, from nearly 20 fathoms in mid-channel, shoals gradually to the edge.



References to Plan.—A, Fort St. Julian and light-house. B, Bugio fort and light-house. C, Barcarena look-out house. D, Belem Castle. E, Point Cassilhas. F G, Bugio Fort and Sugar Loaf Hill in one, mark the north channel.

Trade, &c.—Though one of the best situated commercial cities of Europe the commerce of Lisbon cannot be very extensive, as the country she supplies is but small, and in a very backward state of improvement. Contrary, however, to what might perhaps be expected, nowhere is political and religious tolerance carried to a greater extent: there are (1855) 8 daily newspapers, 7 political, and 1 commercial, the latter ably conducted. The police is excellent, and one may walk through all parts of the town at all hours of the night in perfect security. The present Minister of Finance is inclined to free trade, but the ignorance and prejudices of the majority of the people and of the members of parliament, and the fear of diminishing the revenue, are formidable obstacles to the introduction of a more liberal system. Lisbon has a government commercial school, a commercial association, and a small though pretty exchange. It is lighted by gas.

The importation duties levied at the custom house for the year ending 30th July, 1854, were 415,000*l.*: the principal imports were:—

Cotton yarn	241,800 lbs.	Duties £4,600	Cheese	1,450 cwt.	Duties £1,200
„ goods	5,482,200 „	„ 97,700	Olive oil	61,500 galls.	„ 3,000
Woollen goods	377,600 „	„ 43,600	Tobacco leaf	16,800 cwt.	„ 30,520
Linen goods	778,000 „	„ 7,800	Earthenware	1,000 „	„ 2,000
Silk goods	29,700 „	„ 15,800	China	250 „	„ 1,200
Flax and hemp	650 tons	„ 700	Glass	260 „	„ 800
Wines and liquors	11,800 galls.	„ 970	Wrought steel	1,100 „	„ 1,800
Rice	41,400 cwt.	„ 8,600	Iron bars, bundles & hoops	4,060 tons	„ 2,400
Sugar	137,700 „	„ 98,808	Hardware	215 „	„ 2,200
Coffee	16,800 „	„ 5,400	Coals	85,000 „	„ 1,050
Tea	251,000 lbs.	„ 9,700	Timber	1,554,500 feet	„ 2,400
Codfish	46,100 cwt.	„ 15,300	£518,000 in gold specie		free.
Butter	18,500 „	„ 25,400			

The duties on exportation are 1 per cent., excepting wines, liquors, oak bark, vinegar, gold and silver, rags and argol. Chief exports, in 1854, wheat 39,100 qrs. (35,400 to England, 3,500 to France), wine 258,000 gallons, 1,170 tons cork wood, 62,000 tons salt, 2,350 cwt. tartar, 62,000 half chests oranges, 640 tons wool, and 2,700 tons onions. The arrivals and departures of vessels, inc. repeated voyages, were in—

Countries.	1853.		1854.	
	Arrived.	Sailed.	Arrived.	Sailed.
English	431	395	440	463
Swedish & Norwegian	127	113	140	150
French	90	82	82	87
Dutch	85	72	62	74
Russian	38	36	17	18
Brazilian	27	27	24	23
Prussian	13	9	17	20
Spanish	12	14	30	33
Danish	12	14	35	36
Hanoverian	10	6	19	28

Countries.	1853.		1854.	
	Arrived.	Sailed.	Arrived.	Sailed.
Belgian	9	9	13	12
United States	8	8	11	12
Sardinian	8	7	2	2
Other countries	12	11	11	9
Portuguese to and from for. countries	224	178	265	225
To and from colonies and coasting trade	1,255	1,201	1,282	1,436
	2,361	2,158	2,450	2,628

In Portugal during 1854 there were 65 vessels built, measuring 9,816 tons. The following statement shows the number of vessels belonging to the different Portuguese ports at the end of 1854.

	Vessels.	Tons.
Lisbon	319	47,042
Oporto	88	21,466
St. Ubes	28	3,480
Caminho	18	2,022
Vimeira	21	2,067
Aveiro	17	1,155
Figueira	7	1,168
Other ports	64	4,002
	591	82,402

There are regular means of steam communication between Lisbon and Southampton 3 times a month by the Peninsular and Steam Navigation Company.

Southampton	1	a month	Royal Mail Steam Packet Cmp.
Glasgow	2	,,	2 Glasgow Steam Boats
Live. pool	3	,,	4 Liverpool ,,
Havre and Rouen	1	,,	French ,,
Nantz	1	,,	,, ,,
Brazils	1	,,	Royal Mail Steam Packet Cmp.
,,	2	,,	in 3 mths by 2 Portuguese steamers.

There are at Lisbon the following Insurance companies and agencies:

Fidelidade (Sea, Fire and Life Insurance)	capital £300,000	by shares.
Unial Commercial (Sea and Fire)	,, 122,000	,,
Restauracad (Sea and Fire)	,, 44,500	,,
Garantie (Oporto Company) Sea and Fire Insurance	,, 223,000	,,
Seguranca (Do. do.)	,, 223,000	,,
Equidade (Do. do.)	,, 223,000	,,

Agencies of the English companies Athenæum, Albion, Sun, Liverpool and London and Norwich Union, and of the Madrid Life Insurance Companies.

Port Regulations.—All vessels coming over the bar are to heave to at the Paço d'Arcos that they may be registered and receive on board a customs officer. Masters of vessels must bring with them a manifest or the cargo, containing shippers' and receivers' names, marks, number and contents of packages, legalised by the Portuguese consul at the port of departure. They will otherwise be fined double the amount of duties. The bill of health must contain the number and names of passengers, and be also legalised by the Portuguese consul. Passengers must be provided with passports: masters of vessels are otherwise liable to pay a fine.

Vessels loading, unloading, or merely remaining in the port (in *franquia*), which they are permitted to do for 6 days (or for 10 days if sufficient grounds be assigned for the indulgence), must anchor in and continue in the situation pointed out by the authorities. And as any infringement of the customs or port regulations is followed by heavy fines, and is often the cause of much delay, they should be carefully attended to.

All masters of vessels, seamen and passengers, are obliged to deliver up *to the authorities*, who come on board, all soap and tobacco they may possess, being only allowed to retain what may be deemed sufficient for own use on board. Any tobacco or soap found in their possession while going on shore is seized and the bearer subjected to imprisonment and to very heavy fines; the tobacco taken from the parties on arrival is restored to them on leaving.

Port Charges consist of pilotage and tonnage dues. Pilotages inwards for vessels of 3 masts 35*s.* 6*d.*; of 2 masts and 1 ditto, 27*s.* 6*d.* Pilotages outwards for vessels of 3 masts, 32*s.*; of 2 masts and 1 ditto, 24*s.* Tonnage dues are rather complicated. Vessels coming in with a full cargo and leaving in ballast, coming in and leaving in ballast, coming in with cargo and leaving with foreign goods, pay 13½*d.* per ton; also vessels taking ⅔ of the cargo salt and foreign goods pay said tonnage dues on the goods.

Vessels arriving loaded and leaving with cargo pay for Portuguese goods 8*d.*, the same vessels taking ⅔ salt and the remainder goods pay on the Portuguese goods. Vessels coming in and going out with the same cargo pay 32*d.* per ton, also those which come in loaded and leave with a full cargo of salt, and those which take ⅔ of the cargo salt pay this tonnage duty on the salt. Vessels arriving in ballast and leaving with a full cargo of salt pay no tonnage dues, and vessels putting in in distress. No tonnage dues are paid on grain, oil, or salt, if they form ⅔ of the cargo, the vessel clearing for Lisbon.

Money.—Gold is the circulating medium, silver being only legal tender to the extent of 22*s.* 5*d.* in any payment. The gold in circulation is almost all *British coin*, sovereigns and half-sovereigns, the former having a legal value of 4,500, the latter of 2,250 reis. There are also some Portuguese coins, 6,000 reis pieces and 4,000 reis in circulation, and a few 5,000, 2,500, and 1,000 reis pieces. Silver, the old coins of 480, 240, 120, and 60 reis, are being withdrawn; the new coins consist of 500, 200, 100, and 50 reis pieces. Copper 40, 20, 10, and 5 reis pieces. The mille reis is thus about 4*s.* 5½*d.* Accounts are kept *in* reis; 1,000 are called mille reis, and 1,000,000 reis are called a conto. In the notation of accounts, the mille reis are separated from the reis by the following sign $, thus a sovereign 4,500 is 4 $ 500.

The old crusado is 400, the new crusado 480 reis. 100 reis are called tostao, (plural tostoes), 20 reis is called a vintem (plur. vintens). The 8,000 pieces are denominated "peças." The actual rates (1855) of exchange on England 54½*d.* per mille reis at 3 *m.* | *d.* Paris, 530 reis per 3 francs, 100*d.* | *d.* Hamburgh 38½ *d.* per mille reis 3 *m.* | *d.* Amsterdam, 43 florins per 16 mille reis, 3 *m.* | *d.*; and Genoa, 528 reis per lira nuova, 3 *m.* | *d.* Bills drawn in foreign coin, without any declared exchange, are payable in Portugal at the *usu* exchange at maturity. The uso is 30 *d.* | *s.* for England, 100 *d.* | *d.* for France, and 3 *m.* | *d.* for Hamburgh, Holland, and Genoa. There are no direct exchange operations on other places besides these, excepting Spain, the price of the dollar varying from 920 to 960 reis.

Weights and Measures.—The French system has been adopted by government, but has not yet been carried into execution, excepting by official employés in measurements of land. Commercial Weights.—The *arvatel*, libra, or pound = 2 marcos = 4 quarteis = 16 onças = 128 outavas = 7,084 Eng. grains. 32 arratels, or 1 a. = 1 arroba; 4 arrobas = 1 quintal; and 1¾ quintals, or 54 arrobas = 1 tomelada or ton. 100 Portuguese lbs. = 101·19 (101½ nearly) lbs. avoirdupois = 45·89 kilog.

The measure by which corn, salt, and dry vegetables are principally sold is the *moio* or *muyo* = 15 fangas = 60 alqueires = 240 quartos = 480 outavas = 9·79 (rather more than 9¾) imp. quarters. The weight of a moyo of corn depends, of course, on the quality of the grain. A moyo of salt may be taken at about 1600 lbs.

The principal liquid measure, the *almude*=3,641 imp. gallons, is divided into 2 potes or cantaros, 12 canadas, and 48 quartilhos. A pipe in the S. provinces=96 almudes; in Lisbon for shipment it is 30 almudes=109·23 (109¼ nearly) imp. gall.

Measures of length, 1 pe = 1¼ palmo = 12·95 Eng. inch; 3 palmos=1 covado; 5 palmos=1 vara; 2 varas, or 10 palmos = 1 braça. A yard is reckoned equal to 4 palmos; a metre, to 4½ palmos.

The weights are uniform throughout Portugal; the measures vary almost from one parish to another.—(*Dourthez, Dictionnaire Universel, voce* ARROBA, *&c.*; *Kelly's Cambist*, art. LISBON, *&c.*

Bank of Lisbon, now called Bank of Portugal, was founded in Nov. 1846, being a reintegration of the old bank founded in 1822. Its capital is 1,780,000*l.*, in shares of about 22*l.* and 110*l.* Its rate of discount is invariably 5 per cent. per annum for bills not having more than 3 months to run.

It has the privilege of issuing notes, and, which is more valuable, of having its claims on estates paid in full, provided the estate amounts to so much! This privilege, which is justly obnoxious, allows it to be more liberal, or less cautious in discounting than it would be otherwise. It is bound to publish monthly statements of its situation, but, like the majority of such documents, they are drawn out so that it is impossible to make anything satisfactory out of them. From those of *July, 1855*, it appears that the notes in circulation were 206,600*l.*; deposits, 553,500*l.*; cash, 383,400*l.*; bills discounted, 325,200*l.*

Commission.—Portuguese houses generally charge 3 per cent.; foreign houses 2½ per cent. , *del credere* ½ per cent. per month.

According to the Portuguese laws agents are obliged to effect insurance on shipments, unless they have orders to the contrary.

Brokerage, ½ per cent. for bills, ¼ per cent. for funds and goods, payable by buyer and seller; for grain 400 reis per moyo (about 8*d.* per quarter) is paid; for butter and sometimes for rice 1 per cent. is charged.

Customary Tares.—Annatto, single baskets 1½ lb. each, draft 2 lb. per 320 lb.; cotton, ½ lb. per bag, draft 2 lb. per 5 bags; coffee, linen bag, 1½ lb., cotton do. 1 lb. each, draft 2 lb. per 5 bags; cocoa, like coffee. Copahiba oil in tin canisters, 2 lb. each, draft 2 lb. per 320 lb.; in barrels it is measured; Indian rubber (caoutchouc), 2 lb. per bundle, draft 2 lb. per 320 lbs.; gum, 1 lb. per basket, draft as above: tapioca, 20 lb. per barrel, draft as above; sugar, general tare, 7 to 8 arrobas per box, draft 2½ lb., barrel 18 lb. to 20 lb., draft 2 lb.; bags, invariable tare, 2 lb. per bag, draft 2 lb. per 5 bags.

Tea, per chest, 15 to 24 lbs. according to size; cinnamon, 12 lb. per box, pepper, 2 lb. per bag; rice, 1 lb., draft as above. Oil is now sold by weight, 34 lb. per almude (66 almudes are reckoned to the tun) and real tares of casks allowed. All goods for exportation must be accompanied on board by a custom-house permit.

Warehousing.—The custom-house has spacious stores, where all goods, except inflammatory ones, such as pitch and tar, are

allowed to remain, free of expense, for 12 months; raw cotton, sugar, coffee, cinnamon, tea, hides, pepper, sarsaparilla, saltpetre and tobacco may remain for 24 months. After these periods the rent is 20 reis per 128 lbs. for dry goods, and 16 reis per almude for liquids. All labour in the custom-house is done by its workmen, for which 85 reis per 128 lbs. gross weight is charged. Lisbon possesses an Industrial Institute, where artisans (400 in 1855) are instructed in arts and trades. It has 47 manufactories moved by steam engines of 722 horse-power, and 68 by manual labour. The latter employ 4,769 workmen.

On sale of goods, credits varying from 3 to 6 months are allowed; export goods are usually paid by cash. (Compiled from private information, obtained from the best sources, direct from Lisbon.)

Trade of the U. Kingdom with Portugal.—We subjoin

An Account of the Quantities and computed Values of the Principal Articles Imported into the U. K. from Portugal in 1856 and 1857.

Articles.		Quantities.		Values.	
		1856.	1857.	1856.	1857.
Animals: oxen and bulls	no.	3,922	3,042	£68,635	£57,037
Argol	cwts.	3,293	3,771	6,874	8,296
Copper ore	tons	651	710	6,021	5,680
Cork	,,	382	4,212	114,624	135,744
Corks, ready-made	lbs.	26,719	18,153	2,338	1,587
Corn, wheat	qrs.	14,809	5,426	48,869	16,725
Cream of tartar	cwts.	4,629	2,125	24,919	10,377
Figs	,,	592	1,288	696	1,513
Hides tanned, tawed, curried or dressed	lbs.	173,253	106,684	8,158	7,046
Nuts, chesnuts	bushels	19,349	14,101	8,868	7,051
Oil, olive	tuns	3,175	2,570	163,513	139,617
,, palm	cwts.	6,648	5,946	14,293	12,696
,, seed	tuns	373	780	16,778	35,595
Onions	bushels	37,299	41,553	12,410	12,985
Oranges and lemons	,,	228,925	259,032	148,801	148,943
Orchal	cwts.	15,157	12,595	31,830	52,581
Sugar, unrefined	,,	13,786	3,155	20,371	5,931
Teeth, elephants'	,,	787	485	28,070	20,807
Wine	gallons	3,284,370	2,964,035	1,265,751	1,251,005
Wool, sheep and lambs'	lbs.	1,601,261	2,275,772	85,067	151,248
Total value of the above and of all other articles				£2,161,090	£2,148,723

Account of the Quantities and Values of the Principal Articles the Produce and Manufacture of the U. K. Exported to Portugal in 1856 and 1857.

Articles.		Quantities.		Values.	
		1856.	1857.	1856.	1857.
Apparel, slops, and haberdashery	value	-	-	£16,505	£17,025
Butter	cwts.	18,472	20,428	94,860	104,597
Coals, cinders, and culm	tons.	22,580	22,622	44,017	45,137
Copper, wrought and unwrought	cwts.	5,941	5,000	34,776	31,104
Cottons, entered by the yard	yards	49,255,559	45,969,421	596,917	574,912
,, ,, at value	value	-	-	15,309	12,478
Cotton yarn	lbs.	659,334	335,031	27,885	17,425
Hardwares and cutlery	cwts.	4,894	3,989	34,236	31,771
Iron and steel	tons.	16,511	18,102	142,234	155,574
Linens, entered by the yard	yards	1,365,894	1,420,217	32,517	35,831
Machinery: steam engines	value	-	-	1,888	27,660
,, all other sorts	,,	-	-	21,060	17,902
Oil, linseed	galls.	55,643	75,859	8,288	11,947
Silk manufactures	value	-	-	33,122	30,822
Stationery	,,	-	-	3,265	3,229
Tin plates	,,	-	-	14,735	19,340
Woollens, entered by the piece	pieces	28,525	24,655	95,315	80,429
,, ,, by the yard	yards	444,309	471,696	21,284	24,312
Total value of the above and of all other articles				£1,455,754	£1 458,321

LITERARY PROPERTY. See Books.

LITHARGE (Ger. *Glötte, Glätte*; Du. *Gelit*; Fr. *Litharge*; It. *Litargirio*; Sp. *Almartaga, Litarjirio*; Rus. *Glet*; Lat. *Lithargyrium*), an oxide of lead in an imperfect state of vitrification.

Most of the lead met with in commerce contains silver, from a few grains to 30 ounces or more in the fodder: when the quantity is sufficient to pay the expense of separation, it is *refined*; that is, the metal is exposed to a high heat, passing at the same time a current of air over the surface; the lead is thus oxidised and converted into *litharge*, while the silver, remaining unchanged, is collected at the end of the process.—(*Thomson's Chemistry, &c.*) Litharge is used for various purposes in the arts, by potters, glass makers, painters, &c.

LIVERPOOL DOCKS, SHIPPING, &c. See antè p. 514.

LOADSTONE (Ger. *Magnet*; Du. *Magneet*; Fr. *Aimant*; It. *Calamita*; Sp. *Iman*; Rus. *Magnit*; Lat. *Magnes*).

M. Haüy observes, that the ores in which the iron contains the least oxygen without being engaged in other combinations, form natural magnets; and he calls the *loadstones* of commerce, which are found in considerable masses in Germany, Sweden, Norway, Spain, Italy, China, Siam, the Philippine Isles, Corsica, and Ethiopia, *oxidulated iron*. The loadstone is characterised by the following properties:—A very strong action on the magnetic needle. Specific gravity 4·2457. Not ductile. Of a dark grey colour, with a metallic lustre.—Primitive form, the regular octahedron. Insoluble in nitric acid.

This singular substance was known to the ancients, and they had remarked its peculiar property of attracting iron; but it does not appear that they were acquainted with the wonderful property which it also has, of turning the pole when suspended, and left at liberty to move freely. Upon this remarkable circumstance the mariner's compass depends, an instrument which gives us such infinite advantages over the ancients. It is this which enables the mariner to conduct his vessel through vast oceans out of the sight of land, in any given direction; and this directive property also guides the miner in subterranean excavations, and the traveller through deserts otherwise impassable. The natural loadstone has also the quality of communicating its properties to iron and steel; and when pieces of steel properly prepared are touched, as it is called, by the loadstone, they are denominated artificial magnets.—(See COMPASS.)

LOBSTER (Fr. *Ecrevisse*; Lat. *Cancer*), a fish of the crab species, of which vast quantities are consumed in London.

The minimum size of lobsters offered for sale is fixed by 10 & 11 Will. 3. c. 24., at *eight* inches from the tip of the nose to the end of the middle fin of the tail. No lobsters are to be taken on the coast of Scotland between the 1st of June and the 1st of September, under a penalty of 5*l*. The Scilly Islands and the Land's End abound in lobsters, as well as several places on the Scottish shores, particularly about Montrose. But the principal lobster fishery is on the coast of Norway; whence it is believed about 1,000,000 lobsters are annually imported into London. Those of Heligoland are, however, esteemed the best; they are of a deeper black colour, and their flesh is firmer than those brought from Norway. Turbots and lobsters may be imported either in British or foreign vessels free of duty.

LOCK, LOCKS (Ger. *Schlösser;* Du. *Sloten;* Fr. *Serrures;* It. *Serrature;* Sp. *Cerraduras, Cerrajos;* Rus. *Samki*), a well known instrument, of which there are infinite varieties. A great deal of art and delicacy is sometimes displayed in contriving and varying the wards, springs, bolts, &c., and adjusting them to the places where they are to be used, and to the occasions of using them. From the various structure of locks, accommodated to their different intentions, they acquire various names, as stock locks, spring locks, padlocks, &c. Wolverhampton was, at a very early period, famous for the superior skill and ingenuity of its locksmiths; but the best locks are now made in London and Birmingham. The grand difficulty to be overcome in making a lock is to construct it so that it may not be opened by any key except its own, nor admit of being picked; it should also be possessed of sufficient strength and durability, and not be too complex. Many ingenious contrivances have been proposed for the attainment of the desired security, several of which are possessed of much merit. And though we believe that no lock has hitherto been constructed that may not (if proper facilities are given) be picked; yet it is true that some of the best locks, such as those made by Messrs. Bramah, Chubb, Mordan, and other first-rate artists, are so very difficult to pick, that the security which they afford may, in a practical point of view, be regarded as all but perfect. Common door-locks are now usually inserted in the wood, instead of being, as formerly, screwed to it; and when so placed are called *mortis* locks.

LOG (SHIP'S), Fr. *Loc;* a piece of timber, usually of a fish-like or quadrantal shape, so constructed and balanced, by being loaded at one end, as to swim perpendicularly on the surface of the water. It has a line attached to it, and is employed in ships to ascertain the rate of sailing. The log-line is divided into spaces, or knots, which, if properly measured, bear the same proportion to a marine mile that $\frac{1}{2}$ minute bears to an hour. On throwing the log into the sea it remains stationary, or nearly so; and the log-line being drawn out, or unwound from its reel, by the ship proceeding on her course, her speed is estimated by observing the number of knots, each of which represents a mile, run out in $\frac{1}{2}$ minute as measured by a $\frac{1}{2}$ minute sand-glass. Hence, if 3, 4, or 5 knots are run out in $\frac{1}{2}$ minute, the rate of sailing is 3, 4, or 5 miles an hour as the case may be; and hence, also, the custom of stating a ship's rate of sailing in knots instead of miles. N. B. A great variety of logs have been suggested; but the principle being the same in them all, it is needless to enter into any particulars with respect to their construction.

From the log being affected by currents and other disturbing causes, the results obtained by its means have usually to be subjected to various corrections; and, except under favourable circumstances, are but little to be depended on. Whenever, therefore, an opportunity offers, the true place of the ship should be determined by observation. But in hazy weather, or when observations cannot be taken, and in narrow seas, the log, when carefully used, may be of the greatest service; and it should never be wholly dispensed with.

LOG-BOOK, (Fr. *Livre du Loc*). This, which is, in fact, the ship's journal, derives its name from the circumstance of the *dead reckoning*, or the results obtained by heaving the log compared with the ship's course, being usually given in it. In its present improved state, the log-book comprises an account of every event of any importance that takes place during a voyage, whether relating to the ship, the crew, the passengers (if any), or the cargo, which should be taken down as soon as possible after its occurrence. Inasmuch, too, as it is of the highest importance in all matters relating to the voyage, the log-book should be carefully and faithfully compiled, and made out in a clear and distinct manner. This, indeed, is one of the principal duties of a master.

LOG (OFFICIAL). In addition to, or in conjunction with the ordinary ship's log, all masters of British ships, not wholly engaged in the coasting trade, are bound to keep an *official log*, in such form as may, from time to time, be prescribed by the Board of Trade. The entries to be made in this log are specified in the Mercantile Shipping Act of 1854, as follows, viz.

Official Logs to be kept in Forms sanctioned by B. of T.—The B. of Trade shall sanction forms of official log books, which may be different for different classes of ships, so that each such forms contains blanks for the entries herein-after required; and an official log of every ship (except ships employed exclusively in trading between ports on the coasts of the U. K.) shall be kept in the appropriate sanctioned form; and such official log may, at the discretion of the master or owner, either be kept distinct from the ordinary ship's log or united therewith, so that in all cases all the blanks in the official log be duly filled up. — § 280.

Entries to be made in due Time.—Every entry in every official log shall be made as soon as possible after the occurrence to which it relates, and if not made on the same day as the occurrence to which it relates shall be made and dated so as to show the date of the occurrence and of the entry respecting it; and in no case shall any entry therein in respect of any occurrence happening previously to the arrival of the ship at her final port of discharge be made more than 24 hours after such arrival.—§ 281.

Entries required in Official Log.—Every master of a ship for which an official log book is hereby required shall make or cause to be made therein entries of the following matters; (that is to say,)

(1.) Every legal conviction of any member of his crew, and the punishment inflicted:

(2.) Every offence committed by any member of his crew for which it is intended to prosecute, or to enforce a forfeiture, or to exact a fine, together with such statement concerning the reading over such entry, and concerning the reply (if any) made to the charge, as herein-before required:

(3.) Every offence for which punishment is inflicted on board, and the punishment inflicted:

(4.) A statement of the conduct, character, and qualifications, of each of his crew, or a statement that he declines to give an opinion on such particulars:

(5.) Every case of illness or injury happening to any member of the crew, with the nature thereof, and the medical treatment adopted (if any):

(6.) Every case of death happening on board, and of the cause thereof:

(7.) Every birth happening on board, with the sex of the infant and the names of the parents:

(8.) Every marriage taking place on board, with the names and ages of the parties:

(9.) The name of every seaman or apprentice who ceases to be a member of the crew, otherwise than by death, with the place, time, manner, and cause thereof:

(10.) The amount of wages due to any seaman who enters Her Majesty's service during the voyage:

(11.) The wages due to any seaman or apprentice who dies during the voyage, and the gross amount of all deductions to be made therefrom:

(12.) The sale of the effects of any seaman or apprentice who dies during the voyage, including a statement of each article sold, and of the sum received for it:

(13.) Every collision with any other ship, and the circumstances under which the same occurred.—§ 282.

Entries how to be signed.—The entries to be made in official log books shall be signed as follows; viz.:—Every such entry shall be signed by the master and by the mate or some other of the crew, and every entry of illness, injury, or death shall be also signed by the surgeon or medical practitioner on board (if any); and every entry of wages due to or of the sale of the effects of any seaman or apprentice who dies shall be signed by the master and by the mate and some other member of the crew; and every entry of wages due to any seaman who enters H. M.'s service shall be signed by the master, and by the seaman or by the officer authorised to receive the seaman into such service.—§ 283.

Penalties in respect of official Logs.—The following offences in respect of official log books shall be punishable as herein-after mentioned; viz.:—

(1.) If in any case an official log book is not kept in the manner hereby required, or if any entry hereby directed to be made in any such log book is not made at the time and in the manner hereby directed, the master shall for each such offence incur the specific penalty herein mentioned in respect thereof, or where there is no such specific penalty, a penalty not exceeding 5*l.*

(2.) Every person who makes or procures to be made or assists in making any entry in any official log book in respect of any occurrence happening previously to the arrival of the ship at her final port of discharge more than twenty-four hours after such arrival shall for each such offence incur a penalty not exceeding 30*l.*

(3.) Every person who wilfully destroys or mutilates or renders illegible any entry in any official log book, or who wilfully makes or procures to be made or assists in making any false or fraudulent entry or omission in any such log book, shall for each such offence be deemed guilty of a misdemeanor.—§ 284.

Entries in official Logs to be received in Evidence.—All entries made in any official log book as herein-before directed shall be received in evidence in any proceeding in any court of justice, subject to all just exceptions.—§ 285.

Official Logs to be delivered to Shipping Master.—In the case of foreign-going ships the master shall, within 48 hours after the ship's arrival at her final port of destination in the U. K., or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged the official log book of the voyage; and the master or owner of every home trade ship, not exclusively employed in trading between ports on the coasts in the U. K. shall within 21 days after the 30th of June and the 31st of December in every year transmit or deliver to some shipping master in the U. K. the official log book for the preceding half year; and every master or owner who refuses or neglects to deliver his official log book as hereby required shall be subject to the same consequences and liabilities to which he is hereby made subject for the non-delivery of the list of his crew.—§ 286.

Official Logs to be sent home in case of Transfer of Ship, and in case of Loss.—If any ship ceases by reason of transfer of ownership or change of employment to fall within the definition of a foreign-going or of a home trade ship, the master or owner thereof shall if such ship is then in the U. K., within 1 month, and if she is elsewhere, within 6 months, deliver or transmit to the shipping master at the port to which the ship belonged the official log book (if any) duly made out to the time at which she ceased to be a foreign-going or home trade ship, and in default shall for each offence incur a penalty not exceeding 10*l.*; and if any ship is lost or abandoned, the master or owner thereof shall, if practicable, and as soon as possible, deliver or transmit to the shipping master at the port to which the ship belonged the official log book (if any) duly made out to the time of such loss or abandonment, and in default shall for each offence incur a penalty not exceeding 10*l.*—§ 287.

LOGWOOD (Fr. *Bois de Campèche*; Ger. *Kampescholz*; Du. *Campecheout*; Sp. *Palo de Campeche*), the wood of a tree (*Hæmatoxylon Campechianum* Lin.), a native of America, and which attains the greatest perfection at Campeachy, and in the West Indies. It thrives best in a wet soil, with a large proportion of clay. The logwood tree is like the white thorn, but a great deal larger. The wood is hard, compact, heavy, and of a deep red colour internally, which it gives out both to water and alcohol. It is an article of great commercial importance, being extensively used as a dye wood. It is imported in logs, that are afterwards chipped.—(The logwood tree, and the adventures of those that were formerly engaged in cutting it, are described by Dampier; see his *Voyages*, vol. ii. part 2. p. 56. ed. 1729.)

The imports of logwood amounted at an average of the years 1851 and 1852 to 20,454 tons a year, and the re-exports to 2,617 tons a year. Of the imports, in 1852, about 10,000 tons came from Honduras, the British W. Indies, and Guiana; 4,775 tons from Mexico; 3,197 tons from the U. States; and 1,050 tons from Hayti. Its price in Liverpool, in 1854, varied from 5*l.* to 7*l.* 10*s.* a ton. It was made duty free in 1845.

We borrow from the learned and able work of Dr. Bancroft, the following curious

details with respect to the use of logwood in this country: — "Logwood seems to have been first brought to England soon after the accession of Queen Elizabeth: but the various and beautiful colours dyed from it proved so fugacious, that a general outcry against its use was soon raised; and an act of parliament was passed in the 23d year of her reign, which prohibited its use as a dye under severe penalties, and not only authorised but directed the *burning* of it, in whatever hands it might be found within the realm; and though this wood was afterwards sometimes clandestinely used (under the feigned name of blackwood), it continued subject to this prohibition for nearly 100 years, or until the passing of the act 13 & 14 Chas. 2.; the preamble of which declares, that the ingenious industry of modern times hath taught the dyers of England the art of fixing colours made of logwood, *alias* blackwood, so as that, by experience, they are found as lasting as the colours made with *any other sort of dyeing wood whatever*; and on this ground it repeals so much of the statute of Elizabeth as related to logwood, and gives permission to import and use it for dyeing. Probably the solicitude of the dyers to obtain this permission, induced them to pretend that their industry had done much more than it really had, in fixing the colours of logwood; most of which, even at this time, are notoriously deficient in regard to their durability"—(*On Permanent Colours*, vol. ii. p. 340.)

LOUIS D'OR, a French gold coin, first struck in 1640. It was subsequently made by the French mint regulations equal to 24 livres, or 1*l.* sterling. This, however, was under-rating it in respect of silver; and hence, as every one preferred paying his debts in the over-valued coin, silver became the principal currency of France, the gold coins being either sent to the melting-pot or exported. In Britain, the process was reversed. Gold having been, for a lengthened period, over-valued by our mint in respect to silver, it became the principal currency of the country.

M.

MACAO, a sea-port and settlement belonging to the Portuguese, on the island of the same name, at the mouth of the Canton river in China, in lat. 22° 12′ 45″ N., lon. 113° 35′ E. The situation of Macao strikingly resembles that of Cadiz. It is built near the extremity of a peninsula projecting from the south-west corner of the island of Macao, to which it is joined by a long narrow neck. Across this isthmus, which is not more than 100 yards wide, a wall is erected, with a gate and guard-house in the middle for the Chinese soldiers. The greatest length of the peninsula belonging to the Portuguese, from N. E. to S. W., is under 3 miles, and its breadth under ½ mile. The broadest part, to the north of the town, is flat, and of a light sandy soil; but is well cultivated, principally by Chinese, and produces all sorts of Asiatic and European culinary vegetables. Provisions are obtained from the Chinese part of the island or from the main land; and whenever the Portuguese do any thing to offend the Chinese authorities, the provisions are cut off till they are obliged quietly to submit. They are seldom allowed to pass beyond the narrow precincts of the territory assigned to them. The population of the peninsula may amount to from 12,000 to 13,000, of whom considerably more than half are Chinese. The functionaries belonging to the East India Company's factory at Canton resided here during the whole of the dead season.

The Portuguese obtained possession of Macao in 1586. It was for a considerable period the seat of a great trade, carried on not only with China, but with Japan, Siam, Cochin-China, the Philippine Islands, &c.; but for these many years past it has been of comparatively little importance, though it is probable, that if it belonged to a more enterprising and active people, it might still recover most part of its former prosperity. The public administration is vested in a senate composed of the bishop, the judge, and a few of the principal inhabitants; but all real authority is in the hands of the Chinese mandarin resident in the town.

The Harbour is on the west side of the town, between it and Priest's Island; but the water in it not being sufficiently deep to admit large ships, they generally anchor in the roads on the other side of the peninsula, from 5 to 10 miles E.S.E. from the town. All vessels coming into the roads send their boats to the Portuguese Custom-house on the south side of the town.

When a ship arrives among the islands, she is generally boarded by a pilot, who carries her into Macao roads. As soon as she is anchored, the pilot proceeds to Macao to inform the mandarin of the nation she belongs to. If there be any women on board, application must be made to the bishop and senate, for leave to send them on shore, as they will not be permitted to proceed *to* Whampoa in the ship. As soon as the mandarin has made the necessary inquiries, he orders off a river pilot, who brings with him a *chop* or licence to pass the Bocca Tigris, or mouth of the Canton river, and carries the ship to Whampoa.

Trade of Macao. — The Chinese regulations do not permit any vessels, except such as belong to Portuguese or Spaniards, of which there are very few, to trade at Macao. But the Portuguese inhabitants lend their names, for a trifling consideration, to such foreigners as wish to be associated with them for the purpose of trading from the port. Independently, however, of this, vessels of other nations usually experience no difficulty in obtaining the connivance of the Chinese officers to the landing or receiving of goods in the roads, by means of Portuguese boats. At intervals, indeed, the prohibitory regulation is strictly enforced; but we believe that there has been no instance of this for the last 3 years.

Vessels of other nations, if in distress, and not engaged in the contraband trade, are admitted into the harbour for repairs, on application to the senate.

Port Charges.—The measurement duty paid by Spanish and Portuguese vessels is moderate. When a vessel has once paid the full amount, and is admitted on the list of registered ships belonging to the port (limited by the Chinese to 25), she is liable only to a third of the original charges, on every subsequent occasion of her entering, so long as she continues on the register. Portuguese vessels from Europe do not possess this privilege, unless they be registered as belonging to a morador of Macao.

The rates of measurement duty, which vary as at Canton, (which see), on three classes of vessels, are the following:—

		Taels.
1st.	On vessels of 154 covids and upwards,	6·223 per covid.
2d.	— from 120 to 154	5·72 —
3d.	— from 90 to 120 covids	4 —

These rates are nearly the same as those levied on Canton junks, trading with foreign countries, and ought, in fact, to be entirely so. The dimensions are taken and calculated in the manner formerly practised at Canton; but the Chinese, at both places, speak not of the covid, but of the chang of 10 covids. However, as this is only a decimal increase, it makes no difference in the method of calculation.

The following additional charges, to be calculated on the amount of measurement duty, are the same on every class of vessels, viz

2 per cent. for inspectors.
8 — for difference in weight by the treasury scales.
10 — for loss in melting.
17 — for making sycee.

Also the sum of 70 taels for the "public purse," or hoppo's treasury.

In addition to these, the following are the charges levied by the hoppo (collector of customs), or his deputy:—

On a 1st class vessel from Europe, 250 taels; if belonging to Macao or Manilla, 50 taels.

On a 2d class vessel from Europe, 240 taels; if belonging to Macao or Manilla, 40 taels.

On a 3d class vessel from Europe, 170 taels; if belonging to Macao or Manilla, 30 taels.

Ships importing rice are exempt from the measurement duty, and pay only 50 dollars, as fees to the procurador of Macao and the officers of his department.

Portuguese vessels from Europe, in addition to the measurement duty, have to pay to the Canton hong merchants a charge, termed by the Portuguese, Hanistagem, or Consoo charge, which is usually a matter of specific bargain, varying from about 200 dollars on a vessel of 200 tons, to 3,500 dollars and upwards on those of 500 tons, and of larger sizes.

The charges on goods carried by the inner passage, between Canton and Macao, being generally less than those paid on goods to and from Whampoa; and the duties levied by the Portuguese, on articles of merchandise imported by vessels belonging to Macao, being very moderate; the Chinese are often led to engage in speculations on board the Macao vessels, the risk being so much less than in native junks. If the ship owners could manage their expenses so as to be satisfied with only the same freight as is charged by English vessels, it would probably induce many more Chinese to make remittances in this way.

Opium.—The trade in opium is prohibited at Macao by the Chinese government, as well as throughout the rest of the empire. It was, nevertheless, formerly carried on to a great extent by the Portuguese moradores, or citizens, to the exclusion of all others, even Portuguese who were not citizens. But this restriction having occasioned the decline of the trade, it was abolished in 1833, when the senate passed a regulation throwing open the trade to all, without distinction, whether Portuguese or foreigners; securing to the latter, "hospitality and the utmost freedom in their speculations." At present, however, very little opium is imported, in consequence, it is said, of the heavy bribes demanded by the Chinese officers, to insure their connivance. The trade is now principally carried on at Lintin, about 30 miles from Macao.

Imports.—Goods imported pay at the Portuguese Custom-house a duty of 6 per cent. on a fixed valuation, besides some fees, and coolie hire. The following are a few articles extracted from the tariff:—

		Valuation. *Taels.*	Duty. *Taels.*
Cotton	per picul	4	0·240
Broad cloth, middling	covid	1·600	0·096
better than ordinary	—	0·800	0·048
ordinary or course	—	0·480	0·028
Camlets	—	1·280	0·076
Betel nut	picul	1·200	0·072
Tin	—	8	0·480
Birds' nests, 1st sort	catty	22·400	1·341
Rattans	picul	1·200	0·072
Saltpetre, Bengal	—	4	2·240
coast of Goa	—	1·600	0·096
Pepper	—	4	0·240

Opium imported in Portuguese ships, pays per chest, drs. 10½.
Do. foreign do. — 15½.

Gold and silver, whether in coin, in bullion, or manufactured, pay on importation, 2 per cent.; except in Spanish vessels from Manilla, when the charge is 1½ per cent.

Exports.—No duty is levied by the Portuguese on goods exported from Macao; nor does the Custom-house take any cognizance of them.

Duties and Charges on Goods landed at Macao.—Macao is a place without any manufactures or commerce of its own. Prices are, in consequence, generally dependent on those of Canton. Money is usually paid at 72 taels per 100 dollars.

It is a point of some interest to ascertain the internal duties and expenses to which goods landed at Macao are liable, before coming into the Chinese purchaser's hands at Canton. But the subject is so involved in mystery and uncertainty, the charges varying according to the quantity of goods laden in one boat, &c., that it is scarcely possible to arrive at any accurate information respecting it. We believe, however, that the following may be considered as a pretty close approximation to the real amount of charges incurred on cotton landed at Macao:—

Portuguese duty, fees, &c.	mace,	2—6 per picul.
Duties and charges on conveyance to Canton		6—3
Canton charges, difference of weight, brokerage on sale, &c.		8—0
Total, about taels,		2—6—9

The duties and charges on conveyance from Macao to Canton are, for pepper, per picul — mace, 9—0
Rattans — — 4—5
Betel nut — — 4—5

The hoppo's examiner charges 90 taels per boat of 1,000 piculs, the largest quantity allowed to be conveyed by a single boat; but the same charge of 90 taels is levied, although the boat should only contain 100 piculs.

The duty on exporting goods from Canton to Macao is in some cases less, in other cases greater, than the Whampoa duty. Thus, nankeens to Macao pay 2 dollars per 100 less than to Whampoa. Most descriptions of silk piece goods also pay less duty. On the other hand, tea, paper, China ware, &c. pay a higher duty to Macao than to Whampoa.

For details as to the *Weights, Measures, &c.* used at Macao, see CANTON.

For further particulars, see *Hamilton's East India Gazetteer*, art. *Macao*; *Milburn's Orient. Com.*; and the *Anglo-Chinese Kalendar and Companion to the Almanac*, Macao, 1852.

MACCARONI, a species of wheaten paste formed into long, slender, hollow tubes, used amongst us dressed with cheese, and in soups, broths, &c.

Maccaroni is the same substance as vermicelli; the only difference between them being that the latter is made into smaller tubes. Both of them are prepared in the greatest perfection in Naples, where they form the favourite dish of all classes, and the principal food of the bulk of the population. The flour of the hard wheat (*grano duro*) imported from the Black Sea is the best suited for the manufacture of maccaroni. Being mixed with water, it is kneaded by means of heavy wooden blocks wrought by levers, till it acquires a sufficient degree of tenacity; it is then forced, by simple pressure, through a number of holes, so contrived that it is formed into hollow cylinders. The name given to the tubes depends on their diameter; those of the largest size being maccaroni, the next to them vermicelli, and the smallest fedelini. At Genoa, and some other places, the paste is coloured by an admixture of saffron; but at Naples, where its preparation is best understood, nothing is used except flour and water; the best being made of the flour of hard wheat, and the inferior sorts of the flour of soft wheat. When properly prepared and boiled to a nicety, Neapolitan maccaroni assumes a greenish tinge. It is then taken out of the caldron, drained of the water, and being saturated with concentrated meat gravy, and sprinkled with finely grated cheese, it forms a dish of which all classes, from the prince to the beggar, are passionately fond. But the maccaroni used by the poor is merely boiled in plain water, and is rarely eaten with any condiment whatever. The maccaroni usually served up in England is said, by those familiar with that of Naples, to be a disgrace to the name it bears. When properly prepared, maccaroni is nutritious and easy of digestion. The lazzaroni pique themselves on the dexterity with which they swallow long strings of maccaroni and

vermicelli without breaking them. (We are principally indebted for these details to an article on maccaroni in the *Penny Magazine* for the 10th of August, 1833.)

MACE (Ger. *Macis, Muskatenbluthe;* Du. *Foelie, Foely, Muscaatbloom;* Fr. *Macis, Fleur de muscade;* It. *Mace;* Sp. *Macio;* Port. *Maxcis, Flor de noz moscada;* Lat. *Macis*), a thin, flat, membranous substance, enveloping the nutmeg; and consequently only to be found in the countries that produce the latter. It is of a lively, reddish yellow colour, a pleasant aromatic smell, and a warm, bitterish, pungent taste. Mace should be chosen fresh, tough, oleaginous, of an extremely fragrant smell, and a bright colour—the brighter the better. The smaller pieces are esteemed the best. The preferable mode of packing is in bales, pressed down close and firm, which preserves its fragrance and consistence.

The duty on mace was reduced in 1853 from 2*s.* 6*d.* to 1*s.* per lb. In 1857, 116,293 lbs. were imported, of which 24,168 lbs. were entered for consumption.

A production is met with on the coast of Malabar, so like mace, that at first it is not easy to be distinguished; but it has not the least flavour of spiciness, and when chewed has a kind of resiny taste. Eight cwt. of mace are allowed to a ton.—(*Milburn's Orient. Com.*)

MADDER (Ger. *Färberöthe;* Du. *Mee;* Fr. *Alizari, Garance;* It. *Robbia;* Sp. *Granza, Rubia;* Rus. *Mariona, Krap;* Hind. *Munjith*), the roots of a plant (*Rubia tinctorum*), of which there are several varieties. They are long and slender, varying from the thickness of a goose-quill to that of the little finger. They are semi-transparent, of a reddish colour, have a strong smell, and a smooth bark. Madder is very extensively used in dyeing red; and though the colour which it imparts be less bright and beautiful than that of cochineal, it has the advantage of being cheaper and more durable. It is a native of the south of Europe, Asia Minor, and India; but has been long since introduced into and successfully cultivated in Holland, Alsace, Provence, &c. Its cultivation has been attempted in England, but without any beneficial result. Our supplies of madder were for a lengthened period almost entirely derived from Holland (Zealand); but large quantities are now imported from France and Turkey.

Dutch or Zealand madder is never exported except in a prepared or manufactured state. It is divided by commercial men into four qualities, distinguished by the terms *mull, gamen, ombro,* and *crops.* The roots being dried in stoves, the first species, or mull, consists of a powder formed by pounding the very small roots, and the husk or bark of the larger ones. It is comparatively low priced, and is employed for dyeing cheap dark colours. A second pounding separates about a third part of the larger roots; and this, being sifted and packed separately, is sold here under the name of gamene, or gemeens. The third and last pounding comprehends the interior, pure, and bright part of the roots, and is sold in Holland under the name of *kor kraps*, but is here simply denominated crops. Sometimes, however, after the mull has been separated, the entire residue is ground, sifted, and packed together, under the name of *onberoofde*, or ombro. It consists of about one third of gamene, and two thirds of crops. Prepared madder should be kept dry. It attracts the moisture of the atmosphere, and is injured by it.

The Smyrna or Levant madder (*Rubia peregrina*), the alizari or lizary of the modern Greeks, is cultivated in Bœotia, along the border of lake Copais, and in the plain of Thebes. It also grows in large quantities at Kurdar near Smyrna, and in Cyprus. The madder of Provence has been raised from seeds carried from the latter in 1761. Turkey madder affords, when properly prepared, a brighter colour than that of Zealand. It is, however, imported in its natural state, or as roots: the natives, by whom it is chiefly produced, not having industry or skill sufficient to prepare it like the Zealanders, by pounding and separating the skins and inferior roots; so that, the finer colouring matter of the larger roots being degraded by the presence of that derived from the former, a peculiar process is required to evolve that beautiful Turkey red which is so highly and deservedly esteemed.—(*Thomson's Chemistry; Bancroft on Colours*, vol. ii. pp. 221—278.: see also *Beckmann, Hist. of Invent.* vol. iii. art. *Madder.*)

In France, madder is prepared nearly in the same manner as in Zealand. The following instructive details as to its cultivation, price, &c. in Provence, were obligingly furnished to us by an English gentleman, intimately acquainted with such subjects, who visited Avignon in the autumn of 1829:—

"This town (Avignon) is the centre of the madder country, the cultivation of which was introduced here about the middle of the 18th century, and, with the exception of Alsace, is still confined (in France) to this department (Vaucluse). The soil appears to be better adapted for its cultivation here than anywhere else, and it has long been the source of great wealth to the cultivators. But the returns fluctuate very greatly.

"The root is called *alizari*, and the powder (made from it) *garance*, or *garancine*. The plant is raised from seed, and requires 3 years to come to maturity. It is, however, often pulled in 18 months without injury to the quality; the quantity only is smaller. A rich soil is necessary for its successful cultivation; and when the soil is impregnated with alkaline matter, the root acquires a red colour; in other cases it is yellow. The latter is preferred in England, from the long habit of using Dutch madder, which is of this colour; but in France the red sells at 2 fr. per quintal higher, being used for the Turkey red dye.

"It is calculated that when wheat sells at 20 fr. per hectolitre, *alizari* should bring 35 fr. per quintal

(poids de table), to give the same remuneration to the cultivator. That is, wheat 63*s.* per Eng. quarter, and *alizari* 34*s.* per Eng. cwt. The price has, however, been frequently as low as 22 fr. per quintal.

"Prices undergo a revolution every 7 or 8 years, touching the minimum of 22, and rising as high as 100 fr. As in every similar case, the high price induces extensive cultivation, and this generally produces its full effect 4 or 5 years after. The produce of Alsace, which is inferior both in quantity and quality to that of Vaucluse, is generally sold in Strasburg market.

"England employs both the root and the powder, according to the purpose for which they are intended. The Dutch madder is more employed by the woollen dyers, and the French by the cotton dyers and printers.

"In making purchases of *garance*, it is essential to employ a house of confidence, because the quality depends entirely upon the care and honesty of the agent. The *finest* is produced from the roots after being cleaned and stripped of their bark. The *second* by grinding the roots without cleaning. A *third* by mixing the bark of the *first* while grinding; and so on to any degree of adulteration.

"The price of *alizari* in the country, which was only 25 fr. in July, is now (November, 1829) at 36 fr., and is expected to be at 40 fr. very shortly. The crop being deficient both here and in Holland, and the certainty of its being also deficient next year, added to the small quantity existing in England, give reason to believe that the price will reach 60 fr. before many months, and will continue to advance for a year or two more.

"The *quintals* above mentioned are of 100 lbs. *poids de table*—the weight in general use over the south of France, and even in *Marseilles*. This weight is different in the different provinces, varying from 22 to 25 per cent. lighter than the *poids métrique*. At Avignon, 124 p. de tables=50 kilog., consequently 126 lbs. are equal to 1 cwt. Eng. At the exchange of 25 50 the cwt. costs (including 11*s.* for freight, duty, and all charges till delivered in London or Liverpool), 61*s.* or 60*s.*"

The duty on madder was repealed in 1845.

Madder does not deteriorate by keeping, provided it be kept dry.

Account of the Quantities and Values of the different varieties of Madder imported in 1857, showing the Countries whence they came, and the Total Value of the Imports from each Country.

Countries.	Madder.	Madder Root.	Garancine.	Total Quantities.	Total Values.
Holland - - - cwts.	14,982	2,299	12,674	29,955	£134,169
France - - - „	62,444	28,502	17,853	108,799	374,816
Spain - - - „	28,051	1,250	- -	29,281	78,954
Two Sicilies - - - „	- -	68,267	- -	68,267	174,081
Turkey - - - „	- -	134,195	- -	134,195	402,585
Syria and Palestine - - „	- -	4,144	- -	4,144	12,432
British East Indies - - „	- -	55,823	- -	55,823	91,499
United States - - „	2,228	- -	- -	2,228	6,016
Other parts - - „	1,364	1,509	471	3,364	10,457
Total - - cwts.	109,069	295,989	30,998	454,056	1,284,989

During the same year 1,143 cwt. madder, and 11,152 cwt. madder root were exported.

In 1857 the garancine imported was valued at 7*l.* 8*s.* a cwt., and the madder and madder roots at from 1*l.* 14*s.* and 2*l.* to 3*l.* a cwt. For an account of East Indian madder, see MUNJEET.

MADEIRA. See WINE.

MADRAS, the principal emporium of the coast of Coromandel, or western shore of the Bay of Bengal, lat. of lighthouse 13° 5′ 10″ N., long. 80° 20′ E. It is the seat of the government of the second presidency of British India, having under it a territory, including the tributary states, of 184,615 square miles, with a population, according to the latest returns, of 27,817,950, paying a gross annual revenue of 5,767,000*l.* sterling. The town is situated in the Carnatic province, a low, sandy, and rather sterile country. It is without port or harbour, lying close upon the margin of an open roadstead, the shores of which are constantly beat by a heavy surf. Besides these disadvantages, a rapid current runs along the coast; and it is within the sphere of the hurricanes or typhoons, by which it is occasionally visited. In every respect, indeed, it is a very inconvenient place for trade, and its commerce is consequently greatly inferior to that of either Calcutta or Bombay. It has been in the possession of the English above two centuries, having been founded by them in 1639, and retained ever since. Fort St. George is a strong and handsome fortification, lying close to the shore. The Black Town of Madras, as it is called, stands to the north and eastward of the fort, from which it is separated by a spacious esplanade. Here reside the native, Armenian, and Portuguese merchants, with many Europeans unconnected with the government. Like most other Indian towns, it is irregular and confused, being a mixture of brick and bamboo houses. Madras, like Calcutta and Bombay, is subject to English law; having a Supreme Court of Judicature, the judges of which are named by the Crown, and are altogether independent of the local government. The population is not exactly ascertained, but there are said to be about 400,000 persons within a radius of 2½ miles round Fort St. George.

In Madras roads, large ships moor in from 7 to 9 fathoms, with the flagstaff off the fort bearing W.N.W., 2 miles from shore. From October to January is generally considered the most unsafe season of the year, in consequence of the prevalence, during that interval, of storms and typhoons. On the 15th of October the flagstaff is struck, and not erected again until the 15th of December; during which period a ship coming into the roads, or, indeed, anywhere within soundings on the coast of Coromandel (reckoned from Point Palmyras to Ceylon), vitiates her insurance, according to the conditions of the policies of all insurance offices in India. The cargo boats used for crossing the surf, called *Massula* boats, are large and light; made of very thin planks sewed together with straw in the seams instead of caulking, which it is supposed might

render them too stiff. When within the influence of the surf, the coxswain stands up, and beats time in great agitation with his voice and feet, while the rowers work their oars backward, until overtaken by a strong surf curling up, which sweeps the boat along with frightful violence. Every oar is then plied forward with the utmost vigour to prevent the wave from taking the boat back as it recedes; until at length, by a few successive surfs, the boat is thrown high and dry upon the beach. The boats belonging to ships in the roads sometimes proceed to the back of the surf, and wait for the country boats from the beach to come to them. When it is dangerous to have communication with the shore, a flag is displayed at the beach house, which stands near the landing place, as a caution.

The fishermen and lower classes employed on the water use a species of floating machine of a very simple construction, named a catamaran. It is formed of 2 or 3 logs of light wood, 8 or 10 feet in length, lashed together, with a small piece of wood inserted between them to serve as a stem-piece. When ready for the water, they hold generally 2 men, who with their paddles impel themselves through the surf, to carry letters, or refreshments in small quantities, to ships, when no boat can venture out. They wear a pointed cap made of matting, where they secure the letters, which take no damage. The men are often washed off the catamaran, which they regain by swimming, unless interrupted by a shark. Medals are given to such catamaran men as distinguish themselves by saving persons in danger.

Light-house.—Previously to the 1st of January, 1844, a tower in the fort, 90 feet in height, was used as a light-house; but since the above epoch, this light has been discontinued, and a powerful "flashing light" has been exhibited on the new light-house immediately to the N. of the fort. This light is elevated 128 feet above the level of the sea, and may be seen in clear weather from the deck of a ship at a distance of 20 miles. The new light-house bears S. 23° W., and is distant about 13 miles from the S. Eastern extremity of the Pulicat shoal; but no ship or vessel when standing in from the northward for Madras roads should bring the light to bear to the S. of 28° W., or S. S. W. ½ W., unless her position be well ascertained. Commanders of ships should bear in mind the serious risk they run by incautiously approaching the Pulicat shoal; and as heavy weather or other causes may obscure the light, it is imperatively necessary to keep the lead going, and to keep a vigilant look out.—(*Statement issued by Marine Board.*)

Monies, Weights, and Measures.—The Company's rupee (for an account of which, see art. CALCUTTA) is now in general circulation, and is the standard uniformly referred to in all accounts. But exclusive of the Company's rupee several coins are in circulation in Madras and its vicinity. Of the gold coins, the principal are the star or current pagodas=7*s.* 5½*d.*; commonly, however, valued at 8*s.* The gold rupee, new coinage, is worth, according to the mint price of gold in England, 11. 9*s.* 2·12*d.* The Arcot rupee (silver) is very nearly of the same value with the Company's rupee. The European merchants keep their accounts at 12 fanams the rupee; 80 cash=1 fanam, and 42 fanams=1 pagoda. Copper pieces of 20 cash, called pice, and of 70 and 35 cash, called dodees and half dodees, are also current.

Commercial Weights.—Goods are weighed by the candy of 20 maunds; the maund is divided into 8 vis, 320 pollams, or 3,200 pagodas; the vis is divided into 5 seers. The candy of Madras is 500 lbs. avoirdupois. Hence the pagoda weighs 2 oz. 3 grs.; and the other weights are in proportion. These weights have been adopted by the English; but those used in the Jaghire (the territory round Madras belonging to the Company), as also in most other parts of the Coromandel coast, are called the Malabar weights, and are as follows: The gursay (called by the English garce) contains 20 baruays or candies; the baruay, 20 manungus or maunds; the maund, 8 visa or vis, 320 pollams, or 3,200 varahuns. The varahun weighs 52⅝ English grains: therefore the visa is 3 lbs. 3 dr.; the maund, 24 lbs. 2 oz.; the baruay, 482½ lbs.; and the gursay, 9,645½ lbs. avoirdupois, or 4 tons 6 cwt. nearly.

Measures of Capacity.—The garce, corn measure, contains 80 parahs, or 400 marcals; and the marcal, 8 puddies, or 64 ollocks. The marcal should measure 750 cubic inches, and weigh 27 lbs. 2 oz. 2 dr. avoirdupois of fresh spring water: hence, 45 marcals=15 Winch. bushels; and therefore the garce=17½ English quarters nearly. When grain is sold by weight, 9,256½ lbs. are reckoned for 1 garce, being 18 candies 12·8 maunds.

I. Account of the Value of the principal Articles imported into Madras, and the Ports subordinate to it by Sea, from foreign and other Ports (not subordinate), in 1856—57 and 1857—58, converted into Sterling Money, at the Rate of 2*s.* the Company's Rupee.

Articles.	1856–57.	1857–58.	Articles.	1856-57.	1857-58.
	£	£		£	£
Apparel	75,599	98,388	Brought forward	733,113	820,042
Arms and ammunition	3,502	11,662	Military stores	136,250	222,354
Books and stationery	31,940	34,338	Molasses	264	667
Cabinet ware	538	1,226	Naval stores	9,313	11,692
Carriages	551	997	Oils	881	1,916
Carriage furniture	736	1,252	Oilman's stores	10,321	12,884
Cattle, horses	16,070	11,352	Paint and colours	1,739	3,347
Chanks	632	3,954	Perfumery	2,821	5,389
Coal	6,572	36,792	Photographic apparati	1,706	1,125
Corks	2,368	1,028	Pictures, prints, &c.	1,023	579
Cotton wool	236	1,316	Pipe staves, casks, &c.	4,376	10,887
,, twist and yarn	159,617	133,859	Porcelain and earthenware	8,202	6,005
,, goods	121,900	181,973	Precious stones	640	3,340
Drugs	10,219	9,518	Provisions	7,105	10,574
Dyes	737	1,037	Railway materials	321,692	43,338
Fruits and nuts	48,552	55,369	Saddlery	4,739	5,892
Glass ware	15,077	13,902	Salt	59	200
Gums	6,436	4,836	Seeds	1,764	1,009
Hides	1,193	4,660	Silk, raw	193	372
Ice	19,186	3,760	,, piece goods	1,426	1,517
Instruments, musical	5,048	5,704	Soap	919	1,977
,, philosophical	1,286	162	Spices	7,278	6,942
,, surgical	644	559	Spirits	30,686	15,105
other sorts	700	1,496	Tea	10,986	7,800
Jewellery	19,647	17,750	Timber and woods	18,876	22,730
Machinery	10,547	11,050	Tobacco, &c.	27,257	22,125
Malt liquors	27,778	17,658	Toys	1,342	2,260
Medicines	2,537	4,124	Umbrellas	1,228	3,519
Metals, manufactured	27,762	40,379	Wax and candles	1,933	5,542
,, brass	2,493	1,851	Wines	19,849	30,464
,, copper	30,275	27,325	Woollen goods	12,123	35,170
,, iron	67,230	45,237	Miscellaneous	20,168	30,871
,, lead	733	3,922			
,, quicksilver	2,500	2,017	Total merchandise	1,403,252	1,355,834
,, spelter	4,958	1,105	Treasure	1,137,487	1,167,265
,, steel	2,769	1,617			
,, tin	2,873	8,831	Total merchandise and treasure	2,540,739	2,523,099
,, other sorts	8,770	18,040			
Carried forward	733,113	820,042			

II. Account of the Values of the principal Articles exported from Madras, and the Ports subordinate to it by Sea, including Re-exports, to Foreign and other Ports (not subordinate), in 1856—57 and 1857—58, converted into Sterling Money, at the Rate of 2*s.* the Company's Rupee.

Articles.	1856-57.	1857-58.	Articles.	1856-57.	1857-58.
	£	£		£	£
Apparel	1,514	5,321	Brought forward	1,589,254	1,595,416
Arms and ammunition	152	178	Molasses or jagree	476	28,162
Books and stationery	1,717	2,655	Naval stores	12,162	13,761
Bones	739	1,624	Oils	56,467	75,942
Cabinet ware	611	818	Oilman's stores	57	539
Carriages	56	470	Pictures, &c.	727	245
Cattle, horses, &c.	6,222	13,110	Pipe staves and casks	12	5,125
Coffee	50,390	41,229	Porcelain and earthenware	497	513
Cotton, wool	316,362	279,407	Precious stones	8,600	15,085
,, twist and yarn	2,665	1,382	Provisions	19,495	18,312
,, goods	123,295	127,694	Saddlery	42	60
Drugs	5,791	7,383	Salt	299	556
Dyes, Indigo	445,435	366,087	Saltpetre	9,403	6,292
,, other kinds	7,814	33,247	Seeds	165,470	253,395
Embroidery	94	6	Shark-fins	242	654
Feathers	963	3,721	Shawls, cashmere	139	245
Fishmaws	60	48	Silk, raw	3,922	979
Fruits and nuts	3,178	2,575	,, goods	1,286	987
Fuller's clay	531	1,078	Soap	13,718	12,575
Glass-ware	114	88	Spices, pepper	13,670	22,955
Grain, rice	464,511	515,438	,, other kinds	9,938	13,076
,, other kinds	66,225	33,213	Spirits	4,766	5,140
Guns	17	133	Sugar	357,564	366,196
Gunnies and bags	167	469	Tallow	616	636
Hides and skins	62,418	141,463	Tea	249	36
Horns	5,295	8,669	Timber and woods	13,723	14,860
Instruments, musical	348	90	Tobacco	7,759	12,885
Ivory, &c.	288	408	Toys	241	304
Jewellery	1,802	1,719	Trunks and boxes	120	99
Machinery	120		Umbrellas	165	230
Malt liquors	117	78	Wax and wax candles	5,564	7,845
Mats	506	717	Wheat	10,596	5,722
Medicines	19	150	Wines	1,982	669
Metals, manufactured	1,266	2,559	Wools	121	962
,, copper	750	163	Woollen goods	1,516	2,060
,, iron	3,672	526	Miscellaneous	18,791	74,033
,, other sorts	166	1,224			
Military accoutrements	371		Total merchandise	2,329,429	2,556,169
,, stores	13,563	278	Treasure	78,477	109,750
Carried forward	1,589,254	1,595,416	Total merchandise and treasure	2,407,906	2,665,919

III. Account of the Trade of Madras with Foreign Countries in 1857—58, specifying the Values of the Imports and Exports, including Re-exports, from each, converted into Sterling Money, at the Rate of 2*s.* the Company's Rupee.

Countries.	1857—1858.					
	Imports.			Exports.		
	Merchandise.	Treasure.	Total.	Merchandise.	Treasure.	Total.
	£	£	£	£	£	£
United Kingdom	981,873	808,484	1,790,357	1,247,291	-	1,247,291
Aden	-	-	-	2,044	-	2,044
America	9,885	-	9,885	5,349	-	5,349
Arabian and Persian Gulf	12,848	23,743	36,591	109,295	-	109,295
Australia	-	-	-	2,260	-	2,260
Batavia	6	-	6	-	-	-
Cape of Good Hope	1,193	-	1,193	410	-	410
Ceylon	176,164	274,813	450,977	447,502	100,686	548,188
China	7,623	-	7,623	9,306	-	9,306
France	24,464	5,138	29,602	453,011	-	453,011
Germany, Hamburgh	457	-	457	14,400	-	14,400
,, other ports	58	-	58	13,069	-	13,069
Holland	-	-	-	5,950	-	5,950
Maldive Islands	3,276	-	3,276	601	-	601
Mauritius and Bourbon	2,429	37,087	39,516	105,111	-	105,111
Mediterranean, ports in	-	-	-	1,907	-	1,907
New South Wales	6,439	9,523	15,962	10,502	-	10,502
Penang, Singapore, and Malacca	120,408	2,054	122,462	73,359	9,064	82,403
Sumatra	2,386	3,923	6,309	1,710	-	1,710
Turkish ports	6,525	2,500	8,325	50,060	-	50,060
West Indies	-	-	-	3,052	-	3,052
Total £	1,355,834	1,167,265	2,523,099	2,556,169	109,750	2,665,919

IV. Summary of the external Commerce of Madras by Sea, in 1856—57 and 1857—58.

For the year 1856-57.	Merchandise.	Treasure.	Total.
	£	£	£
Imports	1,403,252	1,137,487	2,540,739
Exports	2,329,429	78,477	2,407,906
Total £	3,732,681	1,215,964	4,948,645
For the year 1857-58.			
Imports	1,355,834	1,167,265	2,523,099
Exports	2,556,169	109,750	2,665,919
Total £	3,912,003	1,277,015	5,189,018

General Rates of Agency and Commission, as revised by the Chamber of Commerce, and recommended for general approval and adoption,—1st June, 1845.

1. On the total sum of a debit or credit side of account at the option of the agent, excepting items on which a commission of 5 per cent. is chargeable, 1 per cent.
2. On effecting remittances, or purchasing, selling, or negotiating bills of exchange, 1 per cent.
3. On subscriptions to government loans, purchasing, selling, transferring or exchanging public securities and bank shares, ½ per cent.
4. On delivering up public securities, or lodging them in any of the public offices, ½ per cent.
5. On receiving and delivering private commissions of wines, cattle, and merchandise, 2½ per cent.
6. On collecting rents, 2½ per cent.
7. On purchase of lottery tickets, and amount of prizes, 1 per cent.
8. On the sale of lottery tickets from other settlements, 2½ per cent.
9. On letters of credit granted against pay and allowances to be drawn monthly 2½ per cent.
10. On executorship or administration to estates of deceased persons, 5 per cent.
11. On the management of estates for executors or administrators, 2½ per cent.
12. On becoming security for administrators, 2½ per cent.
13. On debts when a process of law or arbitration is necessary, 2½ per cent.
    And if recovered by such means, 5 per cent.
14. On bills of exchange, notes, &c., dishonoured, 1 per cent.
15. On overdue debts collected, 2½ per cent.
16. On becoming security for individuals to government or others, 2½ per cent.
17. On all sales or purchases of goods, 5 per cent.

With the following exceptions:—

On houses, lands, and ships, 2½ per cent.
On diamonds, pearls, and jewellery, 2½ per cent.
On treasure and bullion, 1 per cent.
On all goods and merchandise withdrawn, shipped, or delivered to order, half commission.
On all other descriptions of property for sale, if withdrawn or otherwise disposed of by the owners, half commission.
On goods transferred to auction or commission salesmen, half commission.

18. On investing proceeds of sales in goods, 2½ per cent.
19. On guaranteeing sales, bills, bonds, contracts for goods, or other engagements, 2½ per cent.
20. On ships' disbursements, 2½ per cent.
21. On chartering ships or engaging tonnage for other parties, 2½ per cent.
22. On advertising as the agents of owners or commanders of ships for freight or passengers, on the amount of freight or passage money, by charter or otherwise, whether the same shall pass through the agents' hands or not, 5 per cent.
23. On effecting insurance, or writing orders for insurance, whether on lives or property, ½ per cent.
24. On settling losses, partial or general, and returns of premium, 2 per cent.
25. On procuring money on respondentia, wherever payable, 2 per cent.
26. On giving orders for the provision of goods where a commission is not chargeable on sale or shipment, 2½ per cent.
27. On attending the delivery of contract goods, 2 per cent.
28. On receiving freight of goods, and passage money of troops by ships entered inwards, 2½ per cent.

Rates of Godown Rent per Month.

	Rs.	a.
Bales of punjum cloth of 30 pieces, per bale	0	8
Screwed do. of cotton, of 500 lbs., per bale	0	4
Loose bundles of do. of 200 lbs., per bundle	0	4
Bales of taffaties and raw silk, per bale	1	0
Chests of opium, per chest	0	8
of indigo, per chest	0	8
of wine, of 12 dozen, per chest	0	8
Pipes of wine, puncheons and butts, each per pipe	1	0
Bags of rice and sugar, per bag	0	1
of saltpetre, per bag	0	1
Metals, per ton	0	4

Other articles in proportion to the above.

GOVERNMENT BANK.—*Rates of Interest on Loans.*

Rates of interest on loans for a specified period (not exceeding 12 months) on mortgage of government paper, 5 per cent.
On cash accounts made up quarterly on the deposit of government paper, on all payments, 6 per cent.
On all receipts, 5 per cent.
Lowest sum allowed on loan on cash accounts, 3,500 rupees.

Rates of Discount.

On private bills, 5 per cent.
On government bills, 4 per cent.
(No bills discounted that have a longer period to run than 3 months.)
To open an account, the sum required to be transmitted is 500 rupees.
The lowest sum received, after opening an account, is 100.
Do. paid on a cheque, is 35.
N. B.—No cheque paid, nor monies carried to account after half past 2 P. M.

This bank is entirely a government concern, the directors consisting of the superior officers of government; and the ministerial officers are on fixed salaries. The bank issues notes, receivable as cash at the public treasuries, within the town of Madras; it receives deposits and grants discounts. In 1843, however, a joint stock company, called the Bank of Madras, with a capital of 300,000*l.* (30 lacs) was established for the transacting of banking business on more liberal terms.

TABLE OF PORT CHARGES AT MADRAS.

Boat Hire.

	S. Roads. Rs.	a.	p.	N. Roads. Rs.	a.	p.
Ordinary trips	1	3	0	0	12	6
Do. do. for an accommodation boat	4	0	0	4	0	0
Transhipments	0	12	6	0	12	6
Do. for an accommodation boat	2	0	0	2	0	0
Deep do.	1	8	0	1	8	0
Do. do.	3	0	0	3	0	0
Return trip	0	10	0	0	6	3
Bad weather, ordinary trip	2	3	0	1	8	0
Do. for an accommodation boat	6	0	0	6	0	0
Do. transhipment	1	8	0	1	8	0
Do. jolly-boat do.	1	8	0	1	8	0
Do. return ships	1	3	0	0	12	6

Anchorage Dues.

		S. Roads. Rs.	a.	p.	N. Roads. Rs.	a.	p.
British ships, and ships under foreign, European, or American colours		38	0	0	0	0	0
Country ships, from 900 to 500 tons		35	0	0	0	0	0
Do.	500 „ 300 „	28	0	0	0	0	0
Do.	300 „ 200 „	21	0	0	0	0	0
Do.	200 „ 100 „	17	0	0	0	0	0
Do.	100 „ 50 „	14	0	0	0	0	0
Do.	50 „ 10 „	10	0	0	0	0	0
Native craft, from 400 „ 300 „		0	0	0	21	0	0
Do.	300 „ 200 „	0	0	0	17	0	0
Do.	200 „ 100 „	0	0	0	14	0	0

		S. Roads. Rs.	a.	p.	N. Roads. Rs.	a.	p.
Native craft, from 100 to 50 tons		0	0	0	10	0	0
Do.	50 „ 20 „	0	0	0	3	0	0
Do.	20 „ 10 „	0	0	0	1	0	0

Light-House Dues.

	Rs.	a.	p.
All British and foreign ships, on anchoring	25	0	0
Country ships	14	0	0
Snow, brig, ketch, and schooner	7	0	0
Sloop and cutter	5	0	0
Large dhonies	5	0	0
Small dhonies	2	0	0

Cattamaran Hire.

	Rs.	a.	p.
Small cattamarans, to all ships, on anchoring	1	0	0
Do. snow, brig, and ketch, do.	0	12	0
Do. sloop and cutter do.	0	10	0
Do. dhonies and large boats	0	8	0
Do. carrying letters to ships	0	4	0
Do. carrying provisions or parcels	1	0	0
Large cattamarans, for landing or shipping a European cable of 12 to 16 inches	18	12	0
Do. few do. do. 17 to 22 inches	28	8	0
Do. for do. an anchor, 14 to 29 cwt.	18	12	0
Do. for do. do. 30 to 50 cwt.	28	8	0

The foregoing statements sufficiently exhibit the commercial importance of Madras. The limited extent of its trade, as compared with that of Calcutta and Bombay, is partly ascribable to the badness of its port or roadstead, the want of any navigable river or other easy means of communication with the interior, and the backward state of the provinces of which it is the capital, in consequence of the heavy and fluctuating land tax to which they are subject. (*Hamilton's East Indian Gazetteer; Geog. Dict.* art. *Madras; Madras Almanack; Official Returns of the Trade of Madras, &c.*, obligingly communicated to us by Mr. Hornidge of the East India House.

MAGNESIA. (Fr. *Magnésie;* Ger. *Gebraunte Magnesia;* It. *Magnesia*), one of the primitive earths, having a metallic basis. It is not found native in a state of purity, but is easily prepared. It is inodorous and insipid, in the form of a very light, white, soft powder, having a specific gravity of 2·3. It turns to green the more delicate vegetable blues, is infusible, and requires for its solution 2,000 parts of water at 60°.

MAHOGANY, the wood of a tree (*Swietenia Mahogani*) growing in the West Indies and Central America. There are two other species of Swietenia found in the East Indies, but they are not much known in this country.

Mahogany is one of the most majestic and beautiful of trees; its trunk is often 40 feet in length, and 6 feet in diameter; and it divides into so many massy arms, and throws the shade of its shining green leaves over so vast an extent of surface, that few more magnificent objects are to be met with in the

vegetable world. It is abundant in Cuba and Hayti, and it used to be plentiful in Jamaica; but in the latter island, most of the larger trees, at least in accessible situations, have been cut down. The principal importations into Great Britain are made from Honduras and Campeachy. That which is imported from the islands is called Spanish mahogany; it is not so large as that from Honduras, being generally in logs from 20 to 26 inches square and 10 feet long, while the latter is usually from 2 to 4 feet square and 12 or 14 feet long, but some logs are much larger. Mahogany is a very beautiful and valuable species of wood: its colour is a red brown, of different shades, and various degrees of brightness; sometimes yellowish brown; often very much veined and mottled, with darker shades of the same colour. The texture is uniform, and the annual rings not very distinct. It has no larger septa; but the smaller septa are often very visible, with pores between them, which in the Honduras wood are generally empty, but in the Spanish wood are mostly filled with a whitish substance. It has neither taste nor smell, shrinks very little, and warps or twists less than any other species of timber. It is very durable when kept dry, but does not last long when exposed to the weather. It is not attacked by worms. Like the pine tribe, the timber is best on dry rocky soils, or in exposed situations. That which is most accessible at Honduras grows upon moist low land, and is, generally speaking, decidedly inferior to that brought from Cuba and Hayti; being soft, coarse, and spongy; while the other is close grained and hard, of a darker colour, and sometimes strongly figured. Honduras mahogany has, however, the advantage of holding glue admirably well; and is, for this reason, frequently used as a ground on which to lay veneers of the finer sorts. The best qualities of mahogany bring a very high price.

Not long since, Messrs. Broadwood, the distinguished pianoforte manufacturers, gave the immense sum of 3,000*l.* for three logs of mahogany! These logs, the produce of a *single tree*, were each about 15 feet long, and 38 inches square; they were cut into veneers of 8 to an inch. The wood was particularly beautiful, capable of receiving the highest polish; and when polished, reflecting the light in the most varied manner, like the surface of a crystal; and from the wavy form of the pores, offering a different figure in whatever direction it was viewed. Dealers in mahogany generally introduce an auger before buying a log; but, notwithstanding, they are seldom able to decide with much precision as to the quality of the wood, so that there is a good deal of lottery in the trade. The logs for which Messrs. Broadwood gave so high a price were brought to this country with a full knowledge of their superior worth. Mahogany was used in repairing some of Sir Walter Raleigh's ships at Trinidad, in 1597; but it was not introduced into use in England till 1724.

The duty on foreign mahogany used to be 7*l.* 10*s.* a ton, on Honduras, 1*l.* 10*s.*, and on Jamaica mahogany, 4*l.*; its effect being to force the consumption of the inferior in preference to the superior article. Luckily, however, the duty on foreign and colonial mahogany, after being reduced in 1845 to 20*s.* and 5*s.* a ton, was wholly repealed in 1845. There has been, in consequence, a very great increase in the consumption of the superior sorts of mahogany for upholstery purposes, while the cheaper varieties are now largely employed, notwithstanding the difficulties thrown in the way by Lloyd's regulations, in the construction of ships, and in coarser fabrics. In 1840 the imports amounted to 23,115, and in 1857 to 41,038 tons, the re-exports during the latter year being only 2,460 tons. Honduras, Cuba, and Hayti, are the great sources of supply; the timber brought from the first being the cheapest and by far the most abundant.—(See *Tredgold's Principles of Carpentry*, p. 204.; *Library of Entertaining Knowledge*, volume on *Timber Trees and Fruits*; *Edwards's West Indies*, vol. iv. p. 208. ed. 1819, &c.; and the *Mahogany Tree, by Messrs. Chaloner and Fleming, passim.*)

MAIZE, or INDIAN CORN (Fr. *Bled de Turquie*; Ger. *Türkisch korn*, *Mays*; It. *Grano Turco o Siciliano*; Sp. *Trigo de Indias*, *Trigo de Turquia*), one of the cereal grasses (*Zea Mays*), supposed to be indigenous to South America, being the only species of corn cultivated in the New World previously to its discovery. It was introduced into the Continent about the beginning, and into England a little after the middle, of the 16th century. Its culture has spread with astonishing rapidity; being now extensively grown in most Asiatic countries, and in all the southern parts of Europe. It has the widest geographical range of all the cerealia, growing luxuriantly at the equator, and as far as the 50th degree of north, and the 40th of south latitude. It has been raised in England, in nursery gardens near the metropolis, for more than a century; and recently it has been attempted to raise it in the fields, but with indifferent success. Like other plants that have been long in cultivation, it has an immense number of varieties. The ear consists of about 600 grains, set close together in rows, to the number of 8, 10, or 12. The grains are usually yellow; but they are sometimes red, bluish, greenish, or olive-coloured, and sometimes striped and variegated. The maize of Virginia is tall and robust, growing 7 or 8 feet high; that of New England is shorter and lower; and the Indians further up the country have a still smaller sort in common use. The stalk is jointed like the sugar cane. The straw makes excellent fodder; and the grain, as a bread corn, is liked by some; but though it abounds in mucilage, it contains little or no gluten, and is not likely to be much used by those who can procure wheaten or even rye bread.—(*Loudon's Encyclopædia of Agriculture, &c.*) For the imports of maize, duties, &c., see Corn Laws and Corn Trade.

MALAGA, a city and sea-port in the S. of Spain, in Granada, lat. 36° 43½′ N., lon. 4° 25′ 7″ W. Population in 1857, 113,050.

Harbour.—Malaga has an excellent harbour. It is protected on its eastern side by a fine mole, full 700 yards in length. At its extremity a lighthouse has been constructed, furnished with a powerful light, revolving once every minute. At a distance it appears obscured for 45 seconds, when a brilliant flash succeeds for the other 15 seconds. A shoal has grown up round the mole head, and the depth of water throughout the harbour is said to be diminishing. Latterly, however, a dredging machine has been employed to deepen it, by clearing out the mud and accumulating sand. The depth of water, at the entrance to the harbour and within the mole, is from 26 to 30 feet; and close to the city from 8 to 10 feet. The harbour could easily accommodate more than 450 merchant ships; it may be entered with all winds, and affords perfect shelter.

Trade, &c.—Owing to the want of official returns, and the prevalence of smuggling, it is not possible to obtain any accurate accounts of the trade of Malaga, or, indeed, of any Spanish port. The great articles of export are wine and fruits, particularly raisins and almonds, grapes, figs, and lemons; there is also a considerable exportation of olive oil, with quantities of brandy, anchovies, cummin seed, aniseed, barilla, *esparto labrado* (see ESPARTO), soap, &c. The lead which is largely exported from Malaga is brought from Ada.—(See LEAD.) The imports consist principally of cotton stuffs, iron and hardware, machinery, coals, &c., from England; with salt-fish, dye stuffs, and all sorts of colonial produce; linens; raw cotton from the U. States; butter and cheese from Holland; timber and naval stores from the Baltic, &c. The Americans import considerable quantities of Malaga wine.

The following details, abstracted from Mr. Inglis's valuable work on Spain, contain accounts of the trade of Malaga, which are still of interest.

"*Wine.*—The wines of Malaga are of two sorts, sweet and dry; and of the former of these there are four kinds: first, the common 'Malaga,' known and exported under that name. In this there is a certain proportion of boiled wine, which is allowed to burn, and which communicates a slightly burnt taste to the 'Malaga.' The grape from which this wine is made is a white grape, and every pipe of 'Malaga' contains no less than *eleven* gallons of brandy. Secondly, 'Mountain.' This wine is made from the same grape as the other, and, like it, contains colouring matter and brandy; the only difference is that, for 'Mountain,' the grape is allowed to become riper. Thirdly, 'Lagrimas,' the richest and finest of the sweet wines of Malaga; the name of which almost explains the manner in which it is made. It is the droppings of the ripe grape hung up, and is obtained without the application of pressure.

"The dry wine of Malaga is produced from the same grape as the sweet wine, but pressed when greener; in this wine there is an eighth part more of brandy than in the sweet wine; no less than 1-12th part of the dry Malaga being brandy.

"The whole produce of the Malaga vineyards is estimated at from 35,000 to 40,000 pipes; of which about 27,000 pipes may be exported. The principal market is the U. States and S. America; and to these the export is upon the increase. The average price of the wines shipped from Malaga does not exceed 35 dollars per pipe; but wines are occasionally exported at the price of 170 dollars. Many attempts have been made at Malaga to produce sherry, but not with perfect success. The sherry grape has been reared at Malaga upon a soil very similar to that of Xeres; but the merchants of Malaga have not ventured to enter the wine for export. One reason of the very low price of the wines of Malaga is to be found in the cheapness of labour; field labour is only 2½ reals a day (4½*d.*). In the fruit and vintage time it is about double.

"*Fruit.*—Next to its wines, the chief export of Malaga is fruit, consisting of raisins, almonds, grapes, figs, and lemons; but of these, raisins are principally exported.

"The raisins exported from Malaga are of three kinds, *muscatel*, *bloom* or *sun raisin*, and *lexias* The muscatel is the finest raisin in the world. In its preparation no art is used; the grape is merely placed in the sun, and frequently turned. The bloom or sun raisin is a different grape from the muscatel; but its preparation is the same. The lexias acquire this name from the liquor, or ley, in which they are dipped and which is composed of water, ashes, and oil; these, after being dipped, are also dried in the sun. All muscatel raisins are exported in boxes, and also a part of the bloom raisins.

"Of the other fruits raised near Malaga, grapes, almonds, and lemons are the most extensively exported.

"*Oil.*—There is also a large export of oil from Malaga."—(Vol. ii. pp. 190—196.)

The trade of Malaga, like that of most other Spanish ports, has been materially increased of late years. Lines of steamers have been established that ply along the southern and eastern coasts of the peninsula, and a powerful stimulus has been given to all sorts of industrial pursuits. The influence of the latter is, no doubt, most powerfully felt at Alicant, Valencia, and those towns that have improved communications with the interior, but it is, also, sufficiently obvious here and in others of the less favourably situated seaports.

Money.—Accounts are kept in reals of 34 maravedis vellon.—(For the coins, and their value, used at Malaga, see CADIZ.)

Weights and Measures.—The weights are the same as those of Cadiz. The arroba, or cantara=4·19 English wine gallons; the regular pipe of Malaga wine contains 35 arrobas, but is reckoned only at 31; a bota of Pedro Ximenes wine=53⅓ arrobas; a bota of oil is 43, and a pipe 35 arrobas; the latter weighs about 860 lbs. avoirdupois: a carga of raisins is 2 baskets, or 7 arrobas; a cask contains as much, though only called 4 arrobas: as a last for freight are reckoned—4 botas or 5 pipes of wine or oil; 4 bales of orange peel; 5 pipes of Pedro Ximenes wine or oil; 10 casks of almonds (each about 380 lbs. English); 20 chests of lemons and oranges; 22 casks of almonds (of 8 arrobas each); 44 casks of raisins (of 4 arrobas each); 88 half casks of raisins; 50 baskets or 160 jars of raisins.

Port Charges.—The port and harbour dues amount, on an English vessel of 300 tons, to about 21*l.*; on a Spanish vessel, of the same burden, they would be about 11*l.* 10*s.*

Warehousing.—Goods may be warehoused for 12 months, paying 2 per cent. *ad valorem* in lieu of all charges; but, at the end of the year, they must be either entered for consumption or reshipped. The 2 per cent. is charged, whether they lie a day or the whole year.

There is an excellent account of Malaga in *Townsend's Travels in Spain*, vol. iii. pp. 10—42.

MALMSEY. See WINE.

MALT (Ger. *Maly*; Du. *Mout*; Fr. *Mal, Blédgermé*; It. *Malto*; Sp. *Cebada retonada ó entallecida*; Rus. *Solod*; Lat. *Maltum*). The term malt is applied to designate grain which, being steeped in water, is made to germinate to a certain extent, after which the process is checked by the application of heat. This evolves the saccharine principle of the grain, which is the essence of malt. The process followed in the manufacture is very simple. Few changes have been made in it; and it is carried on at this moment very much in the same manner that it was carried on by our ancestors centuries ago. Rice, and almost every species of grain, has been used in malting; but in Europe, and especially in England, malt is prepared almost wholly from barley. It

is the principal ingredient in the manufacture of beer, and is little used except in brewing and the distillation of spirits.

Duties on, and Consumption of, Malt. Influence of the Reduction of the Duty and the Opening of the Trade.—Owing to malt liquor having early become the favourite beverage of the people of England, the manufacture of malt has been carried on amongst us, for a lengthened period, on a very large scale. Instead, however, of increasing with the increasing wealth and population of the country, it was nearly stationary for the hundred years ending with 1816. In proof of this we may mention that the quantity of malt that paid duty in England and Wales, at an average of the 12 years ending with 1720, was 24,191,304 bushels a year; whereas the annual average quantity that paid duty during the 12 years ending with 1816, was only 23,197,754 bushels! This apparently anomalous result is probably in some measure to be accounted for by the increased consumption of tea and coffee, which are now in almost universal use; but there cannot be a question that it is mainly owing to the exorbitant duties with which malt, and the ale or beer manufactured from it, have been loaded, and to the oppressive regulations imposed on the manufacture of malt and the sale of beer. The effect of these duties and regulations was to impose a tax of about 7*s.* on the malt and beer made from a bushel of barley; which, taking the average price of barley at from 4*s.* to 5*s.* a bushel, was equivalent to an *ad valorem* duty of from 140 to 175 per cent.! The exorbitancy of the duty was not, however, its most objectionable feature. It was about equally divided—one half being assessed directly on malt, and the other on beer: but the beer duty affected only beer brewed by public brewers, or for sale, and did not affect that which was brewed for private use; and as rich families brewed all the beer they made use of, the consequence of this distinction was, that the beer duty fell wholly on the lower and middle classes, who did not brew any beer; or, in other words, the poor man was compelled to pay twice the duty on the malt he made use of that was paid by the rich man! That such a distinction should ever have been made, or submitted to for any considerable period, is certainly not a little astonishing. Originally, however, the distinction was not so great as it afterwards became; and being increased by slow degrees, the force of habit reconciled the parliament and the country to the gross inequality and oppressiveness of the tax. But the public attention being at length forcibly attracted to the subject, and the effect of the exorbitant duties on malt and beer in increasing the consumption of ardent spirits having been clearly pointed out —(see *Edinburgh Review*, No. 98. art. 4.), the beer duty was repealed in 1830. This measure of substantial justice and sound policy reflected great credit on the administration of the Duke of Wellington; which was also entitled to the public gratitude for having placed the licensing system on a fair footing, and established, for the first time, a free trade in beer.

The repeal of the duty has materially increased the consumption of malt; and the anticipations of those who contended that its abolition, if combined with a free trade in beer, would be no great loss to the revenue, are in a fair way of being realised. The clamour that was raised against the measure, on account of its supposed influence in increasing drunkenness, was, we firmly believe, wholly without foundation. If the measure increased, as it certainly did, the consumption of beer, the probability is that it equally diminished the consumption of gin; and it is surely superfluous to add, that this is a most beneficial change. It is true that a number of new public houses were opened for the sale of beer; but it has not hitherto been proved that this circumstance, though it occasioned no common alarm among the clergy and magistrates in different parts of the country, was productive of any public inconvenience. Like all newly opened lines of business, the trade of beer selling was overdone; and a considerable number of beer shops have since been shut up. "It is not," as Adam Smith sagaciously remarked, "the multiplication of alehouses that occasions a general disposition to drunkenness among the common people; but that disposition, arising from other causes, necessarily gives employment to a multitude of alehouses."—(*Wealth of Nations*, p. 161.) The way to eradicate this disposition is by giving a better education to the poor, and inspiring them with a taste for less grovelling enjoyments. All that the fiscal regulations and police enactments intended to promote sobriety have ever done, is to make bad worse, to irritate and disgust, to make the lower classes more enamoured of that which they conceive is unjustly withheld from them, and to stimulate them to elude and defeat the law.

The duty on malt was first imposed in England in 1697, and in Scotland in 1713; but it was not introduced into Ireland till 1785. The following tables exhibit the progress of the consumption and of the duties directly falling on malt from a remote period. But the principal consumption of malt being in beer, the duties on the latter were, in fact, duties on malt; and must always be taken into account in forming anything like a correct estimate of the influence of the latter. Ample information as to the duties on beer will be found in the art. Ale and Beer.

Prices of Malt, at Greenwich Hospital, from 1730 to 1840, per Winchester Quarter, and from 1845 to 1849, per Imperial ditto.

Years.	Prices.	Years.	Prices.	Years.	Prices.
1730	20*s.* 6*d.*	1810	81*s.* 5*d.*	1830	56*s.* 1½*d.*
1740	27*s.* 3½*d.*	1815	69*s.* 7½*d.*	1835	61*s.* 4½*d.*
1750	24*s.* 0	1820	68*s.* 8½*d.*	1840	58*s.* 4½*d.*
1760	24*s.* 9*d.*	1821	61*s.* 11*d.*	1845	59*s.* 9*d.*
1770	28*s.* 3*d.*	1822	52*s.* 8½*d.*	1846	61*s.* 4½*d.*
1780	31*s.* 1*d.*	1823	59*s.* 11*d.*	1847	70*s.* 9½*d.*
1790	35*s.* 6*d.*	1824	62*s.* 1*d.*	1848	60*s.* 6*d.*
1800	84*s.* 0	1825	71*s.* 10½*d.*	1849	59*s.* 9*d.*
1805	85*s.* 7*d.*				

Account of the Quantities of Malt charged with Duty in England and Wales, of the Revenue received thereon, and of the Rates of Duty, in the undermentioned Years, from 1702.

Years.	Number of Bushels of Malt.	Amount of Duty. £	s.	d.	Rate of Duty per Bushel.	Years.	Number of Bushels of Malt.	Amount of Duty. £	s.	d.	Rate of Duty per Bushel.
1702	12,166,778	313,907	5	0	$6\frac{16}{21}d.$		Stock in hand	466,633	8	7	1*s.*4$\frac{16}{21}$*d.*–2*s.* 5*d.*
1705	27,120,382	702,957	11	1	—	1803	29,569,158	3,555,906	18	0	2*s.* 5*d.*–4*s.* 5$\frac{2}{21}$*d.*
1710	19,671,021	511,954	10	6	—	1804	21,854,111	4,858,056	9	4	4*s.* 5$\frac{2}{21}$*d.*
1715	24,172,610	635,330	18	6	—		Stock in hand	914,356	0	0	
1720	25,625,414	665,527	1	9	—	1805	21,665,204	4,841,066	15	0	—
1725	27,265,172	707,467	12	3	—	1806	26,652,425	5,955,716	0	0	—
1730	28,410,421	736,815	8	0	—	1807	24,158,843	5,397,635	6	4	—
1735	25,494,686	661,259	17	3	—	1808	21,726,115	4,854,698	2	4	—
1740	22,074,671	573,059	9	7	—	1809	22,130,984	4,942,771	7	8	—
1745	24,917,869	645,998	15	5	—	1810	23,546,346	5,261,362	12	0	—
1750	29,284,786	758,596	18	1	—	1811	25,982,749	5,806,251	15	0	—
1755	27,916,402	723,752	2	5	—	1812	18,092,965	4,042,716	16	4	—
1756	24,120,284	624,851	4	9	—	1813	21,701,356	4,849,419	5	0	—
1757	17,640,926	457,719	16	8	—	1814	25,320,615	5,657,228	8	4	—
1758	25,027,614	648,173	14	6	—	1815	26,246,795	5,865,606	18	8	—
1759	28,090,252	727,158	15	7	—	1816	21,158,548	4,217,959	1	1	4*s.* 5$\frac{2}{21}$*d.*–2*s.* 5*d.*
1760	27,810,971	999,818	11	11	$\frac{16}{21}d.$–9$\frac{2}{21}$	1817	20,855,566	2,509,817	1b	4	2*s.* 5*d.*
1761	28,928,960	1,123,040	17	2	9$\frac{2}{21}d.$	1818	24,629,858	2,964,024	12	10	—
1762	25,951,676	1,007,851	13	11	—	1819	22,612,290	3,268,881	3	2	2*s.* 5*d.*–3*s.* 7½*d.*
1763	19,557,812	760,388	16	4	—		Stock in hand	420,263	8	8	—
1764	26,531,702	1,033,554	9	3	—	1820	25,881,242	4,311,446	5	1	3*s.* 7½*d.*
1765	25,631,186	996,756	19	8	—	1821	26,138,437	4,718,360	10	0	—
1766	20,823,576	810,544	16	10	—	1822	26,588,512	5,694,212	8	0	3*s.* 7½*d.*–2*s.* 7*d.*
1767	21,894,498	851,648	11	10	—	1823	24,845,152	3,205,502	17	6	2*s.* 7*d.*
1768	27,124,938	1,054,188	0	10	—	1824	27,615,383	3,560,693	0	0	—
1769	26,546,052	1,031,799	11	2	—	1825	29,572,741	3,813,072	7	6	—
1770	24,452,960	950,827	12	6	—	1826	27,335,971	3,550,895	10	8	—
1771	21,961,057	854,344	11	6	—	1827	25,096,337	3,241,610	3	11	—
1772	27,538,150	1,070,125	14	9	—	1828	30,517,819	3,941,884	19	1	—
1773	21,467,926	835,713	9	10	—	1829	23,428,135	3,026,133	19	6	—
1774	25,949,905	951,968	14	2	—	1830	26,900,902	3,474,599	16	10	—
1775	24,967,360	971,085	8	2	—	1831	32,963,470	4,257,781	10	10	—
1776	23,336,298	1,024,336	2	5	—	1832	31,669,771	4,090,678	15	1	—
1777	25,814,456	1,001,050	9	3	—	1833	33,789,010	4,361,413	15	10	—
1778	26,318,736	1,022,950	9	1	—	1834	34,449,646	4,449,745	0	0	—
1779	26,273,405	1,028,083	1	6	9$\frac{2}{21}d.$–9$\frac{1}{2}d.$	1835	36,078,855	4,660,185	0	0	—
1780	30,805,100	1,534,454	14	5	9$\frac{1}{2}d.$–1*s.* 4$\frac{1}{2}d.$	1836	37,196,998	4,804,612	0	0	—
1781	26,718,048	1,817,556	7	4	1*s.* 4$\frac{1}{2}d.$	1837	33,692,356	4,351,229	8	3	—
1782	27,159,101	1,846,108	11	10	—	1838	35,822,985	4,568,931	8	8	—
1783	16,712,114	1,136,782	16	0	—	1839	35,826,016	4,369,193	14	8	—
1784	25,796,105	1,715,953	19	8	—	1840	36,653,442	4,841,229	18	0	2*s.* 7*d.*–2*s.* 7*d.*, and 5 per cent.
1785	26,269,479	1,777,917	15	2	—	1841	30,956,394	4,198,460	18	4	2*s.* 7*d.*, and 5 per cent.
1786	22,071,534	1,493,548	2	3	—	1842	30,706,262	4,176,712	19	0	—
1787	26,439,578	1,789,780	3	9	—	1843	30,891,092	4,189,592	0	9	—
1788	26,048,072	1,765,277	17	8	—	1844	31,856,551	4,320,546	8	9	—
1789	25,979,592	1,591,463	15	6	—	1845	30,508,810	4,737,774	5	4	—
1790	21,976,959	1,487,775	6	0	—	1846	35,723,774	4,845,050	11	10	—
1791	27,070,363	2,092,191	15	10	1*s.* 4$\frac{1}{2}d.$–1*s.* 7$\frac{1}{2}d.$	1847	30,269,965	4,105,363	0	0	—
	Stock in hand.	46,716	18	3		1848	31,818,456	4,319,416	14	0	—
1792	27,789,166	2,142,950	12	10	1*s.* 7$\frac{1}{2}d.$–1*s.* 4$\frac{1}{2}d.$	1849	33,161,128	4,498,152	9	9	—
1793	25,706,765	1,604,717	9	9	1*s.* 4$\frac{1}{2}d.$	1850	34,425,189	4,668,685	9	3	—
1794	24,815,341	1,679,322	8	6	—	1851	34,638,214	4,697,807	10	1	—
1795	25,960,322	1,620,515	7	6	—	1852	35,483,623	4,812,466	2	0	—
1796	27,282,973	1,846,819	5	9	—	1853	36,245,817	4,915,842	16	4	—
1797	29,979,110	2,029,349	7	11	—	1854	31,868,978	5,219,403	18	1	from 8th May, 1854, 2*s.*
1798	26,143,132	1,769,476	13	11	—	1855	30,199,820	6,039,942	9	0	—
1799	30,805,922	2,083,701	14	0	—	1856	34,459,475	6,143,628	3	8	from 5th July, 1856, 2*s.* 7*d.* plus 5 per cent.
1800	14,049,749	950,296	18	5	—	*1857	36,513,925	5,314,465	0	0	
1801	18,005,786	1,218,455	16	7	—	*1858	38,015,619	5,155,868	0	0	
1802	29,432,584	2,175,406	18	4	1*s.* 4$\frac{1}{2}d.$–2*s.* 5*d.*						

* Years ended 31st March.

Regulations as to the Manufacture of Malt. — These are embodied in the acts 7 & 8 Geo. 4. c. 52, and 11 Geo. 4. c. 17. The former act is exceedingly complex; it has no fewer than *eighty-three* clauses; and the regulations embodied in it, though frequently repugnant to common sense, were enforced by 106 penalties, amounting in all to the enormous sum of 15,500*l.*! But it was not in the nature of things that such a law could be allowed to exist for any considerable period. It was not only loudly and universally condemned by the maltsters, but by all the more intelligent officers of excise. In consequence, the 11 Geo. 4. c. 17. was passed. This latter statute is entitled to very considerable praise; it repeals a good many of the penalties, and some of the most vexatious and useless regulations, in the former; so that the business may now be carried on with equal security to the revenue, and with infinitely less risk and annoyance on the part of the manufacturer. The existing regulations principally refer to the gauging of the cisterns, the wetting of the malt, the emptying of the cisterns, the gauging of the malt when in the coach frames, the payment of the duties, &c. But as no one would think of undertaking the business of a maltster without having a copy of both acts in his possession, it would be quite unnecessary for us, even if our limits permitted, to give an abstract of these acts.

Malt may not be imported into the U. Kingdom for home use under pain of forfeiture; but it may be warehoused for exportation. — (6 Geo. 4. c. 107. s. 52.)

Account of the Quantities of Malt charged with Duty in Scotland, of the Revenue received thereon, and of the Rates of Duty, in each Year, from 1800.

Years.	Number of Bushels of Malt.	Amount of Duty.	Rate of Duty per Bushel.		Years.	Number of Bushels of Malt.	Amount of Duty.	Rate of Duty per Bushel.	
		£					£	Barley.	Bigg.
1800	876,598	29,670	8½d.		1828	3,867,159	478,508	2s. 7d.	2s.
1801	607,384	20,560	—		1829	3,712,563	457,588	—	—
1802	1,716,278	70,527	1s. 8½d.		1830	4,101,946	505,651	—	—
	Stock in hand	20,389			1831	4,186,955	515,579	—	—
1803	1,591,284	137,878			1832	3,714,334	458,096	—	—
			From Barley.	From Bigg.	1833	4,302,036	530,558	—	—
1804	1,091,377	197,587	3s. 9½d.	3s. 1½d.	1834	4,491,292	553,567	—	—
	Stock in hand	34,808	—	—	1835	4,459,553	551,096	—	—
1805	1,156,112	206,955	—	—	1836	4,903,187	611,910	—	—
1806	1,244,104	225,642	—	—	1837	4,583,045	578,515	—	—
1807	1,259,298	226,647	—	—	1838	4,419,141	557,915	—	—
1808	1,048,946	189,934	—	—	1839	4,360,363	552,107	—	—
1809	772,758	139,852	—	—				2s. 7d.	
1810	820,291	149,206	—	—	1840	4,397,304	572,544	2s. 7d., & 5 per cent.	2s.-2s., and 5 per cent.
1811	1,012,236	184,882	—	—				2s. 7d.	
1812	934,452	169,870	—	—	1841	4,058,249	539,572	and 5 per cent.	2s., and 5 per cent.
1813	685,244	123,705	—	—					
1814	1,266,852	231,776	—	—	1842	3,786,476	503,829	—	—
1815	1,297,777	236,839	3s. 9½d.	3s. 1½d.	1843	3,618,607	481,310	—	—
			3s. 9½d.	3s. 1½d.	1844	3,889,458	518,054	—	—
1816	1,162,024	164,743	to	to	1845	4,355,038	577,498	—	—
			1s. 8½d.	1s. 8½d.	1846	4,584,667	609,155	—	—
1817	1,093,678	94,599	1s. 8½d.	1s. 8½d.	1847	3,650,445	485,551	—	—
1818	1,390,515	120,274	—	—	1848	4,026,937	534,543	—	—
1819	1,454,320	179,266	1s. 8½d.-3s. 7½d.	1s. 8½d.-3s. 7½d.	1849	4,197,929	558,457	—	—
	Stock in hand	17,739			1850	4,639,159	618,617	—	—
1820	1,182,208	212,282	3s. 7½d.	3s. 7½d.-3s. 1d.	1851	4,102,245	546,723	—	—
1821	1,305,659	231,606	—	3s. 1d.-2s. 10d.	1852	3,931,790	524,728	—	—
1822	1,403,177	185,032	3s. 7½d.-2s. 7d.	2s. 10d.-1s. 9½d. -2s.	1853	4,165,830	556,772	—	—
1823	1,616,590	198,696	2s. 7d.	2s.	1854	3,412,950	571,830	4s.	3s. 1d.
1824	2,784,608	535,505	—	—	1855	2,379,743	466,122	—	—
1825	3,925,847	462,144	—	—				2s. 7d., & 5 per cent.	2s., and 5 per cent.
1826	2,726,555	335,574	—	—	1856	1,062,461	179,323		
1827	2,714,073	355,489	—	—	1857	1,122,301	164,909		

Account of the Quantities of Malt charged with Duty in Ireland, of the Revenue received thereon, and of the Rates of Duty in each Year, from 1800.

Years.	Number of Bushels of Malt.	Amount of Duty.	Rate of Duty per Bushel.	Years.	Number of Bushels of Malt.	Amount of Duty.	Rate of Duty per Bushel.	
		£				£		
1800	681,340	52,000	1s. 6½d.	1828	2,409,228	311,192	2s. 7d.	
1801	1,030,175	78,760	—	1829	2,012,079	259,894	—	
1802	3,611,579	276,115					From Barley.	From Bigg.
1803	3,555,762	285,584	1s. 6½d.-1s. 9½d.	1830	1,959,666	251,646	2s. 7d.	2s.
	Stock in hand	31,162		1831	2,101,844	265,308	—	—
1804	2,807,535	270,036	1s. 9½d.-2s. 9½d.	1832	2,006,350	250,278	—	—
	Stock in hand	28,698		1833	1,984,849	245,987	—	—
1805	2,766,867	317,299	2s. 3½d.	1834	2,204,653	272,291	—	—
1806	2,814,418	334,105	2s. 3½d.-2s. 6½d.	1835	2,353,645	288,609	—	—
	Stock in hand	22,240		1836	2,287,635	285,357	—	—
1807	2,372,295	302,231	2s. 6½d.	1837	2,275,547	286,470	—	—
1808	2,597,758	331,010	—	1838	2,262,440	284,954	—	—
1809	2,958,617	376,991	—	1839	1,744,550	218,503	—	—
1810	2,522,543	321,425	—	1840	1,406,116	178,703	2s. 7d.-2s. 7d. and 5 per cent.	2s.-2s., and 5 per cent.
1811	2,681,842	341,725	—				2s. 7d., and	2s., and 5 per
1812	2,206,206	281,117	2s. 6½d.	1841	1,149,692	151,210	5 per cent.	cent.
1813	2,967,605	428,850	2s. 6½d.-3s. 3½d.	1842	1,268,656	168,009	—	—
	Stock in hand	63,406		1843	1,184,281	157,018	—	—
1814	3,156,175	522,813	3s. 3½d.	1844	1 441,177	190,471	—	—
1815	2,664,466	482,685	3s. 3½d.-4s. 5d.	1845	1,684,112	222,761	—	—
	Stock in hand	192,233		1846	1,788,644	237,057	—	—
1816	1,879,721	359,809	4s. 5d.-2s. 4½d.	1847	1,387,405	184,797	—	—
1817	1,585,486	164,771	2s. 4½d.	1848	1,670,519	222,548	—	—
1818	1,783,836	211,930	—	1849	1,576,103	210,180	—	—
1819	1,742,444	207,036	—	1850	1,682,102	224,108	—	—
1820	1,795,671	319,684	3s. 6½d.	1851	1,596,956	212,757	—	—
	Stock in hand	43,974		1852	1,657,073	221,303	—	—
1821	1,949,515	347,424	—	1853	1,630,075	217,659	—	—
1822	1,756,391	275,614	3s. 6½d.-2s. 7d.	1854	1,537,452	251,655	4s.	3s. 1d.
1823	1,702,595	217,302	2s. 7d.	1855	1,317,031	261,012	—	—
1824	2,107,752	276,255	—				2s. 7d., and	2s., and 5 per
182	2,706,862	356,108	—	1856	1,478,104	249,286	5 per cent.	cent.
1826	2,406,253	310,808	—					
1827	1,805,091	232,899	—	1857	1,691,157	248,396		

MALTA, an island in the Mediterranean, belonging to the British, nearly opposite to the southern extremity of Sicily, from which it is about 54 miles distant.

Valetta, the capital, is situated on the north coast of the island, the lighthouse in the castle of St. Elmo being in lat. 35° 54′ 6″ N., lon. 14° 31′ 1″ E. Malta is about 20 miles long, and 10 or 12 broad. The island of Gozo, about a fourth part of the size of Malta, lies to the north-west of the latter, at about 4 miles' distance; and in the strait between them is the small island of Cumino. In 1856 the population of both islands amounted, excluding the garrison (ex the Maltese regiment), to 142,537; of which that of Gozo might be about 16,000. The entire revenue collected in Malta usually amounts to about 100,000*l.* a-year, of which about 23,000*l.* is derived from the rent of lands.

Valetta, the capital of the island, is defended by almost impregnable fortifications.

"These," says Mr. Brydone, "are indeed most stupendous works. All the boasted catacombs of Rome and Naples are a trifle to the immense excavations that have been made in this little island. The ditches, of a vast size, are all cut out of the solid rock; these extend for a great many miles; and raise our astonishment to think that so small a state has ever been able to make them."—(*Tour through Sicily and Malta*, Letter 15.) Since the island came into our possession, the fortifications have been considerably improved; so that at present it is a place of very great strength.

After the capture of Rhodes by the Turks, the Emperor Charles V. made a present of Malta to the Knights of St. John of Jerusalem, in whose possession it remained till 1798, when it was taken by the French. It was taken from the latter by the English in 1800; and was definitely ceded to us in 1814.

The island consists mostly of a rock, very thinly covered with soil, a good deal of which has been brought, at an immense expense, from Sicily; but being cultivated with the utmost care, it produces excellent fruits, particularly the celebrated Maltese oranges, corn, cotton, with small quantities of indigo, saffron, and sugar. The principal dependence of the inhabitants is on their cotton; the crop of which, amounting to about 4,000,000 lbs. a year, is partly exported raw, and partly manufactured to the value of from 80,000*l.* to 100,000*l.* The corn raised in the island is not sufficient to feed the inhabitants for more than 5 or 6 months, and at an average above 100,000 quarters of foreign wheat are required for their use. In addition to corn, cattle, provisions of all sorts, inc. dried fish, fruits, Spanish peas, &c., are largely imported. The other leading articles of import comprise cottons, cotton yarn, linens, woollens, and most sorts of manufactured goods; coal, partly for use in the island, but far more for the supply of the steamers that call here on their voyage to and from Alexandria, Marseilles, &c; gunpowder, and other warlike stores for the use of the garrison; sugar, coffee, and other colonial products; tobacco, oil, wines, timber, &c. The trade in corn used to be monopolised by government; and after the monopoly was abandoned, duties on importation, varying with the price, were imposed. But in 1835, these duties were abolished; and the fixed duties on corn entered for consumption, specified in the subjoined tariff, were substituted in their stead.

Malta presents unusual facilities, which have not hitherto been taken proper advantage of, for becoming the entrepôt of the corn trade of the Mediterranean and Black Sea. Her warehouses for corn are, like those of Sicily and Barbary, excavated in the rock; and are, perhaps, the best fitted of any in Europe for the safe keeping of corn. The wheat lodged in them may be preserved for an indefinite period; and it is affirmed that though it should, on being deposited, be affected by the weevil, it is very soon freed from that destructive insect. It is not often that corn can be brought direct from Odessa, Taganrog, &c. to England, without the risk of being damaged; but were it brought in the first instance to Malta, and bonded there, it might afterwards be conveyed in the best order to London, or anywhere else. Malta is also admirably well suited for becoming a centre of the corn trade of Egypt, Barbary, Italy, &c.

During the late war, particularly during the period when Napoleon's anti-commercial system was in operation, Malta became a great entrepôt for colonial and other goods, which were thence conveyed, according as opportunities offered, to the adjacent ports. This commerce ceased with the circumstances that gave it birth; and for some years after the return of peace, the trade of the island was depressed below its natural level by the imposition of various oppressive discriminating duties. In 1819, this vexatious system was partially obviated; but it continued to exert a pernicious influence till 1837, when, pursuant to the recommendation of Messrs. Austin and Lewis, commissioners of inquiry, the then existing tariffs of customs duties and port charges were wholly abolished; and a new tariff (which is subjoined) was issued in their stead. It imposed moderate duties, for the sake of revenue only, on a few articles in general demand, without regard to the country whence they came, at the same time that it equalised the tonnage duties, and reduced the warehouse rent on articles in bond to the lowest level.

There are some good springs of fresh water. Valetta is partly supplied by water brought by an aqueduct a distance of about 6 miles, and partly by the rain collected in cisterns.

Harbour.— The harbour of Valetta is double, and is one of the finest in the world. The city is built on a narrow tongue of land, having the castle and light of St. Elmo at its extremity and an admirable port on each side. That on the south-eastern side, denominated the grand port, is the most frequented. The entrance to it, about 250 fathoms wide, has the formidable batteries of St. Elmo on the one hand, and those of Fort Ricasoli on the other. In entering, it is necessary not to come within 50 or 60 fathoms of the former, on account of a spit which projects from it; but in the rest of the channel there is from 10 to 12 fathoms water. The port, which runs about 1¾ mile inwards, has deep water and excellent anchorage throughout: the largest men-of-war coming close to the quays. Port Marsamusceit, on the north western side of the city, is also a noble harbour. The entrance to it, which is about the same breadth as that of the grand port, is between St. Elmo and Fort Tiqua. In the centre of the basin is an island, on which are built a castle and a lazaretto, for the convenience of the ships performing quarantine, by which the port is principally used. Owing to the narrowness of the entrance, and the usual variableness of the wind, it is customary for most vessels bound for Valetta to take a pilot on board before entering the harbour.

TARIFF (A). — Duties on Imports, and Dues for Store Rent, which the Collector of Customs is required to levy on the Account of the Government of Malta.

Articles.	Import Duties.		Store Rents on Articles lodged in Bond.	
	£	s. d.	£	s. d.
Beer, per Maltese barrel	0	2 0	0	1
Cattle: bullocks and other animals of the kind, per head	0	10 0		
Horses and mules, per head	1	0 0		
Charcoal, per salm	0	0 6	0	1
Grain: —				
Wheat, per salm	0	10 0	0	2
Indian corn, per salm	0	6 0	0	2
Barley, per salm	0	4 0	0	2
Saggina, per salm	0	3 0	0	2
Other inferior grains	0	5 0	0	2
Manufactured grain, per cantar	0	6 0	0	2
Wheat, Indian corn, barley, or other inferior grains, if damaged so as to be unfit for the food of man (commonly called *frumentazzo*), per salm	0	2 0	0	2
Manufactured grain, if damaged so as to be unfit for the food of man, per cantar	0	2 0	0	2
Oil, olive, per caffiso	0	0 6	0	0½
Potatoes, per cantar	0	0 10	0	2
Pulse and seeds: —				
Beans, caravances, chick-peas, kidney-beans, lentils, lupins, peas and vetches, per salm	0	2 0	0	2
Carob-beans and cotton seeds, per cantar	0	0 6	0	2
Spirits; viz. for every Maltese barrel of such spirits of any strength not exceeding the strength of proof by Sykes's hydrometer, namely London proof, and so in proportion for any greater strength than the strength of proof	1	2 0	0	2
Vinegar, per Maltese barrel	0	2 0	0	2
Wines, the value of which shall exceed 15*l.* per pipe of 11 Maltese barrels, per Maltese barrel	0	11 0	0	2
All other wines, per Maltese barrel	0	2 0	0	2

Observations. — 1. The duties payable by the salm on grain, pulse, and seed (except large Sicilian beans) to be charged by the strike measure. The duties on large Sicilian beans and on charcoal to be charged by the heaped measure.

2. Every liquid compounded of spirit and any other ingredient or ingredients, and containing more than 25 per cent. of spirit of the strength of proof, to be liable to the duty on spirit which is imposed by the present tariff.

3. The store rents on grain lodged in bond to be payable from the day on which the grain was lodged. The store rents on every other article mentioned in the present tariff to be payable from the tenth day after the day on which such article was lodged.

TARIFF (B). — Tonnage Dues which the Collector of Customs is required to levy on the Account of the Government of Malta.

Vessels discharging merchandise in the island shall, on clearing outwards, pay for every ton or any part thereof - 6*d.*

TARIFF (C). — Fees which the Collector of Customs is required to levy on the Account of the Government of Malta.

	£	s. d.
For each certificate under the office seal	0	2 6
For each sheet of printed official forms	0	0 2

Tariff of Dues authorised to be levied for Account of Government, by the superintendent of Quarantine, Malta.

Shipping in Quarantine. — 1. Vessels entered upon a quarantine to pay for each day of their continuance in port, as follows: —

	s. d.
Vessels not exceeding 25 tons	0 6
— from 26 tons to 50 —	1 0
— from 51 — 100 —	1 6
— from 101 — 150 —	2 0
— from 151 — 200 —	2 6
— from 201 — 250 —	2 9
— from 251 — and upwards	3 0

2. Vessels of whatever size, sailing in quarantine, having entered upon the performance thereof, to pay at the above rates, but in no case more than 2*s.* a day for the remainder of the term of quarantine.

3. Vessels liable to quarantine, not having entered upon the performance thereof, to pay 2*s.* for each day in their continuance in port.

4. Vessels compelled by stress of weather to enter the great harbour, to be subject, while they remain there, to the additional charge of 3*s.* a day, for every guard boat which the Superintendent of Quarantine may deem it necessary to place over them.

*** Any vessel in quarantine entering the great harbour without a justifiable cause, incurs the penalty of 200 dollars imposed by the second article of the proclamation, dated 12th October, 1820. (No. xiii.)

5. Vessels having contagious diseases on board to pay an extra rate in proportion to the expense that may be incurred, but in no case to exceed 20*s.* a day, in addition to the usual rate.

Effects received into the lazaret for deputation to be chargeable with a due proportion of the actual expense thereof, which at present, on ordinary occasions, is at the rate of 2*s.* 6*d.* a day for each guardian, and 1*s.* 8*d.* a day for each labourer, whom it may be necessary to employ.

Cattle landed in the lazaret to be chargeable, for each	s. d.
Horse, mule, or ass	3 0
Bullock, or other animal of the kind	2 0
Sheep, goat, pig, or other small animal	1 0

Persons performing quarantine in the lazaret to pay at the rate of 2*s.* 6*d.* a day, for each guardian employed, but no single individual to be chargeable with more than 1*s.* 8*d.* a day.

Documents issued under the office seal, 2*s.* 6*d.* each.

Rates of Pilotage to be exacted from vessels entering or departing from the harbours of Valetta or Marsamuscetto when in charge of pilots, viz: —

For vessels up to the register tonnage of	£	s. d.
101 tons	0	8 4
From 101 — to 150	0	12 6
— 151 — to 250	0	16 8
— 251 — to 350	1	1 0
— 351 — and upwards	1	5 0

For leaving either of the above mentioned harbours when proceeding to sea, half of the above rate to be paid.

Going out of one of the above mentioned harbours and entering the other, two-thirds of the above rate to be paid.

Pilots keen on board of vessels in quarantine are entitled (if victualled on board) to 1*s.* 8*d.* per diem, if otherwise to 2*s.* 4*d.* exclusive of the pilotage.

N. B. — In all cases pilot boats must be in readiness when required.

An Account of the Quantities and Declared Values of the Principal Articles of British and Irish Produce and Manufacture exported from the U. Kingdom to Malta in each of the 3 Years ending with 1856.

Principal Articles.	Quantities.			Declared Values.		
	1854.	1855.	1856.	1854.	1855.	1856.
Apparel, slops, and haberdashery . value	.	.	.	£18,879	£21,763	£29,755
Beer and ale . . . barrels	3,183	5,308	5,979	8,005	18,268	5,090
Butter . . . cwts.	1,564	2,260	982	6,576	10,533	5,051
Coals, cinders, and culm . tons	161,475	253,959	188,820	84,784	134,173	99,676
Copper, wrought and unwrought . cwts.	645	1,146	1,775	4,028	7,182	10,489
Cottons: entered by the yard . yards	14,458,839	15,706,484	12,011,241	156,603	169,253	144,170
,, ,, at value . value	.	.	.	2,580	6,088	5,619
Cotton yarn . . . lbs.	704,271	1,058,210	715,965	24,562	31,501	22,510
Earthenware and porcelain . value	.	.	.	2,235	5,477	5,719
Gunpowder . . . lbs.	87,850	132,650	568,500	2,110	3,441	10,121
Hardwares and cutlery . cwts.	855	1,555	1,489	6,094	11,708	11,145
Iron, steel, &c. . . . tons	1,474	2,458	1,617	13,799	23,037	17,125
Linens entered by the yard . yards	224,396	456,407	402,928	7,942	14,190	12,179
Oil, linseed . . . gallons	2,762	35,401	20,926	292	5,239	3,629
Silk manufactures . . value	.	.	.	1,237	2,615	7,070
Soap . . . cwts.	7,396	5,658	1,318	8,684	6,571	2,675
Sugar, refined . . . ,,	1,816	1,271	9,516	3,180	2,877	24,272
Woollens: entered by the piece . pieces	4,614	8,629	11,191	14,564	18,867	28,525
,, ,, by the yard . yards	154,468	313,872	205,864	5,159	11,060	9,939
Total value of the above and of all other articles	.	.	.	413,285	625,823	541,470

We also exported to Malta in 1856 foreign colonial produce to the amount of 75,176*l.* The value of the imports from Malta during the same year was 215,202*l.*; but they consisted in great part of foreign articles *en entrepôt*.

The central position, excellent port, and great strength of Malta, make it an admirable naval station for the repair and accommodation of the men-of-war and merchant-ships frequenting the Mediterranean, and render its possession of material importance to the British empire. Since Malta-built vessels were admitted into the ports of the U. Kingdom on the same terms as those of British-built, the trade of shipbuilding has materially increased in the island. The Maltese shipwrights are diligent expert workmen; and, their wages being moderate, it is a favourable place for careening. Owing to the want of a

dry dock. all ships above the size of a sloop of war, that require to have their bottoms examined, have to come to England for that purpose. This, surely, should be obviated. Quarantine is strictly enforced at Malta; but there is every facility for its performance, and the charges are less than at any other port in the Mediterranean.

Malta is now the centre of a very extensive steam-packet system; the steamers from England for the Ionian Islands, Constantinople, Alexandria, and other ports of the Levant, touching here. The French steamers from these ports usually perform quarantine at Malta.

Money.—In 1825, British silver money was introduced into Malta; the Spanish dollar being made legal tender at the rate of 4*s.* 4*d.*; the Sicilian dollar at 4*s.* 2*d.*; and the scudo of Malta at 1*s.* 8*d.*

Weights and Measures. — The pound or rottolo, commercial weight = 30 oncie = 12·216 English grains. Hence 100 rottoli (the cantaro) = 174½ lbs. avoirdupois, or 79·14 kilog. Merchants usually reckon the cantaro at 175 lbs.

The salma of corn, stricken measure = 8·221 Winchester bushels: heaped measure is reckoned 16 per cent. more. The caffiso, or measure for oil, contains 5½ English gallons=20·818 litres. The barrel is double the caffiso. The Maltese foot = 11 1-6th English inches = ·2836 metres. The canna = 8 palmi = 81·9 English inches = 2·079 metres. Merchants usually convert Malta measure into English in the proportion of 3½ palmi to a yard, or 2 2-7th yards to 1 canna.

Bills on London are usually drawn at 30 and 60 days' sight. The deputy commissary general is obliged to grant, at all times, bills on the treasury here for British silver tendered to him, at the rate of 100*l.* bill for every 101*l.* 10*s.* silver, receiving, at the same time, other silver, at a fluctuating rate of exchange.

MAN (ISLE OF) is, as every one knows, situated in the Irish Sea, at about an equal distance from England, Scotland, and Ireland. It is about 30 miles long, and 10 or 12 broad. The interior is mountainous, and the soil nowhere very productive. Population, in 1851, 52,387. This island used to be one of the principal stations of the herring fishery; but for a considerable period it has been comparatively deserted by the herring shoals, a circumstance which is not to be regretted; for the fishery, by withdrawing the attention of the inhabitants from agriculture and manufactures, and leading them to engage in what has usually been a gambling and unproductive business, has been, on the whole, injurious to the island. The steam packets from Glasgow to Liverpool, and from the latter to Belfast, touch at the Isle of Man; which is, in consequence, largely frequented by visiters from these cities, and other parts of the empire, whose influx has materially contributed to the improvement of Douglas, the principal port in the island, and other towns.

The feudal sovereignty of Man was formerly vested in the Earls of Derby, and more recently in the Dukes of Athol, a circumstance which accounts for the fact of the duties on most commodities consumed in the island having been, for a lengthened period, much lower than those on the same commodities when consumed in Great Britain. This distinction, which still subsists, has produced a great deal of smuggling, and been in no ordinary degree injurious to the revenue and trade of the empire. During the present century, indeed, the clandestine trade of Man has been confined within comparatively narrow limits; but to accomplish this, a considerable extra force of Custom-house officers and revenue cruisers is required; and the intercourse with the island has to be subjected to various restraints. Nothing, as it appears to us, can be more impolitic than the continuance of such a system. The public has, at a very heavy expense, purchased all the feudal rights of the Athol family; and having done so, it is certainly high time that an end were put to the anomalous absurdity of having a considerable island, lying, as it were, in the very centre of the empire, and in the direct line between some of the principal trading towns, with different duties on many important articles! It might be necessary, perhaps, to make some compensation to the inhabitants for such a change, and this might be done, with advantage to them and without expense to the public, by modifying and improving the internal regulations and policy of the island, which are very much in need of amendment. We do not, indeed, imagine that the island would lose any thing by the proposed alteration; for the temptation which the present system holds out to engage in smuggling enterprises diverts the population from the regular pursuits of industry, and, along with the herring lottery, is the principal cause of that idleness for which the Manx are so notorious. The customs revenue collected in the Isle of Man in 1852 amounted to 28,077*l.*; but from this sum 14,373*l.* was deducted on account of expenses of collection, public works, internal government, &c. We subjoin an abstract of the acts which now (1853) regulate the trade with the Isle of Man: the conditions under which it is carried on have been a good deal simplified.

The regulations under which the trade of the Isle of Man is now conducted are embodied in the Acts 16 & 17 Vict. c.106. and the 16 & 17 Vict. c. 107. and are as follows, viz. —

Duties in Table to be levied on Goods imported into Isle of Man. — In lieu of all duties of customs now payable by law upon the importation of goods into the Isle of Man, there shall be raised, levied, collected, and paid unto Her Majesty, her heirs and successors, the several duties of Customs as the same are respectively set forth in figures in following table: viz. —

DUTIES APPLICABLE TO THE ISLE OF MAN.

	£	s.	d.
1. Coffee, the import duties in Great Britain or Ireland not having been paid thereon, the lb.	0	0	2
2. Corn, viz., wheat, barley, bear or bigg, oats, rye, peas, beans, buckwheat, maize, or Indian corn - - - - the quarter	0	1	0
Wheat meal and flour, barley meal, oat meal, rye meal, and flour pea meal, bean meal, buckwheat meal, and maize or Indian corn meal - - - - the cwt.	0	0	4½
3. Hemp - - - - - -			Free.
4. Hops, from Great Britain or Ireland - -			Free.
5. Iron - - - - - -			Free.
6. Spirits, viz.:—			
Brandy, Geneva, and all foreign spirits, not being liqueurs, cordials, or perfumed spirits the gallon	0	6	0
Rum and rum shrub, of the British possessions - - - - the gallon	0	3	4

	£	s.	d.
British or Irish spirits exported from a duty-free warehouse under bond in the United Kingdom - - - the gallon	0	3	0
Such spirits not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon.			
I. Eau de Cologne, per flask (50 not containing more than 1 gallon) - - - -	0	0	4
or the gallon	0	10	0
8. Liqueurs, cordials, and perfumed spirits —	0	10	0
9. Sugar, viz.:—			
Muscovado - - - the cwt.	0	1	0
Sugar candy, white or brown, refined sugar, or sugar rendered by any process equal to refined, foreign or British - the cwt.	0	8	0
From and after the 5th July, 1854 —	0	3	0
10. Tea - - - - - the lb.	0	1	0
From and after the 5th July, 1854 —	0	0	6
11. Tobacco, viz.:—			
Unmanufactured - - - —	0	1	6
Manufactured - - - - —	0	4	9
Cigars - - - - - —	0	4	9

	£.	s.	d.
12. Wine - - the tun of 252 gallons	12	0	0
13. Wood, all sorts - - - - - -	Free.		
14. Goods, wares, and merchandise brought from Great Britain or Ireland, and entitled to any bounty or drawback of excise on exportation from thence, and not hereinbefore enumerated or charged with duty - - - -	Free.		
15. Goods, wares, and merchandise, the growth, produce, or manufacture of and brought from Great Britain or Ireland, and not hereinbefore charged with duty - - -	Free.		
16. Goods, wares, and merchandise, not the growth, produce, or manufacture of Great Britain or Ireland, but brought from thence, and having there been entered for consumption, and the import duties having been there paid thereon	Free.		
17. Goods, wares, and merchandise imported or brought from any place from whence such goods may be lawfully imported into the Isle of Man, and not herein before charged with duty, or declared to be free of duty, for every 100*l.* of the value thereof - - -	15	0	0

Power to the Treasury to remit and reimpose the Duties on unenumerated Articles.— The commissioners of the Treasury may from time to time, by any order or orders under their hands, declare that all or any articles legally importable into the Isle of Man, and not enumerated in the said table, and upon which the said duty of 15 per cent. is hereby imposed, shall and may, from and after any day or days named in such order or orders, be imported from the places and in the manner therein mentioned into the Isle of Man duty free during such time or times as shall be therein named, or until such order or orders respectively, or any of them, shall be rescinded, and such articles shall be imported duty free accordingly so long as any such order or orders, or any of them, shall continue unrescinded; and the said commissioners may at any time, by any order under their hands, revoke the whole or any part of any previous order or orders, or any of them, for such time and in such manner as they may see fit; and all orders of the commissioners of the Treasury made in pursuance of this enactment shall be duly published in the London and Dublin gazettes twice at least within 14 days from the date of such orders respectively, and a copy of every such order shall be laid before both Houses of Parliament within 6 weeks after the date of such order if Parliament be then sitting, and if not, then within 6 weeks after the commencement of the then next session of Parliament.—16 & 17 Vict. c. 106. s. 5.

The following Treasury order has since appeared.

By virtue of the powers vested in us under the 5th section of the Customs Tariff Act, 16 & 17 Vict. cap. 106, to remit and re-impose the duties levied on unenumerated articles legally importable into the Isle of Man, these are to authorise you under the said section of the Customs Tariff Act, to allow all articles enumerated in the tariff of the U. K., and not enumerated in the tariff of the Isle of Man, and which, under the tariff of the island, would be subject to an *ad valorem* duty of 15 per cent., to be admitted free of duty so long as the order permitting such free importation shall remain unrescinded. For which this shall be your warrant.

Whitehall, Treasury Chambers, August 27. 1853. ABERDEEN, JOHN SADLEIR.

Isle of Man to be deemed Part of U. K. for the Purposes of this Act.— The Isle of Man shall be deemed and taken to be part of the U. K. for all the purposes of this act, but nothing herein contained shall prejudice or affect, or be construed in any way directly or indirectly to prejudice or affect, any of the rights or privileges legally exercised or enjoyed by the said isle at the time of the passing of this act. —16 & 17 Vict. c. 107. § 346.

Goods delivered out of Charge of Customs in Isle of Man not to be brought into Britain or Ireland.— No foreign goods upon which a higher duty is payable on their importation into Great Britain or Ireland than on their importation into the Isle of Man shall, after the same have been cleared and delivered out of charge of the proper officer of customs for consumption or otherwise in the said isle, be carried or shipped or be waterborne or be brought to any quay, wharf, or other place to be shipped or waterborne to be carried from the said isle into Great Britain or Ireland; nor shall any such goods which may be brought to the said isle, though not cleared and delivered as aforesaid, be removed or carried from thence into Great Britain or Ireland until the same have been duly cleared for that purpose by the proper officer of customs, nor (unless reported for removal in the same ship and in continuation of the voyage to some port in Great Britain or Ireland), until sufficient security by bond or otherwise shall have been given, in such manner, and on such terms and conditions as the Commissioners of Customs may direct, for the due delivery thereof at some port or place in Great Britain or Ireland; and all goods carried, brought, shipped, removed, or waterborne to be shipped, removed, or carried contrary hereto shall be forfeited, and every person who shall carry, ship, bring, remove, or waterbear to be shipped, removed, or carried any goods contrary hereto, or who shall aid or be concerned therein, shall forfeit treble the value of such goods, or the sum of 100*l.*, at the election of the Commissioners of Customs.—§ 347.

Goods, the Growth or Manufacture of the Isle of Man, may be imported into Britain or Ireland on Certificate, &c.— Any goods, the growth of the Isle of Man, or there manufactured from materials the growth of the said isle, or from materials not subject to duties in Great Britain or Ireland, or from materials upon which the duty has been paid in Great Britain or Ireland and upon which no drawback has been subsequently granted, may be brought from the said isle into Great Britain or Ireland without payment of any duty: provided always, that such goods may nevertheless be charged with such proportion of such duties as shall fairly countervail any duties of excise payable on the like sort of goods the produce of that part of the U. K. into which they shall be brought, and any articles, either wholly or in part manufactured in the said isle from any materials upon which a higher duty is payable upon their importation into the U. K. than on their importation into the Isle of Man, may be brought from the said isle into Great Britain or Ireland on payment of the duty payable on such goods in that part of the U. K. into which they shall be so brought.—§ 348.

Declaration and Certificate of Growth or Manufacture of Goods from Isle of Man.— Before any goods shall be shipped in the Isle of Man to be carried to Great Britain or Ireland, as the growth or produce of that isle, or as manufactures of that isle from materials the growth and produce thereof, or from materials not subject to duty in Great Britain or Ireland, or from materials upon which the duties shall have been paid and not drawn back in Great Britain or Ireland, proof shall be made by the written declaration of some competent person, to the satisfaction of the collector or comptroller of customs at the port of shipment, that such goods (describing and identifying them) are of such growth, produce, or manufacture, as the case may be, and in such declaration shall be stated the name of the person by whom

such goods are intended to be shipped, and such person, at the time of shipping, (not being more than 1 month after the date of such declaration), shall make and subscribe a declaration before such collector or comptroller, that the goods to be shipped are the same as are mentioned in such declaration, and thereupon the collector or comptroller shall, on demand, give to the master of the ship in which the goods are to be exported, a certificate of such proof of produce or of manufacture, describing the same, and setting forth the name of the party and of the ship and of the master thereof, and the destination of the goods.—§ 349.

Act not to affect Excise Drawbacks.—Nothing herein contained shall be deemed or construed to affect the laws and regulations now in force respecting duties and drawbacks of excise on goods removed to the Isle of Man.—§ 350.

Stores of Manx Ships.—If any ship or boat bound from the Isle of Man to Great Britain or Ireland shall have on board any stores of spirits, tobacco, or tea for the use of the crew exceeding the quantities specified in the following table, such stores, together with the casks or packages containing the same, and also the ship or boat, shall be forfeited:

	In Ships or decked Vessels.	In open Boats.
Spirits for each seaman	Half a gallon	One quart.
Tobacco for each seaman	One pound	Half a pound.
Tea for the whole crew	Two pounds	One pound.

Treasury may restrict Imports.—The Commissioners of the Treasury shall and may at any time, if they see fit, by order under their hands, restrict or limit the importation into the Isle of Man of any foreign goods to such quantities per annum and in such manner as they may deem necessary, and also determine into what ports in the Isle of Man and from what places such goods may be imported.—§ 352.

Management of Duties.—The duties of customs payable on the importation of goods into the Isle of Man shall be collected, paid, recovered, and accounted for under the management and control of the Commissioners of Customs; and, except the necessary charges of collecting, recovering, and accounting for the same, the said duties shall from time to time (subject to the deductions herein-after mentioned) be brought and paid into the receipt of H. Majesty's Exchequer, distinctly and apart from all other branches of the public revenue, and shall go to and make part of the Consolidated Fund of the U. K.: Provided always, that any of the collectors of customs of the said isle shall retain, and he and they is and are hereby authorized and required, agreeably to such directions as shall from time to time be given for that purpose by the Commissioners of Customs, to retain, such sum or sums of money in his or their hands as may be sufficient to defray the necessary expenses attending the government of the said Isle of Man and the administration of justice there, and other charges incurred in the said isle, which have heretofore been or may hereafter be deemed fit and proper charges to be deducted from and paid out of the duties of customs collected in the said Isle of Man; and upon the amount of the said expenses and charges being ascertained, the said commissioners are hereby authorized to direct the same to be paid out of the said monies so retained to such person or persons as may be entitled to receive the same.—§ 353.

Expenses of the Government, and 2,300l. per Annum to Harbour Commissioners of Isle of Man, to be paid by Customs.—The necessary expenses attending the government of the Isle of Man and the administration of justice there, and other charges incurred in the said isle, which have heretofore been deemed fit and proper charges to be deducted from and paid out of the duties of customs collected in the said isle, or which may hereafter be deemed proper charges, and also the annual sum of 2,300*l.* made payable by Act 8 & 9 Vict. c. 94. § 25., to H. Majesty's Receiver General in the said Isle of Man, and to be applied for the lawful purposes of the harbour commissioners therein mentioned, shall and may be retained and paid by the collector of customs of the said isle, out of the duties of customs collected in the said isle, as herein-before provided.—§ 354.

Additional Allowance for Public Works in the Isle of Man.—In addition to the deductions from the customs duties herein-before provided for, there shall be set aside annually a sum equal to 1-9th part of the amount derived from such duties, to be applied by the Commissioners of the Treasury in effecting improvements in the harbours and other public works in the Isle of Man, the necessary repairs and improvements in the harbours taking priority to other public works; and it shall be lawful for the Court of Tynwald from time to time to determine what improvements and public works shall be so undertaken, the lieutenant-governor having a veto upon such decision.—§ 355.

MANGANESE (Ger. *Braunstein, Glasseise;* Du. *Bruinsteen;* Fr. *Manganèse, Magalese, Savon du verre;* It. *Manganesia;* Sp. *Manganesia;* Lat. *Magnesia nigra, Manganesium*), a metal which, when pure, is of a greyish white colour, like cast-iron, and has a good deal of brilliancy. Its texture is granular; it has neither taste nor smell; it is softer than cast-iron, and may be filed; its specific gravity is 8. It is very brittle, and can neither be hammered nor drawn out into wire. Its tenacity is unknown. When exposed to the air, it attracts oxygen with considerable rapidity. It soon loses its lustre, and becomes grey, violet, brown, and at last black. These changes take place still more rapidly if the metal be heated in an open vessel. Ores of manganese are common in Devonshire, Somersetshire, &c. The ore of manganese, known in Derbyshire by the name of *black wadd*, is remarkable for its spontaneous inflammation with oil. Oxide of manganese is of considerable use; it is employed in making oxymuriatic acid, for forming bleaching liquor. It is also used in glazing black earthenware, for giving colours to enamels, and in the manufacture of porcelain. It is the substance generally used by chemists for obtaining oxygen gas.—(*Thomson's Chemistry, &c.*)

MANGEL-WURZEL, OR FIELD BEET (Fr. *Betteraves;* Ger. *Mangold Wurzel;* It. *Biettola*), a mongrel between the red and white beet. It has been a good deal cultivated in France, Germany, and Switzerland, partly as food for cattle, and partly to be used in distillation, and in the extraction of sugar. Its culture in Great Britain is very recent; and Mr. Loudon questions whether it has any advantages over the turnip for general agricultural purposes. The preparation of the soil is exactly the same as for turnips, and immense crops are raised on strong clays. The produce per acre is about the same as that of the Swedish turnip; it is applied almost entirely to the fattening of stock, and the feeding of milch cows.—(*Loudon's Encyc. of Agriculture.*)

MANNA (*Fr. Manne;* Ger. *Mannaesche;* It. *Manna*), the concrete juice of the *Fraxinus ornus*, a species of ash growing in the south of Europe. The juice exudes

spontaneously in warm dry weather, and concretes into whitish tears; but the greater part of the manna of commerce is obtained by making incisions in the tree, and gathering the juice in baskets, where it forms irregular masses of a reddish or brownish colour, often full of impurities. Manna is imported in chests, principally from Sicily and Calabria. The best is in oblong pieces or flakes, moderately dry, friable, light, of a whitish or pale yellow colour, and in some degree transparent; the inferior kinds are moist, unctuous, and brown. It has a slight peculiar odour, and a sweet taste, with some degree of bitterness not very pleasant, and leaving a nauseous impression on the tongue. —(*Thomson's Dispensatory.*)

MANIFEST, in commercial navigation, is a document signed by the master, containing the name or names of the places where the goods on board have been laden, and the place or places for which they are respectively destined; the name and tonnage of the vessel, the name of the master, and the name of the place to which the vessel belongs; a particular account and description of all the packages on board, with the marks and numbers thereon, the goods contained in such packages, the names of the respective shippers and consignees, as far as such particulars are known to the master, &c. A separate manifest is required for tobacco. The manifest must be made out, dated, and signed by the captain, at the place or places where the goods, or any part of the goods, are taken on board.—(See IMPORTATION and EXPORTATION.)

MANILLA, the capital of Luçonia, the largest of the Philippine Islands, and the principal settlement of the Spaniards in the East, in lat. 14° 36′ 8″ N., lon. 120° 53½′ E. Population about 100,000, of whom from 4,000 to 5,000 may be Europeans. Manilla is built on the shore of a spacious bay of the same name, at the mouth of a river navigable for small vessels a considerable way into the interior. The smaller class of ships anchor in Manilla roads, in 5 fathoms, the north bastion bearing N. 37° E., the fishery stakes at the river's mouth N. 18° E., distant about a mile; but large ships anchor at Cavita, about 3 leagues to the southward, where there is a good harbour, well sheltered from the W. and S. W. winds. The arsenal is at Cavita, which is defended by Fort St. Philip, the strongest fortress on the islands. The city is surrounded by a wall and towers, and some of the bastions are well furnished with artillery.

Though situated within the tropics, the climate of the Philippines is sufficiently temperate; the only considerable disadvantage under which they labour in this respect being that the principal part of the group comes within the range of the typhoons. The soil is of very different qualities; but for the most part singularly fertile. They are rich in mineral, vegetable, and animal productions. It is stated in a statistical account of the Philippines, published at Manilla in 1818 and 1819, that the entire population of the islands amounted to 2,249,852, of which 1,376,222 belonged to Luçonia. But this return is believed to have been underrated; and the population having increased very considerably in the interval, it is now estimated at about 4,000,000. There are some, but not many, Chinese settlers, and but few Europeans. The natives are said to be the most active, bold, and energetic, of any belonging to the Eastern Archipelago. "These people," says a most intelligent navigator, "appear in no respect inferior to those of Europe. They cultivate the earth like men of understanding; are carpenters, joiners, smiths, goldsmiths, weavers, masons, &c. I have walked through their villages, and found them kind, hospitable, and communicative; and though the Spaniards speak of and treat them with contempt, I perceived that the vices they attributed to the Indians, ought rather to be imputed to the government they have themselves established."—(*Voyage de M. De la Perouse*, c. 15.)

The trade of the Philippines has increased very rapidly of late years. The imports principally consist of cotton stuffs and yarn, iron and hardware, woollens and worsteds, machinery, wines and spirits, furniture, arms and ammunition, apparel, slops, &c. By far the largest portion of the imports is supplied by the U. Kingdom; but owing to the high discriminating duties in favour of goods imported on Spanish bottoms, a large proportion of the British goods are brought in Spanish ships from Singapore. In 1856 the imports of British produce were valued at 1,575,000*l.*, and the exports of Philippine produce on British account at 1,370,000*l.* The Americans export produce worth about 1,000,000*l.*; and as their imports are a mere trifle, the balance is extinguished by drafts on London. Manilla has, also, an extensive and increasing trade with China, Singapore, and Java, Australia, India, &c.

The quantity of rice and paddy shipped to China from the islands cannot be ascertained with any degree of exactness; what goes from Manilla is very small, because, before arriving there, it has, by its transport expenses, added to the price at which it is obtainable in the districts where it is produced, which, of course, prevents its being shipped from the capital. Probably, however, about a million coyans, each of which, one with another, weighs about a China pecul, or 133⅓ lbs., may be annually exported. The export is regulated by the supposed scarcity or abundance of food in the country.—(*M'Micking's Manilla*, p. 270.)

But the exports have increased very greatly since 1850. Thus the exports of sugar to England and Australia only amounted in 1856 to 626,075 piculs, the whole exports of the year having exceeded 50,000 tons. The exports of hemp during the same year amounted to 21,986 tons, of which by far the largest portion went to the U. States.—(See the valuable *Consular Report* of Mr. Farreu, for 1856.) We subjoin an

Account of the Quantities and Destination of the Produce exported from Manilla in 1850.

Articles.	To Great Britain.	To the Continent of Europe.	To the Australian Colonies.	To China.	To Singapore, Batavia, and Bombay.	To California, and the Pacific.	To the United States.	Total.
Sugar - - peculs	146,926	50,830	142,359	- -	12,749	29,144	77,919	459,927
Hemp - - —	16,073	5,568	- -	- -	544	- -	102,184	124,367
Cordage - - —	96	476	3,753	1,732	680	2,137	210	9,084
Cigars - - mil.	10,319	11,867	12,561	9,262	26,859	1,707	914	73,439
Leaf tobacco - quintals	- -	42,629	- -	- -	- -	- -	- -	42,629
Sapan wood - arrobas	37,068	14,436	- -	18,942	17,337	- -	9,015	96,798
Coffee - - peculs	165	9,670	1,481	100	250	1,072	2,063	14,801
Indigo - - quintals	259	213	- -	uncertain	- -	- -	3,753	4,225
Hides - - peculs	3,340	213	- -	1,069	- -	- -	- -	4,622
Hide-cuttings - —	- -	- -	- -	536	- -	- -	2,419	2,955
Mother-of-pearl shells - - —	820	338	- -	- -	260	- -	74	1,492
Tortoiseshell - catties	2,081	580	- -	555	1,912	- -	469	5,597
Rice - - —	- -	6,576	- -	uncertain	- -	1,467	- -	uncertain.
Beche de mer - peculs	- -	- -	- -	4,348	- -	- -	- -	4,348
Gold dust - taels	- -	- -	- -	5,068	- -	- -	- -	5,068
Camagon, or ebony wood - peculs	235	1,213	- -	794	- -	- -	- -	2,242
Grass-cloth - pieces	175	13,252	- -	500	- -	650	22,975	37,552
Hats - - no.	- -	- -	9,400	5,115	9,115	500	25,870	50,000

Port Charges.—On foreign vessels, 2 rs. per ton, and one-half on such as neither load nor unload cargo, beside fees amounting from $5 to $15, according to the size of vessels.

Import Duties.— Spanish commodities, by Spanish vessels, pay 3 per cent. *ad valorem*, and 8 by foreign. Foreign commodities, by foreign vessels, 14 per cent., and 7 by Spanish; in general, being 8 per cent. under national flag from Singapore, and 9 from China. Spirits and strong liquors, produce of Spain, by Spanish vessels, 10 per cent., and 25 by foreign; if they be foreign produce, by Spanish vessels, 30 per cent., and 60 by foreign. Cider and beer, produce of Spain, by Spanish vessels, 5 per cent., and 10 by foreign; if they be foreign produce, by Spanish vessels, 20, and 25 foreign. All Spanish wines, by national vessels, 3 per cent., and 8 by foreign. Foreign wines, by Spanish vessels, 40 per cent., and 50 by foreign, except champagne, which pays, by Spanish vessels, 7 per cent., and 14 by foreign. Cotton twist, grey, black, blue, and purple—knives, or bolos, such as the natives use—ready-made clothes, boots, shoes, preserved fruits, confectionery and vinegar, by Spanish vessels, 20 per cent., and 30 by foreign. British and other foreign cotton and silk manufactures, made in imitation of native cloths, chiefly stripes or checks of black, blue, and purple colours, Madras and Bengal, grey, white, and printed cottons, towels, table napkins, and table cloths, 15 per cent. by Spanish vessels, and 25 by foreign. Beche de mer, rattans, diamonds, tortoiseshell, mother-o'-pearl shell, and birds' nests, 1 per cent. by Spanish vessels, and 2 by foreign. Machinery of all sorts for the promotion of the industry of the country, cotton twist of red, rose, yellow, and green colours, gold and silver, coined or uncoined, plants and seeds, free. Tropical productions similar to those of the Philippines, also arrack and gunpowder, are prohibited. Opium is only admitted to be deposited for re-exportation. Swords, fowling-pieces, muskets, pistols, and warlike stores may be deposited for re-export, and cannot be introduced without the special license of government; but cannon and dress swords are admitted.

Export Duties.— Commodities and produce of every description to Spain, by national vessels, pay 1 per cent., and 2 by foreign. Elsewhere, 1½ by Spanish vessels, and 3 by foreign. Hemp, by national vessels to whatever destination, 1 per cent., and 2 by foreign. Rice, by Spanish vessels, free, and 4½ per cent. by foreign. Manufactured tobacco, and cordage of Manilla hemp, free by all flags. Gold dust, gold in bars, and silver in bars, free.

Entrepôt Duties.— One per cent. *ad valorem*, and 1 per cent. at the exportation, with 1 per cent. more if the commodities should be kept there more than twelve months, two years being the longest time allowed for it.

Port and Custom-house Regulations.— Vessels newly arrived are not to communicate with the shore until having been visited by the port captain's boat; and within thirty hours after this visit, a manifest must be presented, stating packages, marks, and numbers, but the vessel may retain her cargo ten days in transit without stating whether for consumption or deposit, and without being obliged to land or incurring any charge on the same, except gunpowder, pocket pistols, and forbidden arms.

Terms for Sales and Purchases.—Sales and purchases made, duty paid, at three to five months' credit, occasionally at 2½ per cent. discount for prompt payment, and exports are bought for cash.

The principal currency of Manilla consists of Spanish dollars, of 8 reals and 96 grains, but S. American dollars are also current. The weights in use are the Spanish lb., which is nearly 2 per cent. heavier than the English; the arroba=25¼ Eng. lbs. nearly; the quintal=102 lbs.; and the pecul of 5 arrobas or 1¼ cwt. English. The coyan is a measure for rice, &c., varying from 96 to 135 lbs. According to a recent list, there are in Manilla 47 Spanish merchants and 11 foreign firms. The Spanish merchants have a chamber of commerce, and a joint-stock insurance society. The U. States, France, and Belgium have consuls, and each of the Canton marine insurance companies has an agent here. There are, however, neither fire nor life offices nor agencies; nor is any newspaper, price-current, or other periodical publication issued in Manilla.

Considering the great fertility and varied productions of the Philippines, and their peculiarly favourable situation for carrying on commerce, the limited extent of their trade, even with its late increase, may excite surprise. This, however, is entirely a consequence of the wretched policy of the Spanish government, which persevered until very recently in excluding all foreign ships from the ports of the Philippines, confining the trade between them and Mexico and S. America to a single ship! Even ships and settlers from China were excluded. "Provisions," says La Perouse, "of all kinds are in the greatest abundance here, and extremely cheap; but clothing, European hardware, and furniture bear an excessively high price. The want of competition, together with prohibitions and restraints of every kind laid on commerce, *render the productions and merchandise of India and China at least as dear as in Europe!*" Happily, however, this miserable policy, the effects of which have been admirably depicted by M. de la Perouse, has been materially modified of late years. The events of the revolutionary war destroyed for ever the old colonial system of Spain; and the ships of all nations are now freely admitted into Manilla and the other ports in the Philippines. An unprecedented stimulus has, in consequence, been given to all sorts of industry; and its progress will no doubt become more rapid, according as a wider experience and acquaintance with foreigners makes the natives better aware of the advantages of commerce and industry, and disabuses them of the prejudices of which they have been so long the slaves.

MARBLE (Ger. Rus. and Lat. *Marmor*; Du. *Marmer*; Fr. *Marbre*; It. *Marmo*; Sp. *Marmol*), a genus of fossils, composed chiefly of lime; being a bright and beautiful stone, moderately hard, not giving fire with steel, fermenting with and soluble in acid menstrua, and calcining in a slight fire.

The colours by which marbles are distinguished are almost innumerable. Some are quite black; others, again, are of a snowy white; some are greenish; others greyish, reddish, bluish, yellowish, &c.; while some are variegated and spotted with many different colours and shades of colour. The finest solid modern marbles are those of Italy, Blankenburg, France, and Flanders. Great quantities of very beau-

tiful marble have been lately discovered at Portsoy in Banffshire, and at Tiree and other places in the Western Isles. Kilkenny, in Ireland, has abundance of beautiful black marble intermixed with white spots, called *Kilkenny marble*. Derbyshire abounds in this mineral. Near Kemlyn-bay, in Anglesea, there is a quarry of beautiful marble called *verde di Corsica*, from its also being found in Corsica. Its colours are green, black, white, and dull purple, irregularly disposed. Italy produces the most valuable marble, and its exportation makes a considerable branch of her foreign commerce. The black and the milk-white marble of Carara, in the duchy of Massa, are particularly esteemed.

The marbles of Germany, Norway, and Sweden are very inferior, being mixed with a sort of scaly limestone.

Marble is of so hard, compact, and fine a texture, as readily to take a beautiful polish. That most esteemed by statuaries is brought from the island of Paros, in the Archipelago; it was employed by Praxiteles and Phidias, both of whom were natives of that island; whence also the famous Arundelian marbles were brought. The marble of Carara is likewise in high repute among sculptors.

The specific gravity of marble is from 2,700 to 2,800. Black marble owes its colour to a slight mixture of iron.

MARITIME LAW. By maritime law is meant the law relating to harbours, ships, and seamen. It forms an important branch of the commercial law of all maritime nations. It is divided into a variety of different departments; such as those with respect to harbours, the property of ships, the duties and rights of masters and seamen, contracts of affreightment, average, salvage, &c. The reader will find those subjects treated of under their respective heads.

Sketch of the Progress of Maritime Law. — The earliest system of maritime law was supplied by the Rhodians, several centuries before the Christian æra. The most celebrated authors of antiquity have spoken in high terms of the wisdom of the Rhodian laws; luckily, however, we are not wholly left, in forming our opinion upon them, to the vague though commendatory statements of Cicero and Strabo. — (*Cicero pro Lege Manilia; Strab.* lib. xiv.) The laws of Rhodes were adopted by Augustus into the legislation of Rome; and such was the estimation in which they were held, that the Emperor Antoninus, being solicited to decide a contested point with respect to shipping, is reported to have answered, that it ought to be decided by the Rhodian laws, which were of paramount authority in such cases, unless they happened to be directly at variance with some regulation of the Roman law. — ("*Ego quidem mundi dominus, lex autem maris legis id Rhodia, qua de rebus nauticis præscripta est, judicetur, quatenus nulla nostrarum legum adversatur. Hoc idem Divus quoque Augustus judicavit.*") The rule of the Rhodian law with respect to average contributions in the event of a sacrifice being made at sea for the safety of the ship and cargo, is expressly laid down in the Digest (lib. xiv. tit. 2.); and the most probable conclusion seems to be, that most of the regulations as to maritime affairs embodied in the compilations of Justinian have been derived from the same source. The regulations as to average adopted by all modern nations, are borrowed, with hardly any alteration, from the Roman, or rather, as we have seen, from the Rhodian law! — a conclusive proof of the sagacity of those by whom they had been originally framed. The only authentic fragments of the Rhodian laws are those in the Digest. The collection entitled *Jus navale Rhodiorum*, published at Bâle in 1561, is now admitted by all critics to be spurious.

The first modern code of maritime law is said to have been compiled at Amalphi, in Italy, a city at present in ruins; but which, besides being early distinguished for its commerce, will be for ever famous for the discovery of the Pandects, and the supposed invention of the mariner's compass. The Amalphitan code is said to have been denominated *Tabula Amalphitana*. But if such a body of law really existed, it is singular that it should never have been published, nor even any extracts from it. M. Pardessus has shown that all the authors who have referred to the Amalphitan code and asserted its existence, have copied the statement of Freccia, in his book *De Subfeudis*. — (*Collection des Loix Maritimes*, tome i. p. 145.) And as Freccia assures us that the Amalphitan code continued to be followed in Naples at the time when he wrote (1570), it is difficult to suppose that it could have entirely disappeared; and it seems most probable, as nothing peculiar to it has ever transpired, that it consisted principally of the regulations laid down in the Roman law, which, it is known, preserved their ascendancy for a longer period in the south of Italy than anywhere else.

But, besides Amalphi, Venice, Marseilles, Pisa, Genoa, Barcelona, Valencia, and other towns of the Mediterranean, were early distinguished for the extent to which they carried commerce and navigation. In the absence of any positive information on the subject, it seems reasonable to suppose that their maritime laws would be principally borrowed from those of Rome, but with such alterations and modifications as might be deemed requisite to accommodate them to the particular views of each state. But whether in this or in some other way, it is certain that various conflicting regulations were established, which led to much confusion and uncertainty; and the experience of the inconveniences thence arising, doubtless contributed to the universal adoption of the *Consolato del Mare* as a code of maritime law. Nothing certain is known as to the origin of this code. Azuni (*Droit Maritime de l'Europe*, tome i. pp. 414—439., or rather Jorio, *Codice Ferdinando*, from whose work a large proportion of Azuni's is literally translated) contends, in a very able dissertation, that the Pisans are entitled to the glory

of having compiled the whole, or at least the greater part, of the *Consolato del Mare*. On the other hand, Don Antonio de Capmany, in his learned and excellent work on the commerce of Barcelona — (*Antiguo Comercio de Barcelona*, tome i. pp. 170—183.), has endeavoured to show that the *Consolato* was compiled at Barcelona; and that it contains the rules according to which the consuls, which the Barcelonese had established in foreign places so early as 1268, were to render their decisions. It is certain that the *Consolato* was printed for the first time at Barcelona, in 1502; and that the early Italian and French editions are translations from the Catalan. Azuni has, indeed, sufficiently proved, that the Pisans had a code of maritime laws at a very early period, and that several of the regulations in it are substantially the same as those in the *Consolato*. But it does not appear that the Barcelonese were aware of the regulations of the Pisans, or that the resemblance between them and those in the *Consolato* is more than accidental; or may not fairly be ascribed to the concurrence that can hardly fail to obtain among well-informed persons legislating upon the same topics, and influenced by principles and practices derived from the civil law.

M. Pardessus, in the second volume of his excellent work already referred to, appears to have been sufficiently disposed, had there been any grounds to go upon, to set up a claim in favour of Marseilles to the honour of being the birthplace of the *Consolato*; but he candidly admits that such a pretension could not be supported, and unwillingly adheres to Capmany's opinion. — "Quoique Français," says he, "quoique portée par des sentimens de reconnoissance, qu'aucun évènement ne sauroit affoiblir, à faire valoir tout ce qui est en faveur de Marseilles, je dois reconnoître franchement que les probabilités l'emportent en faveur de Barcelone." — (Tome ii. p. 24.)

But to whichever city the honour of compiling the *Consolato* may be due, there can be no doubt that its antiquity has been greatly exaggerated. It is affirmed, in a preface to the different editions, that it was solemnly accepted, subscribed, and promulgated, as a body of maritime law, by the Holy See in 1075, and by the kings of France and other potentates at different periods between 1075 and 1270. But Capmany, Azuni, and Pardessus have shown in the clearest and most satisfactory manner that the circumstances alluded to in this preface could not possibly have taken place, and that it is wholly unworthy of attention. The most probable opinion seems to be, that it was compiled, and began to be introduced, about the end of the 13th or the beginning of the 14th century. And notwithstanding its prolixity, and the want of precision and clearness, the correspondence of the greater number of its rules with the ascertained principles of justice and public utility, gradually led, without the intervention of any agreement, to its adoption as a system of maritime jurisprudence by all the nations contiguous to the Mediterranean. It is still of high authority. Casaregis says of it, though, perhaps, too strongly, "*Consulatus maris, in materiis maritimis, tanquam universalis consuetudo habens vim legis, inviolabiliter attendenda est apud omnes provincias et nationes.* — (Disc. 218. n. 12.)

The collection of sea laws next in celebrity, but anterior, perhaps, in point of time, is that denominated the *Roole des Jugements d'Oleron*. There is as much diversity of opinion as to the origin of these laws, as there is with respect to the origin of the *Consolato*. The prevailing opinion in Great Britain has been, that they were compiled by direction of Queen Eleanor, wife of Henry II., in her quality of Duchess of Guienne; and that they were afterwards enlarged and improved by her son Richard I., at his return from the Holy Land: but this statement is now admitted to rest on no good foundation. The most probable theory seems to be, that they are a collection of the rules or practices followed at the principal French ports on the Atlantic, as Bordeaux, Rochelle, St. Malo, &c. They contain, indeed, rules that are essential to all maritime transactions, wherever they may be carried on; but the references in the code sufficiently prove that it is of French origin. The circumstance of our monarch's having large possessions in France at the period when the Rules of Oleron were collected, naturally facilitated their introduction into England; and they have long enjoyed a very high degree of authority in this country. "I call them the Laws of Oleron," said a great civilian — (*Sir Leoline Jenkins, Charge to the Cinque Ports*), "not but that they are peculiarly enough English, being long since incorporated into the customs and statutes of our admiralties; but the equity of them is so great, and the use and reason of them so general, that they are known and received all the world over by that rather than by any other name." Molloy, however, has more correctly, perhaps, said of the laws of Oleron, that "they never obtained any other or greater force than those of Rhodes formerly did; that is, they were esteemed for the reason and equity found in them, and applied to the case emergent."— (*De Jure Maritimo et Navali*, Introd.)

A code of maritime law issued at Wisby, in the island of Gothland, in the Baltic, has long enjoyed a high reputation in the North. The date of its compilation is uncertain; but it is comparatively modern. It is true that some of the northern jurists contend that the laws of Wisby are older than the Rules of Oleron, and that the latter are chiefly

copied from the former! But it has been repeatedly shown that there is not so much as the shadow of a foundation for this statement. — (See *Pardessus, Collection, &c.* tome i. pp. 425—462.; *Foreign Quarterly Review*, No. 13. art. *Hanseatic League.*) The Laws of Wisby are not certainly older than the latter part of the 14th or beginning of the 15th century; and have obviously been compiled from the *Consolato del Mare*, the Rules of Oleron, and other codes that were then in use. Grotius has spoken of these laws in the most laudatory manner: — "*Quæ de maritimis negotiis*," says he, "*insulæ Gothlandiæ habitatoribus placuerunt, tantum in se habent, tum equitatis, tum prudentiæ, ut omnes oceani accolæ eo, non tanquam proprio, sed velut gentium jure, utantur.*" — (*Prolegomena ad Procopium*, p. 64.)

Besides the codes now mentioned, the ordinances of the Hanse Towns, issued in 1597 and 1614, contain a system of laws relating to navigation that is of great authority. The judgments of Damme, the customs of Amsterdam, &c., are also often quoted.*

But by far the most complete and well digested system of maritime jurisprudence that has ever appeared, is that comprised in the famous *Ordonnance de la Marine* issued by Louis XIV. in 1681. This excellent code was compiled under the direction of M. Colbert, by individuals of great talent and learning, after a careful revision of all the ancient sea laws of France and other countries, and upon consultation with the different parliaments, the courts of admiralty, and the chambers of commerce, of the different towns. It combines whatever experience and the wisdom of ages had shown to be best in the Roman laws, and in the institutions of the modern maritime states of Europe. In the preface to his treatise on the *Law of Shipping*, Lord Tenterden says, — "If the reader should be offended at the frequent references to this ordinance, I must request him to recollect that those references are made to the maritime code of a great commercial nation, which has attributed much of its national prosperity to that code: a code composed in the reign of a politic prince; under the auspices of a wise and enlightened minister; by laborious and learned persons, who selected the most valuable principles of all the maritime laws then existing; and which, in matter, method, and style, is one of the most finished acts of legislation that ever was promulgated."

The ordinance of 1681 was published in 1760, with a detailed and most elaborate commentary by M. Valin, in 2 volumes, 4to. It is impossible which to admire most in this commentary, the learning or the sound good sense of the writer. Lord Mansfield was indebted for no inconsiderable portion of his superior knowledge of the principles of maritime jurisprudence to a careful study of M. Valin's work.

That part of the *Code de Commerce* which treats of maritime affairs, insurance, &c. is copied, with very little alteration, from the ordinance of 1681. The few changes that have been made are not always improvements.

No system or code of maritime law has ever been issued by authority in Great Britain. The laws and practices that now obtain amongst us in reference to maritime affairs have been founded principally on the practices of merchants, the principles laid down in the civil law, the Laws of Oleron and Wisby, the works of distinguished jurisconsults, the judicial decisions of our own and foreign countries, &c. A law so constructed has necessarily been in a progressive state of improvement; and, though still susceptible of amendment, it corresponds, at this moment, more nearly, perhaps, than any other system of maritime law, with those universally recognised principles of justice and general convenience by which the transactions of merchants and navigators ought to be regulated.

The decisions of Lord Mansfield did much to fix the principles, and to improve and perfect the maritime law of England. It is also under great obligations to Lord Stowell. The decisions of the latter chiefly, indeed, respect questions of neutrality, growing out of the conflicting pretensions of belligerents and neutrals during the late war; but the principles and doctrines which he unfolds in treating those questions, throw a strong and steady light on those branches of maritime law. It has occasionally, indeed, been alleged, — and the allegation is probably, in some degree well founded, — that his Lordship has conceded too much to the claims of belligerents. Still, however, his judgments must be regarded, allowing for this excusable bias, as among the noblest monuments of judicial wisdom of which any country can boast. "They will be contemplated," says Mr. Serjeant Marshall, "with applause and veneration, as long as depth of learning, soundness of argument, enlightened wisdom, and the chaste beauties of eloquence, hold any place in the estimation of mankind."—(*On Insurance*, Prelim. Disc.)

The "Treatise of the Law relative to Merchant Ships and Seamen," by the late Chief Justice of the Court of King's Bench, does credit to the talents, erudition, and liberality of its noble and learned author. It gives, within a brief compass, a clear and

* A translation of the Law of Oleron, Wisby, and the Hanse Towns, is given in the 3d edition of Malyne's *Lex Mercatoria*, but the edition of them in the work of M. Pardessus, referred to in the text, is infinitely superior to every other.

admirable exposition of the most important branches of our maritime law; and may be consulted with equal facility and advantage by the merchant, the general scholar, and the lawyer. Mr. Serjeant Marshall has entered very fully into some, and has touched upon most points of maritime law, in his work on *Insurance*; and has discussed them with great learning and sagacity. The works of Mr. Justice Park, Mr. Holt, and a few others, are also valuable. Of the earlier treatises, the *Lex Mercatoria* of Malynes is by far the best; and, considering the period of its publication (1622), is a very extraordinary performance.

Statutes with respect to Importation and Exportation, Navigation, &c. — The preceding remarks refer merely to the principles, or leading doctrines, of our maritime law. These, however, have often been very much modified by statutory enactments; and the excessive multiplication of acts of parliament suspending, repealing, or altering parts of other acts, has often involved our commercial and maritime law in almost inextricable confusion, and been most injurious to the public interests. No one, indeed, who is not pretty conversant with the subject, would readily imagine to what an extent this abuse has sometimes been carried. From the Revolution down to 1786, some hundreds of acts were passed, each enacting some addition, diminution, or change, in the duties, drawbacks, bounties, and regulations previously existing in the customs. In consequence, the customs laws became so intricate and unintelligible, that hardly one merchant in fifty could tell the exact amount of duty affecting any article, or the course to be followed either in entering or clearing out vessels; being obliged to leave it entirely to the clerks of the Custom-house to calculate the amount of duties, and to direct him how to proceed so as to avoid forfeiting the goods and the ship! and yet, so powerful is the influence of habit in procuring toleration for the most pernicious absurdities, that this monstrous abuse was allowed to go on increasing for 50 years after it had been denounced as intolerable. Mr. Pitt has the merit of having introduced something like order into this chaos. Under his auspices, all the separate customs duties existing in 1787 were repealed, and new ones substituted in their stead; consisting, in most instances, of the equivalents, so far at least as they could be ascertained, of the old duties. In carrying this measure into effect, the House of Commons passed no fewer than 3,000 resolutions. The regulations as to entries and clearances were also simplified.

The advantages resulting from this measure were very great; but during the war, so many new duties and regulations were passed, that the necessity for a fresh consolidation became again very urgent, and was effected in 1819. It was not, however, in the customs department only, or in the mere article of duties, that the merchant and ship owners were bewildered by the multiplicity of statutory regulations. There was not a single branch of the law regulating their transactions that escaped the rage for legislation. Previously to 1822, no fewer than 113 statutes had been passed relating to the fisheries; and the makers and buyers of sails and cordage were supposed to be familiar with the various obscure and contradictory regulations embodied in the *twenty-three* acts of parliament relating to these articles! But the enormity of the abuse will be rendered more apparent, by laying before the reader the following extract from the *Report of the Lords' Committee on Foreign Trade in* 1820.

"Before," say their Lordships, "your committee proceed to advert to the points which have been the principal objects of their inquiry, they are anxious to call the attention of the House to the excessive accumulation and complexity of the laws under which the commerce of the country is regulated, with which they were forcibly impressed in the very earliest stage of their proceedings. These laws, passed at different periods, and many of them arising out of temporary circumstances, amount, as stated in a recent computation of them, to upwards of *two thousand*, of which no less than 1,100 were in force in 1815; and many additions have been since made. After such a statement, it will not appear extraordinary that it should be mater of complaint by the British merchant, that, so far from the course in which he is to guide his transactions being plain and simple—so far from being able to undertake his operations, and to avail himself of favourable openings, as they arise, with promptitude and confidence—he is frequently reduced to the necessity of resorting to the services of professional advisers, to ascertain what he may venture to do, and what he must avoid, before he is able to embark in his commercial adventures with the assurance of being secure from the consequences of an infringement of the law. If this be the case (as is stated to your committee) with the most experienced among the merchants, even in England, in how much greater a degree must the same perplexity and apprehension of danger operate in foreign countries and on foreign merchants, whose acquaintance with our statute book must be supposed to be comparatively limited, and who are destitute of the professional authority which the merchant at home may at all times consult for his direction? When it is recollected, besides, that a trivial unintentional deviation from the strict letter of the acts of parliament may expose a ship and cargo to the inconvenience of seizure, which (whether

sustained or abandoned) is attended always with delay and expense, and frequently followed by litigation, it cannot be doubted that such a state of the law must have the most prejudicial influence both upon commercial enterprise in the country, and upon our mercantile relations and intercourse with foreign nations; and perhaps no service more valuable could be rendered to the trade of the empire, nor any measure more effectually contribute to promote the objects contemplated by the House, in the appointment of this committee, than an accurate revision of this vast and confused mass of legislation; and the establishment of some certain, simple, and consistent principles, to which all the regulations of commerce might be referred, and under which the transactions of merchants engaged in the trade of the U.K. might be conducted with facility, safety, and confidence." (p. 4.)

Since this Report was printed, a very considerable progress has been made in simplifying and clearing up the statute law, on the principles laid down in it. The law as to shipping and navigation has been particularly improved. The principles laid down in the famous navigation acts of 1650 and 1660 were, indeed, sufficiently distinct and obvious; but when these acts were passed, there were above 200 statutes in existence, many of them antiquated and contradictory, which they did not repeal, except in so far as the regulations in them might be inconsistent with those in the new acts. But besides these, a number of statutes were passed almost in every session since 1660, explaining, limiting, extending, or modifying, in one way or other, some of the provisions of the navigation acts; so that ultimately there were questions perpetually arising, as to which it was very difficult to discover the precise law. On such occasions, recourse was often had to the courts; and the good sense and equity which generally characterised their decisions mitigated the mischievous consequences resulting from the uncertainty of the statute law, and even gave it the appearance of consistency. Latterly, however, this uncertainty has been well nigh removed. A bill introduced and carried through parliament in 1824 repealed above 200 antiquated and contradictory statutes; and the new customs and navigation acts passed in the following year were drawn up with a brevity and precision which do honour to the memory of their compiler, the late Mr. Hume, of the Board of Trade. But various alterations having been subsequently made in the customs' laws, new statutes embodying these alterations were passed in 1833, and again in 1845. And a still more perfect and complete consolidation has been effected by the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107. It has the two great recommendations of being at once brief and perspicuous. It embraces the whole statute law with respect to the importation and exportation of commodities; the coasting and colonial trades; smuggling, &c. The law relating to ships and seamen, which, down to last year, was in a very confused and contradictory state, has, also, been digested under its different heads, and embodied in a single statute, the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104. This statute, which contains no fewer than 548 clauses, might, we think, be advantageously compressed; but as it is, it is a vast improvement on the previous state of the statute law on the subject.

It may be worth while observing, that hardly a session passes without giving birth to more or fewer acts, making certain changes or modifications in the customs' laws. Where these changes apply only to some particular emergency, without affecting the general principles or rules laid down in the statutes, there can be no doubt that they should be embodied in separate acts; but where any modification or alteration is to be made in the principles of the law, the better way, as it appears to us, would be to introduce it directly into the leading act on the subject — re-enacting it in an amended or altered form. In no other way is it possible to preserve that unity and clearness which are so very desirable. The multiplication of statutes is a very great evil, not only from the difficulty of ascertaining the exact degree in which one modifies another, but from its invariably leading to the enactment of contradictory clauses. The property and transactions of merchants ought not to depend upon the subtleties and niceties of forced constructions, but upon plain and obvious rules, about which there can be no mistake. It would, however, be idle to expect that such rules can ever be deduced from the conflicting provisions of a number of statutes: those in the same statute are not always in harmony with each other.

MARK, OR MARC, a weight used in several parts of Europe, for various commodities, especially gold and silver.

In France the mark was divided into 8 oz. = 64 drachms=192 deniers or pennyweights = 4,608 grains. In Holland, the mark weight was also called Troy weight, and was equal to that of France. When gold and silver are sold by the mark, it is divided into 24 carats.

The pound, or *livre, poids de marc*, the weight most commonly used in retail dealings throughout France, previous to the Revolution, was equal to 2 marcs, and consequently contained 16 oz.=128 drs.= 384 den.=9,216 gr. One kilogramme is nearly equal to 2 livres.—Subjoined is a Table of livres, *poids de marc*, from 1 to 10, converted into kilogrammes. Any greater number may be learned by a simple multiplication and addition.

Livres.		*Kilog.*	*Livres.*		*Kilog.*	*Livres.*		*Kilog.*	*Livres.*		*Kilog.*
1	=	0·4895	4	=	1·9580	7	=	3·4265	9	=	4·4056
2	=	0·9790	5	=	2·4475	8	=	3·9160	10	=	4·8951
3	=	1·4685	6	=	2·9370						

MARK, a term sometimes used among us for a money account, and in some other

countries for a coin. The English mark is ⅔ds of a pound sterling, or 13*s.* 4*d.*; and the Scotch mark is ⅔ds of a pound Scotch. The mark Lubs, or Lubeck mark, used at Hamburg, is a money of account, equal to 14⅔*d.* sterling.

MARKET, a public place in a city or town, where provisions are sold. No market is to be kept within 7 miles of the city of London; but all butchers, victuallers, &c. may hire stalls and standings in the flesh-markets there, and sell meat and other provisions. Every person who has a market is entitled to receive toll for the things sold in it; and by ancient custom, for things standing in the market, though not sold; but those who keep a market in any other manner than it is granted, or extort tolls or fees where none are due, forfeit the same.—(See FAIRS.)

MARSEILLES. a large commercial city and sea-port of France, on the Mediterranean, lat. 43° 17′ 49″ N., lon. 5° 22½′ E. Population, in 1851, inc. suburbs, 195,257.

Harbour.—The harbour, the access to which is defended by several strong fortifications, is in the centre of the city, forming a basin 525 fathoms in length, by about 150 do. in breadth. The tide is hardly sensible; but the depth of water at the entrance to the harbour varies from 16 to 18 feet, being lowest when the wind is N. W., and highest when it is S. W. Within the basin the depth of water varies from 12 to 24 feet, being shallowest on the north, and deepest on the south side. Dredging machines are constantly at work to clear out the mud, and to prevent the harbour from filling up. Though not accessible to the largest class of ships, Marseilles is one of the best and safest ports in the world for moderate-sized merchantmen, of which it will accommodate above 1000. Ships in the basin lie close alongside the quays; and there is every facility for getting them speedily loaded and unloaded. The Isles de Rattoneau and Pomegues, and the strongly fortified islet or rock of If, lie W. S. W. from the port; the latter, which is the nearest to it, being only 1¾ mile distant, and not more than ¾ of a mile from the projecting point of land to the south of the city. There is good anchorage ground for men-of-war and other large ships between the Isles de Rattoneau and Pomegues, to the west of the Isle d'If. When coming from the south, it is usual to make the Isle de Planier, in lat. 43° 11′ 54″ N., lon. 5° 13′ 59″ E. A light-house erected on this island is 131 feet high; the flashes of the light, which is a revolving one, succeed each other every ½ minute, and in clear weather it may be seen 7 leagues off. Ships that have made the Isle de Planier, or that of Le Maire, lying east from it about 4½ miles, steer northerly for the Isle d'If, distant about 7 miles from each, and having got within ¼ or ½ a mile of it, heave to for a pilot, who carries them into harbour; it is not, however, obligatory on ships to take a pilot on board; but being obliged to pay for one whether they avail themselves of his services or not, they seldom dispense with them. The charge is 4 sous per ton in, and 2 sous per do. out, for French vessels, and the vessels having reciprocity treaties with France. There is a light-house in the fort St. Jean, on the north side of the entrance to the port. The *lazaretto*, which is one of the best in Europe, lies a little to the north of the city; and there is an hospital on Rattoneau Island, for individuals whose health is dubious. With the exception of the above charge for pilotage, and the charges for such vessels as perform quarantine, there are no port charges on ships entering at or clearing out from Marseilles.

Usages, &c.—As soon as the master has, on his arrival, made his declaration at the Health Office, and received *pratique*, he is directed to an office close by, called the Patache, where he makes two similar declarations, the one for the captain of the port, and the other for the custom-house; the day and hour of the latter being made is marked, in order to ascertain if the regular manifest of his cargo is delivered at the custom-house within 24 hours after, as required by law. As soon as these declarations are made, the master is accosted by one or more public brokers, who alone are authorised by law to enter ships at the custom-house and other public offices, and to interpret, if it be necessary, for the master. The broker whom he may select then gives the master all the necessary information respecting the usages of the port as regards the ship and cargo, and goes through all the formalities respecting them that the law or local regulations require. Independent of the regular manifest which it is usual in all ports for the master to give in to the custom-house, he is here required to give in a full and complete list of all the ship's stores, provisions, &c. that he has on board for his own use, and that of his crew; and he cannot be too careful to make this list as correct as possible, as when it is subsequently verified on board by the custom-house and excise officers, any variation subjects the ship to penalties. This is particularly the case with tobacco, which, being a government monopoly, is watched with the greatest vigilance. *All* the tobacco on board over that which the crew have in their chests for their own use, must be declared, and any attempt at concealment or smuggling is visited with heavy fines. When the ship sails, the stores, provisions, &c., are again examined, and an excise duty charged on such provisions and other exciseable articles as may have been consumed in the port.

No fire or light is allowed on board, and the cooking is all done on shore.

Trade, &c.—Marseilles is a city of great antiquity, and has long enjoyed a very extensive commerce. Havre, partly, no doubt, from its being, as it were, the port of Paris, used to enjoy a greater share of the trade of France; but, notwithstanding the increased importance of the former, it has recently been equalled, and sometimes surpassed, by that of Marseilles. The customs duties collected at Havre in 1853, were 35,061,000 fr., while those collected at Marseilles during the same year amounted, as will be afterwards seen, to 33,790,000 fr.; but in 1851 the preponderance was the other way.

Marseilles is the grand emporium of the South of France, and the centre of 9-10ths of her commerce with the countries of the Mediterranean and Black Sea. The exports consist principally of silk stuffs, wines, brandies, and liqueurs; woollens and linens; madder, oil, soap, refined sugar, perfumery, stationery, verdigris, and all sorts of colonial products. Among the principal imports are sugar, coffee, and other colonial products; dye stuffs; corn from the Black Sea and the north coast of Africa; cotton from Egypt and America; coal, linen, thread, and various descriptions of manufactured goods from England; with hides, wool, tallow, timber, &c. Marseilles engrosses almost the whole trade between France and Algiers. She is now also the principal seat of the intercourse carried on by steamers with Malta, Alexandria, and Constantinople. There belonged to the port, on the 1st January, 1854, 758 sailing vessels of the burden of 78,779 tons; and 56 steamers of the burden of 13,458 tons. Many of the steamers have English-made engines; and some of them have English engineers and burn English coal.

A joint stock bank established here in 1835 has latterly been converted into a branch of the Bank of France; 4,000 shares and 4,000,000 fr. of the stock of the latter having been assigned to its proprietors.

The value of the imports into Marseilles amounted, in 1853, to 267,528,771 fr. (above 10,000,000*l.* sterling), in merchandise, exc. 26,768,870 fr. in gold and silver. The value of the exports of merchandise during the same year amounted to 216,262,366 fr. (above 9,000,000*l.* sterling), and that of the precious metals to 33,301,970 fr. The customs duties for 1853 were, inc. the decimes, 33,790,000 fr.

These statements show that the trade of Marseilles is of much importance. She is, in fact, the principal emporium in S. Europe. And it is not easy to say in how great a degree her trade would be increased, were the French tariff revised and placed on a more liberal footing.

MASTER, in commercial navigation, the person intrusted with the care and navigation of the ship.

Formerly no one was qualified to be the master of a British ship, unless natural-born British subjects or those naturalised by act of parliament, or denizens by letters of denization, &c. But these restrictions no longer exist; and all parties, whether natives or foreigners, provided they have the necessary certificates (see *post*), may be selected to serve as masters.

"The master is the confidential servant or agent of the owners; and in conformity to the rules and maxims of the law of England, *the owners are bound to the performance of every lawful contract made by him relative to the usual employment of the ship.*"—(*Abbott* (Lord Tenterden) *on the Law of Shipping*, part ii. c. 2.)

From this rule of law it follows that the owners are bound to answer for a breach of contract, though committed by the master or mariners against their will, and without their fault.—(*Id.*) Nor can the expediency of this rule be doubted. The owners, by selecting a person as master, hold him forth to the public as worthy of trust and confidence. And in order that this selection may be made with due care, and that all opportunities of fraud and collusion may be obviated, it is indispensable that they should be made responsible for his acts.

The master has power to hypothecate, or pledge, both ship and cargo for *necessary repairs executed in foreign parts* during the course of the voyage; but neither the ship nor cargo can be hypothecated for repairs *executed at home.*

The master has no lien upon the ship for his wages, nor for money advanced by him for stores or repairs. In delivering judgment upon a case of this sort, Lord Mansfield said—"As to wages, there is no particular contract that the ship should be a pledge; there is no usage in trade to that purpose; nor any implication from the nature of the dealing. On the contrary, the law has always considered the captain as contracting personally with the owner; and the case of the captain has, in that respect, been distinguished from that of all other persons belonging to the ship. This rule of law may have its foundation in policy, for the benefit of navigation; for, as ships may be making profit and earning every day, it might be attended with great inconvenience, if, on the change of a captain for misbehaviour, or any other reason, he should be entitled to keep the ship till he is paid. Work done for a ship in England is supposed to be done on the personal credit of the employer: in foreign parts the captain may hypothecate the ship. The defendant might have told the tradesman, that he only acted as an agent, and that they must look to the owner for payment."

The master is bound to employ his whole time and attention in the service of his employers, and is not at liberty to enter into any engagement for his own benefit that may occupy any portion of his time in other concerns; and therefore, if he do so, and the price of such engagement happen to be paid into the hands of his owners, they may retain the money, and he cannot recover from them.—(*Abbott*, part ii. c. 4.)

Wilfully destroying or casting away the ship, or procuring the same to be done by the master or mariners, to the prejudice of the owners, freighters, or insurers; running away with the cargo; and turning pirates; are offences punishable by transportation beyond seas for not less than 15 years, or by imprisonment for not more than 3 years.—(See art. SEAMEN.)

After the voyage has been commenced, the master must proceed direct to the place of his destination, without unnecessarily stopping at any intermediate port, or deviating from the shortest course. No such deviation will be sanctioned, unless it has been occasioned by stress of weather, the want of necessary repair, avoiding enemies or pirates, succouring of ships in distress, sickness of the master or mariners, or the mutiny of the crew.—(*Marshall on Insurance*, book i. c. 6. § 3.) To justify a deviation, the necessity must be real, inevitable, and imperious; and it must not be prolonged one moment after the necessity has ceased. A deviation without such necessity vitiates all insurances upon the ship and cargo, and exposes the owners to an action on the part of the freighters. If a ship be captured in consequence of deviation, the merchant is entitled to recover from the owners the prime cost of the goods, with shipping charges; but he is not entitled to more, unless he can show that the goods were enhanced in value beyond the sum above mentioned.

If a merchant ship has the misfortune to be attacked by pirates or enemies, the master is bound to do his duty as a man of courage and capacity, and to make the best resistance that the comparative strength of his ship and crew will allow.

By the common law, the master has authority over all the mariners on board the ship,—it being their duty to obey his commands, in all lawful matters relating to the navigation of the ship, and the preservation of good order. But the master should in all cases use his authority with moderation, so as to be the father, not the tyrant of his crew. On his return home he may be called upon by action at law, to answer to a mariner he has either beat or imprisoned during the course of the voyage; and unless he show sufficient cause for chastising the mariner, and also that the chastisement was reasonable and moderate, he will be found liable in damages. Should the master strike

a mariner without cause, or use a deadly weapon as an instrument of correction, and death ensue, he will be found guilty, according to the circumstances of the case either of manslaughter or murder.—(*Abbott*, part ii. c. 4.)

The master may by force restrain the commission of great crimes; but he has no jurisdiction over the criminal. His business is to secure his person, and to deliver him over to the proper tribunals.—(See art. SEAMEN.)

Much abuse having arisen from masters improperly leaving seamen in foreign parts, various penalties have been imposed on those guilty of such offences. These are specified in detail in the article SEAMEN; and it, also, contains a full statement of the conduct which masters are bound to follow in the hiring of seamen; in the payment of their wages; in the bringing home deserted seamen from abroad; in the registration of returns respecting seamen; and a variety of other particulars.

The law makes no distinction between carriers by land and carriers by water. The master of a merchant ship is, in the eye of the law, a carrier; and is, as such, bound to take reasonable and proper care of the goods committed to his charge, and to convey them to the place of their destination, *barring only the acts of God and the queen's enemies.*

Every act which may be provided against by ordinary care renders the master responsible. He would not, for example, be liable for damage done to goods on board in consequence of a leak in the ship occasioned by the violence of a tempest, or other accident; but if the leak were occasioned by rats, he would be liable, for these might have been exterminated by ordinary care, as by putting cats on board, &c. On the same principle, if the master run the ship in fair weather against a rock or shallow known to expert mariners, he is responsible; he is, also, liable for any injury done to the cargo by improper or careless stowage.

The master must not take on board any contraband goods, by which the ship and other parts of the cargo may be rendered liable to forfeiture or seizure. Neither must he take on board any false or colourable papers, as this might subject the ship to the risk of capture or detention. But it is his duty to procure and keep on board all the papers and documents required for the manifestation of the ship and cargo, by the law of the countries from and to which the ship is bound, as well by the law of nations in general, as by treaties between particular states. These papers and documents cannot be dispensed with at any time, and are quite essential to the safe navigation of neutral ships during war.—(See LOG (OFFICIAL) and SHIPS' PAPERS.)

It is customary in bills of lading to insert a clause limiting the responsibility of the master and owners, as follows: "*The act of God, the queen's enemies, fire, and every other dangers and accidents of the seas, rivers, and navigation, of whatever nature and kind soever, save risk of boats, as far as ships are liable thereto, excepted.*" When no bill of lading is signed, the master and owners are bound according to the common law.—(See BILLS OF LADING.)

The most difficult part of the msster's duty is when, through the perils of the sea, the attacks of enemies or pirates, or other unforeseen accidents, he is prevented from completing his voyage. If his ship have suffered from storms, and cannot be repaired within a reasonable time, and if the cargo be of a *perishable nature*, he is at *liberty* to employ another ship to convey it to the place of destination. He may do the same if the ship have been wrecked and the cargo saved, or if his own ship be in danger of sinking, and he can get the cargo transferred to another *; and in *extreme cases* he is at liberty to dispose of the cargo for the benefit of its owners. But, to use the words of Lord Chief Justice Tenterden, "the disposal of the cargo by the master is a matter that requires the utmost caution on his part. He should always bear in mind that it is his *duty to convey it to the place of destination.* This is the purpose for which he has been intrusted with it, and this purpose he is bound to accomplish by every reasonable and practical method. What, then, is the master to do, if, by any disaster happening in the course of his voyage, he is unable to carry the goods to the place of destination, or to deliver them there? To this, as a general question, I apprehend no answer can be given. Every case must depend upon its own peculiar circumstances. The conduct proper to

* The most celebrated maritime codes, and the opinions of the ablest writers, have differed considerably as to these points. According to the Rhodian law (Pand. 1. 10. § 1.) the captain is released from all his engagements, if the ship, by the perils of the sea, and without any fault on his part, become incapable of proceeding on her voyage. The laws of Oleron (art. 4.), and those of Wisby (arts. 16. 37. 55.) say that the captain *may hire another ship*; harmonising in this respect with the present law of England. The famous French ordinance of 1681 (tit. *Du Frêt*, art. 11.), and the *Code du Commerce* (art. 296.), *order the captain to hire another ship*; and if he cannot procure one, freight is to be due only for that part of the voyage which has been performed (*pro ratâ itineris peracti*). Valin has objected to this article, and states that practically it meant only that the captain must hire another ship if he would earn the whole freight. Emerigon (tom. i. p. 428.) holds that the captain, being the agent not only of the owners of the ship, but also of the shippers of the goods on board, is bound, in the absence of both, to use his best endeavours to preserve the goods, and to do whatever, in the circumstances, he thinks will most conduce to the interest of all concerned; or what it may be presumed the shippers would do, were they present. This, which seems to be the best and wisest rule, has been laid down by Lords Mansfield and Tenterden, as stated above, and may be regarded as the law of England on this point.

be adopted with respect to perishable goods will be improper with respect to a cargo not perishable: one thing may be fit to be done with fish or fruit, and another with timber or iron: one method may be proper in distant regions, another in the vicinity of the merchant; one in a frequented navigation, another on unfrequented shores. The wreck of the ship is not necessarily followed by an impossibility of sending forward the goods, and does not of itself make their sale a measure of necessity or expedience: much less can the loss of the season, or of the proper course of the voyage, have this effect. An unexpected interdiction of commerce, or a sudden war, may defeat the adventure, and oblige the ship to stop in her course; but neither of these events doth of itself alone make it necessary to sell the cargo at the place to which it may be proper for the ship to resort. In these and many other cases, the master may be discharged of his obligation to deliver the cargo at the place of destination; but it does not therefore follow that he is authorised to sell it, or ought to do so. What, then, is he to do? In general, it may be said, *he is to do that which a wise and prudent man will think most conducive to the benefit of all concerned.* In so doing, he may expect to be safe, because the merchant will not have reason to be dissatisfied; but what this thing will be, no general rules can teach. Some regard may be allowed to the interest of the ship, and of its owners; but the interest of the cargo must not be sacrificed to it. Transhipment for the place of destination, if it be practicable, is the first object, because that is in furtherance of the original purpose: if that be impracticable, return, or a safe deposit, may be expedient. A disadvantageous sale (and almost every sale by the master will be disadvantageous) is the last thing he should think of, because it can only be justified by that necessity which supersedes all human laws.—(*Law of Shipping*, part iii. c. 3.)

The master of a ship is liable for goods of which she is robbed in part; and the reason, as Lord Mansfield stated, is, lest room should be given for collusion, and the master should get himself robbed on purpose, in order that he might share in the spoil. The master is, however, entitled to indemnify himself out of the seamen's wages for losses occasioned by their neglect.

The conditions under which seamen and apprentices are to be taken on board ship, and the obligations of the master with respect to them, are fully set forth in the art. SEAMEN, in this work; and it also contains, as already stated, full details as to the conduct which masters are bound to pursue in regard to a variety of other particulars.

For the duty of the master, as respects Custom-house regulations, see the articles IMPORTATION AND EXPORTATION, QUARANTINE, SMUGGLING, &c.; and for a further discussion of this important subject, see the excellent work of *Lord Tenterden on the Law of Shipping*, part iii. c. 3, &c.; *Chitty on Commercial Law*, vol. iii. c. 8. &c.; and the articles CHARTERPARTY, FREIGHT, &c. in this Dictionary.

Qualification of Masters. Means by which they should be ascertained. — Considering the important nature of the duties which the master of a ship has to perform, it has been customary in some countries to require that all persons, previously to their being nominated to act in that capacity, should undergo an examination by some public board respecting their knowledge of seamanship, and their possession of the various qualifications necessary to act as masters, and that none should be appointed without their being licensed by such board or other competent authorities. We are inclined to think that this practice is consistent with sound policy, and we are glad to have to state that it has recently been adopted in this country. In former editions we observed on this subject as follows, viz.,

"There can, unhappily, be no doubt that the ignorance and incapacity of the masters and inferior officers of ships has been a copious source of disaster. Officers of the Navy have to go through a course of discipline, and are obliged to submit to certain examinations as to their proficiency in seamanship. This, also, was the case with the officers of the East India Company's ships, which were exceedingly well navigated. Indeed, the Company trusted entirely for protection to the goodness of their ships, and the skill of their officers and men; it not being their practice ever to insure. But the masters and officers of ordinary merchant ships, even of those engaged in the conveyance of passengers, are not subjected to any specific training, or regular examination. Everything is left to mere individual investigation and selection; and this, as every one knows, depends almost wholly on accident; or, which is nearly equivalent to it, on the skill, industry, liberality, &c. of the ship-owner. It is sufficiently clear that masters so chosen cannot fail of being, in many instances, very ill qualified for their business. Few, however, have any notion of the extent of the mischief thence arising; but we have been assured by gentlemen of undoubted information, and extensively connected with the business of insurance, that nearly half the losses at sea may be ascribed to the incapacity and carelessness of the masters and crews. Perhaps there may be some exaggeration in this; but, supposing that only a third part, or that 212 out of the 636 vessels wrecked in 1841, were lost through the circumstances referred to, is not that enough, not merely to justify government interfering to avert so great an evil, but to make such interference an imperative duty?

"The interposition of government in a case of this sort is not only absolutely just and necessary, but it is conformable to the highest authority. The famous French ordinance of 1681 has the following article:—"*Aucun ne pourra ci-après être reçu capitaine, maître, ou patron de navire, qu'il n'ait navigué pendant cinq ans, et n'ait été examiné publiquement sur le fait de la navigation, et trouvé capable*

par deux anciens maîtres, en présence des officiers de l'Amirauté et du Professeur de l'Hydrographie, s'il y en a dans le lieu."—(Liv. ii. tit. 1. § 1.) A like article has been inserted in the *Code de Commerce*; and in 1825, the French Government issued an ordinance specifying, in detail, the qualifications that are necessary before any one can obtain a certificate of his fitness to command a ship, either on a foreign or a coasting voyage; the persons who are to examine candidates; and the rules to be observed in the examination. A similar system has been adopted in Prussia; and we cannot entertain a doubt that it would be of the greatest service were it introduced into this country. The authority of the master is so very great, and the trust reposed in him, including not merely the ship and goods of his employers, but the lives of the crew and passengers, so very extensive, that it is the bounden duty of the public to provide, in as far as practicable, that it be not committed to ignorant or incapable hands.

"At present the care of the lives of hundreds of passengers may be committed, without check or control of any sort, and without their knowing anything of the matter, to any incapable blockhead who may be able to prevail on an owner to appoint him to a ship. No doubt it is for the interest of the owner to appoint the best captain he can find; but he may be unable to form a correct estimate of the qualifications necessary for such a situation; and, though this were not the case, hundreds of circumstances may conspire to blind his judgment, and to make him select a master who is really unworthy. Hence the advantage of the preliminary examination by competent parties, which, if made efficient, would certainly afford a powerful guarantee against the chance of an unfit person being appointed.

"We rather incline to think, should we have occasion to notice this important subject on any future occasion, that it will be to announce that some such plan as that which we have ventured to recommend has been adopted. It has, we are glad to say, been approved by the Committee appointed by the House of Commons in 1843 to inquire into the causes and prevention of Shipwrecks. 'Your Committee, after carefully weighing the evidence adduced, consider that, under all the circumstances, it would materially promote science, and prevent the loss of life and property, if a legislative enactment were introduced by government, establishing local boards for the purpose of examining into the abilities, conduct, and character of all who wish to qualify as masters and mates in the merchant service. And your Committee further recommend the establishment of schools for the purpose of teaching navigation in the different seaports, to be supported by a small tonnage duty to be levied on the vessels belonging to such ports.'" —(*Report*, p. 4.)

We have much satisfaction in being able to state that this proposal, for subjecting the masters or commanders of merchant ships to an examination by competent parties, in the view of ascertaining their fitness for undertaking their peculiar duties, was adopted and carried into effect under the Mercantile Marine Act, the 13 & 14 Vict. c. 93. This statute authorised the B. of Trade to establish Local Marine Boards in ports having 30,000 tons or upwards of ships trading to foreign parts. These boards were empowered to examine all candidates for the situation of masters and mates who came before them, in such subjects connected with seamanship, navigation, &c., and in such manner as the B. of Trade may prescribe. In the event of the examiners being satisfied with their proficiency, they are to grant them "certificates of competency." These, however, may be cancelled either from evidence being subsequently had of the incompetency of the parties, or of their drunkenness, tyranny, &c. The Act took effect on the 1st of January, 1851, since which date no foreign-going ship has been cleared out without the master and mate or mates being qualified according to the statute. And there can be no doubt that if the plan be properly carried out, and the examinations be made sufficiently strict and searching, it will be productive of a great deal of good. But if otherwise,—that is, if certificates be given to incompetent parties,—it will be decidedly injurious; and will serve as a cloak under which ignorance and presumption may be advanced to situations where skill and caution are indispensable. This would be a deplorable result; and we are sorry to have to say that some of the very worst shipwrecks that have recently occurred have been occasioned by what would appear to be the gross incapacity of masters holding first-class certificates. This is a matter that requires to be carefully inquired into. Sham examinations are not a security against imposture, but a device to make confidence be given to those who are unworthy of any. The existing statutory regulations in regard to this important subject are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104., and are as follows, viz.:—

Examinations to be instituted for Masters and Mates.—Examinations shall be instituted for persons who intend to become masters or mates of foreign-going ships, or of home trade passenger ships, or who wish to procure certificates of competency herein-after mentioned; and, subject as herein mentioned, the Local Marine Boards shall provide for the examinations at their respective ports, and may appoint and from time to time remove and re-appoint examiners to conduct the same, and may regulate the same; and any members of the Local Marine Board of the place where the examination is held may be present and assist at any such examination.—§ 131.

Powers of B. of Trade over Examinations.—The B. of Trade may from time to time lay down rules as to the conduct of such examinations and as to the qualifications of the applicants, and such rules shall be strictly adhered to by all examiners; and no examiner shall be appointed unless he possesses a certificate of qualification, to be from time to time granted or renewed by the B. of Trade; and the sanction of the B of Trade shall be necessary, so far as regards the number of examiners to be appointed, and the amount of their remuneration; and the B. of Trade may at any time depute any of its officers to be present and assist at any examination; and if it appear to the B. of Trade that the examinations for any two or more ports can be conducted without inconvenience by the same examiners, it may require and authorise the Local Marine Boards of such ports to act together as one board in providing for and regulating examinations and appointing and removing examiners for such ports.—§ 132.

Fees to be paid by Applicants for Examination.—All applicants for examination shall pay such fees, not exceeding the sums herein specified, as the B. of Trade directs; and such fees shall be paid to such persons as the said board appoints for that purpose.—§ 133.

	£	s.	d.
For a Certificate as Master	2	0	0
For a Certificate as Mate	1	0	0

Certificates of Competency to be granted to those who pass.—Subject to the proviso after contained, the B. of Trade shall deliver to every applicant who is duly reported by the local examiners to have passed the examination satisfactorily, and to have given satisfactory evidence of his sobriety, experience, ability, and general good conduct on board ship, a "certificate of competency" to the effect that he is competent to act as master, or as first, second, or only mate of a foreign-going ship, or as master or mate of a home trade passenger ship, as the case may be: provided that in every case in which the B. of Trade has reason to believe such report to have been unduly made, such board may remit the case

either to the same or to any other examiners, and may require a re-examination of the applicant, or a further inquiry into his testimonials and character, before granting him a certificate.—§ 134.

Certificates of Service to be delivered to Persons who served as Masters or Mates before 1851, &c.—Certificates of service, differing in form from certificates of competency, shall be granted as follows; (that is to say),

(1.) Every person who before the 1st day of January, 1851, served as master in the British merchant service, or who has attained or attains the rank of lieutenant, master, passed mate, or second master, or any higher rank in the service of H.M. or of the E. I. Company, shall be entitled to a certificate of service as master for foreign-going ships:

(2.) Every person who before the 1st day of January, 1851, served as mate in the British merchant service shall be entitled to a certificate of service as mate for foreign-going ships.

(3.) Every person who before the 1st day of January, 1854, has served as master of a home trade passenger ship, shall be entitled to a certificate of service as master for home trade passenger ships:

(4.) Every person who before the 1st day of January, 1854, has served as mate of a home trade passenger ship shall be entitled to a certificate of service as mate for home trade passenger ships:

And each of such certificates of service shall contain particulars of the name, place, and time of birth, and of the length and nature of the previous service of the person to whom the same is delivered; and the B. of Trade shall deliver such certificates of service to the various persons so respectively entitled thereto, upon their proving themselves to have attained such rank or to have served as aforesaid, and upon their giving a full and satisfactory account of the particulars aforesaid.—§ 135.

No foreign-going Ship or home trade Passenger Ship to proceed to Sea without Certificates of the Master and Mates.—No foreign-going ship or home trade passenger ship shall go to sea from any port in the U. K. unless the master thereof, and in the case of a foreign-going ship the first and second mates or only mate (as the case may be), and in the case of a home trade passenger ship the first or only mate (as the case may be), have obtained and possess valid certificates either of competency or service appropriate to their several stations in such ship, or of a higher grade; and no such ship, if of 100 tons burden or upwards, shall go to sea as aforesaid, unless at least one officer besides the master has obtained and possesses a valid certificate appropriate to the grade of only mate therein or to a higher grade; and every person who, having been engaged to serve as master or as first or second or only mate of any foreign-going ship, or as master or first or only mate of a home trade passenger ship, goes to sea as aforesaid as such master or mate without being at the time entitled to and possessed of such a certificate as herein required, or who employs any person as master, or first, second, or only mate of any foreign-going ship, or as master or first or only mate of a home trade passenger ship, without ascertaining that he is at the time entitled to and possessed of such certificate, shall for each such offence incur a penalty not exceeding 50*l.*—§ 136.

Certificates for Foreign-going Ships available for Home Trade Passenger Ships.—Every certificate of competency for a foreign-going ship shall be deemed to be of a higher grade than the corresponding certificate for a home trade passenger ship, and shall entitle the lawful holder thereof to go to sea in the corresponding grade in such last-mentioned ship; but no certificate for a home trade passenger ship shall entitle the holder to go to sea as master or mate of a foreign-going ship.—§ 137.

The Registrar to record Grants, Cancellations, &c. of Certificates.—All certificates, whether of competency or service, shall be made in duplicate, and one part shall be delivered to the person entitled to the certificate, and the other shall be kept and recorded by the Registrar General of seamen or by such other person as the B. of Trade appoints for that purpose; and the B. of Trade shall give to such registrar or such other person immediate notice of all orders made by it for cancelling, suspending, altering, or otherwise affecting any certificate in pursuance of the powers herein contained; and the registrar or such other person as aforesaid shall thereupon make a corresponding entry in the record of certificates; and a copy purporting to be certified by such registrar or his assistant or by such person as aforesaid of any certificate shall be *primâ facie* evidence of such certificate, and a copy purporting to be so certified as aforesaid of any entry made as aforesaid in respect of any certificate shall be *primâ facie* evidence of the truth of the matters stated in such entry.—§ 138.

In case of Loss a Copy to be granted.—Whenever any master or mate proves to the satisfaction of the B. of Trade that he has, without fault on his part, lost or been deprived of any certificate already granted to him, the B. of Trade shall, upon payment of such fee (if any) as it directs, cause a copy of the certificate to which by the record so kept as aforesaid he appears to be entitled, to be made out and certified as aforesaid, and to be delivered to him; and any copy which purports to be so made and certified as aforesaid shall have all the effect of the original.—§ 139.

Penalties for false Representations.—Every person who makes, or procures to be made, or assists in making, any false representation for the purpose of obtaining for himself or for any other person a certificate either of competency or service, or who forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or any official copy of any such certificate, or who fraudulently makes use of any such certificate or any copy of any such certificate which is forged, altered, cancelled, suspended, or to which he is not justly entitled, or who fraudulently lends his certificate to or allows the same to be used by any other person, shall for each offence be deemed guilty of a misdemeanor.—§ 140.

The following clauses are from a subsequent part of the same statute.

Misconduct endangering Ship or Life or Limb a Misdemeanor.—Any master of or any seaman or apprentice belonging to any British ship who by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious damage of such ship, or tending immediately to endanger the life or limb of any person belonging to or on board of such ship, or who by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, refuses or omits to do any lawful act proper and requisite to be done by him for preserving such ship from immediate loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from immediate danger to life or limb, shall for every such offence be deemed guilty of a misdemeanor.—§ 239.

Power of Admiralty Courts to remove Master.—Any court having admiralty jurisdiction in any of H. M.'s dominions may, upon application by the owner of any ship being within the jurisdiction of such court, or by the part owner or consignee, or by the agent of the owner, or by any certificated mate, or by one-third or more of the crew of such ship, and upon proof on oath to the satisfaction of such court that the removal of the master of such ship is necessary, remove him accordingly; and may also, with the consent of the owner or his agent, or the consignee of the ship, or if there is no owner or agent of the owner or consignee of the ship within the jurisdiction of the court, then without such consent, appoint a new master in his stead; and may also make such order, and may require such security in respect of costs in the matter, as it thinks fit.—§ 240.

Power to investigate Cases of alleged Incompetency and Misconduct.—If the B. of Trade or any Local Marine Board has reason to believe that any master or mate is from incompetency or misconduct unfit to discharge his duties, the B. of Trade may either institute an investigation or may direct the Local Marine Board at or nearest to the place at which it may be convenient for the parties and witnesses to attend to institute the same, and thereupon such persons as the B. of Trade may appoint for the purpose, or, as the case may be, the Local Marine Board, shall, with the assistance of a local stipendiary magistrate (if any), and if there is no such magistrate of a competent legal assistant to be appointed by the B. of Trade, conduct the investigation, and may summon the master or mate to appear, and shall give him full opportunity of making a defence either in person or otherwise, and shall for the purpose

of such investigation have all the powers given by the first part of this act to inspectors appointed by the B. of Trade, and may make such order with respect to the costs of such investigation as they may deem just; and shall on the conclusion of the investigation make a report upon the case to the B. of Trade; and in cases where there is no Local Marine Board before which the parties and witnesses can conveniently attend, or where such Local Marine Board is unwilling to institute the investigation, the B. of Trade may direct the same to be instituted before two justices or stipendiary magistrate; and thereupon such investigation shall be conducted, and the results thereof reported, in the same manner and with the same powers in and with which formal investigations into wrecks and casualties are directed to be conducted, and the results thereof reported, under the provisions contained in the eighth part of this act, save only that, if the B. of Trade so directs, the person bringing the charge of incompetency or misconduct to the notice of the B. of Trade shall be deemed to be the party having the conduct of the case.— § 241.

Board of Trade may cancel or suspend Certificates in certain Cases.—The B. of Trade may suspend or cancel the certificate (whether of competency or service) of any master or mate in the following cases; (that is to say,)

(1.) If upon any investigation made in pursuance of the last preceding section, he is reported to be incompetent, or to have been guilty of any gross act of misconduct, drunkenness, or tyranny.

(2.) If upon any investigation conducted under the provisions contained in the eighth part of this act, or upon any investigation made by a naval court constituted as herein-after mentioned, it is reported that the loss or abandonment of or serious damage to any ship or loss of life has been caused by his wrongful act or default.

(3.) If he is superseded by the order of any Admiralty Court or of any naval court constituted as herein-after mentioned.

(4.) If he is shown to have been convicted of any offence.

(5.) If upon any investigation made by any court or tribunal authorised or hereafter to be authorised by the legislative authority in any British possession to make inquiry into charges of incompetency or misconduct on the part of masters or mates of ships, or as to shipwrecks or other casualties affecting ships, a report is made by such court or tribunal to the effect that he has been guilty of any gross act of misconduct, drunkenness, or tyranny, or that the loss or abandonment of or serious damage to any ship, or loss of life has been caused by his wrongful act or default, and such report is confirmed by the governor or person administering the government of such possession.

And every master or mate whose certificate is cancelled or suspended shall deliver it to the B. of Trade or as it directs, and in default shall for each offence incur a penalty not exceeding 50*l.*; and the B. of Trade may at any subsequent time grant to any person whose certificate has been cancelled a new certificate of the same or of any lower grade.— § 242.

In 1855, the B. of Trade issued the following notice of the examinations under the Merchant Shipping Act; viz.

1. Under the provisions of the Merchant Shipping Act, 1854, no "foreign-going ship"* or "home trade passenger ship"* can obtain a clearance or transire, or legally proceed to sea, from any port in the U. K. unless the master thereof, and in the case of a foreign-going ship the first and second mates or only mate (as the case may be), and in the case of a "home trade passenger ship" the first or only mate (as the case may be), have obtained and possess valid certificates, either of competency or service, appropriate to their several station in such ship, or of a higher grade; and no such ship, if of one hundred tons burden or upwards, can legally proceed to sea unless at least one officer besides the master has obtained and possesses a valid certificate, appropriate to the grade of only mate therein, or to a higher grade; and every person who, having been engaged to serve as master, or as first or second or only mate of any "foreign-going ship," or as master or first or only mate of a "home trade passenger ship," goes to sea as such master or mate without being at the time entitled to and possessed of such a certificate as the Act requires, or who employs any person as master, or first, second, or only mate of any "foreign-going ship," or as master or first or only mate of any "home trade passenger ship," without ascertaining that he is at the time entitled to and possessed of such certificate, for each offence incurs a penalty not exceeding 50*l.*

2. Every certificate of competency for a "foreign-going ship" is to be deemed to be of a higher grade than the corresponding certificate for a "home trade passenger ship," and entitles the lawful holder to go to sea in the corresponding grade in such last-mentioned ship; but no certificate for a "home trade passenger ship entitles the holder to go to sea as master or mate of a "foreign-going ship."

3. A certificate of service entitles an officer, who had already served as either master or mate in a British foreign-going ship before the 1st of January, 1851, or as master or mate in a home trade passenger ship before the 1st January, 1854, to serve in those capacities again; and it also entitles an officer who has attained or attains the rank of lieutenant, master, passed mate, or second master, or any higher rank in the service of H. M. or of the E. I. Company, to serve as master of a British merchant ship, and may be had by application to the Registrar General of Seamen, Custom House, London, or to any shipping master in the outports, on the transmission and verification of the necessary certificates and testimonials.

4. Certificates of competency will be granted to those persons who pass the requisite examinations, and otherwise comply with the requisite conditions. For this purpose examiners have been appointed under the Local Marine Boards, and arrangements have been made for holding the examinations at the under-mentioned ports upon the days specified against them; and these days are so arranged for general convenience, that a candidate wishing to proceed to sea, and missing the day at his own port, may proceed to another port where an examination is coming forward. The days for commencing the examinations at the various ports are as follows:—

Places.	Days.
Aberdeen†	Fridays and Saturdays in the first and third week in each month.
Belfast	1st and 3rd Tuesday in each month.
Bristol†	1st Friday and 3rd Tuesday in each month.
Cork	4th Monday in each month.
Dublin	1st and 3rd Thursday in each month.
Dundee†	Saturday in each week.
Glasgow†	Thursdays, held alternately at each place.
Greenock†	
Hull†	2nd Tuesday in each month.
Leith†	2nd Tuesday and 3rd Saturday in each month.

* By a "foreign going ship" is meant one which is bound to some place out of the U. K. beyond the limits included between the river Elbe and Brest; and by a "home trade passenger ship" is meant any home trade ship employed in carrying passengers; and it is to be observed that foreign steam ships when employed in carrying passengers between places in the U. K. are subject to all the provisions of the Act, as regards certificates of masters and mates, to which British steam ships are subject (§ 291.).

† At these places extra examinations are held.

Places.	Days.
Liverpool†	Monday, Tuesday, Thursday, and Friday, in each week.
London†	Monday, Tuesday, and Wednesday, in Navigation; Thursday, Friday, and Saturday, in Seamanship.
Newcastle†	1st day of each month, not being Sunday.
Shields†	10th day of each month, ditto.
Sunderland†	20th day of each month, ditto.
Plymouth†	3rd Wednesday in each month.

5. Applicants for examination must give their names to the shipping master or to the Local Marine Board at the place where they intend to be examined, on or before the day of examination, and must conform to any regulations in this respect which may be laid down by the Local Marine Board; and if this be not done, delay may be occasioned.

6. Testimonials of character, and of sobriety, experience, ability, and good conduct on board ship, will be required of all applicants, and without producing them no person will be examined. As such testimonials may have to be forwarded to the office of the Registrar-General of Seamen in London for verification before any certificates can be granted, it is desirable that candidates should lodge them as early as possible. Upon application to the shipping master candidates will be supplied with a form, which they will be required to fill up and lodge with their testimonials in the hands of the examiners.

7. The examinations will commence early in the forenoon on the days before mentioned, and be continued from day to day until all the candidates whose names appear upon the shipping master's list on the day of examination are examined.

8. The qualifications required for the several ranks undermentioned, are as follows:—

QUALIFICATIONS FOR CERTIFICATES OF COMPETENCY FOR "FOREIGN GOING SHIP."

(*a*) A SECOND MATE must be seventeen years of age, and must have been four years at sea.

In Navigation.—He must write a legible hand, and understand the four first rules of arithmetic and the use of logarithms. He must be able to correct the courses steered for variation and leeway, and find the difference of latitude and longitude therefrom; be able to correct the sun's declination for longitude, and find his latitude by meridian altitude of the sun; and work such other easy problems of a like nature as may be put to him. He must understand the use of the sextant, and be able to observe with it, and read off the arc.

In Seamanship.—He must give satisfactory answers as to the rigging and unrigging of ships, stowing of holds, &c.; must

understand the measurement of the log-line, glass, and lead-line; be conversant with the rule of the road, as regards both steamers and sailing-vessels, and the lights carried by them.

(*b.*) An Only Mate must be eighteen years of age, and have been four years at sea.

In Navigation.—In addition to the qualification required for a second mate, an only *mate* must be able to work a day's work complete, including the bearings and distance of the port he is bound to by Mercator's method. He must be able to observe and calculate the amplitude of the sun, and deduce the variation of the compass therefrom. He must know how to lay off the place of the ship on the chart, both by bearings of known objects, and by latitude and longitude. He must be able to use a sextant and determine its error, and adjust it, and find the time of high water from the known time at full and change.

In Seamanship.—In addition to what is required for a second mate, he must know how to moor and unmoor, and to keep a clear anchor; to carry out an anchor, and stow a hold; and to make the requisite entries in the ship's log.

(*c.*) A First Mate must be nineteen years of age, and have served five years at sea, of which one year must have been as either second or only mate, or as both.*

In Navigation.—In addition to the qualification required for an only mate, he must be able to observe azimuths and compute the variation; to compare chronometers and keep their rates, and find the longitude by them from an observation by the sun; to work the latitude by single altitude of the sun off the meridian; and be able to use and adjust the sextant by the sun.

In Seamanship.—In addition to the qualification required for an only mate, a more extensive knowledge of seamanship will be required, as to shifting large spars and sails, managing a ship in stormy weather, taking in and making sail, shifting yards and masts, &c., and getting cargo in and out; getting heavy spars and weights, anchors, &c., in and out; casting a ship on a lee-shore; and securing the masts in the event of accident to the bowsprit.

(*d.*) A Master must be twenty-one years of age, and have been six years at sea, of which one year must have been as first or only mate, and one year as second mate; or two years as first and only mate.*

In addition to the qualification for a first mate he must be able to find the latitude by a star, &c. He will be asked questions as to the nature of the attraction of the ship's iron upon the compass, and as to the method of determining it. He must possess a sufficient knowledge of what he is required to do by law, as to entry and discharge, and the management of his crew; as to penalties and entries to be made in the official log. He will be questioned as to his knowledge of invoices, charter-party, Lloyd's agent, and as to the nature of bottomry, and he must be acquainted with the leading lights of the channel he has been accustomed to navigate, or which he is going to use.

In cases where an applicant for a certificate as master ordinary has only served in a fore and aft rigged vessel, and is ignorant of the management of a square rigged vessel, he may obtain a certificate on which the words "fore and aft rigged vessel" will be written. This is not, however, to apply to mates, who, being younger men, are expected for the future to learn their business completely.

(*e.*) An Extra Master's Examination is intended for such persons as wish to prove their superior qualifications. Before being examined for an extra master's certificate, an applicant must have served one year either as a master with an ordinary certificate of competency, or as a master having a first class certificate granted by one of the former Boards of Examiners.

In Navigation.—As the vessels which such masters will command frequently make long voyages, to the East Indies, the Pacific, &c., the candidate will be required to work a lunar observation by both sun and star, to determine the latitude by the moon and star, by Polar star off the meridian, and also by double altitude of the sun, and to verify the result by Sumner's method. He must be able to calculate the altitudes of the sun or star when they cannot be observed, for the purposes of lunars,—to find the error of a watch by the method of equal altitudes,—and to correct the altitudes observed with an artificial horizon.

He must understand how to observe and apply the deviation of the compass: and to deduce the set and rate of the current from the D. R. and observation. He will be required to explain the nature of great circle sailing, and know how to apply practically that knowledge; but he will not be required to go into the calculations. He must be acquainted with the law of storms, so far as to know how he may probably escape those tempests common to the East and West Indies, and known as hurricanes.

In Seamanship.—The extra examination will consist of an inquiry into the competency of the party to heave a ship down, in case of accident befalling her abroad; to get lower masts and other heavy weights in and out; how to construct rafts, and as to his resources for the preservation off the ship's crew in the event of wreck, and in such operations of a like nature as the examiner may consider necessary.

Qualifications for Certificates of Competency for "Home Trade Passenger Ships."

(*a.*) A Mate must write a legible hand, and understand the first four rules of arithmetic. He must know and understand the rule of the road, and describe and show that he understands the Admiralty regulations as to lights. He must be able to take a bearing by compass, and prick off the ship's course on a chart. He must know the marks in the lead line, and be able to work and heave the log.

(*b.*) A Master must have served one year as a mate in the foreign or home trade. In addition to the qualifications required for a mate, he must show that he is capable of navigating a ship along any coast, for which purpose he will be required to draw upon a chart produced by the examiner the courses and distances he would run along shore from headland to headland, and to give in writing the courses and distances corrected for variation, and the bearings of the headlands and lights, and when the courses should be altered either to clear any dangers or to adapt it to the coast. He must understand how to make his soundings according to the state of the tide.

* Service in a superior capacity is in all cases to be equivalent to service in an inferior capacity.

General Rules as to Examinations and Fees.

9. The candidates will be allowed to work out the various problems according to the method and the tables they have been accustomed to use, and will be allowed five hours to perform the work; at the expiration of which, if they have not finished, they will be declared to have failed, unless the Local Marine Board see fit to extend the time.

Fees to be paid by Applicants for Examination.

10. The fee for examination must be paid to the shipping master. If a candidate fail in his examination, half the fee he has paid will be returned to him by the shipping master on his producing a document which will be given him by the examiner. The fees are as follows:—

For "Foreign-going Ships."

	£	s.	d.
Second mate - - - -	1	0	0
First and only mate, if previously possessing an inferior certificate -	0	10	0
If not - - - -	1	0	0
Master, whether extra or ordinary -	2	0	0

For "Home Trade Passenger Ships."

Mate - - - - -	0	10	0
Master - - - - -	1	0	0

11. Any one who has been one year in possession of a master's first-class certificate granted by one of the former boards of examiners, or of an ordinary master's certificate of competency granted under the present examiners, may pass an extra examination, and receive an extra certificate in exchange for his former one, without payment of any fee; but if he fails in his first examination he must pay half a master's fee on his coming a second time; and the same sum for every subsequent attempt.

12. If the applicant passes he will receive a document from the examiner, which will entitle him to receive his certificate of competency from the shipping master at the port to which he has directed it to be forwarded. If his testimonials have been sent to the registrar to be verified, they will be returned with his certificate.

13. If an applicant is examined for a higher rank and fails, but passes an examination of a lower grade, he may receive a certificate accordingly, but no part of the fee will be returned.

14. In all cases of complete failure the candidate must be re-examined *de novo*, and in case of failure in seamanship a candidate will not be re-examined until after a lapse of six months, to give him time to gain experience.

15. As the examinations of masters and mates are made compulsory, the qualifications have been kept as low as possible; but it must be distinctly understood that it is the intention of the B. of Trade to raise the standard from time to time, whenever, as will no doubt be the case, the general attainments of officers in the merchant service shall render it possible to do so without inconvenience; and officers are strongly urged to employ their leisure hours, when in port, in the acquirement of the knowledge necessary to enable them to pass their examinations; and masters will do well to permit apprentices and junior officers to attend schools of instruction, and to afford them as much time for this purpose as possible.

Examinations in Steam.

16. Arrangements have been made for giving to those masters or first or only mates who possess certificates of competency, or who may apply for such certificates, and who desire it, an opportunity of undergoing an examination as to their practical knowledge of the use and working of the steam engine. These examinations will be conducted under the superintendence of the Local Marine Boards, at such times as they may appoint for the purpose; and the examiners will be selected by the B. of Trade, from the engineer surveyors appointed under the Act. The examination will not comprise intricate theoretical questions, but will be such as to satisfy the examiner that the applicant is competent to control the working of the engine, and has such a knowledge of the ordinary parts of the machinery as will enable him to judge of the nature of an accident, and, in the absence of the engineer, to give the necessary directions in the engine room. The practice will be as follows: The applicant must deliver to the shipping master a statement in writing to the effect that he wishes to be examined in steam. If he is about to pass an examination in navigation, the statement must be on or annexed to a form prepared for that purpose; if the applicant has a certificate of competency the statement must be delivered to the shipping master with his certificate, so that due notice may be given to the examiner, and so that the B. of Trade on receiving it may have the means of indorsing on his certificate and recording the fact that he has "Passed in Steam." He must also, at the same time, pay a fee of one pound (1*l.*), which will be applied in remunerating the examiners. Notice will be given of the time at which the applicant is to attend to be examined, and if he passes, the result of the examination will be reported to the B. of Trade, and his certificate of competency will be issued or returned to him, as the case may be, with an indorsement as above mentioned, showing that he has "Passed in Steam." If he fails, no notice of the failure will be recorded on the certificate, but no part of the fee will be returned.

17. Full directions as to the course of examination in steam and the qualifications required of candidates, are contained in the instructions issued to engineer surveyors appointed as examiners at the larger ports.

MASTICH, or MASTIC (Ger. *Mastix*; Du. *Mastik*; Fr. *Mastic*; It. *Mastice*; Sp. *Almastica, Almaciga*; Arab. *Arāh*). This resinous substance is the produce of the *Pistacia Lentiscus*, a native of the Levant, and particularly abundant in the island of

Chios. It is obtained by making transverse incisions in the trunks and branches of the trees, whence the mastic slowly exudes. About 1,500 cwt. are annually exported from Chios, part of which is brought to this country, packed in chests. The best is in the form of dry, brittle, yellowish, transparent tears; it is nearly inodorous, except when heated, and then it has an agreeable odour; chewed, it is almost insipid, feeling at first gritty, and ultimately soft; its virtues are trifling.—(*Ainslie's Materia Indica; Thomson's Dispensatory.*)

MATE, in a merchant ship, the deputy of the master, taking, in his absence, the command. There are sometimes only 1, and sometimes 2, 3, or 4 mates in a merchantman, according to her size; denominated 1st, 2nd, 3rd, &c. mates. The law, however, recognises only 2 descriptions of persons in a merchantman — the master and mariners; the mates being included in the latter, and the captain being responsible for their proceedings.

In men-of-war, the officers immediately subordinate to the captain are called lieutenants. But the *master*, or officer whose peculiar duty it is to take charge of the navigation of the ship, has certain mates under him selected from the midshipmen. The boatswain, gunner, carpenter, &c. have each their mates or deputies, taken from the crew.

The officers subordinate to the commander in the ships belonging to the East India Company were called 1st, 2nd, 3rd, &c. officers. East Indiamen had no sailing masters, the commanders performing that duty. —(*Falconer's Marine Dictionary, &c.*)

MATS (Du. *Matten;* Fr. *Nattes;* Ger. *Matten;* It. *Stuoje, Stuje;* Port. *Esteiras;* Rus. *Progoshki;* Sp. *Esteras*), textures composed, for the most part, of flags, reeds, the bark of trees, rushes, grass, rattans, old ropes, &c. In this country mats are used for a great variety of purposes. The coarser sort are very largely employed in the packing of furniture and goods; in the stowage of corn and various other articles on board ship; in horticultural operations; in covering the floors of churches and other public buildings, &c.: the finer sorts are principally employed in covering the floors of private houses.

In Europe, mats are principally manufactured for sale in Russia, where their production is a prominent branch of national industry. They consist of the bark of the lime or linden tree, and are known in this country by the name of *bast* mats. The Russian peasants manufacture this sort of material into shoes, cordage, sacks for corn, &c., and employ it in an endless variety of ways. In consequence of the vast quantities of matting that are thus made use of at home and sent abroad, the demand for it is immense. It is principally produced in the government of Viatka, Kostroma, and those immediately contiguous; and in the months of May and June, the period when the bark is most easily detached from the stem, the villages in the governments in question are almost deserted, the whole population being then in the woods employed in stripping the trees. The academician Köppen, who has carefully investigated this curious subject, estimates the average annual production of mats in European Russia, as follows: —

Government of Viatka	-	6,000,000 pieces
Ditto Kostroma	-	4,000,000 —
Ditto Kasan	-	1,000,000 —
Ditto Nijni Novgorod	-	1,000,000 —
Ditto Vologda, Tamboff, Simbirsk, and Penza	-	2,000,000 —
Total		14,000,000

Köppen further estimates that about 1-4th part of this vast quantity, or 3½ millions, are exported, the rest being consumed at home.

It is obvious from these statements that the annual destruction of linden trees must be quite enormous; and it may well excite astonishment that they are not already all but exhausted. But whether it be from the rapid growth of the tree, or the vast extent of the forests in which it is found, the gloomy forebodings of Mr. Tooke as to its destruction have not hitherto been realised (*View of Russia*, iii. 262.), and mats have not become either scarcer or dearer. It is, however, hardly possible to suppose, that such should continue to be the case, seeing the rapid increase of population and of the consumption of matting in most parts of the empire. But in the event of its becoming scarcer, the inhabitants will have no difficulty in finding substitutes; so that we agree in opinion with those who think it would be bad policy to impose any restrictions on this branch of industry, in the view of averting an evil which may never occur; and which, if it do occur, may be easily obviated. — (See a very interesting article in the *Supplement au Journal de l'Interieur de St. Petersburg*, for 1841, p. 113.)

Archangel is the principal port for the shipment of mats; and it appears that at an average of the years 1851 and 1852, the export of mats from that port amounted to

615,360 pieces a year. (See *antè*, art. ARCHANGEL.) Large quantities are also shipped from Petersburg, Riga, and other ports; and most descriptions of Russian produce sent abroad are packed in mats. The duty of 5 per cent. *ad valorem* formerly charged on mats has been repealed. Russian mats fetch, in the London market, about 3*l.* per 100.

Various descriptions of reed mats are extensively manufactured in Spain and Portugal; some of them being very beautifully varied. In Spain large quantities of matting are made of the Esparto rush. —(See ESPARTO.)

Rush floor mats, and rattan table mats of a very superior description are brought from China. They should be chosen clean, of a bright clear colour, and should, when packed, be thoroughly dry.

The mats of the Japanese are soft and elastic, serving them both for carpets and beds; they are made of a peculiar species of rush cultivated for the purpose.

The bags in which sugar is imported from the Mauritius consist of matting formed of the leaves of a tree growing in the island, interwoven in broad strips. They are very strong and durable, and may be washed and cleaned without sustaining any injury. Being imported in large quantities, they are sold very cheap. — Besides the works already referred to, see *Milburn's Oriental Commerce*, and the valuable little work entitled *Vegetable Substances, Materials of Manufactures*, published by the Society for the Diffusion of Useful Knowledge, pp. 116—123.)

It is probable that mats formed the first sort of wove fabrics produced by man; and it is worthy of remark that but few savage tribes have been discovered which have not attained to considerable eminence in their manufacture. On the coast of Guinea and other places in the west of Africa, pieces of fine mat, about a yard long, and of a pretty uniform texture, were denominated *makkutes*, and formed a sort of money; the value of commodities being rated and estimated in them. —(*Morellet, Prospectus d'un Dictionnaire de Commerce*, p. 122.) They enjoyed this distinction, no doubt, from their utility, and the great care and labour bestowed on their preparation. There is hardly an island in the South Seas in which the natives have not acquired great skill and dexterity in the making of mats. The finer sorts consist, generally, of dyed reeds or grass; and have a very brilliant appearance.

MAULMAIN, OR MOULMEIN, a sea-port town of India beyond the Ganges, cap. British prov. Martaban, at the mouth of the great river Than-lueng, having N. the Burmese town of Martaban, on the opposite side of the river, and W. the island of Balu, which serves as a natural breakwater to defend the port from the heavy seas that would otherwise be thrown in from the W., 100 m. S. S. E. Rangoon, 27 m. N. N. E. Amherst; lat. 16° 30′ N., long. 97° 38′ E. It was founded in 1825, when the site was selected by Sir A. Campbell as eligible as well for a commercial as a military station. It is about 200 feet above the level of the river, and extensive and fertile plains stretch eastward from it towards the mountains. Its port is good, and, from its extensive command of internal navigation, it promises to become a considerable emporium. The principal articles of export are teak timber and rice; but there is also a considerable export of tobacco, stick-lac, betel-nut, ivory, cutch, cocoa-nut, &c. The imports consist principally of European cotton goods and marine stores. The principal trade of the place has hitherto been carried on with Calcutta, Madras, Rangoon, and Pinang; but, in 1837, a direct trade was commenced with London. Owing to the facility with which supplies of teak timber are obtained, ship-building is carried on very extensively.

The population in 1848 was estimated at about 35,000. An English newspaper, (the *Maulmain Free Press*) from which we borrow the following statements, is published once a week.

Imports, 1847.		Exports, 1847.	
European goods	139,298 8 0	European goods	120,785 0 0
Indian ditto	59,199 3 6	Indian ditto	100,254 2 5
China ditto	71,745 0 0	China ditto	40,424 0 0
Burmese ditto	132,010 0 0	Burmese ditto	3,270 0 0
Rice and paddy	350 0 0	Rice and paddy	101,465 2 9
Miscellaneous	304,997 10 0	Timber	881,917 14 0
		Miscellaneous	144,642 12 0
Co.'s Rs.	707,598 6 0	Co.'s Rs.	1,392,755 14 5

"The principal article of commerce at Maulmain is teak timber, with which from 25 to 30 ships annually load for England. The quantity of teak exported to that country from 1840 to 1847, and its estimated official value, was as follows: —

Years.	No. of Tons.	Price per Ton.	Value.	Years.	No. of Tons.	Price per Ton.	Value.
		Rs.	£			Rs.	£
1840	4,952	25	12,380	1844	14,245	30	42,375
1841	6,399	25	15,988	1845	13,360	40	53,442
1842	11,847	25	28,717	1846	16,798	45	75,592
1843	10,528	30	31,584	1847	7,873	50	39,365

"Maulmain is a free port, on the same footing as Singapore, &c. There is no custom-house and no duties on seaborne goods; but foreign sugar, and sugar from Singapore and Malacca, is contraband.

"The coins in use are the Company's rupee and its subdivisions, the same as current in Calcutta. The English sovereign is generally worth 11 rupees, and the Spanish dollar 220 rupees per 100 dolls.

"The weights are the Madras viss equal to 3·065 lbs. avoirdupois, or say 3¾ lbs.; in this there are 100 ticuls. The Bengal bazaar maund of 82 lbs. is also occasionally used.

"The measures principally used are called baskets; they are of uncertain size. A basket of cleaned rice is about 65 lbs. in weight; of mixed, about 60 lbs.; paddy, 51 lbs.

"Ship-building is well adapted to the place, and some of the finest teak ships in the world have been built here. There are several dry docks, though not of a very efficient description, for repairing vessels. Her Majesty's government bought here, during 1847, upwards of 5,000 tons of teak for the royal dockyards in England."

The *Maulmain Almanac* for 1852 contains the following statements: — "The value of the imports by sea into Maulmain during 1850 amounted to Rps. 22,57,983, and the exports to Rps. 23,32,951; while in the first ten months of 1851 the imports increased in value to Rps. 28,78,487, or 287,848*l.*, and the exports to Rps. 28,79,797 or 287,979*l.* The town, which 20 years back contained only a 'few miserable fishing-huts,' is thus shown to have a trade of nearly 600,000*l.* a-year, which is still increasing. The value of the piece goods imported from Europe during 1851, amounted to 63,229*l.*; coals, 5,408*l.*; and iron, 1,849*l.* Provisions were imported to the extent of 3,496*l.*, and wines of the value of 492*l.*, military stores, 1,853*l.*, &c. The articles of export present no remarkable feature of interest except timber, the value of which in 1850 was 55,108*l.*, and in the first ten months of 1851, 81,561*l.* The town possesses a large and thriving European population, and 40 vessels, of an aggregate burden of 17,170 tons, have been launched from its dockyard since 1830. It contains three printing presses, seven places of public worship (five of which are Protestant), besides eight schools (English and native.)"

MAURITIUS. See PORT LOUIS.

MEAD, OR METHEGLIN (Ger. *Meht, Meth;* Du. *Meede, Meedrank;* Fr. *Hydromel;* It. *Idromele;* Rus. *Lipez*), the ancient, and for a long time, the favourite drink of the northern nations. It is a preparation of honey and water. Manufacturers of mead for sale must take out an annual licence.

MEAL (Ger. *Mehl;* Du. *Meel;* Fr. and It. *Farine;* Sp. *Farina;* Rus. *Muka;* Lat. *Farina*), the edible part of wheat, oats, rye, barley, and pulse of different kinds, ground into a species of coarse flour.

MEDALS, are pieces of metal, generally in the form of a coin, and impressed with some peculiar stamp, intended to commemorate some individual or action. Medals are of very different prices — varying according to their rarity and preservation, the fineness of the metal, the beauty of the workmanship, &c.

MEDITERRANEAN PASS. The nature of this sort of instrument has been described by Mr. Reeves, in his *Treatise on the Law of Shipping*, as follows: —

"In the treaties that have been made with the Barbary states, it has been agreed, that the subjects of the King of Great Britain should pass the seas unmolested by the cruisers of those states; and for better ascertaining what ships and vessels belong to British subjects, it is provided that they shall produce *a pass* under the hand and seal of the Lord High Admiral, or the Lords Commissioners of the Admiralty. In pursuance of these treaties, passes are made out at the Admiralty, containing a very few words, written on parchment, with ornaments at the top, through which a scolloped indenture is made; the *scolloped tops* are sent to Barbary; and being put in possession of their cruisers, the commanders are instructed to suffer all persons to pass who have passes that will fit these scolloped tops. The protection afforded by these passes is such, that no ships, which traverse the seas frequented by these rovers, ever fail to furnish themselves with them, whether in the trade to the East Indies, the Levant, Spain, Italy, or any part of the Mediterranean; and from the more particular need of them in the latter, they, no doubt, obtained the name of *Mediterranean passes*. For the accommodation of merchants in distant parts, blank passes, signed by the Lords of the Admiralty, are lodged with the governors abroad, and with the British consuls, to be granted to those who comply with the requisites necessary for obtaining them. As this piece of security is derived wholly from the stipulations made by the crown with a foreign power, the entire regulation and management of it has been under the direction of his Majesty, who, with the advice of the privy council, has prescribed the terms and conditions on which these passes shall be granted. Among others are the following: — They are to be granted for none but British-built ships, or ships made free, navigated with a master and ⅔ths of the mariners British subjects, or foreign protestants made denizens. Bond is to be given in the sum of 300*l.* if the vessel is under 100 tons, and in 500*l.* if it is of that or more, for delivering up the pass within 12 months, unless in the case of ships trading from one foreign port to another; and such passes need not be returned in less than 3 years.

"It has been found expedient, at the conclusion of a war, and sometimes during a peace, to recal and cancel all passes that have been issued, and to issue others in a new form. This has been done for 2 reasons. 1st. That these useful instruments, by various means, either accidental or fraudulent, came into the hands of foreigners, who, under cover of them, carried on in security a trade which otherwise would belong to British subjects, and which had been purchased by the crown, at the expense of keeping up this sort of alliance. 2dly, That the Barbary states complained, that, adhering to the rule of fitting the other part of the indenture to the passes, they were obliged to suffer ships to pass that did not belong to British subjects."

We have thought it right to give this explanation, though, since the occupation of Algiers by the French, and the disappearance of the corsairs of the other Barbary powers, Mediterranean passes have fallen into disuse.

MEMEL, a commercial town of East Prussia, lat. of light-house 55° 43′ 7″ N.,

lon. 21° 6′ 2″ E. Population, in 1846, 9,400. Memel is situated on the north-east side of the great bay, denominated the *Currische Haf*, near its junction with the Baltic. It is, consequently, the principal *entrepôt* of the country traversed by the Niemen, and as such enjoys a pretty extensive commerce.

Harbour.— The harbour of Memel is large and safe; but the bar at the mouth of the Currische Haf has seldom more than 17 feet water, and sometimes not more than 13 or 14 feet; so that ships drawing more than 16 feet water are frequently obliged to load and unload a part of their cargoes in the roads, where the anchorage is but indifferent, particularly when the wind is N. or N. W. A lighthouse, originally 75, but now 100 feet in height, has been erected on the N. E. side of the entrance to the harbour. The light, which is fixed and powerful, may be distinguished in clear weather at more than 20 miles' distance. The outer buoy lies in 6 fathoms water, about a mile without the lighthouse, which bears from it S. E. by E. ½ E. The channel thence to the harbour is marked by white buoys on the north, and red on the south side. Three beacons to the north of the town, when brought into a line, lead directly into the harbour. Inasmuch, however, as the channel is subject to frequent changes, both in depth and direction, it is always prudent, on arriving at the outer buoy, to heave to for a pilot; but this is not obligatory; and the Prussian authorities have issued directions for ships entering without a pilot, which may be found in Norie's *Sailing Directions for the Cattegat and Baltic*, p. 36.

Trade.—Timber forms the principal article of export; for though that of Dantzic be considered better it is generally cheaper, and almost always more abundant, at Memel. Here, as at Dantzic, the best quality of all sorts of wood articles is called *khron*, or crown, the 2nd *brack*, and the 3rd *bracks brack*. Large quantities of hemp and flax are also exported, as are bristles, hides, linseed (the finest for crushing brought to England), wax, pitch, and tar, &c. The exports of grain, especially rye, are sometimes very considerable. The wheat of Lithuania is reckoned the best. All flax and hemp shipped from Memel must be *bracked*, or assorted by sworn selectors.—(See FLAX and HEMP.) The imports consist principally of salt, herrings, coffee, sugar, spices, dye-woods, tobacco, tea, iron, cotton stuffs and yarn, cutlery, wine, &c. Merchants at Memel generally send their bills to Königsberg to be sold, charging their correspondents with 1 per cent. for bank commission, postages, &c. The navigation generally closes about the latter end of December, and opens about the middle of March.

MERCURY, OR QUICKSILVER (Fr. *Vif argent*; Ger. *Quicksilber*; It. *Argento vivo*; Sp. *Azogue*; Russ. *Rtut*; Lat. *Hydrargyrum*; Arab. *Zibākh*; Hind. *Parah*; Sans. *Pārada*.) This metal was known in the remotest ages, and seems to have been employed by the ancients in gilding, and separating gold from other bodies, just as it is by the moderns. Its colour is white, and similar to that of silver; hence the names of *hydrargyrum*, *argentum vivum*, *quicksilver*, by which it has been known in all ages. It has no taste or smell. It possesses a good deal of brilliancy; and when its surface is not tarnished, it makes a very good mirror. Specific gravity 13·568. It differs from all other metals in being always fluid, unless when subjected to a degree of cold equal to —39°, when it becomes solid. The congelation of mercury was first observed in 1759. — (*Thomson's Chemistry.*)

Mercury is found in various parts of the world. Among the principal mines are those of Almaden, near Cordova, in Spain; Idria, in Carniola; Wolfstein and Morsfield, in the Palatinate; Guancuaelica, in Peru, &c. "Most of the ores of mercury are readily distinguished from those of any other metal; in the 1st variety, globules of the metal are seen attached to or just starting on the surface, which is at once a sufficient criterion, mercury being unlike every other metal; in the 2nd, by the fine white colour, and the action of the blowpipe, which sublimes the mercury and leaves the silver behind; the 3rd, by its beautiful deep red tint, varying from cochineal to scarlet red, excepting in those termed hepatic cinnabars, which are generally of a lead grey; the 4th, by its grey colour, its partial solubility in water, and its complete volatilisation by heat, emitting at the same time an arsenical odour. Before the blowpipe, these varieties burn with a blue flame and sulphurous odour, leaving more or less residue behind them, and which may consist of earthy matter, as silex and alumina, together with the oxides of iron and copper."—(*Joyce's Chem. Min.*)

Mercury is often adulterated by the admixture of lead, bismuth, zinc, and tin. When the metal quickly loses its lustre, is covered with a film, or is less fluid and mobile than usual, or does not readily divide into round globules, there is reason to suspect its purity.

Our supplies of mercury are derived almost wholly from Spain. The imports usually amount to from 2,000,000 to 3,000,000 lbs., of which about 300,000 lbs. are retained for home consumption, the surplus being exported to S. America, France, the E. Indies, &c.

The exports of quicksilver from Spain in 1848 amounted to 48,868 quintals, of which nearly 40,000 quintals were furnished by the mines of Almaden. The province of Idria, in Austria, has also some rather productive quicksilver mines. And the produce of this metal in California, and other parts of S. America, is said to be already considerable, and to be increasing.

There are 2 sulphurets of mercury; the black or *ethiops mineral*, and the red or *cinnabar*. When mercury and sulphur are triturated together in a mortar, the former gradually disappears, and the whole assumes the form of a black powder, denominated ethiops mineral. If this powder be heated red-hot, it sublimes; and on a proper vessel being placed to receive it, a cake is obtained, of a fine red colour, which is called cinnabar. This cake, when reduced to powder, is well known in commerce by the name of *vermilion*. Cinnabar may be prepared in various other ways.

Calomel, or protochloride of mercury (*mercurius dulcis*) is the most useful of all the preparations obtained from it. It is in the form of a dull white, semi-transparent mass, having a specific gravity of 7·176. It is more generally employed, and with better effect, than almost any other remedy in the whole range of the materia medica.

Besides its uses in medicine, mercury is extensively employed in the amalgamation of the noble metals, in water-gilding, the making of vermilion, the silvering of looking-glasses, the making of barometers and thermometers, &c.

METALS (Lat. *Metalla*; Fr. *Métaux*), solid *, opaque, heavy bodies, which melt at various degrees of temperature, and recover their previous solidity when it is reduced; when cut or fractured they exhibit a brilliant or lustrous appearance, and possess more or less malleability, tenacity, and so forth. The really valuable metals, comprising gold, silver, quicksilver, copper, lead, iron, and tin, were all known to the ancients, and were as much esteemed by them as by the moderns. They are sometimes

* With the single exception of quicksilver, which is fluid, and used, on that account, to be called semi-metal.

found native, but far more generally in the shape of ores intermixed with other bodies. And their separation from the latter, and manufacture into useful and ornamental articles, is one of the greatest achievements of human industry, and has contributed more, perhaps, than anything else to accelerate the progress of civilisation. At this moment the smelting, refining, and working of metals forms one of the most important, if it be not the most important, industrial pursuit carried on in this country. The reader will find notices of the most important metals under their respective names. And we only notice them here that we may insert the following statements, viz., an estimate of the value of the metals produced in the U. Kingdom in 1857, as they came from the furnace, and an account of the quantities and values of the metals exported in each of the three years ending with 1857.

The estimate of their value in a crude state is

Tin	£ 867,680	Zinc	£ 450,000
Copper	2,166,900	Pig iron	12,838,560
Lead	1,523,852	Other metals	125,500
Silver	133,216		£ 18,105,708

This estimate was framed by Mr. Robert Hunt of the Mining Record Office, and may, we believe, be safely depended upon.

Account of the Quantities and Values of the Metals exported from the U. K., being the Produce of the same, during each of the 3 Years ending with 1857.

Metals.		Quantities.			Declared Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
Iron: pig	tons	291,776	357,326	422,086	£1,072,428	£1,385,118	£1,609,115
„ bar, bolt, and rod	—	540,992	701,873	729,345	4,628,399	6,217,524	6,262,605
„ wire	—	5,923	9,190	11,333	125,791	195,034	242,087
„ cast	—	70,138	72,394	74,835	658,180	712,177	753,334
„ wrought of all sorts	—	167,213	276,259	281,413	2,395,674	3,720,453	3,987,617
Steel, unwrought	—	16,693	21,858	22,374	584,170	735,925	748,579
Copper: in bricks and pigs	cwts.	102,385	121,935	142,920	585,702	673,224	852,055
„ in sheets and nails, including mixed or yellow metal for sheathing	—	208,648	287,571	274,536	1,266,274	1,664,648	1,673,186
„ wrought, of all sorts	—	22,153	28,617	65,419	152,146	189,181	454,855
Brass, of all sorts	—	16,822	19,198	21,960	106,784	121,206	143,353
Lead	tons	22,247	23,134	22,088	513,315	582,269	549,523
Tin, unwrought	cwts.	26,945	37,526	43,758	152,737	238,936	290,721
Tin plates	value	. .	. .	. .	1,110,843	1,407,906	1,500,116
Total value		. .	. .	. .	13,353,443	17,843,479	19,067,746

Account of the Quantities of Foreign and Colonial Metals imported into the U. K. during each of the 3 Years ending with 1857.

Metals.		1855.	1856.	1857.
Copper ore and regulus	tons	66,600	82,803	95,094
Copper, unwrought and part wrought	cwts.	160,880	76,257	128,700
Iron in bars, unwrought	tons	37,407	51,935	50,163
Steel, unwrought	—	99	1,599	2,030
Lead, pig and sheet	—	7,346	10,254	12,768
Spelter	—	17,852	18,213	18,001
Tin, in blocks, ingots, bars, or slabs	cwts.	32,247	69,282	54,173
Quicksilver	lbs.	3,217,217	576,824	475,095

Account of the Quantities of the Foreign and Colonial Metals exported from the U. K. in each of the 3 Years ending with 1857.

Metals.		1855.	1856.	1857.
Copper, unwrought and part wrought	cwts.	19,014	25,398	41,891
Tin, in blocks, ingots, bars, or slabs	—	5,608	4,005	7,603
Quicksilver	—	1,606,521	1,334,951	1,407,400

MILE, the usual measure of roads in England, being 8 furlongs, or 1,760 yards.

MILK (Fr. *Lait;* It. *Latte;* Lat. *Lac*), a fluid secreted by the female of all those animals denominated *mammalia*, and evidently intended for the nourishment of her offspring. The milk of every animal has certain peculiarities which distinguish it from all other milk. But the animal whose milk is most used by man, and with which, consequently, we are best acquainted, is the cow. The external character of all milk is that of a white opaque fluid, having a sweetish taste, and a specific gravity somewhat greater than that of water. When allowed to remain at rest, it separates into 2 parts; a thick whitish fluid called *cream*, collecting in a thin stratum over its surface, and a more dense watery body, remaining below. Milk which has stood for some time after the separation of the cream, becomes acescent, and then coagulates. When the coagulum is pressed gently, a serous fluid is forced out, and there remains the caseous part of the milk, or pure cheese.

Butter, one of the most valuable animal products, is solidified cream, and is obtained artificially by churning.—(See BUTTER.)

Milk has always been a favourite food of most European nations, and especially of the British. *Lacte et carne vivunt*, says Cæsar of our ancestors; and the same articles still continue to form a large part of our subsistence. Mr. Middleton estimated (*Agricultural Survey of Middlesex*, 2d ed. p. 419.), that, in 1806, no fewer than 8,500 milch cows were kept for the supply of London and its environs with milk and cream; and he estimated the average quantity of milk obtained from each cow at *nine quarts* a day, or 3,285 quarts a year, leaving, every deduction being taken into account, 3,200 quarts of marketable produce.

But Mr. Youatt, in his valuable work on cattle, their breeds, &c., estimated the number of dairy cows kept in 1843, in London and its environs, at 12,000; affording, on Mr. Middleton's hypothesis, an annual supply of 38,400,000 quarts of milk. Now, as milk is sold by the retailers at from 3*d.* to 4*d.* a quart after the cream is separated from it, and as the cream is usually sold at from 2*s.* 6*d.* to 3*s.* a quart, and there is reason to suspect that a good deal of water is intermixed with the milk, we believe we should hardly be warranted in estimating that the milk, as obtained from the cow, is sold at less than 5*d.* a quart, which gives 800,000*l.* as the total price of the milk consumed in the city and its immediate vicinity. If to this sum were added the further sums paid for cheese and butter, the magnitude of the entire sum paid in the metropolis for milk, and the various products derived from it, would appear not a little astonishing.

MILLET (Ger. *Hirse;* Fr. *Millet, Mil;* It. *Miglio, Panicastrello;* Sp. *Mijo;* Lat. *Milium, Panicum miliaceum.*) There are 3 distinct species of millet; the Polish millet, the common or German millet, and the Indian millet. It is cultivated as a species of grain; and is sometimes employed to feed poultry, and as a substitute for rice. The Indian millet grows to a large size; but the autumns in England are seldom dry and warm enough to allow of its being cultivated here. — (*Loudon's Encyc. of Agriculture.*)

MILL-STONES (Ger. *Mühlsteine;* Fr. *Pierres meulières;* It. *Mole macine;* Sp. *Muelas de Molino;* Rus. *Schernowoi kamen,*) the large circular stones, which, when put in motion by machinery, grind corn and other articles. The diameter of common mill-stones is from 5 to 7 feet, and their thickness varies from 12 to 18 inches. These stones have been principally imported from Rouen and other parts of France; the burr-stones of that country being supposed to be more durable than our own. Mill-stones are, however, found at Conway, in North Wales, and in some parts of Scotland, which have been said, though on no very good authority, to be equal to those imported.

The island of Milo, in the Archipelago, furnishes mill-stones of a very excellent quality. They are exported to Greece, Italy, and other countries on the Mediterranean, where they are employed in grinding the hard wheat, or *grano duro*, used in the manufacture of macaroni, vermicelli, &c. The quarries are wrought on account of government, and the stones sold at moderate prices fixed by a tariff, which, however, leave a handsome profit to the state. (*Tournefort, Voyage au Levant*, letter iv.; *Strong's Greece*, p. 222.)

Whether it were owing, as was generally supposed, to the inferiority of the stones, or to some other cause, there can be no doubt of the fact that down to a late period our flour mills were less efficient than those of France and some other countries; and hence, in part at least, the late very large importations of French flour. But this inferiority is now all but wholly obviated. The English mills produce flour of a superior quality; and hard, as well as soft, wheat is readily bought by our millers. The duties on mill and other stones have been repealed.

MINING COMPANIES. By this designation was formerly meant the associations formed in London, in 1825, for working mines in Mexico and S. America; but at present it comprises all mining projects carried on by joint-stock associations.

The *mania* for mining concerns, which raged in London and the empire generally in 1824 and 1825, after the opening of Mexico and other parts of Spanish America to our intercourse, forms a remarkable, and we are sorry to add, disgraceful æra in our commercial history. Now that the delusion is long past, we have difficulty in conceiving how mercantile men could be led to entertain such visionary expectations, and to pay immense premiums for shares in distant and hazardous undertakings of which they knew little or nothing. We may, therefore, be excused for appropriating a page or two to the notice of an infatuation hardly second to that which led to the South Sea and Mississippi schemes.

The American mining companies formed at the outset had some sort of basis for favourable expectations, their directors having made contracts for a number of mines in Mexico, described by Humboldt as having enriched many families. This particularly applies to the Real del Monte Company, whose mines are situated in the mountainous district of that name; to the Anglo-Mexican Company, whose mines are at Guanaxuato, the principal mining quarter in Mexico; and to the United Mexican Company, whose contracts, though too widely spread, comprise several valuable mines at Zacatecas, Sombrerete, Guanaxuato, and other parts.

These associations were formed in London early in 1824, and during the spring and summer of that year their stock or shares bore only a small premium; but towards the winter it began progressively to rise; not because of any favourable intelligence from the mines (for the accounts from Mexico merely reported the arrival of the English

agents), but from a blind ardour and spirit of speculation in the public, which really took *omne ignotum pro magnifico*, every rumour of a mine for a certain and exhaustible source of profit and of wealth! It was supposed that our countrymen were about to reap an immediate harvest; to lay their hands on a treasure hid for ages. This was said to be the true discovery of America, the effectual access to her resources. Every new contract for a Mexican mine produced a rise in the shares of the other companies, as if the fresh undertaking must necessarily be a source of profit to the whole! And the result was, that in January, 1825, the premium on the shares of most of the companies exceeded cent. per cent.! It must not, however, be imagined that this rise of price was occasioned solely by the competition of individuals who intended to continue to hold stock and to trust to the dividends made by the companies for a return. That this was the case in the first instance, is, speaking generally, true. But a host of others, actuated by very different views, speedily entered the field. A peculiar combination of circumstances, at the head of which must be placed an almost incredible degree of ignorance and folly on the part of a considerable portion of the public, spread a spirit of gambling among all classes. Many who were most eager in the pursuit of shares, intended only to hold them for a few hours, days, or weeks, to profit by the rise which they anticipated would take place by selling them to others more credulous or bold than themselves. The confidence of one set of speculators confirmed that of others. Meanwhile the public gullibility, or rather its indiscriminating rapacity, was liberally administered to. Company after company was formed without any previous contract; in other words, without any foundation whatever! The plan was to fix on a district in America, understood to contain mines; to form a company bearing the name of such district; to obtain a first payment from the shareholders, and to send or pretend to send out agents, to survey the district and engage mines. Such was the case of most of those companies having the names of districts in South America; and such, also, was the case of the Hispaniola or St. Domingo Company, formed on the basis of accounts given by Robertson of mines wrought in that island some 3 centuries ago! And yet lawyers, clergymen, and even the nobles of the land, were candidates for shares in these miserable bubbles, in the hope of finding (in which, luckily, most of them were disappointed) some dupe to buy their shares at a premium.*

As the year 1825 proceeded, the mining mania gradually declined, not from any falling off in the prospects of the companies, for in truth they never had any, but in the supply of money in London. That redundancy of the currency in which the mining mania had partly originated, having brought about an adverse exchange, and a heavy drain for bullion on the Bank of England, the latter was obliged to pull up, and in a moment the bubble burst, and unreasonable suspicion took the place of blind unthinking confidence. Mining projects, from being in the highest favour, fell to the lowest point in the public estimation. The shares of the 3 principal companies, some of which had been at a premium of 500 per cent., fell to par: that is 100*l.* in money, and no more, could be got for 100*l.* of the company's stock! They maintained this price for a considerable time, because most of the parties interested continued to have a favourable impression of the undertakings. Demands, however, continued to be made for additional sums to meet the expenditure abroad; and in 1826 and 1827 mining shares progressively declined, so that 100*l.* stock fetched only 20*l.* or 25*l.* in money. The bubble companies were entirely destroyed, and the few only remained that were founded by capitalists and had some foundation to stand upon.

Even these would have been relinquished, or have shrunk into very small dimensions, had not the directors been able to enforce further payments, by forfeiting, in default of such, whatever had been previously paid by the subscribers. The usage was, that on becoming a shareholder each person subscribed the deed of the company, engaging to pay, when called on, such instalments or sums to account (generally 10*l.* on each share) as should be required by the directors, until he had completed payment of the 100*l.* And many shareholders who had advanced 50*l.* or 60*l.* unwisely preferred paying 10*l.* from time to time, rather than incur the immediate forfeiture of all they had paid. Those who held only a few shares felt this in a less degree; but to the holders of a number of shares, the grievance was most serious. Numbers of them raised the money with great difficulty; often selling, at a heavy loss, their family property, or prevailing on relations to make them advances, to their great inconvenience, and, as far as can be seen, with almost no prospect of a return. Resentment would be excited against the

* Those who may be desirous of seeing the extent to which the public credulity was practised upon in 1824 and 1825, may consult a pamphlet published by H. English, broker, in 1827, which contains an account of all the joint-stock companies formed and projected in these memorable years. It presents a most extraordinary picture. There were in all 74 mining companies formed and projected. The number and quality of the other schemes were similar. It is due to Mr. Baring (the late Lord Ashburton) to say that he denounced the evil when in progress; and warned the unthinking multitude of the ruin they were bringing upon themselves; but to no purpose.

directors, had they not been, in general, the heaviest sufferers: their regulations required them to hold a certain number of shares (perhaps 20 or 30); but in their blind confidence they frequently held 200 or 300, and drew on themselves a proportional sacrifice — in several cases, the loss of their whole property.

The managers of the companies formed in the outset were principally chargeable with ignorance, rashness, and overweening confidence. They had, in fact, but little information to go upon. The monopoly enforced by Old Spain had prevented any considerable communication between this country and her colonies. And of the Spaniards settled in Mexico, and driven from it by the civil wars and consequent emancipation of the country, few or none found their way hither, the great majority having repaired to Cuba, the south of France, and Spain. Nor were the published accounts of the country entitled to much confidence: Humboldt's Travels formed the chief authority, but their illustrious author, though generally cautious, seems, in this instance, to have placed too much confidence in vague, exaggerated statements. Our merchants knew, generally, that silver mines formed a main branch of the productive industry of Mexico, and had enriched very many families originally in humble circumstances; but they had no idea of the injury sustained by the mines during the civil war, nor of the amount of expenditure required to bring them into a working state: nor were they aware how little useful information could be expected from the natives; the working of the mines, like every operation requiring skill and intelligence, having been superintended by natives of Old Spain, who had either fallen in the civil war, or been expelled after the Mexicans succeeded in the contest. Hence, the agents of our companies found on the spot only native Mexicans, without education or experience in business, and, speaking generally, without candour or probity. They urged our countrymen to drain the mines, not by machinery, of which they had no idea, but by animal power, the use of which was of advantage to them, by employing their horses, and creating a great consumption of maize, the principal grain of the country. Then, as to the last and most important stage in the business of mining, — the mode of extracting the silver from the ore, — the Mexicans, wholly unacquainted with the improvements made in Germany during the last half century, recommended amalgamation, a process conducted by them in a very rude manner, and which, in most qualities of silver ore, fails to extract the whole, or anything like the whole, of the metal. The object of the Mexicans, in short, was merely to make English capital be circulated among them; thus giving employment to their people for a time, and bringing the mines into an improved state; when they (the Mexicans) might hope to resume them after our countrymen had exhausted their resources, or had become weary of their contracts.

The expense of conveying the requisite machinery from the coast of Mexico to the mining districts, generally at a great distance in the interior, absorbed much capital. The country has few practicable roads, and these have latterly been allowed to fall into disrepair; draught carriages are almost unknown, and burdens are carried on the backs of mules and horses: add to this, that Mexico being under-peopled, labour is nearly as high in it as in the United States of North America; and the mechanical arts being in a manner unknown, all skilled workmen, such as carpenters, blacksmiths, and working engineers, had to be sent from England at a heavy expense. (For an account of the low state of the arts in Mexico, see the extracts from Chevalier's Letters in the *Geog. Dict.* art. MEXICO.)

Such were the chief causes of the failure of the Mexican mining companies; and several of these may be referred to one radical disadvantage — the non-existence of silver mines in England. We have, in Cornwall, considerable mines of tin and copper, while in the northern counties we have mines of lead; but of silver we have none that deserve the name. How much better had it been had our countrymen set out with a consciousness that Germany is the only country in which the treatment of silver ore is conducted on scientific principles! The Saxons extract a profit from ore of very inferior quality, often worth only a fourth or fifth part of the ore raised by the Mexicans on account of our companies, but which, being wrought by their crude, inefficient, and expensive process, fails to afford anything like a satisfactory return. There seems no reason to doubt that the German process may be applied to silver ore in Mexico as in Europe: the difficulties arise, not from difference in the quality of the ore, but from the want of experienced smelters, and the general backwardness of the Mexicans in mechanics.

But though the companies had been in all other respects successful, they had a serious drawback to contend with in the unsettled state of the country. No government has as yet been established in Mexico, nor in any other of the newly constituted American states, with power, or perhaps inclination, sufficient to put down disturbances, or to enforce the observance of contracts. So long as the companies were struggling to put their mines into order, they sustained little inconvenience from the circumstances now mentioned; but the moment they had succeeded in bringing them once more into a productive state, and were beginning to have a reasonable prospect of obtaining some return for their enormous outlays, they were annoyed by questions as to title, and by the setting up of claims on the mines, of which they had never heard before. In some instances the claimants had recourse to violence, and the companies' servants were forcibly ejected from their works! Chevalier says that it required an armed force to transport any quantity of ore from the mine to the place of its destination; and he gives an account of a murderous attack made in 1835 on some miners belonging to the Real del Monte company.—(See *Geog. Dict.* art. MEXICO.) Probably, however, there has latterly been, in this respect, some improvement. At all events, the produce of the mines is increasing in Mexico and most parts of South America.—(See art. PRECIOUS METALS.)

Without, however, pretending to anticipate the final result of these remote speculations, we shall conclude with a brief notice of the considerations on both sides of the question. The circumstances adverse

to the success of mining companies in America, conducted on account of parties in England or in any part of Europe, are —

1. The various disadvantages of distant management. These are so many and so serious, as to admit of only one corrective, — selling the ore as soon as raised, and transferring to individuals, for their own account, the extraction of the metal, as is done in Cornwall, and, in a somewhat different manner, in Saxony. The ores also ought to be raised by paying the workmen, not fixed wages, but a tribute or portion of the proceeds.

2. The half-civilised state of the inhabitants, their unsettled political condition, and the want of power or disposition on the part of those in power to make contracts be observed; and to hinder the former proprietors of the mines, or those connected with them, from setting up fictitious claims, and enforcing them by violence.

3. The high price of labour; the ignorance of the natives as to mechanics, and still more as to science. Hence the necessity of having artisans and confidential superintendents from Europe at a heavy expense.

On the other hand, the circumstances in favour of such undertakings are —

1. The abundance of silver ore, which is far greater than in any part of Europe.

2. The former success of mining in Mexico, under a system extremely rude and expensive, compared to that which is now followed in Germany.

3. The probability of peace in Europe, and of an abundance of monied capital; so that the failure of the present companies may not involve a relinquishment of their enterprises, any more than the failure of the first New River Company, about two centuries ago, implied an abandonment of their project. There is surely, also, some probability that anarchy and disorder will ultimately cease; and that the security of property will, in the end, be established. We confess, however, that these are but problematical and contingent events; and that it may reasonably be doubted whether any considerable future success can be anticipated.

It seems, however, as if there were something in mining speculations that renders them exceedingly unsuitable for joint stock associations. At all events, hardly one of the joint stock associations formed in this country for the working of mines has been successful. The company for working the copper mines near Santiago in Cuba appears to be the only one that has in any degree realised the magnificent prospects that were held out in 1824 and 1825 — (See for further information on this subject the arts. Precious Metals and Vera Cruz.)

MINIUM, or RED OXIDE OF LEAD, a tasteless powder of an intense red colour, often inclining to orange, and very heavy; its specific gravity being 8·94. It is extensively used in the arts.

MOBILE. See NEW ORLEANS, *ad finem*.

MOCHA, the principal port in the Red Sea frequented by Europeans, in that part of Arabia called Yemen, about 40 miles to the north of the Strait of Bab-el-mandeb, lat. 13° 19′ 30″ N., lon. 43° 20′ E. Population variously estimated; but may, perhaps, amount to from 5,000 to 7,000. It is encircled with walls, and indifferently fortified. Its appearance from the sea is imposing.

Mocha is situated on the margin of a dry sandy plain. It is built close to the shore, between 2 points of land which project and form a bay. Vessels drawing from 10 to 12 feet water may anchor within this bay at about a mile from the town; but large ships anchor without the bay in the roads, in 5 or 7 fathoms water — the grand mosque bearing E. S. E., and the fort to the south of the town S. by E., distant about two miles from the shore. The great article of export from Mocha is coffee, which is universally admitted to be of the finest quality. It is not possible to form any very accurate estimate of the quantity exported; but we believe it may be taken at 10,000 tons, or perhaps more. The greater portion is sent to Djidda and Suez: but there is a pretty large export to Bombay, and other parts of India, whence some is sent to Europe: occasionally, however, the exports from Mocha and Hodeida, direct from Europe, are very considerable. Besides coffee, the principal articles of export are, dates, adjoue, or paste made of dates, myrrh, gum Arabic, olibanum, senna (*cassia senna*), sharks' fins, tragacanth, horns, and hides of the rhinoceros, balm of Gilead, ivory, gold dust, civet, aloes, sagapenum, &c. The principal articles of import are, rice, piece goods, iron, and hardware, &c. The ivory, gold dust, and civet, met with at Mocha, are brought from the opposite coast of Abyssinia, whence are also brought slaves, ghee, &c.

The greater part of the foreign trade of Mocha is transacted by the Banians; and it is much safer to deal with them than with either Turks or Arabs. Europeans pay a duty of 3 per cent. *ad valorem* on all goods imported by them from Europe, India or China; the duty being levied on the amount of the sales. The buyer pays brokerage, cooley, and boat hire. All kinds of foreign goods are sold on credit, and the payment is made in 3 instalments, or at a certain day, according as may have been agreed on. Coffee is always paid for in ready money. On the sale of other goods, the produce of the country, a credit is given; or if ready money be paid, a discount is allowed at the rate of 9 per cent. When goods are discharging, the master must furnish the Custom-house officer with a manifest, or account of the marks, numbers, and contents of each package. He then opens two or three bales taken at random; and if they correspond with the account delivered, no further examination is made; but if they do not correspond, the whole bales are opened, and double duty is charged upon the excess. The quantities being thus ascertained, their value is learned from the account of sales rendered by the seller, and the duty charged accordingly. In this respect there is nothing to object to at Mocha; but a good deal of extortion is practised in the exaction of port charges, presents, &c., which may, however, be defeated by proper firmness. The port charges on ships, or *three-mast* vessels, may amount to about to 400 Mocha dollars, and those on brigs to about half as much. Provisions are plentiful and cheap; but water is dear: that in the vicinity being brackish and unwholesome, whatever is used for drinking, by all but the poorest persons, is brought from Mosa, about 20 miles off. Fish are abundant and cheap, but not very good.

Money. — The current coins of the country are carats and commassees; 7 carats = 1 commassee; 60 commassees = 1 Spanish dollar; 100 Spanish dollars = 122½ Mocha dollars.

Weights and Measures. — The commercial weights are —

15 Vakias = 1 Rottolo = 1 lb. 2 oz. avoird.
40 Vakias = 1 Maund = 3 lbs. avoird.
10 Maunds = 1 Frazel = 30 lbs. avoird.
15 Frazels = 1 Bahar = 450 lbs. avoird.

There is also a small maund of only 30 vakias; 1 Mocha bahar = 16½ Bombay maunds; 1 Mocha bahar = 13 Surat maunds = 15·125 seers. Grain is measured by the kellah, 40 of which = 1 tomand, about 170 lbs. avoirdupois. The liquid measures are 16 vakias = 1 nusseah; 8 nusseahs = 1 cuda, about 2 English wine gallons. The long measures are the guz = 25 English inches; the hand covid = 18 inches, and the long iron covid = 27 inches.

In compiling this article, we made use of *Milburn's Oriental Commerce*, and *Elmore's Directory*. Niebuhr has given a plan of the port of Mocha in his *Voyage en Arabie*, tome i. p. 318. ed. Amst. 1776. He has also given some details as to its trade in his *Description de l'Arabie*, p. 191. But the best account we have seen of Mocha is in *Hamilton's Account of the East Indies* (vol. i. pp. 40 — 52), an accurate and valuable work. Burckhardt did not visit Mocha; which is to be regretted.

MOGADORE, a sea-port town on the west coast of Morocco, lat. 31° 50′ N., lon. 9° 20′ W. Population about 10,000. It is indifferently fortified; the country in the immediate vicinity is low, flat, sandy, and unproductive. Water is scarce and rather dear; being either rain water collected and preserved in cisterns, or brought from a river about 1½ mile distant. The port is formed by a small island lying to the southward of the town; but as there is not more than 10 or 12 feet water in it at ebb tide, large ships anchor without, the long battery bearing E. distant 1½ mile. The principal imports are, English woollen and cotton stuffs and hardware, German linens, tin, copper, earthenware, mirrors, glass, sugar, pepper, paper, and a variety of other articles. The exports principally consist of sweet and bitter almonds, gum Arabic, and other gums, bees' wax, cow and calf skins, ivory, ostrich feathers, gold dust, olive oil, dates, &c.

The city of Morocco, distant from Mogadore about 4 days' journey (caravan travelling) derives its principal supplies of European produce from the latter; and considering this circumstance, and the brisk demand for most part of the articles exported from Mogadore, it might be supposed that its trade would be pretty extensive. But such is not the case; and the truth is that at an average of the 6 years ending with 1852, the value of our exports to Tripoli, Barbary, and Morocco, amounted to no more than 61,712*l.* a year. This, however, is not, in so far at least as respects Morocco, occasioned by any disinclination on the part of the natives to commerce, or by the unsuitableness of our products to their markets, but wholly by the oppressive duties which are laid on exports, and which raise their price much above the rates for which they can be procured elsewhere. A letter from Mogadore, in the *Times* of July, 1848, gives the following statement of the then London prices of the principal articles shipped from Mogadore with the export duties on the same:

Barbary Produce.	London Prices.	Mogadore Export Duty.	Barbary Produce.	London Prices.	Mogadore Export Duty.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Sweet Almonds cwt.	2 0 0	0 6 3	Gum Sandrac - cwt	3 10 0	0 9 6
Bitter almonds - —	1 16 0	0 6 3	Ostrich feathers - case	100 0 0	31 5 0
Bees'-wax - —	6 0 0	2 1 6	Goats' skins - doz.	0 14 0	0 2 6
Wool (washed) - —	4 4 0	0 19 0	Sheep skins - —	1 5 0	0 1 6
Olive oil - —	1 19 0	0 9 6	Calf skins - - —	2 5 0	0 9 6
Brown gum - —	2 10 0	0 6 3			

"All these duties are rated in the local currency 25 per cent. higher than here stated; but as under an order from the emperor they must be paid in cash, the system of credit with government having been altogether abolished, that deduction is allowed in the shape of discount for prompt payment.

"The import trade is regulated on a widely different principle. The duties levied on imported articles are not paid in money, but in kind, and on English manufactures, army and navy cloth, brass, copper, tea, and sugar, and in fact in all cases, with few exceptions, are rated at 20 per cent., or a fifth part of the goods, whatever they may be, that are landed. This primitive mode of business is also accompanied by disadvantages, and assists, in conjunction with the high tariff, to cripple any endeavours attempted to bring the Barbary States in closer mercantile alliance with ourselves."

It is to be hoped that the government of Morocco may become alive to the mischievous consequences of this system. Nothing would do so much to promote industry and civilisation in the country, as the effectual reduction, or rather the total repeal of the existing duties on exports.

Money.—Accounts are kept in nutkeels of 10 ounces; the ounce being divided into 4 blankeels, and the blankeel into 24 fluce. From their proportion to the Spanish dollar, the blankeel may be valued at 1*d.*, the ounce at 4*d.*, and the nutkeel or ducat at 3*s.* 4*d.*

Weights and Measures.—The commercial pound is generally regulated by the weight of 20 Spanish dollars; and therefore, 100 lbs. Mogadore weight, or the quintal, = 119 lbs. avoirdupois. The market pound for provisions is 50 per cent. heavier, or 1 lb. 12½ oz. avoirdupois.

The corn measures are for the most part similar to those of Spain, but there are considerable discrepancies.

The cubit, or canna, = 21 English inches, is the principal long measure.

The most ample details with respect to the trade of Mogadore, and the trade and productions of Morocco in general, may be found in *Jackson's Account of Morocco*, c. 6, 7 and 13. see also *Kelly's Cambist*.

MOHAIR (Ger. *Mohr*; Fr. *Moire*; It. *Moerro*; Sp. *Mue*, *Muer*), the hair of a variety of the common goat, famous for being soft and fine as silk, and of a silvery whiteness. It is not produced any where but in the vicinity of Angora, in Asia Minor. The exportation of this valuable and beautiful article, unless in the shape of yarn, was formerly prohibited; but it may now be exported unspun. The production, preparation, and sale of mohair have long engrossed the principal attention of the inhabitants of Angora; and it used to form an important article of Venetian commerce. It is manufactured into camlets and other expensive stuffs. Hitherto but little has been imported into England.—(See, for further particulars, *Tournefort, Voyage du Levant*, ii. 463., where there is a figure of the goat; and *Urquhart on Turkey and its Resources*, p. 184.)

MOLASSES or MELASSES (Fr. *Sirop de Sucre*, *Melasses*; Ger. *Syrup*; It.

Mielazzo di zucchero; Sp. *Miel de azucar, Chancaca*; Port. *Melasso, Assucar liquido*; Rus. *Patoka sacharnaja*), the uncrystallisable part of the juice of the sugar cane, separated from the sugar during its manufacture. It is of a brown or black colour, thick, and viscid; has a peculiar odour, and a sweet empyreumatic taste. Molasses imported from the West India colonies and the Mauritius is charged, on being entered for home consumption, with a duty of 9*s.* a cwt., the duty on foreign molasses, which is quite prohibitory, being 23*s.* 9*d.* a cwt. It is not, however, used in its original state, but is purchased by the sugar-bakers, who, when it is of an ordinary degree of strength, extract from it a coarse, soft species of sugar called bastards, and treacle. But it is obvious, inasmuch as the duty on molasses is fixed, that the duty on the sugar extracted from it will vary indirectly according to the quantity of saccharine matter which it contains; and we understand that, in consequence, molasses is frequently imported so rich as to yield good crystallised sugar. We do not know whether the practice has been carried to such an extent as materially to injure the revenue: but it seems pretty clear that the duty should depend, in part at least, on the quality of the molasses, or on the quantity of saccharine matter which it contains, as well as on the weight. It is difficult — unless advantage has been taken of the way in which the duty is assessed, to elude the sugar duties — to account for the fact of the imports of molasses from the West India islands not having diminished in anything like the same proportion as the imports of sugar.

About 8 gallons of proof spirit may, it is said, be obtained from a cwt. of molasses, such as has recently been imported; but this depends, of course, wholly on the richness of the molasses.

Part of the refuse that remains, after refining muscovado sugar, is a sweet syrup, which, as well as the syrup that remains after boiling molasses to obtain bastards, is called treacle. But the treacle obtained from the former is always preferred to that obtained from the latter, and fetches 2*s.* per cwt. more.

Molasses is sometimes used in preparing the coarser sort of preserves; and on the Continent it is extensively used in the manufacture of tobacco.

In 1857, 599,497 cwt. molasses were entered for consumption, of which 359,177 cwt. were brought from Cuba. The duty during the same year amounted to 150,308*l.*

MONEY. When the division of labour was first introduced, commodities were directly bartered for each other. Those, for example, who had a surplus of corn, and were in want of wine, endeavoured to find out those who were in the opposite circumstances, or who had a surplus of wine and wanted corn, and then exchanged the one for the other. It is obvious, however, that the power of changing, and, consequently, of dividing employments, must have been subjected to perpetual interruptions, so long as it was restricted to mere barter. A. carries produce to market, and B. is desirous to purchase it; but the produce belonging to B. is not suitable for A. C., again, would like to buy B.'s produce, but B. is already fully supplied with the equivalent C. has to offer. In such cases—and they must be of a constant occurrence wherever money is not introduced—no direct exchange could take place between the parties; and it might be very difficult to bring it about indirectly.*

The extreme inconvenience attending such situations must early have forced themselves on the attention of every one. Efforts would, in consequence, be made to avoid them; and it would speedily appear that the best or rather the only way in which this could be effected, was to exchange either the whole or a part of one's surplus produce for some commodity of known value, and in general demand; and which, consequently, few persons would be inclined to refuse to accept as an equivalent for whatever they had to dispose of. After this commodity had begun to be employed as a means of exchanging other commodities, individuals would become willing to purchase a greater quantity of it than might be required to pay for the products they were desirous of immediately obtaining; knowing that should they, at any future period, want a further supply either of these or other articles, they would be able readily to procure them in exchange for this universally desired commodity. Though at first circulating slowly and with difficulty, it would, as the advantages arising from its use were better appreciated, begin to pass freely from hand to hand. Its value, as compared with other things, would thus come to be universally known; and it would at last be used, not only as the common medium of exchange, but as a standard by which to measure the value of other things.

Now this commodity, whatever it may be, is *money*.

An infinite variety of commodities have been used as money in different countries and periods. But none can be advantageously used as such, unless it possess several very peculiar qualities. The slightest reflection on the purposes to which it is applied,

* The difficulties that would arise on such occasions, and the devices that would be adopted to overcome them, have been very well illustrated by Colonel Torrens, in his work on the "Production of Wealth," p. 291.

must, indeed, be sufficient to convince every one that it is indispensable, or, at least, exceedingly desirable, that the commodity selected to serve as money should, (1) be divisible into the smallest portions; (2) that it should admit of being kept for an indefinite period without deteriorating; (3) that it should, by possessing great value in small bulk, be capable of being easily transported from place to place; (4) that one piece of money, of a certain denomination, should always be equal, in magnitude and quality, to every other piece of money of the same denomination; and (5) that its value should be comparatively steady, or as little subject to variation as possible. Without the *first* of these qualities, or the capacity of being divided into portions of every different magnitude and value, money, it is evident, would be of almost no use, and could only be exchanged for the few commodities that might happen to be of the same value as its indivisible portions, or as whole multiples of them: without the *second*, or the capacity of being kept or hoarded without deteriorating, no one would choose to exchange commodities for money, except only when he expected to be able speedily to re-exchange that money for something else: without the *third*, or facility of transportation, money could not be conveniently used in transactions between places at any considerable distance: without the *fourth*, or perfect sameness, it would be extremely difficult to appreciate the value of different pieces of money: and without the *fifth* quality, or comparative steadiness of value, money could not serve as a standard by which to measure the value of other commodities; and no one would be disposed to exchange the produce of his industry for an article that might shortly decline considerably in its power of purchasing.

The union of the different qualities of comparative steadiness of value, divisibility, durability, facility of transportation, and perfect sameness, in the precious metals, doubtless, formed the irresistible reason that has induced every civilised community to employ them as money. The value of gold and silver is certainly not invariable, but, generally speaking, it changes only by slow degrees; they are divisible into any number of parts, and have the singular property of being easily reunited, by means of fusion, without loss; they do not deteriorate by being kept; and, from their firm and compact texture, they are very difficult to wear. Their cost of production, especially that of gold, is so considerable, that they possess great value in small bulk, and can, of course, be transported with comparative facility; and an ounce of pure gold or silver, taken from the mines in any quarter of the world, is precisely equal, in point of quality, to an ounce of pure gold or silver dug from the mines in any other quarter. No wonder, therefore, when all the qualities necessary to constitute money are possessed in so eminent a degree by the precious metals, that they have been used as such, in civilised societies, from a very remote æra. "They became universal money," as Turgot has observed, "not in consequence of any arbitrary agreement among men, or of the intervention of any law, but by the nature and force of things."

When first used as money, the precious metals were in an unfashioned state, in bars or ingots. The parties having agreed about the quantity of metal to be given for a commodity, that quantity was then weighed off. But this, it is plain, must have been a tedious and troublesome process. Undoubtedly, however, the greatest obstacle that would be experienced, in early ages, to the use of gold and silver as money, would be found to consist in the difficulty of determining the degree of their purity with sufficient precision; and the discovery of some means by which their weight and fineness might be readily and correctly ascertained, would be felt to be indispensable to their extensive use as money. Fortunately, these means were not long in being discovered. The fabrication of coins, or the practice of impressing pieces of the precious metals with a stamp indicating their weight and purity, belongs to the remotest antiquity.—(*Goguet, De l' Origine des Loix, &c.* tome i. p. 269.) And it may safely be affirmed, that there have been very few inventions of greater utility, or that have done more to accelerate the progress of improvement.

It is material, however, to observe, that the introduction and use of coined money make no change whatever in the *principle* on which exchanges were previously conducted. The coinage saves the trouble of weighing and assaying gold and silver, but it does nothing more. It declares the weight and purity of the metal in a coin; but the *value* of that metal or coin is in all cases determined by precisely the same principles which determine the value of other commodities, and would be as little affected by being recoined with a new denomination, as the burden of a ship by a change of her name.

Inaccurate notions with respect to the influence of coinage seem to have given rise to the opinion, so long entertained, that coins were merely the *signs* of values! But it is clear they have no more claim to this designation than bars of iron or copper, sacks of wheat, or any other commodity. They exchange for other things, because they are desirable articles, and are possessed of real intrinsic value. A draft, check, or bill may not improperly, perhaps, be regarded as the sign of the money to be given for it. But that money is nothing but a commodity; it is not a sign—it is the thing signified.

Money, however, is not merely the universal equivalent, or *marchandise banale*, used by society: it is also the *standard* used to compare the values of all sorts of products; and the stipulations in the great bulk of contracts and deeds, as to the delivery and disposal of property, have all reference to, and are commonly expressed in, quantities of money. It is plainly, therefore, of the utmost importance that its value should be preserved as invariable as possible. Owing, however, to improvements in the arts, the exhaustion of old mines, and the discovery of new ones, the value of the precious metals is necessarily inconstant: though, if we except the effects produced in the 16th century by the discovery of the American mines, it does not appear to have varied so much at other times as might have been anticipated. Great mischief has, however, been repeatedly occasioned by the changes that have been made in most countries in the weight, and sometimes also in the purity, of coins; and since the impoliey of these changes has been recognised, similar, and perhaps still more extensive, disorders have sprung from the improper use of substitutes for coins. It is, indeed, quite obvious, that no change can take place in the value of money, without proportionally affecting the pecuniary conditions in all contracts and agreements. Much, however, of the influence of a change depends on its direction. An increase in the value of money is uniformly more prejudicial in a public point of view than its diminution: the latter, though injurious to individuals, may sometimes be productive of national advantage; but such can never be the case with the former. — (See *Principles of Political Economy*, by the author of this work, 3d ed. pp. 510—515.)

No certain estimate can ever be formed of the quantity of money required to conduct the business of any country; this quantity being, in all cases, determined by the value of money itself, the services it has to perform, and the devices used for economising its employment. Generally, however, it is very considerable; and when it consists wholly of gold and silver, it occasions a very heavy expense. There can, indeed, be no doubt that the wish to lessen this expense has been one of the chief causes that have led all civilised and commercial nations to fabricate a portion of their money of some less valuable material. Of the various substitutes resorted to for this purpose, paper is, in all respects, the most eligible. Its employment seems to have grown naturally out of the circumstances incident to an advancing society. When government becomes sufficiently powerful and intelligent to enforce the observance of contracts, individuals possessed of written promises from others, that they will pay certain sums at certain specified periods, begin to assign them to those to whom they are indebted; and when the subscribers are persons of fortune, and of whose solvency no doubt can be entertained, their obligations are readily accepted in payment of debts. But when the circulation of promises, or bills, in this way, has continued for a while, individuals begin to perceive that they may derive a profit by issuing them in such a form as to fit them for being readily used as a substitute for money in the ordinary transactions of life. Hence the origin of bank notes. An individual in whose wealth and discretion the public have confidence, being applied to for a loan, say of 5,000*l.*, grants the applicant his bill or note, payable on demand, for that sum. Now, as this note passes, in consequence of the confidence placed in the issuer, currently from hand to hand as cash, it is quite as useful to the borrower as if it had been gold; and supposing that the rate of interest is 5 per cent., it will yield, so long as it continues to circulate, a revenue of 250*l.* a year to the issuer. A banker who issues notes, coins, as it were, his credit. He derives the same revenue from the loan of his written promise to pay a certain sum, that he could derive from the loan of the sum itself, or of an equivalent amount of produce! And while he thus increases his own income, he, at the same time, contributes to increase the wealth of the public. The cheapest species of currency being substituted in the place of that which is most expensive, the superfluous coins are either used in the arts, or are exported in exchange for raw materials or manufactured goods, by the use of which both wealth and enjoyments are increased. Ever since the introduction of bills, almost all great commercial transactions have been carried on by means of paper only. Notes are also used to a very great extent in the ordinary business of society; and while they are readily exchangeable at the pleasure of the holder for coins, or for the precise quantities of gold or silver they profess to represent, their value is maintained on a par with the value of these metals; and all injurious fluctuations in the value of money are as effectually avoided as if it consisted wholly of the precious metals.

In common mercantile language, the party who exchanges money for a commodity is said to buy; the party who exchanges a commodity for money being said to sell. Price, unless where the contrary is distinctly mentioned, always means the value of a commodity estimated or rated in money. — (For a further account of metallic money, see the article Coin; and for an account of paper money, see the article Banks.)

MONOPOLY. By this term is usually meant a grant from the Crown, or other competent authority, conveying to some one individual, or number of individuals, the sole right of buying, selling, making, importing, exporting, &c. some one commodity, or

set of commodities. Such grants were very common previously to the accession of the House of Stuart, and were carried to a very oppressive and injurious extent during the reign of Queen Elizabeth. The grievance became at length so insupportable, that notwithstanding the opposition of government, which looked upon the power of granting monopolies as a very valuable part of the prerogative, they were abolished by the famous act of 1624, the 21 Jac. 1. c. 3. This act declares that all monopolies, grants, letters patent for the sole buying, selling, and making of goods and manufactures, shall be null and void It excepts patents for *fourteen* years for the sole working or making of any new manufactures within the realm, to the true and first inventors of such manufactures, provided they be not contrary to law, nor mischievous to the state. It also excepts grants by act of parliament to any corporation, company, or society, for the enlargement of trade, and letters patent concerning the making of gunpowder, &c. This act effectually secured the freedom of industry in Great Britain; and has done more, perhaps, to excite the spirit of invention and industry, and to accelerate the progress of wealth, than any other in the statute book.

MONTEVIDEO, a sea-port, and the capital of the republic of Uruguay, on the north bank of the Rio de la Plata, lat. 34° 54′ 11″ S., lon. 56° 13′ 18″ W. The population, which is variously estimated, may probably be about 12,000. The town is built in the form of an amphitheatre, on a regular plan and is well fortified. It has suffered much from the various revolutions to which it has been subject during the last 30 years.

Montevideo is situated 2° 3′ 33″ W. of Cape St. Mary, the northern limit of the embouchure of the La Plata. Vessels from the north bound to Montevideo generally make this cape, entering the river between it and the small island of Lobos, in from 14 to 17 fathoms. The course is thence nearly W. to the Isle of Flores, on which is a light-house 112 feet above the level of the sea, with a revolving light. From Flores to Montevideo is 16 miles in a direct line, and the course W. by S. by compass. A light-house, 475 feet above the level of the sea, has been erected on the summit of the Montevideo, whence the town has its name. The latter is built on a projecting tongue of land, the port being on its S. side. This, which is the best on the La Plata, is a large circular basin open to the S. W.; generally the water is shallow, not exceeding from 14 to 19 feet, but the bottom being soft mud, vessels are seldom damaged by grounding. It should, however, be observed that the depth of water in the harbour, as well as throughout the whole of the Rio de la Plata, depends very much on the direction and strength of the winds. The S. W. wind, called *pamperos*, blows right into the bay of Montevideo with much force, not unfrequently causing a rise of a fathom or more in depth of water! But it rarely occasions much damage to vessels properly moored with anchors to the S. W., S. E., and one to the N. — (*Blunt's American Pilot*, pp. 542—555.; *Coulier sur les Phares, &c.*)

Montevideo has a considerable commerce. The great articles of export consist of animal products, or of hides, beef, tallow, hair, bones, grease, wool, &c. The imports principally consist of British cottons, woollens, and hardware, flour, wine and spirits, linens, sugar, tobacco, boots and shoes, salt, &c.

Trade of the U. Kingdom with Montevideo.

Account of the Quantities and Values of the Principal Articles imported into the U. Kingdom from Montevideo in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Bones of animals and fish (except whale-fins) - - - tons	3,851	10,571	15,457	11,366	£20,113	£66,597	£79,217	£70,469
Guano - - - ,,	112	521	717	307	476	2,545	2,509	1,842
Hair, horse - - cwts.	10,346	5,999	6,688	6,004	53,110	37,795	41,549	35,622
Hides, not tanned - - ,,	74,775	81,600	86,095	108,179	186,208	250,153	326,175	429,671
Horns, hornstips, and pieces of horns - - tons	196	143	206	234	6,337	4,692	8,420	9,945
Skins, seal, undressed - - no.	11,438	4,059	17,032	7,300	5,719	1,827	9,955	5,295
Tallow - - - cwts.	24,039	21,787	27,550	49,152	75,725	56,646	68,187	136,802
Wool, sheep and lambs' - - lbs.	448,997	401,275	376,621	549,988	17,773	15,376	19,616	22,465
All other articles - - value	- -	- -	- -	- -	21,557	16,863	20,641	32,662
Total -	- -	- -	- -	- -	386,996	450,292	576,247	742,769

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported from the U. Kingdom to Montevideo in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Apparel, slops, and haberdashery - - value	- -	- -	- -	- -	£ 32,153	£ 12,048	£ 10,175	£ 11,697
Beer and ale - - barrels	1,180	956	684	1,474	4,792	4,125	3,150	4,935
Coals, cinders, and culm - tons	8,046	11,035	12,809	18,242	4,410	5,259	5,982	9,205
Cottons, entered by the yard - yards	14,144,599	8,305,476	12,377,817	13,987,618	199,967	114,685	178,598	222,875
at value - value	- -	- -	- -	- -	11,527	7,165	7,584	12,453
Earthenware and porcelain - ,,	- -	- -	- -	- -	5,486	2,830	5,360	6,905
Hardware and cutlery - cwts.	7,737	7,461	5,477	7,689	31,594	27,602	20,384	24,100
Iron, wrought and unwrought tons	1,175	1,309	2,195	1,588	15,732	15,853	22,407	17,756
Linens, entered by the yard - yards	510,085	591,940	617,480	478,077	21,427	10,051	14,744	12,305
Painters' colours - - value	- -	- -	- -	- -	1,567	1,422	2,477	2,961
Silk manufactures - - ,,	- -	- -	- -	- -	5,826	2,732	7,150	9,597
Woollens, entered by the piece pieces	17,939	15,560	19,467	27,218	60,508	49,569	59,188	92,402
by the yard, yards	553,319	295,454	277,965	710,952	37,661	17,666	17,156	39,525
at value - value	- -	- -	- -	- -	3,175	4,390	11,066	8,455
All other articles - - ,,	- -	- -	- -	- -	30,585	21,560	26,082	40,605
Total -	- -	- -	- -	- -	462,210	294,958	391,525	515,902

DUTIES ON IMPORTS.

In National or Foreign Vessels, at Montevideo.

1. Machinery, agricultural implements, instruments used in the arts and sciences, books, prints, and maps - - free.
2. Silk, raw and wrought, laces, blonde, gold, and silver embroidery, watches, jewellery, saltpetre, plaster of Paris, coal, timber, cotton fringe, and wooden hoops - 5 per cent.
3. Powder, pitch, tar, rosin, and naval stores - 13 —
4. All raw materials, and manufactured articles, not included in the preceding enumeration 15 per cent.
5. Sugar, Paraguay and China teas, cocoa, cassia lignea, and cinnamon, spices, drugs, and provisions in general - - 20 —
6. Furniture, pictures, looking glasses, musical instruments, all sorts of carriages, carts, &c., and harness, saddles, horses' furniture (excepting horse cloths of the manufacture of the adjacent provinces, which pay 15 per cent.), ready made clothes, boots and shoes,

liqueurs, brandy, wine, vinegar, ale and porter, cider, tobacco, and soap - 25 per cent.
Salt, 2 reals the fanega, shy 1*d.* per 290 lbs.
7. Hides of all classes, hair, horns, tallow, silver and gold, in bullion or coin - - free.

A small charge is made for warehousing and porterage on passing through the Custom-house. Goods may be bonded for an indefinite period, during which time they are subject to a moderate warehouse rent.

Foreign flour pays as follows:—
8 dollars per barrel, when wheat is worth 2 to 3 dollars per fanega, about 224 lbs.
6 dollars per barrel, when wheat is worth 3 to 5 dollars per fanega.
4 dollars, when wheat is worth 5 to 7 dollars.
2 dollars, when wheat is worth 7 to 9 dollars.
1 dollar, when wheat exceeds 9 dollars.

Wheat:—
3 dollars per fanega, when wheat is worth 2 to 3 dollars per fanega.
2 dollars, when wheat is worth 3 to 6 dollars.
1 dollar, when wheat is worth 6 to 10 dollars.
Nothing, when wheat is worth above 10 dollars per fanega.*
Goods transhipped, or shipped out of bond, pay 2 per cent.
Foreign goods, shipped in vessels of less than 150 tons burden, for ports of the Uruguay and Paraguay, pay only 1 per cent.
8. All goods imported, paying duties, are subject to pay an additional 1 per cent. to the consulado; ½ per cent. to the hospital; and, for the extinction of copper money*, 1 per cent. additional on all goods that pay 5 per cent.

On all goods that pay 15, 15, and 20 per cent. - 3 per cent.
On all goods that pay 25 per cent. - 5 —
On flour - - - 10 —
On wheat - - - 3 —

DUTIES ON EXPORTS.

In National or Foreign Vessels.

Ox and cow hides, 2 reals, 25 centesimos, for reconnidor valuations of 1 dollar, and 1 per cent. consulado.
Horse hides, 1 real for reconnidor, on valuations of 5 reals for reconnidor each, and 1 per cent. consulado.
All other produce of the country pays 4 per cent. on the market value, and 1 per cent. consulado.
Jerked and salt beef, pork, &c.; also all foreign goods that have paid the import duty, free.

* This has, much to the honour of the authorities and people, been already accomplished; but the duty is maintained for general purposes.

Gold and silver, coined or in bullion, 1 per cent.

	Vessels. *Foreign.*	*National.*
Port Charges.—Tonnage from beyond sea, 3 reals.	2 reals.	
During loading and unloading both classes, pay 1 dollar per day.		
Pratique, with pilot - -	- 8 dollars.	4 dollars.
Boat - -	- 2 —	2 —
Without pilot - -	- 4	2 —

National and foreign vessels, that neither discharge nor load cargo, and that do not remain more than six days, pay nothing; those that remain in the harbour more than six days pay one third of the above tonnage dues.

National vessels, and vessels belonging to the provinces of Buenos Ayres, employed within the river Plate, called coasting, pay for a licence for each voyage as follows:—

If 5 to	7 tons,	4 reals.	
8	15	10	or 1 dollar, 2 cents.
16	30	18	or 2 „ 2 „
31	45	26	or 3 „ 2 „
46	60	30	or 3 „ 6 „
61	80	38	or 4 „ 6 „
81	100	46	or 5 „ 6 „
101	and above	54	or 6 „ 6 „

Hospital Dues.—National and foreign vessels, sailing for a foreign port beyond sea or in the river Plate, pay 2 dollars for the vessel, 4 reals for the captain, 2 reals for each seaman, 1 dollar for each passenger.

Pilotage from Montevideo to Buenos Ayres to be paid in Montevideo.

If the draft of water do not exceed

9 feet Burgos measure,		50 dollars.
9 to	10 feet	60 „
10	11	70 „
11	12	80 „
12	13	100 „
13	14	120 „
14	15	140 „
15	16	160 „
16	17	190 „
17	18	220 „

Monies, Weights, and Measures.—Paper money there is none. Current money, the Brazilian patacon and Spanish dollar; they pass for 960 centesimos.
100 cents make a real.
800 cents, or 8 reals, make a dollar.
960 cents, or 9 reals 60 cents, make 1¼ current dollar, or 1 hard dollar or patacon.
Weights and measures same as those of Spain; for which see CADIZ, in the *Dict.*

MOROCCO, OR MAROQUIN (Ger. *Saffiam*; Fr. *Maroquin*; It. *Marrocchino*; Sp. *Marroqui*; Rus. *Safian*), a fine kind of leather prepared of the skins of goats, imported from the Levant, Barbary, Spain, France, &c. It is of various colours, as red, green, black, yellow, &c. When of the best quality it is superior to every other material for the binding of books. And a volume that is bound in morocco by a first-rate artist, provided it be well preserved, and of an age to be properly toned down and mellowed, is justly deemed a prize, and always fetches a very high price. Morocco is, however, very extensively counterfeited, and books said to be in morocco are often done up in the vilest sheep-skin, dyed and prepared in imitation of the genuine article. The fraud is easily discovered by connoisseurs, but it is perpetrated to a great extent on the ignorant and unwary.

MUNJEET, a species of *Rubia tinctorum*, or madder, produced in Nepaul and in various districts of India.

That which is brought to England is imported from Calcutta, and is cultivated in the high lands about Natpore in Purnea. The roots are long and slender, and when broken appear of a red colour. It is used in dyeing; the red which it produces being, though somewhat peculiar, nearly the same as that produced by European madder. Dr. Bancroft says that the colour which it imparts to cotton and linen is not so durable as that of madder: but that upon wool or woollen cloth its colour is brighter and livelier; and, when proper mordants are used, nearly, perhaps quite, as permanent.—(*Permanent Colours*, vol. ii. p. 279.) The best munjeet is in pieces about the bigness of a small quill, clean and firm, breaking short, and not pipy or chaffy. Its smell somewhat resembles liquorice root.

Being a very bulky article, as compared with its value, the freight adds greatly to its cost. This seems to be the principal reason of its being so very little used in Great Britain, that the entire imports during the 3 years ending with 1840, amounted to only 3,539 cwt. The brokers estimate that 4*l.* per ton of freight is equal to 11*s.* 1*d.* per cwt. on the value of the article; 5*l.* per ton being equal to 13*s.* 10*d.*; 6*l.* to 16*s.* 7*d.*; and 7*l.* to 19*s.* 4*d.*; and as the price of munjeet in bond varies from 12*s.* to 15*s.* a cwt. it is plain it cannot be imported in any considerable quantity, except when freights are very much depressed. It is mostly imported in small packets or bundles of 600 or 800 to the ton; but sometimes it is packed in bales like cotton.

MUSCAT, a city and sea-port situated on the east coast of Arabia, about 96 miles N.W. of Cape Rasselgate (Ras-el-had), in lat. 23° 38′ N., lon. 58° 37½′ E. Population uncertain: but estimated by Lieut. Wellsted at 40,000, which we incline to think beyond the mark. There are more Banians here than in any other city in Arabia. There are amongst them some very extensive merchants, who engross almost the whole pearl trade of the Persian Gulph, and the supply of corn from India. The negro slaves are numerous, and are generally stout, well made, and active.

The harbour, which is the best on this part of the Arabic coast, opens to the north, and is shaped like a horse-shoe. It is bounded on the W. and S. by the lofty projecting shores of the mainland, and on the E. by Muscat Island, a ridge of rocks from 200 to 300 feet high. The town stands on a sandy beach at the south end or bottom of the cove or harbour, about 1¼ mile from its mouth. The depth of water near the town

varies from 3 to 4 and 5 fathoms. Ships at anchor are exposed to the north and north-west winds; but as the anchorage is everywhere good, accidents are of very rare occurrence. The harbour is protected by some pretty strong forts. Vessels are not allowed to enter after dusk, nor to leave before sunrise. If the usual signal be made for a pilot, one will come off, but not otherwise. It is best to make them attend till the vessel be secured, as they have excellent boats for carrying out warp anchors.

Muscat is a place of considerable importance, being at once the key to, and commanding the trade of, the Persian Gulph. The dominions of the imaum, or prince, are extensive, and his government is more liberal and intelligent than any other in Arabia or Persia. The town, situated at the bottom of a high hill, is ill-built and filthy; and, during the months of July and August, is one of the hottest inhabited places in the world. The country in the immediate vicinity of the town is extremely barren; but it improves as it recedes from the shore. Dates and wheat, particularly the first, are the principal articles of produce. The dates of this part of Arabia are held in high estimation, and are largely exported, those of Bushire and Bussorah being imported in their stead. A date tree is valued at from 7 to 10 dollars, and its annual produce at from 1 to 1½ dollar. An estate is said to be worth 2,000, 3,000, or 4,000 date trees, according to the number it possesses.

But the place derives its whole importance from the commerce and navigation of which it is the centre. The imaum has some large ships of war, and his subjects possess some of the finest trading vessels to be met with in the Indian seas. The part of Arabia adjoining to Muscat is too poor to have any very considerable direct trade; but, owing to its favourable situation, the backward state of the country round the Persian Gulph, and the superiority of its ships and seamen, Muscat has become an important *entrepôt*, and has an extensive transit and carrying trade. Most European ships bound for Bussorah and Bushire touch at it; and more than half the trade of the Persian Gulph is carried on in ships belonging to its merchants.—(See BUSHIRE.) But, exclusive of the ports on the gulph, and the south and west coasts of Arabia, ships under the flag of the imaum trade to all the ports of British India, to Singapore, Java, the Mauritius, the east coast of Africa, &c. The pearl trade of the Persian Gulph is now, also, wholly centred at Muscat. All merchandise passing up the gulph on Arab bottoms pays a duty of ½ per cent. to the imaum. He also rents the islands of Ormuz and Kishmee, the port of Gombroon, and some sulphur mines, from the Persian government.

In the magazines of Muscat may be found every species of produce imported into or exported from the Persian Gulph. Various articles are also imported for the use of the surrounding country, and for the internal consumption of Arabia. Among these, the principal are rice, sugar, coffee from Mocha, cotton and cotton cloth, cocoa nuts, wood for building, slaves from Zanguebar, dates from Bushire and Bussorah, &c. Payment for these is chiefly made in specie and pearls; but they also export drugs of various descriptions, ivory, gums, hides, ostrich feathers, horses, sharks' fins, a sort of earthen jars, called martuban, to Tranquebar, dried fish, an esteemed sweetmeat called *hulwah*, and a few other articles.

The markets of Muscat are abundantly supplied with all sorts of provision. Beef, mutton, and vegetables of good quality may be had at all times, and reasonably cheap. The bay literally swarms with the greatest variety of most excellent fish. Water is excellent, and is conveyed to the beach in such a manner that the casks of a vessel may be filled in her boats while afloat. Fire-wood is also abundant, and is cheaper than at Bombay.

A duty of 5 per cent. is laid on imports, all exports being duty free. The entire value of the imports has been estimated at 900,000*l.*

Money, Weights, and Measures.—Accounts here are kept in goz and mamoodies: 20 goz=1 mamoody; and 20 mamoodies=1 dollar. All Persian, Turkish, and Indian coins, as well as French and German crowns, and Spanish dollars, are met with; their value fluctuating with the demand; and they are generally sold by weight.

The weights are, the cusha and maund; 24 cushas=1 maund=8 lbs. 12 oz. avoirdupois.

Niebuhr thinks that Muscat occupies the site of the Mosca of Arrian and other Greek writers—(*Voyage en Arabie*, vol. ii. p. 71. ed. Amst. 1780); a conjecture which seems to be confirmed, not merely by the resemblance of the name, but also by the terms applied by Arrian to Mosca being sufficiently descriptive of Muscat; and as the port is bounded on all sides by rocks, it must now present almost the same appearance as in antiquity. Dr. Vincent, however, though he speaks doubtfully on the subject, is inclined to place Mosca to the west of Cape Rasselgate.—(*Commerce and Navigation of the Ancients*, vol. ii. pp. 344—347. For further particulars, besides the authorities above referred to, see *Hamilton's New Account of the East Indies*, vol. i. p. 63.; *Fraser's Journey to Khorasan*, pp. 5—19.; *Wellsted's Travels in Arabia*, i. pp. 14—15. The longitude given above is that of *Arrowsmith's Chart of the Persian Gulph*.)

MUSK (Fr. *Musc*; Ger. *Bisam*; Du. *Muskus*; It. *Muschio*; Sp. *Almizele*; Rus. *Muscus*; Arab. and Pers. *Mishk*) is obtained from a species of deer (*Moschus moschiferus*) inhabiting the Alpine mountains of the east of Asia. The musk is found in a small bag under the belly. Musk is in grains concreted together, dry, yet slightly unc-

tuous, and free from grittiness when rubbed between the fingers or chewed. It has a peculiar, aromatic, and extremely powerful and durable odour; the taste is bitterish and heavy; and the colour deep brown, with a shade of red. It is imported into England from China in caddies containing from 60 to 100 oz. each; but an inferior kind is brought from Bengal, and a still baser sort from Russia. The best is that which is in the natural follicle or pod. Being a very high-priced article, it is often adulterated. That which is mixed with the animal's blood may be discovered by the largeness of the lumps or clots. It is sometimes mixed with a dark, highly coloured, friable earth; but this appears to the touch to be of a more crumbling texture, and is harder as well as heavier than genuine musk. 20 cwt. of musk are allowed to a ton. It was not permitted to be brought home in the China ships belonging to the East India Company.—(*Thomson's Dispensatory; Milburn's Orient. Com.*) In 1852 the imports and exports of musk were respectively 6,482 and 3,913 oz. After being reduced in 1832 the duty on musk was finally repealed in 1845.

MUSLIN (Ger. *Musselin, Nesseltuch;* Du. *Neteldoek;* Fr. *Mousseline;* It. *Mussolina;* Sp. *Moselina;* Rus. *Kissea*), is derived from the word *mousale* or *mouseln*, a name given to it in India, where large quantities are made. It is a fine thin sort of cotton cloth, with a downy nap on the surface. Formerly all muslins were imported from the East; but now they are manufactured in immense quantities at Manchester, Glasgow, &c. of a fineness and durability which rival those of India, at the same time that they are very considerably cheaper.—(See COTTON.)

MUSTARD (Ger. *Mustert, Senf;* Fr. *Moutarde;* It. *Mostarda;* Sp. *Mostaza;* Rus. *Gortschiza;* Lat. *Sinapis;* Arab. *Khîrdal;* Hind. *Râi*), a plant (*Sinapis*) of which there are several species, some of them indigenous to Great Britain. It was formerly extensively cultivated in Durham, but it is now seldom seen in that county. At present it is principally raised in the neighbourhood of York, and throughout other parts of the North Riding; and being manufactured in the city of York, is afterwards sold under the name of Durham mustard. Two quarters an acre are reckoned a good crop. Mustard is of considerable importance in the materia medica, and is extensively used as a condiment. It was not, however, known, in its present form, at our tables, till 1720. The seed had previously been merely pounded in a mortar, and in that rude state separated from the integuments and prepared for use. But, at the period referred to, it occurred to a woman of the name of Clements, residing in Durham, to grind the seed in a mill, and to treat the meal in the same way that flour is treated. Her mustard was, in consequence, very superior; and, being approved by George I., speedily came into general use. Mrs. Clements kept her secret for a considerable time, and acquired a competent fortune. In Bengal and other Eastern countries, mustard is extensively cultivated, as rape is in Europe, for the purpose of yielding oil.—(*Bailey's Survey of Durham*, p. 147.; *Loudon's Encyc. of Agric.*)

MYROBALANS are the dried fruits of different varieties of *terminalia*. The fruit, varying from the size of an olive to that of a gall-nut, consists of a white pentangular nut, covered by a substance about 2 lines in thickness. The latter, which is the only valuable part, is mucilaginous and highly astringent; and being separated from the nut is employed, with the best effect, both by dyers and tanners, especially the latter. It produces with iron a strong, durable, black dye and ink; and with alum a very full, though dark, brownish yellow. The imports vary considerably. In 1849 they amounted to 851 tons. It is brought from India, where it has long been employed in calico-printing and in medicine.—(*Bancroft on Permanent Colours*, i. 351, &c.)

MYRRH (Ger. *Myrrhen;* Du. *Mirrhe;* Fr. *Myrrhe;* Ital. and Sp. *Mirra;* Lat. *Myrrha;* Arab. *Murr*), a resinous substance, the produce of an unknown tree growing in Arabia and Abyssinia. It is imported in chests, each containing from 1 to 2 cwt. Abyssinian myrrh comes to us through the East Indies, while that produced in Arabia is brought by the way of Turkey. It has a peculiar, rather fragrant, odour and a bitter aromatic taste. It is in small irregularly shaped pieces, which can hardly be called tears. Good myrrh is translucent, of a reddish yellow colour, brittle, breaking with a resinous fracture, and easily pulverised. Its specific gravity is 1·36. When it is opaque, mixed with impurities, and either white, or of a dark colour approaching nearly to black, with a disagreeable odour, it should be rejected.—(*Thomson's Dispensatory.*)

N.

NAILS (Ger. *Nägel, Spiker;* Du. *Spykers;* Fr. *Clous;* It. *Chiodi, Chiovi, Aguti;* Sp. *Clavos;* Rus. *Gwosdi*), are small spikes of iron, brass, &c., which, being driven into wood, serve to bind several pieces together, or to fasten something upon them.

There is scarcely a town or village in Great Britain in which nails are not forged; but the principal seats of this useful branch of the iron manufacture are at Birmingham, Bilston, Wolverhampton, Dudley, and a small district in Derbyshire. The consumption of nails is immense; and the aggregate value of those annually produced is very large.

NANGASACKI, or NAGASACKI, a sea-port town on the south-west coast of the island of Ximo, one of the Japanese islands, being, according to Krusenstern, in lat. 32° 43′ 40″ N., lon. 130° 11′ 47″ E. The harbour extends, N.E. and S.W. about 2½ leagues, being, in most places, less than a mile in width. Ships lie in 5 or 6 fathoms water, within gunshot of the town, near the middle of the bay, where they are protected from all winds.

The Japanese islands are situated within the temperate zone. They are believed to contain from 25,000,000 to 50,000,000 of people, superior in industry and civilisation to every other Eastern nation, with, perhaps, the exception of the Chinese. Japan has some thousand miles of sea-coast, and at one time the inhabitants were much addicted to emigration, and carried on an extensive intercourse with the adjacent nations. But in consequence of the alarm occasioned by the attempts of the Jesuit missionaries to make converts to Christianity, the government, in 1637, expelled the missionaries, put to death their converts, and to obviate the possibility of such attempts being made in future, they prohibited, under the severest penalties, their own people from resorting to foreign parts, and foreigners from entering into or trading with Japan. And singular as it may seem, these exclusive and anti-social regulations have been carried out almost to the letter down to our own times. So far, indeed, as respects the emigration of Japanese, they have not been in any degree modified; but the prohibition against foreigners trading with the empire was so far relaxed, that 1 or 2 ships from Java, and 10 or 12 junks from China, were allowed to enter certain Japanese harbours. But, besides being confined within the narrowest limits, those engaged in this intercourse were subjected to a vexatious *surveillance*, and had to suffer many indignities. "The cargoes of the ships," says Mr. Crawfurd, "are landed by, and placed in charge of, the officers of the Japanese government, and the Dutch have neither control over, nor access to them, except through *solicitation*. The island of Desima, to which they are confined, communicates with the town of Nangasacki by a bridge and a gate, and is palisadoed all round as well as surrounded by a guard. From this imprisonment they are allowed to peep twice or thrice a year, rather to be exhibited to the great as a curiosity, than out of indulgence. A corps of constables and interpreters are appointed to watch over their minutest actions; and the most degrading servilities are exacted from the highest among them, by the meanest officers of the Japanese government.

"The Chinese trade with Japan is principally conducted from the port of Ningpo, in the province of Chekiang, which is so conveniently situated that 2 voyages may be performed in the year, even by the clumsy junks of China. The commodities with which the Chinese furnish the Japanese consist of raw sugar, cow and buffalo hides, wrought silks, consisting chiefly of satins and damasks, eagle and sandal wood, ginseng, tutenague or zinc, tin, lead, fine teas, and, for more than 100 years back, some European broad cloths and camlets. The exports consist of copper, limited to 15,000 piculs, or about 900 tons; camphor, sabre blades, pearls, some descriptions of

The following are the quantities and value of goods exported and imported by the Dutch in their trade with Japan in 1825; the ships employed being 1 of 600 and 1 of 700 tons burden.

Exports to Nangasacki.		Imports from Nangasacki.	
Articles.	Value.	Articles.	Value.
	Florins.		*Florins.*
Sandal wood, 100 piculs		Camphor, 720 piculs	69,120
Sapan wood, 1,167 do.		Copper*, 10,745 do.	617,862
Buffalo hides, 500 in number		Crape, 426 pieces	17,748
Elephants' teeth, 1,638 lbs.	3,247	Cotton cloth	13,978
Malay camphor, 61 lbs.	3,224	Medicine	2,270
Java mats, 225 in number		Provisions	3,327
Cocoa nut oil, 24 piculs		Sakkie and soy	14,332
Cloves, 113 do.	18,926	Wheat, 207 bags	2,156
Sugar, 6,991 do.	104,968	Silks	31,600
Tin, 338 do.	18,936	Sundries	96,089
Bengal piece goods	20,896		
Hardware and porcelain	2,250		
Jewellery	1,100		
Glass ware	3,748		
Netherlands broad cloths	75,209		
Lead, 147 piculs	2,793		
Netherlands cotton goods	61,332		
Medicine and sundries			
Total value of export cargoes - Fl.	373,853	Total value of import cargoes - Fl.	868,482
Or, at 12 Fl. per £ - £	31,154 8 4	Or, at 12 Fl. per £ - £	72,373 10 0

* The imports of copper, in 1828, amounted to 11,631 piculs, worth 988,635 florins.

paper and porcelain, and some Japan ware, which is either curious or handsome, but not so substantial as that of China.—(*Indian Archipelago*, iii. p. 297.)

During each of the 5 years ending with 1854 the values of the following articles, the produce of Japan, exported from Java, were as under, viz.: —

Products.		1850.	1851.	1852.	1853.	1854.
Camphor	Flor.	115,100	13,100	11,750	17,380	13,960
Copper wares	—	293,972	203,512	323,979	187,703	203,015
Basket work	—	10,357	27,059	26,189	4,794	4,826
Other articles	—	13,069	19,674	19,193	40,097	25,809
Total	Flor.	430,498	263,345	381,111	249,974	247,610
	£	35,875	21,945	31,759	20,831	20,634

Opening of the Trade. — But after the trade to China had been thrown open, and the late events in that empire had brought English, French, and American squadrons to the gates, as it were, of Japan, it was not to be expected that its rulers would be able much longer to maintain their jealous, anti-social policy. The occurrences in China made them aware of the power, and in some degree, also, of the policy of those with whom they had now to deal. In 1853, when the American squadron under Commodore Perry appeared in their waters, they were fain to allow them to take in water and other stores; and in the following year, when they revisited their shores, they concluded a treaty with them*, in the 7th art. of which it is stipulated that citizens of the U. States resorting to the ports of Japan opened to them by the treaty, and bringing with them gold and silver coins and goods, were to be permitted to exchange them for other goods under such regulations as the Japanese government might think fit to establish. Soon after this treaty had been negotiated, Sir James Stirling, who then commanded the English naval forces in these parts, entered into a similar, though less liberal, arrangement with the government of Japan. The concessions that had thus been made, coupled with the circumstances connected with the late proceedings of the English, French, and other foreigners in China, paved the way for others of a still more extensive character. And, at length, in 1858, the system of exclusion was wholly abandoned, and a free commercial policy established in its stead. This great change was effected by the British plenipotentiary, the Earl of Elgin. Having negotiated a new, and comparatively liberal commercial treaty with China, this sagacious diplomatist proceeded to Japan, and there completed his mission, by inducing the Japanese government to enter into the well-considered treaty, an abstract of which is subjoined. Similar treaties have since been concluded with the Americans and the Dutch.

It is to be hoped that these remarkable events may be as advantageous to those whose markets are now opened to the products of this and other countries as it can hardly fail to be to ourselves. But much circumspection will be necessary, especially at the commencement of the new system. And we would fain hope that the pioneers at least of British enterprise in this new and peculiar region, may be distinguished by their good faith, and by their respect for the prejudices of the very singular and suspicious people with whom they will have to transact business.

We regret to observe that the importation of opium is prohibited by the new treaty. The taste for it is understood to have made considerable progress in Japan, and, if so, the prohibition will serve no good purpose, and will merely give a stimulus to smuggling.

It is not possible, in speaking of a country so little known as Japan, to form any estimate of the nature and extent of the commerce that may be carried on with her. The Japanese have attained to considerable eminence in various industrial pursuits, and their lacquered wares, hence called by Europeans "Japanned," are superior to those of every other country. Probably we shall find an outlet in Japan for considerable quantities of our woollen and cotton fabrics, and for iron, glass ware, and hardware, jewellery, sugar, drugs, spices, &c. In exchange we shall probably bring back copper, the precious metals, camphor, silk, Japan ware, and a great variety of other articles. Already, indeed, a cargo of vegetable wax, a new and very valuable product, has found its way from Japan to this market. (*See* VEGETABLE WAX.) And we have no doubt, if it be conducted with ordinary discretion, that the trade will progressively grow up to be of considerable value and importance, and will, most likely, embrace articles of which we are at present totally ignorant.

Summary of the Treaty between Her Britannic Majesty and the Emperor of Japan. — Signed at Yedo, August 26th, 1858.

Article I. Stipulates for peace and friendship.

Art. II. Stipulates for the reciprocal right to appoint a diplomatic agent at Yedo and London, and

* Called from the place where it was signed, the treaty of Kanagawa.

consular agents at the open ports. The British diplomatic agent and consul-general may travel to any part of Japan, and the Japanese diplomatic agent and consul-general to any part of Great Britain.

Art. III. The ports and towns of Hakodadi, Kanagawa, and Nagasaki, to be opened to British subjects on July 1, 1859. Nee-e-gata, or, if that is unsuitable as a harbour, some other port on the west coast of Nipon, on January 1, 1860. Hiogo on January 1, 1863. In all these places British subjects may permanently reside, and may lease ground and purchase and erect buildings, but shall not erect fortifications. They are not to be confined by any wall or gate, and their free ingress and egress not to be impeded. The limits within which British subjects may travel are defined. The general limit is ten *ri* (each *ri* being 4,275 yards) in any direction. After January 1, 1862, British subjects may reside at Yedo, and from January 1, 1863, in Osaca, for purposes of trade only. In each of these cities a suitable district for their residence, and the distance to which they may go, shall be arranged by the British diplomatic agent for the Japanese government.

Art. IV. All questions arising between British subjects in the Japanese dominions shall be under the jurisdiction of the British authorities.

Art. V. Japanese guilty of any criminal act towards British subjects shall be punished by the Japanese authorities. British subjects who may commit any crime against Japanese, or other foreigners, shall be punished by the British authorities, according to British law.

Art. VI. Mode of settling complaints of British against Japanese, or of Japanese against British.

Art. VII. The authorities on either side are to do their best to enforce recovery of debts due by their own people to those of the other nation, without, however, being responsible for payment.

Art. VIII. The Japanese government will place no restriction upon the lawful employment of Japanese by British subjects.

Art. IX. British subjects to have free exercise of their religion in Japan, and may erect places of worship.

Art. X. Foreign coin to be current in Japan; the value to be determined by weight. Coin (except Japanese copper coin), and foreign gold and silver, may be exported.

Art. XI. Supplies for the British navy may be landed and stored at Kanagawa, Hakodadi, and Nagasaki, free from duty; but, if any are sold, the purchaser must pay the proper duty.

Art. XII. If any British vessel be wrecked on the coast of Japan, the Japanese authorities shall render assistance to vessel and crew, and send the latter, if necessary, to the nearest consular station.

Art. XIII. British merchant-vessels may employ a pilot to take them in or out of port.

Art. XIV. At each of the open ports, British subjects may import and export, directly or indirectly, any lawful merchandise, paying the duties prescribed by the treaty. With the exception of munitions of war, which shall be sold to the Japanese government alone, they may freely buy from, and sell to, Japanese any articles they may have for sale; and Japanese may buy and use the same.

Art. XV. Mode of determining the value of goods imported.

Art. XVI. All goods imported into Japan by British subjects, which have paid the import duty, may be transported by the Japanese to any part of the empire without any further duty.

Art. XVII. British merchants who have imported merchandise, and paid the duty, shall be entitled to a certificate of the payment, and may then re-export it, and land it in any other port without any additional duty.

Art. XVIII. The Japanese authorities at each port shall adopt proper means to prevent smuggling.

Art. XIX. All penalties and confiscations made under the treaty shall belong to the Tycoon of Japan.

Art. XX. The articles for regulation of trade appended to the treaty are to be considered as part of it, and equally binding. The British diplomatic agent, in conjunction with the Japanese government, may make such rules as may be necessary for carrying out both treaty and articles.

Art. XXI. The treaty being signed in English, Japanese, and Dutch, the Dutch text shall be considered the original. All official communications from British diplomatic and consular agents to be written in English, but, for a period of five years, to be accompanied by a Dutch or Japanese translation.

Art. XXII. Either party may demand a revision of the treaty on or after July 1, 1872.

Art. XXIII. The British government and British subjects shall be entitled to equal participation in all advantages granted, or hereafter granted, in Japan to the government and subjects of any other nation.

Art. XXIV. Ratifications to be exchanged within a year.

Regulations for British Trade.

Regulation I. The captain of a vessel is to exhibit to the Japanese authorities, within 48 hours of his arrival (Sunday excepted), proof that he has deposited his ship's papers at the British consulate, and shall then make entry of his ship in writing, and deposit a written manifest of his cargo, stating who are the consignees, and adding a list of his stores. Any error may be corrected within 24 hours without fee; afterwards 15 dollars must be paid. Any goods not entered in the manifest will pay double duty. Any captain neglecting to enter his ship within the time prescribed shall pay a penalty of 60 dollars a day.

Reg. II. Japanese custom-house officers may be placed on board any ship in port, except ships of war. No goods to be unladen between sunset and sunrise. Hatches may be secured by the Japanese officers, and any person breaking the fastening shall pay a fine of 60 dollars for each offence. Any goods discharged from a ship without having been duly entered, shall be liable to confiscation. Packages with goods of value fraudulently concealed, and not mentioned in the invoice, shall be forfeited. If any British ship is engaged in smuggling, she shall pay a fine of 1,000 dollars, and the goods shall be forfeited. Vessels needing repairs may land their cargo without payment of duty, under supervision of the Japanese authorities. If any part be sold, duty to be paid thereon. Cargo may be transhipped from one vessel to another, under supervision, and on proof of *bonâ fide* nature of the transaction. Importation of opium being prohibited, if any British vessel has more than 3 catties weight on board, the surplus quantity may be seized and destroyed, and any person smuggling opium shall be liable to a fine of 15 dollars a catty.

Reg. III. Mode of entering goods by the owner or consignee. The entry is to state the name of the enterer, and of the ship, the marks, contents, and value of each package. The original invoices to be presented to the Japanese custom-house. The Japanese officers may examine the packages, but without expense or unreasonable delay. If the importer or owner should find that his goods have been damaged on the voyage, he may apprise the custom-house, and have the damage appraised, so as to make a deduction from the value in his entry. All goods intended for export must be entered at the Japanese custom-house before they are shipped. Any goods shipped without having been so entered, and all packages containing prohibited articles, shall be forfeited. No entry shall be required for supplies for ships, and their passengers and crews, nor for passengers' clothing, &c.

Reg. IV. Ships wishing to clear must give 24 hours' notice at the custom-house. If clearance be refused, the captain or consignee, and the British consul, must be informed of the reason. British ships of war shall not be required to enter or clear, nor shall they be visited by the customs or police. Mail steamers may enter and clear on the same day, and shall not be required to deliver a manifest, except for passengers and goods to be landed in Japan. Whale ships touching for supplies, and ships in distress, shall not be required to deliver a manifest, unless they wish to trade.

Reg. V. Any person signing a false declaration or certificate, with intent to defraud the revenue of Japan, shall pay a fine of 125 dollars for each offence.

Reg. VI. No tonnage duties shall be levied on British ships in the ports of Japan, but the following fees shall be paid to the Japanese custom-house authorities:—For the entry of a ship, 15 dollars: for the clearance of a ship, 7 dollars: for each permit, 1½ dollar: for each bill of health, 1½ dollar: for any other document 1½ dollar.

Reg. VII. Duties shall be paid to the Japanese government, on all goods landed in the country, according to the following tariff:—

Class 1. All articles in this class shall be free of duty: gold and silver, coined or uncoined; wearing apparel, in actual use; household furniture and printed books, not intended for sale, but the property of persons who come to reside in Japan.

Class 2. A duty of 5 per cent. shall be paid on the following articles: all articles used for the purpose of building, rigging, repairing, or fitting out of ships; whaling gear of all kinds; salted provisions of all kinds; bread and bread stuffs; living animals of all kinds; coals; timber for building houses; rice; paddy; steam machinery; zinc; lead; tin; raw silk; cotton and woollen manufactured goods.

Class 3. A duty of 35 per cent. shall be paid on all intoxicating liquors.

Class 4. All goods not included in any of the preceding classes, shall pay a duty of 20 per cent. All articles of Japanese production, which are exported as cargo, shall pay a duty of 5 per cent., with the exception of gold and silver coin, and copper in bars. Rice and wheat, the produce of Japan, shall not be exported from Japan as cargo; but all British subjects resident in Japan, and British ships for their crews and passengers, shall be furnished with sufficient supplies of the same. Foreign grain brought into any open port of Japan in a British ship, if no part thereof has been landed, may be re-exported without hindrance. The Japanese government will sell, from time to time, at public auction, any surplus quantity of copper that may be produced. Five years after the opening of Kanagawa, the import and export duties shall be subject to revision, if either the British or Japanese government desires it.

Money.—Accounts are kept in taels, mace, and candarines; 10 candarines make 1 mace, and 10 mace 1 tael. The Dutch reckon the Nangasacki tael at 3½ florins, equal to about 6*s.* 2*d.* The gold coins current are the new and old itjib and cobangs, or cobangs; the silver coins are, the nandiogin, itaganme, and kodama. They are in general very simple, struck plain and unadorned, the greater part of them without any rim round the margin, and most of them without any determined value. For this reason they are always weighed by the merchants, who put their chop or stamp upon them, to signify that the coin is standard weight and unadulterated.

The new cobangs are oblong, rounded at the ends, and flat, about 2 inches broad, scarcely thicker than an English farthing, of a pale yellow colour; the die on one side consists of several cross lines stamped; and at both ends there is a rectangular figure, with raised letters on it, and, besides, a moonlike figure, with a flower on it in relief. On the other side is a circular stamp, with raised letters on it; and within the margin, towards one end, two smaller sunk stamps with raised letters, which are different on each cobang; they are valued at 60 mace. There are old cobangs occasionally met with, which are of fine gold, somewhat broader than the new.

The old cobangs weigh 371 Dutch asen, or 275 English grains, and the gold is said to be 22 carats fine, which would give 44*s.* 7*d.* for the value of the old cobang. But the Japanese coins are reckoned at Madras only 87 touch, which is 20 22 25 carats; this reduces the old cobang to 41*s.* 10*d.* The new cobangs weigh 180 grains; the gold is about 16 carats fine, and the value 21*s.* 3*d.* The oban is thrice the value of the cobang.

The itjib is called by the Dutch golden bean, and is made of pale gold, of a parallelogramical figure and flat, rather thicker than a farthing, with many raised letters on one side and two figures or flowers in relief on the other; the value of this is ½ of a cobang. There are old itjibs also to be met with; these are thicker than the new ones, and in value 22 mace 5 candarines.

Nandiogin is a parallelogramical flat silver coin, of twice the thickness of a halfpenny, 1 inch long and ½ inch broad, and formed of fine silver. The edge is stamped with stars, and within the edges are raised dots. One side is marked all over with raised letters; and the other on its lower and larger moiety, is filled with raised letters, and at the same time exhibits a double moonlike figure. Its value is 7 mace 5 candarines.

Itaganme and kodama are denominations by which various lumps of silver, without form or fashion, are known, which are neither of the same size, shape, nor value. The former of these, however, are oblong, and the latter roundish, for the most part thick, but sometimes, though seldom, flat. These pass in trade, but are always weighed in payment from one individual to another, and have a dull leaden appearance.

Seni is a denomination applied to pieces of copper, brass, and iron coin, which bear a near resemblance to our old farthings. They differ in size, value, and external appearance, but are always cast, and have a square hole in the middle, by means of which they may be strung together; and likewise have always broad edges. Of these are current, sjumon seni, of the value of 4 common seni, made of brass, and almost as broad as a halfpenny, but thin. The common seni are the size of a farthing, and made of red copper; 60 of them = 1 mace. Doosa seni is a cast iron coin, in appearance like the last, of the same size and value, but is so brittle that it is easily broken by the hand, or breaks in pieces when let fall on the ground.

The seni are strung 100 at a time, or as is most commonly the case, 96 on a rush. The coins in one of these parcels are seldom all of one sort, but generally consist of 2, 3, or more different kinds; in this case, the larger ones are strung on first, and then follow the smaller; the number diminishing in proportion to the number of large pieces in the parcel, which are of greater value than the smaller.

The schuit is a silver piece of 4 oz. 18 dwts. 16 grs. Troy, and is 11 oz. fine, which gives its value 1*l.* 5*s.* 3*d.* The name is Dutch, referring, probably, to its shape, like a boat.

Weights.—These are the candarine, mace, tael, catty, and picul, thus divided:—

10 candarines	=	1 mace.
10 mace	=	1 tael.
16 taels	=	1 catty.
100 catties	=	1 picul.

The picul=125 Dutch pounds, or 133¼ lbs. avoirdupois. It is, however, said to weigh only 130 lbs.

Measures.—The revenues of Japan are estimated by two measures of rice, the man and koif; the former contains 10,000 koifs, each 3,000 bales or bags of rice.

The long measure is the inc, which is about 4 Chinese cubits or 6½ feet English nearly; and 2½ Japanese leagues are computed to be about 1 Dutch league.—(*Milburn's Orient. Com.*)

NANKEEN, or NANKIN (Ger. *Nanking*; Du. *Nankings linnen*; Fr. *Toile de Nankin*; It. *Nanquino*; Span. *Nanquina*), a species of cotton cloth in extensive use in this country. It takes its name from Nanking, in China, a European corruption of Kyang-ning, the capital of the extensive province of Kyang-nan, where it is principally produced, and which also furnishes the greater part of the green teas. In the East, the manufacture is wholly confined to China.* The cloth is usually of a yellowish, though occasionally it is of a blue colour, and of different degrees of fineness; the broad pieces called "the Company's nankeens," are generally of a better quality than the narrow ones, and are most esteemed. We produce imitation nankeens at Manchester and other places, but it must be admitted that they are inferior to the Chinese; neither lasting so long, nor holding their colour so well. The colour, whether yellow or blue, is given to the cloth by dyeing; for though yellow cotton wool be raised in the East, the cloth made from it is too glaring. The nankeens brought to England come under the general denomination of piece goods. They are mostly made into trowsers and waistcoats for gentlemen's wear during summer, ladies' pelisses, &c. In some of the more southern parts of Europe, the warmer parts of Asia and America, and the British settlements in Africa, nankeen is worn by both sexes all the year round, and constitutes the principal

* It was stated in the first edition of this work, on authority which should not have been trusted to, that the manufacture of nankeen was carried to great perfection in the East Indies: but, in point of fact, the manufacture is wholly unknown everywhere in the East except China.

article of attire. Latterly, however, they have become unfashionable in this country, and their importation has, in consequence, all but ceased. (See article CANTON, for an account of the imports of Nankeen.)

NANTES, a large commercial city and sea-port of France, on the Loire, about 34 miles from its mouth, lat. 47° 13′ 6″ N., lon. 1° 32″ 44″ W. Population, in 1851, 96,362. Vessels drawing 18 and 19 feet water come up to Paimbœuf, about 24 miles lower down the river; but no vessel, drawing more than 11 or 12 feet can come up to the city, unless at high water a day or two before *full* and *change*.

Entrance to the Loire.—There are 3 entrances to the Loire. The first and most generally frequented is between the bank called *Le Four* and Point *Croisic*: there is a second between Le Four and the bank called *La Banche*; and the third, which in southerly winds is much resorted to, between the latter and the rocks called *La Couronne*. The navigation, which is naturally rather difficult, has been much facilitated by the erection of lighthouses and beacons. Of the former, one has been recently constructed on the north part of Le Four, about a league from Croisic, in lat. 47° 17′ 53″ N., lon. 2° 38′ 3″ W. It is 56 feet high. The light is a revolving one; the flash, which continues for 7 seconds, being succeeded by a dark interval of 53 seconds. Two lighthouses, called the Aiguillon lights, stand on the north side of the river, near its mouth; the lower light, adjoining *Point de Levi*, being in lat. 47° 14′ 33″ N., lon. 2° 15′ 46″ W. The light is fixed, and is 111 feet above the level of the sea. The upper Aiguillon light, situated about a mile N. 31° E. from the lower, is 127 feet high; it also is a fixed light, varied, however, by a flash every 3 minutes. A beacon tower, called the Turk, is erected on the southernmost extremity of La Blanche; the course for vessels entering between it and *La Couronne*, is to bring the Aiguillon lights in one. The depth of water on the bar at the mouth of the river varies from 2 to 2¾ fathoms. At springs the rise is 14, and at neaps 7 or 8 feet. High water at full and change 3¾ hours.

Trade, &c.—Her situation renders Nantes the emporium of all the rich and extensive country traversed by the Loire, so that she has a pretty considerable import and export trade, particularly with the West Indies. The exports consist of all sorts of French produce, but principally of brandy, wine and vinegar, silk, woollen and linen goods, refined sugar, wheat, rye, biscuits, &c. The principal imports are sugar, coffee, and other colonial products, cotton, indigo, timber, hemp, &c. Nantes is a considerable *entrepôt* for the commerce of salt, large quantities being made in the department, principally at Noirmutier and Croisic. During the time that the slave trade was carried on, Nantes was more extensively engaged in it than any other French port.

The customs duties of Nantes, exclusive of those on salt, produced in 1851, 10,817,000 fr., and in 1857, 29,676,000 fr., showing a greater increase of trade than any other port in France. There belonged to the port, ex river craft, coasters, and steamers, on the 31st December, 1857, 645 ships of the agg. burden of 105,698 tons.

Pilotage.—Vessels under 80 tons (if French or assimilated by treaty) are not obliged to take a pilot at sea, but must have one for the river. The rates, which are fixed by law, are paid by the *foot* from the sea to Paimbœuf, and *from thence* to Nantes for all vessels under 80 tons. Above 80 tons, they are per ton. The master of a vessel bound to Paimbœuf or Nantes has merely to give a note to the pilot stating where the pilot boarded him, where he left him, the name and draught of water of his vessel in *English* feet. The note will be deposited at the pilot's office, and the pilotage be received from the ship's broker. No foreign vessel (however small) can be removed from one anchorage to another, or to or from a quay, but by a pilot.

Quarantine.—Every vessel is boarded at St. Nazaire, and if she has a foul bill of health, or disease on board, is instructed where to go.

River Dues on vessels ascending from Paimbœuf to Nantes are about 1½*d.* per ton. At Paimbœuf, and below it, none are levied.

Averages in the River.—If a vessel under sail causes damage to another that is properly moored, she must pay all the expenses of repairs; if to a vessel at single anchor (unless intentionally done) or under sail, the expense of the repairs of both are added together, and each pays a moiety. The same rule is enforced if damage be caused by one vessel properly moored driving on board another in the same situation; but if either were riding at single anchor, the one properly moored is indemnified; if both were at single anchor, both bear the loss alike.

Monies, Weights, and Measures same as the rest of France.—(See BORDEAUX.)

Tares.—2½ per cent. on coffee in bags; real on ditto in hhds., casks, &c.; 6 per cent. on cottons; real on indigo; 17 per cent. on Brazil muscovado sugar, 19 per cent. on Martinique and Guadaloupe ditto, 13 per cent. on ditto clayed.

NAPLES, a large city and sea-port in the south of Italy, the capital of the kingdom of the same name, the lighthouse being in lat. 40° 50′ 12″ N., long. 14° 14′ 15″ E. Population, in 1851, 416,475. Naples is well situated for commerce; but the policy of the government has hitherto been most unfavourable to its growth, and has confined it within comparatively narrow limits.

Harbour,—The bay of Naples is spacious, and is celebrated for its picturesque views. The harbour is formed by a mole, built nearly in the form of the letter L, having a lighthouse on its elbow. Within the mole there is from 3 to 4 fathoms water, the ground being soft. The water in the bay is deep, and there is no bar: it is, however, a good deal exposed to the south-westerly winds; and to guard against their effects, vessels lying in the bay moor with open hawse in that direction. There is no obligation to take a pilot on board, but it is usual to take one the first time that a ship anchors within the mole. The lighthouse has a revolving light. The period of revolution is 2 minutes, during the first of which the

full strength of the light is continued, and during the second minute its brilliancy rapidly decreases. The height of the light is 161 feet above the sea, and it is visible at the distance of 18 or 20 miles. At the extremity of the mole is a low fixed light to guide vessels round its head.

Money.—Accounts are kept at Naples in ducati di regno of 100 grani. According to the new monetary system introduced in 1818, the unit of coins is the silver ducat=3*s.* 5½*d.* sterling. The ducat = 10 carlini; and there are coins of 1, 2, 6, and 12 carlini in proportion. Coins of a less value than 1 carlini are in copper. The smallest gold piece is the oncetta = 10*s.* 3½*d.* sterling.

Weights and Measures.—The commercial weights are the cantaro and rottolo. The cantaro *grosso* = 100 rottoli = 196¾ lbs. avoirdupois=89·105 kilog. = 184 lbs. of Hamburg = 180·4 lbs. of Amsterdam. The cantaro piccolo=106 lbs. avoirdupois = 48 kilog.

In dry measure, the carro of corn contains 56 tomoli. The tomoli = 1·45 Winch. bush.

In wine measure, the carro is divided into 2 botti, or 24 barilli, or 1,440 caraffe. The carro = 264 English wine gallons.

In oil measure, the salma is divided into 16 staje, 256 quarti, or 1,536 misurette. The salma at Naples = 42⅜ English wine gallons: at Gallipoli it is from 3 to 4 per cent. less; at Bari it is a little larger.

In long measure, the canna is divided into 8 palmi, or 96 onzie, and is = 6 feet 11 inches English. Hence the palmo = 10·38 English inches.

Eleven salme are allowed to a ship's last.—(*Nelkenbrecher; Kelly.*)

Exports and Imports. — The exports principally consist of the products of the adjacent country. Of these, silk is the most important. Olive oil is also a most important article; but it is principally supplied by Gallipoli, a town in the Terra d'Otranto, whence it is commonly called Gallipoli oil. The entire exports of oil from the kingdom of Naples have been estimated at about 200,000 salme, or 36,333 tuns, a

I. Account of the Quantities of the Principal Articles exported from the Port of Naples in each Year from 1852 to 1856.

Articles.		1852.	1853.	1854.	1855.	1856.
Almonds	cwts.	439	4,795	262	782	89
Argols	„	1,097	2,870	210	15,330	11,669
Bones	„	15,820	37,625	12,950	8,400	9,201
Bricks and tiles	no.	479,000	210,506	795,425	.	107,322
Caps, woollen	dozen	2,109	965	1,210	600	816
Fruit, dry (figs)	cwts.	22,701	45,383	91,647	15,225	26,481
oranges and lemons	boxes	.	.	8,240	15,160	5,502
Gloves, leather	dozen	49,015	44,356	50,204	18,800	33,420
Hemp	cwts.	5,256	36,885	58,443	122,555	17,376
Hoops	bundles	6,960	6,811	4,012	cwts. 175	bundles 1,720
Hay and straw	cwts.	11,569	8,596	16,656	51,980	68,218
Liquorice	„	17,514	15,225	25,599	5,600	10,328
Linseed	„	11,945	45,020	56,618	16,835	10,045
Skins, lamb, &c.	„	2,593	3,584	5,927	1,133	2,198
Maccaroni	„	3,349	3,715	.	5,740	4,480
Madder root	„	36,867	23,992	54,852	59,937	131,528
Nuts and walnuts	„	6,130	6,111	6,960	3,180	8,006
Oil	„	1,085	5,110	tuns 4,948	tuns 7,870	3,383
Silk, raw	„	3,328	2,557	1,207	866	3,521
waste	„	73	1,857	682	5,311	52
sewing	„	.	.	317	437	13,545
Shumac	„	1,113	227	632	735	320
Tallow	„	6,114	.	3,622	2,590	1,235
Wool	„	7,691	14,534	7,166	19,862	12,472
Waste	„	.	11,415	8,767	4,955	

II. Account of the Quantities of the Principal Articles imported into the Port of Naples in each Year from 1852 to 1856.

Articles.		1852.	1853.	1854.	1855.	1856.
Blankets	yards	4,147	1,253	2,020	2,543	5,492
Brass	cwts.	1,566	1,529	1,172	810	2,315
Cotton, raw	„	15,572	26,066	3,500	8,225	10,472
twist	„	51,548	36,942	64,767	53,305	107,702
velvet	yards	37,095	11,401	35,933	52,967	40,507
stuffs	„	729,048	832,615	359,119	861,000	cwt. 84
Coffee	cwts.	20,057	29,521	22,050	29,979	20,086
Cocoa	„	1,623	1,128	2,152	1,006	2,942
Copper	„	3,834	2,576	589	3,326	3,750
Coal	tons	22,184	42,237	31,799	27,400	21,212
Cloth	yards	22,600	41,509	186,293	58,163	cwt. 8,748
coarse woollen	„	453	26,532	22,400	70,513	1,335
Earthenware	cwts.	2,457	3,323	2,170	2,037	2,009
Fish, cod	„	78,115	45,006	32,795	35,455	22,843
stock	„	21,157	42,155	4,672	14,800	11,198
Glass	„	7,901	3,173	2,817	3,110	1,092
Hardware	„	5,952	26,785	5,687	6,058	7,950
Herrings	brls.	3,113	cwts. 4,440	brls. 2,563	brls. 300	brls. 2,211
Hides, raw	no.	264,608	148,529	92,370	cwts. 20,160	no. 15,801
dressed	cwts.	2,569	2,947	.	3,402	38,974
Iron, raw	„	90,562	18,410	51,383	53,560	
wire	„	4,433	4,433	1,855	5,502	14,688
pig	„	17,692	12,393	14,700	15,251	83,811
Indigo	„	2,068	1,470	997	2,212	1,428
Lead	„	28,472	2,707	12,337	27,400	8 132
Linen	yards	544,014	168,826	51,111	26,668	742
Molasses	casks	315	249	990	cwts. 10,341	cwts. 1,577
Muslin	yards	1,021,771	358,123	612,161	1,180,636	cwts. 470,235
Pilchards	casks	10,234	2,564	5,510	2,560	1,996
Pepper	cwts.	6,520	2,371	6,142	13,320	5,402
Rum	casks	641	900	796	6,683	2,057
Steel	cwts.	7,506	3,150	10,491	4,144	14,110
Sugar	„	151,433	104,877	49,409	35,343	128,889
Tar	casks	1,786	882	1,170	cwts. 1,451	cwts. 1,090
Tin	cwts.	1,223	625	1,001	1,041	5,278
Tobacco	„	.	.	.	49,712	11,900
Wine	casks	2,158	18,081	2,294	370	25,847
	bottles	30,860	.	17,900		
Woollen stuffs	yards	487,689	154,252	161,116		
Zinc	cwts.	3,552	964	6,540	927	1,650
Wheat	„	.	187,844	Imp. qr. 35,836		

year, which, taking its mean value when exported at 21*l.* per tun, is equivalent to the annual sum of 762,993*l.* — (See Olive Oil.) The other articles of export are wool, wine, brandy, dried fruits, red and white argol, tallow, liquorice, gloves, madder, hemp, linseed, cream of tartar, bones, lamb and kid skins, oak and chesnut staves, rags, saffron, &c. There is a great variety in the Neapolitan wines. The most esteemed is the *lacrima Christi*, a red luscious wine, better known in England by name than in reality, the first growths being confined to a small quantity only, which is chiefly reserved for the royal cellars. There are, however, large quantities of second-rate wines produced in the vicinity of Naples, such as those of Pozzuoli, Ischia, Nola, &c., which are sold under the name of *lacrima Christi*, and are largely exported. Several parts of Calabria produce sweet wines of superior quality. (*Henderson's Ancient and Modern Wines*, p. 239.) The price of wine at Naples depends entirely on the abundance of the vintage; only a small quantity comes to England. The imports consist principally of English cottons and cotton twist, hardware, iron and tin, woollens, sugar, coffee, indigo, spices, &c. Naples is a good market for pilchards, and it requires a large supply of dried and barrelled cod.

Trade of the U. Kingdom with the Two Sicilies.

Account of the Principal Articles of Domestic Produce and Manufacture exported from the U. Kingdom to the Two Sicilies during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Coals, cinders, and culm	tons	56,672	67,594	78,760	77,617	29,495	35,735	41,048	38,931
Copper, wrought and unwrought	cwts.	1,456	2,699	3,184	2,902	9,491	17,330	18,488	25,062
Cottons: entered by the yard	yards	7,908,326	16,123,563	18,548,302	14,585,280	137,800	247,079	286,088	244,684
at value	value	-	-	-	-	6,392	7,588	8,668	14,077
Cotton yarn	lbs.	5,250,258	9,499,865	10,270,048	6,912,806	165,140	282,937	329,621	267,063
Earthenware and porcelain	value	-	-	-	-	4,603	16,083	7,558	7,245
Fish: herrings	barrels	52	1,434	3,406	2,979	52	1,274	3,370	3,231
pilchards	hhds.	-	968	1,601	600	-	2,855	4,575	1,350
Hardware and cutlery	cwts.	1,648	3,393	4,418	3,125	10,897	19,192	22,282	19,634
Iron, wrought and unwrought	tons	8,964	13,887	22,537	25,410	85,757	119,233	194,471	181,215
Linens, entered by the yard	yards	322,737	517,490	657,964	790,905	16,612	22,750	29,934	36,807
Linen yarn	lbs.	86,118	80,948	260,974	298,817	5,816	3,958	15,682	18,794
Machinery: steam engines	value	-	-	-	-	3,550	1,994	1,741	32,280
all other sorts	„	-	-	-	-	5,767	2,212	6,482	8,899
Silk manufactures	„	-	-	-	-	5,125	12,429	14,069	10,044
Tin, unwrought	cwts.	413	493	881	850	2,437	2,759	5,561	5,515
Tin plates	value	-	-	-	-	5,021	10,705	10,507	16,452
Woollens: entered by the piece	pieces	14,229	23,249	24,126	22,612	22,861	33,305	40,227	39,541
by the yard	yards	692,616	1,096,173	1,454,921	1,009,303	50,258	45,717	63,556	50,696
at value	value	-	-	-	-	1,588	2,761	8,102	5,657
Total value of the above and of all other articles		-	-	-	-	563,033	921,220	1,202,183	1,088,982

Account of the Quantities and Values of the Principal Articles imported from the Two Sicilies into the U. Kingdom during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Computed Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Argol	cwts.	990	187	2,546	2,173	4,555	729	8,211	8,384
Barilla	tons	120	532	466	158	1,160	5,051	4,426	3,160
Bones of animals and fish (except whalefins)	„	1,182	1,646	901	745	6,205	10,370	4,618	4,619
Brimstone	cwts.	1,406,258	873,005	1,370,717	935,846	364,753	221,945	366,519	378,320
Cream of tartar	„	20,500	8,568	9,862	7,501	118,387	44,982	53,090	51,892
Hemp, undressed	„	32,146	35,454	3,619	608	79,460	74,934	6,740	975
Juice of lemons, limes, and oranges	galls.	126,454	120,874	137,024	114,023	9,484	14,584	10,848	7,245
Liquorice juice and paste	cwts.	6,627	11,552	6,975	7,787	30,043	47,154	31,566	32,492
Madder root	„	40,903	32,028	59,078	68,267	71,580	50,444	132,187	174,081
Nuts, small	bushels	12,569	4,223	11,146	9,214	6,285	2,323	8,592	7,832
Oil: olive	tuns	5,308	7,099	6,095	5,704	305,105	391,333	315,789	308,507
essential: bergamot	lbs.	36,428	27,557	44,780	43,066	9,866	7,922	17,352	20,498
lemon	„	87,911	68,116	75,639	83,009	15,202	18,752	20,864	25,594
Oranges and lemons	bushels	89,524	85,327	123,505	181,466	39,079	41,241	63,296	109,636
Seeds, flax and linseed	qrs.	12,445	4,927	507	4,742	38,113	15,540	1,581	12,906
Shumac	tons	8,499	10,890	15,390	16,476	135,984	146,470	184,680	191,122
Silk: raw	lbs.	10,478	10,822	1,550	6,840	11,264	12,510	2,519	10,775
waste, knubs, and husks	cwts.	499	317	738	368	1,979	1,773	12,394	6,826
thrown	lbs.	24,693	12,111	13,490	6,819	51,484	15,942	23,852	13,935
Vermicelli and maccaroni	cwts.	192	878	1,120	2,368	448	2,502	3,136	5,803
Wine	galls.	445,629	373,114	263,801	360,683	77,985	68,365	56,051	93,482
Wool, sheep and lambs'	lbs.	164,737	143,636	319,862	448,206	7,894	6,434	14,993	23,360
Total value of the above and of all other articles		-	-	-	-	1,411,457	1,281,940	1,505 582	1,597,660

We also exported to the Two Sicilies in 1856 and 1857, foreign and colonial produce of the value of 197,928*l.* in the former, and of 160,448*l.* in the latter year.

These tables do not give a very favourable view of our trade with the Neapolitan dominions. The imports of olive oil have declined from 11,714 tuns in 1850, to 5,704

tuns in 1857. There was from 1852 to 1855, both included, a great falling off in our exports to the Two Sicilies; but they have again increased, and amounted in 1858 to 6,569,296*l.*, being very decidedly greater than in any previous year. They consist principally of cottons and cotton yarn (the latter being a most important article), iron, linens and woollens, coal, machinery, and hardware, copper, tin, &c. But though considerable, our trade with Naples does not certainly amount to $\frac{1}{4}$ part of what it would be were the government to adopt and follow out a liberal commercial policy. No country is better situated, or has greater capacities of production; and it is but fair to state that some considerable improvements have been effected of late years in the Neapolitan tariff. But the government, ignorant and bigoted, has every vice by which a worn out and effete tyrannical system is characterised. And till it be overthrown, and something more liberal and intelligent established in its stead, it would be idle to expect any material change for the better.

Our imports from Naples consist of olive oil, brimstone, silk, cream of tartar, lemon juice, wine (mostly marsala from Sicily), madder, shumac, liquorice juice and paste, argol, and a variety of other articles.

Number, Tonnage, and Crews of Vessels that entered and cleared at the Port of Naples in 1856, specifying the Countries to which they belonged, and the Number, Tonnage, &c., of those belonging to each.

Countries.	Entered.			Cleared.		
	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
British	208	49,875	2,765	208	49,875	2,765
Neapolitan	472	99,448	7,988	472	99,448	7,988
French	163	16,698	6,882	163	16,698	6,882
Dutch	28	1,589	241	28	1,589	241
Sardinian	74	14,263	1,525	74	14,263	1,525
Tuscan	28	2,469	215	28	2,469	215
American (United States)	13	1,609	175	13	1,609	175
Norwegian	20	1,417	229	20	1,417	229
Greek	5	915	51	5	915	51
Austrian	3	731	31	3	731	31
Spanish	6	636	60	6	636	60
Danish	3	124	28	3	124	28
Swedish	1	97	14	1	97	14
Hamburg	2	230	18	2	230	18
Total	1,026	190,101	20,222	1,026	190,101	20,222

Shipping, Port Charges, &c.—The charges of a public nature on a *national ship* of 300 tons burden entering and clearing out from the port of Naples, are as under:—

	D. gr.
On entering—For expediting (Equal to 5*s.* 8*d.* sterling.)	1 60
On clearing out—Expediting	1 60
Bill of health	1 20
Tonnage duty at 4 grains per ton	12 0
(Equal to about 2*l.* 9*s.* 4*d.* sterling.)	D. 14 80

Charges on a *foreign ship* of 300 tons burden:—

On entering—Visa	0 55
Expediting	6 60
Stamp	0 14
(Equal to about 1*l.* 4*s.* 4*d.* sterling.)	D. 7 29
On clearing out—Passport	1 0
Expediting	6 60
Stamp	0 14
Bill of health	2 40
Police	0 20
Port officers	0 60
Registering papers	0 20
Tonnage duty at 40 grains per ton	120 0
(Equal to about 21*l.* 17*s.* 2*d.* sterling.)	D. 151 14

Custom-house Regulations.—Masters of merchantmen are bound, within 24 hours of their arrival, to furnish the custom-house with a general manifest of their cargoes, provisions, and stores; and the master, when consignee, or the consignees, are bound, within 48 hours after the arrival of the ship, to send in a declaration or manifest in detail, of all goods on board. Should the consignee omit to render the manifest in detail within 48 hours, they are subjected to a fine of 30 per cent. upon the non-specified articles.

This declaration or manifest cannot be corrected after the 48 hours are elapsed; and the master or consignee is liable to a fine of 50 ducats for every package erroneously declared. This, however, is usually remitted, unless there be suspicion of fraud, upon application to the director-general of the customs. The importation of gunpowder, tobacco, and salt, though they may be for the ship's use, is strictly prohibited. When such articles are on board the exact quantity of each on hand must be specified in the manifest; and on the vessel receiving *pratique* they are taken to the custom-house, and kept till her departure, when they are restored to her. The slightest deviation from the rules with respect to these articles subjects them, and sometimes the vessel also, to confiscation, and the master to a heavy fine.

Quarantine Regulations.—The free admission, conditional reception, or absolute refusal of a vessel arriving at the port is determined by the wholesome or unwholesome character of the place from which she comes. The place may be, 1. Infected. 2. Suspicious. 3. Endangered. Or, 4. Secure. In the first case, the vessel is *refused altogether*; in the 2d, she is admitted on a long quarantine; in the 3d, she is received on a short quarantine; in the 4th, she is allowed free *pratique*. If the vessel be a ship of war, her quarantine is performed in the Bay of Naples; the days of her passage being allowed in the calculation: if a merchantman, quarantine is performed at Nisita, an island about 6 miles from Naples. It commences from the day of her arrival, if in ballast, or loaded with unsusceptible merchandise; if otherwise, from the day of the discharge of her cargo. Vessels from Great Britain or the N. of Europe are subject to a quarantine of 8 days; but if they touch by the way at any port in Spain or Barbary, the quarantine is lengthened to 14 days: provided, however, they have clean bills of health they may wholly avoid the quarantine by touching at some Italian port, or at Malta, the latter being in free *pratique* with Naples. Vessels from the Ionian Islands are subject to a quarantine of 20 days. No foul lazaretto exists at Naples; but at Nisita there is a lazaretto of expurgation for vessels from suspicious or endangered districts or territories. Vessels from infected places usually go to Leghorn or Genoa, where they may unload in a *lazaretto sporco*. The fees charged on ships performing quarantine are heavy. No distinction is made between national and foreign bottoms.

Brokers, Commission, &c.—No person can legally act as a broker unless authorised by government. All patented brokers are obliged, by way of security, to hold funded property producing 500 ducats of "rente," or a dividend of 85*l.* 6*s.* 8*d.* sterling. Many persons, however, act as brokers without being *patented*, but no contract made by them is admitted in a court of law. Any person may set up as a merchant, by giving due notice to the *Camera di Commercio*.

Rates of Commission and Charges established by the Merchants at Naples.

Commission on sales of fish	3 per cent.
Do. on manufactures of all kinds	3 —
Do. on all other goods	2 —
Do. on goods purchased	2 —
Do. on receiving and forwarding	½ —
Do. on attempting sales	1 —
Do. on re-sale of goods for the same account on which a purchasing commission has been charged	1½ —
Do. on chartering vessels, or procuring charters	3 —
Do. on collecting freights on chartered ships	2 —
Do. on ships both inwards and outwards	4 —
Do. on advances on letters of credit	1 —
Do. on effecting insurances	½ —
Do. on negotiating bills	½ —
Do. on receiving and paying or remitting	½ —
Del credere on sales	2 —
Do. on purchase of oil, not exceeding 3 months	1 —
Do. do. do., not exceeding 6 do.	2 —
Do. per underwriters	½ —

Tares usually allowed by the custom house at Naples on the leading articles of importation :—

Sugar in hogsheads	12 per cent.
Do. in boxes or barrels	14 —
Do. in Brazil chests	18 to 20 per cent.
Do. in bags	6 rottoli.
Loaves, in casks	real tare.
Do. extra for paper and strings	5 per cent.
Indigo	real tare.
Tin, in barrels, each	1½ rottoli.
Alum, in casks	10 per cent.
Wax, real tare and extra	2 to 3 per cent.
Cod and stock-fish	1 per cent.
Coffee, in casks	real tare.
Do. in bags, each	3 rottoli.
Pepper, do.	—
Pimento, do.	—
Cocoa, do.	3 do. 2 ad. 5 per cent.
Cocoa, in casks	for dust, real tare.
Cassia lignea, cochineal, and bark	real tare.

Insurance.—There are 4 or 5 companies for the insurance of ships, and 1 for lives. Their terms are generally higher than those of similar establishments in London. Houses are never insured at Naples, their construction rendering fires very rare. The companies are established by royal authority, the shareholders being only liable for the amount of their shares.

Banking.—The principal merchants of Naples are all, more or less, bankers, inasmuch as they advance money on letters of credit, and deal in foreign exchanges, and other financial operations. But the only banking establishment at present in existence is the Bank of the Two Sicilies, founded by government, and guaranteed by the possession of landed property. It is not a bank for the issue of notes on credit, like the Bank of England, but for their issue on deposits, somewhat on the principle of the Bank of Hamburg. Government makes all its payments by means of notes or orders on the bank; and they are issued to individuals for whatever sums they desire, on their paying an equivalent sum of money to the bank. These notes or orders form a considerable part of the circulating medium of Naples; they are paid in cash on demand.

Government has also established a discount office, where bills, indorsed by 2 persons of good credit, and not at more than 3 months' date, are discounted at 4 per cent.

So large a city as Naples, and so advantageously situated for the commerce with the Black Sea, the Levant, Greece, Spain, Northern Italy, Northern Africa, &c., would, had it been allowed to avail itself of its natural advantages, have become a most important *entrepôt*. But in consequence of injudicious regulations no goods have been carried to it except those destined for home consumption. In this respect, however, a considerable change may now be anticipated.

Credit, &c.—Goods are universally sold at long credits, mostly from 4 to 8 months; and for manufactured goods, sometimes longer. On sales of indigo, from 12 to 18 months' credit is given. Discount for ready money is at the rate of 6 per cent. per annum. Merchants are arranged by the Chamber of Commerce into 5 different classes; and a 6 months' credit is given at the custom-house for duties, to the extent of 60,000, 40,000, 30,000, 20,000, and 15,000 ducats, to individuals, according to the class in which they happen to be enrolled. But this is of little importance. Unless the transactions of a merchant be very limited indeed, the duties he has to pay amount to much more than the credit he is allowed.

NAVAL COURTS, are tribunals established as occasion may require, either on the high seas or in foreign parts, for inquiring into and dealing with various matters pertaining to maritime affairs. They were originally constituted by the 13 & 14 Vict. c. 93; but their constitution, duties, and procedure are now regulated by the clauses relating thereto in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104, which are as follows, viz. :—

Naval Courts may be summoned for hearing Complaints, &c. — Any officer in command of any ship of H. M. on any foreign station, or, in the absence of such officer, any consular officer, may summon a Court, to be termed a "Naval Court," in the following cases, viz.,

(1.) Whenever a complaint which appears to such officer to require immediate investigation is made to him by the master of any British ship, or by any certificated mate, or by one or more of the seamen belonging to any such ship.

(2.) Whenever the interest of the owner of any British ship or of the cargo of any such ship appears to such officer to require it.

(3.) Whenever any British ship is wrecked or abandoned or otherwise lost at or near the place where such officer may be, or whenever the crew or part of the crew of any British ship which has been wrecked, abandoned, or lost abroad, arrives at such place.—§ 260.

Constitution of such Courts. — Every such naval court as aforesaid shall consist of not more than 5 and not less than 3 members, of whom, if possible, one shall be an officer in the naval service of H. M. not below the rank of lieutenant, one a consular officer, and one a master of a British merchant ship, and the rest shall be either officers in the naval service of H. M., masters of British merchant ships, or British merchants; and such court may include the naval or consular officer summoning the same, but shall not include the master or consignee of the ship to which the parties complaining or complained against may belong; and the naval or consular officer in such court, if there is only one such officer in the court, or, if there is more than one, the naval or consular officer who, according to any regulations for settling their respective ranks for the time being in force, is of the highest rank, shall be the president of such court.—§ 261.

General Functions and Mode of Action of such Court. — Every such naval court shall hear and investigate the complaint brought before it, or the cause of the wreck or abandonment, (as the case may be,) and may for that purpose summon and compel the attendance of parties and witnesses, and administer oaths, and order the production of documents, and shall conduct the investigation in such manner as to give any person against whom any charge is made an opportunity of making a defence.—§ 262.

Powers of such Courts. — Every such naval court may, after hearing the case, exercise the following powers, viz.,

(1.) It may, if unanimous that the safety of the ship or crew, or the interest of the owner, absolutely requires it, supersede the master, and may appoint another person to act in his stead; but no such appointment shall be made without the consent of the consignee of the ship, if then at the place.

(2.) It may discharge any seaman from his ship.

(3.) It may order the wages of any seaman so discharged or any part of such wages to be forfeited, and may direct the same either to be retained by way of compensation to the owner, or to be paid into the receipt of H. M.'s exchequer in the same manner as other penalties and forfeitures under this act.

(4.) It may decide any questions as to wages, or fines, or forfeitures, arising between any of the parties to the proceedings.

(5.) It may direct that all or any of the costs incurred by the master or owner of any ship in procuring the imprisonment of any seaman or apprentice in a foreign port, or in his maintenance whilst so imprisoned, shall be paid out of and deducted from the wages of such seaman or apprentice, whether then or subsequently earned.

(6.) It may exercise the same powers with regard to persons charged before it with the commission of offences at sea or abroad as are by this act given to British consular officers.

(7.) It may order the cost of the proceeding before it (if any), or any portion thereof, to be paid by any of the parties thereto, and may order any person making a frivolous or vexatious complaint to pay compensation for any loss or delay caused thereby; and any cost or compensation so ordered shall be paid by such person accordingly, and may be recovered in the same manner in which the wages of seamen are recoverable, or may, if the case admits, be deducted from his wages.

And all orders duly made by any such court under the powers hereby given to it shall in any subsequent legal proceedings be deemed conclusive as to the rights of the parties. —§ 263.

Orders to be entered in Official Log.—All orders made by any such naval court shall, whenever practicable, be entered in the official log book of the ship to which the parties to the proceedings before it belong, and shall be signed by the president of the court.—§ 264.

Report to be made of Proceedings of Naval Courts.—Every such naval court shall make a report to the B. of Trade, containing the following particulars, viz. :

(1.) A statement of the proceedings, with the order made by the court, and a report of the evidence.

(2.) An account of the wages of any seaman or apprentice who is discharged from his ship by such court.

(3.) If summoned in order to inquire into a case of wreck or abandonment, a statement of the opinion of the court as to the cause of such wreck or abandonment, with such remarks on the conduct of the master and crew as the circumstances require.

And every such report shall be signed by the president of the court; and every document purporting

to be such a report and to be so signed as aforesaid shall, if produced out of the custody of some officer of the B. of Trade, be deemed to be such report, unless the contrary is proved, and shall be received in evidence, subject to all just exceptions. — § 265.

Penalty for preventing Complaint, &c.—Any person who wilfully and without due cause prevents or obstructs the making of any such complaint as last aforesaid, or the conduct of any case or investigation by any naval court, shall for each such offence incur a penalty not exceeding 50*l.*, or be liable to imprisonment with or without hard labour for any period not exceeding 12 weeks. — § 266.

NAVIGATION LAWS. These laws form an important branch of Maritime Law. In this country they are understood to comprise the various acts that have been passed, defining British ships, the way in which such ships are to be registered, the peculiar privileges enjoyed by them, and the conditions under which foreign ships shall be allowed to engage in the trade of the country, either as importers or exporters of commodities, or as carriers of commodities from one part of the country to another.

Sketch of the History and Principles of the Navigation Laws. — The origin of the Navigation Laws of England may be traced to the reign of Richard II., or perhaps to a still more remote period. But, as no intelligible account of the varying and contradictory enactments framed at so distant an epoch could be compressed within any reasonable space, it is sufficient to observe, that, in the reign of Henry VII., two of the leading principles of the navigation law were distinctly recognised, in the prohibition of the importation of certain commodities, unless imported in ships belonging to English owners, and manned by English seamen. In the early part of the reign of Elizabeth (*5 Eliz. c. 5.*), foreign ships were excluded from our fisheries and coasting trade. The republican parliament gave a great extension to the navigation laws, by the act of 1650, which prohibited all ships, of all foreign nations whatever, from trading with the plantations in America, without having previously obtained a licence. These acts were, however, rather intended to regulate the trade between the different ports and dependencies of the empire, than to regulate our intercourse with foreigners. But in the following year (9th of October, 1651) the republican parliament passed the famous *Act of Navigation.* This act had a double object. It was intended not only to promote our own navigation, but also to strike a decisive blow at the naval power of the Dutch, who then engrossed almost the whole *carrying trade* of the world, and against whom various circumstances had conspired to incense the English. The act in question declared, that no goods or commodities whatever, of the growth, production, or manufacture of Asia, Africa, or America, should be imported either into England or Ireland, or any of the plantations, except in ships belonging to English subjects, and of which the master and the greater number of the crew were also English. Having thus secured the import trade of Asia, Africa, and America, to the English ship owners, the act went on to secure to them, as far as that was possible, the import trade of Europe. For this purpose, it further enacted, that no goods of the growth, production, or manufacture of any country in Europe, should be imported into Great Britain, except in British ships, or *in such ships as were the real property of the people of the country or place in which the goods were produced, or from which they could only be, or most usually were, exported.* The latter part of the clause was entirely levelled against the Dutch, who had but little native produce to export, and whose ships were principally employed in carrying the produce of other countries to foreign markets. Such were the leading provisions of this famous act. They were adopted by the regal government which succeeded Cromwell, and form the basis of the act of the 12th Car. 2. c. 18., which continued, to a very recent period, to be the rule by which our naval intercourse with other countries was mainly regulated; and has been pompously designated the *Charta Maritima* of England!

In the statute 12 Car. 2. c. 18., the clause against importing foreign commodities, except in British ships, or in ships belonging to the country or place where the goods were produced, or from which they were exported, was so far modified, that the prohibition was made to apply only to the goods of Russia and Turkey, and to certain articles since well known in commerce by the name of *enumerated* articles, leave being at the same time given to import all other articles in ships of any description. But this modification was of very little importance; inasmuch as the enumerated articles comprised all those that were of most importance in commerce, as timber, grain, tar, hemp and flax, potash, wines, spirits, sugar, &c. Parliament seems, however, to have very speedily come round to the opinion that too much had been done in the way of relaxation; and in the 14th of Charles II. a supplemental statute was passed, avowedly with the intention of obviating some evasions of the statute of the preceding year, which it was affirmed had been practised by the Hollanders and Germans. This, however, seems to have been a mere pretence, to excuse the desire to follow up the blow aimed, by the former statute, at the carrying trade of Holland. And such was our jealousy of the naval and commercial greatness of the Dutch, that, in order to cripple it, we did not hesitate totally to proscribe all trade with them; and to prevent the possibility of fraud, or of clandestine or indirect intercourse with Holland, we went so far as to include the commerce with the Netherlands and Germany in the same proscription. The statute of the 14th Car. 2. prohibited all importation from these countries of a long list of enumerated commodities

under any circumstances, or in any vessels, whether British or foreign, under the penalty of seizure and confiscation of the ships and goods. So far as it depended on us, Holland, the Netherlands, and Germany were virtually placed without the pale of the commercial world! And though the extreme rigour of this statute was subsequently modified, its principal provisions remained in full force until the late alterations.

The policy, if not the motives, which dictated these statutes, has met with very general eulogy. It has been said, and by no less an authority than Dr. Smith, that national animosity did, in this instance, that which the most deliberate wisdom would have recommended. "When the act of navigation was made," says he, "though England and Holland were not actually at war, the most violent animosity subsisted between the two nations. It had begun during the government of the long parliament, which first framed this act, and it broke out soon after in the Dutch wars during that of the Protector and of Charles II. It is not impossible, therefore, that some of the regulations of this famous act may have proceeded from national animosity. They are as wise, however, as if they had all been dictated by the most deliberate wisdom. National animosity at that particular time aimed at the very same object which the most deliberate wisdom would have recommended,—the diminution of the naval power of Holland, the only naval power which could endanger the security of England. The act of navigation *is not favourable to foreign commerce, or to the growth of that opulence which can arise from it.* The interest of a nation in its commercial relations to foreign nations is, like that of a merchant with regard to the different people with whom he deals, to buy as cheap and to sell as dear as possible. But the act of navigation, by diminishing the number of sellers, must necessarily diminish that of buyers; and we are thus likely not only to buy foreign goods dearer, but to sell our own cheaper, than if there was a more perfect freedom of trade. As defence, however, is of much more importance than opulence, the act of navigation is, perhaps, the wisest of all the commercial regulations of England."—(*Smith's Wealth of Nations*, p. 204.)

It may, however, be very fairly doubted, whether, in point of fact, the navigation law had the effects here ascribed to it, of weakening the naval power of the Dutch, and of increasing that of this kingdom. The Dutch were very powerful at sea for a long period after the passing of this act; and it seems natural to conclude, that the decline of their maritime preponderance was owing rather to the gradual increase of commerce and navigation in other countries, and to the disasters and burdens occasioned by the ruinous contests the Republic had to sustain with Cromwell, Charles II., and Louis XIV., than to the mere exclusion of their merchant vessels from the ports of England. It is not meant to say that this exclusion was altogether without effect. The efforts of the Dutch to procure a repeal of the English navigation law show that, in their apprehension, it operated injuriously on their commerce.* It is certain, however, that its influence in this respect has been greatly over-rated in this country. *Excessive taxation*, and not our navigation law, was the principal cause of the fall of profits, and of the decline of manufactures, commerce, and navigation, in Holland. "Les guerres," says the well-informed author of the *Commerce de la Hollande*, "terminées par les traités de Nimegue, de Ryswick, d'Utrecht, et enfin la dernière par le traité d'Aix-la-Chapelle, ont successivement obligé la République de faire usage d'un grand crédit, et de faire des emprunts énormes pour en soutenir les fraix. Les dettes ont surchargé l'état d'une somme immense d'intérêts, qui ne pouvoient être payés que par *une augmentation excessive d'impôts*, dont il a fallu faire porter la plus forte partie par les consommations dans un pays qui n'a qu'un territoire extrêmement borné, et par conséquent par l'industrie. Il a donc fallu faire enchérir infiniment la main-d'œuvre. Cette cherté de la main-d'œuvre a non seulement restreint presque toute sorte de fabrique et d'industrie à la consommation intérieure, mais elle a encore porté un coup bien sensible au commerce de frêt, partie accessoire et la plus précieuse du commerce d'economie: car cette cherté a rendu la construction plus chere, et augmenté le prix de tous les ouvrages qui tiennent à la navigation, même de tous les ouvrages des ports et des magasins. Il n'étoit pas possible que l'augmentation du prix de la main-d'œuvre ne donnât, malgré tous les efforts de l'économie Hollandoise, un avantage sensible aux autres nations qui voudroient se livrer au commerce d'économie et à celui de frêt."—(Tome ii. p. 211.)

This extract, which might, were it necessary, be corroborated by others to the same effect from all the best Dutch writers, show that it is not to our navigation laws, nor to the restrictive legislations of other foreign powers, but to the abuse of the funding system, and the excess of taxation, that the decline of the commercial greatness and maritime power of Holland was really owing. Neither does it appear that the opinion maintained by Dr. Smith and others, that the navigation law had a powerful influence in augmenting the naval power of this country, rests on any better foundation. The

* In the treaty of Breda, agreed upon in 1667, between the States General and Charles II., the latter undertook to procure the repeal of the navigation law. But the subject was never agitated in either house of parliament.

taste of the nation for naval enterprise had been awakened, the navy had become exceedingly formidable, and Blake had achieved his victories, before the enactment of this famous law. So far, indeed, is it from being certain that the Navigation Act had, in this respect, the effect commonly ascribed to it, that there are good grounds for thinking it had a precisely opposite effect, and that it operated rather to diminish than to increase our mercantile navy. It is stated in Roger Coke's *Treatise on Trade*, published in 1671 (p. 36.), that this act, by lessening the resort of strangers to our ports, had a most injurious effect on our commerce; and he further states that we had lost, within 2 years of the passing of the act of 1650, the greater part of the Baltic and Greenland trades.—(p. 48.) Sir Josiah Child, whose treatise was published in 1691, corroborates Coke's statement; for while he decidedly approves of the navigation law, he admits that the English shipping employed in the Eastland and Baltic trades had decreased at least *two thirds* since its enactment, and that the foreign shipping employed in these trades had proportionally increased.—(*Treatise on Trade*, p. 89. Glasg. edit.) Exclusively of these contemporary authorities, it may be worth while to mention that Mr. Richardson, an extensive and extremely well-informed merchant, condemns the whole principle of the Navigation Act; and contends, that instead of increasing our shipping and seamen, it had diminished them both; and that, by rendering the freight of ships higher than it would otherwise have been, it had entailed a heavy burden on the public, and been one of the main causes that had prevented our carrying on the fishery so successfully as the Dutch.—(*Essay on the Causes of the Decline of Foreign Trade*, p. 60. ed. 1756.)

There do not seem to be any very good grounds on which to question these statements; and they are at all events sufficient to show, that the assertions of those who contend that the navigation laws had a prodigious effect in increasing the number of our ships and sailors, must be received with very great modification. But suppose that all that has been said by the apologists of these laws were true to the letter; suppose it were conceded, that, when first framed, the Act of Navigation was extremely politic and proper; that would afford but a very slender presumption in favour of the policy of supporting it in the present day. Human institutions are not made for immortality: they must be accommodated to the varying circumstances and exigencies of society. But the situation of G. Britain and the other countries of Europe has totally changed since 1650. The envied wealth and commercial greatness of Holland have passed away: we have no longer any thing to fear from her hostility: and "he must be, indeed, strangely influenced by antiquated prejudices and by-gone apprehensions, who can entertain any of that jealousy from which the severity of this law principally originated." London has become, what Amsterdam formerly was, the grand emporium of the commercial world —*universi orbis terrarum emporium:* and the real question which now presents itself for our consideration is, not what are the best means by which we may rise to naval greatness? but—what are the best means of preserving that undisputed pre-eminence in maritime affairs to which we have attained?

Now, it does not really seem that there can be much difficulty in deciding this question. Navigation and naval power are the children, not the parents — the effect, not the cause — of commerce. If the latter be increased, the increase of the former will follow as a matter of course. More ships and more sailors become necessary according as the commerce between different and distant countries is extended. A country in the condition of G. Britain in the reign of Charles II., when her shipping was comparatively limited, might perhaps be warranted in endeavouring to increase its amount, by excluding foreign ships from her harbours. But it is almost superfluous to add, that it is not by any such regulations, but solely by the aid of a flourishing and widely extended commerce, that the immense mercantile navy we have now accumulated can be supported.

It may be easily shown, that to have continued, in the present state of the world, to enforce the provisions of the old navigation law, would have been among the most efficient means that could have been devised for the destruction of our commerce. The wealth and power to which Britain has attained, have inspired other nations with the same feelings of envy and jealousy, that the wealth of Holland formerly generated in our minds. Instead of ascribing our commercial and manufacturing superiority to its true causes, that is, to the comparative freedom of our constitution, the absence of all oppressive feudal privileges, the security of property, and the fairness of our system of taxation, our foreign rivals contended that it had been entirely owing to our exclusive system, and appealed to our example to stimulate their respective governments to adopt retaliatory measures, and to protect them against British competition. These representations had the most injurious operation. In 1817, the American legislature passed an act, copied to the very letter from our statute book, with the avowed intention of its operating as a retaliatory measure against this country. The northern powers threatened to act on the same principle; and would have carried their threats into effect but

for timely concessions on our part. The same engines by which we laboured to destroy the trade of Holland were thus about to be brought, by what we could not have called an unjust retribution, to operate against ourselves. Nor can there be a doubt that, had we continued to maintain our exclusive system, and refused to set a better example to others, and to teach them the advantage of recurring to more liberal principles, we should have run a very great risk of falling a victim to the vindictive spirit which such short-sighted and selfish policy would have generated.

These statements are sufficient to show that a considerable relaxation of our navigation laws had become indispensable; and this was partly effected in 1821 and 1825, but principally in the latter, by the measures introduced with that view into parliament by Mr. Wallace (afterwards Lord Wallace) and Mr. Huskisson. The effect of these was to place the intercourse of all European countries at amity with the U. Kingdom on the same footing. The memorials of our former animosity, and of our jealousy of the prosperity of certain neighbouring states, being thus abolished, the same law has since continued to regulate our commerce with the continent. This uniformity, besides giving greater scope to mercantile operations, and facilitating our traffic with some of our most opulent neighbours, removed a prolific source of embarrassment and litigation, at the same time that it detracted considerably from that selfish character which had been believed on the continent, and not without considerable reason, to be the animating principle of our commercial policy.

The changes that were also made in 1821 and 1825, in regard to the importation of *enumerated* goods*, and of articles, the produce of Asia, Africa, and America, though of considerable importance, were very far from obviating the hardships arising out of the previous rules. The importation of European goods continued to be practicable only in British ships, or in ships of the country of which the goods were the produce, or of the country from which they were shipped. This regulation was kept up to hinder the Dutch, the Danes, or any other people, from becoming the carriers of the produce of other nations to our ports. But while this result was not very likely to occur, the rule imposed a serious hardship on foreigners, and also on ourselves. Suppose that a Dutch ship took in part of a cargo of Dutch produce, such as cheese, butter, and geneva at Rotterdam for England, what could be more vexatious, in the event of her not being able to complete her cargo with Dutch goods suitable for our markets, than to hinder her from making it up with the foreign goods suitable for them warehoused at Rotterdam, such as the wines and brandies of France, the corn of Poland, the hemp and tallow of Russia, &c.? But its vexatious character was not the only thing to be objected to in a regulation of this sort. It really increased the cost of the butter, cheese, &c. sent to us; for as these had to bear the whole charge on account of freight which, but for the regulation, would have been in part borne by other articles, their price was proportionally enhanced, at the same time that the Dutch were tempted to resort to retaliatory measures. And how injurious soever in other respects, it is sufficiently plain that this regulation could never, as has been alleged, occasion an increased demand for British shipping. It no doubt compelled the foreigners to sort their cargoes less advantageously than they might otherwise have done. But the burden of this fell upon the employers of the carriers and not on the carriers themselves; that is, it fell upon us and not on the foreigners; while, in the event of their retaliating, our trade was subjected to the same difficulties. It is visionary to pretend that a system so prejudicial to commerce could be advantageous to shipping and navigation.

The measures introduced in 1825 left also untouched the regulation by which goods, the produce of Asia, Africa, and America, were prohibited from being imported from any European port †, and could not be imported on foreign bottoms, except when they were imported direct in ships of the country of which the goods were the produce. It was proposed in 1821 to authorise British ships to import all non-prohibited articles from wherever they might find them; and though nothing apparently could be more reasonable than such a regulation, it was objected to on the pretence that foreign ships being more cheaply navigated than ours, would take advantage of this circumstance to import Asiatic, African, and American products into the contiguous continental ports, and would thus confine the employment of our ships to their carriage thence! And upon this futile pretence, for which there was not so much as the shadow of a foundation in fact, the old rule was maintained; and, in consequence, though the ports along the English Channel might have been glutted with the corn and cotton of America, the sugar of Brazil and Cuba, the coffee of Java, and the tea of China, and though all or some of these articles might at the time have been deficient here, not one of them could be imported in a foreign ship, unless, as was sometimes the case, it were carried back to the country whence it had been originally shipped, nor even in a British ship, unless it were

* These changes are specified in the former editions of this work.

† The only exception to this rule were articles from Asiatic and African Turkey imported from the Levant, and bullion.

first carried from Europe to some other continent! It is hardly possible to imagine any rule or regulation more extravagantly oppressive and absurd, and it is really astonishing that it should have been able to keep its place on the statute book for about two centuries. Luckily, however, this preposterous system, as well as the regulations affecting importation from Europe, ceased on the 1st of January, 1850. The act for their repeal, the 12th and 13th Vict. c. 29., went far to complete the free trade measures adopted in 1842 and 1846, and had the most favourable influence over the commerce and navigation of the empire.

It did not, however, interfere with the monopoly of the coasting trade, which continued to be secured to British ships. But this last shred of the protective system has, also, been swept away by the act of 1854, the 17th Vict. c. 5 (see COASTING TRADE). Probably, however, few foreign ships will engage in this department; but their being at liberty to do so will insure freights being kept at their fair level.

The relaxations made in 1825 and 1826 in the regulations embodied in our old navigation laws in regard to the colonial trade, were perhaps the most valuable portion of the changes introduced by Mr. Huskisson. But though they did much to obviate the hardships growing out of the previous rules, and to give freedom to the colonial trade, they did not entirely effect that object; and some regulations were subsequently continued in force which, though irritating and mischievous in their bearing on the colonies, were of no real advantage to ourselves. These, however, wholly ceased on the 1st of January, 1850. All varieties of goods may now be imported into the colonies from all countries at peace with Great Britain, and exported from the colonies to them, whether in British, colonial, or foreign shipping. The complaints of the colonists, in regard to the injuries they have sustained from the rules enforced by our navigation laws, are thus completely obviated, and on that ground, at all events, they have no further claim to prohibitory duties.

Besides the restrictive regulations already alluded to, it was a part of our former policy to encourage the employment of British shipping by imposing higher duties on commodities imported in foreign vessels than were imposed on them when imported in British vessels; and it was also customary to charge foreign vessels with higher port and lighthouse duties, &c. This practice was always loudly complained of by foreigners; but we had little difficulty in maintaining it, so long as we could afford to disregard the retaliatory measures of other powers. But the extraordinary increase that took place, since the commencement of the late war, in our manufactures for foreign consumption, and the necessity under which we were, in consequence, placed, of conciliating our customers abroad, led to the adoption of the *reciprocity system*. The latter was first introduced into the trade with the U. States. After the N. American colonies had succeeded in establishing their independence, they set about framing rules for their navigation on the model of those of this country. Among other regulations of a restrictive character, it was enacted that all foreign vessels trading to the U. States should pay 44 cents, which was afterwards raised to 94 cents (nearly a dollar), per ton duty, beyond what was paid by American ships; and farther, that goods imported in foreign vessels should pay a duty of 10 per cent. over and above the duty payable on them when imported in American vessels.

This law was avowedly directed against the shipping of this country, though, as it was bottomed on the same principles as our navigation laws, we could not openly complain of its operation. Under these circumstances it would have been sound policy to have at once proposed an accommodation; and, instead of attempting to meet retaliation by retaliation, to have offered to modify our navigation law in so far as American shipping was concerned, on the Americans making reciprocal modifications in our favour. A different course was, however, followed. Various devices were fallen upon to counteract the navigation system of the Americans, without in any degree relaxing our own: but they all failed of their object; and at length it became obvious to every one that we had engaged in an unequal struggle, and that the real effect of our policy was, to give a bounty on the importation of the manufactured goods of other countries into the U. States, and thus gradually to exclude both our manufactures and ships from the ports of the republic. In consequence, a conviction of the necessity of making concessions gained ground progressively; and it was ultimately fixed, by the commercial treaty agreed upon between G. Britain and the U. States, in 1815, that in future equal charges should be imposed on the ships of either country in the ports of the other, and that equal duties should be laid upon all articles, the produce of the one country imported into the other, whether such importation were effected in the ships of the one or the other.

Brazil and the other states of S. America were naturally anxious to establish a commercial marine; and, to forward their views in this respect, they contemplated enacting navigation laws. But this intention was frustrated by the interference of the British

government, who, without stipulating for any particular advantage, wisely offered to admit their ships into our ports on a principle of reciprocity, or on their paying the same charges as our own ships, on condition of their admitting British ships into their ports on a similar footing. Commercial treaties, framed on this sound principle, were afterwards entered into with most of these states.

The reciprocity system having been thus adopted as the basis of the intercourse with the U. States, whose commercial marine was second only to that of G. Britain, it was not possible to refuse adopting it in the case of such European countries as might choose to admit our ships into their ports on a footing of equality.* The first demand of this sort was made on the part of the Prussian government, which on the 20th of June, 1822, issued an order in council, making large additions to the port dues previously charged on all ships belonging to those nations which did not admit Prussian ships on a principle of reciprocity. The real object of this order was to injure the navigation of this country; and it was speedily found that it had the desired effect, and that its operation on British shipping was most mischievous.

Under these circumstances, the British merchants and shipowners applied to our government for relief.

"We were assailed," said Mr. Huskisson, "with representations from all quarters connected with the shipping and trade of the country, against the heavy charges imposed upon British ships in the ports of Prussia. In such circumstances, what course did his Majesty's government take? We felt it to be our duty, in the first instance, to communicate with the Prussian minister in this country; and our minister at Berlin was, I believe, also directed to confer with the Prussian government on the subject. I myself had a conference with the Prussian minister at this court, and I well recollect the substance of his reply to me: 'You have,' he said, 'set us the example, by your port and light charges, and your discriminating duties on Prussian ships; and we have not gone beyond the limits of that example. Hitherto, we have confined the increase of our port and tonnage charges to ships only; but it is the intention of my government next year' (and of this he showed me the written proof) 'to imitate you still more closely, by imposing discriminating duties on the goods imported in your ships. Our object is a just protection to our own navigation; and so long as the measure of our protection does not exceed that which is afforded in your ports to British ships, we cannot see with what reason you can complain.'

"Against such a reply what remonstrance could we, in fairness, make to the Prussian government? We might have addressed ourselves, it may be said by some, to the friendly feelings of that government; — we might have pleaded long usage in support of our discriminating duties; — we might have urged the advantages which Prussia derived from her trade with England. Appeals like these were not forgotten in the discussion, but they were of little avail against the fact stated by the consul at Dantzic — that 'the Prussian shipowners were all going to ruin.'

"By others it may be said, 'Your duty was to retaliate by increasing your own port charges and discriminating duties, on Prussian shipping.' I have already stated generally my reasons against the policy of this latter course. We were not prepared to begin a system of commercial hostility, which, if followed up on both sides to its legitimate consequences, could only tend to reciprocal prohibition. In this state of things, more prudently, as I contend, we entered upon an amicable negotiation with the Prussian government, upon the principle of our treaty with the United States, — that of abolishing, on both sides, all discriminating duties on the ships and goods of the respective countries in the ports of the other.

"Having concluded an arrangement with Prussia upon this basis, we soon found it necessary to do the same with some other of the northern states. Similar conventions were accordingly entered into with Denmark and Sweden. Reciprocity is the foundation of all those conventions; but it is only fair to add, that they contain other stipulations for giving facility to trade, and from which the commerce of this country, I am confident, will, in the result, derive considerable advantage." †

This statement shows that the establishment of the reciprocity system, with respect to which so violent a clamour was afterwards raised, was not a measure of choice but of necessity. We could not afford to hazard the exclusion of our manufactures from countries into which they were annually imported to a large amount. So long as the Prussians, Swedes, Danes, and other nations, chose to submit, without attempting to retaliate, to our system of discriminating duties on foreign ships, and on the goods imported in them, it was no business of ours to tell them that that system was illiberal and unjust. But when they discovered that such was really the case, and declared that unless we modified our restrictions, they would retaliate on our commerce, and either entirely exclude our commodities from their markets, or load those that were imported in British ships with prohibitory duties, should we have been justified in refusing to come to an accommodation? Were we to sacrifice the substance to the shadow? To turn away some of our best customers because they chose to stipulate that the intercourse between them and us should be conducted either in their ships or in ours, as the merchants might think best? Government had only a choice of difficulties; and they wisely preferred adopting a system which has preserved the access to foreign markets for English goods, and has farther secured an equal chance to English ships, with those of foreigners, of being employed in the trade with other countries. More could not have been obtained; nor would it have been really desirable. Had we endeavoured to enforce in the nineteenth century the rules and regulations that had been justly objected to and regarded as oppressive in the sixteenth and seventeenth centuries, we should have provoked a spirit of hostility and retaliation that must even-

* By the fourth section of the act 6 Geo. 4. c. 1., it was enacted, that his Majesty might, by an order in council, admit the ships of foreign states into our ports, on payment of the like duties that are charged on British vessels, provided that British ships are admitted into the ports of such foreign states on payment of the like duties that are charged on their vessels.

† Huskisson's Speech, May 12, 1826, on the State of the Shipping Interest.

tually, and at no distant period, have crippled alike the manufactures, the trade, and the navigation of the empire.

The reciprocity system is still wisely maintained, and is, indeed, embodied in the act 12 & 13 Vict. c. 29. But we do not make its previously agreeing to this system a condition of a foreign country being entitled to participate in the advantages conferred by this act. Such preliminary arrangements would have occasioned much embarrassment and difficulty, and we, therefore, have contented ourselves with reserving power to her Majesty in council, in the event of her thinking it expedient to interfere, to impose such prohibitions, restrictions, and discriminating duties on the ships of any foreign power frequenting our ports, as may be required to countervail any peculiar prohibitions, restrictions, or duties laid upon British ships in the ports of such foreign power.

Much difference of opinion has existed as to the practical effect on our shipping and navigation, of the changes in the navigation law introduced by Mr. Huskisson. But there is really no ground for any such difference. This will be apparent from the following comparison between the shipping belonging to the empire in 1825, when Mr. Huskisson's reforms began, and in 1848:—

Account of the Ships, their Tonnage, and their Crews, belonging to the British Empire in 1825 and 1848.

Years.	United Kingdom and Possessions in Europe.		Colonies.		Total.		Crews.
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	
1825	20,701	2,528,807	3,579	214,875	24,280	2,553,682	166,183
1848	25,638	3,400,809	8,034	651,351	33,672	4,052,160	256,069
Excess in 1848.	4,937	1,072,002	41,455	436,476	9,392	1,498,478	69,886

It is plain from this statement that the number of our ships, the amount of their tonnage, and the number of our sailors, have all been vastly increased since 1825. And if this be not, we should like to know what can be, a conclusive proof of the wisdom of the changes effected in 1825. They have, in fact, been successful to a degree which the most sanguine could not previously have supposed possible.

Although, however, the fact of a vast increase of our mercantile marine having taken place since 1825, be too well established to admit of any doubt, it is contended by the apologists of the old restrictive system, that the share which foreigners have in the trade of the U. K. is notwithstanding greater now than in 1825. But this greater preponderance of foreign vessels in our trade, if such really be the case (which is doubtful), is admitted to be but inconsiderable; though, were it incomparably greater than it is alleged to be, it would afford no room or ground for objecting to the measures of 1825 and 1849. The shipping and foreign trade of most continental states were all but wholly destroyed during the war terminated in 1815; while our shipping and trade were then proportionally increased: and the influence of this depression on the one side, and of the unnatural stimulus on the other, was far from being exhausted in 1825. But in the lengthened interval that has since elapsed, the mercantile navies of the continental states have attained to their ordinary state. And while we have no longer had any peculiar advantages on our side, we have had to contend with them, and with the rapidly increasing marine of the U. States. As respects the latter, we may observe, that while in 1825 our imports of cotton, principally from America, amounted to about 222,500,000 lbs., they amounted in 1854, to about 886,500,000 lbs.; at the same time that the imports of corn and flour from the U. States in the latter year bore a still greater proportion to their amount in the former. Our intercourse with Holland, France, the Elbe, &c., which was all but wholly suppressed during the war, is now become very extensive; and are we, under such circumstances, to be surprised that the proportion of foreign shipping frequenting our ports has increased? Had such increase been ten times greater, it could not have surprised any reasonable person; and the fair presumption is, that but for the reforms effected in 1835, such would have been the case. And experience has shown that the farther reforms effected in 1849, which, like those of 1825, were imperatively required by the exigencies of the case, have been equally beneficial.

It may be said, perhaps, that the rapid extension of our mercantile navy during the last 4 or 5 years, and the extraordinary rise of freights, and of the profits of the shipowners, is mainly a consequence of the gold discoveries in California and Australia, and of the prodigious impulse they have given to emigration and to the trade of the world. But, though the circumstances alluded to have undoubtedly had a very powerful influence, there is no room or ground for thinking that, under any circumstances, our shipowners should not be able to maintain a successful competition with those of America, or any other country. The wages of seamen in the U. States are usually

higher than here, which, indeed, is a principal cause of our sailors engaging so very extensively as they are known to do in the American service. But, in most respects, the ship-owners of the two countries are nearly on a level. The rapid increase of population in the U. States, the vast extent of their sea-coast, and the gigantic magnitude of the rivers and lakes by which the Union is intersected or bounded, by affording proportional means for the employment of shipping, will, there is little doubt, speedily render her commercial marine greater than that of this or any other nation. But there are no good grounds for supposing that in those departments which are equally open to the enterprise and ships of both nations, the British have anything to fear from the competition of the Americans. And they are the only people to whom, in a matter of this sort, it is necessary to allude.

Till very recently our shipping interest was subjected to sundry burdens and restrictions by which their energies were weighed down and fettered. These, however, are now either wholly abolished, or greatly modified. Formerly no ship could enjoy the peculiar privileges of a British ship, unless she were of the built of the U. Kingdom or of the colonies, and unless the master and 3-4ths of the crew were British subjects. But these restrictions have been repealed, the former by the 12 & 13 Vict. c. 29., and the latter by the 16 & 17 Vict. c. 131. In consequence of these judicious alterations, all the building yards and all the seamen of the world may be made subservient to the wants and the purposes of our merchants and shipowners. It is probable, indeed, from our superior facilities for the building of ships, especially those of iron, which are now being largely introduced, and from the comparative density of our population, that neither foreign ships* nor foreign seamen will be extensively introduced into our service. But the fact that they may be, and no doubt will be to some extent introduced, is of immense importance; and will do more than anything else to give new energy to our ship-builders, and to improve the conduct and discipline of our seamen. The insubordination and desertion of the latter, especially in foreign parts, have often been attended with ruinous results. Now, however, that their place may be supplied by any description of foreign sailors, it may be fairly presumed that there will be a material amendment in this respect. The sailors will find that they will consult their own no less than their employer's interest, by paying more attention than hitherto to their engagements, and by their good conduct, and ready obedience to the reasonable commands of their superiors.

In addition to these important reforms, others of a subordinate but still very valuable description have been, or are in the course of being effected. The incompetence and ignorance of the masters, which was a most serious evil, has already partly been, and eventually will be all but wholly obviated by the examination to which they are now obliged to submit, and by the better education which it renders necessary. (See MASTERS.) The oppressive charges and proceedings which were sometimes made and carried on by the officers of ships of war on account of salvage have, also, been a good deal modified, though, perhaps, they ought to be wholly abolished. The same may be said of the privilege, which has recently been regulated, enjoyed by ships of war of taking men from on board merchant ships on distant voyages. The charges for lights and pilotage have also been inquired into, and will, most likely, be speedily reduced, and placed on a less objectionable footing than at present. It is obvious, therefore, that a vast improvement has already been made, and that other changes for the better are in progress, in the situation of our mercantile marine. And taking their influence into account, and the many advantages we enjoy in our situation, the extent of our manufactures, and the character of our people, we run little risk in predicting a lengthened career of increase and prosperity to our mercantile navy.

The peculiar burdens, disadvantages, and drawbacks which recently affected, and which still in part affect our shipping, were set in a clear light in the treatise on "Our Navigation Laws and Mercantile Marine," by W. S. Lindsay, Esq., M.P. His practical acquaintance with the subject made his suggestions of more than ordinary value, and procured for them an extra degree of attention.

The existing law with regard to British shipping has been consolidated and embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104. It is divided into parts, which will be found distributed under their proper titles in this work. The distinguishing characteristics of British shipping, as described in this act, may be shortly stated as follows, viz.:—

1st. No ship can be a British ship unless she be registered as such.

2nd. All ships of whatever built, and however manned, may be registered as British ships, provided they be really and *bonâ fide* the property of British subjects.

* The prohibition against the registration of foreign built ships was repealed in 1849; and in 1850, 1851, and 1852, only 57, 26, and 28 such ships were registered. But in consequence of the greatly increased demand for shipping, the number of foreign registrations has since increased considerably. In 1854, they amounted to 267 ships of 97,641 tons burden.

The clauses in the act having reference to this matter are as follows, viz.:—

Description and Ownership of British Ships.—No ship shall be deemed to be a British ship unless she belongs wholly to owners of the following description; viz.:

(1.) Natural-born British subjects.

Provided that no natural-born subject who has taken the oath of allegiance to any foreign sovereign or state shall be entitled to be such owner as aforesaid, unless he has subsequently to taking such last-mentioned oath taken the oath of allegiance to H. Majesty, and is and continues to be during the whole period of his so being an owner resident in some place within H. M.'s dominions, or if not so resident, member of a British factory, or partner in a house actually carrying on business in the U. K. or in some other place within H. M.'s dominions:

(2.) Persons made denizens by letters of denization, or naturalized by or pursuant to any act of the imperial legislature, or by or pursuant to any act of ordinance of the proper legislative authority in any British possession.

Provided that such persons are and continue to be during the whole period of their so being owners resident in some place within H. M.'s dominions, or if not so resident, members of a British factory, or partners in a house actually carrying on business in the U. K. or in some other place within H. M.'s dominions, and have taken the oath of allegiance to H. M. subsequently to the period of their being so made denizens or naturalised.

(3.) Bodies corporate established under, subject to the laws of, and having their principal place of business in the U. K. or some British possession.—§ 18.

British Ships with certain Exceptions must be registered.—Every British ship must be registered in manner hereinafter mentioned, except,

(1.) Ships duly registered before this act comes into operation:

(2.) Ships not exceeding 15 tons burden employed solely in navigation on the rivers or coasts of the U. K., or on the rivers or coasts of some British possession within which the managing owners of such ships are resident:

(3.) Ships not exceeding 30 tons burden, and not having a whole or fixed deck, and employed solely in fishing or trading coastwise on the shores of Newfoundland or parts adjacent thereto, or in the Gulf of St. Lawrence, or on such portions of the coasts of Canada, Nova Scotia, or New Brunswick as lie bordering on such gulf:

And no ship hereby required to be registered shall, unless registered, be recognised as a British ship; and no officer of customs shall grant a clearance or transire to any ship hereby required to be registered for the purpose of enabling her to proceed to sea as a British ship, unless the master of such ship, upon being required so to do, produces to him such certificate of registry as is after mentioned (see art. REGISTRY); and if such ship attempts to proceed to sea as a British ship without a clearance or transire, such officer may detain such ship until such certificate is produced to him.—§ 19.

In another part the act imposes the following penalties on the masters and owners of ships unduly assuming a British character, viz.:—

(1.) If any person uses the British flag and assumes the British national character on board any ship owned in whole or in part by any person not entitled by law to own British ships, for the purpose of making such ship appear to be a British ship, such ship shall be forfeited to H. M., unless such assumption has been made for the purpose of escaping capture by an enemy or by a foreign ship of war in exercise of some belligerent right; and in any proceeding for enforcing any such forfeiture the burden of proving a title to use the British flag, and assume the British national character shall lie upon the person using and assuming the same.

(2.) If the master or owner of any British ship does or permits to be done any matter or thing, or carries or permits to be carried any papers or documents, with intent to conceal the British character of such ship from any person entitled by British law to inquire into the same, or to assume a foreign character, or with intent to deceive any such person as lastly-herein-before mentioned, such ship shall be forfeited to H. M.; and the master, if he commits or is privy to the commission of the offence, shall be guilty of a misdemeanour.

(3.) If any unqualified person, except in the case of such transmitted interests as are herein-before mentioned, acquires as owner any interest, either legal or beneficial, in a ship using a British flag, and assuming the British character, such interest shall be forfeited to H. M.

(4.) If any person on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself or such other person or body of persons to own British ships or any shares therein, the declarant shall be guilty of misdemeanour; and the ship or share in respect of which such declaration is made, if the same has not been forfeited under the foregoing provision, shall, to the extent of the interest therein of the person making the declaration, and, unless it is shown that he had no authority to make the same, of the parties on behalf of whom such declaration is made, be forfeited to H. M.

And in order that the above provisions as to forfeitures may be carried into effect it shall be lawful for any commissioned officer on full pay in the military or naval service of H. M., or any British officer of customs, or any British consular officer, to seize and detain any ship which has, either wholly or as to any share therein, become subject to forfeiture as aforesaid, and to bring her for adjudication before the H. C. of Admiralty in England or Ireland, or any court having Admiralty jurisdiction in H. M.'s dominions; and such court may thereupon make such order in the case as it may think fit, and may award to the officer bringing in the same for adjudication such portion of the proceeds of the sale of any forfeited ship or share as it may think right.—§ 103.

Penalty for carrying improper Colours.—If any colours usually worn by H. M.'s ships, or any colours resembling those of H. M., or any distinctive national colours, except the red ensign usually worn by merchant ships, or except the union jack with a white border, or if the pendant usually carried by H. M.'s ships or any pendant in anywise resembling such pendant, are or is hoisted on board any ship or boat belonging to any subject of H. M., without warrant for so doing from H. M., or from the Admiralty, the master of such ship or boat, or the owner thereof, if on board the same, and every other person hoisting, or joining or assisting in hoisting the same, shall for every such offence incur a penalty not exceeding £500; and it shall be lawful for any officer on full pay in the military or naval service of H. M., or any British officer of the customs, or any British consular officer, to board any such ship or boat, and to take away any such jack, colours, or pendant; and such jack, colours, or pendant shall be forfeited to H. M.—§ 105.

NEUTRALITY (Fr. *Neutralité*), in politics is the term employed to indicate the state of those nations who, when a war is being carried on, take no part in the contest, and evince no particular friendship for, or enmity to, any of the belligerent powers.

NEUTRAL SHIPS in commerce, the ships belonging to neutral states, which are engaged in the trade with the ports of belligerents.

Inasmuch as the rights and duties of neutrals vary to a certain extent with the circumstances peculiar to each contest, they do not admit of being exactly defined. But they ought in all cases to conduct themselves in a spirit of perfect impartiality, and to do nothing that can be fairly considered as being especially favourable or hostile to either of the parties engaged in hostilities.

The questions that occur with regard to the proceedings of neutrals on land, seldom present much difficulty; but it is otherwise with those that sometimes grow out of their proceedings at sea, and to these we mean to confine the following remarks.

I. *Articles contraband of war.* When two nations are engaged in war, if there be any foreign article or articles necessary for the defence or subsistence of either of them, and without which it would be difficult for it to carry on the contest, the other may legitimately exert every means in its power to prevent its opponent being supplied with such

article or articles. All writers of authority on international law admit this principle; and lay it down, that a nation which should furnish a belligerent with articles *contraband of war*—that is, with supplies of warlike stores or of any article required for the prosecution of the war—would forfeit her neutral character, and that the other belligerent would be warranted in preventing such succours from being sent, and confiscating them as lawful prize. And besides being consistent with the most obvious principles, approved by jurists, and enforced in every contest, this doctrine has been sanctioned by repeated treaties. The only difficulty, indeed, that has ever arisen in regard to it, has been in respect to the articles which should be reckoned contraband of war; and in the view of obviating such difficulty, these articles have sometimes been specified in treaties and conventions. (See the references in *Lampredi del Commercio de' Popoli Neutrali*, § 9.) But this classification has not always been respected during hostilities. And it is sufficiently evident that an article which may not be contraband at one time, or under certain circumstances, may become contraband at another time, or under different circumstances. It is admitted on all hands, even by Hubner, the great advocate for the freedom of neutral commerce*, that everything that may be made *directly available* for hostile purposes is contraband, as arms, ammunition, horses, timber for ship-building, and all sorts of naval stores. The greatest difficulty has occurred in deciding as to provisions (*munitions de bouche*), which have sometimes been held to be contraband, and sometimes *not*. Lord Stowell has shown that the *character of the port* for which the provisions are destined, is a principal circumstance to be attended to in deciding whether they are to be looked upon as contraband. A cargo of provisions intended for an enemy's port, in which it was known that a warlike armament was in preparation, would be liable to arrest and confiscation; while, if the same cargo were intended for a port where none but merchantmen were fitted out, the most that could be done, according to his lordship, would be to detain it, paying the neutral the same price for it he would have got from the enemy.

A good deal has lately been said as to whether coal should or should not be reckoned contraband. But it is evident, inasmuch as steam is now largely employed in the propulsion of ships of war, that the coal by which it is generated must be reckoned among the articles described as *munitions de guerre*. This does not seem to be a conclusion about which there is any real room for doubt or hesitation; and it shows very clearly how an article that has not been contraband, may, by a change of circumstances, become entitled to that character.

By the ancient law of Europe, a ship conveying any contraband article was liable to confiscation as well as the article. But in modern practice a milder rule has been adopted, and the carriage of contraband articles is attended only with loss of freight and expenses, unless when the ship belongs to the owner of the contraband cargo, or when the simple misconduct of conveying such cargo has been connected with other malignant and aggravating circumstances. Of these, a false destination and false papers are justly held to be the worst.

It appears pretty evident that the principle on which the doctrine of goods contraband of war has been established may justify, or rather require, its extension to various important articles not hitherto or usually reckoned as contraband. The rights of belligerents to hinder neutrals from supplying their enemies with articles necessary to enable them to carry on the contest is alike clear and undoubted. But a foreign article which is indispensable or highly useful to a nation engaged in war, may not be of the class called *munitions de guerre*, and may not be directly available in the prosecution of hostilities. That, however, is really immaterial. It is enough to warrant the prevention of its importation, that without it the importers would be unable to continue the contest, or that the inconveniences resulting from the want of it would be so very considerable as to dispose them to sue for peace, or to accept reasonable terms if offered. The distinctive peculiarity of articles contraband of war is not that they belong to one class of products or another, but that *the want of them would inflict serious injury on the party by whom they are imported.*

Considered in this, its true light, the term "contraband of war" becomes of the highest importance; and there are but few products which may not be fairly brought, at one period or another, within the list of contraband articles. Thus, supposing that we had the misfortune to be engaged in a contest either with a single power or a combination of powers, which had means to intercept, cut off, or materially obstruct our supplies of corn, cotton, and tea: can any one doubt that our enemies would be justified, or that they would hesitate, in availing themselves of so powerful a means of annoyance? Neutrals might protest against such a proceeding, on the ground that the articles referred to had not hitherto been reckoned contraband of war, and they might also allege

* *De la Saisie des Bâtimens Neutres*, tom. i., p. 193.

that their trade would be seriously prejudiced by so unusual and so illegal a proceeding. But these representations, supposing them to be made, would not go for much. Our enemies would say, that in defining contraband of war, everything depended on circumstances; and that as the want of the articles referred to would lay us under very considerable difficulties, they were, from that very circumstance, properly included in the prohibited list. They would no doubt express at the same time their regret that this conduct of theirs should be productive of injury or inconvenience to neutrals. That was not its purpose. They had resorted to it in the exercise of their undoubted rights as belligerents *; and it was only indirectly and by accident that it affected neutrals. When great nations are at war, such contingencies can seldom be avoided; and when they occur, they should be ascribed to the necessity of the case, and afford no reasonable ground of complaint.

A wish to obviate the disputes that have so frequently arisen in regard to contraband articles and other matters having reference to the proceedings of neutrals, gave birth to the following very important document.

"*Declaration respecting Maritime Law, signed by the Plenipotentiaries of Great Britain, Austria, France, Prussia, Russia, Sardinia, and Turkey, assembled in Congress at Paris, April, 16, 1856.*

"The Plenipotentiaries who signed the Treaty of Paris of the 30th of March, 1856, assembled in Conference, —

"Considering:

"That Maritime law, in time of war, has long been the subject of deplorable disputes;

"That the uncertainty of the law, and of the duties in such a matter, gives rise to differences of opinion between neutrals and belligerents which may occasion serious difficulties, and even conflicts;

"That it is consequently advantageous to establish a uniform doctrine on so important a point;

"That the Plenipotentiaries assembled in congress at Paris cannot better respond to the intentions by which their Governments are animated, than by seeking to introduce into international relations fixed principles in this respect;

"The above-mentioned Plenipotentiaries, being duly authorised, resolved to concert among themselves as to the means of attaining this object; and, having come to an agreement, have adopted the following solemn Declaration: —

"1. Privateering is, and remains, abolished;

"2. The neutral flag covers enemy's goods, with the exception of contraband of war.

"3. Neutral goods, with the exception of contraband of war, are not liable to capture under enemy's flag.

"4. Blockades, in order to be binding, must be effective, that is to say, maintained by a force sufficient really to prevent access to the coast of the enemy.

"The Governments of the undersigned Plenipotentiaries engage to bring the present Declaration to the knowledge of the States which have not taken part in the Congress of Paris, and to invite them to accede to it.

"Convinced that the maxims which they now proclaim cannot but be received with gratitude by the whole world, the undersigned Plenipotentiaries doubt not that the efforts of their Governments to obtain the general adoption thereof will be crowned with full success.

"The present Declaration is not and shall not be binding, except between those Powers who have acceded, or shall accede, to it.

"Done at Paris, the 16th April, 1856."

But the "uncertainty" complained of in the above Declaration is not of a kind that can be got rid of. It is inherent in the subject. Maritime laws of the class now under consideration do not rest on any fixed or immutable principles. They necessarily vary with the varying condition and exigencies of society. And those rules and regulations that may in the estimation of one country appear to be alike just and expedient, may in

* Une puissance belligérante ne peut voir avec indifférence que son ennemi se renforce par des marchandises qui servent directement et indubitablement à faire la guerre; et elle ne blesse pas le droit des gens si elle empêche que ses marchandises ne parviennent à l'ennemi en les détenant, soit pour en payer la valeur au propriétaire, soit pour les restituer quand le danger sera passé. On peut même imaginer des cas, où les circonstances extraordinaires justifiéraient une telle détention à l'égard des marchandises, qui ne servent pas exclusivement à l'usage de la guerre, et sur lesquelles elle ne peut dans la règle s'arroger aucune disposition. (Martens, *Précis du Droit Public*, lib. viii. cap. 7, § 315.) Heineccius says, "Dans une guerre il ne s'agit pas même de demander s'il peut être permis à quelqu'un de porter à notre ennemi ce qui peut lui être nécessaire, puisque nous avons le droit de prendre les armes contre quiconque s'opposerait à notre défense ou la rendrait difficile ou incertaine." (Quoted by Lampredi, p. 47, Paris, 1802; see also Vattel, book iii. cap. 7. § 113, and a host of other authorities

that of another be held, on quite as good grounds, to have exactly the opposite qualities. The above Declaration expressly excepts articles contraband of war from the privileges conceded to goods on board neutral ships; but it does not specify the articles which are to be considered contraband. And it was quite as well that this vexed, or rather insoluble question was left open; for it is most probable that the plenipotentiaries who subscribed the Declaration would not have agreed on any definition. And supposing they had subjoined a list of contraband articles to the Declaration, it would very speedily have ceased to be of any weight. Whether an article should or should not be deemed contraband depends on circumstances which it is impossible to foresee or appreciate beforehand. And such being the case, it is futile to attempt to prevent further disputes by making out lists of contraband articles. We have seen that this has been frequently attempted, and it has as frequently failed. Such lists may be respected for a while; but as soon as any contracting party or great power conceives that it would be for her interest or advantage to exclude some articles from, and to include others in, the list, there is an end of its influence and authority.

The principle that free ships make free goods, or that the flag covers the cargo (*que le pavillon couvre la marchandise*), and that consequently enemies' goods, not contraband of war, may be safely conveyed in neutral bottoms, after being long resisted by this and most maritime states, has been assented to in the above declaration. In judging of the wisdom of this concession, everything depends on the interpretation of the phrase "contraband of war." If it were restricted, as has usually been the case, to warlike stores (*munitions de guerre*), or articles directly available for warlike purposes, it would be in many respects justly censurable. For it is plain, that under the limitation now supposed, the trade of a belligerent power, with its colonies or other countries beyond sea, might be prosecuted in neutral ships nearly to the same extent, and with as much security, during war as during peace. But it is not easy to imagine that a principle having such consequences should be acted upon by any power having a preponderating naval force, in the event of her engaging in hostilities. Such power must then do one of two things: she must either consent to relinquish some of the most important advantages to be derived from her naval ascendancy, or she must reject the principle in question. And there is little doubt that she would adopt the latter alternative; and she might do this directly, by resorting to her natural and indefeasible right to seize enemies' goods wherever they are to be met with; or indirectly, by extending the list of contraband articles, so as to make it include all those of any importance carried by sea into or from the enemy's ports. Either way would answer the purpose; and we may be pretty well assured, that under the supposed circumstances one or other of them would be followed.

II. *Blockade, Influence of.*— But it may perhaps be said, that though the right to carry enemies' goods not contraband of war be conceded to neutrals by the Declaration of Paris, that right is restricted and confined within proper limits by the maintenance of the system of blockade. But we take leave to doubt whether this restriction be good for much. It is distinctly laid down in the Declaration, that to be binding or legal, a blockade must be effective; that is, it must be "maintained by a force sufficient really to prevent access to the coast of the enemy." But though the blockade of one or of a few ports may perhaps be made effective, it is abundantly certain that no such blockade can ever be made to apply to an extensive coast. Though our navy were doubled or trebled, it would not suffice to make an effective blockade of the coasts of France, of Spain, or of the United States. And why should a country with a powerful naval force bind herself beforehand to employ it only in one way? Why not employ it in any way, whatever it may be, which happens to be at the time most conducive to the ends she has in view?

But supposing that an impossibility may be realised, or that an extensive coast may be effectually blockaded, the circumstance would be of much less consequence now than formerly, or than is generally imagined. Suppose, for example, that we are at war with France, and that we effectively blockade every portion of her coast, whether on the ocean or the Mediterranean: the result would be, that the oversea produce suitable to her wants would be imported into the contiguous ports of Belgium, Spain, and Piedmont, and that it would be carried from them by railways and otherwise to every part of France; and that the produce she has to export would be disposed of in the same way.

It is plain, therefore, that these are not matters in which much dependence can be placed on the resource of blockades. These may be advantageously resorted to when the object is to reduce a town, to obstruct the trade of a port or a river, to prevent the sailing of a squadron, and so forth; but as measures directed against the trade of any great country, they must be nearly, if not wholly, impotent. In the case of France, it is quite clear that the strictest possible blockade would not inflict half the injury on her

that its maintenance would entail upon ourselves. If the trade of neutrals in war is to be influenced by nothing but effective blockades, it may be held to be practically free from all obstruction. But it cannot be supposed that when the evil day comes it will be so dealt with. When the existence of nations is at stake, they will not be withheld by declarations like the above from availing themselves of every means by which they may hope either to promote their own security or to injure their enemies.

III. *Influence of the new System over the Trade of Belligerents.*—It is further obvious, were the rules laid down in the Declaration of 1856 to be carried into effect without large additions being made to the list of contraband articles, that neutrals would engross almost the entire oversea trade of countries engaged in war. Comparatively few of the articles which we export come under the description of warlike stores; and supposing that we were engaged in hostilities, neutral ships which did not take on board contraband articles would navigate with perfect security, while our ships would be exposed to the risk of capture. The magnitude of this risk would depend on various contingencies, and would be measured by the higher premium of insurance that would have to be paid on them and on articles embarked in them. But considering the close competition to which our shipowners are already exposed, the additional premium they would have to pay, even though it were not very considerable, would most probably turn the scale in favour of the neutrals; and if they were once introduced and employed for any considerable period, it might not be an easy matter for our shipowners to regain the ground they had lost, or to recover their former position, on hostilities being terminated. But in whatever way it may be defeated or eluded, it is not to be supposed that we should abide, in periods of war and difficulty, by a rule that would tie up our hands and consign the entire oversea trade of the empire to foreigners. This would be a degree of liberality to which we can hardly be expected ever to arrive, and which, were it realised, would be more injurious to our best interests than the most intense selfishness.

IV. *Project for exempting Private Property at sea from Attack during War.*—Some of the more recent opponents of the old system of maritime law do not deny these statements. But they allege that they are founded on false principles. Private property, say they, is now respected in all contests carried on by land; and it would be for the advantage of all nations, whether belligerent or neutral, were the same humane and generous policy extended to private property at sea. But this sort of reasoning is more specious than solid. On a little examination it will be found that the cases have no real analogy. Private property on land, and the treasures of art and learning, are respected so far, that they are sometimes unconditionally, but frequently also on the payment of a contribution or ransom, exempted from injury. This is done because experience has shown that, while the destruction of the articles referred to may be productive of much misery and loss, it has little or no influence over the decision of the contest. But we are not hence to infer that the destruction of private property at sea will be equally ineffectual. In our unfortunate contest with the United States in 1814, the destruction of the Capitol at Washington was an act disgraceful to our arms, and which had no effect except to inflame the hostile feelings of the Americans. But the severe check which the contest gave to the trade of the Union made the citizens generally averse to the war; and was, indeed, the main cause of its being so speedily terminated. No such result could, however, have happened had American merchant ships been exempted from capture or molestation.

Suppose we are at war, and that our enemy, having succeeded in landing a force in some part of the kingdom, such as Kent or Connaught, inflicts on the peasantry outrages similar to those which the troops of Louis XIV. inflicted on the defenceless inhabitants of the Palatinate; such proceedings, by not sensibly affecting either our wealth, or the sources of our power, would in no wise accelerate the termination of hostilities. On the contrary, they would tend to their prolongation, by inspiring us with a strong desire to avenge such wanton and unnecessary cruelty. But it would be quite another matter were our enemy able seriously to obstruct our trade, to prevent our exports, or to sink, burn and destroy the ships that were conveying to us supplies of necessary articles. Such proceedings might lay us under the greatest difficulties, and would be the most likely means to make us listen to proposals for an accommodation.

Everybody knows that the unpopularity of the French rule in Germany and other parts of the Continent, in the latter part of the war against Napoleon, was in great measure occasioned by the destruction of their trade, which, on the one hand, rendered their corn and other disposable produce a mere drug, while, on the other, it added enormously to the prices of cotton, sugar, coffee, and most foreign articles. But had the rules and regulations embodied in the Declaration of 1856 been then in force, no such result would have happened. We should have had the singular combination of mari-

time peace with territorial war. And the trade of Prussia, Holland, and the other countries subject to France, and, indeed, of France herself, would have been as securely and cheaply carried on in neutral bottoms as it would have been in a period of universal tranquillity. Nothing, therefore, can be more contradictory and illogical than to contend that we are bound to extend the same immunity during war to private property at sea that is extended to private property on land. The cases are in no degree parallel. In the one, private property is respected because its destruction is seldom injurious except to the individuals immediately interested, and has little or no general influence; in the other case, private property is seized or destroyed because those from whom it is taken, being the carriers or purveyors of necessary articles for the community, their loss must seriously affect the latter, and may reduce them to the greatest straits.

V. *Abolition of Privateering.*—The abolition of privateering by the Declaration of Paris is of the highest importance, and should give general satisfaction. This practice appears to be a remnant of that system of private war which is universally waged by individuals in early or barbarous ages, but which gradually disappears as society advances. Privateers rarely attack ships of war. They do not act in concert, or with any object in view other than their own private gains. They are, in truth, a sort of legalised robbers *; and while they occasion much individual suffering, they have little or no influence over the result of the war. But their employment is principally objectionable from its having been found that, despite every precaution, it is not possible to hinder them from committing the greatest excesses. The desire to amass plunder is the ruling passion by which they are actuated; and being so, it would be childish to suppose that they should be scrupulous in their proceedings, or that they should endeavour to keep within the pale of the law when they think that their objects will be likely to be promoted by overstepping its limits. And hence their injurious treatment of the ships of neutral and friendly powers. A system of this sort may perhaps be useful to a nation which has little trade, and may hope to acquire riches by fitting out privateers, without being exposed to the risk of retaliation. But except under very peculiar circumstances, it is difficult to suppose that it should be advantageous to a nation with an extensive oversea trade. A notion has, indeed, been long entertained, that while the interests of humanity would be promoted, the rights of belligerents would not be injuriously affected by the abolition of privateering. It was stipulated, for instance, in the treaty between Sweden and the United Provinces in 1675, that neither party should in any future war grant letters of marque against the other; and stipulations to the like effect have since been embodied in various treaties. These, however, being only isolated efforts, were insufficient materially to abate the nuisance, which could not be put down without an agreement to that effect by the great powers, such as has been announced in the Declaration of 1856.

The United States, however, though possessed of a most extensive mercantile marine, have refused to consent to the abolition of privateering. But they have not done this capriciously; nor is it to be denied that there is a great deal of weight in the reasons given by the American government for their refusal.† They grow out of circumstances peculiar to the United States,—that is, of their warlike navy bearing but a very small proportion to their mercantile navy, which is the largest in the world. And they contend, that were they to abolish privateering, their merchant ships would be captured in vast numbers by the numerous cruisers of their enemies; while the merchant ships of the latter, owing to the fewness of their own ships of war, would be comparatively little affected; and that to restore the balance, and place themselves on a level with their opponents, they have no resource but to appeal to the patriotism (selfishness) of their citizens by licensing privateers.

The Americans have, however, intimated their willingness to assent to the abolition of privateering, provided the other powers agree not to attack or molest private ships at sea during war. Such an agreement would no doubt be very much for their advantage; but we have already seen that it is not one to which we can consent without at the same time, and by the same act, consenting to forego the use of some of the most powerful of our means of defence and attack. This, however, is about the very last thing that we either should or will do. No British statesman will ever agree to an arrangement that would diminish our powers and paralyse our energies at the very moment when, perhaps, our independence and security may depend on these being exerted to the utmost.

* L'armateur indifférent au sort de la guerre et souvent de sa patrie, n'a d'autre amorce que l'avidité du gain, d'autre récompense que ses prises et les prix attachés par l'état à ses pirateries privilégiées. (Martens, *Essai sur les Armateurs*, cap. i. § 8.) This essay, which was translated into English, and published in 1801, contains the fullest details in regard to privateering. Valin, who defends and even eulogises privateering, admits that it is very apt *dégénérer en abus et en brigandage*. (*Traité des Prises*, i. cap. I. § 7.)

† See Letters of Mr. Marcy to the Count de Sartiges, 28th July, 1856.

VI. *Right of Search.* — Nothing is said in the Declaration of 1856 in regard to the right of visitation and search, probably because it is obviously inherent in belligerents; for it would be contradictory to allow that they had a right to prevent the conveyance of contraband goods to an enemy, and to deny them the use of the only means by which such right can be made available. The object of the search is twofold: *first*, to ascertain whether the ship is neutral or an enemy, for everybody knows that the circumstance of its hoisting a neutral flag affords no security that it is really such; and, *secondly*, to ascertain whether it has contraband articles or enemies' property on board. All neutral ships that would navigate securely during war must consequently heave-to when summoned by the cruisers of either belligerent, and be provided with passports from their government, and with all the papers or documents necessary to prove the property of the ship and cargo: and they must carefully avoid taking any contraband articles, and perhaps also belligerent property, on board. And hence it has been generally admitted that a merchant ship which seeks to avoid a search by crowding sail or by open force, may be justly captured and confiscated.

One of the most difficult questions in regard to the right of search has reference to merchantmen sailing under convoy. Is the allegation of the officer commanding the vessel of war convoying the merchantmen, that the latter have no contraband articles or belligerent property on board, to be held to be sufficient to nullify the right of search? or may the exercise of that right be notwithstanding insisted upon?

A case of this sort occurred in the early part of 1798, when a fleet of merchantmen belonging to Sweden, a neutral power, and sailing under convoy of a frigate, were detained by a British squadron. The Swedish captain, on the question being put to him, answered that the ships were destined for different ports of the Mediterranean, and that they were laden with hemp, iron, pitch, and tar. These articles were the produce of Sweden *; but as they have most commonly been reckoned contraband of war, and as France and her allies had many ports on the Mediterranean, there can be little or no doubt that we were warranted, despite the threatened but unattempted opposition of the Swedish captain, in detaining the ships. But besides being detained, they were condemned with their cargo as lawful prize; a proceeding which gave rise to a great deal of discussion at the time, and which it is not easy to justify.†

In the event of the captain of a ship of war convoying neutral merchantmen distinctly declaring that they have no contraband articles or enemies' property on board, their detention or search would be a very strong measure. It would, in truth, be an insult to the flag and honour of the neutral power. And unless the presumptions that the captain had emitted a false declaration were exceedingly strong, to question his veracity would be an act contrary to the comity of nations, and one that a high-spirited people would be sure to resent. But except in the case of a *limited* number of vessels sailing to specified ports under convoy, and when there is a clear and explicit declaration by the officer in command that they have neither contraband articles nor belligerent property on board, the right of search, supposing it to be exercised without any unnecessary violence, is one that is essential to belligerents, and cannot be justly objected to.

VII. *Foreign Enlistment Act.* — It will be evident that in treating this subject we have referred only to those general principles that prevail in international law. The laws of individual states in regard to neutrality harmonise for the most part with the public law respecting it. The only British statute to which it is necessary to refer is the Foreign Enlistment Act, the 59 Geo. 3. c. 69. It prohibits the employment of British ships without license in the service of any foreign prince or state, and their employment as transports or store-ships by states with which we are not at war. But it is believed that all, or nearly all, that this act prohibits being done directly, may be done indirectly with little difficulty. Inasmuch, however, as it can hardly fail, if maintained, to give rise to troublesome questions with foreign governments, it were better were it repealed, and our merchants and shipowners left to deal, as they think fit, with the ordinary risks that attach to those that carry contraband articles. The circumstances in which the act originated have long since passed away.‡ And as it can no longer be of any use, and may, or rather must, occasion difficulties, its abolition would be a judicious measure.

NEW ORLEANS, the capital of Louisiana, one of the United States, on the eastern bank of the Mississippi, about 105 miles from its mouth, lat. 29° 57′ 45″ N., lon. 90° 9′ W. Population, in 1850, 119,461. The new-built streets are broad, intersecting each other at right angles; and the houses are mostly of brick. It is the grand emporium of all the vast tracts traversed by the Mississippi, the Missouri, and their tributary streams, enjoying a greater command of internal navigation than any other city either of the

* Articles which form a considerable part of the produce of a country, though contraband of war, have sometimes been allowed to be conveyed in neutral ships. But even in that case belligerents have been accustomed to detain them, not for confiscation, but for pre-emption. (Robinson's *Admiralty Reports*, i. 244.)

† For an account of this famous case, see Robinson's *Admiralty Reports*, i. pp. 340–379. In an elaborate argument, Sir William Scott (afterwards Lord Stowell) states, with his usual ability, but with too sensible a bias, the reasons for his judgment. Its legality was questioned in a tract by Mr. J. F. W. Schlegel, professor at Copenhagen, translated into English, and published in London in 1801. Schlegel was answered by Dr. Croke in a tract entitled *Remarks on Mr. Schlegel's Work on the Visitation of Neutral Vessels under Convoy*, published in the course of the same year.

‡ The struggle between Spain and her revolted colonies in S. America.

Old or New World. Civilisation has hitherto struck its roots, and begun to flourish only in some comparatively small portions of the immense territories of which New Orleans is the sea-port; and yet its progress has been rapid beyond all precedent. It appears, from the accounts printed by order of Congress, that during the year ended the 30th of June, 1858, the value of the native American produce exported from this city amounted to 88,270,224 dollars, while the value of that exported from New York was 89.039,741. With respect to imports, the case is materially different; the value of those of New Orleans, in the year just mentioned, being only 19,586,033 dollars, whereas those of New York amounted to 178,475,736. It is believed by many, seeing how rapidly settlements are forming in the "West," that New Orleans must, at no very distant period, exceed every other city of America, as well in the magnitude of its imports as of its exports; and, considering the boundless extent and extraordinary fertility of the uncultivated and unoccupied basins of the Mississippi and Missouri, the anticipations of those who contend that New Orleans is destined to become the greatest emporium, not of America only, but of the world, will not appear very unreasonable. Steam navigation has been of incalculable service to this port, and, indeed, to the whole of central America. The voyage up the Mississippi, that used formerly to be so difficult and tedious, is now performed in commodious steam packets with ease, celerity, and comfort. "There have been counted," says Mr. Flint, "in the harbour, 1,500 flat boats at a time. Steam boats are arriving and departing every hour; and it is not uncommon to see 50 lying together in the harbour. A forest of masts is constantly seen along the *levée*, except in the sultry months. There are often 5,000 or 6,000 boatmen from the upper country here at a time; and we have known *thirty* vessels advertised together for Liverpool and Havre. The intercourse with the Havannah and Vera Cruz is great, and constantly increasing."—(*Geography and History of the Western States*, vol. i. p. 557.) As a shipping port, New Orleans now ranks third in the Union; being in this respect inferior only to New York and Boston. Vessels of the largest burden may navigate the river several hundreds of miles above the city. The agg. burden of the shipping belonging to the port on the 30th June, 1858, amounted to 210,411 tons; of which 70,072 were employed in steam navigation. In the year ending the 31st August, 1852, the arrivals of steamers, principally from the interior, were 2,784. The depth of water in the river opposite to New Orleans is, at a medium, about 70 feet; and it maintains soundings of 30 feet till within a mile of its confluence with the sea. Besides 3 or 4 of inferior consequence, the Mississippi has 4 principal passes or outlets. In the south-east, or main-pass, at Balize, the water on the bar at ordinary tides does not exceed 12 feet; and as the rise of tides in the Gulph of Mexico is not more than 2 or 2½ feet, vessels drawing much water cannot make their way from the ocean to New Orleans.—(*Darby's View of the United States*, p. 467.)

The unhealthiness of the climate is the great drawback on New Orleans. This probably arises from the low and marshy situation of the city and surrounding country, which is under the level of the Mississippi, being protected from inundation by an artificial *levée* or mound, varying from 5 to 30 feet in height, and extending along the bank of the river a distance of 100 miles. The unhealthy season includes July, August, and September; during which period the yellow fever often makes dreadful havoc, particularly among the poorer classes of emigrants from the North and from Europe. Latterly, great efforts have been made to improve the health of the city, by supplying it abundantly with water, paving the streets, removing wooden sewers, and replacing them with others of stone, &c. Many places, where water used to stagnate, have been filled up; and large tracts of swampy ground contiguous to the town have been drained. And as such works will no doubt be prosecuted on a still larger scale, according to the increase of commerce and population, it is to be hoped that the ravages of fever may be materially abated, though the situation of the city excludes any very strong expectation of its ever being rendered quite free from this dreadful scourge.

We are sorry, however, to have to state that hitherto this expectation has not been realised, and that the mortality from yellow fever during the autumn of 1853 was quite excessive. It has latterly been proposed to bring earth from the upper parts of the Mississippi, and to employ it in forming a site for a new city raised some feet above the level of the river. It is believed that this would be the most likely means to guard against fever; and the object in view is of such paramount importance that the expense of the scheme should be reckoned a very inferior matter.

The following Tables give a pretty complete view of the trade of this great and growing emporium. Its preponderance in the shipment of cotton is quite as decided as the preponderance of Manchester in its manufacture.

Account of the Quantities of the Principal Articles imported from the Interior to New Orleans during the Year ending 31st August, 1858, with their average Prices and Gross Values.

Articles.	Amount.	Average Price.	Value.	Articles.	Amount.	Average Price.	Value.
		Dolls. Cts.	*Dolls.*			*Dolls. Cts.*	*Dolls.*
Apples - - bbls.	76,952	5 00	384,760	Molasses (estimated crop) - - galls.	19,578,790	23½	4,601,015
Bacon, assorted hhds. & casks	55,557	90 00	3,200,130	Oats - bbls. & sacks	568,649	1 20	682,378
Bacon, assorted - boxes	2,143	45 00	96,435	Onions - - bbls.	12,135	5 00	60,675
Bacon hams hhds. & trcs.	32,451	73 00	2,368,923	Oil, linseed - - "	208	35 00	7,280
Bacon in bulk - lbs.	343,833	9	30,944	castor - - "	1,472	60 00	88,320
Bagging - - pieces	35,691	13 00	463,983	lard - - "	12,800	35 00	448,000
Bale rope - - coils	133,276	8 00	1,066,208	Potatoes - - "	210,481	2 25	473,582
Beans - - bbls.	7,678	5 00	38,390	Pork - trcs. & bbls.	278,480	17 75	4,943,020
Butter - kegs & firkins.	35,733	10 00	357,330	Ditto - - boxes.	200	40 00	8,000
Butter - - bbls.	1,227	35 00	42,945	Ditto - - hhds.	4,330	70 00	303,100
Beeswax - - "	41	50 00	2,050	Ditto in bulk - lbs.	7,357,291	7	515,010
Beef - - "	27,130	13 50	366,255	Porter and ale - bbls.	6,350	10 00	63,500
Beef - - trcs.	5,547	23 00	127,581	Packing yarn - reels	2,061	5 00	10,305
Beef dried - lbs.	30,150	12	3,654	Rum - - bbls.	3,000	20 00	60,000
Cotton - - bales	1,678,616	52 50	88,127,310	Skins, deer - packs	1,712	20 00	34,240
Corn-meal - bbls.	700	5 00	3,500	Shingles - - m.	6,100	3 00	18,300
in ear - "	69,405	50	34,202	Shot - - kegs	1,871	25 00	46,775
shelled - sacks	1,291,731	1 45	1,873,009	Soap - - boxes	2,857	4 00	39,428
Cheese - - boxes	54 447	3 50	190,564	Staves - - m.	11,500	65 00	747,500
Candles - - "	74,185	8 00	577,464	Sugar (estimated crop) - - hhds.	379,697	64 00	17,900,608
Cider - - bbls.	83	8 00	664	Spanish moss - bales	4,201	16 00	67,216
Coal, western - "	2,501,000	50	1,250,500	Tallow - - bbls.	905	30 00	27,150
Dried apples and peaches - "	3,809	9 00	34,281	Tobacco, leaf - hhds.	75,168	155 00	11,500,704
Feathers - - bags	886	50 00	44,300	strips - - "	9,514	213 00	2,016,968
Flaxseed - - trcs.	1,031	12 00	12,372	stems - - "	2,459	45 00	110,655
Flour - - bbls.	1,538,742	4 60	7,078,213	chewing kegs & boxes	3,006	25 00	75,150
Furs - hhds.bdls. & boxes	469	- -	160,000	Twine bundles & boxes	4,524	11 00	49,764
Glassware packages	20,662	5 00	103,310	Vinegar - - bbls.	1,149	4 00	4,596
Hemp - - bales	13,787	25 00	344,675	Whisky - - "	125,207	8 00	1,001,656
Hides - - no.	103,174	3 00	309,522	Wheat - bbls. & sacks	401,275	2 00	802,550
Hops - - bales	84,287	3 25	273,933	Other various articles, estimated at - -	- -	- -	6,000,000
Iron, pig - - tons	257	35 00	8,995				
Lard - bbls. & trcs.	112,970	35 00	3,953,950				
Ditto - - kegs	93,240	7 00	652,680	Total value - -	- -	- -	167,155,546
Leather - - hundles	5,689	30 00	170,670	" in 1856-57 -	- -	- -	158,061,369
Lime, western - bbls.	13,843	1 30	17,995	" in 1855-56 -	- -	- -	144,256,081
Lead - - pigs	112,147	6 00	672,882	" in 1854-55 -	- -	- -	117,106,823
bar - kegs & boxes	1,221	21 00	26,082	" in 1853-54 -	- -	- -	115,556,798
white - kegs	205	2 00	410				

Imports of Specie for 12 Years, from 1st September to 31st August.

1846-47 -	6,680,050 dolls.	1850-51 -	7,937,119 dolls.	1854-55 -	3,746,037 dolls.
1847-48 -	1,845,808	1851-52 -	6,278,523	1855-56 -	4,913,540
1848-49 -	2,501,250	1852-53 -	7,865,226	1856-57 -	6,500,015
1849-50 -	3,792,662	1853-54 -	6,967,056	1857-58 -	13,268,013

The *Picayune* publishes the following comparative statement of imports through the custom-house of New Orleans, for the fiscal years ending the 30th of June of each year, of *1856-57-58*: —

	1856.	1857.	1858.
	Dolls.	*Dolls.*	*Dolls.*
Dutiable - - - -	8,000,583	16,417,034	10,248,002
Free - - - -	6,417,596	6,637,076	4,818,015
Specie and bullion - - -	1,775,148	1,927,050	4,621,246
Total - - -	17,183,327	24,981,150	19,687,263
Exports - - - -	80,547,968	91,514,286	88,382,458

The imports into New Orleans have never exceeded the present year (1858), except for the year ending the 30th of June, 1857. At all the northern ports there has been a great falling off — much larger, *pro rata*, than in New Orleans.

It will be observed that there is a decrease in the amount of exports from last year of a little over 3,000,000 dollars.

Monthly Arrivals of Ships, Barks, Brigs, Schooners, &c., for 2 Years, from 1st Sept. to 31st August.

	1855-6.							1856-7.						
Months.		Barks.	Brigs.	Schooners.	Steamships.	Total.	Steamboats.	Ships.	Barks.	Brigs.	Schooners.	Steamships.	Total.	Steamboats.
September -	27	13	12	21	14	87	153	35	13	9	16	10	83	131
October -	99	29	25	30	20	203	204	65	23	19	32	15	154	234
November -	134	51	42	39	23	289	291	100	36	22	31	17	206	279
December -	90	40	34	34	23	221	352	89	44	22	26	15	196	331
January -	130	59	27	49	22	287	296	94	52	23	59	23	251	253
February -	62	24	23	39	17	165	287	96	48	23	43	16	226	287
March - -	80	34	22	42	23	201	355	77	28	35	70	21	234	298
April - -	104	42	24	40	20	230	311	74	20	21	50	23	188	250
May - -	43	18	17	31	19	131	270	43	32	18	48	23	164	225
June - -	68	34	15	25	21	163	185	25	25	21	54	23	128	210
July - -	27	21	14	28	19	109	155	11	11	12	20	13	67	129
August -	10	10	6	18	13	57	97	20	9	6	12	10	57	118
Total -	874	575	261	399	234	2,143	2,956	729	321	231	441	212	1,934	2,745

For comparison, we present the totals of the last 5 years —

	Ships.	Barks.	Brigs.	Schooners.	Steamships.	Total.	Steamboats.
1852–53	782	447	295	596	244	2,364	3,253
1853–54	713	336	217	478	204	1,948	3,076
1854–55	731	255	180	426	225	1,817	2,765
1855–56	874	375	261	399	234	2,143	2,936
1856–57	729	321	231	447	212	1,954	2,745

The exports of cotton and tobacco from New Orleans in 1855–6 and 1856–7, were distributed as follows, viz. : —

	Cotton.		Tobacco.	
	1855-6.	1856-7.	1855-6.	1856-7.
	bales.	*bales.*	*hhds.*	*hhds.*
Great Britain	986,622	749,485	7,531	11,446
France	244,814	258,163	5,942	1,288
North of Europe	162,675	156,150	13,370	15,150
South of Europe, Mexico, &c.	178,812	129,619	23,075	13,665
Coastwise	222,100	223,204	9,156	8,632
Total	1,795,023	1,516,921	59,074	50,181

Exports of Flour, Pork, Bacon, Lard, Lead, Whisky, and Corn, in 1856-57.

Ports.	Flour.	Pork.	Bacon.	Lard.	Beef.	Lead.	Whisky.	Corn.
	bbls.	*bbls.*	*casks.*	*kegs.*	*bbls.*	*pigs.*	*bbls.*	*sacks.*
New York	141,494	46,625	2,979	185,688	5,527	10,957	1,956	26,087
Boston	241,266	53,725	2,728	57,303	10,387	6,242	8,925	55,322
Philadelphia	-	-	9	-	-	-	849	
Baltimore	-	3,847	-	1,180	-	-	556	
Other coast ports	141,142	18,874	25,631	17,941	366	-	46,884	204,608
Great Britain	72,758	15,958	4,716	153,611	1,229	-	-	250,641
Cuba	17,274	1,420	1,740	185,090	314	-	-	59,735
Other foreign ports	290,776	4,722	644	49,755	903	96	1,088	115,255
Total	904,910	145,174	38,447	648,866	18,726	17,275	60,058	711,628

In the above, the exports to Mobile, etc., via the Pontchartain Railroad and New Canal, are included.

In so far as the trade with foreign countries is concerned, the great increase has been in the export of cotton, flour, tobacco, Indian corn and meal, &c. Cotton, for example, has increased from 740,155 bales in 1841–42, worth 24,425,115 dolls., to 1,678,616 bales in 1857–58, worth 88,127,340 dolls.; flour, from the value of 3,708,848 dolls. in 1851–52, to 7,078,213 dolls. in 1857–58; tobacco, from 7,196,185 dolls. in 1851–52, to 13,703,477 dolls., and so on.

Sugar.—We subjoin a statement of the sugar produced in Louisiana during each of the 24 years ending with 1857. The statement sets the precarious nature of this branch of industry in a striking light. An unfavourable season for planting, or the occurrence of frost a little earlier than usual, will reduce the crop a half; so that the amount of the produce can never be estimated beforehand. It partakes more of a gambling character than any other branch of industry carried on in the States. But notwithstanding these adverse circumstances, the culture of the cane has greatly increased.

Years.	Total Crop.		Average Price.	Total Value.	Exported to.	
					Atlantic Ports.	Western States.
	hhds.	*lbs.*	*hhd.*	*dolls.*	*hhds.*	*hhds.*
1834	100,000	100,000,000	$60	6,000,000	45,500	44,500
1835	30,000	30,000,000	90	2,700,000	1,500	23,500
1836	70,000	70,000,000	60	4,200,000	26,500	35,000
1837	65,000	65,000,000	62½	4,062,500	24,500	32,500
1838	70,000	70,000,000	62½	4,375,000	26,500	32,500
1839	115,000	115,000,000	50	5,750,000	42,600	58,000
1840	87,000	87,000,000	55	4,785,000	38,500	46,500
1841	90,000	90,000,000	40	3,600,000	28,000	50,000
1842	140,000	140,000,000	42½	5,750,000	63,000	60,000
1843	100,000	100,000,000	60	6,000,000	34,000	52,000
1844	200,000	200,000,000	45	9,000,000	101,000	70,000
1845	186,650	186,650,000	55	10,265,750	79,000	75,000
1846	140,000	140,000,000	70	9,800,000	45,500	70,000
1847	240,000	240,000,000	40	9,600,000	84,000	115,000
1848	220,000	220,000,000	40	8,800,000	90,000	108,000
1849	247,923	269,769,000	50	13,596,150	90,000	125,000
1850	211,303	231,194,000	60	12,678,180	45,000	123,000
1851	236,547	257,158,000	50	11,827,350	42,000	149,000
1852	321,931	368,429,000	48	15,452,688	82,000	206 000
1853	449,324	495,156,000	35	15,726,340	166,000	185,000
1854	346,635	385,726,000	52	18,025,020	122,000	143,000
1855	251,427	254,569,000	70	16,199,890	59,133	131,027
1856	75,976	81,373,000	110	8,137,360	1,850	29,576
1857	279,697	307,666,700	64	17,900,608	73,885	153,012

Banks.—There were on the 1st January, 1858, 19 banks in the State of Louisiana, and mostly in New Orleans. Their aggregate capital amounted to 21,730,400 dolls.; their circulation to 4,535,949 dolls.; their deposits to 13,539,274 dolls.; and their specie

to 18,505,213 dolls. They do not differ in any material degree from the banks in other parts of the Union, and are quite as little entitled to credit or confidence.

For *Monies, Weights, and Measures*, see *New York*.

New Orleans Levee Dues.—The subjoined ordinance, passed by the Common Council of the city and approved by the mayor, 25th May, 1852, is now in force.

An Ordinance to regulate the Levee and Wharfage Dues on Ships and Vessels arriving from Sea, and on Steamboats, Flats, Barges, &c.

Art. 1. That from and after the passage of this ordinance the levee or wharfage rates on ships or other sail vessels, steamships, steamboats, flats, barges, and other craft, shall be fixed as follows: —

On all ships or sail vessels of 1,000 tons and under, 25 cents per ton.
Excess of tonnage over 1,000 tons, 20 cents per ton.
On all steamships, 17½ cents per ton.
On all steamboats of 1,000 tons and under, 15 cents per ton.
Excess of tonnage over 1,000 tons, 10 cents per ton; *provided*, the boats arriving and departing more than once each week, shall pay only two-thirds of these rates.
On each flatboat not measuring over 80 feet, $ 10.
On each flatboat measuring 80 to 100 feet, $ 12.
On each flatboat measuring over 100 feet, $ 15.
On each barge more than 70 feet long, $ 12.
On each barge less than 70 feet, and not exceeding 15 tons burden, $ 8.
On each steamboat hull used as a barge, $ 25.
On each scow and coastwise pirogue, $ 2.
For every flatboat, barge, or other vessel, not including steamboats, employed in the transportation of brick, lumber, or other building materials, or in bringing produce from this and neighbouring parishes to this city, and measuring not over 25 tons, the levee and wharfage dues shall be $ 50 per annum.
From 25 to 50 tons, $ 60 per annum.
Over 50 and not exceeding 75 tons, $ 80 per annum.
Over 75 and not exceeding 100 tons, $ 125 per annum.
Over 100 tons, $ 200 per annum.

Art. 2. Every proprietor of any small craft of the description above mentioned, who shall desire to enjoy the privilege accorded by the present ordinance, must apply to the treasurer of the city of New Orleans for the purpose of obtaining a license, approved by the mayor, and countersigned by the controller, which license shall specify the number or name of such craft, which shall be painted in a conspicuous place on the side of the said craft.

Art. 3. Hereafter it shall not be lawful for any pirogue, flatboat, barge, boat, or keelboat, to remain in port longer than eight days, under the same provisions and penalties contained in art. 5. of an ordinance of the General Council, approved May 20, 1843.

Art. 4. That the payment of the levee dues on ships or sail vessels, steamships, and steamboats, shall be exacted and collected by the collectors of levee dues, and an extra duty of one-third these rates shall be paid by all sail vessels or steamships which may remain in port over two months, the same to be recovered at the commencement of the third month; and if over four months, an additional duty of one third these rates.

Steamboats shall be entitled to remain thirty days in port after payment of the dues. All over thirty days to pay an additional duty of $ 2 per day.

Art. 5. That all vessels now in port, and that have paid a daily or weekly wharfage, shall be allowed (and the collectors are hereby authorised) to deduct the amount so paid from the rates now to be collected.

All ordinances or parts of ordinances conflicting with the foregoing be, and the same are hereby, repealed.

Tariff of Commercial Charges and Rates adopted by the New Orleans Chamber of Commerce, in 1846 and 1848, and amended 10th May, 1852.

Commission on Sales.

Sugar, cotton, tobacco, lead, flour, and other products of the soil	2½ per cent.
Domestic manufactures, and all foreign merchandise	5 —
Guarantee of sales on time	2½ —
Purchase and shipment of merchandise or produce	2½ —
Sales or purchase of stock and bullion	1 —
Collecting and remitting dividends	1 —
Selling vessels or steamboats	2½ —
Purchasing do.	5 —
Procuring freights	5 —
Collecting freights from foreign ports	2½ —
Coastwise	5 —
Outfits and disbursements	2½ —
Effecting insurance	½ —
Adjusting or collecting insurance or other claims without litigation	2½ —
With litigation	5 —
Purchasing and remitting drafts, or receiving or paying money on which no other commission has been charged	1 —
If bills remitted are guaranteed, in addition	1½ —
Bills and notes remitted, for collection protested and returned	1 —
Landing, custody and re-shipping merchandise or produce from vessels in distress	2 —
Ditto, bullion or specie	1 —
Adjusting and collecting general average	5 —
Consignments of merchandise withdrawn or re-shipped per order on account of advances and responsibilities-full commission.	
On the surplus amount of invoices of such consignments, deducting advances and liabilities —half commission.	
Drawing, indorsing or negotiating foreign bills of exchange	1½ —
Ditto, on domestic bills of exchange	1 —
Receiving, entering, and re-shipping merchandise to a foreign port—on amount of invoice	1 —
On amount of advances, charges, and liabilities on same	2½ —
For drawing, accepting, negotiating, or indorsing notes or drafts without funds, produce, or bills of lading in hand	2½ —
On cash advances in all cases	2½ —
For entering and bonding merchandise for the interior—on amount of duties, freight and charges (besides the regular charge for forwarding)	2½ —
Agency for steamboats—according to special contract.	
The foregoing rates to be exclusive of brokerage and charges already incurred.	

Receiving and forwarding Merchandise, exclusive of Charges actually incurred.

Sugar, molasses, and tobacco	℔ hhd.	50 cents.
Cotton	℔ bale	50 —
Hemp	℔	20 —
Moss	℔	10 —
Provisions or bacon	℔ hhd.	25 —
ditto	℔ tierce	12½ —
Pork, beef, lard, tallow,	℔ bbl.	5 —
Box pork	℔ box	15 —
Flour, grain, and other dry barrels		5 —
Lard, nails, and shot	℔ keg	½ —
Lead	℔ pig	1 —
Corn, wheat, beans, oats, and other grain	℔ bag	3 —

Liquids.

Pipes and hogsheads	50 cents.
Half pipes and tierces	25 —
Quarter casks and barrels	12½ —
Whisky	℔ bbl. 10 —
Oils	12½ —

Sundries.

Boxes, bales, cases, trunks, and other packages, dry goods	10 a 50	—
Earthen and hardware	℔ package 25 a 50	—
Bar iron and castings	℔ ton 75	—
Railroad iron and pig iron	50	—
Hollow ware	150	—
Soap, candles, wines, &c.	℔ box 5	—
Coffee, spices, &c.	℔ bag 6	—
Gunpowder	℔ keg 25	—
Salt	℔ sack 3	—

Storage and Labour per Month.

	First month. Cents.	Second and after. Cents.
Cotton and wool	℔ bale 20	10
Tobacco	℔ hhd. 50	25
Hemp ℔ bale not exceeding 300 lbs.	10	07
— — — 450 —	15	10
— — — 600 —	20	15
— — — 800 —	25	18
Moss ℔ bale	10	06
Bagging and rope	05	03
Pelfries	10	07
Hides each	01½	01
Lead ℔ pig	01	01
Hollow ware ℔ ton	125	75
Bar iron and castings	75	50
Railroad iron and pig iron	50	25
Bacon and provisions ℔ hhd.	25	28
Pork, beef, lard, tallow, &c. ℔ bbl.	08	06
Molasses, oil, and whisky	10	08
Flour	05	04
Lard ℔ keg	02½	02
Sugar and molasses ℔ hhd.	40	25
— Havannah ℔ box	12½	10
Corn, wheat, oats, and other grain ℔ bag	04	03
Coffee, spices, &c.	05	03
Salt	03	02
Candles, soap, wine, fish, raisins, oils, sweetmeats, cigars, &c. per box or basket	04	02
Ditto, in half boxes	02	01
Nails ℔ keg	03	02
Dry goods not exceeding 10 feet	15	10
— — — 20 —	20	15
— — — 30 —	25	20
— — — over 30 —	40	25
Crockery ℔ cask or crate	30	20
— half cask or half crate	15	10
Hardware ℔ cask	40	25
— — — ℔ tierce	20	15
— — — ℔ bbl.	10	08
Liquids ℔ pipe or hhd.	40	30
— ℔ half pipe or tierce	25	18
— ℔ quarter cask or bbl.	10	08
Claret ℔ cask	20	15
Gunny bags ℔ bale	10	08
India bagging	15	10

Weight of Grain per Bushel.

	Lbs.
Wheat and rye	60
Corn	56
Oats	32

Tares.

Lard, butter, cheese, tallow, stearine, sugar, rice - - - - - - actual tare.
Coffee in bags - - - - ¼ per cent.

Freights.

When vessels are chartered, or goods shipped by the ton, and no special agreement respecting the proportion of tonnage which each particular article shall be computed at, the following regulation shall be the standard : —

That the articles, the bulk of which shall compose a ton, to equal a ton of heavy materials, shall in weight be as follows : —

Coffee in casks - - -	- 1,568 lbs.;	in bags 1,830 lbs.
Cocoa - - - -	- 1,120 —	1,300
Pimento - - - -	- 950 —	1,100
Flour - - - -	- 8 bbls. of 196 lbs.	
Beef, pork, tallow, pickled fish, and naval stores - -	- 6 bbls.	
Pig and bar iron, lead, and other metals or ore, heavy dye-woods, sugar, rice, honey, or other heavy articles - -	- 2,240 lbs. gross.	
Ship bread in casks - -	- 672 lbs., bags 784; bulk, 806.	
Wines, brandy, spirits, and liquids generally, reckoning the full capacity of the cask, wine measure - - -	- 200 galls.	
Grain, peas, and beans, in casks	22 bushels; in bulk, 36 bush.	
Salt, European - -	- 36 —	
Do. West India - -	- 51 —	
Stone coal - - -	- 28 —	
Timber, planks, furs, peltries, in bales or boxes, cotton, wool, or other measurement goods	- 40 cubic feet.	
Dry hides - - -	- 1,120 lbs.	

When molasses is shipped by the hogshead, without any special agreement, it shall be taken at 110 gallons, estimated on the full capacity of the cask.

Freights (and commission on them), when in sterling money, shall be settled at $4 84 per pound sterling; and other foreign currency at the value fixed by Congress.

We avail ourselves of this opportunity to lay before the reader the following statements with respect to Mobile, with which New Orleans is intimately connected.

MOBILE, at the mouth of the Alabama river in Mobile Bay, had, in 1850, 20,513 inhab. It is now become the second port in the Union for the shipping of cotton, and it has also an extensive and rapidly increasing trade in other things, being the entrepôt for nearly the whole of Alabama. The value of the domestic produce (principally cotton) exported from this State in the year 1857–58, amounted to 21,019,266 dollars, being more than that of any other State excepting New York and Louisiana. The imports are comparatively inconsiderable, not amounting to more than 500,000 or 600,000 dollars. Mobile had on the 30th June, 1858, 47,444 tons shipping, of which nearly a half, or 21,958 tons, belonged to steamers.

The entrance to Mobile Bay is between Mobile point on the E., and Dauphin Island on the W., about 3¼ m. apart, the deepest channel having 15 feet water at low ebb; but vessels drawing more than 8 or 9 feet water cannot, owing to a shoal in the bay, reach the town except at high water. A lighthouse erected on the point, lat. 30° 16′ N., long. 88° 32′ W., exhibits a fixed light elevated 55 feet above the level of the sea.

Exports of Cotton to Foreign Ports from Mobile for the 2 Years ending 31st August, 1857, and 31st August, 1858.

Countries.	1857. Bales.	Lbs.	Value.	1858. Bales.	Lbs.	Value.
			Dolls.			*Dolls.*
Great Britain - - -	204,698	103,162,978	13,271,156 00	265,553	137,544,091	15,056,384 81
France - - - -	88,939	44,984,599	5,553,840 00	89,691	46,615,873	5,137,905 29
Spain - - - -	1,225	621,112	86,464 00	2,800	1,391,225	165,439 66
Russia - - -	18,500	10,349,804	1,318,050 00	10,907	5,752,887	704,014 59
Holland - - -	4,015	2,056,920	257,811 00	1,358	725,544	91,735 37
Belgium - - -	2,297	1,157,501	151,424 00	- -	- -	- -
Hamburgh and Bremen -	- -	- -	- -	6,047	3,193,540	389,065 43
Sardinia - - -	- -	- -	- -	282	143,256	15,758 16
Sweden - - -	2,068	1,039,260	122,825 00	3,150	1,634,490	174,599 05
Denmark - - -	1,123	570,838	74,200 00	- -	- -	- -
Trieste - - -	- -	- -	- -	7,177	3,683,344	400,841 42
Total - -	322,865	163,941,112	20,835,740 00	386,965	200,685,950	22,135,761 18

Comparative View of the Imports into Mobile in the following Years : —

Articles.	1850–1.	1851–2.	1852–3.	1853–4.	1854–5.	1855–6.	1856–7.	1857–8.
Bagging, assort. pieces	24,662	21,260	22,327	23,450	22,500	21,379	19,555	29,991
Bale rope - - coils	26,572	17,933	24,107	24,186	29,178	29,550	32,818	39,198
Bacon - - hhds.	16,758	13,288	13,227	17,791	16,363	12,032	22,380	15,513
Coffee - - bags	26,468	29,027	34,503	21,907	28,011	32,679	38,156	26,326
Candles - - boxes								
Flour - - bbls.	94,919	86,756	64,444	62,986	41,142	53,067	77,500	73,711
Grain—Corn - sacks	112,980	100,915	92,104	186,238	94,665	94,269	150,231	120,794
Oats - „	12,408	23,052	48,395	55,870	28,118	97,809	28,952	41,471
Hay - - bales	24,439	29,085	22,830	26,475	16,251	14,609	26,950	30,697
Lard - - kegs	19,070	23,733	22,389	16,485	16,860	14,788	15,622	19,506
Lime - - bbls.	26,075	32,109	21,252	24,963	10,539	7,425	10,846	28,481
Molasses - - „	18,513	18,691	19,681	35,850	28,400	20,355	8,442	35,288
Potatoes—Irish „	16,734	24,072	21,344	23,641	12,119	20,449	16,411	29,740
Pork - - „	22,259	16,374	15,841	13,975	11,760	20,534	14,914	27,560
Rice - - tierces	1,748	1,766	1,599	2,496	1,551	1,518	1,993	1,918
Sugar - - hhds.	6,567	7,198	8,352	8,970	7,121	7,467	6,236	8,659
Salt - - sacks	130,514	135,009	123,266	168,752	148,569	237,500	169,886	127,453
Whisky - - bbls.	25,806	19,013	21,751	25,980	18,046	28,129	38,939	21,419

Cotton Crop of S. Alabama for 34 Years.

Years.	Bales.	Years.	Bales.	Years.	Bales.
1825	44,924	1837	237,590	1849	518,706
1826	58,283	1838	252,685	1850	350,952
1827	74,379	1839	309,807	1851	451,748
1828	89,779	1840	251,742	1852	519,449
1829	71,155	1841	317,642	1853	546,190
1830	80,329	1842	318,515	1854	538,684
1831	102,684	1843	481,714	1855	455,547
1832	113,075	1844	467,990	1856	659,074
1833	125,605	1845	517,196	1857	509,493
1834	129,766	1846	421,966	1858	522,902
1835	149,513	1847	323,462		
1836	197,817	1848	440,336		

Table of Entries and Clearances of Vessels at Mobile (exclusive of Steamers and other Craft navigating the Rivers and Bay) for the Year ending 30th June, 1858.

Entries.	Arrivals.			Clearances.		
	Number of Vessels.	Amount of Tonnage.	Number of Crew.	Number of Vessels.	Amount of Tonnage.	Number of Crew.
American	125	80,778	2,010	179	114,907	2,851
Foreign	48	35,054	1,178	48	35,054	1,068
Coastwise	487	235,734	8,585	216	80,987	2,426
Total	660	351,566	11,773	443	230,948	6,345

The enormous difference which appears between the number of coastwise vessels entered and cleared, is owing to the fact that all the mail line steamers and schooners, from New Orleans, enter at the custom-house, and in no instance clear in returning.

Tariff of Charges on Cotton at Mobile.—The proprietors of the several presses and warehouses at Mobile, have adopted the following uniform tariff of charges on cotton:

	Per bale.
Factor's storage on cotton for the season	90 cents.
Compressing cotton	50 —
Extra ropes on compressed cotton, each	6¼ —
Labour on ships marked cotton	5 cents.
Drayage, compressed ditto	5 —
Wharfage, ditto	5 —
Storage on cotton going coastwise, per week	5 —
Turning out and restoring cotton	5 —
Arranging	3 —

NEWSPAPERS. Publications in numbers, consisting commonly of single sheets and published at short and stated intervals, conveying intelligence of passing events.

Importance and Value of Newspapers in a Commercial Point of View.—It is foreign to the purposes of this work to consider the moral and political effects produced by newspapers: of the extent of their influence there is no doubt, even among those who differ widely as to its effect. Their utility to commerce is, however, unquestionable. The advertisements or notices which they circulate, the variety of facts and information they contain as to the supply and demand of commodities in all quarters of the world, their prices, and the regulations by which they are affected, render newspapers indispensable to commercial men, supersede a great mass of epistolary correspondence, raise merchants in remote places towards an equality, in point of information, with those in the great marts, and wonderfully quicken all the movements of commerce. Newspapers themselves have also become an important commercial article. In 1852 the nett produce of the stamp duty levied on newspapers in the U. Kingdom was 412,956*l.*: the gross produce of the sale may be estimated at 4½ times this sum; so that on this hypothesis the newspapers produced in that year must have cost the public about 1,858,302*l.* sterling, exclusive of the sums paid for advertisements.

Newspapers, in London, are sold by the publishers to newsmen or newsvenders, by whom they are distributed to the purchasers in town and country. The newsmen, who are the retailers, receive, for their business of distribution, a regulated allowance. The papers sold to the public at *5d.*, which, down to *1855*, have formed the great mass of London newspapers, are sold to the newsmen in quires. Each quire consists of 27 papers, and has been charged to the newsmen at *8s. 9d.*; so that the newsman's gross profit on 27 papers was *2s. 6d.* In some instances where newspapers are sent by the post, ½*d.* additional on each paper has been charged by the newsmen to their country customers. Some of the clerks of the post-office, called clerks of the road, used to be considerable news agents; but this, we believe, is no longer the case. Previously to 1836 the stamp duty on a newspaper was rather under 3½*d.* (4*d.* — 20 per cent.); but it was then reduced to 1*d.* nett. A single paper being sold to the newsmen at 4*d.*, the sum which has been received by the newspaper proprietors for paper, printing, and the expenses of their establishments, has been 3*d.* for each copy. The subjoined table shows how papers have been disposed of down to the present time (*1855*) to the different classes of dealers, when the price was *5d.*, and how they would have been disposed of had the price been *6d.*

Papers at	Wholesale Newsmen, per 27 Papers.*		Retail Newsmen, per 27 Papers.		Retail Newsmen, per single Copy.*	
	Cost.	Profit on Sale.	Cost.	Profit on Sale.	Cost.	Profit on Sale.
	s. d.	*s. d.*	*s. d.*	*s. d.*	*d.*	*d.*
5d.	8 9	2 6	9 0	2 3	4	1
6d.	10 9	2 9	11 3	2 3	5	1

Advertisements form a considerable source of profit to newspapers; and without them, some of those papers that are most widely circulated could not support their great expenditure. Down to 1853, all advertisements, without distinction of length, were charged with a duty of *1s. 6d.* each, which produced, in 1852, 167,695*l.* 9*s.* 5*d.* nett in Great Britain, and 13,500*l.* 18*s.* in Ireland. But this duty being on various accounts highly objectionable was then repealed. There are no means by which to learn the proportion of the advertisement duty which was paid by newspapers. Probably, however, we shall not be far wrong, if we take it at ⅘ths of the entire sum. The charges of newspapers for advertising vary with the length of the advertisements and the circulation of the papers. It is obvious, indeed, that an advertisement in a journal which is widely circulated may do more to disseminate information in regard to the matter to which it refers, than its insertion in half a dozen papers of limited circulation.

Papers have been set on foot in different parts of the kingdom which contain advertisements only. They are not sold but given away, and some of them are very extensively distributed. Their profits

* Such of the retail newsmen as have a good share of business purchase direct from the publishers at the wholesale prices.

depend on their popularity with the advertising world, or on the number of advertisements sent them.

Inasmuch, however, as but little attention is paid to what is given gratis, we doubt whether the above be really advantageous engines for advertising. It has sometimes been tried, with a view to lessen the expense of advertisements, to confine certain descriptions of them, such, for example, as notices of books, to some one journal, or class of journals. But the experiment has had no great degree of success.

The London newspapers have become remarkable for the great mass and variety of matter which they contain, the ability of their leading articles, the rapidity with which they are printed and circulated, and the accuracy and copiousness of their reports of debates. These results are obtained by a large expenditure and considerable division of labour. The reports of parliamentary proceedings are obtained by a succession of able and intelligent reporters, who relieve each other at intervals of ¾ of an hour, or occasionally less. A newspaper cannot aim at copious and correct reports with less than 10 reporters for the House of Commons; and the expense of that particular part of a morning newspaper's establishment exceeds 3,000*l.* per annum.

Regulations as to Newspapers.—The act 6 & 7 Will. 4. c. 76. introduced several new regulations with regard to newspapers. Among other things it imposed a duty of 1*d.* on every sheet of paper printed as a newspaper, provided its superficies did not exceed 1,530 sq. inches; of 1½*d.* if it exceeded 1,530 sq. inches, and did not exceed 2,295 sq. inches; and of 2*d.* if it exceeded 2.295 sq. inches. When supplements were published with newspapers, they were each charged with a duty of ½*d.* provided their superficies did not exceed 795 sq. inches.

This was neither more nor less than a device to limit the size of newspapers by imposing a peculiar tax on those publishers who might be disposed, by increasing the size of their journals, to lay the greatest supply of information or amusement before their readers. But this ingenious scheme for making a small be substituted for a large measure of intelligence has since been, if not abolished, at least materially modified. The Stamp Act of 1853, the 16 & 17 Vict. c. 63., has the following clauses; viz.

As to Duties on Newspapers and Supplements.—No higher stamp duty than 1*d.* shall be chargeable on any newspaper printed on one sheet of paper containing superfices not exceeding 2295 inches.

A supplement published with any newspaper duly stamped with the duty of 1*d.*, such supplement being printed on one sheet of paper only, and together with such newspaper containing in the aggregate a superficies not exceeding 2295 inches, shall be free from stamp duty.

Any other supplement to any such duly stamped newspaper shall not be chargeable with any higher stamp duty than ½*d.*, provided it does not contain a superficies exceeding 1148 inches.

And any two supplements to any such duly stamped newspaper shall not be chargeable with any higher stamp duty than ½*d.* on each, provided each of such supplements be printed and published on one sheet of paper only, and that they contain together a superficies not exceeding in the aggregate 2295 inches.

The superficies in all the cases aforesaid to be one side only of the sheet of paper, and exclusive of the margin of the letter press.

The act 6 & 7 Will. 4. c. 76., exempts from the duties on newspapers "any paper called *Police Gazette* or *Hue and Cry*," published in Great Britain by authority of the Secretary of State, or in Ireland by the authority of the Lord Lieutenant.

Daily accounts or bills, of goods imported and exported, or warrants or certificates for the delivery of goods, and the weekly bills of mortality; and also papers containing any list of price current, or of the state of the markets, or any account of the arrival, sailing, or other circumstances relating to merchant ships or vessels, or any other matter wholly of a commercial nature; provided such bills, lists, or accounts do not contain any other matter than what hath been usually comprised therein.

And the same act lays down the following rules; viz. a discount of 25 per cent. is to be allowed on the above duties on newspapers printed in Ireland.—§ 2.

In order to prevent fraud, in the returns as to newspapers, it is enacted, that, from the 31st of December, 1836, a separate or distinctive stamp or die shall be used for each newspaper.—§ 3.

No person is to print or publish a newspaper until after a declaration has been made and lodged at the Stamp Office, containing certain particulars (specified in the act), as to the names and addresses of the printer, and certain of the proprietors of such paper, &c., under a penalty of 50*l.* Persons wilfully making a false or defective declaration are, upon conviction, to be deemed guilty of a misdemeanor.—§§ 6, 7.

There are a number of regulations intended to provide for the discovery and liability of the printer and proprietors, the security of the duties, and the prevention of the sale of unstamped papers. A penalty of 20*l.* is imposed on any person printing, publishing, selling, &c., newspapers not duly stamped; and it is declared to be lawful for any officer of stamps, or any person authorised by the commissioners in that behalf, to seize any such offender, and take him before any justice having jurisdiction where the offence is committed, who shall summarily determine the matter, and upon conviction and default of payment, shall commit such offender to prison for some term not exceeding 3, nor less than 1 calendar month.—§ 17.

Penalty for sending abroad newspapers not duly stamped, 50*l.*—§ 18.

Justices may grant warrants to search for unstamped newspapers, and to seize presses, &c. used in printing the same; and on refusal of admittance, officers may break open doors, &c. Persons resisting officers liable to a penalty of 20*l.*—§§ 22, 23.

Influence of the Reduction of the Duty in 1836.—The reduction of the price of newspapers from 7*d.* to 5*d.* occasioned a great increase in the demand for the old or established papers; and a considerable number of new weekly papers also started into existence after the reduction of the duty in the metropolis and throughout the country. Hitherto, however, with one exception, no new daily paper has been established in the metropolis.

Newspaper Act of 1855.—But a still further and most important change in the regulations as to newspapers has been effected by the Act of this year (1855), the 18 Vict. c. 27. This Act exempts newspapers or periodical publications, not transmitted by post, from all charge for duty; but the existing duty, and the other arrangements referred to above, are still kept up in the case of newspapers sent by post. Inasmuch however, as newspapers may be readily transmitted between the principal places in the U. K. through private channels, it is probable that the post will be but little resorted to in time to come, except in the case of newspapers sent to the country, or to places out of the way of the great lines of communication. And hence, no doubt, the abolition of the duty on the great majority of newspapers will be the principal immediate effect of the new system. We beg to annex the following abstract of the Act referred to.

Not compulsory to print Newspapers on Stamps.—From and after 14 days from the passing of this Act it shall not be compulsory (except for the purpose of free transmission by the post) to print any newspaper on paper stamped for denoting the duties imposed by law on newspapers, and no person

shall be subject or liable to any penalty or forfeiture for printing, publishing, selling, or having in his possession any unstamped newspaper.—§ 1.

Periodical Publications printed on Stamps to be transmitted by Post free of Postage.—Every periodical publication herein-after mentioned which shall be printed within the U. K. on paper stamped for denoting the rate of duty now imposed by law on newspapers shall be entitled to the like privileges of transmission and re-transmission by the post between places in the U. K., either postage-free or otherwise, on the same terms and conditions and under and subject to the like rules and regulations as newspapers duly stamped are now entitled and subject to under any Act or Acts in force, but under and subject nevertheless to the terms and conditions contained in this Act.—§ 2.

Periodical Publications entitled to free Transmission by Post to be printed under specified Limitations and Conditions.—Every periodical publication to be entitled to any such privilege as aforesaid shall be printed and published at intervals not exceeding 31 days between any two consecutive parts or numbers of such publication, and shall be subject to the same limitations and restrictions with respect to the number of sheets or pieces of paper whereon the same shall be printed, and with respect to the superficies or dimensions of the letter-press thereof, as by any Act or Acts now in force are enacted or imposed with respect to newspapers and supplements thereto; and every such periodical publication shall be entitled to such privilege only on the terms and conditions following; viz. one of the sheets or pieces of paper on which the same shall be printed shall be stamped with an appropriate die, denoting the stamp duty imposed by law on a newspaper printed on the like number of sheets or pieces of paper and of the like dimensions with respect to the superficies of the letter-press thereof; and on the top of every page of such publication shall be printed the title thereof, and the date of publishing the same; and such periodical publication at the time when the same shall be posted shall be folded in such manner that the whole of the stamp denoting the said duty shall be exposed to view, and be distinctly visible on the outside thereof; also such periodical publication shall not be printed on pasteboard or cardboard, or on two or more pieces or thicknesses of paper pasted together, nor shall any pasteboard, cardboard, or such pasted paper be transmitted by post with any such periodical publication either as a back cover thereto, or otherwise.—§ 3.

Paper to be stamped for such periodical Publications, &c.—It shall be lawful for the proprietor or printer of any such periodical publication to send to the commissioners of Inland Revenue, or to such officer as they shall appoint or direct in that behalf, any quantity of paper to be stamped with an appropriate die, to be provided in the manner directed by the Act 6 & 7 Will. 4. c. 76. s. 3. for denoting the rate of stamp duty chargeable on newspapers; and upon payment to the proper officer of the full amount of the stamps required to be impressed on such paper, the said commissioners shall cause the same to be stamped accordingly: provided always, that there shall be allowed in Ireland, in respect of such appropriated stamps as aforesaid for any periodical publication which shall be printed and published only in Ireland, the same rate of discount as by the said Act is directed to be allowed on the purchase of stamps for the printing of newspapers in Ireland.—§ 4.

Periodical Publications to be posted within 15 Days after Publication.—Every periodical publication, posted in the U.K., to be entitled to the privilege of transmission by the post between places in the U.K., under the provisions of this Act, shall be put into a post office within 15 days next after the day on which the same shall be published; the day of publication to be determined by the date of such publication.—§ 5.

Questions as to periodical Publications, how determined.—In all cases in which a question shall arise whether a printed paper is entitled to the privilege of a periodical publication, so far as respects the transmission thereof by the post under the provisions of this Act, the question shall be referred to the determination of the Postmaster General, whose decision, with the consent of the commissioners of the Treasury, shall be final.—§ 6.

Newspapers may be registered at the General Post Office.—Upon the Postmaster General being satisfied that any printed publication is a newspaper, or entitled to the privileges of a newspaper, within the meaning of the treaties and arrangements with foreign powers and colonial governments, it shall be lawful for the proprietor or printer of such newspaper or publication, if he think fit, to register the same at the general post office in London, in such form and with such particulars relating to the same, and subject to the payment of such fees, not exceeding five shillings respectively, as well on registration as afterwards periodically for being continued on the register, as the Postmaster General, with consent of the Treasury, shall from time to time direct or require in that behalf; and thereupon such newspaper or publication, being printed on paper duly stamped with an appropriate die under the provisions of this Act, shall be entitled to all the privileges and advantages secured to newspapers by any such treaties and arrangements.—§ 7.

Transmission by Post of printed Papers to Foreign Countries.—It shall be lawful for the Treasury, by warrant under their hands, to allow any printed newspaper (British, colonial, or foreign) to be transmitted by the post between places in the U. K. and colonies or foreign countries, or between any ports or places beyond the sea (whether through the U. K. or not), either free of postage or subject to such rates of postage not exceeding 2*d.* for each newspaper, irrespective of any foreign or colonial postage, as the Treasury, or Postmaster General with their consent, shall from time to time think fit; and as a condition to any British newspaper being transmitted by the post to any place out of the U. K., the same shall be printed on paper duly stamped with an appropriate die under the provisions of this Act, and the Treasury or Postmaster General may require such newspaper to be registered at the general post office in London in the form and with the particulars and subject to the payment of the fees mentioned in last section.—§ 8.

Power to the Postmaster General and Treasury to make Regulations for carrying the Act into effect.—It shall be lawful for the Postmaster General, with the consent of the Treasury, at any time or times hereafter to make and issue such orders, regulations, conditions, and restrictions as he shall deem to be necessary or expedient for the purpose of regulating the receipt, transmission, and delivery by post of periodical publications under the provisions of this Act, or for preventing or detecting frauds or abuses in relation thereto, and for giving effect to the purposes of this Act; and it shall also be lawful for the said Postmaster General, with the like consent, from time to time to rescind or revoke all or any such orders, regulations, conditions, and restrictions, and to make and issue any new ones in lieu thereof.—§ 9.

Periodical Publications sent by Post not in conformity with this Act to be charged Letter Rates of Postage.—Periodical publications sent by post otherwise than in conformity with the terms, conditions, and regulations established under the authority of this Act may be detained by the Postmaster General, and any officer of the post office; and after being opened, the same shall be either returned to the senders thereof, or forwarded to the place of their destination charged with the like rates of postage as if the same were letters transmitted by the post: provided always, that it shall be lawful for the Treasury, by warrant under their hands, to authorise the Postmaster General to charge in any such case any such less rate of postage as to him shall seem fit.—§ 10.

London Gazette to be Evidence of the issuing of Warrants or Orders.—Any printed copy of the London Gazette in which any warrant or order issued or made under or by virtue of this Act, or purporting so to be, shall be published, shall be admitted as evidence by all courts, judges, justices, and others of such warrant or order, and of the due making and issuing thereof, and of the contents thereof, without any further or other proof of such warrant or order, or of the matters therein contained.—§ 11.

Interpretation of Terms.—The term "periodical publication" used in this Act shall be construed to mean and include a newspaper as defined by the Acts in force relating to the stamp duties on newspapers, and every printed literary work or paper, printed and published periodically, or in parts or

numbers, at intervals not exceeding 31 days between any two consecutive papers, parts, or numbers of such literary work or paper; and for all the purposes of this Act the islands of Guernsey, Jersey, Alderney, Sark, and the Isle of Man shall respectively be deemed to be parts of the U. K.—§ 12.

It would be premature to speculate with much confidence in regard to the results of this important measure. But we doubt whether it will have the beneficial influence which many have anticipated. It was contended in 1836, when the duty on newspapers was reduced from 3½*d.* to 1*d.*, that various advantages would result from this reduction; that the clandestine circulation of cheap journals advocating dangerous doctrines would cease; and that the stigma attached to low-priced journals in the public estimation being removed, men of ability and attainments would find it as much for their advantage to write in them as in the higher-priced journals. These expectations have not been realised; and we much doubt whether the circulation of low-priced political journals can ever be of advantage. Such papers are, speaking generally, addressed to the lower and poorer classes of the community; and their writers usually find it more for their advantage to flatter the prejudices entertained by their readers, and to espouse their peculiar views, how inconsistent soever these may be with the interests of society in general, than to inculcate sounder though less popular principles. Hence the questionable character of the greater number of the low-priced papers, or, at least, of such of them as are read by the lower orders. This, perhaps, may be a necessary evil in a highly advanced country like this; but whether it be so or not, there can be no doubt of its existence, and of its magnitude.

It has sometimes been thought singular that that division of subjects which has been introduced into most other things has not been introduced amongst newspapers. Instead of having all sorts of matter crammed into the same journal, it might be presumed that the better plan would be to have all topics of considerable interest separately treated in papers appropriated to them only, and conducted by persons fully conversant with their principles and details. Under the present omnivorous system, individuals who care nothing for the theatre are, notwithstanding, unable to procure a paper in which it does not occupy a prominent place; and those who cannot distinguish one tune from another have daily served up to them long dissertations on concerts, operas, oratorios, and so forth. But, how desirable soever in some respects, the plan of appropriating particular papers to particular subjects does not appear to be at all suited to the public taste. In a well conducted daily paper, like *The Times*, ably written articles on all subjects of interest are brought together under the reader's notice, who may read them all, or such only as he pleases. This is incomparably more convenient than to have to hunt for different articles among a variety of journals; and is, in fact, the only plan calculated to meet the wants and exigencies of the public.

Impolicy of imposing a Postage on Newspapers.—The duties, now substantially repealed produced, in 1853, 412,220*l.* nett, no inconsiderable sum in a period of war. In point of fact, however, they could hardly be called duties, and ought rather to have been regarded as a payment for the trouble and expense attending the conveyance and distribution of newspapers by post. But supposing such to be the case, it was argued that the duty should be so limited, that is, that it should only be imposed on papers carried by the post. Matters of this sort are not, however, to be decided by mere logical considerations. The effect of the new plan is to confine, in a greater or less degree according to circumstances, the circulation of newspapers to the districts within which they are published; and this certainly is not a desirable object. Hitherto *The Times* and other London journals displaying the greatest talent, and embracing the most varied information, have been distributed all over the country at about the same price as the local and inferior journals. But under the new plan the charge for conveyance, or it may be postage, being added to the price of the metropolitan journals, they will be dearer than the local papers, and people in many, or rather perhaps in the majority of instances, will be disposed to prefer the low-priced though inferior journal published at their door, to the superior but higher priced journal of the capital. If this should turn out to be the case, it will be a serious disadvantage; and by depreciating the quality of the journals circulating over the country, and fostering local prejudices, will far more than neutralise the advantages which it is presumed will result, under the new plan, from the establishment of low-priced papers. These advantages are, indeed, of a very doubtful description. It is true that many of the inferior papers now to be met with inculcate pernicious doctrines. But it is by no means clear that their influence will be in any degree lessened by the new system. On the contrary it may not improbably be increased. The late duty affected them to the same extent that it affected other descriptions of papers; and as they circulated when charged with this burden, it appears reasonable to suppose that they will circulate still more extensively when relieved from it. On the whole, therefore, we anticipate little or no advantage from the new plan. But we are, at the same time, ready to admit that no system of this sort can be safely judged *à priori*; and that the results of experience may differ very widely from those of theory.

Piracy in Newspapers.—The great difficulty under which the leading journals are at present placed is the want of any available copyright in the news or in the articles which they supply. The important information collected by the agents for *The Times* in all parts of the world, and the able disquisitions in that and other journals, may be (and no doubt will be) published, in an hour or two after their first edition in London, in low-priced journals in Manchester, Liverpool, Glasgow, and so forth. This is a gross abuse. And though it be difficult to deal with, it seems pretty evident that if it be not put down, it can hardly fail, by robbing the Metropolitan journals of great part of the advantages derived from their extensive connections and vast expenditure, to make them less anxious to cater for their readers, and so to degrade the quality as well as the character of the press.

Notices of Newspapers.—The history of newspapers, and of periodical literature in general, remains to be written; and were the task executed by an individual of competent ability, and with due care, it would be a most interesting and important work. It appears, from the researches of Mr. Chalmers, that the first newspaper published in modern Europe made its appearance at Venice, in 1536; but the jealousy of the government would not allow of its being printed; so that, for many years, it was circulated in manuscript! It was called *Gazetta*, from a small Venetian coin of that name, for which it was usually exchanged (*Camusat, Histoire des Journaux*, i. 119.) Newspapers were first issued in England by authority during the alarm occasioned by the approach of the *Armada* to our shores; in order as was stated, by giving real information, to allay the general anxiety, and to hinder the dissemination of false and exaggerated statements. From this æra, newspapers, of one sort or other, have, with a few intermissions, generally appeared in London; sometimes at regular, and sometimes at irregular intervals. During the civil wars, both parties had their newspapers. A newspaper was published in Scotland, under the auspices of Cromwell, in 1652. The Caledonian Mercury was, however, the earliest of the Scotch newspapers of native manufacture; it first appeared at Edinburgh, under the title of *Mercurius Caledonius*, in 1660; but its publication was soon afterwards interrupted. In 1715, a newspaper was, for the first time, attempted in Glasgow.

The *Daily Courant*, the first of the daily newspapers published in Great Britain, made its appearance in London in the early part of the reign of Queen Anne.—(See the *Life of Ruddiman*, pp. 102—121.)

From the Stamp Office accounts, it appears that the number of newspapers sold annually in England, during the three years ending with 1753, was 7,411,757; in 1760, 9,461,790; in 1790, 14,035,639; in 1792, 15,005,760.

An Account of the Aggregate Number of Stamps issued for Newspapers in each of the Undermentioned Years; distinguishing the Numbers in England, Scotland, and Ireland.

Years.	England.	Scotland.	Great Britain.	Years.	England.	Scotland.	Great Britain.	Ireland.*
1801	15,090,805	994,280	16,085,085	1820	25,177,127	1,236,560	26,415,687	2,974,156
1805	17,610,069	1,172,200	18,782,269	1825	25,485,503	1,465,191	26,950,094	3,500,482
1810	22,519,786	1,459,775	23,979,561	1830	27,370,092	3,133,988	30,504,080	4,035,311
1815	23,075,985	1,309,525	24,385,508	1835	28,508,569	3,024,454	31,533,023	4,290,336
				1840	48,396,570	5,663,943	54,060,513	6,057,795

* Until 1817 no distinct account was kept of the stamps issued for newspapers in Ireland.

Account of the Aggregate Number of Stamps of One Penny and One Halfpenny issued for Newspapers in each of the undermentioned Years, distinguishing the Numbers in England, Scotland, and Ireland.

Years.	England.		Scotland.		Ireland.	
	at 1d.	at ½d.	at 1d.	at ½d.	at 1d.	at ½d.
1842	50,088,175	1,481,524	5,540,424	440,400	6,063,906	35,750
1843	51,612,195	1,956,832	5,831,671	257,150	6,452,072	142,580
1844	54,084,761	3,724,578	6,050,465	325,620	6,769,067	249,550
1845	59,651,024	10,382,491	6,450,529	508,750	6,921,888	235,178
1846	64,452,379	9,110,430	6,885,306	310,671	6,960,440	131,925
1847	64,158,660	8,197,467	7,421,032	238,175	6,574,607	57,510
1848	67,476,768	8,704,236	7,497,064	176,854	7,028,956	44,709
1849	66,159,502	10,309,253	6,288,205	205,000	6,345,227	38,845
1850	65,741,271	11,684,423	7,643,045	241,264	6,302,728	43,358

An Account of the Gross Produce of the Duties on Newspapers and Advertisements during each of the undermentioned Years, in England, Scotand, and Ireland.

Years ending 5th of Jan.	Newspapers.			Advertisements.		
	England.	Scotland.	Ireland.	England.	Scotland.	Ireland.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1811	328,413 10 11	21,288 7 8	In those years there was no separate account kept of stamps issued to newspapers in Ireland.	113,546 19 1	15,041 8 0	15,723 11 7
1812	335,095 6 0	21,054 13 9		114,195 11 5	14,397 9 0	20,479 5 3
1813	345,902 1 8	22,948 6 8		115,875 18 3	14,448 6 0	20,915 5 10
1814	362,241 4 4	21,921 19 7		114,111 12 10	14,623 7 0	21,253 3 11½
1815	363,500 0 0	20,158 7 7		106,575 9 8	13,410 3 0	19,759 17 6
1816	363,414 3 5	20,281 12 10½		110,941 6 6	14,017 7 0	20,475 16 1½
1817	350,893 15 8	16,612 2 4		118,202 3 4	15,353 8 6	18,498 7 5
1818	349,101 4 0	14,180 5 4	18,885 1 2½	116,552 4 11	16,666 13 0	18,191 12 7

An Account of the Gross Produce of the Duties on Newspapers and Advertisements, &c. —*continued.*

Years ending 5th of Jan.	Newspapers.						Advertisements.								
	England.			Scotland.			Ireland.			England.			Scotland.			Ireland.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1819	350,257	3	0	17,481	13	4	20,210	16	6	119,788	19	4	17,240	6	0	18,555	12	6
1820	365,080	11	4	19,060	5	0	21,187	4	11½	122,227	3	5	16,911	9	6	16,721	1	8¾
1821	419,618	15	8	20,609	6	8	22,693	10	10	123,772	15	6	16,416	15	0	15,491	0	0
1822	394,995	17	4	19,373	18	0	22,346	9	7	125,965	17	5	16,095	2	0	15,102	5	0¾
1823	378,485	19	8	20,387	8	0	23,556	1	0½	131,288	12	0	17,030	16	6	15,708	7	3¾
1824	390,375	8	8	20,795	13	0	25,448	2	6	125,475	5	7	16,020	11	0	14,524	5	8¾
1825	409,281	0	0	22,387	9	4	25,633	13	6½	134,635	19	5½	17,825	17	0	16,426	10	9
1826	425,154	19	8	24,419	17	0	26,659	9	3½	144,731	2	6¾	18,508	18	0	15,907	15	0
1827	429,662	15	2	22,013	6	4	25,187	11	9½	135,687	7	2	17,779	13	0	15,720	0	0
1828	428,629	9	8	20,929	10	4	25,561	3	11½	133,978	16	11	18,400	14	6	14,579	17	6
1829	439,798	8	0	23,556	2	8	27,330	16	8	136,368	17	10	18,959	12	5	15,532	15	0
1830	438,667	10	8	42,301	6	0	28,578	16	7¾	136,052	18	10	17,592	5	7	14,985	6	0
1831	455,972	10	6	49,466	10	0	29,360	18	3¾	137,915	19	4	19,566	8	0	16,337	14	0
1832	509,697	19	4	52,090	15	2	31,846	13	5	137,858	12	3	19,060	0	0	15,672	10	2
1833	490,451	6	8	51,465	14	8	32,515	9	4½	137,122	10	0	18,278	6	0	15,248	17	4
1834	461,457	3	0	48,100	14	0	31,591	13	5	114,506	2	2	16,191	4	4	12,230	2	4
1835	458,033	16	5	49,339	19	8	29,782	7	9½	75,308	1	6	10,114	16	2	8,150	14	8
1836	473,910	12	6	47,999	4	8	31,287	6	11	77,853	2	9	10,587	17	0	8,168	12	2
1837	361,413	14	4	37,455	5	0	26,287	16	11	87,935	4	8	10,351	6	0	8,539	6	0
1838	182,998	5	2	18,671	13	3	21,756	14	6½	80,501	0	7	11,438	18	0	8,679	4	8
1839	184,077	1	2	20,539	17	9½	21,975	19	6	98,668	11	5	13,250	16	6	8,910	12	0
1840	198,052	9	8	22,400	5	7	23,818	18	10½	101,556	12	2	13,927	18	0	9,741	12	4
1841	202,737	1	8	22,965	18	7	24,850	19	7½	106,904	1	11	14,518	8	0	10,167	10	4
1842	202,735	6	6	24,450	2	0	24,838	6	9	107,527	5	1	14,217	4	0	9,859	15	10
1843	211,792	18	11	24,027	15	9½	25,340	15	1	103,386	7	2	13,671	15	0	9,520	14	0
1844	219,162	15	6	24,836	18	11	27,180	13	6	105,172	16	3	15,668	13	6	8,990	5	2
1845	233,216	9	7	25,588	12	11	28,794	6	10	111,293	6	0	14,317	0	6	9,437	3	0
1846	270,509	7	6½	27,941	18	9	29,251	3	1	128,359	15	6	18,811	11	6	10,910	14	0
1847	287,535	17	10	29,337	15	3½	29,276	13	8½	131,116	10	8	17,758	5	6	11,089	7	0
1848	284,338	1	11½	31,426	5	10½	27,514	0	2	133,567	1	0	18,105	0	0	11,066	13	0
1849	299,287	0	6	31,618	15	2	29,380	8	11	129,568	9	10	17,810	8	6	10,542	17	0
1850	297,142	3	2½	31,107	6	7	26,519	7	4½	133,758	15	10	18,426	4	6	11,026	4	0
1851	298,264	10	2½	32,352	16	5	26,351	15	11	137,140	0	11	19,210	10	0	11,806	8	4

A Return of the Number of Stamps issued to the under-mentioned Newspapers in England, Ireland, Scotland, and Wales, during each of the Six Years ending with 1850.

ENGLAND.

London Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Atlas	84,000	72,000	83,250	86,500	90,668	98,000
Athenæum	103,500	117,000	117,500	125,500	127,000	144,158
Anti-Slavery Reporter	28,500	12,150	18,000	12,125	12,000	12,000
Allen's Indian Mail	29,450	28,750	26,750	24,000	28,725	25,600
Australian Gazette	"	"	"	"	"	3,500
Architect and Building Gazette	"	"	"	"	17,700	16,200
Bible Society Reporter	9,600	10,350	11,500	11,000	12,250	11,850
Bent's Literary Advertiser	14,750	12,250	13,000	13,500	14,083	13,500
Bell's New Weekly Messenger	66,255	54,000	44,450	31,500	27,900	20,250
Bell's Life in London	1,520,500	1,250,000	1,311,000	1,236,500	1,176,500	1,285,500
Bell's Weekly Messenger	735,000	733,000	760,000	745,000	709,000	703,500
Britannia	257,000	252,351	216,000	203,500	182,350	163,875
British Banner	"	"	"	568,000	305,750	229,900
Course of the Exchange	12,000	13,200	9,600	9,600	7,800	7,800
County Herald	41,500	37,000	36,000	27,500	30,500	26,500
County Chronicle	67,100	68,940	79,000	74,500	77,000	72,000
Court Journal	40,700	41,500	37,697	26,007	18,559	17,543
Circular to Bankers	27,000	25,500	27,200	26,000	25,500	25,448
Commercial Daily List	25,400	26,700	29,000	22,000	25,200	27,000
Critic	61,125	55,975	52,600	16,000	15,050	20,500
Church and State Gazette	47,000	55,250	48,000	43,000	44,000	44,000
Christian Spectator	35,000	31,000	21,000	20,000	25,050	25,500
Commercial Review	1,000	1,700	1,055	2,200	2,200	2,500
Christian Times	"	"	"	25,500	131,121	94,000
Cottage Gardener	"	"	"	9,000	27,000	24,000
Catholic Standard	"	"	"	"	20,950	80,950
Daily News	"	3,520,500	5,477,009	3,650,638	1,375,000	1,152,000
Evening Mail	525,000	530,000	550,000	600,000	675,000	650,000
Examiner	265,775	250,500	222,000	276,000	218,325	228,228
Ecclesiastical Gazette	159,264	134,200	159,000	132,350	144,600	144,300
Economist	150,500	175,475	253,100	225,000	200,500	199,000
Express	"	160,000	778,714	388,080	964,000	766,950
Era	201,000	169,551	228,000	230,500	191,500	221,600
English Review	"	"	"	"	"	19,450
Gardeners' and Farmers' Journal	"	"	69,770	118,250	91,500	60,500
Gardeners' Gazette	56,750	75,600	84,540	141,000	121,250	121,600
Gardener's Chronicle	391,021	410,000	406,000	382,800	385,019	338,000
Guardian	"	60,000	82,350	116,250	131,000	187,325
Globe	852,000	764,000	690,000	720,000	630,000	585,000
Historic Times	"	"	"	"	245,500	85,305
Illustrated London News	2,618,800	2,367,067	2,267,601	2,964,658	3,600,169	3,467,007
John Bull	132,000	132,000	118,000	118,500	120,000	110,000
Jurist	94,500	83,400	83,200	84,887	84,800	83,325
Justice of the Peace	96,558	99,600	95,050	99,775	89,010	85,075
Indian News	30,175	36,995	31,650	29,750	34,000	36,400
Literary Gazette	18,000	29,500	25,358	25,700	26,850	26,300
Le Courrier de l'Europe	114,200	87,000	48,000	77,100	70,500	67,000
London Gazette	822,000	440,000	170,000	245,000	210,000	180,000
London Price Current	5,000	5,000	4,700	4,225	3,450	3,450
Lloyd's Weekly London	2,777,432	2,663,500	1,691,500	1,776,577	2,431,450	2,559,000
Ladies' Companion	"	"	"	"	2,000	14,500
Leader	"	"	"	"	"	116,275
Mark Lane Express	229,500	245,000	317,000	280,750	237,250	248,000
Mining Journal	97,500	91,500	100,500	96,500	106,500	107,000
Morning Advertiser	1,440,000	1,480,000	1,500,000	1,535,000	1,528,220	1,549,843
Morning Chronicle	1,564,000	1,356,000	1,233,000	1,150,504	937,500	912,547
Morning Herald	2,018,025	1,752,500	1,510,000	1,335,000	1,147,000	1,139,000
Morning Post	1,200,500	1,450,500	990,100	964,500	905,000	828,000
Magnet	202,950	215,175	240,290	260,958	257,000	246,050

London Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Medical Times	95,220	82,150	76,520	81,615	82,150	70,833
Musical World	11,641	14,680	16,446	15,652	15,132	14,712
Money Market Examiner	-	-	-	6,000	35,725	17,200
Nautical Standard	-	36,500	55,000	52,948	44,000	40,000
New Zealand Journal	14,750	10,000	7,800	9,925	10,000	7,850
Nonconformist	108,500	113,500	118,550	145,870	146,500	154,175
Naval and Military Gazette	89,187	95,000	88,000	80,724	73,800	60,320
Northern Star	337,500	322,000	455,000	626,500	561,500	246,000
News of the World	1,251,150	1,878,500	1,981,853	2,478,955	2,806,767	2,926,269
Notes and Queries	-	-	-	-	-	12,500
Observer	149,800	177,500	212,000	281,000	360,500	321,000
Perry's Bankrupt Gazette	27,410	29,630	28,971	48,833	65,415	88,226
Patriot	231,500	225,000	210,000	174,076	155,000	139,000
Public Ledger	130,000	140,000	131,000	140,000	130,000	150,000
Publishers' Circular	19,000	54,500	65,550	64,532	58,900	60,900
Pawnbrokers' Gazette	41,100	40,950	41,300	40,000	39,950	39,400
Punch	449,491	509,492	409,110	390,385	345,864	313,050
Record	356,100	358,500	361,500	361,500	366,000	390,500
Railway Times	355,350	242,500	195,500	137,250	113,200	85,700
Reynolds's Weekly	-	-	-	-	-	275,250
Standard of Freedom	-	-	-	185,000	288,500	168,500
Sunday Times	945,500	932,500	785,000	757,000	735,000	675,000
Shipping Gazette	385,500	407,112	429,500	444,000	475,000	459,500
Standard	846,000	780,000	659,500	559,500	559,000	492,000
St. James's Chronicle	611,000	593,500	530,000	496,000	467,000	451,000
Sun	1,098,500	1,104,000	909,000	893,312	873,000	834,500
Spectator	135,000	194,000	174,100	174,000	161,000	152,500
Times	8,100,000	8,950,000	9,205,230	11,025,500	11,300,000	11,900,000
Tablet	179,000	190,000	199,716	212,550	190,600	
The Lady's	-	20,000	300,166	382,585	337,025	258,000
The Country Gentleman	-	-	-	-	-	2,000
United Service Gazette	76,000	72,000	68,000	63,072	66,550	72,700
Weekly News	-	-	-	-	53,250	74,600
Weekly Dispatch	2,457,000	2,421,500	2,203,500	2,112,790	2,250,000	1,950,000
Weekly Chronicle	315,000	260,000	171,000	132,000	116,800	85,000
Watchman	169,500	175,500	175,000	158,000	182,000	209,000
Weekly Tribune	-	-	-	-	20,050	29,400
Wesleyan Notices	5,000	24,000	21,775	14,075	8,500	14,500
Weekly Times	-	-	805,580	1,077,033	1,808,190	2,037,703
Wesleyan Times	-	-	-	-	308,000	466,500
Provincial Papers.						
Albion, Liverpool	161,000	159,500	141,000	153,900	160,250	176,000
Bath Herald	39,000	42,000	44,000	36,000	34,000	37,000
Bath Chronicle	82,000	75,500	74,500	74,000	74,500	81,000
Bath Journal	50,000	51,000	58,500	52,015	56,000	50,000
Bath and Cheltenham Gazette	46,000	49,000	40,500	49,000	45,000	44,000
Berwick Advertiser	36,000	40,000	44,000	43,500	45,000	42,000
Berwick Warder	24,000	27,000	24,000	26,000	23,025	25,000
Bradshaw's Railway Guide	-	7,586	6,950	27,000	34,750	27,100
Brighton Gazette	59,500	65,000	55,000	65,500	55,000	62,000
Brighton Guardian	50,000	50,000	50,000	50,000	45,000	48,000
Brighton Herald	41,000	44,000	52,000	65,000	55,000	65,000
Barbour's Circular	410	3,157	2,740	3,130	3,560	3,400
Bedford Times	9,000	21,000	23,000	26,300	26,000	26,000
Bedford Mercury	22,000	16,100	14,000	12,000	12,037	16,000
Bristol Journal	63,200	69,000	56,000	69,500	77,000	59,500
Bristol Temperance Herald	17,000	12,000	18,000	15,000	20,000	12,000
Berkshire Chronicle	23,000	39,500	33,000	37,350	37,000	40,500
Birmingham Gazette (Aris's)	108,000	120,000	114,000	132,000	106,000	120,500
Bucks Advertiser and Aylesbury News	-	-	37,000	36,000	48,000	36,000
Birmingham Journal	218,500	260,000	338,500	421,500	409,250	390,000
Bristol Mercury	252,000	272,000	250,300	275,000	277,500	267,000
Bristol Mirror	132,050	127,000	136,000	143,000	145,000	137,000
Bucks Herald	34,500	39,000	37,000	30,000	31,000	38,500
Bury and Norwich Post	92,500	91,000	99,500	82,000	86,000	103,000
Bristol Gazette	30,000	30,000	32,000	40,000	30,000	40,000
Boston Herald	27,500	25,000	27,000	25,000	25,000	34,500
Bradford Observer	54,000	54,000	54,000	55,598	39,455	55,000
Bristol Examiner	-	-	-	-	3,000	54,750
Bucks Chronicle	-	-	-	-	37,500	30,000
Buxton Herald	6,500	7,000	6,000	6,500	8,000	4,000
Blackburn Standard	28,000	33,500	44,300	28,350	31,000	28,000
Bolton Chronicle	40,500	67,709	60,000	66,000	71,250	72,000
Banbury Guardian	32,000	32,000	36,000	34,000	40,000	36,000
Bridgewater Times	7,000	26,133	32,000	30,000	18,000	16,950
Birmingham Mercury	-	-	-	23,500	93,000	150,000
Cambridge Chronicle	85,950	85,250	87,000	89,700	96,550	105,100
Canterbury Weekly Journal	18,000	9,000	18,000	9,000	13,000	13,000
Carlisle Journal	147,000	156,000	117,000	166,000	168,000	168,000
Carlisle Patriot	38,000	45,000	38,685	60,900	58,000	64,000
Cheltenham Chronicle	45,000	38,685	60,900	58,000	64,000	56,000
Cheltenham Journal	30,000	25,000	30,000	23,500	25,000	30,000
Cheltenham Free Press	36,000	36,000	36,000	43,000	29,000	31,400
Cheltenham Looker On	24,500	25,000	30,238	22,000	31,000	27,200
Chester Chronicle	86,000	80,000	72,000	66,000	55,500	66,000
Chester Courant	61,000	58,000	60,000	54,000	55,500	58,000
Chelmsford Chronicle	118,500	108,750	117,000	137,750	114,000	110,300
Cornwall Royal Gazette	50,000	55,500	54,000	50,000	52,500	65,000
Coventry Herald	42,000	42,000	42,000	42,500	46,000	42,000
Coventry Standard	45,325	44,000	42,000	37,500	42,500	42,000
Cumberland Pacquet	50,000	41,300	40,000	40,000	40,000	40,000
Cambridge Advertiser	34,125	36,900	36,550	35,000	25,000	8,150
Cambridge Independent Press	128,500	121,000	127,500	126,000	138,000	121,000
Dorset County Chronicle	79,500	76,000	73,800	69,000	65,500	62,900
Durham Chronicle	69,100	50,000	59,500	66,000	59,000	56,500
Durham Advertiser	25,000	25,000	30,000	29,000	40,000	29,000
Devonport Telegraph	28,000	31,500	31,900	26,000	36,125	26,125
Devonport Independent	40,000	40,600	44,000	34,700	37,000	30,750
Derbyshire Advertiser	-	35,000	23,420	24,000	23,000	20,500
Devonshire Chronicle	23,500	16,500	21,000	20,000	18,000	12,000
Derby Mercury	80,000	79,000	75,000	75,000	85,750	70,000
Derby Reporter	105,000	110,000	115,000	105,000	105,500	110,000
Derbyshire Courier	42,000	36,150	44,000	39,500	44,500	25,100
Dover Telegraph	29,500	29,250	27,925	25,455	26,475	21,100
Dover Chronicle	21,000	20,000	21,000	22,000	17,000	21,500
Doncaster Gazette	106,000	111,000	109,000	109,000	107,700	109,000
Doncaster Chronicle	55,000	64,000	55,000	55,000	60,000	55,000
Devizes and Wiltshire Gazette	55,000	52,500	53,000	53,250	57,000	54,000

Provincial Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Darlington and Stockton Times	-	-	16,500	44,160	46,100	54,000
Exeter Flying Post	92,730	80,000	88,000	81,000	100,000	99,500
Exeter and Plymouth Gazette	90,500	98,000	99,150	118,500	117,000	120,000
Essex Standard	72,200	71,400	74,200	71,400	71,400	70,000
Eastern Counties Herald	106,000	98,000	87,000	87,000	77,000	96,750
Essex Herald	65,500	74,000	79,000	83,000	80,500	85,500
Eddowes Journal	82,500	88,500	96,000	88,000	102,000	109,000
Fleetwood Chronicle	9,030	10,560	13,504	8,440	10,500	8,960
Farmers' Herald	8,525	9,500	9,960	9,288	8,275	10,000
Gloucester Journal	98,703	117,000	115,000	120,000	125,922	108,000
Gloucestershire Chronicle	66,450	65,500	55,000	55,000	56,000	65,500
Gateshead Observer	110,000	102,000	110,000	102,000	65,000	101,000
Hereford Journal	72,800	70,600	69,000	65,000	56,000	60,000
Hereford Times	152,750	148,800	172,000	176,000	190,550	205,500
Hampshire Guardian	6,000	16,500	27,200	29,500	28,000	1,100
Hampshire Chronicle	65,000	65,000	70,000	74,000	40,711	56,750
Hampshire Advertiser	126,500	133,000	136,500	135,500	133,500	140,500
Hampshire Independent	66,000	70,250	72,000	78,000	78,000	69,000
Hertford County Press	25,925	32,500	39,000	38,000	39,000	36,000
Halifax Guardian	69,000	82,000	117,450	109,700	102,000	124,000
Herts Reformer	36,000	31,000	31,000	32,000	33,732	35,500
Hull Advertiser	114,000	106,000	108,000	104,000	130,000	99,625
Hull Packet	79,500	85,500	96,000	125,900	89,425	99,500
Hampshire Telegraph	164,000	166,200	164,500	164,500	175,000	155,500
Harrogate Advertiser	14,000	14,250	16,250	18,500	18,750	18,500
Hastings and St. Leonard's News	-	-	-	14,400	28,000	29,250
Ipswich Journal	112,000	112,000	101,000	108,000	111,000	109,350
Ipswich Express	45,000	39,100	48,000	52,000	49,800	14,000
Jones, Gibson, and Orde's Woolwich Mercury	7,250	11,500	1,400	17,500	17,000	15,000
Kent Herald	60,000	55,000	55,000	55,000	50,000	50,000
Kentish Independent	31,000	21,000	21,500	22,500	23,500	22,000
Kendal Mercury	54,000	56,500	50,500	51,000	48,000	44,000
Kentish Gazette	46,000	54,000	49,500	51,500	52,850	50,000
Kentish Observer	30,000	24,000	24,000	15,000	20,000	21,000
Lancaster Gazette	36,000	26,094	22,991	26,250	38,250	37,000
Lancaster Guardian	29,000	31,000	35,000	47,500	41,000	29,500
Leamington Spa Courier	52,000	51,500	52,000	51,500	54,000	50,000
Leeds Intelligencer	210,000	208,500	201,480	250,174	200,000	180,000
Leeds Mercury	489,250	500,000	500,000	521,000	459,000	459,000
Leeds Times	241,000	234,650	254,000	281,500	250,000	251,000
Leicester Chronicle	38,000	41,000	37,000	33,150	33,000	33,000
Leicester Journal	72,000	65,500	60,500	55,000	63,000	51,580
Leicestershire Mercury	46,950	39,950	41,875	40,500	47,000	39,175
Lincolnshire Chronicle	61,500	70,000	56,000	70,000	56,000	77,875
Lincolnshire Times	30,000	-	20,500	-	-	39,500
Liverpool European Times and Chronicle	-	-	10,000	144,650	-	203,550
Liverpool Courier	89,000	120,000	153,000	169,200	154,000	143,000
Liverpool Journal	124,000	140,500	389,400	420,000	434,000	352,000
Liverpool Mail	146,500	165,000	189,000	171,000	168,000	155,000
Liverpool Mercury	379,000	457,000	161,500	725,000	643,648	544,750
Liverpool Standard	100,000	113,000	145,000	123,400	100,000	60,000
Liverpool Telegraph	-	3,840	6,950	8,000	8,000	6,000
Liverpool Times	55,000	53,000	151,000	90,000	68,460	78,600
Liverpool Mercantile Gazette	45,000	48,600	47,000	48,000	36,000	44,000
Liverpool Advertiser (Gore's)	61,500	70,000	66,000	41,000	60,500	25,000
Lynn Advertiser	24,000	35,000	30,000	30,000	39,000	32,750
Macclesfield Courier and Herald	39,000	60,000	44,000	55,000	72,500	66,000
Maidstone Gazette	96,250	102,000	111,000	109,000	113,500	106,950
Maidstone Journal	56,000	57,000	62,500	55,000	54,750	53,000
Manchester Courier	280,000	278,000	256,758	235,000	215,000	256,250
Manchester Guardian	907,000	1,002,000	1,009,000	968,000	940,000	940,000
Manchester Times	149,800	111,000	135,000	234,350	68,460	78,600
Manchester Spectator	-	-	-	-	130,450	108,500
Manchester Gazette	-	-	-	-	3,000	3,000
Manchester Examiner	5,000	288,970	353,000	483,700	609,850	553,560
Midland Counties Herald	315,000	296,000	305,143	306,000	312,000	312,000
New Cambridge Advertiser	-	-	-	-	-	8,450
North Devon Advertiser	15,000	14,000	1,500	14,500	-	52,100
Northampton Herald	108,000	107,000	100,000	93,000	-	90,000
Northampton Mercury	80,000	85,500	88,000	80,000	88,000	89,000
Nottingham Guardian	-	37,750	55,000	41,788	46,000	17,000
Nottingham Journal	116,000	118,000	70,000	72,400	95,000	71,000
Nottingham and Newark Mercury	60,000	66,000	34,000	45,000	48,000	32,500
Nottingham Review	103,000	104,000	100,000	90,000	81,000	85,000
Norwich Mercury	117,000	130,000	112,000	92,000	167,762	105,600
Norfolk Chronicle	152,000	151,000	146,000	148,500	138,000	114,000
North Devon Journal	36,500	36,500	42,500	38,000	52,650	51,500
Newcastle Guardian	-	59,000	67,800	106,344	136,500	135,500
Newcastle Journal	121,500	138,500	122,500	117,500	110,500	119,815
Newcastle Courant	222,000	151,000	262,000	272,500	260,000	250,000
Newcastle Chronicle	100,000	145,500	149,000	164,000	151,000	118,000
Norfolk News	73,000	100,000	164,000	151,750	222,000	150,000
North and South Shields' Gazette	-	-	-	-	57,475	11,000
Oxford Journal	107,500	110,000	105,000	105,000	102,500	102,500
Oxford City and County Chronicle	66,500	69,000	65,000	60,000	60,000	64,400
Oxford Herald	41,000	40,000	30,000	38,000	15,000	31,000
Poole and South Western Herald	31,500	25,000	27,000	30,000	-	20,000
Port of Portsmouth Guardian	-	-	-	-	-	31,500
Portsmouth Times and Naval Gazette	-	-	-	-	-	35,000
Payne's Leicester Advertiser	101,000	95,000	101,000	96,000	88,000	71,975
Preston Chronicle	58,900	63,500	74,500	63,500	66,000	63,000
Preston Pilot	50,000	36,500	47,000	48,750	45,000	47,875
Preston Guardian	137,000	169,380	199,750	194,500	241,000	261,000
Plymouth Herald	58,000	60,000	64,000	56,000	61,050	64,000
Plymouth and Devonport Journal	35,000	40,000	35,000	46,200	64,801	68,705
Plymouth Times	27,000	24,000	24,000	27,000	14,000	19,000
Penzance Gazette	29,000	29,000	16,375	10,000	8,191	9,267
Penzance Journal	-	-	15,500	20,775	21,175	14,175
Poole and Dorsetshire Herald	-	25,000	30,000	30,000	30,000	8,450
Provincial Medical Journal	-	75,000	43,100	54,500	28,500	41,500
Reading Mercury	174,450	181,750	187,500	190,740	188,000	206,700
Rochester Gazette	5,000	6,000	5,000	5,000	5,000	5,500
Sherborne Journal	81,000	81,050	79,500	78,500	76,000	84,000
Stamford Mercury	588,025	588,000	571,000	572,700	598,000	581,500
Somerset County Gazette	41,500	34,000	45,000	33,000	33,000	38,500
Sheffield Independent	156,000	174,000	168,500	170,000	190,000	207,000
Staffordshire Advertiser	287,800	271,750	299,000	325,000	327,500	333,500

Provincial Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Shrewsbury Chronicle	135,000	125,000	132,000	123,000	124,425	107,000
Suffolk Chronicle	110,000	120,000	110,000	110,000	111,000	110,000
Sherborne Mercury	37,000	36,000	50,000	30,000	28,000	32,000
Salisbury and Wiltshire Herald	33,000	27,000	27,000	25,500	18,500	20,000
Sunderland Herald	70,000	82,000	77,000	100,500	100,000	104,000
Stockport Advertiser	27,100	28,100	27,500	29,000	27,500	28,500
Somerset County Herald	31,500	26,000	27,000	30,000	32,000	28,000
Sheffield Free Press	-	-	-	-	-	6,000
Sheffield Times	-	47,000	87,000	121,500	155,000	152,000
Shields Gazette	-	-	-	-	-	40,780
Shropshire Conservative	25,500	24,000	20,000	21,000	20,000	20,000
Sunderland Times	28,000	14,000	15,000	17,000	14,200	12,000
Salisbury and Winchester Journal	111,000	139,000	134,500	136,000	120,000	120,000
Southport Visitor	12,800	12,500	12,000	13,500	14,850	17,000
Sussex Advertiser and Surrey Gazette	50,500	43,250	49,440	50,500	56,500	57,000
Scarborough Gazette	17,000	21,593	35,560	17,500	28,850	33,750
Sussex Express and Surrey Standard	-	148,000	168,000	192,000	184,000	192,000
Stockport Mercury	-	-	18,750	13,000	12,500	14,980
Torquay and Tor Directory	2,060	14,000	28,000	25,000	28,000	28,100
Taunton Courier	25,000	24,500	22,000	18,000	15,754	14,000
Ten Towns Messenger	32,500	39,500	26,500	28,000	10,300	10,300
Teignmouth Gazette	-	-	-	-	2,880	5,000
Ulverstone Advertiser	-	-	-	-	-	48,000
Wigan Times	-	-	-	-	-	22,375
Wakefield Examiner	-	-	-	-	-	40,800
Warwick Advertiser	71,500	60,000	60,500	55,000	55,000	57,000
West Briton and Cornwall Advertiser	108,000	135,500	132,500	124,000	110,000	132,500
West of England Conservative	35,000	29,500	33,067	27,500	33,800	40,000
Western Luminary	36,000	30,000	35,000	27,000	35,000	27,000
Western Times	142,500	118,500	171,000	183,000	185,500	191,000
Westmorland Gazette	31,000	43,800	36,000	36,000	37,000	39,350
Whitehaven Herald	35,000	30,000	31,000	25,500	25,000	27,000
Windsor and Eton Express	42,000	40,000	38,000	37,750	36,000	38,000
Wiltshire Independent	37,000	41,000	35,000	33,000	30,000	33,000
Wilts and Gloucestershire Standard	31,350	29,100	28,000	26,500	26,465	25,500
Wolverhampton Chronicle	79,700	75,000	83,825	88,986	89,494	89,500
Worcester Herald	102,000	111,500	132,500	123,375	141,875	144,000
Worcester Journal (Berrow's)	89,000	101,700	72,500	101,000	104,600	85,000
Wakefield Journal	27,100	39,000	41,000	29,900	27,500	24,000
Weston-super-Mare Gazette	6,000	6,900	6,000	7,000	8,000	6,000
Worcester Chronicle	37,000	77,875	82,000	88,000	83,000	87,480
Weekly Register	-	-	137,000	160,000	105,000	82,000
Woolwich Gazette	7,425	5,500	500	18,000	3,962	5,325
Wisbeach Advertiser	5,000	11,000	13,000	12,000	10,000	10,000
Yorkshire Gazette	131,337	143,000	156,000	156,000	145,000	143,000
Yorkshire Racing Calendar	2,475	2,300	4,500	2,900	2,900	2,950
York Herald	140,000	161,000	165,000	177,500	221,000	196,000
Yorkshireman	114,000	110,000	129,000	145,000	184,000	161,000
Yeovil Times	-	-	15,800	35,000	26,400	27,250

IRELAND.

Dublin Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Saunders' News Letter	726,000	730,000	768,000	796,000	705,000	756,000
Freeman's Journal	420,000	446,500	426,000	424,000	475,000	442,000
Evening Mail	372,000	396,000	408,000	444,000	346,000	315,000
Evening Post	255,000	260,000	234,500	240,000	184,500	162,000
Evening Freeman	75,000	81,000	66,000	71,000	72,000	54,000
Evening Packet	238,000	233,000	214,500	209,000	181,500	173,000
Gazette	37,400	6,000	18,500	14,000	16,000	30,000
Weekly Freeman	207,000	210,000	237,000	255,500	168,000	130,000
Warder	145,500	116,500	108,000	108,500	118,000	118,000
General Advertiser	490,450	481,750	495,500	474,500	520,500	550,000
Medical Press	14,000	26,500	22,000	26,792	24,750	24,562
Christian Examiner	10,400	20,000	10,400	12,000	12,500	12,500
Ecclesiastical Journal	16,500	16,000	11,500	11,500	12,400	12,500
The World	44,350	30,913	39,893	60,790	37,550	31,400
Allen's Irish Land Schedule	-	-	-	-	-	39,700
Nation	318,000	299,500	267,000	155,000	155,500	108,500
Advocate Industrial Journal	-	-	-	-	45,400	42,000
Nation Advertiser	-	-	-	-	-	61,000
Tablet	-	-	-	-	-	182,500
Commercial Journal	-	-	-	-	46,950	60,500
Constitutional and Church Sentinel	-	-	-	-	-	7,695
Inspector	-	-	-	-	-	6,700
Missionary Herald	-	-	-	-	-	6,000
Farmers' Gazette	138,000	127,500	123,000	94,775	80,425	96,625
Country Papers.						
Belfast Commercial Chronicle	110,000	110,000	89,500	90,000	90,000	90,000
Belfast News Letter	72,000	70,000	66,000	70,000	75,500	72,500
Belfast Northern Whig	225,000	234,000	242,000	272,500	282,500	285,500
Belfast Vindicator	37,000	38,000	51,500	40,000	18,000	54,750
Belfast Banner of Ulster	75,000	100,000	86,500	92 000	90,000	123,400
Athlone Sentinel	5,500	2,500	5,000	5,000	5,000	2,500
Anglo Celt	-	22,500	18,000	17,500	17,500	20,000
Armagh Guardian	30,000	25,227	29,500	32,500	32,500	34,750
Achill Missionary Herald	28,500	31,500	22,500	47,000	36,500	32,000
Ballina Chronicle	-	-	-	-	5,100	52,500
Ballyshannon Herald	5,000	7,500	7,750	6,700	5,500	2,500
Clonmel Chronicle	-	-	-	-	-	10,000
Cork Constitution	207,000	208,000	228,000	216,025	204,000	180,000
Cork Southern Reporter	152,500	172,000	145,000	167,000	141,500	168,000
Cork Examiner	184,000	167,000	199,500	210,025	163,000	161,500
Coleraine Chronicle	30,500	39,000	33,000	32,500	30,000	42,000
Carlow Sentinel	15,500	17,000	17,500	15,000	17,500	15,000
Clare Journal	23,000	13,500	16,500	17,500	18,000	19,000
Downpatrick Recorder	25,500	34,500	25,000	30,000	25,000	20,000
Drogheda Conservative	20,000	12,500	17,500	12,500	5,000	7,500
Drogheda Argus	32,500	41,500	31,500	30,000	29,000	25,000

Irish Newspapers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Dundalk Democrat	-	-	-	-	6,500	22,500
Fermanagh Impartial Reporter	25,000	32,500	29,500	27,500	25,000	22,500
Galway Vindicator	26,500	35,000	32,500	27,700	32,500	34,000
Galway Mercury	16,500	18,250	16,125	12,725	14,425	12,500
Kerry Evening Post	20,000	22,000	18,500	17,500	17,500	17,500
King's County Chronicle	2,500	20,000	15,325	20,000	17,500	17,500
Kilkenny Journal	25,000	25,000	24,500	25,500	17,500	20,000
Kilkenny Moderator	25,000	27,500	22,500	27,500	25,000	25,000
Lurgan Chronicle	-	-	-	-	-	11,875
Leinster Express	35,500	30,000	32,000	34,176	37,500	31,000
Limerick Chronicle	190,500	190,000	205,000	250,000	193,500	165,000
Limerick Reporter	47,500	50,000	40,000	39,500	29,000	37,000
Limerick Examiner	-	116,000	55,500	65,000	60,500	60,000
Londonderry Journal	34,500	38,000	36,500	32,500	30,000	26,000
Londonderry Sentinel	50,500	63,000	56,000	49,125	39,675	60,000
Londonderry Standard	68,000	51,500	90,000	105,500	102,000	97,000
Longford Journal	9,000	9,000	9,000	12,000	9,000	9,000
Meath Herald	9,000	12,500	5,000	2,760	5,400	12,500
Mayo Constitution	12,000	15,000	14,500	11,000	10,500	10,500
Mayo Telegraph	15,000	28,500	15,000	15,000	15,000	15,000
Nenagh Guardian	25,500	24,750	22,500	20,000	20,000	20,000
Nenagh Chronicle	-	-	-	-	-	18,000
Newry Telegraph	119,150	130,500	107,500	120,000	107,500	110,500
Newry Examiner	40,500	30,000	34,500	32,000	30,250	27,500
Northern Standard	20,000	17,500	17,500	17,500	17,500	15,000
Roscommon Gazette	7,500	18,500	10,625	8,250	6,000	3,525
Roscommon Messenger	-	-	-	-	10,000	9,525
Robins of Munster	-	-	-	-	-	45,000
Sligo Chronicle	-	-	-	-	-	16,000
Sligo Champion	12,500	10,000	12,500	7,500	7,500	7,500
Tipperary Free Press	32,000	32,000	32,000	32,000	28,000	24,000
Tipperary Vindicator	50,000	66,000	59,000	62,000	50,000	17,000
Tuam Herald	15,500	12,750	12,000	15,000	12,500	12,500
Tyrawley Herald	14,000	11,250	10,750	12,750	10,000	10,000
Tyrone Constitutional	17,000	12,000	8,000	10,000	20,000	18,000
Tralee Chronicle	17,500	12,250	18,500	14,000	13,500	16,250
Ulster Gazette	39,000	51,500	22,500	18,000	15,000	11,500
Westmeath Guardian	19,000	14,500	15,556	15,000	12,800	18,000
Western Star	-	13,000	13,000	13,500	10,500	12,500
Waterford Chronicle and Weekly ditto	-	18,000	30,500	27,000	5,000	10,000
Waterford Mail	25,000	25,000	25,000	27,000	30,800	30,250
Waterford News Letter	12,600	9,106	9,600	14,372	2,400	10,000
Waterford Evening News	-	-	-	-	9,360	10,000
Wexford Independent	43,500	46,000	57,500	69,000	47,000	46,500
Wexford Guardian	-	-	5,000	12,500	17,500	18,625

SCOTLAND.

Scotch Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Aberdeen Herald	100,000	103,000	98,500	99,500	123,000	78,000
Aberdeen Journal	110,000	120,250	138,000	148,000	175,240	161,000
Aberdeen Banner	31,200	28,500	27,870	22,000	27,000	15,500
Aberdeen North of Scotland Gazette	87,500	97,000	76,500	62,500	42,000	29,750
Ayr Advertiser	72,000	80,000	80,000	80,000	88,000	88,000
Ayr Observer	41,000	41,000	40,000	44,000	44,000	20,400
Arbroath Guide	22,500	20,000	21,770	20,750	22,000	18,000
Alloa Advertiser	3,840	3,840	4,800	4,800	4,968	15,772
Banffshire Journal	7,000	17,050	21,000	22,000	26,000	26,350
Brechin Advertiser	-	17,900	15,500	15,500	16,000	16,000
Dumfries Courier	96,500	106,000	108,000	108,500	110,000	104,000
Dumfries Herald	48,000	40,000	34,500	34,500	32,000	32,000
Dumfries Standard	30,000	33,000	30,000	29,500	33,250	34,000
Dundee Courier	19,000	18,000	20,150	24,000	29,250	30,000
Dundee Northern Warder	84,725	87,775	74,500	70,000	67,500	78,000
Dundee Advertiser	114,500	145,000	143,000	150,000	136,000	123,000
Edinburgh Courant	253,000	242,000	240,000	243,000	241,000	255,000
Edinburgh Mercury	101,000	105,000	106,000	107,500	110,500	106,512
Edinburgh Advertiser	143,000	149,000	145,500	149,000	150,000	151,050
Edinburgh Gazette	15,000	14,000	15,000	16,500	22,370	20,000
Edinburgh Scotsman	248,050	272,000	284,500	302,000	299,000	301,000
Edinburgh North British Advertiser	608,500	611,150	612,850	638,500	649,000	659,000
Edinburgh Ladies' Own Journal	18,000	22,000	27,000	31,500	34,000	42,000
Edinburgh Saturday Post	133,500	124,500	108,000	102,000	95,500	86,700
Edinburgh Missionary Record, Church of Scotland	28,725	34,994	37,113	34,550	27,980	32,610
Edinburgh Witness	270,000	268,000	267,000	251,000	265,000	266,000
Edinburgh Missionary Record	25,950	29,700	33,300	27,604	34,400	34,780
Edinburgh Free Church Magazine	8,500	7,680	7,950	10,300	8,100	9,680
Edinburgh Railway Gazette	40,500	49,500	40,000	29,250	20,500	16,000
Edinburgh Christian Treasury	2,800	2,448	1,680	3,300	7,450	11,000
Edinburgh Scottish Express	-	-	-	-	132,000	111,425	110,000
Edinburgh United Presbyterian Magazine	-	-	-	800	2,100	2,150	2,785
Edinburgh United Presbyterian Record	-	-	-	10,000	23,360	21,760	19,300
Edinburgh Juvenile Magazine	-	-	-	700	4,050	4,600	5,000
Edinburgh Chambers' Journal	15,000	15,000	12,000	9,600	9,600	9,600	9,600
Edinburgh Midlothian Advertiser	-	-	-	-	-	-	-	149,000
Edinburgh North British Agriculturist	-	-	-	-	-	-	-	70,500
Elgin Courant	26,950	28,000	25,000	30,000	26,000	20,000
Elgin Courier	16,000	17,000	23,000	16,150	18,500	19,350
Fife Herald	47,850	48,820	38,500	34,000	36,500	37,500
Fife Journal	32,000	31,300	33,200	30,000	27,000	28,500
Fife Advertiser	-	2,000	4,840	12,710	9,525	11,000
Forres Gazette	6,120	5,500	5,800	5,500	4,998	5,750
Falkirk Herald	-	6,000	7,700	8,000	8,700	13,600
Glasgow Courier	140,000	140,000	135,000	110,000	100,000	100,000
Glasgow North British Mail	-	-	435,980	558,000	243,350	229,000
Glasgow Chronicle	56,000	79,950	76,300	68,000	78,000	78,000
Glasgow Herald	380,000	397,931	390,000	390,000	390,000	391,000

Scotch Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Glasgow Saturday Evening Post	207,250	248,000	271,000	374,000	409,000	458,000
Glasgow Scottish Guardian	100,000	110,000	113,000	107,000	110,000	110,100
Glasgow Constitutional	98,000	80,000	90,000	79,850	62,500	73,000
Glasgow Scottish Reformers' Gazette	140,000	131,000	160,000	129,000	121,000	122,000
Glasgow Christian News	-	22,640	79,829	75,680	79,624	81,000
Glasgow British Friend	18,500	22,000	23,200	16,000	18,000	19,500
Glasgow Examiner	114,000	129,500	112,800	139,000	138,000	150,000
Glasgow Railway and Shipping Journal	13,900	39,000	56,000	26,000	19,500	17,500
Glasgow The Mail	-	-	-	-	74,750	73,464
Glasgow Daily Mail	-	-	-	-	234,690	229,000
Glasgow North British Telegraph	-	-	-	2,590	7,460	17,720
Glasgow Sentinel	-	-	-	-	-	78,000
Glasgow Citizen	81,000	116,000	126,000	121,000	113,500	110,000
Greenock Advertiser	52,000	58,000	68,000	60,000	62,500	65,480
Greenock Record	-	-	-	-	-	8,640
Galashiels Border Advertiser	25,000	26,000	24,200	23,175	19,170	29,000
Inverness Courier	74,000	88,000	93,525	94,000	96,000	99,000
Inverness Advertiser	16,000	18,500	17,000	11,000	48,000	80,000
Kelso Mail	43,000	44,000	43,000	40,000	44,000	41,000
Kelso Chronicle	24,000	27,250	22,900	26,000	27,900	28,000
Kinross Advertiser	-	-	-	1,750	1,460	3,650
Kilmarnock Journal	20,000	20,700	11,000	17,000	19,000	19,000
Montrose Review	61,150	67,000	72,000	67,200	71,000	65,500
Montrose Standard	18,000	16,000	19,000	36,000	44,500	59,000
Nairn Mirror	8,500	8,000	9,000	9,500	8,500	8,000
Peebles Advertiser	2,285	2,900	3,622	3,908	2,138	4,272
Perth Courier	22,000	21,000	15,000	18,875	15,000	65,000
Perth Advertiser	48,000	52,000	56,000	60,000	68,000	65,000
Perth Constitutional	16,000	24,000	23,000	17,000	17,000	16,000
Renfrew Advertiser	31,000	28,000	28,500	26,500	-	7,000
Stirling Journal	28,000	26,000	30,000	30,000	31,050	28,000
Stirling Observer	32,650	30,000	30,000	30,000	32,500	32,500
Stonehaven Journal	-	10,000	11,500	8,450	8,800	7,750
Wigtonshire Free Press	28,580	28,000	38,000	30,000	35,000	35,000
Wick John O'Groat's Journal	32,000	37,000	41,000	43,500	41,000	36,150

Welsh Papers.	Newspaper Stamps.					
	1845.	1846.	1847.	1848.	1849.	1850.
Cambrian	67,967	40,475	68,000	68,000	72,000	61,000
Carmarthen Journal	40,800	77,000	40,180	40,700	39,000	36,435
Carnarvon and Denbigh Herald	41,000	48,000	51,450	57,900	66,000	77,500
Merthyr Guardian	46,000	51,600	62,000	70,000	63,000	62,998
Monmouthshire Merlin	63,000	66,000	72,000	75,000	75,000	82,500
Monmouthshire Beacon	27,500	27,000	27,000	26,000	26,500	27,500
North Wales Chronicle	22,000	22,250	22,500	18,000	15,400	38,600
Pembrokeshire Herald	30,600	42,000	36,700	36,000	42,700	36,000
Silurian	25,500	22,072	23,000	20,036	22,000	19,000
Swansea and Glamorgan Herald	-	-	20,000	43,500	44,000	48,000
Welshman	44,000	48,000	49,000	44,000	39,000	36,000
Yr Amseran	43,775	64,000	70,240	40,600	101,280	86,975
Y Cymro	-	-	2,000	28,884	19,137	22,000

American Newspapers. — The increase of newspapers in the U. States has been a good deal more rapid than in England; a consequence, partly, no doubt, of the greater increase of population in the Union, but more, probably, of their freedom from taxation, and of the violence of party contests.

The whole number of newspapers and periodical publications in the United States on the 1st of June, 1850, amounted, according to the official returns, to about 2,800. Of these, 2,494 were fully reported upon, while the particulars with respect to the others were in part estimated.

From these returns, &c. it appears that the aggregate circulation of papers and other publications was about 5,000,000; and that the entire number of copies printed annually in the United States, amounted to about 422,600,000. The following table shows the number of daily, weekly, monthly, and other issues, with the aggregate circulation of each class: —

	No.	Circulation.	No. of Copies printed annually.		No.	Circulation.	No. of Copies printed annually.
Daily Journals	350	750,000	235,000,000	Monthly	100	900,000	10,800,000
Tri-weekly	150	75,000	11,700,000	Quarterly	25	20,000	80,000
Semi-weekly	125	80,000	8,320,000				
Weekly	2,000	2,875,000	149,500,000	Total	2,800	5,000,000	422,600,000
Semi-monthly	50	300,000	7,200,000				

Four hundred and twenty-four journals were issued in the New England States; 876 in the Middle States; 716 in the Southern States; and 784 in the Western States. Of the whole 2,800 publications about 2,200 were newspapers, properly so called; the residue being scientific, religious and educational journals. The average circulation of the mere papers was 1,785. There was one publication for every 7,161 free inhabitants in the United States and territories.

We are not, however, to estimate the influence of newspaper literature by its quantity only, but must have regard also to its *quality*. The latter is, indeed, the principal thing to be attended to; and in whatever degree the Americans may exceed us in the number, they certainly are much below us in the quality, of their newspapers. Speaking generally, we do not hesitate to say that the newspaper press is discreditable to the union. The journals indulge, with comparatively few exceptions, in offensive personalities. Instead of examining the principles of the measures brought forward, they assail the character and misrepresent the motives of those by whom they are introduced. It is impossible, we be-

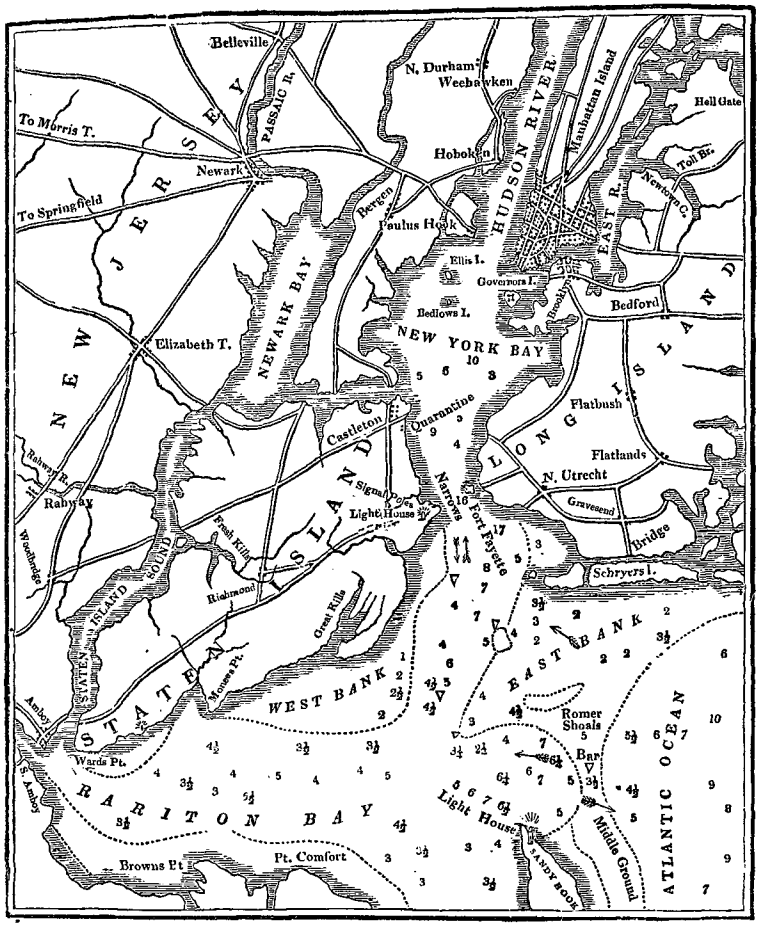
lieve, to name an individual, who has attained to any high office in the U. States, or to consideration in Congress, who has not been libelled, traduced, and calumniated by a large portion of the press, to a degree that can hardly be imagined. The magnitude of the evil will, probably, lead to its cure. No people, with any pretensions to instruction and morality, can patronise a press whose principal features are misrepresentation, exaggeration, and abuse.

NEW YORK, the capital of the state of that name, the commercial metropolis of the U. States, and one of the greatest cities of modern times, on the southern extremity of Manhattan Island, at the point of confluence of the Hudson River, which separates Manhattan from New Jersey, with East River, which separates it from Long Island, lat. 40° 42′ N., lon. 74° 8′ W. New York bay, or inner harbour, is one of the most capacious and finest in the world; it is completely land-locked, and affords the best anchorage. The entrance to the bay through the Narrows is extremely beautiful. On each side, the shore, though wooded down to the water's edge, is thickly studded with farms, villages, and country seats. At the upper end are seen the spires of the city; and in the distance the bold precipitous banks of the Hudson. From New York to the bar between Sandy Hook Point and Schryer's Island (the division between the outer bay or harbour and the Atlantic) is about 17 miles. Fortifications have been erected at the Narrows, Governor's Island, and other places, for the defence of the city and shipping. The wood-cut on the opposite page represents the city and bay of New York, and the surrounding country.

The Hudson river was first explored in 1609, by the famous English navigator whose name it bears, then in the service of the West India Company of Holland. In 1612, New Amsterdam, now New York, was founded by the Dutch, as a convenient station for the fur trade. In 1664, it was taken by the English. The Dutch again recovered possession of it in 1673; but it was retaken by the English in the following year, and continued in their occupation till the termination of the revolutionary war.

New York has increased faster than any other city of the United States. In 1699 it contained 6,000 inhabitants. In 1774, previously to the commencement of the war of independence, the population amounted to 22,750. During the war the population continued stationary; but since 1783, its increase has been quite extraordinary. In 1790, the population amounted to 33,131; in 1800, to 60,489; in 1820, to 123,706; in 1830, to above 213,000; in 1840, to 312,710; and in 1850, to 515,507. This, however, is exc. of the pop. of Brooklyn, which, in 1850, amounted to 96,838, and is as much a part of N. York as Birkenhead is of Liverpool. At present (1858) the pop. of N. York and its suburbs is said to exceed 1,000,000, viz. N. York proper, 700,000, Brooklyn, 200,000, and Hoboken, &c., upwards of 100,000. Originally the houses were mostly of wood, and the streets narrow and confined. In these particulars, however, a vast improvement has taken place during this century; most part of the old houses having been pulled down and rebuilt with brick. The new streets, which are broad, and intersect each other at right angles, are well paved and lighted. Broadway, the principal street, is one of the largest and finest in the world. Many of the public buildings are commodious and elegant. The pools, that were formerly abundant in the city and its vicinity, have been completely filled up; a measure that has done much to improve the health of the population. In respect of cleanliness, however, New York, though much improved, is still rather deficient. Formerly there was hardly such a thing as a sink or common sewer in the whole city; the night-soil and filth were collected in pits of which there was one in every house, and being conveyed to the nearest quays, were thrown into the water; and as these are made of timber, with many projections, a great deal of filth was retained about them, producing, in hot weather, an abominable stench. But in these respects a great amendment has been effected; and the deficiency of water, under which the city formerly laboured, has been completely obviated by the construction of the Croton aqueduct, about 40½ m. in length, a work worthy of being ranked with the noblest of the old Roman aqueducts. It is carried over the Haarlem river (separating Manhattan island from the continent), on a bridge of stone of 14 arches, 1,450 ft. in length. The yellow fever, by which New York has sometimes been visited, uniformly breaks out in the lower and dirtiest part of the town; and seldom, indeed, extends to the new and more elevated streets. It is now much less prevalent than formerly; and the general opinion seems to be, that were stone substituted for timber in the quays, sewers generally constructed, and proper regulations enforced as to cleanliness, the scourge would entirely disappear.

New York is indebted, for her wonderful increase, to her admirable situation, which has rendered her the greatest emporium of the New World. The rise of the tide is about 6 feet; and even at ebb, there is 21 feet water on the bar; and the water in the outer and inner bays, and in the river, is so deep, that ships of the largest burden lie close to the quays, and may proceed to a great distance up the river. The navigation of the bay is rarely impeded by ice. The great strength of the tide, and the vicinity of the ocean, keep it generally open, even when the Chesapeake and Delaware bays are frozen over. The influence of the tides is felt in the Hudson as far as Troy, 160 miles above New York, affording peculiar facilities for its navigation. These natural advantages have been vastly extended by a system of canals, which has connected the Hudson not merely with Lake Ontario and Lake Erie, but with the Ohio river, and consequently with the Mississippi and the Gulph of Mexico! So prodigious a command of internal navigation is not enjoyed by any other city, with the exception of New Orleans; but the readier access to the port of New York, the greater salubrity of the climate, and her situation in the most industrious



Entrance to Harbour, Light-houses, &c.—The course in entering the harbour of New York is nearly due W. from the outermost white buoy on the bar, till the buoy on the S. W. point of the east bank be passed, and then nearly due N. The navigation is extremely easy. Pilots generally board vessels without the bar; for, otherwise, they are only entitled to half fees. Were it not for fear of vitiating insurances, their services would seldom be required.—(See *Rates of Pilotage, post.*) The light-house near the extremity of the long, low, narrow tongue of land, projecting from the New Jersey shore, called Sandy Hook, is in lat. 40° 28′ N., lon. 74° 8′ W. It is fitted up with a very powerful fixed light, which, in clear weather, may be seen by vessels coming from the westward 10 leagues off. But, from its position, it is not readily discovered by ships coming from the S. till too near. To obviate this inconvenience, a floating light was moored about 7 miles E. from Sandy Hook Point. In 1828, however, 2 light-houses were erected on Neversink hills, nearly 4 miles S. by E. from Sandy Hook. They are 300 feet apart; the most northerly being furnished with a fixed, and the other with a revolving light, both of great power. The lights are elevated 250 feet above the level of the sea; and may be seen, in clear weather, in all directions, from 40 to 50 miles. Since they were fitted up, the floating light has been discontinued. Vessels load and unload at the wharfs on both sides the city.

part of the Union, where slavery is abolished, give her advantages over her southern rival, which, it is most probable, will secure her continued preponderance.

Trade, &c. — The commerce of New York is of vast extent. The value of the merchandise annually loaded and unloaded in the port is estimated at from 450 to 500 millions of dollars; and in the busy season the number of vessels in it varies from 1,000 to 1,500, exclusive of about 250 steamers. The number of arrivals from foreign ports amounted, in 1858, to 8,957, and the coasting arrivals exceed 8,000. The total value of the imports into the United States in the year ending the 30th June, 1858, amounted to 282,613,150 dolls., of which no less than 178,476,736 dolls. were imported into New York. The imports comprise an infinite variety of articles. The principal are cottons, woollens, linens, iron, hardware and cutlery, earthenware, brass and

copper manufactures, salt, &c., from Great Britain; silk, wine, brandy, &c., from France and Spain; sugar and coffee from the Havannah and Brazil; tea from China; with spices, indigo, cochineal, dye woods, &c. &c. The value of the exports from the State of New York, and mostly from this city, in the year ending the 30th of June, 1858, amounted to 108,340,924 dolls., being 1-3rd of the total exports from the U. States. The exports principally consist of wheat and wheat flour, corn, rice, and cotton; bullion; beef, pork, butter, dried fish, and all sorts of provisions; furs, tobacco, coarse cottons, and other manufactured goods, lumber, &c. The great excess of imports into New York over the exports is accounted for by the fact, that while by far the larger portion of the articles of export from the Western states are sent down the Mississippi, to be shipped at New Orleans, the greater part of the more valuable articles brought from abroad, and destined for the consumption of the same states, is imported into New York.

The shipping of New York is far greater than that of any other port, London not excepted. The total tonnage belonging to the port on the 30th of Sept. 1838, amounted to 400,971 tons; and on the 30th of June, 1858, it had increased to 1,432,705 tons, being about 1-4th part of the entire tonnage of the United States, and incomparably the greatest amount of shipping that has ever belonged to any single port. Subjoined are some statements respecting the navigation, &c., of New York, in some recent years: —

Quantities of Exports from New York to Foreign Parts of certain leading Articles of Domestic Produce.

		1855.	1856.	1857.	1858.
Ashes: pots	bbls.	13,155	9,055	13,068	12,029
,, pearls	,,	2,243	2,227	3,629	1,764
Beeswax	lbs.	169,516	217,435	256,226	227,546
Breadstuffs: wheat flour	bbls.	1,005,006	1,921,025	1,041,871	1,381,039
,, rye flour	,,	20,647	11,890	3,956	5,002
,, corn meal	,,	51,259	77,529	50,011	66,469
,, wheat	bush.	3,405,295	9,571,393	3,772,936	3,286,461
,, rye	,,	535,907	1,261,905	81,446	12,487
,, oats	,,	40,264	17,032	15,410	31,315
,, barley	,,	1,184	305		
,, corn	,,	3,860,852	3,862,529	1,957,355	1,647,706
Candles: mould	boxes	54,503	45,474	51,337	66,937
,, sperm	,,	10,776	4,751	6,982	9,599
Coal	tons	14,486	7,222	23,543	32,023
Cotton	bales	227,921	195,730	161,901	144,957
Hay	,,	5,734	4,560	13,137	32,104
Hops	,,	9,156	4,250	2,254	5,005
Naval stores	bbls.	627,728	478,511	550,591	590,030
Oils: whale	gallons	272,400	44,378	463,748	354,925
,, sperm	,,	836,199	598,062	925,594	1,015,682
,, lard	,,	105,179	55,065	34,095	30,531
,, linseed	,,	11,210	6,594	33,839	59,428
Provisions: pork	bbls.	152,750	134,470	52,069	78,271
,, beef	,,	66,212	65,028	48,921	76,643
,, cut-meats	lbs.	15,903,457	29,805,028	18,607,528	15,994,743
,, butter	,,	990,639	1,115,081	890,742	1,808,157
,, cheese	,,	6,987,496	3,760,540	4,529,273	6,589,100
,, lard	,,	8,555,962	10,979,593	14,612,603	12,684,160
,, rice	tierces	24,264	38,715	29,603	41,651
,, tallow	lbs.	1,911,339	1,375,620	3,110,803	1,563,292
Tobacco: crude	packages	32,567	33,175	42,576	66,239
,, manufactured	lbs.	5,282,952	4,849,925	2,360,703	4,479,360
Whalebone	,,	2,131,197	1,872,151	1,889,685	1,084,337

Account of the Total Exports from, and Imports into, N. York in each Month of the undermentioned Years.

Month.	Exports.				Imports.			
	1855.	1856.	1857.	1858.	1855.	1856.	1857.	1858.
January	$6,051,915	$5,616,064	$6,192,116	$9,435,350	$12,945,827	$15,578,064	$19,006,732	$8,165,719
February	6,688,799	6,810,552	7,770,512	7,920,497	12,081,482	16,036,283	25,524,492	9,209,043
March	8,640,632	11,287,640	11,190,856	6,017,054	10,173,057	20,256,958	21,435,501	11,729,702
April	8,026,167	8,761,320	9,026,950	6,746,211	9,107,465	20,057,835	21,218,518	11,169,025
May	10,995,028	9,691,343	12,300,199	6,397,353	11,645,986	18,411,112	18,705,235	11,451,703
June	9,105,087	13,172,170	14,579,143	7,146,872	11,993,612	17,961,657	15,359,196	10,116,442
July	7,279,958	12,310,438	8,891,829	7,921,540	16,508,947	25,716,332	25,800,206	18,505,747
August	7,264,532	9,115,056	11,609,166	7,189,486	16,506,399	23,919,665	19,986,493	19,624,176
September	7,436,586	11,360,826	6,193,106	7,135,836	14,021,725	15,309,362	16,847,360	15,475,295
October	8,035,699	11,329,005	7,807,280	8,782,016	15,605,031	13,825,592	14,459,867	13,542,984
November	9,792,455	10,755,189	10,065,713	4,337,605	11,947,188	14,468,545	13,417,960	10,591,606
December	10,657,444	10,676,593	12,097,459	6,270,323	15,523,519	12,015,244	9,196,811	13,344,625
Total	$ 99,972,302	120,886,296	117,724,329	85,659,643	157,860,238	213,556,649	230,618,129	152,867,067

Both the import and export trade of N. York and of the Union generally had been completely overdone in 1856, and the earlier part of 1857, and hence the crisis of the latter year, and the falling off in the trade of 1858. That falling off can, however, be temporary only. The increase of population and wealth in the U. States is such that their trade must, if not disturbed by prohibitive regulations, be in a short while greater than ever.

The Receipts for Cash Duties at the port of N. York, for 1857, were 10,000,000 dollars less than for the previous year, owing to the change in the tariff, and the great falling off in the quantity of goods thrown upon the market—For, while the total value of foreign goods entered at the port during the year 1857 (exclusive of specie), was about 218,000,000 dollars, the value of those that were sold amounted to only about 185,000,000 dollars. In 1858 the sales exceeded the imports; but as these were comparatively small the duties were about 9,000,000 dollars less than in 1857.

Duties received in	1856.	1857.	1858.
January - - -	$3,683,654 85	$4,537,378 43	$1,641,474 59
February - - -	3,576,919 14	5,117,249 85	2,063,784 86
March - - -	4,582,107 47	3,752,184 98	2,213,452 15
April - - -	3,913,885 39	3,301,607 05	1,736,510 41
May - - -	3,457,153 64	1,907,289 71	1,748,227 54
June - - -	3,527,425 26	677,811 29	1,685,665 02
July - - -	5,441,544 27	6,987,019 61	3,387,305 53
August - - -	5,986,399 11	3,946,830 40	3,545,118 01
September - - -	3,702,134 70	2,249,982 89	2,672,935 63
October - - -	3,391,230 97	867,534 99	2,054,854 43
November - - -	2,774,845 63	1,121,792 70	1,706,529 47
December - - -	2,381,969 75	1,172,592 98	2,020,895 62
Total - - -	$45,519,270 18	$35,639,074 88	$26,476,731 06

Arrivals of Shipping in N. York from Foreign Ports in the undermentioned Years (from the Annual Reports on Commerce, &c., published by Order of Congress).

Years.	American.			Foreign.			Total.		
	Ships.	Tons.	Crews.	Ships.	Tons.	Crews.	Ships.	Tons.	Crews.
1851-52	4,235	1,925,767	68,705	4,604	974,295	55,973	8,839	2,900,062	124,678
1852-53	5,261	2,606,159	89,365	5,601	1,119,176	71,407	10,862	3,725,335	160,772
1853-54	4,359	2,148,846	74,231	4,114	1,039,508	55,043	8,473	3,188,354	129,274
1854-55	4,442	2,161,006	74,556	4,896	1,145,910	59,929	9,318	3,309,916	134,465
1855-56									
1856-57	4,524	2,188,670	75,269	5,382	1,405,211	73,018	9,906	3,593,881	148,287
1857-58	4,471	2,152,835	67,240	4,486	1,132,568	55,757	8,957	3,285,403	122,997

Of the total value of the imports into N. York in 1857, amounting to 178,475,736 dollars, those brought in American bottoms amounted to 123,428,283 dollars.

Coastwise Arrivals and Clearances.— Inasmuch as vessels engaged in this trade are not obliged to record their entry or clearance, except they have foreign goods or spirits on board, the official entries and clearances afford no test of, and are far from indicating, the actual amount of the trade. But as the coasting vessels which leave N. York have much more frequently foreign goods on board than those by which it is entered, the official clearances are much more numerous than the entries. Altogether the arrivals and departures coastwise may amount to about 8,000 each way. The coasting trade of N. York is, in fact, quite immense.

Naval Stores.—Receipts at, and Exports from N. York.

Years.	Receipts.				Exports.			
	Turpentine.	Spirits Turpentine.	Rosin.	Tar.	Turpentine.	Spirits Turpentine.	Rosin.	Tar.
1856 bbls.	85,413	118,385	479,248	61,043	81,460	37,538	383,133	21,784
1857 „	76,445	126,006	551,918	52,684	78,850	50,021	447,480	37,724
1858 „	104,851	142,324	568,291	33,125	93,066	57,657	445,311	13,518

Immigrants.—Of the vast number of Immigrants that arrive in the U. States fully 2-3rds land at N. York; and they constitute the most valuable by far of all the imports into that city.

The following Statement shows the Number of Immigrants arrived in different Years:—

Years.	Immigrants.	Years.	Immigrants.	Years.	Immigrants.	Years.	Immigrants.
1835	35,303	1841	57,337	1847	166,110	1853	284,945
1836	60,541	1842	74,949	1848	191,909	1854	319,223
1837	57,975	1843	46,302	1849	220,603	1855	136,233
1838	25,581	1844	61,022	1850	212,796	1856	141,672
1839	48,152	1845	82,960	1851	289,601	1857	185,186
1840	62,797	1846	115,230	1852	299,504		

Regulations as to Passengers arriving at New York.—On the arrival of passengers, an entry must be made at the Custom-house, of their names, clothes, implements of trade or profession (all of which are exempt from duty), and an oath taken respecting them; the form of which, and the entry, may be had at the office gratis. Cabin passengers make this entry themselves, and pay 20 cents each for a permit; on exhibiting which to the officer on board, they are allowed to remove their baggage after it has been inspected. Only 1 entry and permit is necessary for a *family*, and only 20 cents demanded, whatever may be the number of the family. Remains of sea stores, such as tea, sugar, foreign spirits and wines, are liable to pay duties; but unless these are of great bulk or quantity, they are generally allowed to pass free.

An entry is usually made by the master of the vessel of steerage passengers and their baggage; they pay each 20 cents for a permit. When entry is made by any person not the owner, he gives bond for payment of the duties, if any; and if, after entry is made at the Custom-house, and the oath taken, any article is found belonging to a passenger, liable to pay duty, *not specified in the entry*, it is forfeited, and the person in whose baggage the article is found subjected in treble the value.

Besides making entry at the Custom-house, it is provided by a law of the State, that every master of a vessel arriving from a foreign country, or from any other port of the U. States, "shall within 24 hours after entering his vessel at the Custom-house, make a report in writing, on oath, to the mayor, and in case of his sickness or absence, to the recorder of the said city, of the name, age, and occupation, of every person who shall have been brought as passenger in such ship or vessel on her last voyage, upon pain of forfeiting, for every neglect or omission to make such report, the sum of 75 dollars for every alien, and the sum of 50 dollars for every other person neglected to be so reported as aforesaid."

Masters of ships bringing passengers to New York must also pay a dollar on account of each passenger to the corporation, as commutation money, or give bond that none of them shall become chargeable on the city poor rates for the space of two years. They almost uniformly prefer paying the commutation.

Lines of Packets.— The establishment of regular lines of packets from New York to the principal foreign and domestic ports produced a new æra in the commerce of the city, and has redounded equally to the benefit of the enterprising individuals by whom they were projected, and the public. They consist partly of steam, and partly of sailing ships, and belong sometimes to the merchants of New York and sometimes to those of the ports with which she is connected. Her principal intercourse is carried on with Liverpool; but, as the trader will find ample information with respect to it in the article on Liverpool in this work (*antè*, p. 517,), its repetition here would be worse than useless. New York is, also, connected by lines of packet ships with London, Havre, Hamburg, Bremen, Marseilles, and other European ports; with Rio de Janeiro and Bahia in South America; and with Boston, Philadelphia,

New Orleans, and all the principal ports of the United States. And in addition to the regular traders the ships of New York, which are mostly all admirably built and fitted out, are to be found in every port and on every sea, wherever, in fact, it is possible for skill and enterprise to obtain a footing. In this respect, at all events, the Americans have not degenerated. They continue to manifest, in a great degree, all the perseverance, sagacity, and hardihood, in mercantile and naval matters, which have so long and so honourably distinguished their ancestors.

The Banks of New York are all, or mostly all, organised on the security system, that is, they are obliged to deposit security in the hands of a government officer, proportioned to the amount of the notes they are empowered to issue. At first sight this plan appears to be well-fitted to prevent over-issue and abuse: but such is not really the case, and nowhere in the Union has the abuse of banking been carried to a greater extent, or been more injurious than in this city. This, however, is a subject that has been fully discussed in its proper place in this work; and we beg to refer such of our readers as may wish for ample information with respect to it, to the Section entitled "Banks in the U. States, in the art. BANKING (*antè*, p. 113.)

State of the Principal Banks of N. York, showing their Capital and half-yearly Dividends, in 1856, 1857, and 1858.

Banks.	Capital.	1856.		1857.		1858.	
		1st Div.	2nd Div.	1st Div.	2nd Div.	1st Div.	2nd Div.
	Dollars.	*p. ct.*	*p. ct.*	*p. ct.*	*p. ct.*	*p. ct.*	*p. ct.*
Atlantic	400,000	4	4	4	- -	- -	3½
Bank of America	3,000,000	4	4	4	4	3½	3½
Bank of Commerce	8,770,180	4	4	4	4	4	3½
Bank of New York	2,754,650	4	4	4	4	3½	3½
Bank of North America	1,000,000	3½	3½	3½	4	3	3½
Bank of Commonwealth	750,000	3½	3½	3½	3½	3	3¼
Broadway	1,000,000	5	5	5	5	5	5
Butchers' and Drovers'	800,000	5	5	5	5	5	5
Chatham	450,000	3½	3½	3½			
Chemical *	500,000	6	6	6	6	6	6
Continental	1,979,200	4	4	4	4	3½	3½
East River	206,520	3½	3½	3½			
Grocers'	240,000	5	10	5			
Hanover	1,000,000	3½	3½	3½	3½		3½
Importers and Traders'	1,500,000	- -	- -	4	4	3½	4
Irving	500,000	3½	4	3½	4	3	3½
Market	1,000,000	4	4	4	4	- -	4
Mechanics'	2,000,000	4	4	4	4	4	4
Mercantile	1,000,000	5	5	5	5	5	5
Merchants' Exchange	1,235,000	4	4	4	4	3	3½
Metropolitan	4,000,000	4	4	4	4	4	4
Nassau	979,200	4	4	4	4	3	3½
New York County	200,000	4	4	4	4	4	3½
North River	316,000	4	4	4	4		
New York Dry Dock	200,000	4	4	4	4	4	4
New York Exchange	130,000	4	4	4	4	4	4
Park	2,000,000	- -	- -	4	4	4	4
People's	412,000	4	4	4	4	4	3½
Phenix	1,800,000	4	4	4	4	4	4
Seventh Ward	500,000	5	5	5	5	5	5
Tradesmen's	800,000	5	5	4	4	4	4
Bank of the Republic	2,000,000	5	5	5	5	5	5
Citizens'	400,000	4	4	4	4	4	4
Corn Exchange	1,000,000	4	4	4	4	4	3½
Leath, Manufacturers'	600,000	5	5	5	5	5	5
Manhattan	2,050,000	4	5	5	5	5	5
Marine	659,100	4	4	4	4	- -	3½
Ocean	1,000,000	- -	3½	3½	3½	3½	3½
St. Nicholas	748,000	3½	3½	3½	3½	- -	3½
Oriental	300,000	3½	3½	3½	3½	3½	3½
Artisans'	600,000	- -	- -	- -	- -	- -	3½
Bull's Head	173,300	3½	3½	3½	- -	4	4
National†	1,500,000	5	5	3½	4	3½	3½
Shoe and Leather	1,500,000	4	4	4	4	4	4
American Exchange	4,951,225	5	5	5	3	4	3½
Bank of State of New York	2,000,000	4	4	4	- -	4	4
City	1,000,000	4	4	4	- -	4	4
Fulton	600,000	5	5	5	- -	5	5
Greenwich	200,000	6	6	6	6	6	6
Mechanics' Bank Assurance	316,000	4	4	4			
Mechanics and Traders†	400,000	7	7	5	3½	3½	3½
Union	1,500,000	4	4	4	4	4	3½
Merchants†	2,590,875	5	5	3½	3½	3½	3½
Pacific	422,750	4	4	4	4	4	4
Total	68,050,755						

* Dividends declared in January, April, July, and October. Three dividends, of 6 per cent. each declared in 1855.

† Charter expired, January 1, 1857.

SALES BY AUCTION.—The practice of selling goods, particularly those imported from abroad, by auction, is of long standing in New York, and is carried to a very great extent. Auctioneers are appointed by the senate, on the nomination of the governor.

Abstract of the principal Provisions of the Law, concerning Auctions.

The duties are—

1. On wines and ardent spirits, foreign or domestic, 2 per cent,
2. On goods imported from beyond the Cape of Good Hope, and sold in packages, bales, &c., as imported, 1 per cent.
3. On all other articles, subject to duties, 1½ per cent.

The following articles are not subject to duties:—

1. Ships and vessels,
2. Utensils of husbandry, horses, neat cattle, hogs, and sheep.
3. Articles grown, produced, or manufactured in this state, except distilled spirits.
4. All fabrics of cotton, wool, hemp, and flax, manufactured within the jurisdiction of the United States.

Goods are exempted from auction duties,—

1. When they belong to the United States or this State.
2. When sold by the authority of a court, or when seized by a public officer on account of any forfeiture or penalty, or under a distress for rent.
3. The effects of a deceased person sold by executors or administrators, or by a person authorised by a surrogate.
4. The effects of a bankrupt or insolvent sold by his assignees, appointed pursuant to law, or by a general assignment for the benefit of all his creditors.
5. Goods damaged at sea and sold within 20 days after being landed, for the owners or insurers.

Any citizen of this State may sell at auction (except in the city of New York) all such goods as are not subject to duties. But in the city of New York, or where the goods pay duties, the sale must be by an authorised auctioneer, his partner, or clerk. And any person selling contrary to the said provisions is guilty of a misdemeanour.

When an auctioneer cannot attend an auction by *sickness*, by *duty as a fireman*, by *military orders*, or *necessary attendance in a court of justice*, or when he is *temporarily* absent from the place for which he is appointed, he may employ a partner to attend in his behalf.

He must give bond to the people of this State, with 2 freehold sureties, conditioned in the penalty of 5,000 dollars, for the payment of the duties imposed by law and accruing on the sales. The penalty of selling without the bond is 125 dollars for each article offered for sale.

No auctioneer in any city shall at the same time have more

than 1 house or store for holding his auctions, and shall, before entering on his office, designate in a writing, to be filed with the clerk of the city, such house or store, and his partner or partners. But goods sold in the packages in which they were imported, furniture, and such bulky articles as have usually been sold in warehouses, in the streets, or on the wharfs, need not be sold in the house or store designated in such writing, if such sales be advertised at least 2 days previously, in 1 or more newspapers.

Auctioneers are to receive 2½ per cent. on the amount of all sales, unless by previous agreement in writing; and for *demanding* and receiving an unlawful commission, shall forfeit 250 dollars, and refund the monies so received.

No auctioneer, on the same day and at the same place where his public auction shall be held, nor any other person at the same time and place, shall sell at private sale any goods liable to auction duties, under penalty of forfeiting their price.

Every auctioneer shall make out in writing a quarterly account, dated on the 1st days of April, July, October, and January in the year for which he is appointed, stating minutely —

1. The sum for which any goods shall have been sold at every auction held by or for him, from the time of his giving bond, or from the date of his last quarterly account.
2. The days on which sales were so made, and the amount of each day's sale, designating the sales made by himself, or in his presence, and those made in his absence, by his partner or clerk, and the causes of his absence.
3. The amount of all private sales made by himself or his partner, and the times thereof.
4. The amount of duties chargeable on all sales made.

Every such account shall, within 20 days after its date, be exhibited, by auctioneers for a city, to the mayor or recorder; and if by an auctioneer for a county, to a county judge, and be verified by oath. Every partner of an auctioneer, and every clerk who has made any sales, shall also swear to his belief in the truth and justice of every particular of such account.

The State duties (together with the addition of 2½ per cent. on the whole amount of them) are to be paid within 10 days after exhibiting such account.

Any deceit or fraud in violating any provision of the law respecting auctioneers, is made a misdemeanour, and subjects the offending party to the payment of *treble* damages to the party injured.

COINS.—*Gold eagle.*—This, with its subdivisions, is the only American gold coin. By the mint regulations of the United States, the eagle, which is the equivalent of 10 dollars, contained, previously to the 31st of July, 1834, 270 grains of standard gold, viz. 246 grains pure, and 24 grains alloy. But, by an act of Congress, which came into operation at the above date, the weight of the eagle was reduced to 258 grains, of which 232 are pure, and 26 grains alloy. In consequence of this alteration, the sovereign, that was formerly worth 4 dollars 57 cents, is now worth 4 dollars 87 cents, and is received by the Americans at this rate.

We do not know whether it was the object of the American government, in enacting this law, to substitute a gold in the place of a silver currency; but it has, concurrently with the discovery of the Californian gold-fields, had that effect. Under the former system, silver was over-valued in the American mint as compared with gold; and, as it consequently became everybody's interest to pay his debts in silver rather than in gold, the latter was nearly banished from circulation, precisely in the same way that the over-valuation of gold in the British mint banished all silver coins of full weight from this country, and that the over-valuation of silver in the French mint banished gold.—(*Antè*, p. 322.) Under the present American system, gold is said to be over-valued from 1¼ to 1⅓ per cent., so that an individual who has to pay a debt of 100*l.*, and who employs metallic money for that purpose, will save from 25*s.* to 30*s.* by using gold rather than silver.

Value of Foreign Gold Coins in the Currency of the U. States.—It was ordered by an act of Congress, passed at the same time with the New Mint Act, that there "shall pass current as money, and be receivable in all payments, by weight, for the payment of all debts and demands, from and after the 31st day of July, 1834," viz.: 1. The gold coins of Great Britain, Portugal, and Brazil, of not less than 22 carats fine, at the rate of 93 8-10 cents per pennyweight; 2. The gold coins of France, 9-10ths fine, at the rate of 93 1-10 cents per pennyweight; and 3. The gold coins of Spain, of the fineness of 20 carats 3 7-16 grains, at the rate of 89 8-10 cents per pennyweight. On this principle the following table has been calculated:—

Gold Coins of Great Britain, Portugal, & Brazil, 22 Carats fine.

	Weight.		Contents in pure gold.	Value in U. S. currency, at 93 8-10 cts. per dwt.			Value estimated by the quantity of pure gold compared with fine eagle of 232 grs.		
	dwt.	*gr.*	*grs.*	*d.*	*c.*	*m.*	*d.*	*c.*	*m.*
GREAT BRITAIN.									
Guinea (half and 7*s.* piece in proportion)	5	9 59-89	118·6	5	11	0	5	11	2
Sovereign (half in proportion) - -	5	3 171-623	113	4	86	9	4	87*	0
PORTUGAL.									
Dobraon of 21,000 rees (half in proportion)	34	12	759	32	70	6	32	17	9
Dobra of 12,800 rees -	18	6	401·5	17	30	1	17	30	6
Moidore - -	6	22	152·2	6	55	7	6	61	2
Milree, 1755 - -		19 3-4	18·1	0	78	0	0	78	0
BRAZIL.									
Dobraon - -	34	12	759	32	70	6	32	71	9
Dobra - -	48	6	401·5	17	30	1	17	30	6
Moidore - -	6	22	152·2	6	55	7	6	64	2

* To those who wish perfect accuracy, it may be observed that the quantity of pure gold in the sovereign is 113 18-11, 214 grains, and that the true value of the sovereign, compared with the new eagle of 232 grains, is 94 87-7 100. This is also the true par of exchange between the United States and London, and is equal to a premium of 9 7-10 per cent., as near as can be calculated, on the nominal par of 4 44 or 109 7-10 for 100.

Previously to 1837 standard silver in the U. States was 1485 parts pure to 179 parts alloy. But it was then determined to make the standard of silver as well as of gold 9 parts pure to 1 part alloy; and this was effected by reducing the copper or alloy in the dollar 3½ grs., making its weight 412·5 instead of 416 grains. In consequence of the over-valuation of gold with respect to silver previously referred to, no silver coins of the full weight would latterly remain in circulation. To obviate the inconveniences thence arising Congress has, in the course of the present year (1853), issued half dollars which contain only 192 gr. standard silver, being a reduction of very near 7 per cent., and ¼ and ⅛ dollars in the same proportion. But as these coins are legal tender to the extent of only 5 dols., and as the weight of the dollar itself has not been diminished, there is no degradation of the standard. And provided the Treasury do not issue the new coins in excess, they will most likely remain in circulation, and serve as a subsidiary currency.

Silver Coins, 1853.				*s.*	*d.*
Dollar, val. 10 dimes, wt. 412½ grs. stand. silver				=4	3·75 ster.
Half dollar	5 do.	192 do.	—	=2	4·87 —
Quarter	2½ do.	96 do.	—	=1	0·93 —
Dime	10 cents	38·40	—	=	0·546 —

Gold Coins of France, 9-10ths fine.

	Weight.		Contents in pure gold.	Value in U. S. currency, at 93 1-10 cts. per dwt.			Value estimated by the quantity of pure gold compared with the eagle of 232 grs.		
	dwt.	*gr.*	*grs.*	*d.*	*c.*	*m.*	*d.*	*c.*	*m.*
Double louis, coined since 1786 (single in proportion) - -	9	0	212·6	9	15	4	9	16	3
Double napoleon (single in proportion) -	8	7	179	7	71	8	7	71	5
New louis - -	4	3 1-2	82·5	3	85	9	3	85	7

NOTE.—The double louis, louis, and demi-louis, coined before 1786, not being 9-10ths fine, are not included in the table, because they are not legal tenders. Neither are the double and single napoleon, or the new louis, exactly 9-10ths fine, but the deficiency is so very small that it is believed it is covered by what is called the remedy of the mint.

Gold Coins of Spain, 20 Carats 3 7-16 Grains fine.

	Weight.		Contents in pure gold.	Value in U. S. currency at 89 0-10 cts. per dwt.			Value in U. S. currency, estimated by the quantity of pure gold, &c.		
	dwt.	*gr.*	*grs.*	*d.*	*c.*	*m.*	*d.*	*c.*	*m.*
Quadruple pistole or doubloon, coined before 1772 (double, single, and half in proportion) -	17	8 1-2	375·3	15	59	0	16	17	6
Quarter pistole, or gold dollar, coined before 1772 - -	1	3	24·2	1	01	1	1	04	3
Doubloon of 1772 (double and single in proportion) -	17	8 1-2	372	15	59	0	16	03	3
Half pistole of 1772 -	2	4	46·3	1	94	7	1	99	5
Quarter pistole of 1772	1	3	23·9	1	01	1	1	03	0

The following tables, showing the weight and fineness of the principal gold and silver coins of foreign countries, and their values in the existing currency of the U. States are at present of the highest authority. They have been computed by Mr. Snowden, the intelligent director of the Mint of the U. States, and were issued on the 9th November, 1858. Silver is taken in them at 121 cents per oz., instead of 122½ cents per oz., at which it was formerly estimated.

Statement of the Names, Weight, Fineness, and Value in Fœderal Currency of the Principal Foreign Gold Coins.

Country.	Denomination.	Weight.		Fineness.	Value.			Received at Mint.		
		Oz.	*Dec.*	*Thousand.*	*Dolls.*	*C.*	*M.*	*Dblls.*	*C.*	*M.*
Australia	Pound of 1852	0	281	916·5	5	32	0	5	29	3
Ditto	Ditto of 1855	0	256	916·5	4	85	0	4	82	6
Austria	Ducat	0	112	986	2	28	0	2	26	9
Ditto	Souverain	0	363	900	6	77	0	6	73	6
Belgium	Twenty-five francs	0	254	899	4	72	0	4	69	7
Bolivia	Doubloon	0	867	870	15	58	0	15	50	2
Brazil	20,000 reis	0	575	917·5	10	90	5	10	85	1
Central America	Two Escudors	0	209	853·5	3	68	0	3	66	2
Chili	Old doubloon	0	867	870	15	57	0	15	49	2
Ditto	Ten pesos	0	492	900	9	15	3	9	10	7
Denmark	Ten thaler	0	427	895	7	90	0	7	86	1
Ecuador	Four Escudors	0	433	844	7	60	0	7	56	2
England	Pound or sovereign, new	0	256·7	916·5	4	86	3	4	83	9
Ditto	Ditto, average	0	256	915·5	4	84	8	4	82	4
France	Twenty francs, new	0	207·5	899·5	3	86	0	3	84	1
Ditto	Ditto, average	0	207	899	3	84	5	3	82	6
Germany, North	Ten thaler	0	427	895	7	90	0	7	86	1
Ditto	Ditto, Prussian	0	427	903	8	00	0	7	96	0
Ditto, South	Ducat	0	112	986	2	28	3	2	27	2
Greece	Twenty drachms	0	185	900	3	45	0	3	43	3
Hindustan	Mohur	0	374	916	7	08	0	7	04	5
Mexico	Doubloon, average	0	867·5	866	15	53	4	15	45	6
Naples	Six ducati, new	0	215	996	5	04	0	5	01	5
Netherlands	Ten guilders	0	215	899	3	99	0	3	97	0
New Granada	Old doubloon, Bagota	0	868	870	15	61	7	15	55	9
Ditto	Ditto Popayan	0	867	858	15	29	0	15	31	3
Ditto	Ten pesos, new	0	525	891·5	9	67	5	9	62	7
Peru	Old doubloon	0	867	868	15	56	0	15	48	2
Ditto	New, not ascertained									
Portugal	Gold crown	0	308	912	5	81	3	5	78	4
Rome	2½ scudi, new	0	140	909	2	60	6	2	58	7
Russia	Five roubles	0	210	916	3	97	6	3	95	7
Sardinia	Same as France									
Spain	100 reals	0	268	896	4	96	3	4	93	9
Sweden	Ducat	0	111	975	2	26	7	2	25	6
Turkey	100 piastres	0	251	915	4	37	4	4	35	2
Tuscany	Sequin	0	112	999	2	30	0	2	28	9

Statement of the Names, Weight, Fineness, and Value in Fœderal Currency of the Principal Foreign Silver Coins.

Country.	Denomination.	Weight.		Fineness.	Value.		
		Oz.	*Dec.*	*Thousand.*	*Dolls.*	*C.*	*M.*
Austria	Rix dollar	0	902	853	1	01	3
Ditto	Scudo of six lire	0	836	902	1	01	5
Ditto	20 kreutzer	0	215	582	0	16	8
Belgium	Five francs	0	803	897	0	96	8
Bolivia	Dollar	0	871	900·5	1	05	4
Ditto	Half dollar, 1830	0	433	670	0	38	5
Ditto	Quarter dollar, 1850	0	216	670	0	19	2
Brazil	2,000 reis	0	820	918·5	1	01	3
Central America	Dollar	0	866	850	0	97	3
Chili	Old dollar	0	864	908	1	04	7
Ditto	New dollar	0	801	900·5	0	97	0
Denmark	Two rigsdaler	0	927	877	1	09	4
England	Shilling, new	0	182·5	924·5	0	22	7
Ditto	Shilling, average	0	178	925	0	22	2
France	Five francs, average	0	800	900	0	96	8
Germany, North	Thaler	0	712	750	0	71	7
Ditto South	Gulden or florin	0	340	900	0	41	2
Ditto, North & South	2 thaler, or 3½ gulden	0	192	900	1	44	5
Greece	Five drachms	0	719	900	0	86	9
Hindustan	Rupee	0	374	916	0	46	0
Japan	Itzebu	0	279	991	0	37	0
Mexico	Dollar, average	0	866	901	1	04	9
Naples	Scudo	0	884	850	0	98	8
Netherlands	⅔ guilder	0	804	914	1	02	5
Norway	Specie-daler	0	927	877	1	09	4
New Granada	Dollar of 1857	0	803	896	0	96	8
Peru	Old dollar	0	866	901	1	04	9
Ditto	Old dollar of 1855	0	766	909	0	93	6
Ditto	Half dollar, 1855-58	0	433	650	0	37	7
Portugal	Silver crown	0	950	912	1	16	6
Rome	Scudo	0	864	900	1	04	7
Russia	Rouble	0	667	875	0	78	4
Sardinia	Five lire	0	800	900	0	96	8
Spain	New pistareen	0	166	899	0	20	1
Sweden	Rixdollar	1	092	750	1	10	1
Switzerland	Two francs	0	323	899	0	39	0
Turkey	Twenty piastres	0	770	830	0	86	5
Tuscany	Florin	0	220	925	0	27	4

N.B.—An Act of Congress, approved 21st February, 1857, directs that the pieces known as the 1-4th 1 8th, and 1-16th of the Spanish Pillar dollar and the Mexican dollar shall be receivable at the Treasury of the U. States at 20, 10, and 5 cents respectively; and that they shall not be reissued, but recoined at the Mint.

Custom-House Regulations.—Vessels must be reported to the collector by the master 24 hours after arrival; must come to a full entry 48 hours after arrival, at which time the commander swears to a detailed account of his cargo, stores, and passengers, and that he has deposited all letters in the post-office, except such as are for his ship's husband, at which time he must also deposit the register, clearance, and cockets in the Custom-house.

Warehousing.—There is no warehousing system, but goods are received into the public stores, where they are allowed to remain 9 months at the risk and expense (for fees of cartage, labourage and stowage, as fixed by the Chamber of Commerce, see *post*) of the owner, without any duties being demandable. Woollens are the only exception to this rule: since 1833, interest is charged upon the amount of duty payable on their account from the time of their importation.

Port Charges.—For American vessels, or those of States having reciprocity treaties:—

	Dolls. cts.	*£*	*s.*	*d.*
Fees on entering	5 70	or 1	5	7½
Fees on clearing	2 70	or 0	12	1½

CUSTOM-HOUSE FEES.—1. *Fees payable to Collector.*— Entry of a vessel of 100 tons or upwards, 2 dollars and 50 cents; clearance of a vessel of 100 tons or upwards, 2 dollars and 50 cents: entry of a vessel under 100 tons, 1 dollar and 50 cents; clearance of a vessel under 100 tons, 1 dollar and 50 cents; every post entry, 2 dollars; permit to land goods, 20 cents; every bond taken officially, 40 cents; permit to load goods, for the exportation, for drawback, 30 cents; debenture or other official certificate, 20 cents; official document (register excepted), required by any person, 20 cents.

2 *Fees payable to the Surveyor.*— Admeasuring and certifying the same, of every ship or vessel of 100 tons and under, per ton, 1 cent; admeasurement of every ship or vessel above 100 tons, and not exceeding 200 tons, 1 dollar and 50 cents; above 200 tons, 2 dollars; for all other services on board any ship or vessel of 100 tons and upwards, having on board goods, wares, or merchandise subject to duty, 3 dollars; for like services on board any ship or vessel of less than 100 tons, 1 dollar and 50 cents; on all vessels not having on board goods, wares, or merchandise subject to duty, 66 2-3 cents. Certificate of registry of vessels, 2 dollars. Endorsement of registry or record, 1 dollar. Every bond required by this act, 25 cents; every bond for a Mediterranean passport, 40 cents; every seaman's protection, 25 cents.

Under the Coasting Act.—Admeasuring any vessel in order to the registering, enrolment, licensing, or recording the same, of 5 tons or upwards, and less than 20, 50 cents; 20 and not exceeding 70, 75 cents; 70, 1 dollar; above 100, 150 cents. For every certificate of enrolment, 50 cents; every endorsement of ditto, 20 cents.; every licence, including the bond, not exceeding 20 tons, 25 cents; above 20 tons, and not more than 100, 50 cents; more than 100, 1 dollar. Recording certificate, manifest, and granting permit, of less than 20 tons, 25 cents; above 50 tons, 50 cents. For certifying a manifest, and granting permit for registered vessels, 150 cents. For receiving certified manifest and granting permit for registered vessels, 150 cents. Granting permit for a vessel not belonging to a citizen, on arrival, to proceed from district to district, and receiving a manifest, 2 dollars; receiving manifest and granting permit to unload, as above, 2 dollars. Granting permit for a vessel to carry on fishery in a foreign port, 25 cents. For report and entry of any foreign goods imported in such last-mentioned vessel, 25 cents.

	Dolls.	£	s.	d.
Expense of loading a vessel of 300 tons, in the port of New York, with the usual cargo exported from thence	160	36	0	0
Ditto of discharging	80	18	0	0
	Cents.			
For discharging —				
Coals, per chaldron	25	0	1	1
For loading —				
Tobacco, per hhd.	25	0	1	1
Cotton, per bale	25	0	1	1
Flour, per barrel	8½	0	0	1¾
Flax-seed, do.	7	0	0	5¼

Rates of Wharfage.—Vessels under 50 tons, 50 cents per day = 2*s.* 3*d.*; and for every 50 tons more, 12½ cents additional = 7*d.*

N.B.—Wharfs are all private property.

RATES OF COMMISSION, *revised in* 1857, *and recommended by the Chamber of Commerce to be charged where no express agreement to the contrary exists.*

Banking.

	p. cent.
On purchase of stocks, bonds, and all kinds of securities, including the drawing of bills for payment of same	1
On sale of stocks, bonds, and all kinds of securities, including remittances in bills and guaranty	1
On purchase or sale of specie and bullion	½
Remittances in bills of exchange	½
Remittances in bills of exchange, with guaranty	1
Drawing or indorsing bills of exchange	1
Collecting dividends on stocks, bonds, or other securities	½
Collecting interest on bonds and mortgages	1
Receiving and paying moneys on which no other commission is received	½
Procuring acceptance of bills of exchange payable in foreign countries	¼
On issuing letters of credit to travellers, exclusive of foreign bankers' charge	1
Where bills of exchange are remitted for collection, and returned under protest for non-acceptance or non-payment, the same commissions are to be charged as though they were duly accepted and paid.	

General Business.

On sales of sugar, coffee, tea, and general merchandise, usually sold in large quantities and on credit under 6 months	5
On sales of manufactured goods and other articles, usually sold on long credits, for 6 months and guaranty	7½
Ditto, ditto, for cash	5
On purchase and shipment of merchandise, with funds in hand, on cost and charges	2½
Collecting delayed and litigated accounts	5
Effecting marine insurance, on amount insured	½
No amount to be charged for effecting insurance on property consigned.	
Landing and reshipping goods from vessels in distress, on value of invoice	2½
on specie and bullion	½
Receiving and forwarding merchandise entered at custom-house, on invoice value 1 per cent., and on expenses incurred	2½
On consignments of merchandise withdrawn or reshipped, full commissions are to be charged to the extent of advances or responsibilities incurred, and one half commission on the residue of the value.	
On giving bonds that passengers will not become a burden on the city, on the amount of the bonds	2½
The risk of loss by robbery, fire (unless insurance be ordered), theft, popular tumult, and all other unavoidable occurrences, is in all cases to be borne by the owners of the goods, provided due diligence has been exercised in the case of them.	

Shipping

	p. cent.
On purchase or sale of vessels	2½
Disbursements and outfit of vessels	2½
Procuring freight and passengers for Europe, East Indies, and domestic ports	2½
For West Indies, South America, and other places	5
For foreign vessels, in all cases	5
Collecting freight	2½
Collecting insurance losses of all kinds	2½
Chartering vessels on amount of freight, actual or estimated, to be considered as due when the charter parties are signed	2½
But no charter to be considered binding till a memorandum, or one of the copies of the charter, has been signed.	
On giving bonds for vessels under attachment in litigated cases, on amount of liability	2½
The foregoing commissions to be exclusive of brokerage, and every charge actually incurred.	

RATES OF STORAGE, *chargeable per month, as established by the New York Chamber of Commerce.*

	Cents.
Almonds, in frails or packages, cwt.	6
Alum, in casks or bags, per ton	40
Ashes, pot and pearl, bbl.	8
Beef, bbl.	6
Bottles, quart, in mats, cr. or hmp. gr.	8
Bark, quercitron, in casks, ton	60
Bagging, cotton, loose or in bales, pc.	3
Butter in firkins of 60 lbs., per fir.	2
Brandy. *See* Liquors.	
Candles, in boxes of 50 or 60 lbs., box	2
Chocolate, in boxes of 50 lbs., box	2
Cocoa, in bags, per cwt.	2½
in casks, ditto	3
Coffee, in casks, ditto	2½
in bags, ditto	2
Copperas, in casks, per ton	40
Copper, in pigs, ditto	20
in sheets or bolts, ton	50
brazier's bottoms, ton	75
Cordage, per ton	50
Cassia, in mats or boxes, per cwt.	10
Cotton, American, in square bales, 300 lbs.	12½
ditto in round bales, ditto	16
West Indian, in proportion to round.	
East Indian, in bales, per 300 lbs.	9
Cheese, casks, boxes, or loose, cwt.	3
Duck, heavy, per bolt	1½
Ravens or Russia sheeting, piece	6¾
Dry goods, in boxes or bales, 40 cubic feet	40
Fish, pickled, per bbl.	6
dry, in casks or boxes, cwt.	4
in bulk, per cwt.	2½
Figs, in frails, boxes, or drums, cwt.	2½
Flax, per ton	60
Flaxseed, or other dry articles, in tierces of 7 bushels per tierce	10
Flour, or other dry articles in bbl.	4
Earthenware, in crates of 25 to 50 feet	15
in hhds. of 40 to 50 feet	30
Grain, in bulk, per bushel	1
Ginger, in bags, per cwt.	2
Glass, window, in boxes of 50 feet	1½
Gin. *See* Liquors.	
Hemp, per ton	75
Hides, dried or salted, per hide	1½
Hardware, in casks of 40 cubic feet	40
Indigo, in serons or boxes, per cwt.	4
Iron, in bars, or bolts, per ton	20
in hoops, sheets, or nailrods, ton	30
Liquors, in puncheons of 120 gallons, per puncheon	30
in ½ casks	6½
in pipes or casks, 120 gallons	30
bottled, in casks, or boxes, doz. bottles	1½
Leather, per side	1
Lard, in firkins of 60 lbs.	2
Lead, pig or sheet, per ton	20
dry, or gr. in oil, ditto	20
Molasses, per hhd. of 110 gallons (other casks in proportion)	30
Nails, in casks, per cwt.	2
Oil, in hhd. or casks, 110 gallons	30
in chests of 30 flasks, per chest	4
bottled, in boxes or baskets, doz.	1½
Paints, in casks or kegs, per ton	40
Pork, per bbl.	6
Porter. *See* Liquors.	
Pepper, in bags, per cwt.	2½
Pimento, in casks, or bags, cwt.	2½
Rice, in tierces, per tierce	12
in ½ ditto, per ½ ditto	8
Rags, in bales, per cwt.	6
Raisins, Malaga, in casks	3
ditto, in boxes	1
in other packages, per cwt.	2
Rum. *See* Liquors.	
Saltpetre, in bags, per cwt.	2
in casks, ditto	2½
Salt, in bags, or bulk, per bushel	1
Shot, in casks, per ton	37
Soap, in boxes of 50 to 60 lbs.	2
Steel, in bars or bundles, per ton	30
in boxes or tubs, ditto	40
Sugar, raw, in bags or boxes, per cwt.	2
ditto, in casks, ditto	2½
refined, in casks or packages	3
Tallow, in casks or serons, cwt.	2
Tea, bohea, in whole chests	15
ditto, in ½ chests	8
green or black, in ½ chests	4½
in boxes, in proportion to ½ chests.	
Tin, block, per ton	20
in boxes of usual size, per box	1¼
Tobacco, in hhds., per hhd.	37½
in bales or serons, per cwt.	4

	Cents.
Tobacco, manufactured in kegs of 100 lbs.	2
Wines. *See* Liquors.	
Woods, for dyeing, under cover, per ton	50
ditto, in yards	25
Whiting, in hhds., per ton	37½

On articles on which the rate is fixed by weight, it is understood to be on the gross weight; and on liquors, oil, &c. on which the rate refers to gallons, it is understood to be on the whole capacity of the casks, whether full or not. The proprietor of goods to be at the expense of putting them in store, stowing away, and turning out of store. — All goods taken on storage to be subject to a month's storage; if taken out within 15 days after the expiration of the month, to pay ½ a month's storage; if after 15 days, a whole month's storage.

Harbour Master.

The office of harbour master was created in 1808, by legislative enactment, with power to regulate and station all vessels in the harbour, or at the wharfs, to accommodate vessels wishing to discharge their cargoes, and to decide promptly all disputes connected with the foregoing subjects. Resisting his authority subjects to a fine of 50 dollars and costs, for the benefit of the New York hospital.

Fees. — On vessels unloading, 1¼ cent per ton. Vessels paying foreign duties and tonnage, *double:* which must be paid within 48 hours after arrival. Schooners and sloops in the coasting trade, 2 dollars. For adjusting any difference respecting situation, 2 dollars.

Pilots must register their vessels, names and places of abode, in his office; and are obliged to put to sea whenever ordered by him. The penalty for refusing is 5 dollars and loss of licence.

Rates of Pilotage.

From 1st April to 1st November.					From 1st November to 1st April.				
Draught of Water.	Inward.		Outward.	Armed Vessels.	Draught of Water.	Inward.		Outward.	Armed Vessels.
		Off Shore.					Off Shore.		
ft. in.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	ft. in.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
5 0	10·00	12·50	7·50	25·00	5 0	12·00	14·50	9·50	27·00
5 6	11·00	13·75	8·25	27·50	5 6	13·00	15·75	10·25	29·50
6 0	12·00	15·00	9·00	30·00	6 0	14·00	17·00	11·00	32·00
6 6	13·00	16·25	9·75	32·50	6 6	15·00	18·25	11·75	34·50
7 0	14·00	17·50	10·50	35·00	7 0	16·00	19·50	12·50	37·00
7 6	15·00	18·75	11·25	37·50	7 6	17·00	20·75	13·25	39·50
8 0	16·00	20·00	12·00	40·00	8 0	18·00	22·00	14·00	42·00
8 6	17·00	21·25	12·75	42·50	8 6	19·00	23·25	14·75	44·50
9 0	18·00	22·50	13·50	45·00	9 0	20·00	24·50	15·50	47·00
9 6	19·00	23·73	14·25	47·50	9 6	21·00	25·75	16·25	49·50
10 0	20·00	25·00	15·00	50·00	10 0	24·00	29·00	19·00	54·00
10 6	21·00	26·25	15·75	52·50	10 6	25·00	30·25	19·75	56·50
11 0	22·00	27·50	16·50	55·00	11 0	26·00	31·50	20·50	59·00
11 6	23·00	28·75	17·25	57·50	11 6	27·00	32·75	21·25	61·50
12 0	24·00	30·00	18 00	60·00	12 0	28·00	34·00	22·00	64·00
12 6	25·00	31·25	18·75	62·50	12 6	29·00	35·25	22·75	66·50
13 0	26·00	32·50	19·50	65·00	13 0	30 00	36·50	23·50	69·00
13 6	27·00	33·75	20·25	67·50	13 6	31·00	37·75	24·25	71·50
14 0	35·00	43·75	24·50	70·00	14 0	39 00	47·75	28·50	74·00
14 6	36·25	45·31	25·38	72·50	14 6	40·25	49·31	29·38	76·50
15 0	37·50	46·88	26·25	75·00	15 0	41·50	50·88	30·25	79·00
15 6	38·75	48·44	27·13	77·50	15 6	42·75	52·44	31·13	81·50
16 0	40·00	50·00	28·00	80·00	16 0	44·00	54·00	32·00	84·00
16 6	41·25	51·56	28·88	82·50	16 6	45·25	55·56	32·88	86·50
17 0	42·50	53·13	29·75	85·00	17 0	46·50	57·13	33·75	89·00
17 6	43·75	54·69	30·63	87·50	17 6	47·75	58·69	34·63	91·50
18 0	54·00	67·50	40·50	90·00	18 0	58·00	71·50	44·50	94·00
18 6	55·50	69·38	41·63	92·50	18 6	59·50	73·38	45·62	96·50
19 0	57·00	71·25	42·75	95·00	19 0	61·00	75·25	46·75	99·00
19 6	58·50	73·13	43·88	97·50	19 6	62·50	77·13	47·87	101·50
20 0	60·00	75·00	45·00	100·00	20 0	64·00	79·00	49·00	104·00
20 6	61·50	76·88	46·13	102·50	20 6	65·50	80·88	50·12	106·50
21 0	63·00	78·75	47·25	105·00	21 0	67·00	82·75	51·25	109·00
21 6	64·50	80·62	48·38	107·50	21 6	68·50	84·63	52·37	111·50
22 0	66·00	82·50	49·50	110·00	22 0	70·00	86·50	53·50	114·00
22 6	67·50	84·37	50·62	112·50	22 6	71·50	88·38	54·62	116·50
23 0	69·00	86·25	51·75	115·00	23 0	73·00	90·25	55·75	119·00
23 6	70·50	88·18	52·87	117·50	23 6	74·50	92·13	56·87	121·50
24 0	72·00	90·00	54·00	120·00	24 0	76·00	94·00	58·00	124·00
24 6	73·50	91·87	55·12	122·50	24 6	77·50	95·88	59·12	126·50
25 0	75·00	93·75	56·25	125·00	25 0	79·00	97·75	60·25	129·00

Note. — Outward Pilotage same as Inward, if boarded eastward of the White Buoy of the Bar; Half Pilotage when boarded westward of the White Buoy of the Bar, and none to be allowed unless a Pilot is required.

Pilot boats are numbered and designated by a square Burgee with white centre and blue border, the number being in the centre.

Wardens of the Port.

Vessels and goods arriving in a damaged state, and required to be sold by auction for the benefit of underwriters out of the city of New York, must be under the inspection of the wardens, who may be required to certify the cause of the damage, and amount of sale and charges.

Fees. — 1½ per cent. on gross amount of sales; and for each survey on board of any vessel, at any store, or along the dock, or wharfs, 3 dols. on damaged goods; each survey on hulls, spars, rigging, &c., 5 dols.; each certificate, 1 dol. 25 cts.; ditto of distress of said vessel, 2 dols 50 cts.; same services for vessels paying foreign duties and tonnage, *double.*

Quantity of Goods to compose a Ton.

Determined by the New York Chamber of Commerce.

1,568 lbs. of coffee in casks, 1,850 ditto in bags; 1,120 lbs. cocoa in casks, 1,307 ditto in bags.
952 lbs. of pimento in casks, 1,110 ditto in bags.
8 barrels of flour of 196 lbs. each.
6 barrels of beef, pork, tallow, pickled fish, pitch, tar, and turpentine.
20 cwt. of pig and bar iron, potashes, sugar, logwood, fustic, Nicaragua wood, and all heavy dye woods, rice, honey, copper ore, and all other heavy goods.
16 cwt. of coffee, cocoa, and dried codfish, in bulk, and 12 cwt. of dried codfish in casks of any size.
6 cwt. ship bread in casks, 7 cwt. in bags, and 8 cwt. in bulk.
200 gallons (wine measure) reckoning the full contents of the casks, of oil, wine, brandy, or any kind of liquors.
22 bushels of grain, peas, or beans, in casks.
36 bushels of ditto in bulk.
36 bushels of European salt.
31 bushels of salt from the West Indies.
29 bushels of sea-coal.
40 feet (cubic measure) of mahogany, square timber, oak plank, pine and other boards, beaver, furs, peltry, bees'-wax, cotton, wool, and bale goods of all kinds.
1 hogshead of tobacco, and 10 cwt. of dry hides.
8 cwt. of China raw silk, 10 cwt. nett bohea, and 8 cwt. green tea.

Tares allowed by Custom.

Alum in bags	5 lbs.
in casks	10 per cent.
Cheese, in casks or tubs	15 —
Cocoa, in serons	8 —
Copperas, in casks	16 —
Cassia, in boxes	actual
in mats	6 per cent.
Cinnamon, in boxes	actual
in bales	6 per cent.
Cloves, in casks	12 —
in bags	4 —
Currants, in casks	12 —
in boxes	10 —
Figs, in boxes	10 —
Glue, in casks	20 —
in boxes	15 —
Hemp, in bales	5 —
Indigo, in cases	17 —
Nutmegs, in casks	12 —
in bags	4 —
Powder, gun, in ½ casks	9 lbs.
whole do.	23 —
Plums, in boxes	6 per cent.
Prunes, in do.	8 —
Paris, white in casks	10 —
Raisins, in jars	18 lbs.
in boxes	15 per cent.
in casks	12 —
in frails	4 —
in drums	10 —
Rice	10 —
Snuff, in boxes	13 —
Sugar-candy, in tubs	15 —
Sugar, in loaves	14 lbs.
Steel, per bundle	3 —
Shumac, no tare: sometimes 1 lb. per bag is allowed.	
Sheet iron, in casks	15 per cent.
Steel, in cases and casks	8 —
Spikes, in casks	8 —
in bags	3 —

Tallow, in bales	8	per cent.
in casks	12	—
in serons	8	—
in tubs	15	—
Twine, in boxes	12	—
in casks	12	—
in bales	3	—
Tobacco, in boxes	15	—
Wire, in casks	8	—
Whiting, in do.	10	—

Actual tare is allowed on fruit if required.

Tares allowed by Law.

On candles in boxes	8	—
Cheese, in hampers or baskets	10	—
in boxes	20	—
Chocolate, in boxes	10	—
Coffee, in bags	2	—
in bales	3	—
in casks	12	—
Cocoa, in bags	1	—
in casks	4	—
Cotton, in bales	2	—
in serons	6	—
Indigo, in do.	10	—
Nails, in casks	8	—
Pimento, in bags	5	—
Pepper, in bags	2	—
Sugar, other than loaf sugar, in casks	12	—
in boxes	15	—
in mats or bags	5	—
Salts, Glauber	8	—
Sugar-candy, in boxes	10	—
Soap, in boxes	10	—
shot, in casks	3	—
Every whole chest of bohea tea	70	lbs.
½ do. do.	36	—
¼ do. do.	20	—
Every chest of hyson or other green tea of 70 lbs. or upwards	20	—
Every box of other tea between 50 and 70 lbs.	18	—
do. do. if 80 lbs.	20	—
do. do. from 80 lbs. and upwards	22	—

The above to include ropes, canvass, and other coverings. On all other boxes of tea, according to the invoices or actual weight thereof.

Quarantine Regulations for the Port of New York.

The following "Act concerning Quarantine, and Regulations in the nature of Quarantine," was passed May 13th, 1846:—

§ 1. The anchorage ground for vessels at quarantine shall be near the Marine Hospital, on Staten Island, and be designated by buoys to be anchored under the direction of the health officer; and every vessel subject to quarantine shall, immediately on her arrival, anchor within them, and there remain, with all persons arriving in her, subject to the examinations and regulations imposed by law.

§ 2. Vessels arriving at the port of New York shall be subject to quarantine as follows:—

1. All vessels direct from any place where yellow, bilious-malignant, or other pestilential or infectious fever existed at the time of their departure, or which shall have arrived at any place, and proceeded thence to New York, or on board of which during the voyage any case of such fever shall have occurred, arriving between the thirty-first day of May and the first day of October, shall remain at quarantine for at least thirty days after their arrival, and at least twenty days after their cargo shall have been discharged, and shall perform such further quarantine as the health officer may prescribe.

2. All vessels embraced in the foregoing subdivision arriving between the first day of April and the first day of November, exclusive of the time in said subdivision mentioned; all vessels from a foreign port, on board of which during the voyage, or while at the port of departure, any person shall have been sick, or from any place in the ordinary passage from which they pass south of Cape Henlopen, arriving between the thirty-first day of May and the sixteenth day of October; and all vessels from any place (including islands) in Asia, Africa, or the Mediterranean, or from any of the West India, Bahama, Bermuda, or Western Islands, or from any place in America, in the ordinary passage from which they pass south of Georgia, arriving between the first day of April and the first day of November, shall be subject to such quarantine and other regulations as the health officer shall prescribe.

§ 3. It shall be the duty of the health officer to board every vessel subject to quarantine or visitation by him immediately on her arrival; to inquire as to the health of all persons on board, and the condition of the vessel and cargo, by inspection of the bill of health, manifest, log book, or otherwise; to examine on oath as many and such persons on board of vessels suspected of coming from a sickly port, or having had sickness on board during the voyage, as he may judge expedient, and to report the facts and his conclusions to the mayor and commissioners of health in writing.

§ 4. The health officer shall have power

1. To remove from the quarantine anchorage ground any vessel he may think unsafe, to any place south of the quarantine buoys, and inside of Sandy Hook.

2. To cause any vessel under quarantine, when he shall judge it necessary for the purification of the vessel or her cargo, to discharge her cargo at the quarantine grounds, or some other suitable place out of the city.

3. To cause any such vessel, her cargo, bedding, and the clothing of persons on board, to be ventilated, cleansed, and purified in such manner and during such time as he shall direct; and if he shall judge it necessary to prevent infection or contagion, to destroy any portion of such cargo, bedding, or clothing which he may deem incapable of purification.

4. To prohibit and prevent all persons arriving in vessels subject to quarantine, from leaving quarantine until fifteen days after the sailing of their vessel from the port of her departure, and fifteen days after the last case of pestilential or infectious fever that shall have occurred on board, and ten days after her arrival at quarantine, unless sooner discharged by him.

5. To permit the cargo of any vessel under quarantine, or any portion thereof, whenever he shall judge the same free from infection and contagion, to be conveyed to the city of New York, or such place as may be designated by the mayor and commissioners of health, after having reported in writing to the mayor and commissioners of health of said city the condition of said cargo, and his intention to grant such permission; such permission, however, to be inoperative without the written approval of the mayor and commissioners of health.

§ 5. The health officer, the board of health, or the mayor and commissioners of health may, if in their opinion it will not be dangerous to the public health, permit the cargo of any vessel under quarantine, or any part thereof, to be shipped for exportation by sea, or transportation up the North or East rivers; but if the vessel receiving the same shall approach nearer than three hundred yards to the wharves of this city, such cargo may be seized and sold by the commissioners of health for the use of the Marine Hospital.

§ 6. Every vessel during her quarantine shall be designated by colours, to be fixed in a conspicuous part of her main shrouds.

§ 7. No vessel or boat shall pass through the range of vessels lying at quarantine, or land at the quarantine ground after sunset without the permission of the health officer.

§ 8. No lighters shall be employed to load or unload vessels at quarantine without permission of the health officer, and subject to such restrictions as he shall impose.

§ 9. All passengers under quarantine who shall be unable to maintain themselves, shall be provided for by the master of the vessel in which they shall have arrived; and if the master shall omit to provide for them, they shall be maintained on shore at the expense of such vessel, and such vessel shall not be permitted to leave the quarantine until such expense shall have been repaid.

§ 10. The health officer, upon the application of the master of any vessel under quarantine, may confine in any suitable place on shore, any person on board of such vessel charged with having committed an offence punishable by the laws of this State, or the United States, and who cannot be secured on board such vessel, and such confinement may continue during the quarantine of such person, or until he shall be proceeded against in due course of law, and the expenses thereof shall be charged and collected, as in the last preceding section.

§ 11. All vessels and persons remaining at quarantine on the first day of October, shall hereafter be subject to such quarantine and restrictions as vessels and persons arriving on and after that day.

§ 12. The board of health, or the board and commissioners of health, whenever in their judgment the public health shall require it, may order any vessel at the wharves of the city, or in their vicinity, to the quarantine ground, or other place of safety, and may require all persons, articles or things introduced into the city from such vessel to be seized, returned on board, or removed to the quarantine ground. In case the master, owner, or consignee of the vessel cannot be found, or shall refuse or neglect to obey the order of removal, the board of health, or the mayor and commissioners of health, shall have power to cause such removal at the expense of such master, owner, or consignee; and such vessel or persons shall not return to the city without the written permission of the board of health, or the mayor and commissioners of health.

§ 13. If any vessel arriving at the quarantine ground, subject to quarantine, shall be bound to some port east of the city of New York, the health officer, after having duly visited and examined her, may permit her to pass on her voyage through the Sound; but no such vessel shall be brought to anchor off the city, nor shall any of the crew or passengers land in, or hold any communication with the city, or any person therefrom.

§ 14. No vessel, found on examination of the health officer to be infected with the yellow fever, or to have been so infected after sailing from her port of departure, shall be permitted to approach within three hundred yards of the city of New York, between the first day of May and the first day of October in the same year. But the health officer, with the permission of the board of health of the cities of New York and Brooklyn, may permit any vessel arriving at the port of New York to proceed to some wharf designated by the board of health of either of the cities of New York or Brooklyn, and discharge its cargo; provided satisfactory proof be given to the health officer that the port or ports from which said vessel sailed was free from contagious or infectious disease at the time of her sailing therefrom, and that no sickness of a contagious or infectious type has existed on board the vessel during her entire voyage.

§ 15. The master of every vessel released from quarantine, and arriving at the city of New York, shall, within twenty-four hours after such arrival, deliver the permit of the health officer at the office of the mayor and commissioners of health, or to such person as they shall direct, but such vessel shall not approach within three hundred yards of the city of New York, without the written permission of the mayor and commissioners of health.

§ 16. Every vessel having had during the voyage a case of small-pox, or infectious or contagious disease, and every vessel from a foreign port having passengers, and not hereinbefore declared subject to quarantine, shall, on her arrival at the quarantine ground, be subject to visitation by the health officer, but shall not be detained beyond the time requisite for due examination, unless she shall have on board during the voyage some case of small pox, or infectious or contagious disease, in which case she shall be subject to such quarantine as the health officer shall prescribe; and it shall be the duty of the health officer, whenever he thinks it is necessary for the preservation of the public health, to cause the persons on board of any vessel to be vaccinated.

§ 17. Nothing in this act contained shall prevent any vessel arriving at the quarantine from again going to sea before breaking bulk.

§ 18. The commissioners of health shall admit into the Marine Hospital any passenger who shall have paid hospital monies, during any temporary sickness, within one year after such payment. The mayor of the city of New York, the resident physician, and the commissioners of health of said city, shall constitute a board of appeal from any direction or regulation of the health officer, with power to grant such and so much relief as may appear to the board thus constituted, or a majority of them, expedient and proper; the decision of the board of health, however, to be paramount.

§ 19. Every appeal from a decision of the health officer shall be made by serving upon him a written notice of such appeal, within twelve hours after such decision, (Sundays excepted,) and the health officer shall make a return in writing, including the facts on which the decision is founded, within twelve hours after the receipt of such notice, (Sundays excepted,) to the mayor, who shall immediately call a meeting of the board of appeal, and shall be president of said board, and said appeal shall be heard and decided within twenty-four hours thereafter, (Sundays excepted,) and the execution of the decision appealed from shall be suspended until the determination of the appeal.

§ 20. Every master of a vessel subject to quarantine or visitation, arriving in the port of New York, who shall refuse or neglect either—

1. To proceed with and anchor his vessel at the place assigned for quarantine, at the time of his arrival;

2. To submit his vessel, cargo, and passengers to the examination of the health officer, and to furnish all necessary information to enable that officer to determine to what length of quarantine and other regulations they ought respectively to be subject; or,

3. To remain with his vessel at quarantine during the period assigned for her quarantine; and while at quarantine, to comply with the directions and regulations prescribed by law, and with such as any of the officers of health, by virtue of the authority given to them by law, shall prescribe in relation to his vessel, his cargo, himself, or his crew shall be guilty of a misdemeanor, and be punished by a fine not exceeding 2000 dollars, or by imprisonment not exceeding twelve months, or by both such fine and imprisonment.

§ 21. Every master of a vessel hailed by a pilot, who shall either—

1. Give false information to such pilot relative to the condition of his vessel, crew, passengers, or cargo, or the health of the place or places whence he came, or refuse to give such information as shall be lawfully required:

2. Or land any person from his vessel, or permit any person except a pilot to come on board his vessel, or unlade or tranship any portion of his cargo, before his vessel shall have been visited and examined by the health officer:

3. Or shall approach with his vessel nearer the city of New York than the place of quarantine to which he shall be directed:

Shall be guilty of the like offence, and be subject to the like punishment. And every person who shall land from any such vessel, or unlade or tranship any portion of her cargo, under like circumstances, shall be guilty of the like offence, and be subject to the like punishment.

§ 22. Every person who shall violate any provision of this act, or neglect or refuse to comply with the directions and regulations which any of the officers of health may prescribe, shall be guilty of the like offence, and be subject, for each offence, to the like punishment.

§ 23. Every person who shall oppose or obstruct the health officer in performing the duties required of him, shall be guilty of the like offence, and be punished by fine not exceeding 500 dollars, or by imprisonment not exceeding three months, or by both such fine and imprisonment.

§ 24. Every person who, without authority of the health officer, commissioners of health, or board of health, shall go within the enclosure of the quarantine ground, shall be guilty of the like offence, and be punished by fine not exceeding 100 dollars, or by imprisonment not exceeding thirty days, or by both such fine and imprisonment.

§ 25. Every person who shall go on board of, or have any communication, intercourse or dealing with any vessel at quarantine, without the permission of the health officer, shall be guilty of the like offence, and be subject to the like punishment. And such offender shall be detained at quarantine so long as the health officer shall direct, not exceeding twenty days, unless he shall be taken sick of some pestilential or infectious disease.

§ 26. Every person who shall violate the provisions of the fifth article of title 2nd of chapter 14th of part first of the Revised Statutes, by refusing or neglecting to obey or comply with any order, prohibition or regulation made by the board of health, in the exercise of the powers therein conferred, shall be guilty of a misdemeanour, punishable by fine and imprisonment, at the discretion of the court by which the offender shall be tried.

§ 27. Articles 1st, 3rd, 4th, and 6th, of title 2nd of chapter 14th of part first of the Revised Statutes; an act entitled "An act to amend title 2nd, chapter 14th, part first of the Revised Statutes, relating to the quarantine regulations of the port of New York," passed May 2. 1836; an act entitled "An act relative to the quarantine laws," passed May 7. 1839; an act entitled "An Act to amend the Revised Statutes relating to the public health," passed April 12. 1842, and all other laws inconsistent with this act, are hereby repealed.

We have derived these statements from the *New York Annual Register; The Picture of New York; Hunt's Commercial Magazine; official accounts;* and valuable *private communications.*

Trade and Navigation of the United States.

Trade and Navigation of the United States for the Year ending the 30th June, 1858.—From the Official Accounts, printed by Order of Congress.

Statement of the Foreign Commerce of each State and Territory, for the Year commencing the 1st of July, 1857, and ending the 30th of June, 1858.

States.	Value of Exports.							Value of Imports.		
	American Produce.			Foreign Produce.			Total American and Foreign Produce.	In American Vessels.	In Foreign Vessels.	Total.
	In American Vessels.	In Foreign Vessels.	Total.	In American Vessels.	In Foreign Vessels.	Total.				
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
Maine	2,310,086	135,056	2,445,142	110,459	306,458	416,917	2,862,059	1,488,590	369,802	1,858,392
N. Hampshire	228	1,471	1,699		101	101	1,800	7,866	10,095	17,961
Vermont	237,686		237,686	727,979		727,979	965,665	2,196,088		2,196,088
Massachusetts	10,194,860	6,435,711	16,630,571	4,499,925	1,331,883	5,831,808	22,462,377	29,826,274	12,486,146	42,312,420
Rhode Island	408,007	1,000	409,007	12,339		12,339	421,346	416,054	71,762	487,816
Connecticut	1,317,398	3,129	1,320,527	9,464	250	9,714	1,330,241	902,690	52,415	955,105
New York	65,037,159	24,002,631	89,039,790	12,430,450	6,870,684	19,301,134	108,340,924	123,928,283	54,547,455	178,475,736
New Jersey	10,182	3,839	14,021				14,021	135	6,483	6,618
Pennsylvania	5,130,930	531,454	5,662,384	353,396	20,631	374,027	6,036,411	11,795,160	1,097,055	12,892,215
Delaware	106,571		106,571				106,571	2,821		2,821
Maryland	7,010,719	2,867,667	9,878,386	457,814	106,416	564,230	10,442,616	7,561,407	1,368,750	8,930,157
Dist. Columbia	16,710		16,710				16,710	23,146	3,374	26,520
Virginia	5,890,324	1,372,441	7,262,765	14,035		14,035	7,276,800	785,217	293,859	1,079,056
North Carolina	478,889	62,327	541,216				541,216	169,518	4,924	174,272
South Carolina	11,807,150	5,116,906	16,924,056		380	380	16,924,436	1,644,380	427,139	2,071,519
Georgia	7,993,710	1,638,849	9,597,559				9,597,559	532,740	78,910	611,650
Florida	1,350,960	546,592	1,877,552				1,877,552	151,859	13,091	164,950
Alabama	16,521,761	4,497,505	21,019,266		2,885	2,885	21,022,149	432,416	174,526	606,942
Louisiana	70,093,549	18,176,675	88,270,224	316,053	289,738	605,771	88,875,995	16,650,815	2,935,218	19,586,033
Ohio	159,557	180,004	339,561				339,561	105,805	93,488	199,293
Michigan	1,455,301	3,732,730	5,168,031	4,200	16,476	20,676	5,188,707	625,126	49,808	672,934
Wisconsin	315,147	228,133	543,280				543,280	48,906	58,098	106,604
Illinois	936,260	776,817	1,713,077				1,713,077	75,527	147,403	222,930
Texas	2,037,351	390,818	2,428,169	296		296	2,428,465	51,397	61,694	113,091
California	11,058,960	976,435	12,035,395	2,596,168	407,686	3,003,854	15,039,247	4,471,364	4,518,369	8,989,733
Oregon territory	7,014	2,921	9,935				9,935	4,067	35,510	39,577
Washington T.	147,263	118,438	265,701				265,701	4,935	7,782	12,717
Total	221,958,732	71,799,547	293,758,279	21,532,556	9,353,586	30,886,142	324,644,421	203,790,016	78,913,154	282,613,150

N.B.—The States of Mississippi, Tennessee, Missouri, Kentucky, and Minnesota, have no direct foreign trade.

Account of the registered, enrolled, and licensed Tonnage of the United States, from 1818.

Years.	Registered Tonnage.	Enrolled and licensed Tonnage.	Total Tonnage.	Years.	Registered Tonnage.	Enrolled and licensed Tonnage.	Total Tonnage.
	Tons. 95ths.	*Tons. 95ths.*	*Tons. 95ths.*		*Tons. 95ths.*	*Tons. 95ths.*	*Tons. 95ths.*
1818	606,088 64	609,095 51	1,225,184 20	1851	1,726,307 0	2,016,152 0	3,772,459 0
1820	619,047 55	661,118 66	1,280,166 24	1852	1,899,448 20	2,258,992 27	4,158,440 47
1825	700,787 8	722,323 69	1,425,111 77	1853	2,165,674	2,535,358	4,407,910
1830	576,475 33	615,301 10	1,191,776 43	1854	2,335,819	2,460,083	4,802,902
1835	885,821 60	939,118 49	1,824,940 14	1855	2,555,136	2,676,865	5,232,001
1840	899,764 76	1,280,999 35	2,180,764 16	1856	2,491,402	2,380,250	4,871,652
1845	1,095,172 44	1,321,829 57	2,417,002 6	1857	2,463,967	2,476,875	4,940,842
1850	1,585,711 22	1,949,743 1	3,535,454 23	1858	2,577,769	3,201,430	5,779,199

Account of the Value of the Exports and Imports of the United States, for the following Years, ending till 1842 inclusive on the 30th of September, and since then on the 30th of June, with a Column showing the Population, as ascertained at the different Periods when a Census was taken.

Years.	Articles, the Growth, Produce, or Manufacture of the United States.	Articles, the Growth, Produce, or Manufacture of Foreign Countries re-exported.	Total Value of Exports from the United States.	Total Value of Imports into the United States from Foreign Countries.	Population of the United States according to the Official Census.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	
1830	59,462,029	11,337,479	73,899,56	70,876,920	12,788,742
1831	61,277,057	20,035,526	81,310,583	103,191,124	
1832	68,137,470	24,039,473	87,176,943	101,029,266	
1833	70,317,698	19,822,735	90,140,433	103,191,124	
1834	81,024,162	23,312,811	104,336,973	126,521,332	
1835	101,189,082	20,504,495	121,693,577	119,895,742	
1836	106,916,680	21,746,360	128,663,040	189,980,035	
1837	95,564,414	21,854,962	117,419,376	140,989,217	
1838	96,033,821	12,492,795	108,486,616	113,717,404	
1839	103,555,891	17,194,525	121,029,416	169,094,152	
1840	113,895,634	18,190,312	132,085,916	107,141,519	17,062,566
1841	106,382,722	15,469,081	121,851,803	127,946,177	
1842	92,969,996	11,721,538	104,691,534	100,162,087	
1843			Nine months only.		
1844	99,715,178	11,484,867	111,200,045	108,435,035	
1845	99,299,776	15,346,830	114,646,606	117,254,564	
1846	102,141,895	11,346,723	113,488,616	121,691,797	
1847	150,637,464	8,011,158	158,648,622	146,545,638	
1848	132,904,121	21,132,315	154,036,436	154,997,928	
1849	132,666,955	13,088,865	145,755,820	147,857,439	
1850	136,946,912	14,951,808	151,898,720	178,138,318	23,263,000
1851	196,689,718	21,698,293	218,388,011	216,224,932	
1852	192,368,984	17,289,382	209,658,766	212,945,442	
1853	213,117,697	17,558,460	230,976,157	267,978,647	
1854	253,390,870	24,850,194	278,241,064	304,562,381	
1855	246,768,553	28,448,293	275,156,846	261,468,520	
1856	310,586,330	16,378,578	326,964,908	314,639,942	
1857	338,985,065	23,975,617	362,960,682	360,890,141	
1858	293,758,279	30,886,142	324,644,421	282,613,150	29,500,000

Statistical View of the Commerce of the United States, exhibiting the Value of Exports to, and Imports from, each Foreign Country, and the Tonnage of American and Foreign Vessels arriving from and departing to each Foreign Country, during the Year ending 30th June, 1858.

Countries.	Commerce.				Navigation.			
	Value of Exports.			Value of Imports.	American Tonnage.		Foreign Tonnage.	
	Domestic Produce.	Foreign Produce.	Total.		Entered the U. States.	Cleared from the U. States.	Entered the U. States.	Cleared from the U. States.
Russia on the Baltic and North Seas	$4,263,554	$72,390	$4,335,944	$2,061,660	12,911	21,698	2,235	1,887
Sweden and Norway	496,121	6,881	503,002	625,210	6,091	1,363	3,753	1,343
Danish West Indies	748,365	46,461	794,824	325,895	28,501	22,516	3,757	416
Hamburg	2,279,330	1,257,373	3,536,703	3,712,228	6,248	1,052	56,896	50,374
Bremen	8,617,457	1,058,461	9,675,918	10,452,194	25,053	26,511	112,164	86,413
Holland	3,033,454	338,053	3,371,507	2,528,142	20,995	13,330	12,293	25,016
Dutch West Indies	547,748	13,099	560,847	434,655	6,807	10,031	1,692	1,004
Dutch Guiana	264,290	7,741	272,031	225,314	5,019	5,779	796	806
Dutch East Indies	270,361	237,762	508,123	817,998	7,322	9,387	1,032	1,509
Belgium	2,192,868	1,626,093	3,818,961	5,777,986	39,201	27,974	6,740	4,431
England	151,573,714	11,797,330	163,371,044	90,444,511	835,708	865,481	328,731	354,451
Scotland	5,124,531	104,442	5,228,993	5,160,767	15,390	28,711	66,816	37,375
Ireland	1,307,935	277,876	1,585,811	115,280	1,384	18,298	10,122	18,725
Gibraltar	403,454	15,665	419,119	92,238	1,441	8,485	2,184	1,162
Canada	13,665,465	3,365,789	17,029,254	11,581,571	1,344,717	1,364,580	922,920	1,012,358
Other British North American Possessions	5,975,494	646,979	6,622,473	4,224,948	171,024	242,407	390,926	475,329
British West Indies	5,452,209	105,496	5,557,698	1,907,738	101,539	117,971	39,429	39,782
British Honduras	419,745	32,851	452,596	412,316	7,605	2,430	4,070	2,910
British Guiana	881,521	2,980	884,501	329,687	6,755	12,763	4,853	3,538
British Possessions in Africa	441,216	2,311	443,527	1,061,647	8,227	15,564	880	2,971
British Australia	3,119,411	86,279	3,205,690	65,254	5,402	60,381	3,319	10,878
British East Indies	1,198,455	80,250	1,278,705	12,140,783	93,233	55,875	4,732	7,382
France on the Atlantic	30,015,271	1,162,621	31,175,892	32,900,796	221,076	209,815	16,412	7,756
France on the Mediterranean	1,502,393	63,650	1,566,025	2,391,725	19,055	17,972	2,477	3,489
French North American Possessions	147,938	29,602	177,540	91,072	240	1,135	3,100	2,782
French West Indies	622,436	10,642	633,078	105,639	8,100	27,225	2,335	1,440
French Guiana	82,565	743	83,308	49,411	2,207	1,687		
French Possessions in Africa	27,616	354	27,950	- -	- -	364	744	1,949
Spain on the Atlantic	2,054,569	24,068	2,078,637	563,010	16,583	29,533	2,217	6,338
Spain on the Mediterranean	6,555,799	77,209	6,633,008	2,456,667	21,247	20,531	24,955	69,387
Cuba	11,675,167	2,760,024	14,435,191	27,214,846	568,521	549,389	61,354	11,847
Porto Rico	1,612,048	298,502	1,910,550	4,455,586	63,313	40,034	9,065	2,214
Portugal	269,484	10,008	279,492	142,056	3,777	6,680	1,671	1,676
Azores	130,595	6,288	136,883	48,209	3,603	5,319	1,862	2,267
Sardinia	2,779,368	188,685	2,968,053	291,458	8,672	15,886	6,513	4,766
Tuscany	582,396	8,590	590,986	1,396,681	15,013	1,951	3,089	218
Two Sicilies	525,374	140,869	666,243	1,737,768	41,534	4,325	15,297	3,763
Austria	910,769	206,018	1,116,817	396,195	7,698	5,591	2,065	1,661
Austrian Possessions in Italy	1,058,199	8,543	1,067,242	5,817	- -	5,748	- -	743
Turkey in Europe	509,935	1,560	511,345	112,511	1,207	6,590	- -	877
Turkey in Asia	273,120	53,112	326,532	974,591	10,907	4,277	817	
Other ports in Africa	1,767,965	136,534	1,904,299	1,597,249	18,477	14,096	550	324
Hayti	1,978,865	248,744	2,227,609	2,185,562	48,679	55,108	4,786	2,151
Mexico	2,785,559	529,275	3,315,825	5,577,765	56,545	68,578	7,459	14,213
New Granada	1,489,533	199,064	1,688,597	3,099,721	110,126	119,766	1,179	853
Venezuela	1,194,294	73,632	1,267,926	3,601,817	25,150	16,484	3,161	641
Brazil	4,735,834	218,872	4,954,706	16,952,386	89,675	86,242	19,511	3,975
Uruguay, or Cisplatine Republic	552,067	26,061	578,128	621,888	3,781	13,864	924	690
Buenos Ayres, or Argentine Republic	765,043	139,551	904,594	2,725,218	17,297	25,170	261	1,216
Chili	1,680,187	292,354	1,972,541	2,635,263	16,760	28,657	5,297	7,845
Peru	603,827	82,082	685,909	1,000,541	98,180	35,565	3,858	8,699
Sandwich Islands	606,104	113,229	719,333	345,345	11,109	15,302	708	578
China	3,007,748	2,689,603	5,697,351	10,570,556	49,958	57,972	15,814	10,696
Islands in the Pacific	45,201	10,127	55,378	32,486	1,935	2,063	1,313	666
Whale Fisheries	261,390	5,645	266,035	86,623	40,049	54,268		
Total of the above and of all other places	293,758,279	30,886,142	324,644,421	282,613,150	4,395,612	4,490,033	2,209,403	2,312,759

Summary Statement of the Value of the Exports of the Growth, Produce, and Manufacture of the United States, during the Year ending the 30th of June, 1858.

Product of the Sea.	*Dollars.*	*Dollars.*	*Dollars.*
Fisheries—			
Oil: spermaceti		1,097,505	
whale and other fish		597,107	
Whalebone		1,105,223	
Spermaceti and sperm candles		66,012	
Fish: dried or smoked		487,007	
pickled		197,441	
			3,550,295
Product of the Forest.			
Wood—			
Staves and heading	1,975,852		
Shingles	595,451		
Boards, plank and scantling	3,428,530		
Hewn timber	292,163		
Other lumber	1,240,425		
Oak bark and other dye	592,825		
All manufactures of wood	2,234,678		
Naval Stores—			
Tar and pitch	100,679		
Rosin and turpentine	1,461,210		
Ashes, pot and pearl	551,744		
Ginseng	193,736		
Skins and furs	1,002,378		13,475,671
Product of Agriculture.			
Of animals—			
Beef	2,081,856		
Tallow	824,970		
Hides	875,753		
Horned cattle	1,258,769		
Butter	541,863		
Cheese	751,910		
Pork (pickled)	2,852,942		
Hams and bacon	1,957,423		
Lard	3,809,504		
Wool	211,861		
Hogs	810,106		
Horses	235,371		
Mules	244,297		
Sheep	49,319		
		16,514,241	
Vegetable food—			
Wheat	9,061,504		
Flour	19,328,884		
Indian corn	3,259,039		
" meal	877,592		
Rye meal	56,235		
Rye, oats, and other small grain and pulse	642,764		
Biscuit or ship bread	472,572		
Potatoes	205,791		
Apples	74,563		
Onions	75,026		
Rice	1,870,578		
		35,924,848	
Cotton			52,439,089
Tobacco			131,386,661
Hemp			17,009,767
			47,875
Other agricul. products—			
Clover seed		332,250	
Brown sugar		375,062	
Hops		41,704	
			749,016
Manufactures.			
Refined sugar		200,721	
Wax		85,926	
Chocolate		2,304	
Spirits from grain		476,722	
Spirits from molasses		1,267,691	
Spirits from other materials		249,432	
Molasses		115,893	
Vinegar		24,536	
Beer, ale, porter, and cider in casks		58,649	
in bottles		20,883	
Linseed oil		48,425	
Spirits of turpentine		1,089,982	

Manufactures (cont.)	*Dollars.*	*Dollars.*	*Dollars.*
Household furniture		932,499	
Carriages and parts, and railroad cars and parts		777,921	
Hats of fur or silk		93,174	
" of palm leaf		33,351	
Saddlery		55,280	
Trunks and valises		59,441	
Adamantine and other candles		628,599	
Soap		305,704	
Snuff		10,109	
Tobacco, manufactured		2,400,115	
Gunpowder		365,173	
Leather		605,389	
boots and shoes		665,905	
Cables and cordage		212,840	
Salt		162,650	
Lead		48,119	
Iron: pig		24,087	
Bar		26,082	
Nails		155,762	
Castings of		464,415	
All other manufactures of		4,059,528	
Copper and brass, and manufactures of		1,985,223	
Drugs and medicines		681,278	
			18,370,911
Cotton piece goods—			
Printed or coloured	2,069,194		
White, other than duck	1,598,136		
Duck	183,889		
All manufactures of	1,800,285		
		5,651,504	
Hemp: thread		1,526	
Bags		11,349	
Other manufactures of		76,417	
Wearing apparel		210,695	
Earthen and stone ware		36,785	
Combs		36,770	
Buttons		9,579	
Brooms and brushes of all kinds		49,153	
Billiard tables and apparatus		8,791	
Umbrellas, parasols, and sun shades		6,539	
Morocco and other leather not sold by the pound		15,099	
Fire-engines		7,229	
Printing presses and type		106,498	
Musical instruments		99,775	
Books and maps		209,774	
Paper and stationery		229,991	
Paints and varnish		131,217	
Jewelry, real and imitation		28,519	
Other manufactures of gold and silver, and gold leaf		26,386	
Glass		214,608	
Tin		24,186	
Pewter and lead		27,327	
Marble and stone		138,290	
Bricks, lime, and cement		103,821	
India rubber shoes		115,931	
India rubber other than shoes		197,448	
Lard oil		60,958	
Oil cake		1,435,861	
Artificial flowers		582	
			9,270,297
Coal			558,014
Ice			200,525
Gold and silver coin			19,474,040
Gold and silver bullion			22,935,206
Quicksilver			129,184
Articles not enumerated—			
Manufactured			2,601,788
Raw produce			1,561,940
Total			295,758,279

TARIFF OF THE UNITED STATES.—Notwithstanding the unprecedented progress of the United States in wealth and population, their foreign trade was nearly stationary for the 10 years ending with 1830. And yet, considering the spirit of commercial enterprise by which the people, particularly in the New England States and New York, are animated, and their skill in navigation, it might have been fairly presumed that the growth of their foreign trade would, at least, have kept pace with the development of the internal resources of the country. That it did not do so, is wholly owing to the policy of government. Not satisfied with the extraordinary advances which their constituents had made in numbers and wealth, Congress seems to have believed that their career might be accelerated by means of Custom-house regulations!—by giving an artificial direction to a portion of the public capital and industry, and turning it into channels into which it would not naturally flow.

No one who has the slightest acquaintance with the condition of America—who knows that she is possessed of boundless tracts of fertile and unappropriated land—that her population is comparatively thin, and wages high—can doubt for a moment that agriculture *must*, for a long series of years, be the most profitable species of employment

Abstract of the Tonnage of the several Districts of the U. States on the last day of June, 1858.

Districts.	Registered.		Enrolled and licensed.		Licensed under twenty Tons.		Aggregate Tonnage of each District.	Registered Tonnage in the		Proportion of the enrolled and licensed Tonnage employed in the				Enrolled Tonnage employed in Steam Navigation.
	Permanent.	Temporary.	Permanent.	Temporary.	Coasting Trade.	Cod Fishery.		Whale Fishery.	Steam Navigation.	Coasting Trade.	Cod Fishery.	Mackerel Fishery.	Whale Fishery.	
	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.	Tons. 95ths.
Passamaquoddy Maine	7,681 59	9,308 42	7,677 64	-	21 56	56 67	25,226 05	-	952 35	5,348 29	1,536 07	965 28	-	1,466 24
Machias - - ,,	10,498 54	5,500 79	19,302 50	-	19 79	179 19	55,500 68	-	-	19,159 72	142 75			
Frenchman's Bay - ,,	5,448 62	1,284 51	27,225 72	-	25 08	581 44	54,565 45	-	-	16,910 19	10,017 52	218 01		
Penobscot - - ,,	14,888 26	-	40,720 78	-	10 35	219 60	55,859 16	-	-	21,559 51	16,685 54	2,497 68		
Belfast - - ,,	25,721 12	627 72	42,417 15	-	162 15	666 25	69,594 44	-	-	52,995 22	8,027 67	1 504 21		
Bangor - - ,,	15,792 30	272 37	17,737 88	-	-	102 15	33,904 75	-	-	17,410 61	327 27			
Waldoborough - ,,	79,009 79	7,185 45	69,185 05	-	605 69	1,755 88	157,735 92	-	-	62,578 89	5,961 05	642 06		
Wiscasset - - ,,	9,853 34	1,044 87	14,761 77	-	16 49	576 04	26,252 61	-	-	5,572 68	8,128 44	1,060 60		
Bath - - ,,	119,718 41	22,245 65	26,875 72	-	258 68	591 75	169,490 56	-	-	22,705 56	2,102 40	977 71		
Portland - - ,,	72,179 82	24,649 62	19,562 50	-	48 80	512 02	116,752 86	-	-	15,689 52	2,943 85	2,929 08	-	3,947 93
Saco - - ,,	3,535 07	1,146 30	2,684 24	-	-	55 48	7,199 24	-	-	2,374 81	542 21	66 17		
Kennebunk - - ,,	10,921 50	-	2,406 37	-	-	158 31	13,466 25	-	-	1,554 73	797 50	254 04		
York - - ,,	-	163 06	1,917 64	-	-	-	2,080 70	-	-	1,864 24	-	53 40		
Portsmouth -N.Hampshire	19,246 21	8,118 46	5,354 12	637 61	-	53 62	33,410 12	-	-	3,927 95	1,527 48	536 27	-	407 29
Burlington - Vermont	-	-	7,514 20	-	-	-	7,514 20	-	-	7,514 20	-	-	-	4,491 91
Newburyport Mass.	1,930 30	1,988 82	6,125 16	-	-	-	10,042 33	-	-	-	1,851 75	4,271 58	-	
Ipswich - - ,,	-	-	746 45	-	-	-	746 15	-	-	746 15				
Gloucester - - ,,	2,667 19	1,400 93	29,775 42	-	-	651 08	34,494 67	-	-	-	19,195 15	10,582 29		
Salem - - ,,	18,945 81	1,594 45	10,264 92	-	-	-	30,603 26	-	-	10,068 82	26 15	169 90		
Beverly - - ,,	-	-	6,520 28	-	-	-	6,520 28	-	-	1,787 78	4,654 85	77 55		
Marblehead - - ,,	-	-	6,443 00	-	-	258 28	13,701 28	-	-	-	5,770 90	672 05		
Boston - - ,,	522,734 11	76,480 04	49,215 20	-	-	467 08	448,896 92	-	1,751 18	47,477 60	145 88	1,593 71	-	9,452 54
Plymouth - - ,,	1,669 36	95 21	2,826 52	-	25 18	126 88	4,541 25	-	-	-	2,551 49	295 03	-	
Fall River - - ,,	613 61	217 63	13,653 92	-	86 65	45 91	14,597 85	-	-	13,653 92	-	-	-	6,991 24
New Bedford - - ,,	143,260 12	3,150 22	7,503 09	-	186 75	192 42	154,092 63	138,365 16	-	6,870 38	272 77	159 84	-	1,321 50
Barnstaple - - ,,	5,096 54	-	56,003 20	-	167 67	227 42	61,494 68	3,669 25	-	44,801 46	11,201 69			
Edgartown - - ,,	6,554 59	351 15	1,345 75	-	-	66 57	8,118 16	6,283 78	-	1,159 25	107 75	78 74	-	960 50
Nantucket - - ,,	11,408 07	420 81	1,963 85	-	-	14 76	13,807 57	11,856 14	-	1,816 28	147 55			
Providence - R. Island	7,984 38	1,588 22	11,818 48	-	86 65	291 16	21,568 92	-	-	11,717 67	100 76			
Bristol - - ,,	11,302 05	3,092 38	1,245 15	-	130 14	-	15,769 70	5,412 54	-	1,245 13	-	-	-	2,558 19
Newport - - ,,	5,089 62	1,577 38	4,620 15	-	166 24	190 77	11,444 26	1,041 38	-	4,520 70	-	99 40	-	255 67
Middletown - Connecticut	-	-	14,975 68	-	66 92	-	15,040 65	-	-	14,975 68	-	-	-	5,171 45
New London - ,,	22,093 36	1,231 27	18,161 59	-	52 90	300 84	41,840 11	18,302 00	-	13,572 61	4,588 93			
Stonington - - ,,	5,707 49	1,396 26	11,002 17	-	9 64	387 50	18,505 16	3,657 00	-	8,866 70	2,135 42			
New Haven - - ,,	6,668 88	1,106 29	15,562 14	-	595 16	-	23,752 52	-	-	15,362 14	-	-	-	3,742 45
Fairfield - - ,,	2,491 56	72 27	12,640 15	-	597 90	-	15,661 93	-	-	12,640 15	-	-	-	
Champlain - New York	-	-	888 02	-	-	-	888 02	-	-	888 02				
Sacket's Harbour - ,,	-	-	1,521 22	-	-	-	1,521 22	-	-	1,521 22				
Oswego - - ,,	-	-	46,420 19	-	-	-	46,420 19	-	-	46,420 19	-	-	-	5,984 91
Niagara - - ,,	-	-	1,272 31	-	-	-	1,272 31	-	-	1,272 31				
Genesee - - ,,	-	-	3,704 31	-	-	-	3,704 31	-	-	3,704 31	-	-	-	128 17
Oswegatchie - ,,	-	-	11,866 60	-	-	-	11,866 60	-	-	11,866 60	-	-	-	4,717 85
Buffalo Creek - ,,	-	-	75,478 80	-	-	-	75,478 80	-	-	75,478 80	-	-	-	42,940 16
Sag Harbour - ,,	5,466 60	-	1,711 84	-	189 21	-	7,367 70	5,027 92	-	1,711 84	-	-	-	124 12
Greenport - - ,,	1,942 12	-	5,546 10	-	171 25	151 52	7,590 79	1,942 12	-	5,346 10				
Dunkirk - - ,,	-	-	5,382 50	-	-	-	5,382 50	-	-	5,382 50	-	-	-	4,284 60
New York - - ,,	651,918 48	208,530 55	578,966 49	208 62	12,921 78	159 34	1,432,705 41	-	65,534 89	579,175 16	-	-	-	118,638 88
Cold Spring - - ,,	1,236 27	-	1,312 16	-	51 24	-	2,579 67	2,136 27	-	1,512 16				
Cape Vincent - ,,	-	-	6,129 88	-	19 00	-	6,148 88	-	-	6,129 88				
Perth Amboy N. Jersey	-	457 25	54,530 92	-	992 72	-	55,980 04	-	-	54,530 92	-	-	-	8,871 10
Bridgetown - - ,,	-	-	19,854 82	-	1,686 58	-	21,521 45	-	-	19,854 82				
Burlington - - ,,	-	-	10,492 93	-	-	-	10,492 93	-	-	10,492 93	-	-	-	2,829 25
Camden - - ,,	-	-	11,066 11	-	406 62	-	11,472 73	-	-	11,066 11	-	-	-	4,712 55
Newark - - ,,	-	-	7,748 15	-	117 63	-	7,865 78	-	-	7,748 15	-	-	-	1,658 11
Little Egg Harbour - ,,	-	-	10,500 15	-	13 29	-	10,513 44	-	-	10,500 15				
Great Egg Harbour - ,,	-	-	16,851 22	-	278 31	-	17,109 53	-	-	16,851 22				
Philadelphia Penn.	36,543 59	23,579 82	158,615 15	-	1,515 22	-	219,851 83	-	-	158,615 15	-	-	-	22,892 36
Presque Isle - ,,	-	-	7,743 91	-	-	-	7,743 91	-	-	7,743 91	-	-	-	1,471 04
Pittsburg - ,,	-	-	55,940 92	-	883 85	-	56,824 80	-	-	55,940 92	-	-	-	42,474 85
Wilmington - Delaware	524 85	3,435 09	13,056 50	-	201 17	-	17,217 46	-	-	13,056 50	-	-	-	1,260 58
New Castle - - ,,	-	-	4,939 21	-	119 36	-	5,058 57	-	-	4,939 21				
Baltimore - Maryland	78,533 44	36,584 46	78,282 01	-	1,288 91	-	194,488 87	-	-	78,282 01	-	-	-	18,821 67
Oxford - - ,,	-	-	13,693 01	-	564 67	-	14,057 68	-	-	13,693 01				
Vienna - - ,,	-	-	24,872 88	-	1,340 74	-	26,213 67	-	-	24,872 88				
Snow Hill - - ,,	-	-	6,529 51	-	58 12	-	6,587 63	-	-	6,519 51				

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Account showing the Number, Tonnage, and Crews of the Foreign Ships that entered and cleared at the different Ports of the U. States in the Year ending the 30th June, 1858, specifying the Countries to which they belonged, and the Number, Tonnage, &c. of those belonging to each Country.

National Character of the Vessels.	Entered.				Cleared.			
	Number.	Tons.	Crews.		Number.	Tons.	Crews.	
			Men.	Boys.			Men.	Boys.
Austrian	5	2,153	75	-	4	1,648	54	
Belgian	15	4,603	207	2	5	4,711	211	
Bremen	184	113,499	3,543	-	220	131,870	4,108	
British	9,168	1,341,912	88,335	1,065	9,225	1,914,311	88,767	998
Brazilian	3	853	37	-	1	395	16	
Chilian	12	5,768	201	-	12	5,319	207	
Danish	24	6,036	254	-	23	5,877	256	
Dominican	1	304	13					
Dutch	17	6,355	237	-	29	10,899	400	
French	49	16,416	638	-	59	17,615	729	3
Hamburg	80	60,091	2,384	-	78	61,669	2,428	
Hanoverian	10	4,007	231	-	9	3,681	114	
Lubeck	2	540	20	-	3	857	34	
Mecklenburg	3	1,011	36	-	3	1,125	36	
Mexican	42	5,458	398	-	45	6,321	438	
New Granadian	5	1,222	56	-	8	2,046	108	
Oldenburg	27	11,644	382	-	26	11,132	362	
Prussian	17	9,919	291	-	21	12,237	357	
Portuguese	15	3,348	177	-	16	3,853	212	
Peruvian	2	970	31	-	1	1,243	25	
Russian	11	5,429	208	-	12	7,920	300	
Swedish	62	22,208	794	4	51	20,303	638	5
Spanish	227	67,759	3,079	8	214	68,960	3,136	40
Sardinian	21	7,345	271	1	19	6,921	275	1
Sicilian	31	9,391	449	-	34	10,306	447	
Sandwich Islands	12	1,706	103	-	12	1,724	100	
Venezuelan	2	446	26	-	2	446	26	
Total	10,037	2,209,403	102,476	1,080	10,155	2,312,759	103,777	1,047

in which her citizens can engage. There can be no question, indeed, that such branches of manufacture as are naturally adapted to her peculiar situation will gradually grow up and flourish in America, without any artificial encouragement, according as her population becomes denser, and as the advantage which now exists on the side of agriculture becomes less decided. And the imposition of moderate duties on foreign articles for the sake of revenue would certainly give these branches all the protection to which they are justly entitled, or more. But to force, by means of duties and prohibitions, imposed not for the sake of revenue, but of protection, the premature growth of manufactures, is plainly to force a portion of the industry and capital of the country into businesses in which it will be *least* productive.

Such, however, was for a lengthened period, the policy of the American legislature. The exploded sophisms of the mercantile system, though renounced by every statesman in Europe, acquired a noxious influence in Congress, and were put forth with as much confidence, as if their soundness neither had been nor could be questioned! From 1816 down to 1846, the object of the American legislature has, for the most part, been to bolster up a manufacturing interest, by imposing oppressive duties on most manufactured articles imported from abroad. Now, it is obvious, even had the articles produced in America through the agency of this plan been nearly as cheap as those they superseded, that nothing would have been gained by it; for, to whatever extent the importation of foreign articles might be diminished, there must have been a corresponding diminution in the exportation of native American products; so that the only result would have been the raising up of one species of industry at the expense of some other species entitled to an equality of protection. But the "American system" was not so innocuous. Instead of the goods manufactured in the States being as cheap as similar ones manufactured in Europe, they were admitted to be, at an average, from 30 to 50 or 60 per cent. dearer! The extent of the pecuniary sacrifice that was thus imposed on the Union by the tariff modified in 1832 has been variously estimated by American writers; and we have been assured by those who have the best means of knowing, that it may be taken as amounting to from 50,000,000 to 60,000,000 dollars, or from about 11,000,000*l.* to 13,000,000*l.* a year! And this immense burden—a burden more than twice as great as the whole public expenditure of the republic — was incurred for no purpose of public utility, and was productive of nothing but mischief. The whole effect of the scheme was to divert a certain amount of the national capital from the production of cotton, wheat, rice, tobacco, &c., the equivalents sent to foreigners in payment of manufactured goods, to the direct production of these goods themselves! And as the latter species of industry is less suitable for America, a tax of 13,000,000*l.* a year was imposed on the Union, that the manufacturers might be enabled to continue a losing business. We leave it to others to determine whether the absurdity of the system, or its costliness, was its more prominent feature. That its influence was not more injurious is solely owing to the smuggling it occasioned. With a frontier like that of America, it would be worse than absurd to suppose that an oppressive tariff could be carried into full effect. But it had enough of influence to render it highly prejudicial, —to occasion a great rise in the price of many important articles—to cripple the trade

and navigation of the country—and to throw a considerable part of it into the hands of smugglers, who carried it on in defiance of the law.

It is difficult, however, to say how long the system of imposing high duties on most foreign products might have been maintained without so much as a check, but for its political effects. It was principally patronised by the Northern States; and though it would be difficult to show that they derived any benefit from it, it is, at all events, pretty certain that it was most injurious to the Southern States. Their staple products are cotton, tobacco, and rice, of which by far the largest portion is exported to foreign countries; and the planters speedily found that every restriction on importation from abroad occasioned a corresponding difficulty of exportation. This led to a disunion of interests and to strong remonstrances against the tariff by the Southern States. These, however, were disregarded. Provoked at this treatment, South Carolina took the decisive step of refusing to enforce the customs acts; and threatened, if coercion were attempted, to repel force by force, and to recede from the Union! This was a death blow to the high duties of the old tariff. Congress now saw, what all sensible men had seen long before, that it was necessary to recede; that, in fact, either the tariff must be modified, or the integrity of the Union be brought into jeopardy. A law, commonly called the "Compromise Act," was in consequence passed on the 14th of July, 1832, which provided that certain reductions should be progressively made on the then existing duties on most descriptions of foreign goods, at certain specified periods between 1833 and 1842, when they were, in most instances, to be reduced to 20 per cent., *ad valorem*.

This act was allowed to take effect for a few years; but as the reduction specified in it began to come into practical operation, the manufacturers, also, began to set up fresh claims for additional protection. Probably, however, the latter might not have been able to carry their point had not the Southern States been apprehensive that if they made any resolute stand against the proposal to increase the duties, and still more if they threatened to secede from the Union in the event of its being carried, they might be brought into serious difficulties by the agitation of the question as to the emancipation of their slaves. The latter, therefore, having to choose between two evils, preferred of course, that which they believed to be least; and purchased a truce for the emancipation question by agreeing to the tariff act passed in 1842, by which comparatively high duties were again imposed on most descriptions of imported articles.

Happily, however, this system was not so permanent as was expected. The Western and Southern States, being those most directly interested in a low tariff, have of late years had a majority in Congress; and the apprehensions with regard to negro emancipation, excited by the proceedings in our islands, having subsided, sounder opinions, with regard to commercial matters, began again to prevail in Congress. Perhaps, however, the majority now referred to, or the party of Mr. Polk, might not have endeavoured to act on these principles without the example set by England; but the great commercial reforms effected in this country during the administration of Sir Robert Peel, and more especially the last and greatest of all, the change in the corn-laws, had a powerful influence in the U. States; and Mr. Polk's government having profited by these and other circumstances which it is needless to specify, succeeded in carrying a comparatively liberal tariff, which took effect from the 1st December, 1846. And this tariff, we are glad to say, kept its ground till 1857, when it was superseded by the still more liberal tariff given below.

It is, of course, impossible to foretell whether the new tariff will be maintained for any considerable period. It is understood that the political party by which it has been enacted are losing ground, and that those opposing them will, most likely, be in the ascendant at the next presidential election; and, if so, it is probable that an attempt will be made to alter the tariff, by again imposing high duties on most species of manufactured goods. But we would fain hope that the bulk of the American people may see the policy of opposing any such change. They never have been supposed to be blind or indifferent to their own interests; and these, they may be assured, will be best promoted by maintaining a system which enables them to sell in the dearest and to buy in the cheapest markets. If they re-impose high duties they will fall wholly on themselves, and on no one else; and the less they buy from foreigners, the less will they be able to export to them. It is incomparably more for their own advantage than for that of those who deal with them, that the existing tariff should be maintained; and such being the case, the presumption would seem to be that it will be maintained.

COMMERCIAL REGULATIONS. — UNITED STATES TARIFFS OF 1846 AND 1857.

An act reducing the duty on imports, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That on and after the first day of July, eighteen hundred and fifty-seven, *ad valorem* duties shall be imposed in lieu of those now imposed upon goods, wares, and merchandise imported from abroad into the United States, as follows, viz.: Upon the articles enumerated in schedules A and B of the tariff

act of eighteen hundred and forty-six, a duty of thirty per centum, and upon those enumerated in schedules C, D, E, F, G, and H of said act, the duties of twenty-four per centum, nineteen per centum, fifteen per centum, twelve per centum, eight per centum, and four per centum, respectively, with such exceptions as are hereinafter made; and all articles so imported as aforesaid, and not enumerated in the said schedules, shall pay a duty of fifteen per centum.

SCHEDULE A, B. — 30 *per cent.*

	1846.	1857.
Alabaster and spar ornaments	40	30
Anchovies, sardines, and all other fish preserved in oil	40	30
Brandy and other spirits distilled from grain or other materials	100	30
Camphor, refined	40	30
Composition tops for tables or other articles of furniture	40	30
Comfits, sweetmeats, or fruits preserved in sugar, brandy or molasses	40	30
Cordials, absynthe, arrack, curacoa, kirschenwasser, liquors, maraschino, ratafia, and all other spirituous beverages of a similar character	100	30
Glass, cut	40	30
Manufacture of cedar wood, granadilla, ebony, mahogany, rose-wood, and satin wood	40	30
Prepared vegetables, meats, poultry, & game, sealed or enclosed in cans or otherwise	40	30
Scaglola tops for tables, or other articles of furniture	40	30
Cigars, snuff, paper cigars, and all other manufactures of tobacco	40	30
Wines — Burgundy, Champagne, claret, Madeira, port, sherry, and all other wines and imitations of wines	40	30

SCHEDULE C. — 24 *per cent. ad valorem.*

Ale, beer, and porter, in casks or bottles	30	24
Argentine, albata, or German silver, manufactured or unmanufactured	30	24
Articles embroidered with gold, silver, or other metals	30	24
Articles worn by men, women, or children, of whatsoever material composed, made up, or made wholly or in part by hand	30	24
Asses' skins	30	24
Balsams, cosmetics, essences, extracts, pastes, perfumes, and tinctures, used either for the toilet, or for medicinal purposes	30	24
Baskets, and all other articles composed of grass, oziers, palm leaf, straw, whalebone, or willow, not otherwise provided for	30	24
Bay rum, Bologna sausages	30	24
Beads of amber, composition, or wax, and all other beads	30	24
Bracelets, braids, chains, curls, or ringlets, composed of hair, or of which hair is a component part	30	24
Braces, suspenders, webbing, or other fabrics, composed wholly or in part of India-rubber, not otherwise provided for	30	24
Cameos, real and imitation, and mosaics, real and imitation, when set in gold, silver, or other metal	30	24
Canes and sticks for walking, finished or unfinished	30	24
Capers, pickles, and sauces of all kinds, not otherwise provided for	30	24
Caps, hats, muffs, and tippets of fur, and all other manufactures of fur, or of which fur shall be a component material	30	24
Caps, gloves, leggings, mits, socks, stockings, wove shirts and drawers, and all similar articles made on frames, worn by men, women, or children, and not otherwise provided for	30	24
Card cases, pocket-books, shell boxes, souvenirs, and all similar articles, of whatever material composed	30	24
Carpets, carpeting, hearth rugs, bedsides, and other portions of carpeting, being either Aubusson, Brussels, ingrain, Saxony, Turkey, Venetian, Wilton, or any other similar fabrics	30	24
Carriages, and parts of carriages	30	24
Cheese, clocks, and parts of clocks	30	24
Clothing, ready made, and wearing apparel of every description, of whatever material composed, made up or manufactured wholly or in part by the tailor, seamstress, or manufacturer	30	24
Coach and harness furniture of all kinds	30	24
Coal, coke, and culm of coal	30	24
Combs and brushes of all kinds	30	24
Combs of all kinds	30	24
Compositions of glass or paste, when set	30	24
Confectionery of all kinds, not otherwise provided for	30	24
Cord, cut or unmanufactured, of silk	30	24
Cotton cords, gimps, and galloons	30	24
Courtpiaster, crayons of all kinds	30	24
Cutlery of all kinds	30	24
Diamonds, gems, pearls, rubies, and other precious stones, and imitations of precious stones, when set in gold, silver, or other metal	30	24
Dolls, and toys of all kinds	30	24
Earthen, china, and stone ware, and all other wares, composed of earthy and mineral substances, not otherwise provided for	30	24
Epaulets, galloons, laces, knots, stars, tassels, tresses, and wings, of gold, silver, or other metal	30	24
Fans and fire screens of every description, of whatever material composed	30	24
Feathers and flowers, artificial or ornamental, and parts thereof, of whatever material composed	30	24
Fire crackers	30	24
Flats, braids, plaids, sparterre, and willow squares, used for making hats or bonnets	30	24
Frames and sticks for umbrellas, parasols, and sunshades, finished or unfinished	30	24
Furniture, cabinet, and household	30	24
Glass, coloured, stained, or painted	30	24
Glass crystals for watches	30	24
Glass, or pebbles for spectacles	30	24
Glass tumblers, plain, molded, or pressed, not cut or painted	30	24
Paintings on glass, porcelain glass	30	24
Hair penotis, hat bodies of cotton	30	24
Hats and bonnets, for men, women, and children, composed of straw, satin straw, chip, grass, palm-leaf, willow, or any other vegetable substance, or of hair, whalebone, or other material, not otherwise provided for	30	24
Hemp unmanufactured, honey	30	24
Human hair, cleansed or prepared for use	30	24
Ink and ink powder	30	24
Iron, in bars, bloom, bolts, loops, pigs, rods, slabs, or other form, not otherwise provided for	30	24
Castings of iron, old or scrap iron	30	24
Vessels of cast iron	30	24
Japanned ware of all kinds, not otherwise provided for	30	24
Jewelry, real or imitation	30	24
Jet and manufactures of jet, and imitations thereof	30	24
Lead pencils	30	24
Maccaroni, vermicelli, gelatine, jellies, and all similar preparations	30	24
Manufactures of the bark of the cork tree, except corks	30	24
Manufactures of bone, shell, horn, pearl, ivory, or vegetable ivory	30	24
Manufactures, articles, vessels, and others, not otherwise provided for, of brass, copper, gold, iron, lead, pewter, platina, silver, tin, or other metal, or of which either of those metals or any other metal shall be the component material of chief value	30	24
Manufactures of cotton, linen, silk, wool, or worsted, if embroidered or tamboured in the loom or otherwise, by machinery or with the needle or other process	30	24
Manufactures composed wholly of cotton, which are bleached, printed, painted, or dyed, and de laines	25	24
Manufactures, articles, vessels, and wares of grass, or of which grass shall be a component material, not otherwise provided for	30	24
Manufactures and articles of leather, or of which leather shall be a component part, not otherwise provided for	30	24
Manufactures and articles of marble, marble paving tiles, and all other marble more advanced in manufacture than in slabs or blocks in the rough	30	24
Manufactures of paper, or of which paper is a component material, not otherwise provided for	30	24
Manufactures of wool, or of which wool shall be the component material of chief value, not otherwise provided for	30	24
Medicinal preparations, not otherwise provided for	30	24
Manufactures of wood, or of which wood is a component part, not otherwise provided for	30	24
Metallic pens, mineral waters, molasses	30	24
Muskets, rifles, and other fire-arms	30	24
Nuts, not otherwise provided for	30	24
Ochres and ochry earths, used in the composition of painters' colours, whether dry or ground in oil, not otherwise provided for	30	24
Oilcloth of every description, of whatever material composed	30	24
Oils, volatile, essential, or expressed, and not otherwise provided for	30	24
Olive oil in casks, other than salad oil	30	24
Olive salad oil, and all other olive oil, not otherwise provided for	30	24
Olives	30	24
Paper, antiquarian, demy, drawing, elephant, foolscap, imperial, letter, and all other paper not otherwise provided for	30	24
Paper boxes, and all other fancy boxes	30	24
Paper envelopes	30	24
Parasols and sunshades, parchment	30	24
Plated and gilt ware of all kinds	30	24
Playing cards, potatoes, red chalk pencils	30	24
Saddlery of all kinds, not otherwise provided for	30	24
Salmon preserved, sealing-wax	30	24
Sewing silks, in the gum, or purified	30	24
Shoes, composed wholly of India-rubber	30	24
Side arms of every description	30	24
Silk twist, and twist composed of silk and mohair	30	24
Silver-plated metal, in sheets or other form	30	24
Soap, Castile, perfumed, Windsor, and all other kinds	30	24
Sugar of all kinds, sirup of sugar	30	24
Tobacco, unmanufactured	30	24
Twines and pack-thread, of whatever material composed	30	24
Umbrellas, vellum, vinegar	30	24
Wafers, water-colours	30	24
Wood, unmanufactured, not otherwise provided for, and fire-wood	30	24
Wool, unmanufactured, not otherwise provided for	30	24

SCHEDULE D. — 19 *per centum ad valorem.*

	1846.	1857.
Borax or tincal, not otherwise provided for	25	19
Buttons and button molds of all kinds	25	19
Baizes, bockings, flannels and floor cloths, of whatever material composed, not otherwise provided for	25	19
Cables and cordage, tarred or untarred	25	19
Calomel and all other mercurial preparations	25	19
Cotton laces, cotton insertings, cotton trimming laces, cotton lace and braids	25	19
Floss silks, feather beds, feathers for beds, and downs of all kinds	25	19
Grass cloth	25	19
Hair cloth, hair seating, and all other manufactures of hair, not otherwise provided for	25	19
Japanned leather or skins of all kinds	20	19
Jute, manila, and sisal grass, coir and other vegetable substances, unmanufactured, not otherwise provided for	25	19
Manufactures, composed wholly of cotton, not otherwise provided for	25	19
Manufactures of goats' hair or mohair, or of which goats' hair or mohair shall be a component material, not otherwise provided for	25	19
Manufactures and articles of silk, or of which silk shall be a component material, not otherwise provided for	25	19
Manufactures of worsted, or of which worsted shall be a component material, not otherwise provided for	25	19
Matting, China and other floor matting and mats, made of flags, jute or grass	25	19
Roofing slates, and slates other than roofing slates	25	19
Woollen and worsted yarn	25	19

SCHEDULE E. — 15 *per centum ad valorem.*

	1846.	1857.
Alum	20	15
Angora, Thibet, and other goats' hair or mohair, unmanufactured, not otherwise provided for	20	15
Arrow root, bacon, barley, beef, beeswax	20	15
Berries, vegetables and flowers, not otherwise provided for	20	15
Blankets of all kinds	20	15
Blank books, bound or unbound. (See Periodicals.)	20	15
Blue or Roman vitriol, or sulphate of copper	20	15
Boards, planks, staves, laths, scantling, spars, hewn and sawed timber, and timber to be used in building wharves	20	15
Brencia, bronze liquor, bronze powder	20	15
Butter, cadmium	20	15
Calamine	20	15
Caps, gloves, leggins, mits, socks, stockings, wove shirts, and drawers, made on frames, composed wholly of cotton, worn by men, women, and children	20	15
Cassia buds, castor oil, castorum, chocolate	20	15
Chromate of lead	20	15
Chromate, bichromate, hydriodate and prussiate of potash	20	15
Cobalt, coculus indicus	20	15
Copperas or green vitriol, or sulphate of iron	20	15
Copper, in sheets or plates, called braziers' copper, and other sheets of copper, not otherwise provided for	20	15
Copper rods, bolts, nails and spikes	20	15
Copper bottoms	20	15
Cubebs, dried pulp, ether, feldspar, fig blue	20	15
Fish, foreign, whether fresh, salted, smoked, dried, or pickled, not otherwise provided for	20	15
Fish glue or isinglass, fish skins, flaxseed	20	15
Flour of sulphur, Frankfort black	20	15
French chalk, fulminates or fulminating powders, furs dressed on the skin	20	15
Gamboge	20	15
Ginger, green, ripe, dried, preserved and pickled	40 & 30	15
Glue, green turtle, gunny cloth, gunpowder	20	15
Hair, curled, moss, sea weed, and all other vegetable substances used for beds or mattresses	20	15
Hams, hats of wool	20	15
Hat bodies made of wool, or of which wool shall be a component material of chief value	20	15
Hatters' plush, composed of silk and cotton, but of which cotton is the component material of chief value	20	15
Hempseed, or linseed, and rapeseed oil, and all other oils used in painting	20	15
Indian corn and corn meal	20	15
Ipecacuanha, iridum, isis or orris root	20	15
Iron liquor, jalap, juniper berries	20	15
Lampblack, lard	20	15
Leather, tanned, bend, or sole, not otherwise provided for	20	15
Leather, upper of all kinds, not otherwise provided for	20	15
Lead, in pigs, bars or sheets	20	15
Lead pipes, lead shot, leeches	20	15
Linens of all kinds	20	15
Liquorice paste, juice or root, litharge	20	15
Malt, manganese, manna	20	15
Manufactures of flax, not otherwise provided for	20	15
Manufactures of hemp, not otherwise provided for	20	15
Marble in the rough, slab or block unmanufactured	20	15
Marine coral, unmanufactured	20	15
Medicinal roots, leaves, gums and rosins, in a crude state, not otherwise provided for	30 25	20 15
Metals, Dutch and bronze, in leaf	20	15
Metals, unmanufactured, not otherwise provided for	20	15
Mineral and bituminous substances, in a crude state, not otherwise provided for	20	15
Musical instruments of all kinds, and strings for musical instruments of whipgut or catgut, and all other strings of the same material	20	15
Needles of all kinds, for sewing, darning or knitting	20	15
Nitrate of lead	20	15
Oats and oatmeal	20	15
Ochres and ochry earths, dry	20	15
Oils — neatsfoot and other animal oil, spermaceti, whale and other fish oil, the produce of foreign fisheries	20	15
Opium, orange and lemon peel	20	15
Ozier or willow, prepared for basket makers' use	20	15
Patent mordant	20	15
Paints, dry or ground in oil, not otherwise provided for	20	15
Paper hangings and paper for screens or fireboards	20	15
Paving stones	20	15
Paving and roofing tiles and bricks	20	15
Pearl or hulled barley	20	15
Periodicals and other works in course of printing and republication in the U. S.	20	15
Pitch	20	15
Plumbago, pork, pumpkins, potassium, putty	20	15
Plaster of Paris when ground	20	15
Quicksilver, quills, red chalk, rhubarb	20	15
Rice or paddy, roll brimstone	20	15
Roman cement, rye and rye flour	20	15
Saddlery, common, trimmed or japanned	20	15
Saffron and saffron cake, sago	20	15
Sal soda and all carbonates of soda, by whatever names designated, not otherwise provided for	20	15
Salts — Epsom, Glauber, Rochelle, and all other salts and preparations of salts, not otherwise provided for	20	15
Sarsaparilla, seppia, sheathing paper	20	15
Skins, tanned and dressed, of all kinds, not otherwise provided for	20	15
Skins of all kinds, not otherwise provided for	20	15
Slate pencils, smalts	20	15
Spermaceti candles and tapers	20	15
Spirits turpentine, spunk, squills, starch	20	15
Stearine candles and tapers	20	15
Steel, not otherwise provided for	20	15
Stereotype plates, still bottoms	20	15
Sulphate of barytes, crude or refined	20	15
Sulphate of quinine, tallow candles, tapioca	20	15
Tar, thread laces and insertings, type metal	20	15
Types, new or old, vanilla beans, verdigris	20	15
Velvet in the piece, composed wholly of cotton	20	15
Velvet in the piece, composed of cotton and silk, but of which cotton is the component material of chief value	20	15
Vermilion	20	15
Wares, chemical, earthen, or pottery, of a capacity exceeding ten gallons	20	15
Wax candles and tapers	20	15
Whalebone, the produce of foreign fisheries	20	15
Wheat and wheat flour, white and red lead	20	15
Whiting or Paris white	20	15
White vitriol or sulphate of zinc	20	15
Window glass, broad, crown or cylinder	20	15
Woollen listings	20	15

SCHEDULE F. — 12 *per centum ad valorem.*

	1846.	1857.
Borate of lime	20	12
Brazil paste, codilla or tow of hemp and flax	15	12
Diamonds, glaziers', set or not set	15	12
Silk, raw, not otherwise provided for	15	12
Steel, in bars, cast, shear or German	15	12
Gold and silver leaf, mineral kerms	15	12
Terne tin plates, tin foil	15	12
Zinc, spelter or teutenegue, in sheets	15	12

SCHEDULE G. — 8 *per centum ad valorem.*

	1846.	1857.
Ammonia	10	8
Antimony, crude, or regulus of	20	8
Barks of all kinds, not otherwise provided for	20 & 15	8
Books printed, magazines, pamphlets, periodicals and illustrated newspapers, bound or unbound, not otherwise provided for	10	8
Building stones	10	8
Camphor, crude	25	8
Cantharides, carbonate of soda	20	8
Chronometers, box or ships', and parts thereof	10	8
Compositions of glass or paste, not set	10	8
Cudbear	10	8
Emery, in lump or pulverised	20	8
Engravings or plates, bound or unbound	10	8
Fruits, green, ripe or dried	40, 30, 20	8
Gums — Arabic, Barbary, copal, East India, Jeddo, Senegal, substitute, tragacanth, and all other gums and rosins in a crude state	10	8
Hempseed and rapeseed, fuller's earth	10	8
Furs, hatters', dressed or undressed, not on the skin	10	8
Furs, undressed, when on the skin	10	8
Goldbeaters' skins	10	8
Hair of all kinds, uncleaned and unmanufactured	10	8
Kelp, lemon and lime juice, lime	10	8
Machinery, exclusively designed and expressly imported for the manufacture of flax and linen goods	30	8
Music paper with lines, bound or unbound	10	8
Natron, nux vomica, orpiment	10	8
Polishing stones, pumice and pumice-stones	10	8
Rotten stone, sal ammonia	10	8
Saltpetre (or nitrate of soda or potash) refined, or partially refined	10	8
Sponges	20	8
Sulphuric acid or oil of vitriol	10	8
Tallow, marrow, and all other		

	1846.	1857.
grease and soap, stocks and soap stuffs, not otherwise provided for	10	8
Terra japonica or catechu	10	8
Acids—acetic, benzoic, boracic, citric, muriatic, white and yellow, nitric, oxalic, pyroligneous, and tartaric, and all other acids of every description, used for chemical, medical, or manufacturing purposes, not otherwise provided for	20	4
Alcornoque	5	4
Aloes, amber, ambergris, anniseed	20	4
Annatto, roucou, Orleans	10	4
Arsenic	15	4
Articles not in a crude state, used in dyeing or tanning, not otherwise provided for	20	4
Asafœtida, asphaltum	20	4
Barilla, bleaching powder or chloride of lime	10	4
Borax, crude	25	4
Boucho leaves	20	4
Brimstone, crude, in bulk	15	4
Bristles	5	4
Cameos, mosaics, diamonds, gems, pearls, rubies, and other precious stones, not set	10	4
Chalk, clay	5	4
Cochineal	10	4
Cocoa, cocoa nuts, and cocoa shells	20 & 10	4
Tin, in plates or sheets, galvanised or ungalvanised	15	8
Watches	10	8
Woods — namely: cedar, lignum-vitæ, ebony, box, granadilla, mahogany, rosewood, satin-wood, and all cabinet woods	20	8

SCHEDULE H. — 4 *per centum.*

Cork tree bark	15	4
Cream of tartar	20	4
Extracts of indigo	20	4
Extracts and decoctions of logwood and other dyewoods, not otherwise provided for	20	4
Extract of madder	20	4
Flint, ground, grindstones	5	4
Gutta percha, unmanufactured	20	4
Horn, horn tips, bone, bone tips and teeth, unmanufactured	5	4
India rubber in bottles, slabs or sheets, unmanufactured	10	4
India rubber, milk of	20	4
Ivory nuts or vegetable ivory, kermes, lac dye	5	4
Lac spirits, lac sulphur	20	4
Lastings, cut in strips or patterns of the size and shape for shoes, slippers, boots, bootees, gaiters or buttons, exclusively, not combined with India rubber	5	4
Indigo	10	4
Manufactures of mohair cloth, silk twist, or other manufactures of cloth suitable for the manufacture of shoes, cut in strips or patterns of the size and shape for shoes, slippers, boots, bootees, gaiters, or buttons, exclusively, not combined with India rubber	5	4
Music, printed with lines, bound or unbound	10	4
Nickel, nut galls	5	4
Oils, cocoa nut, palm and teal	20 & 10	4
Pearl, mother of	5	4
Pewter, when old and fit only to be remanufactured	5	4
Prussian blue	20	4
Rags of wool	5	4
Raw hides and skins of all kinds, whether dried, salted, or pickled, not otherwise provided for	5	4
Saltpetre, or nitrate of soda, or potash, when crude	5	4
Safflower, reedlac, shellac	5	4
Soda ash	10	4
Spices of all kinds	40 & 30	4
Sumac	5	4
Tortoise and other shells, unmanufactured	5	4
Turmeric, waste or shoddy	5	4
Watch materials and unfinished parts of watches	10	4
Weld	5	4
Woad or pastel	10	4
Zinc, spelter, or tutenegue, unmanufactured, not otherwise provided for	5	4

§ 3. And be it further enacted, That on and after the first day of July, eighteen hundred and fifty-seven, the goods, wares and merchandise mentioned in Schedule I, made part hereof, shall be exempt from duty and entitled to free entry: —

SCHEDULE I.

All books, maps, charts, mathematical, nautical instruments, philosophical apparatus, and all other articles whatever imported for the use of the U. States	free	free
All philosophical apparatus, instruments, books, maps and charts, statues, statuary, busts and casts of marble, bronze, alabaster or plaster of Paris; paintings and drawings, etchings; specimens of sculpture; cabinets of coins, medals, gems and all collections of antiquities: Provided the same be specially imported in good faith for the use of any society incorporated or established for philosophical or literary purposes, or for the encouragement of the fine arts; or for the use or by the order of any college, academy, school, or seminary of learning in the U. S.	free	free
Animal carbon, bone black	20	,,
Animals, living, all kinds	20 & free	,,
Argol or crude tartar	5	,,
Articles, in a crude state, used in dyeing or tanning, not otherwise provided for	5	,,
Bark, Peruvian	15	,,
Bells, when old, or bell metal, fit only to be remanufactured	5	,,
Berries, nuts, flowers, plants and vegetables used exclusively in dyeing or in composing dyes, but no article shall be classed as such that has undergone any manufacture	5	,,
Bismuth, bitter apples	20	,,
Bolting cloths	25	,,
Bones, burnt, and bone dust	20	,,
Books, maps and charts imported by authority of the Joint Library of Congress for the use of the library of Congress: provided that if, in any case, a contract shall have been made with any bookseller, importer or other person aforesaid shall have paid the duty or included the duty in said contract, in such case the duty shall not be remitted	free	,,
Brass, in bars and pigs	5	,,
Brass, when old, and fit only to be remanufactured	5	,,
Brazil wood, braziletto, and all other dye woods in sticks	5	,,
Bullion, gold and silver	free	,,
Burr stones, wrought or unwrought, but unmanufactured	10	,,
Cabinets of coins, medals and other collections of antiquities	free	,,
Coffee and tea, when imported direct from the place of their growth or production in American vessels or in foreign vessels entitled by reciprocal treaties to be exempt from discriminating duties, tonnage and other charges	free	free
Coffee, the growth or production of the possessions of the Netherlands, imported from the Netherlands in the same manner	,,	,,
Coins, gold, silver and copper, copper ore	,,	,,
Copper, when imported for the United States Mint	,,	,,
Copper, in pigs or bars	5	,,
Copper, when old and fit only to be remanufactured	5	,,
Cotton	free	,,
Cutch	20	,,
Dragon's blood	15	,,
Felt, adhesive, for sheathing vessels	free	,,
Flax, unmanufactured	15	,,
Garden seeds and all other seeds for agricultural, horticultural, medicinal and manufacturing purposes, not otherwise provided for, 20 &	free	,,
Glass, when old and fit only to be remanufactured 40, 30 &	20	,,
Goods, wares and merchandise, the growth, produce, or manufacture of the U. S., exported to a foreign country and brought back to the U. S. in the same condition as when exported, upon which no drawback or bounty has been allowed: provided that all regulations to ascertain the identity thereof, prescribed by existing laws, or which may be prescribed by the Secretary of the Treasury, shall be complied with	free	,,
Guano	,,	,,
Household effects, old and in use, of persons or families from foreign countries, if used abroad by them and not intended for any other person or persons, or for sale	,,	,,
Ice	20	,,
Ivory, manufactured	5	,,
Junk, old	free	,,
Linseed, but not embracing flax-seed	10	,,
Madder root, madder ground or prepared	5	,,
Maps and charts	10	,,
Models of inventions and other improvements in the arts: provided that no article or articles shall be deemed a model or improvement which can be fitted for use	free	,,
Oakum	,,	,,
Oil, spermaceti, whale, and other fish of American fisheries, and all other articles the produce of such fisheries	,,	,,
Paintings and statuary	20 & ,,	free
Palm leaf, unmanufactured	10	,,
Personal and household effects (not merchandise) of citizens of the U. S. dying abroad	free	,,
Plaster of Paris or sulphate of lime, unground	,,	,,
Platina, unmanufactured	,,	,,
Rags of whatever material except wool	5	,,
Ratans and reeds, unmanufactured	10	,,
Sheathing copper, but no copper to be considered such and admitted free except in sheets of 48 inches long and 14 inches wide, and weighing from 14 to 34 ounces the square foot	free	,,
Sheathing metal, not wholly or in part of iron, ungalvanized	,,	,,
Shingle bolts and stave bolts	20	,,
Silk, raw, or as reeled from the cocoon, not being doubled, twisted, or advanced in manufacture in any way	15	,,
Specimens of natural history, mineralogy or botany	free	,,
Substances expressly used for manures	20	,,
Tin, in pigs, bars or blocks	5	,,
Trees, shrubs, bulbs, plants and roots, not otherwise provided for	free	,,
Wearing apparel in actual use and other personal effects (not merchandise), professional books, implements, instruments, and tools of trade, occupation or employment of persons arriving in the U. S.: provided that this exemption shall not be construed to include machinery or other articles imported for use in any manufacturing establishment or for sale	,,	,,
Sheep's wool, unmanufactured, of the value at the port of exportation of 20 cents per lb. or less, and hair of the alpaca, the goat, and other like animals, unmanufactured: provided that any wool of the sheep or hair of the alpaca, goat, and other like animals which shall be imported in any other than the ordinary condition as now and heretofore practised, or which shall be changed in its character for the purpose of evading the duty, or which shall be reduced in value by the intentional admixture of dirt or any foreign substance to 20 cents per lb. or less, shall be subject to a duty of 24 per centum *ad valorem*, anything in this act to the contrary notwithstanding	* 30 & 20	,,

* Sheep's wool, 30 per centum; hair of the alpaca, the goat, and other like animals, 20 per centum.

§ 4. And be it further enacted, That all goods, wares and merchandise which shall be imported from foreign countries after the passage of this act, and be in the public stores on the first day of July aforesaid, shall be subject, on entry thereof for consumption, to no other duty than if the same had been imported, respectively, after that day.

§ 5. And be it further enacted, That on the entry of any goods, wares and merchandise imported on and after the first day of July aforesaid, the decision of the collector of the customs at the port of importation and entry, as to their liability to duty or exemption therefrom, shall be final and conclusive against the owner, importer, consignee, or agent of any such goods, wares and merchandise, unless the owner, importer, or consignee, or agent, shall, within ten days after such entry, give notice to the collector, in writing, of his dissatisfaction with such decision, setting forth therein, distinctly and specifically his grounds of objection thereto, and shall, within thirty days after the date of such decision, appeal therefrom to the Secretary of the Treasury, whose decision on such appeal shall be final and conclusive; and the said goods, wares and merchandise shall be liable to duty or exempted therefrom accordingly, any act of Congress to the contrary notwithstanding, unless suit shall be brought within thirty days after such decision for any duties that may have been paid or may therefore be paid on said goods, or within thirty days after the duties shall have been paid in cases where such goods shall be in bond.

An Act for establishing a Warehousing System in U. States.

The following is an official copy of an act passed by both Houses of Congress, July, 1846, and signed by the President of the United States on the 6th of August, 1846:

An Act establishing a Warehousing System, and to amend an Act entitled "An Act to provide Revenue from Imports, and to change and modify existing Laws imposing Duties on Imports, and for other Purposes."

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, that the twelfth section of the Act entitled "An act to provide revenue from imports, and to change and modify existing laws imposing duties on imports, and for other purposes," approved the 30th day of August, 1842, is hereby amended so as hereafter to read as follows:—[Sec. 12.] and be it further enacted, that on and after the day this act goes into operation, the duties on all imported goods, wares, or merchandise, shall be paid in cash: Provided, that in all cases of failure or neglect to pay the duties within the period allowed by law to the importer to make entry thereof, or whenever the owner, importer, or consignee shall make entry for warehousing the same in writing, in such form and supported by such proof as shall be prescribed by the Secretary of the Treasury, the said goods, wares, or merchandise shall be taken possession of by the collector, and deposited in the public stores, or in other stores to be agreed on by the collector or chief revenue officer of the port and the importer, owner, or consignee, the said stores to be secured in the manner provided for by the first section of the act of the 20th day of April, 1818, entitled "An act providing for the deposit of wines and distilled spirits in public warehouses, and for other purposes," there to be kept with due and reasonable care, at the charge and risk of the owner, importer, consignee, or agent, and subject at all times to their order upon payment of the proper duties and expenses, to be ascertained on due entry thereof for warehousing, and to be secured by bond of the owner, importer, or consignee, with surety or sureties, to the satisfaction of the collector in double the amount of the said duties, and in such form as the Secretary of the Treasury shall prescribe: provided that no merchandise shall be withdrawn from any warehouse in which it may be deposited in a less quantity than in an entire package, bale, cask, or box, unless in bulk; nor shall merchandise so imported in bulk be delivered, except in the whole quantity of each parcel, or in a quantity not less than 1 ton weight, unless by authority of the Secretary of the Treasury. And in case the owner, importer, consignee, or agent of any goods on which the duties have not been paid shall give to the collector satisfactory security that the said goods shall be landed out of the jurisdiction of the United States, in the manner now required by existing laws relating to exportations for the benefit of drawback, the collector and naval officer, if any, on an entry to re-export the same, shall, upon payment of the appropriate expenses, permit the said goods, under the inspection of the proper officers, to be shipped without payment of any duties thereon. And in case any goods, wares, or merchandise, deposited as aforesaid, shall remain in public store beyond 1 year, without payment of the duties and charges thereon, then said goods, wares, or merchandise shall be appraised by the appraiser of the United States, if there be any at such port, and if none, then by two merchants to be designated and sworn by the collector for that purpose, and sold by the collector at public auction, on due public notice thereof being first given in the manner and for the time to be prescribed by a general regulation of the Treasury Department; and at said public sale, distinct and printed catalogues descriptive of said goods with the appraised value affixed thereto, shall be distributed among the persons present at said sale; and a reasonable opportunity shall be given before such sale, to persons desirous of purchasing, to inspect the quality of such goods; and the proceeds of said sales, after deducting the usual rate of storage at the port in question, with all other charges and expenses, including duties, shall be paid over to the owner, importer, consignee, or agent, and proper receipts taken for the same; provided that the overplus, if any there be, of the proceeds of such sales, after the payment of storage, charges, expenses, and duties as aforesaid, remaining unclaimed for the space of 10 days after such sales shall be paid by the collector into the treasury of the United States; and the said collector shall transmit to the Treasury Department, with the said overplus, a copy of the inventory, appraisement, and account of sales, specifying the marks, numbers, and descriptions of the packages sold, their contents, and appraised value, the name of the vessel and master in which, and of the port or place whence they were imported, and the time when, and the name of the person or persons to whom, said goods were consigned in the manifest, and the duties and charges to which the several consignments were respectively subject, and the receipt or certificate of the collector shall exonerate the master or person having charge or command of any ship or vessel in which said goods, wares, or merchandise were imported, from all claims of the owner or owners thereof, who shall, nevertheless, on due proof of their interest, be entitled to receive from the Treasury the amount of any overplus paid into the same under the provisions of this act: provided, that so much of the 56th section of the general collection law of the 2nd of March, 1799, and the 13th section of the act of the 30th of August, 1842, to provide revenue from imports, and to change and modify existing laws imposing duties on imports, and for other purposes, as conflicts with the provisions of this act, shall be, and is hereby repealed, excepting that nothing contained in this act shall be construed to extend the time now prescribed by law for selling unclaimed goods: provided, also, that all goods of a perishable nature, and all gunpowder, firecrackers, and explosive substances, deposited as aforesaid, shall be sold forthwith.

Sec. 2. Any goods when deposited in the public stores in the manner provided for in the foregoing section, may be withdrawn therefrom and transported to any other port of entry, under the restrictions provided for in the act of the 2nd March, 1799, in respect to the transportation of goods, wares, and merchandise from one collection district to another, to be exported with the benefit of drawback; and the owner of such goods so to be withdrawn for transportation, shall give his bond with sufficient sureties, in double the amount of the duties chargeable on them, for the deposit of such goods in store in the port of entry to which they shall be destined, such bond to be cancelled when the goods shall be re-deposited in store in the collection district to which they shall be transported: provided, that nothing contained in this section shall be construed to extend the time during which goods may be kept in store after their original importation and entry, beyond the term of 1 year.

Sec. 3. If any warehoused goods shall be fraudulently concealed in or removed from any public or private warehouse, the same shall be forfeited to the United States; and all persons convicted of fraudulently concealing or removing such goods, or of aiding or abetting such concealment or removal, shall be liable to the same penalties which are now imposed for the fraudulent introduction of goods into the United States; and if any importer or proprietor of any warehoused goods, or any person in his employ, shall by any contrivance fraudulently open the warehouse, or shall gain access to the goods, except in the presence of the proper officer of the customs, acting in the execution of his duty, such importer or proprietor shall forfeit and pay, for every such offence, 1000 dollars. And any person convicted of altering, defacing, or obliterating any mark or marks which have been placed by any officer of the revenue on any package or packages of warehoused goods, shall forfeit and pay, for every such offence, 500 dollars.

Sec. 4. The collectors of the several ports of the United States shall make quarterly reports to the Secretary of the Treasury, according to such general instructions as the said Secretary may give, of all goods which remain in the warehouses of their respective ports, specifying the quantity and description of the same; which returns, or tables formed thereon, the Secretary of the Treasury shall forthwith cause to be published in the principal papers of the city of Washington.

Sec. 5. The Secretary of the Treasury be, and he is hereby authorised to make, from time to time, such regulations, not inconsistent with the laws of the United States, as may be necessary to give full effect to the provisions of this act, and secure a just accountability under the same. And it shall be the duty of the Secretary to report such regulations to each succeeding session of Congress.

The following Treasury Circular will be found of great importance to merchants who consign or otherwise ship goods to the United States:—

Treasury Department, Washington, July 16. 1851.

The existing revenue laws of the U. States provide that the value of all foreign merchandise imported into the U. States shall be verified by the oath of the owner thereof. Where the goods are owned by the parties residing in the U. States, this oath is taken before the collector at the time of entry, and where they wholly belong to a person or persons not residing at the time in the U. States, the invoice is required to be verified by the oath of the owner, to be administered by a Consul or Commercial Agent of the U. States, or by some public officer *duly authorised to administer* oaths in the country where the goods are purchased.

In the latter case certificates of the public officer who administered the oath must be authenticated by a consul or commercial agent of the U. States in the port from which the goods are imported.

In a circular from the department of the 7th of April, 1851, to the American consuls and commercial agents, which has been generally published in the public journals of the U. States, and which the consuls abroad were instructed to make public at the places of their respective residences, notice was given of the intended change of action by the department on the subject after a reasonable delay.

The time for this change, the department thinks, has arrived, and collectors are required and instructed to observe and enforce the following rules on the subject:—

In all future importations of merchandise for account of non-resident owners, where the invoices are not accompanied by consular certificates, as required by law, the goods must be sent to the public stores, there to remain at the expense and risk of the owners, until a certificate shall be produced; and

no bonds will be taken as heretofore for the production of such certificates.

When, however, such goods are of a perishable nature, or what are called fancy or seasonable goods, or where the sale would be materially injured by the delay of the department, unless there is obvious evidence of intended fraud; the report of the facts of the importer, certified by the collector, will admit them to entry on such terms as the facts and circumstances of each case respectively may render necessary and proper.

Some of the foreign shippers and manufacturers are in the habit of sending a consular certificate attached to a general invoice of goods, part of which only come in the vessel with the certificate, and the balance being intended for future shipment by some vessel or vessels, and in many instances, as the department is advised, such goods are not even manufactured at the time the invoice is dated and the certificate granted.

In future no such certificate is to be respected, except for goods which actually accompany it, and any other portion of the invoice which may come by any other or subsequent vessels, will be treated as being without consular certificates, unless there be a distinct and separate one for goods by each vessel.

In all cases where bonds heretofore given for the production of consular certificates remain uncancelled, and the time for producing them has expired, the parties are to be notified in writing to pay the amount of such uncancelled bonds; and on a failure to do so within thirty days after such notice, will be immediately put into suit.

Should there be any of these cases where the collector thinks, from the peculiar circumstances, that further time should be wanted for the production of the certificate, the department, on presentation of facts of the case, will take such cases into consideration, and if the circumstances will warrant it, grant the additional time required, under such terms and conditions as it may think advisable and just to exact.

Collectors will use every diligence to prevent the entry of merchandise as the property of residents where it may be for foreign account, and whenever they may detect deception or fraud in entering goods without the oath of the real owners, will enforce the utmost penalty of the law against the offending parties.

By the habit which has generally prevailed of virtually dispensing with the oath of non-resident owners of foreign merchandise, these latter have possessed undue advantage over resident importers of the U. States.

A just regard for the rights and interests of the latter, as well as for the more faithful collection of the revenue, has governed the action of the department in establishing the rules laid down in the present circular.

(Signed) WM. L. HODGE,
Acting Secretary of the Treasury

TRADE OF THE UNITED KINGDOM WITH THE UNITED STATES.

Account of the Declared Value of the Total Exports of British Produce and Manufactures to the United States of America, during each of the 26 Years ending with 1858.

Years.	Declared Value.	Years.	Declared Value.	Years.	Declared Value.
	£		£		£
1833	7,579,699	1842	5,528,807	1850	14,891,961
1834	6,344,989	1843	5,013,504	1851	14,362,976
1835	10,568,455	1844	7,938,079	1852	16,567,737
1836	12,425,605	1845	7,147,663	1853	23,658,127
1837	4,695,225	1846	6,850,160	1854	21,410,369
1838	7,585,750	1847	10,974,161	1855	17,318,086
1839	8,839,204	1848	9,564,909	1856	21,918,105
1840	5,283,020	1849	11,971,028	1857	18,985,939
1841	7,098,642			1858	14,510,616

Account of the Quantities and Computed Values of the Principal Articles imported from the U. States (ex California) into the U. Kingdom in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Computed Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Ashes, pearl and pot	cwts.	18,334	6,473	11,675	33,496	£28,418	£11,976	£25,827	£67,550
Bacon	,,	369,907	199,084	302,587	290,718	739,814	475,513	832,114	792,166
Bark, for tanners' or dyers' use	,,	26,534	39,144	57,593	80,463	11,277	18,920	35,996	44,925
Beef, salted	,,	145,979	192,324	138,457	92,092	276,600	399,072	297,069	234,855
Caoutchouc, manufactures of	lbs.	856,707	355,441	322,652	304,183	149,924	58,702	48,398	34,220
Cheese	cwts.	38,988	66,941	66,228	49,492	100,881	176,857	175,502	116,880
Clocks	no.	106,344	86,105	86,976	99,234	47,979	39,123	39,979	44,918
Corn: wheat	qrs.	417,607	248,906	1,279,150	650,754	1,487,725	1,042,295	4,477,026	1,912,121
maize or Indian corn	,,	961,600	672,614	1,000,871	412,894	1,971,280	1,471,409	1,601,393	729,245
wheatmeal and flour	cwts.	2,570,970	681,126	2,892,517	1,464,867	2,763,795	820,952	2,892,517	1,291,728
Cotton, raw	,,	6,447,780	6,085,977	6,964,645	5,846,054	17,274,627	16,863,228	21,126,084	21,554,877
Guano	tons	1,502	38,082	1,217	2,067	6,383	171,369	7,065	8,268
Hams	cwts.	5,202	2,582	15,757	15,880	15,606	8,521	47,806	47,713
Hemp, undressed	,,	47,888	25,396	9,412	123,966	68,951	34,252	8,101	150,247
Lard	,,	267,885	111,576	121,885	168,295	689,801	292,887	379,367	561,684
Logwood	tons	7,780	7,774	10,756	10,582	54,460	55,714	89,377	82,010
Oil: spermaceti, or head matter	tuns	3,651	2,310	2,788	3,916	393,395	289,558	296,922	314,095
train, or blubber	,,	869	1,105	287	371	55,281	56,134	13,489	15,867
or spirit, of turpentine	cwts.	75,452	79,086	69,978	98,540	167,881	157,741	118,087	187,226
Oil seed cake	tons	22,748	20,921	29,780	45,139	208,144	211,302	256,108	376,811
Pork, salted	cwts.	88,732	120,853	82,448	23,486	199,647	268,898	187,569	55,770
Quicksilver	lbs.	38,817	294,278	.	376,579	5,882	26,975	.	39,227
Rice, not rough or in the husk	cwts.	20,383	13,853	60,864	56,764	20,383	20,086	77,601	69,428
rough, and in the husk	qrs.	11,423	7,093	6,807	7,168	28,557	18,352	18,721	21,505
Rosin	cwts.	643,369	681,990	517,733	549,963	182,288	233,013	232,980	309,354
Saltpetre	,,	32,716	.	2	75,609	44,985	.	3	152,346
Seed; clover	,,	17,034	725	4,883	28,085	41,733	2,465	18,881	100,404
Skins and furs: viz. beaver	no.	5,157	533	2,541	7,024	2,449	203	4,532	3,336
deer	,,	29,242	22,727	50,900	38,488	3,016	5,114	11,877	9,221
fox	,,	39,345	45,840	44,126	68,725	10,820	14,525	26,108	36,081
marten	,,	6,809	10,654	9,809	9,542	3,405	5,727	5,886	5,168
minx	,,	156,747	104,125	48,741	72,423	54,699	31,237	18,887	30,478
musquash	,,	1,229,489	867,344	838,758	927,732	21,658	24,365	30,675	30,252
otter	,,	5,509	9,632	2,198	1,361	16,159	20,468	4,451	2,841
racoon	,,	499,237	393,224	481,713	479,602	50,964	49,152	96,342	89,925
Spermaceti, fine	value £	.	.	.	.	9,944	10,549	1,654	16,265
Tallow	cwts.	89,186	20,401	22,545	41,587	280,936	53,042	60,870	120,721
Tar	lasts	3,702	4,249	1,619	2,639	55,534	43,337	13,278	19,792
Tea	lbs.	1,866,595	751,902	122,653	425,643	116,663	47,190	7,409	31,721
Tobacco: unmanufactured	,,	23,947,327	26,334,340	29,655,631	25,319,701	754,991	842,637	1,272,511	1,121,093
manufactured, and cigars	,,	1,924,250	2,221,816	1,310,454	1,143,136	76,168	94,890	65,522	57,156
Turpentine	cwts.	340,751	267,746	215,838	212,456	176,055	116,023	100,724	106,228
Whalefins	tons	251	184	215	165	46,218	42,327	60,583	70,590
Wood and timber: not sawn or split	loads	29,598	27,109	25,630	62,450	111,712	98,971	120,886	228,586
staves	,,	28,511	15,518	19,477	21,155	228,091	119,197	175,291	138,807
Wool, sheep and lambs'	lbs.	339,175	482,937	23,684	3,782,459	25,438	32,700	1,900	302,247
Total value of the above and of all other articles		.	.	.	.	22,795,308	25,741,725	36,047,773	33,647,227

The value of the imports from California in 1857 amounted to *nil!*

Account of the Quantities and Declared Values of the Exports of British and Irish Produce from the U. Kingdom to the U. States (ex California) during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apothecary wares, &c. value	- -	- -	- -	- -	107,665	139,378	126,037	90,540
Apparel, slops, and haberdashery - - value	- -	- -	- -	- -	1,436,091	1,335,660	1,664,213	1,503,191
Bags, empty - - dozen	165,155	245,649	305,438	192,806	88,276	130,233	156,089	102,591
Beer and ale - - barrels	29,600	22,769	31,765	25,974	121,704	99,117	140,067	114,252
Books, printed - - cwts.	10,850	7,944	11,977	11,048	135,067	105,270	152,111	133,057
Coals, cinders & culm - tons	198,659	161,003	247,484	197,507	123,885	106,562	146,976	123,061
Copper, wrought and unwrought - - cwts.	69,667	29,670	36,198	27,515	420,837	179,148	212,279	169,676
Cottons:								
entered by the yard yards	163,455,334	184,587,995	207,288,756	177,842,614	2,830,054	3,144,237	3,771,508	3,070,496
at value - value	- -	- -	- -	- -	512,011	493,233	640,084	499,035
Earthenware & porcelain „	- -	- -	- -	- -	640,148	579,563	560,649	507,267
Grass manufactures - „	- -	- -	- -	- -	88,126	61,414	70,493	46,571
Hardwares and cutlery cwts.	169,054	118,980	169,604	145,684	1,431,696	906,854	1,222,419	1,031,867
Iron, wrought and unwrought, including unwrought steel - tons	540,196	310,142	352,513	332,586	5,117,147	2,839,952	3,357,037	3,170,036
Lead and shot - - „	5,564	9,338	4,661	2,584	127,112	213,286	111,879	61,888
Leather, wrought and unwrought, ex. saddlery lbs.	1,799,387	1,333,866	1,744,169	1,193,915	117,526	87,466	147,290	109,506
Linens:								
entered by the yard yards	50,233,608	51,513,795	72,302,328	46,689,479	1,668,982	1,666,038	2,154,490	1,425,156
at value - value	- -	- -	- -	- -	173,699	163,203	199,226	158,192
Machinery and mill work, including steam engines - „	- -	- -	- -	- -	58,813	66,212	23,405	40,742
Oil, linseed - - gallons	1,196,693	1,224,047	1,690,464	528,675	166,310	187,617	235,722	82,465
Painters' colours - value	- -	- -	- -	- -	73,820	76,980	84,202	62,151
Plate, plated ware, &c. „	- -	- -	- -	- -	192,946	133,780	146,604	102,736
Salt - - - tons	209,310	301,167	343,438	202,952	119,700	157,829	174,145	99,741
Silk manufactures - value	- -	- -	- -	- -	420,684	293,787	574,213	548,935
Soda - - cwts.	559,942	494,254	723,089	620,041	251,144	190,428	317,385	314,140
Spirits, British - gallons	157,128	118,486	295,279	463,987	24,766	26,561	67,940	78,970
Stationery - - value	- -	- -	- -	- -	74,245	61,967	88,177	69,162
Tin plates - - „	- -	- -	- -	- -	763,840	789,354	1,020,303	961,477
Woollens:								
entered by the piece pieces	765,211	601,217	892,537	957,020	1,662,363	1,143,133	1,610,405	1,649,529
by the yard yards	34,702,505	30,858,645	34,514,595	33,643,338	1,575,562	1,168,206	1,465,047	1,422,392
at value - value	- -	- -	- -	- -	109,572	156,003	250,299	245,654
Woollen yarn - - lbs.	3,015	163,072	141,344	121,520	28,426	14,545	14,015	12,636
All other articles - value	- -	- -	- -	- -	947,572	802,780	1,013,470	992,791
Total - -	- -	- -	- -	- -	21,410,369	17,318,086	21,918,105	18,985,939

Quantities and Values of the Principal Articles of Foreign and Colonial Produce and Manufacture exported from the U. Kingdom to the U. States during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.		
	1854.	1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Argol - - - - cwts.	2,948	6,127	3,934	2,025	17,819	12,474	6,387
Bark, Peruvian - - - „	4,399	3,220	631	2,030	42,826	7,151	21,112
Caoutchouc - - - „	5,703	920	4,792	719	5,582	27,274	4,200
Cochineal - - - „	1,670	538	1,873	1,146	11,894	40,480	24,385
Currants - - - „	5,659	7,305	2,261	14,925	25,614	6,247	27,672
Flax and tow, or codilla of hemp and flax „	7,546	316	- -	1,212	793	- -	2,650
Gloves, of leather - - pairs	69,310	78,443	33,062	26,038	4,956	2,508	2,258
Gum Animi and copal - cwts.	1,518	920	2,863	997	2,378	8,392	3,389
Arabic - - - „	5,199	12,600	7,814	5,547	19,530	13,516	10,955
other kinds - - - „	11,079	14,792	12,749	10,666	37,719	54,220	24,338
Hair, manufactures of, or of goats' wool - value	- -	- -	- -	- -	2,572	11,168	3,590
Hats or bonnets of straw - - lbs.	2,542	8,507	1,128	1,070	18,289	2,636	1,970
Hemp, undressed - - - cwts.	20	5,887	2,610	3,791	11,922	4,459	6,970
Indigo - - - - „	4,009	4,891	3,715	3,619	135,321	112,100	115,578
Nutmegs - - - - lbs.	108,068	101,097	72,755	123,929	12,184	8,791	15,942
Opium - - - - „	28,881	17,823	12,201	13,788	12,255	9,151	10,284
Platting of chip, straw, and other materials - - - „	14,479	7,400	5,718	11,077	7,400	5,718	8,262
Saltpetre - - - - cwts.	2,078	16,259	4,019	1,054	23,505	7,033	2,099
Silk, raw - - - - lbs.	8,989	52,720	16,898	89,552	36,465	16,687	97,170
Silk man. of Europe: broad stuffs and ribbons - - - „	4,433	5,121	3,779	3,520	14,228	9,867	8,467
Spelter - - - - tons	126	95	510	531	1,269	13,184	9,832
Spirits, brandy - - pf. galls.	57,219	38,113	43,973	37,658	18,262	22,170	23,850
Tin, unwrought - - - cwts.	6,073	717	1,569	3,019	4,230	9,286	19,460
Wine - - - - galls.	65,090	48,533	59,849	50,188	16,882	24,158	20,021
Wool, sheep and lambs' - - lbs.	1,458,865	531,905	250,200	3,054,549	32,946	17,642	215,833
Total value of the above and of all other articles - - -	- -	- -	- -	- -	744,517	698,772	1,090,956

The value of the exports of British produce to California, in 1857, amounted to 433,082*l.*

NICARAGUA OR PEACH WOOD (Ger. *Nicaragaholz, Blutholtz;* Du. *Bloedhaut;* Fr. *Bois de sang, Bois de Nicarague;* It. *Legno sanguigno;* Sp. *Palo de sangre;* Port. *Pao sanguinho*), a tree of the same genus (*Cæsalpinia*) as the Brazil and sapan wood; but the species has not been exactly ascertained. It grows principally in the vicinity of the lake of Nicaragua, whence its name.

It is said by Dr. Bancroft to be almost as red and heavy as the true Brazil wood, but it does not commonly afford more than a third part, in quantity, of the colour of the latter; and even this is rather less durable and less beautiful, though dyed with the same mordants. Nicaragua or peach woods differ greatly in their quality as well as

price; one sort being so deficient in colouring matter, that 6 pounds of it will only dye as much wool or cloth as 1 pound of Brazil wood; while another variety of it will produce nearly half the effect of an equal quantity of Brazil wood, and will sell proportionally dear.—(*Bancroft on Colours*, vol. ii. p. 332.)

The London dealers distinguish Nicaragua wood into 3 sorts, viz. *large*, *middling*, and *small*; the price of the first sort being from 15*l.* to 18*l.* per ton; of the 2d, from 7*l.* to 10*l.* per do.; and of the 3d, from 6*l.* to 7*l.* per do. The duty, after being reduced in 1831 from 15*s.* to 5*s.* a ton, and in 1842 to 2*s.* per do., was wholly abolished in 1844. The imports of Nicaragua wood amounted in 1857 to 2,676 tons, the exports during the same year being 747 tons.

NICKEL, a scarce metal, which occurs always in combination with other metals, from which it is exceedingly difficult to separate it. When pure, it is of a fine white colour resembling silver. It is rather softer than iron: its specific gravity, when cast, is 8·279; when hammered, 8·932. It is malleable, and may without difficulty be hammered into plates not exceeding $\frac{1}{100}$th part of an inch in thickness. It is attracted by the magnet; and is not altered by exposure to the air, nor by being kept under water. It is employed in potteries, and in the manufacture of porcelain.—(*Thomson's Chemistry.*)

NITRE. See SALTPETRE.

NOTE, PROMISSORY. See BANKING, and BANKS.

NUT, OR HAZEL NUT (Ger. *Haselnusse*; Fr. *Noisettes*, *Avelines*; It. *Naccinole*, *Avelane*; Sp. *Avellanas*; Port. *Avellãas*; Lat. *Avellanæ*), the fruit of different species of *Coryli*, or hazels. The kernels have a mild, farinaceous, oily taste, agreeable to most palates. A kind of chocolate has been prepared from them; and they have sometimes been made into bread. The expressed oil of hazel nuts is little inferior to that of almonds. Besides those raised at home, we import nuts from different parts of France, Portugal, and Spain, but principally from the latter. The Spanish nuts in the highest estimation, though sold under the name of Barcelona nuts, are not really shipped at that city, but at Tarragona, a little more to the south. Mr. Inglis says that the annual average export of nuts from Tarragona is from 25,000 to 30,000 bags, of 4 to the ton. They cost, free on board, in autumn, in 1830, 17*s.* 6*d.* per bag.—(*Spain in* 1830, vol. ii. p. 362.) In 1857, 185,114 bushels of hazel nuts were admitted to home consumption. The duty of 2*s.* 1$\frac{1}{2}$*d.* per bushel was reduced in 1853 to 1*s.* a bushel.

NUTS (GROUND) (*Arachis hypogæa*), known in French commerce as "*arachides*," in America as pea-nuts, and in Africa as *Mandubim*, the fruit of a papilionaceous plant, rising to the height of about 15 inches, being very like the field pea, with yellow flowers. The branches after flowering bend down till they touch the ground, into which they work themselves, and upon them grow the pods that contain the nuts. When the nuts are ripe, the plant dies. It is then pulled up, and the nuts which adhere to the twigs are collected. The pods, which are of an elongated figure, about $\frac{3}{4}$ inch in length, and $\frac{1}{2}$ inch in circumference, and brittle, usually contain 2 nuts, but sometimes only 1, and very rarely 3. They are elliptical at one end and flattened at the other.

Ground-nuts are grown in light sandy soils in most tropical countries. They have been used as food from time immemorial in Africa, India, Brazil, and other parts both of S. and N. America. The best are raised on the banks of the river Gambia, where they are extensively grown in large fields, the ground being prepared for their reception by the natives after the rude fashion of the country. The plant is very prolific; it is also said to be highly exhaustive of the soil, though this is, perhaps, questionable.

Ground nuts yield large quantities of oil; and within the last twenty years they have begun to be grown in Africa as an article of commerce, and are now largely exported for crushing. A mill for expressing oil from them was constructed in London in 1835. But the French government having a few years after imposed high duties on most descriptions of oil seeds, the oil crushers of Marseilles and other towns endeavoured to find out seeds not included in the tariff, or less heavily taxed than the others. They were thus led to import *arachides* or ground nuts, which they found to answer extremely well. France has, in consequence, become the great market for this peculiar product. The exports from the Gambia which, in 1835, did not exceed 47 tons, had increased in 1851 to not less than about 12,000 tons. Of this quantity about 800 tons went to the U. States, (where they are eaten at dessert, roasted, as are chestnuts elsewhere,) 700 to England, and the rest to France, principally to Marseilles. The total imports of *arachides* into France in 1851 amounted, according to the official returns, to 16,472,562 kilog., or 16,180 tons.

Nuts are, also, exported from the Rio Grande, the Rio Nunez, and from Sierra Leone, and the adjoining rivers. And though there are no accounts of the exact quantities sent from each, it is believed that their aggregate amount is fully equal to the exports from the Gambia. Within the last 3 or 4 years considerable quantities have been shipped from the Senegal river.

The oil expressed from the nuts differs in quality and price according to the care with which it is refined. That made in London, which is equal to fine olive oil, sold, in 1853, at from 60*l.* to 62*l.* a ton. In France the oil is principally used in the manufacture of soap; and being inferior to that made here is worth from 45*l.* to 48*l.* a ton.

Besides being used for the like purposes as other oil in food, in the woollen manufacture, and in lamps, the oil of ground nuts is said to be especially well fitted for lubricating heavy machinery, inc. the locomotive engines on railways. The Belgians use it for this latter purpose in preference to all other oils.

Ground nuts are worth at present (September 1853) from 380 fr. to 390 fr. per 1,000 kilog. (a ton) in Marseilles; 13*l.* 15*s.* a ton in London; and from 9*l.* to 10*l.* a ton delivered to a French ship in the Gambia. Sierra Leone nuts bring from 1*l.* to 2*l.* less than those from the Gambia.

We have been obligingly furnished with these valuable details by John Forster, Esq., M.P., whose house has been mainly instrumental in developing this new and important branch of commerce.

NUTMEG (Ger. *Muskatennüsse*; Du. *Muskaät*; Fr. *Muscades*, *Noix muscades*; It. *Noce muscada*; Sp. *Moscada*; Arab. *Jowzalteib*; Sans. *Jātiphala*; Malay, *Buah-pala*), the fruit of the genuine nutmeg tree (*Myristica Moschata*), a native of the Moluccas, but which has been transplanted to Sumatra, Penang, &c. An inferior and long-shaped nutmeg is common in Borneo; but the fruit nowhere attains to the same perfection as in the Moluccas.

Of the several varieties of the tree, that denominated the Queen Nutmeg, which bears a small round fruit, is the best. The kernel, or proper nutmeg, is of a roundish oval form, marked on the outside with many vermicular furrows, within of a fleshy farinaceous substance, variegated whitish and bay. Nutmegs are frequently punctured and boiled, in order to obtain the essential oil; the orifice being afterwards closed; but the fraud is easily detected by the lightness of the nutmeg.—(*Thomson's Dispensatory*; *Ainslie's Materia Indica.*)

Nutmegs should be chosen large, round, heavy, and firm, of a lightish grey colour on the outside, and the inside beautifully marbled, of a strong fragrant smell, warm aromatic taste, and a flat oily body. They are very subject to be worm-eaten. The best manner of packing them is in dry chunam. The oblong kind, and the smaller ones, should be rejected. 15 cwt. are allowed to a ton.—(*Milburn's Orient. Com.*)

The dried produce of a nutmeg tree consists of nutmeg mace (which see), and shell. Supposing the whole produce to be divided into 100 parts, there are 13⅓ of mace, 33⅓ of shell, and 53⅓ of nutmeg. In the ancient commerce, and down to the establishment of the Dutch monopoly, nutmegs were always sold and exported in the shell. The natives, whenever the commerce is left to their management, continue the practice, which is strongly recommended by Mr. Crawfurd.—(*Eastern Archipelago*, vol. iii. p. 396.)

The jealous policy of the Dutch has reduced the trade in nutmegs to a mere trifle, compared to what it would otherwise have been. They have, in so far at least as it was possible, exerted themselves to exterminate the nutmeg plants every where except in Banda. The aboriginal inhabitants of this island have been expatriated, and the land parcelled among settlers from Holland, under the name *park keepers*. These persons have about 2,000 slaves, who cultivate and prepare the nutmegs. The prices paid by the cultivator are all fixed by government: and it deserves to be mentioned, as affording one of the most striking illustrations of the ruinous effects of monopoly, that the fixed price which the government is now obliged to pay for nutmegs is FIVE *times greater than the price at which they bought them when the trade was free!* We cannot conceive how so enlightened and liberal a government as that of Holland should continue to tolerate such scandalous abuses, more especially since it has established a free system in Amboyna, Java, and its other possessions.

M. Temminck estimates the produce of the Banda Islands at about 600,000 lbs. of nutmegs, and 160,000 lbs. of mace.—(*Possessions Neerlandaises dans l'Inde Archipelagique*, iii. 283.)

During the period that the English had possession of the Spice Islands, nutmeg plants were carried to Penang, Bencoolen, and some of the West India islands. In the latter they have altogether failed, at least as far as respects any useful purpose; but very good nutmegs, and in considerable quantities, are now raised at Penang and Bencoolen. Mr. Crawfurd, however, alleges that the cost of bringing them to market is there so high, that the restoration of a free culture in the native country of the nutmeg would instantly destroy this unstable and factitious branch of industry.—(*Eastern Archipelago*, vol. iii. p. 409.)

The duty on nutmegs was reduced, in 1819, from 5*s.* 5*d.* to 2*s.* 6*d.* per lb.; and the quantities entered for home consumption have since rapidly increased. In 1857, 181,061 lbs. nutmegs were entered for consumption. In 1853 the duty was reduced to 1*s.* per lb., and to 3*d.* and 5*d.* per lb. respectively on wild nutmegs in the shell and not in the shell.

NUTRIA, OR NEUTRIA, the commercial names for the skins of *Myopotamus Bonariensis* (Commerson), the *Coypou* of Molina, and the *Quoiya* of D'Azara. In France, the skins were, and perhaps still are, sold under the name of *racoonda*; but in England they are imported as *nutria* skins — deriving their appellation, most probably, from some supposed similarity of the animal which produces them, in appearance and habits, to the otter, the Spanish name for which is nutria. Indeed, Molina speaks of the *coypou* as a species of water rat, of the size and colour of the otter.

Nutria fur is largely used in the hat manufacture; and has become, within the last 15 or 20 years, an article of very considerable commercial importance. The imports fluctuate considerably. In 1841 they

amounted to 1,125,212 skins; but in some years they are much less; and, in 1840, amounted to only 242,733. Those entered for home consumption pay a duty of 1s. per 100 skins. They are principally brought from the Rio de la Plata.—(See FUR TRADE.)

The *coypou* or *quoiya* is a native of S. America, very common in the provinces of Chili, Buenos Ayres, and Tucuman, but more rare in Paraguay. In size it is less than the beaver, which it resembles in many points. The head is large and depressed, the ears small and rounded, the neck stout and short, the muzzle sharper than that of the beaver, and the whiskers very long and stiff. There are, as in the beaver, 2 incisor teeth, and 18 molar, above and below—20 teeth in all. The limbs are short. The fore feet have each 5 fingers not webbed, the thumb being very small: the hind feet have the same number of toes; the great toe and 3 next toes being joined by a web which extends to their ends, and the little toe being free, but edged with a membrane on its inner side. The nails are compressed, long, crooked, and sharp. The tail, unlike that of the beaver, is long, round, and hairy; but the hairs are not numerous, and permit the scaly texture of the skin in this part to be seen. The back is of a brownish red, which becomes redder on the flanks: the belly is of a dirty red. The edges of the lips and extremity of the muzzle are white.

Like the beaver, the coypou is furnished with 2 kinds of fur; viz. the long ruddy hair which gives the tone of colour, and the brownish ash-coloured fur at its base, which, like the down of the beaver, is of much importance in hat making, and the cause of the animal's commercial value.

The habits of the coypou are much like those of most of the other aquatic rodent animals. Its principal food, in a state of nature, is vegetable. It affects the neighbourhood of water, swims perfectly well, and burrows in the ground. The female brings forth from 5 to 7 at a time; and the young always accompany her.

The coypou is easily domesticated, and its manners in captivity are very mild.

*** We are indebted for this account of nutria — the first, we believe, that appeared in any English work — to W. J. Broderip, Esq., F.R.S., &c.

NUX VOMICA (Fr. *Noix Vomique*; Hind. *Kaachla*), the fruit of a species of *Strychnos*, growing in various places in the East Indies.

The fruit is about the size of an orange, covered with a smooth crustaceous yellow bark, and filled with a fleshy pulp, in which are imbedded several orbicular flatted seeds, about ¾ of an inch in diameter. Nux vomica is inodorous, and has a very bitter, acrid taste, which remains long on the palate. It is known as a very virulent poison. A suspicion has, however, been entertained, that it has been used in porter breweries; but its introduction into them is prohibited under heavy penalties. — (*Thomson's Dispensatory, &c.*)

O.

OAK (Ger. *Eiche*; Du. *Eik*; Da. *Eeg*; Sw. *Ek*; Fr. *Chêne*; It. *Quercia*; Sp. *Roble, Carballo*; Port. *Roble, Carbalho*; Rus. *Dub*; Pol. *Dab*; Lat. *Quercus*; Arab. *Baalut*). There are several varieties of this valuable tree; but the common English oak (*Quercus robur*) claims precedence of every other. The oak timber imported from America is very inferior to that of this country: the oak from the central parts of Europe is also inferior, especially in compactness and resistance of cleavage. The knotty oak of England, the "unwedgeable and gnarled oak," as Shakespeare called it, when cut down at a proper age (from 50 to 70 years), is the best timber known. Some timber is harder, some more difficult to rend, and some less capable of being broken across; but none contains all the three qualities in so great and equal proportions; and thus, for at once supporting a weight, resisting a strain, and not splintering by a cannon shot, the timber of the oak is superior to every other.

A fine oak is one of the most picturesque of trees; it conveys to the mind associations of great strength, and of all but endless duration. It stands up against the blast, and does not take, like other trees, a twisted form from the action of the winds. Except the cedar of Lebanon, no tree is so remarkable for the stoutness of its limbs; they do not exactly spring from the trunk, but divide from it; and thus it is sometimes difficult to know which is stem and which is branch. The twisted branches of the oak, too, add greatly to its beauty; and the horizontal direction of its boughs, spreading over a large surface, completes the idea of its sovereignty over all the trees of the forest. Even a decayed oak, such as that described by Spenser—

> "——————— dry and dead,
> Still clad with reliques of its trophies old,
> Lifting to heaven its aged, hoary head,
> Whose foot on earth has got but feeble hold,"

is strikingly beautiful. To such an oak Lucan compared Pompey in his decline:—

> "Qualis frugifero quercus sublimis in agro
> Exuvias veteres populi, sacratasque gestans
> Dona ducum; nec jam validis radicibus hærens,
> Pondere fixa suo est; nudosque per aëra ramos
> Effundens, trunco, non frondibus, efficit umbram.
> At quamvis primo nutet casura sub Euro,
> Tot circum silvæ firmo se róbore tollant,
> Sola tamen colitur." — (Lib. i. lin. 136.)

The oak is raised from acorns, sown either where the oak is to stand, or in a nursery, whence the young trees are transplanted.

The colour of oak wood is a fine brown, and is familiar to every one; it is of different shades; that inclined to red is the most inferior. The larger transverse septa are in general very distinct, producing beautiful flowers when cut obliquely. Where the septa are small, and not very distinct, the wood is much the strongest. The texture is alternately compact and porous; the compact part of the annual ring being of the darkest colour, and in irregular dots surrounded by open pores, producing beautiful dark veins in some kinds, particularly pollard oaks. Oak timber has a particular smell, and the taste is slightly astringent. It contains gallic acid, and is blackened by contact with iron when it is damp. The young wood of English oak is very tough, often cross-grained, and difficult to work. Foreign wood, and that of old trees, is more brittle and workable. Oak warps and twists much in drying; and, in seasoning, shrinks about $\frac{1}{32}$d of its width.

Oak of a good quality is more durable than any other wood that attains a like size. Vitruvius says it is of eternal duration when driven into the earth: it is extremely durable in water; and in a dry state it has been known to last nearly 1,000 years. The more compact it is, and the smaller the pores are, the longer it will last; but the open, porous, and foxy coloured oak, which grows in Lincolnshire and some other places, is not near so durable.

Besides the common British oak (*Quercus robur*), the sessile-fruited bay oak (*Quercus sessiliflora*) is pretty abundant in several parts of England, particularly in the north. The wood of this species is said by Tredgold to be darker, heavier, harder, and more elastic than the common oak; tough, and difficult to work; and very subject to warp and split in seasoning. Mr. Tredgold seems disposed to regard this species as superior to the common oak for ship building. But other, and also very high authorities, are opposed to him on this point; and, on the whole, we should think that it is sufficiently well established, that for all the great practical purposes to which oak timber is applied, and especially for ship building, the wood of the common oak deserves to be preferred to every other species. A well-informed writer in the *Quarterly Review* has the following remarks on the point in question: —

"We may here notice a fact long known to botanists, but of which our planters and purveyors of timber appear to have had no suspicion, — that there are two distinct species of oak in England — the *Quercus robur*, and the *Quercus sessiliflora*; the former of which affords a close-grained, firm, solid timber, rarely subject to rot; the other more loose and sappy, very liable to rot, and not half so durable. This difference was noted so early as the time of Ray; and Martyn in his *Flora Rustica*, and Sir James Smith in his *Flora Britannica*, have added their testimonies to the fact. The second species is supposed to have been introduced some 2 or 3 ages ago, from the Continent, where the oaks are chiefly of this latter species, especially in the German forests, the timber of which is known to be very worthless. But what is of more importance to us is, that *de facto* the imposture abounds, and is propagated vigorously in the New Forest and other parts of Hampshire; in Norfolk, and the northern counties, and about London; and there is but too much reason to believe that the numerous complaints that were heard about our ships being infected with what was called, improperly enough, *dry rot*, were owing to the introduction of this species of oak into the naval dock-yards, where, we understand, the distinction was not even suspected. It may thus be discriminated from the true old English oak: — The acorn stalks of the *robur* are *long*, and its leaves *short*; whereas the *sessiliflora* has the acorn stalks *short*, and the leaves *long*: the acorns of the former grow singly, or seldom two on the same footstalk; those of the latter, in clusters of 2 or 3 close to the stem of the branch. We believe the Russian ships of the Baltic, that are not of larch or fir, are built of this species of oak; but if this were not the case, their exposure on the stocks, without cover, to the heat of summer, which, though short, is excessive, and the rifts and chinks which fill up with ice and snow in the long winter, are enough to destroy the stoutest oak, and quite sufficient to account for their short-lived duration."

A great deal of inquiry and discussion has taken place at different periods as to the supply and consumption of oak timber; but the results have not been very satisfactory. In a *Report of the Commissioners of Land Revenue*, printed in 1812, it is stated that, taking the tonnage of the navy in 1806 at 776,087 tons, it would require, at 1½ load to a ton, 1,164,085 loads to build such a navy; and supposing the average duration of a ship to be 14 years, the annual quantity of timber required would be 83,149 loads, exclusive of repairs, which they calculate would be about 27,000 loads; making the whole about 110,000 loads: of which, however, the commissioners reckon may be furnished 21,341 loads as the annual average of the prizes; and of the remaining 88,659 loads, they think it not unreasonable to calculate on 28,659 from other sources than British oak. "This," they observe, "leaves 60,000 loads of such oak, as the quantity which would be sufficient annually to support, at its present unexampled magnitude, the whole British navy, including ships of war of all sorts; but which may be taken as equivalent together to 20 14-gun ships, each of which, one with another, contains about 2,000 tons, or would require, at the rate of ⅔ load to the ton, 3,000 loads; making just 60,000 loads for 20 such ships."

Now, it has been supposed that not more than 40 oak trees can stand on an acre of ground, so as to grow to a full size fit for ships of the line, or to contain each 1½ load of timber; 50 acres, therefore, would be required to produce a sufficient quantity of timber to build a 74-gun ship, and 1,000 acres, for 20 such ships; and as the oak requires at least 100 years to arrive at maturity, 100,000 acres would be required to keep up a successive supply, for maintaining a navy of 700,000 or 800,000 tons. The commissioners further observe, that as there are 20,000,000 acres of waste lands in the kingdom, a 200th part set aside for planting would at once furnish the whole quantity wanted for the use of the navy.

According to Mr. Barrow, this calculation is over-rated by about a half. "In the first place," says he, "it supposed a state of perpetual war, during which the tonnage of the whole navy is considered as more than double of what it now actually is: and, in the second place, it reckons the average duration of the navy at 14 years only; which, from the improvements that have taken place in the construction and preservation of ships of war, with the resources of teak ships built in India, we should not hesitate in assuming at an average of twice that number of years; and if so, the quantity of oak required for the navy will be nothing like that which the commissioners have stated.

"The fact, however, is certain, that long before the conclusion of the late war, a scarcity begun to be felt, especially of the larger kind of timber fit for ships of the line; and so great was this scarcity, that if Sir Robert Seppings had not contrived the means of substituting straight timber for that of different forms and dimensions, before considered to be indispensable, the building of new ships must entirely have ceased.

"If, however, the growth of oak for ship timber was greatly diminished during the war, so as to threaten an alarming scarcity, there is little doubt that, from the increased attention paid by individuals to their young plantations, and their great extension, as well as from the measure of allotting off portions of the royal forests to those who had claims on them, and inclosing the remainder for the use of the public, this country will, in future times, be fully adequate to the production of oak timber equal to the demand for the naval and mercantile marine." — (*Ency. Brit.* art. *Navy.*)

The bark of the oak tree is very valuable. It is preferred to all other substances for the purpose of tanning, and brings a high price. — (See BARK.)

The foreign oak timber imported into Great Britain is principally derived from Canada and Prussia. The latter is the most valuable — its price being to the former in the proportion of about 9 to 6; that is, if a load of Prussian oak timber brought 9*l.*, a load of Canada ditto would not bring more than about 6*l.* The quantity imported varies; but may, at an average, amount to about 10,000 loads, of 50 cubic feet each; the greater part from Quebec. Oak plank is almost wholly imported from Prussia. The quantities imported during the 6 years ending the 5th of January, 1842, were —

Years.	Loads.	Years.	Loads.	Years.	Loads.
1836	2,870	1838	3,888	1840	6,467
1837	2,198	1839	3,489	1841	2,577

For further details with respect to the importation of oak, its price, duty on, &c., see WOOD. — See, also, *Tredgold's Principles of Carpentry*; art. *Navy, Supplement to Ency. Brit.*; the very interesting work on *Timber Trees and Fruits*, in the *Library of Entertaining Knowledge*; *Rees's Cyclopædia*, &c.

OATS (Ger. *Hafer*; Du. *Haver*; Da. *Havre*; Sw. *Hafre*; Fr. *Avoine*; It. *Vena, Avena*; Sp. *Avena*; Port. *Avea*; Russ. *Owes*; Pol. *Owies*), a species of grain, the *Avena sativa* of botanists. There are innumerable varieties of this grain, some of which are said to be indigenous to Britain. It is the hardiest of all the cereal grasses, growing luxuriantly in cold northern climates, and in coarse mountainous districts, where neither wheat nor barley can be advantageously cultivated. It thrives best, and is, indeed, chiefly raised, in latitudes north of Paris; being but little known in the south of France, Spain, or Portugal. It is, however, cultivated in Bengal, so low as the 25th degree of latitude, and, it is said, with considerable success. In Scotland, where it has long formed a principal part of the food of the people, it is far more generally cultivated than any other species of grain. It is also very extensively cultivated in Ireland. In England it is grown principally in the northern counties, and in the fens of Lincoln, Huntingdon, Cambridge, and Norfolk; but the oats of Northumberland and Scotland are reckoned superior to those raised farther south.

There are 4 leading varieties of this grain cultivated in England, viz. white, black, grey, and brown or red oats. The sub varieties of the white are numerous. That denominated the potato oat is at present almost the only one raised on land in a good state of cultivation in the north of England and the south of Scotland, and usually brings a higher price in the London market than any other variety. It was accidentally discovered growing in a field of potatoes in Cumberland in 1788; and from the produce of that single stalk has been produced the stock now in general cultivation. Black and grey oats are little cultivated, except in some places in the north of Scotland. The red oat is chiefly confined to Cheshire, Derbyshire, and Staffordshire. A species of naked oats, provincially called *pillar*, is raised in Cornwall. — (*Loudon's Encyc. of Agriculture*; *Brown's Rural Economy*, vol. ii. pp. 47—52.)

In 1765, Mr. Charles Smith estimated the number of consumers of oats in England and Wales at 623,000. — (*Tracts on the Corn Trade*, 2d edit. p. 140.), but at present we believe they are very considerably fewer. The feeding of horses has at all times occasioned the greatest consumption of oats in this part of the kingdom; and as the number of horses kept for business and pleasure has been vastly increased within the last 30 or 40 years, the culture of oats has been considerably extended, notwithstanding the increasing imports from Ireland. Perhaps the produce of no species of grain varies more than that of oats. Where the ground is foul and exhausted, not more than 20 bushels an acre are obtained; but on rich soils, well managed, 64, 72, and sometimes 80 bushels and upwards have been reaped. Oats weigh from 35 to 45 lbs. a bushel, yielding at an average, 8 lbs. meal for 14 lbs. corn: but the proportion of meal increases as the oats become heavier.

For information as to the laws regulating the importation and exportation of oats, their prices, the quantities imported and exported, &c., see CORN LAWS AND CORN TRADE.

ODESSA, a sea-port of southern Russia, on the north-west coast of the Black Sea, between the rivers Dneister and Bug, in lat. 46° 28′ 54″ N., lon. 30° 43′ 22″ E. Population, in 1852, 71,392. The foundations of Odessa were laid so lately as 1792, by order of the Empress Catharine, after the peace of Jassy. It was intended to serve as an *entrepôt* for the commerce of the Russian dominions on the Black Sea and the Sea of Azoff. But being on the verge of an arid plain, at a very considerable distance from the entrance to the Sea of Azoff, and even from the mouths of the great rivers between which it is situated, we doubt whether much judgment was displayed in its selection. It has, indeed, the important advantage of having an extensive bay or roadstead, with deep water and good anchorage. The bay is, however, exposed to the south-easterly wind, which renders it less safe in winter. The port, which is artificial, being formed by 2 moles, one of which projects to a considerable distance into the sea, is fitted to contain about 300 ships. It has the advantage of deep water, but is said to be gradually filling up. There is a convenient lazaretto, on the model of that of Marseilles. The want of fresh water is a great disadvantage. There are no trees in the vicinity, which has, in consequence, a bleak and arid appearance.

Mr. Matthew, the intelligent consul for the Russian ports on the Black Sea, has recently made the following statement with respect to Odessa: —

"The neglected condition of the city, and of its harbour, and the bad state of the roads leading to the interior, must ultimately affect (unless timely remedies are applied) the commerce it now enjoys, as the natural outlet of the great grain-growing provinces of Russia.

" The town is unpaved, undrained, and inefficiently lighted by a few oil lamps; the mud in the winter, and the clouds of dust created by it in the summer, render the streets almost impassable.

" The supply of water, which each must buy, is wholly inadequate and bad, although an aqueduct and canal over 30 miles of level plain would bring the waters of the Dneister to Odessa, and would pay for itself in three years by the carriage of Bessarabian produce.

" The harbour is gradually filling up, without any efforts to prevent it, and it is impossible to avoid the conviction that the Government must desire, by the neglect of Odessa, to promote the prosperity of Theodosia, which for reasons of military policy has been preferred to Odessa for the terminus of the great Moscow Railway."

But though this state of things be sufficiently discreditable to the government and the municipality, there is not, we believe, any ground for the surmise that Odessa is being intentionally neglected. Its position is not, in truth, very favourable, either in a military or commercial point of view; and an emporium at or near the Straits of Yenikale would be at once more secure from hostile attack, and better situated for the trade of the southern provinces of the empire.

Light-houses. — A light-house has been erected on Cape Fontan, about 6½ nautical miles S. of Odessa. The light, which formerly revolved, is now *fixed*, and is about 203 (Russian) feet above the level of the sea. At the distance of 11 leagues E.S.E. ½ S. from Odessa, on the north end of the long, narrow, low island of Tendra, a light-house has been erected, of great use to ships approaching Odessa from the S. or W. The lantern is elevated 92⅛ (Russian) feet above the level of the sea. It consists of 3 reflecting lights, suspended in the form of a triangle, revolving in the space of 4 minutes, so that each lamp arrives at its maximum of brilliancy after an interval of 1 min. 20 sec. Being also of a *red* colour; this light is readily distinguished from Fontan light, and the other lights in the Black Sea. In foggy weather, a bell is kept ringing. — (*Coulier sur les Phares*, 2d ed.; *Norrie's Sailing Directions for the Mediterranean and Black Seas, &c.*)

Not being at the mouth of any great river, nor having any considerable manufactures, Odessa is not a port for the exportation of what may be called articles of native growth; but in consequence of her situation, excellent port, and the privileges she enjoyed down to a late period, she has become the emporium where a large part of the produce of Southern Russia destined for foreign countries is collected for exportation, and where most part of the foreign articles required for home consumption are primarily imported. The shallowness of the water at Taganrog, and the short period during which the Sea of Azoff is navigable, tend to hinder foreign vessels of considerable burden from entering the Strait of Yenikalé, and occasion the shipment of a considerable portion of the produce brought down the Don in lighters to Caffa and Odessa, especially the latter. All the products brought down the Dneister, the Bug, and the Dnieper, are exported from Odessa; but owing to the difficult navigation of the first and last mentioned rivers, by far the greater part of the corn brought to Odessa from Podolia, the Ukraine, &c., is conveyed to the town in carts drawn by oxen. The roads traversed by these carts are only practicable at certain seasons of the year; and nothing would contribute so much to increase the commerce of the port, and the prosperity of S. Russia, as the opening of improved communications with the interior; whether by removing obstructions in the channels of the rivers, constructing canals, or railways, or good common roads.

Monies, Weights, and *Measures*, same as at Petersburgh, which see.

The privilege of a free port conferred upon Odessa in 1817, was permitted to expire in 1856. But the change in the tariff in 1857, and the abolition which has taken place of the quarantine system, might, had they been accompanied by other necessary changes, have compensated or more for the abolition of the peculiar privileges enjoyed by the city. It is alleged, however, that the barriers by which it was formerly surrounded have not been removed, and that the foreign merchants within her limits, who have not taken the oaths of allegiance, have to become members of the 1st guild of merchants, and pay a tax of 150*l.* 12*s.* 9*d.* a year. These, no doubt, are very serious drawbacks upon the progress of the town, but we hardly think they will be maintained for any considerable period.

The great Articles of Export from Odessa consist, as every one knows, of the raw products of the soil, especially of wheat, and other varieties of corn. But wool, tallow, hides, and linens are also important articles; and to these have to be added potash, copper, caviar, cordage, wax, sail-cloth, tar, butter, furs, isinglass, &c. We subjoin

An Account of the Quantity of the principal Articles exported from Odessa in the Years 1856 and 1857, and of their Value in 1857.

Russian Weights and Measures.			English Weights and Measures.			Values in
Articles.	1856.	1857.		1856.	1857.	1857.
Wheat - chetwerts	- -	909,315	quarters.	- -	654,707	£1,473,091
Rye - ,,	1,727	41,066	,,	1,243	29,567	36,597
Indian corn - ,,	277,286	639,252	,,	199,501	455,221	603,039
Barley - ,,	139,382	389,224	,,	100,355	280,241	301,518
Oats - ,,	- -	442,964	,,	- -	318,934	292,248
Linseed - ,,	- -	100,695	,,	- -	72,498	211,706
Wool - poods	- -	191,082	lbs.	- -	6,803,680	340,184
Tallow - ,,	207,874	245,354	tons.	3,352	3,957	194,219
Hides - number	26,348	91,173	number.	26,348	91,173	88,477
All other articles -	- -	- -	- -	- -	- -	203,496
Total value of all articles -	- -	- -	- -	- -	- -	£4,044,375

Regular lines of steamers ply between Odessa and Galatz and Constantinople, the latter being, of course, connected with all the leading ports of Europe.

The exports of wheat from Odessa in 1847, amounted to 2,016,692 qrs.! This immense exportation, the greatest ever previously made in any one year from any one port, was a consequence partly of the abundant harvest of the previous year, and partly, and, perhaps, principally, of the scarcity and high prices which then prevailed in this country and other parts of W. Europe, which made every bushel be shipped that could possibly be spared. But in 1853, the year before the late war, the exports were

still greater, having amounted to 2,160,000 qrs. There is here, in truth, the greatest possible variation in the harvests. Every thing depends on the seasons.* Nature does all, man little or nothing. Agriculture is in the most backward state imaginable. No effort is made to obviate the effect of droughts and rains. And owing to the badness of the roads or paths, and the difficulty of river carriage, a considerable portion of the produce of a luxuriant crop is not brought to market or warehoused, but is allowed to go to waste. Some improvements have, no doubt, been effected, and others are in progress; but they are inconsiderable compared with what they should have been, and with what they would have been were the policy pursued by government calculated to develop the resources of the vast and fruitful countries of which Odessa is the emporium.

Account of the Quantities and Values of the Principal Articles imported into Odessa in 1857.

Articles.	Quantities.		Value.		Articles.	Quantities.		Value.	
	Foreign Weights and Measures.	English Weights and Measures.	Russian Money.	English Money.		Foreign Weights and Measures.	English Weights and Measures.	Russian Money.	English Money.
			Roubles.	£				*Roubles.*	£
Syrup - poods	4,094	tons 66	10,440	1,606	Caroubes - poods	45,905	tons 740	74,755	11,501
Sweetmeats ,,	387	,, 6½	16,224	2,496	Raisins and figs - ,,	53,871	,, 809	292,848	45,054
Cinnamon ,,	776	,, 12½	14,015	2,156	Rice - ,,	21,289	,, 343	65,532	10,082
Pepper(black) ,,	17,802	,, 287	122,381	18,829	Tea - ,,	6,942	,, 112	488,658	75,178
Cloves - ,,	2,675	,, 43	24,307	3,739	Cotton - ,,	36,925	,, 595	281,400	43,292
Cocoa - ,,	675	,, 10⅝	6,200	954	sewing ,,	13,556	,, 218	143,029	22,214
Coffee - ,,	39,343	,, 634½	383,461	58,994	Alum ,,	9,908	,, 160	13,768	2,118
Sugar (refined) - ,,	132,621	,, 2,139	1,266,167	194,795	Whitelead ,,	5,315	,, 85	22,655	3,485
Oil (olive) - ,,	101,981	,, 1,645	713,738	109,805	Lead - ,,	66,559	,, 1,073	189,188	29,106
Rum - ,,	3,322	,, 53½	37,744	5,807	Coals - ,,	1,037,490	,, 166,735	238,625	36,713
Wines - bottle	134,344	bott. 134,344	269,368	41,441	Manufactures:				
pood	112,827	tons 1,820	332,962	51,226	cotton ,,	35,610	,, 542	748,078	115,089
Porter - ,,	906	,, 14½	158,903	24,446	linen - ,,	1,670	,, 27	107,500	16,538
bottle	279,063	bott. 279,063			woollen ,,	8,761	,, 141	457,435	17,298
Fish (salt) pood	4,850	tons 78	42,600	6,554	silk - ,,	1,085	,, 17	381,337	58,667
Olives - ,,	24,930	,, 402	108,629	16,712	Machinery ,,	-	-	281,471	43,303
Salt - ,,	1,957,969	,, 31,580	968,568	149,010	Tin - ,,	8,690	,, 140	74,449	11,453
Cheese - ,,	3,317	,, 53	41,020	6,311	Porcelain - ,,	12,630	,, 204	98,085	15,090
Tobacco - ,,	41,748	,, 673	932,750	103,500	Carriages - no.	294	no. 294	221,705	34,108
Oranges and lemons - no.	11,138,940	no. 11,138,940	200,026	30,773	Incense - poods	7,276	tons 117	53,683	8,259
Walnuts - pood	32,022	tons 516½	74,477	11,458	Sundries - ,,	129,800	,, 2,094	3,595,496	553,154
Almonds - ,,	11,667	,, 188½	134,305	20,662	Total -	-	-	13,669,995	2,103,076

Account of the Entrances and Clearances of British and Foreign Shipping at Odessa in 1857, showing the Values of the Cargoes imported and exported by the Ships of each Country.

Countries.	Entered.			Value of Cargoes.	Cleared.			Value of Cargoes.
	Vessels.	Tons.	Crews.		Vessels.	Tons.	Crews.	
				£				£
British and Ionian - -	261	103,592	2,980	659,692	240	49,822	3,197	1,350,769
Austrian - - -	392	121,501	5,035	589,230	318	80,301	4,992	861,538
Sardinian - - -	188	48,948	2,389	64,615	183	34,818	2,272	646,154
Greek - - -	105	27,511	1,229	89,230	102	19,966	1,167	200,000
Russian - - -	53	17,634	1,450	423,077	39	8,453	899	184,615
Norwegian - - -	76	20,670	950	49,230	45	13,877	788	184,615
Swedish - - -	10	3,454	129	769	9	1,990	127	30,770
Turkish - - -	55	8,068	946	125,731	66	7,547	958	46,155
Valachian - - -	12	2,031	126	12,308	13	1,494	156	3,077
Neapolitan - - -	38	11,645	461	13,846	38	6,016	459	246,154
Tuscan - - -	24	9,299	324	18,154	26	5,969	351	184,615
French - - -	36	7,377	355	61,538	33	4,475	339	169,230
Prussian - - -	11	3,305	131	12,308	12	2,811	174	15,385
Dutch - - -	10	2,116	103	4,615	10	1,508	118	15,385
Mecklenburg - - -	7	1,385	78	6,154	8	1,464	92	15,385
Sundries - - -	22	6,123	284	24,455	29	6,268	377	39,076
Total - -	1,230	394,457	16,948	2,154,605	1,161	246,779	16,446	4,172,923

Observations on the Trade of Odessa in 1851. — "The exportation of rye from this port has at no time been otherwise than very limited. It is raised for local consumption, being the chief article of food of the people, and not like wheat, which is grown with the sole view of exportation. The quantity of rye shipped last year was 73,773 quarters, the whole of which went to the northern ports of continental Europe. The prices varied from 10*s.* 5*d.* to 17*s.* 5*d.* per imperial quarter, and it was the highest quotation that prevailed at the end of the year. Indian corn is become an article of exportation from Odessa only within a few years. It is the produce of Bessarabia, where its cultivation has of late been much extended in consequence of its demand for Ireland. The quantity shipped in the year was 98,252 quarters, all directed to Cork or Falmouth for orders. The prices varied from 13*s.* 7*d.* to 17*s.* 4*d.* per imperial quarter; and 16*s.* 2*d.* was the last quotation. The quantity remaining in granary was, after revision, found to be 32,000 quarters, all in the hands of exporters.

"The supplies of barley and oats have as usual been limited to local consumption.

* In proof of this allegation we may refer to a statement by Tegoborski, who says, that in the estates of the Duke of Anhalt Koethen, in Taurida, in the 10 years from 1832 to 1841, some harvests returned 15 times the seed, others barely the seed, and that one entirely failed. — *Forces Productives de la Russie*, i. 380.

"The exportation of linseed is stated in the Custom House report to be 47,875 quarters; whereas I find that 51,369 quarters were shipped for England, and 17,004 for continental ports. The last crops having been good, and grown on the near steppe lands, a large supply of the new seed has been already brought to market, and the quantity on the spot is estimated to be about 30,000 quarters, all in the hands of shippers. The prices ranged from 28*s.* 4*d.* to 35*s.* 11*d.* per imperial quarter. Large purchases were made last autumn by the crushers of Hull, for delivery next summer from the Sea of Azoff and this port; and under present circumstances both buyers and sellers are menaced by loss, for in England prices are declining, while on this side anticipations of extraordinary abundance have been disappointed.

"The tallow trade of these ports has not revived, nor is it likely to do so for some time, or till the country recovers from the immense loss of cattle carried away of late years by the distemper.

"The exportation of wool suffered a considerable decrease, having amounted only to 50,748 cwt. of all kinds, instead of 75,581 cwt. in the preceding year. To England were shipped 14,378 cwt.; to the northern continental ports 18,492 cwt.; and the remainder to the Mediterranean. The sheep flocks have been thinned by consecutive seasons of drought and deficient pasturage; and the trade has of late been more influenced by the demand for the manufactories of Moscow. The prices are kept up at their highest quotations, and they are further affected by the anticipated disturbance of labour in Australia.

"The amount of shipping did not much differ from that of 1850; 698 vessels arrived measuring 196,218 tons, of which 126 were British, burden 37,531 tons; and 729 vessels measuring 203,842 tons departed, of which 130 were British, burden 38,830 tons. Of the 242 vessels bound to England with cargoes, 110 were British. The preference is still given to our flag, particularly in the boisterous seasons. The Austrian ships of the Adriatic are, however, in great favour, especially for grain cargoes. The rates of freights to England varied from 1*l.* 15*s.* to 3*l.* 5*s.* per ton, or from 5*s.* 5*d.* to 10*s.* per imperial quarter; and the highest rates prevailed during the last three months, offering a fair remuneration to shipowners. The average exchange on London was 6 30 rs. for the pound sterling. The money market was generally easy with limited operations; and credit is at present sound, though restricted in consequence of the great losses incurred in the grain trade by the Greek houses. It is worthy of remark, that not one of these houses has failed, notwithstanding their severe trials."

A tribunal of commerce was established at Odessa in 1824, whose jurisdiction extends over all disputes connected with trade. There is no appeal from its decisions except to the Senate. There are 12 sworn brokers, approved and licensed by the Tribunal of Commerce, who have deputies appointed by themselves. They register all transactions, and receive ½ per cent. from each party as commission. There is a discount or loan bank, established in 1828, and marine and fire insurance societies. Most articles of provision are cheap; and fish, which costs next to nothing, is excellent. Fuel, however, is scarce and dear.

Within the last 30 years, the Merino breed of sheep has been extensively introduced into the governments of Taurida, Cherson, and Ekaterinoslov; so that there has been not only a great increase in the quantity, but also a very decided improvement in the quality, of the wool exported.

Corn Trade.— The principal trade of Odessa is with Constantinople, Smyrna, and other towns in the Levant, Naples, Leghorn, Genoa, Marseilles, &c. "It is generally stated," says Mr. Jacob (*Memoir on the Trade of the Black Sea*, in the *Appendix* to the 8vo edition of *Tracts on the Corn Trade*), "that the supply of Constantinople requires annually 100,000 quarters of Black Sea wheat. The Greek islands scarcely, on the average of years, produce sufficient wheat for their own consumption, and, in some years, require a large supply, which is furnished partly from the neighbouring continent, and partly from the Black Sea.

"The Asiatic coasts of the Turkish Empire, especially in Anatolia, are nearly in the same predicament. At times, the market of Smyrna is very favourable for the sale of the corn of Southern Russia. The islands of Malta and Gozo produce only about half as much corn as the 120,000 inhabitants require.

"Sicily, though it has greatly declined from its ancient productiveness, has still a quantity of grain to spare for the less fruitful parts of Italy, in most years; and its wheat enters into competition with that of the Black Sea, in the ports of Naples, Genoa, and Leghorn.

"There are few years in which Tuscany grows a sufficiency of wheat; and its chief port, Leghorn, being one of those in which ships can unload their cargoes of corn, without being detained to perform quarantine, has been at all times a place of deposit for the wheat of the Black Sea. A market at some price may always be found there, as the capitalists are disposed to purchase; relying on the uncertain productiveness of some adjacent country, in which they may realise a profit at no great distance.

"Genoa, like Leghorn, is a port where wheat can be unloaded within the bounds of the lazaretto. The country around it yields but little wheat: and, at some periods, it enjoys a trade in that article even as far as Sunderland. This internal demand, and the chance of advantageous re-exportation, induces much trade in corn. There is said to be seldom less than 100,000 quarters in store at the two ports of Genoa and Leghorn; and at some periods, a far greater quantity.

"Nice, though not having the same advantageous quarantine regulations, and, consequently, not being a *depôt* for corn beyond its own demand, from the sterile soil that surrounds it, requires every year a large importation of wheat. That of Sicily and Odessa create a competition in its port; and the government draws a revenue, by imposing a heavy duty on both.

"Though the corn laws of France have kept the ports closed against the introduction of foreign corn for domestic use, yet it is allowed to be bonded for re-exportation. From the frequent local and partial scarcities which occur on the eastern coast of Spain, at which periods wheat is allowed to be lawfully imported, and, it is said, from the facility of its introduction by contraband, when not legally allowed, Marseilles has been a great *depôt* for the wheat of the Black Sea.

"From thence, as also from Gibraltar, where there is generally some in store, it can easily be trans-

ported to Spain, to Sardinia, to Corsica, to Tunis, to Tripoli, or wherever scarcity has created a beneficial market.

"The coasts of Barbary, though often having a surplus of wheat, much of which occasionally assists to feed Portugal, in some seasons have been affected with most deficient harvests. This was recently the case in a remarkable degree. Tripoli and Tunis experienced, in the year 1820, a harvest most miserably short, and were supplied from other countries."

Charges on Shipping Corn. — In 1852, the expenses of delivering a quarter of wheat free on board, including commission, warehouse rent, and shipping charges, amounted to about 2*s.* 2*d.*

The warehouse rent of corn at Odessa is from 8 to 10 copecks per chetwert per month. M. De Hagemeister supposes that Turkey and the different ports of the Mediterranean require, at an average, an annual supply of 1,400,000 chetwerts, or about 1,050,000 quarters, of which 1,000,000 chetwerts, or 750,000 quarters, are furnished by Southern Russia, and principally shipped from Odessa. Wallachia and Moldavia are both very fertile in corn; and were tranquillity and good order introduced into them, and the free navigation of the Danube secured, Galacz and Brailoff would be two of the principal European grain shipping ports. (See the excellent Report of Hagemeister on the Trade of the Black Sea, pp. 96—114. Eng. trans.)

Exclusive of corn, the other articles mentioned as being exported from Odessa, find their way to the different markets in the Mediterranean. Those shipped for Turkey are iron, tallow, sail-cloth cordage, anchors for ships of war, butter, &c. The exports to Italy and other European countries are similar.

The importation of all foreign articles into the Russian dominions on the Black Sea and the Sea of Azoff is confined to Odessa, Theodosia or Kaffa, and Taganrog. The import trade is, however, of inferior importance when compared with the export trade. The principal articles are sugar and coffee, dye woods, wine and brandy, cotton stuffs and yarn, woollen and silk manufactures, spices, cutlery; oranges, lemons, figs, and other fruit; lemon juice, oil, tin and tin plates, dried fruits, paper, silk, specie, &c.

Odessa, in addition to its great and rapidly increasing trade with Constantinople and the countries on the Mediterranean, has a considerable trade with Redout-kalé at the mouth of the Phasis, and with Trebisond and several ports on the south coast of the Black Sea. Georgian and Armenian merchants are already considerable purchasers at the Leipsic and other German fairs; and civilisation is beginning to strike its roots throughout all the extensive countries between the Black Sea and the Caspian. It is probable that, at no very remote period, the Phasis will be frequented by British ships; and that our merchants, without any enchantress to aid them, and depending only on the superior cheapness and excellence of their goods, will be hospitably received in the ancient Colchis, and bear away a richer prize than fell to the lot of Jason and his compeers.

Epochs in the Trade of the Black Sea.—Depth of Water.—Difficulty of Navigation, &c.— The trade of the Black or Euxine Sea was of great importance in antiquity. The shores of the Crimea, or Taurica Chersonesus, were settled by Milesian adventurers, who founded Panticapæum and Theodosia. The exports thence to Athens were nearly the same as those which are now sent from Odessa and Taganrog to Constantinople, Leghorn, &c.; viz. corn, timber, and naval stores, leather, wax, honey, salt fish, caviare, &c., with great numbers of slaves, the best and most serviceable that were anywhere to be met with. The Athenians set a very high value upon this trade, which supplied them annually with about 400,000 medimni of corn; and to preserve it they carefully cultivated the alliance of the Thracian princes, and kept a garrison at Sestus, on the Hellespont.—(See the authorities in *Anacharsis's Travels*, c. 55.; and in *Clarke's Connection of the Saxon and English Coins*, pp. 54—64.) During the middle ages, the Genoese acquired an ascendancy on this sea, and laboured with pretty considerable success to monopolise its trade. Their principal establishment was at Caffa, which was the centre of a considerable commerce. But the conquest of Constantinople by the Turks, in 1453, was soon after followed by the conquest of Caffa, and the total exclusion of European vessels from the Black Sea, which became in a great measure unknown. This exclusion was maintained for about 300 years, or till it was opened to the ships of Russia by the treaty of Kainardgi in 1774. The Austrians obtained a similar equality of privileges in 1784; and British, French, &c., ships were admitted by the treaty of Amiens. There were, however, some restraints still kept up; but these have been abolished by the late treaty between the Turks and Russians in 1829; and for commercial purposes, at least, the Black Sea is now as free as the Mediterranean.

Notwithstanding the number of English and other European ships that have visited this sea within the last 20 years, its geography is still very imperfectly known. A notion seems to have been long prevalent, that it was not only stormy, but also infested with numerous shoals. Polybius, indeed, contends that, owing to the vast quantities of alluvial deposit brought down by the Danube and other large rivers that fall into the Black Sea, it was gradually filling up, and would become, at no very remote period, an immense morass! Dr. Clarke seems to have espoused the same theory. But, how probable soever it may appear, extremely little progress has hitherto been made towards the consummation described by Polybius. Instead of being shallow, the water is for the most part remarkably deep; with a bottom, where soundings have been obtained, of gravel, sand, and shells. A strong current sets from the Black Sea, through the Bosphorus, or Canal of Constantinople, into the Sea of Marmara, and from the latter through the Dardanelles, which it requires a fresh breeze to stem. This current is said to be sensibly felt in the Black Sea, 10 or 12 miles from the Bosphorus; and it

may probably carry off some of the mud brought down by the rivers. (See *Tournefort's Voyage du Levant*, Lett. 15, 16.; Art. 9. in No. I. of the *Journal of the Geographical Society; Macgill's Travels in Turkey*, vol. i. p. 245., &c.)

The navigation of the Black Sea has been represented by most modern and all ancient writers as exceedingly dangerous. We believe, however, that there is very little foundation for the greater number of the statements on this subject. It is said to be particularly subject to dense fogs, and to currents; but the former are prevalent only at particular seasons, and the influence of the latter is not greater than in many other seas which are not reputed dangerous. Tournefort, one of the best and most accurate of travellers, considers the navigation of the Black Sea as safe as that of the Mediterranean: —"*Il n'a rien de noir, pour ainsi dire, que le nom: les vents n'y soufflent pas avec plus de furie, et les orages ne sont guères plus frequens que sur les autres mers.*"—(Tome ii. p. 164. 4to. ed.) Dr. Clarke (*Travels*, vol. ii. p. 387. 8vo. ed.) affects to doubt this: but he assigns no grounds for his opinion; and who would think of putting his authority in competition with that of Tournefort? Indeed the accuracy of the statements of the latter has been fully established by the recent reports of Captain Middleton and other able officers who have navigated this sea. But, though without "a hidden danger," any sea would be dangerous to the Greek and Turkish pilots, by whom the Black Sea has been principally navigated. If the progress of navigation were to be estimated by its state amongst them, we should have to conclude that it had been stationary from the æra of the Argonauts. They seldom venture out of sight of the coasts; they have neither charts nor quadrants; and hardly even know that one of the points of the needle turns towards the North!—(*Tournefort in loc. cit.*) There is not, certainly, much room for wonder at shipwrecks being frequent among vessels so navigated. On leaving the Black Sea, the greatest difficulty is in making the Bosphorus. "The mountains," says Mr. Macgill, "are all so much alike, that it is difficult to determine which of them is at the entrance, until you are within a very few miles of the coast: then, with a fair wind, you are on a lee shore with a lee current; and if you make a mistake, destruction is almost inevitable. The Turks have two light-houses at the entrance; but unless you see them before sunset, they are of little use: in the forests on its borders, great quantities of charcoal are made, and the lights from it bewilder, and often mislead, the unhappy mariner.—(i. 245.)

From the vast quantity of fresh water poured into the Black Sea, the saline particles are so much diluted, that, with a slight frost, the surface becomes covered with ice; hence, during a great part of the year, hardly any navigation is attempted. The vessels that resort to Odessa seldom arrive at that port before the latter end of May; and those whose cargoes are not completed before the end of October, more frequently wait the return of spring, than adventure to encounter the dangers of an autumnal or winter voyage.

At Taganrog the frost commences earlier, and continues longer, than at Odessa; so that there are scarcely more than 4 or 5 months in the year during which the Sea of Azoff can be safely navigated.

OIL (Fr. *Huile*; Ger. *Oel*; It. *Olie*; Lat. *Oleum*; Rus. *Maslo*; Sp. *Aceite*). The term *oil* is applied to designate a number of unctuous liquors, which, when dropped upon paper, sink into it and make it seem semi-transparent, or give it what is called a greasy stain. These bodies are very numerous, and have been in common use from time immemorial. Chemists have divided them into two classes; namely, *volatile* and *fixed* oils. We borrow from Dr. Thomas Thomson the following statement with respect to these bodies: —

1. Volatile Oils, called also *essential oils*, are distinguished by the following properties:— 1. Liquid, often almost as liquid as water, sometimes viscid; 2. Very combustible; 3. An acrid taste and a strong fragrant odour; 4. Volatilised at a temperature not higher than 212°; 5. Soluble in alcohol, and imperfectly in water; 6. Evaporate without leaving any stain on paper.

By this last test it is easy to discover whether they have been adulterated with any of the fixed oils. Let a drop of the volatile oil fall upon a sheet of writing paper, and then apply a gentle heat to it; if it evaporates without leaving any stain upon the paper, the oil is pure; but if it leaves a stain upon the paper, it has been contaminated with some fixed oil or other.

Volatile oils are almost all obtained from vegetables, and they exist in every part of plants,— the root, the bark, the wood, the leaves, the flower, and even the fruit; though they are never found in the substance of the cotyledons; whereas the fixed oils, on the contrary, are almost always contained in these bodies.

When the volatile oils are contained in great abundance in plants, they are sometimes obtained by simple expression. This is the case with oil of oranges, of lemons and bergamotte; but in general they can only be obtained by distillation. The part of the plant containing the oil is put into a still with a quantity of water, which is distilled off by the application of a moderate heat. The oil comes over along with the water, and swims upon its surface in the receiver. By this process are obtained the oils of peppermint, thyme, lavender, and a great many others, which are prepared and employed by the perfumer: others are procured by the distillation of resinous bodies. This is the case in particular with oil of turpentine, which is obtained by distilling a kind of resinous juice, called turpentine, that exudes from the juniper.

Volatile oils are exceedingly numerous. They have been long known; but as their use in chemistry is but limited, they have not, hitherto, been subjected to an accurate chemical investigation. They differ greatly in their properties from each other; but it is impossible at present to give a detailed account of each.

1. The greater number of volatile oils are *liquid*; many, indeed, are as limpid as water, and have

none of that appearance which we usually consider oily. This is the case with the following; namely, oil of turpentine, oranges, lemons, bergamotte, roses.—Others have the oily viscidity. It varies in them in all degrees. This is the case with the oils of mace, cardamom, sassafras, cloves, cinnamon.— Others have the property of becoming solid. This is the case with the oils of parsley, fennel, aniseed, balm.— Others crystallise by slow evaporation. This is the case with oil of thyme, peppermint, marjoram. —The oil of nutmegs has usually the consistence of butter. This is the case also with the oils of hops and of pepper.

2. The colour of the volatile oils is as various as their other properties. A great number are limpid and colourless; as oil of turpentine, lavender, rosemary, savine, aniseed: some are yellow; as spike, bergamotte: some are brown; as thyme, savoury, wormwood: others blue; as camomile, motherwort: others green; as milfoil, pepper, hops, parsley, wormwood, cajeput, juniper, sage, valerian: others, though at first colourless, become yellow or brown by age; as cloves, cinnamon, sassafras.

3. The odours are so various as to defy all description. It is sufficient to say, that all the fragrance of the vegetable kingdom resides in volatile oils. Their taste is acrid, hot, and exceedingly unpleasant.

4. Their specific gravity varies very considerably, not only in different oils, but even in the same oil in different circumstances.

When the volatile oils are heated in the open air, they evaporate readily, and without alteration diffuse their peculiar odours all around; but there is a considerable difference between the different oils in this respect. When distilled in close vessels, they do not so readily assume the form of vapour. Hence they lose their odour, become darker in colour, and are partly decomposed. Oils do not seem very susceptible of assuming the gaseous form, unless some other substance, as water, be present.

II. FIXED OILS are distinguished by the following characters: — 1. Liquid, or easily become so when exposed to a gentle heat; 2. An unctuous feel; 3. Very combustible; 4. A mild taste; 5. Boiling point not under 600°; 6. Insoluble in water, and nearly so in alcohol; 7. Leave a greasy stain upon paper.

These oils, which are called fat or expressed oils, are numerous, and are obtained partly from animals and partly from vegetables, by simple expression. As instances may be mentioned whale oil or train oil obtained from the blubber of the whale and from cod: olive oil, obtained from the fruit of the olive; linseed oil and almond oil, obtained from linseed and almond kernels. Fixed oils may also be extracted from poppy seeds, hemp seeds, beech mast, and many other vegetable substances.

All these oils differ from each other in several particulars, but have also many particulars in common.

1. Fixed oil is usually a liquid with a certain degree of viscidity, adhering to the sides of the glass vessels in which it is contained, and forming streaks. It is never perfectly transparent; has always a certain degree of colour, most usually yellowish or greenish; its taste is sweet, or nearly insipid. When fresh it has little or no smell.

There exist also in the vegetable kingdom a considerable number of bodies which, at the ordinary temperature of the atmosphere, are solid, and have hitherto been considered as fixed oils. Palm oil may be mentioned as an example. The various substances used in India and Africa as substitutes for butter, and as unguents, may likewise be mentioned.

2. All the fixed oils hitherto examined are lighter than water: but they differ greatly from one another in specific gravity. The same difference is observable in different samples of the same oil.

Fixed oil, when in the state of vapour, takes fire on the approach of an ignited body, and burns with a yellowish white flame. It is upon this principle that candles and lamps burn. The tallow or oil is first converted into a state of vapour in the wick; it then takes fire, and supplies a sufficient quantity of heat to convert more oil into vapour; and this process goes on while any oil remains. The wick is necessary to present a sufficiently small quantity of oil at once for the heat to act upon. If the heat were great enough to keep the whole oil at a temperature of 600°, no wick would be necessary, as is obvious from oil catching fire spontaneously when it has been raised to that temperature. When oil is used in this manner, either in the open air or in contact with oxygen gas, the only new products obtained are *water* and *carbonic* acid.

The drying oils are used as the vehicle of paints and varnishes. Linseed, nut, poppy, and hemp-seed oils belong to this class. These oils in their natural state possess the property of drying oils, but imperfectly. To prepare them for the use of the painter and varnish maker, they are boiled for some time in an iron pot, and sometimes burnt till they become viscid. When they burn for some time, their unctuous quality is much more completely destroyed than by any method that has been practised. Hence it is followed frequently in preparing the drying oils for varnishes, and always for printers' ink, which requires to be as free as possible from all unctuosity.

Nut oil has been found preferable to all other oils for printers' ink; though the dark colour which it acquires during boiling renders it not so proper for red ink as for black. Linseed oil is considered as next after nut oil in this respect. Other oils cannot be employed, because they cannot be sufficiently freed from their unctuosity. Ink made with them would be apt to come off and smear the paper while in the hands of the bookbinder, or even to spread beyond the mark of the types and stain the paper yellow.

The principal oils, in a commercial point of view, with the exception of ground-nut oil (See NUTS, GROUND) are enumerated in the following statement.

Account of the Quantities of the different Varieties of Oil imported into and re-exported from the U. Kingdom in 1852.

Articles.	Imports within the Year.	Re-Exports within the Year.	Articles.	Imports within the Year.	Re-Exports within the Year.
Oil: castor - - cwt.	30,528 0 8	7,405 0 18	Oil, train, viz.: spermaceti - - tuns	5,518 3 31	35 2 60
cocoa nut - —	101,863 1 14	74,750 3 15	train or blubber,		
lard - value	£280	£260	not spermaceti - —	14,499 2 26	2,757 1 57
olive - - tuns	8,898 1 38	696 3 0	walnut - - cwt.	- -	40 0 0
palm - - cwt.	523,812 2 8	111,654 1 20	viz., animal oil, raw, not otherwise described - —	1,533 3 26	1 1 0
rock - - —	35 0 16		not otherwise described - value	£11,386 6 8	£6,591 12 0
Oil of seed, viz.: linseed - - tuns	100 2 36	85 2 19	seed cake - - tons	53,938 12 2 11	108 0 0
rapeseed - - —	7,659 1 1	76 3 14			
not otherwise described - —	1,465 1 4	43 1 6			

Prices of the different Varieties of Oil in the London Market in November, 1853.

	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
Olive, Florence - - ½ chests	1	0	0	to 1	1	1	Seal, pale - - - tun	38	0	0	to 39	0	0
Lucca - - - —	6	10	0	— 7	0	0	Ditto, brown, yellow, &c. - —	31	0	0	— 36	0	0
Gallipoli - tun of 252 galls.	68	0	0				Sperm - - - —	84	10	0	— 86	10	0
Spanish - - —	60	0	0	— 63	0	0	Head matter - - - —	92	0	0			
Linseed - - - cwt.	1	9	6	— 1	10	0	Whale, Greenland - - —	34	0	0	— 35	0	0
Rape, pale - - - —	2	2	0				Southern - - - —	38	0	0	— 40	0	0
Brown - - - —	1	18	6				Cocoa nut - - - cwt.	2	5	9	— 2	7	0
Cod - - - tun	35	0	0				Palm - - - —	1	17	6	— 2	1	0

OLIBANUM (Fr. *Encens;* Ger. *Weiranch;* It. *Olibano;* Arab. *Looban*), a gum-resin, the produce of a large tree (*Libanus thurifera*) growing in Arabia and India. It is imported in chests containing each about 1 cwt., from the Levant and India; the best comes from the former, and is the produce of Arabia. Good olibanum is in semi-transparent tears, of a pink colour, brittle, and adhesive when warm; when burnt, the odour is very agreeable; its taste is bitterish, and somewhat pungent and aromatic; it flames for a long time with a steady clear light, which is not easily extinguished, leaving behind a *black* (not, as has been said, a whitish) ash. Olibanum is the frankincense (*thus*) of the ancients; and was extensively used by them in sacrifices. —(*Plin. Hist. Nat.* lib. xii. c. 14.) It has also been used in the ceremonies of the Greek and Roman churches.—(*Ainslie's Mat. Indica; Thomson's Chemistry; Kippingii Antiq. Rom.* lib. i. c. 11.)

OLIVE, OLIVES (Ger. *Oliven;* Fr. *Olives;* It. *Ulive, Olive;* Sp. *Aceitunas;* Port. *Azeitonas;* Lat. *Olivæ*), a fruit yielding a large quantity of oil, the produce of the *Olea*, or olive tree. The wild olive is indigenous to Syria, Greece, and Africa, on the lower slopes of Mount Atlas. The cultivated species grows spontaneously in Syria, and is easily reared in Spain, Italy, and the south of France. It has even been raised in the open air in England, but its fruit is said not to have ripened. The fruit is a smooth oval plum, about $\frac{3}{4}$ of an inch in length, and $\frac{1}{2}$ an inch in diameter; of a deep violet colour when ripe, whitish and fleshy within, bitter and nauseous, but replete with a bland oil; covering an oblong, pointed, rough nut. Olives intended for preservation are gathered before they are ripe. In pickling, the object is to remove their bitterness, and to preserve them green, by impregnating them with a brine of aromatised sea salt; for this purpose various methods are employed. The wood of the olive tree is beautifully veined, and has an agreeable smell. It is in great esteem with cabinet-makers, on account of the fine polish of which it is susceptible.

OLIVE OIL (Ger. *Baumol;* Fr. *Huile d'olives;* It. *Olio d'uliva;* Sp. *Aceite de aceitunas;* Lat. *Oleum olivarum*). The olive tree is principally cultivated for the sake of its oil. This is an insipid, inodorous, pale greenish yellow coloured, viscid fluid, unctuous to the feel, inflammable, incapable of combining with water, and nearly insoluble in alcohol. It is the lightest of all the fixed oils; and is largely used, particularly in Greece, Italy, Spain, and France, as an article of food, and in medicine and the arts. It is also very extensively used in this country, particularly in the woollen manufacture.

The ripe fruit is gathered in November, and immediately bruised in a mill, the stones of which are set so wide as not to crush the kernel. The pulp is then subjected to the press in bags made of rushes; and by means of a gentle pressure, the best, or *virgin* oil, flows first; a second, and afterwards a third, quality of oil is obtained by moistening the residuum, breaking the kernels, &c., and increasing the pressure. When the fruit is not sufficiently ripe, the recent oil has a bitterish taste; and when too ripe, it is fatty. After the oil has been drawn, it deposits a white, fibrous, and albuminous matter; but when this deposition has taken place, if it be put into clean glass flasks, it undergoes no further alteration; the common oil cannot, however, be preserved in casks above $1\frac{1}{2}$ or 2 years. It is sometimes adulterated by the admixture of poppy oil. —(*Thomson's Dispensatory.*)

The best olive oil is said to be made in the vicinity of Aix, in France. That which is brought from Leghorn, in chests containing 30 bottles, or 4 English gallons, is also very superior; it is known in our markets by the name of Florence oil, and is used mostly for culinary purposes. Olive oil is the principal article of export from the kingdom of Naples.—(See NAPLES.) Apulia and Calabria are the provinces most celebrated for its production. The Apulian is the best, and is preferred by the woollen manufacturers, by whom it is extensively used. By far the largest portion of the olive oil brought to England is in general imported from Italy; principally from Gallipoli, on the east coast of the Gulph of Taranto, (which see), whence it is commonly known by the name of Gallipoli oil. But besides Italy, Spain, Turkey, the Ionian Islands, &c. send us large quantities.

The duty on olive oil was for a lengthened period most exorbitant. In 1834 it was fixed at 10*l.* 10*s.* a tun if imported in a Neapolitan, and 8*l.* 8*s.* if imported in a British or other vessel. But as olive oil is of essential importance in the arts, being extensively used in the manufacture of woollens, in the preparation of the best species of soaps and other departments of industry, this duty was much and justly objected to. In consequence it was reduced, in 1841, to 4*l.* 4*s.* a tun if imported directly and not in a Neapolitan ship, and in 1842, the duty was farther reduced to 2*l.* and 4*l.* a ton according to the vessels in which it was imported. "At present," therefore, we observed in 1843, "the amount of the duty cannot be justly objected to, but the differential principle on which it has been and is imposed, is most objectionable. It imitates, and (in so far as copying can do) justifies the worst part of the commercial policy of the Neapolitan government, and prompts them to keep up high discriminating duties on articles imported into Naples and Sicily in British ships. So wretched an attempt at retaliation is quite unworthy of an enlightened nation, and deserves to be universally scouted. It is, in fact, injurious only to ourselves."

We are glad to have to state that the justice of this reasoning has been admitted; and that the duty on olive oil has been repealed, and its importation freely permitted, whether in British, Neapolitan, or other ships. We subjoin

An Account of the Quantities of Olive Oil imported into the U. K. in 1857, specifying the Countries from which it was imported, with the Quantities brought from each, its Value, &c.

Countries.	Imports.	Value of Import.	Price per Tun.
	Tuns.	£	£ s. d.
France	190	9,952	48 14 0
Portugal	2,570	139,647	54 6 9
Spain	4,927	260,558	52 17 8
Sardinia	807	57,422	71 3 0
Tuscany	1,464	103,914	70 19 7
Two Sicilies	5,704	308,507	54 1 9
Austrian Italy	193	10,102	52 6 10
Morocco	2,686	136,132	51 16 10
Malta	117	5,259	44 19 0
Ionian Islands	185	9,688	52 7 4
Other parts	79	3,573	42 3 0 to 55 11 0
	18,862	1,044,054	

The exports of olive oil amounted, during the same year, to only 944 tuns.

Oil Trade of Naples.—The oils of the kingdom of Naples are produced in Apulia, from Bari to its southern extremity, the Capo di Leuca; a district comprising the territories which export from Gallipoli and Taranto; and in Calabria from Rossano, on the Gulph of Taranto, across to Gioja. The whole coast from Gioja as far as Gaeta is covered with olive trees. They are also abundant in the Abruzzi and the Terra di Lavaro; but Apulia and Calabria furnish by far the greatest quantity of oil.

The principal magazines, or *caricatori*, for oil, are at Gallipoli and Gioja.

Gallipoli supplies England, Holland, the north of Europe, and, in short, all those countries that require the most perfectly purified oil. It is clarified to the highest degree, by merely keeping it in cisterns hollowed out of the rock on which the town is built. The voyages it has to perform being long, it is put into casks so well constructed, that it frequently arrives at Petersburgh in the heat of summer, without the least waste or leakage,—an advantage attributed to the seasoning of the staves, which, before they are put together, are well soaked in sea water.

We borrow the following details with respect to the preparation of oil at Gallipoli, from a very interesting paper, communicated by an English gentleman who had resided in the town, in the volume entitled *Vegetable Substances Materials of Manufactures*, published by the Society for the Diffusion of Useful Knowledge.

"The rock on which the town is built is easily excavated; and in caverns thus constructed oil clarifies sooner, and keeps without rancidity much longer, than in any other place. Hence numerous oil-houses are established at Gallipoli, and a very considerable portion of the rock is cut into cisterns. A Gallipolitan oil warehouse generally occupies the ground floor of a dwelling-house, and has a low arched roof. Some are more extensive, but on an average they are about 30 feet square. In the stone floor you see 4, 6, or more holes, which are circular, about 2 feet in diameter, and like the mouths of wells. Each of these holes gives access to a separate cistern beneath your feet; and when the oil is poured into them care is taken not to mix different qualities, or oils at different stages, in the same reservoir. One cistern is set apart for *oglio mosto*, or oil that is not clarified, another for pure oil of the season, another for old oil, &c. I have seen oil that had thus been preserved for 7 years in a perfect state, or, as the Gallipoli merchants have it, *chiaro, giallo, e lampante*,—words which, during some months, I have heard at least 100 times a day. I also many times verified the fact: the *mosto*, or oil in its turbid state, which arrived almost as black and thick as pitch, soon became bright and yellow in these excellent reservoirs, without any help from man.

"All the oil, whatever may be its quality, is brought to the magazine in sheep or goat skins, which are generally carried on mules—there being but few *strade rotabile*, or roads fit for wheeled carriages, in these parts. In a good year, and at the proper season, I have counted, in the course of an afternoon's ride, as many as 100 mules returning from Gallipoli, where they had been to deposit their unctuous burdens, to different towns and villages in the Terra d'Otranto, or the more distant province of Bari. The quantity of oil required may be conceived, when I state, that at one time (in the year 1816) I saw 9 English, 3 American, 2 French, and 6 Genoese vessels, (not to mention some small craft from the Adriatic,) all waiting in the port of Gallipoli for entire or partial cargoes of it. When the oil is to be shipped, it is drawn off the cistern into *uteri*, or skins, and so carried on men's shoulders down to a small house on the sea shore. In that house there is a large open basin, capable of containing a given quantity, and of measuring the oil; and into that the porters empty their skins as they arrive. A tube communicates from the basin to a large cock at the outside of the house. When the basin is full, well-made casks, of various sizes for the convenience of stowage, are placed under the cock, which is then turned, and the casks are filled. As the casks are closed up by the cooper, the porters roll them down to the brink of the sea, where the sailors secure several of them together with a rope, and taking the end of the cord into the boat, they row off to the vessel, towing the oil casks through the water after them.

"I first became acquainted with the Gallipolitans shortly after the fall of Napoleon, whose system, whatever good parts of it may have done in the rest of Italy, was certainly most ruinous to the provinces of Lecce and Bari. Unable to export, or find any market for their produce, the proprietors in many parts of those provinces let the olives lie and rot upon the ground. For some years, indeed, the price of oil scarcely paid the cost of its preparation, to say nothing of transport and other necessary expenses. During the continental system, the best *chiaro, giallo, e lampante* oil was sold at Gallipoli for 8 Neapolitan ducats the salma; in 1816 and 1817, it found a ready market at from 60 to 70 ducats per salma!

"Those who, during the evil time, had penetration enough to foresee better days, and that a system opposed to the general commercial prosperity of Europe could not last; and who had, at the same time, money enough for such objects; by annually making their oil as usual, and buying up the oil of others at the low current prices of the day, realised enormous profits when peace threw open the port of Gallipoli, and ships of all nations flocked thither as before.

"The olives of which the Gallipoli oil is made, are never gathered, but allowed to drop in their maturity from the tree on the ground, where they are picked up chiefly by women and children, and carried to the mill.

"The machinery employed in expressing the oil is of the rudest kind, and, no doubt, numerous improvements might be introduced, not only into this branch, but into that of cultivating the olive tree. The peasantry, however, and, in the kingdom of Naples, those who stand higher in the scale of fortune and rank, are too often but boors in intellect, are obstinate in their attachment to old practices, and are apt, when any of these are reprehended, to stop discussion by saying—*Faccio come faceva la buon' anima di mio padre, e cio basta.* (I do as my father of blessed memory did before me, and that's enough.)

"The poor people of the country make culinary uses of the same oil that is exported, and which in England is only used in manufactures, or burnt in lamps; but in the houses of the gentry I have often tasted oil prepared with more care, which was truly delicious, being equal to that of Sorrento, Vico, and Massa, or even to the best oils of Tuscany or Provence."—(Pp. 200—204.)

The oil received into the cisterns in Gallipoli, either belongs to the proprietor who buys it of the planter,

or is received in *deposit* on account of some other party who gets a receipt (*biglietto di magazzino*) specifying the quantity of the oil received on his account, its quality, &c. Depositors pay at the rate of 20 grani a-year for every salma of oil to the party holding it in deposit, and who is bound to account for it.

The *caricatori* of Bari and Monopoli furnish oils for the consumption of Upper Italy and Germany, through the medium of Venice and Trieste. They also draw supplies from Brindisi and Otranto.

The *caricatori* of Taranto, of Eastern Calabria or Retromarina, and of Western Calabria, the principal of which is Gioja, furnish supplies for Marseilles, &c. But the *caricatori* now mentioned, having no conveniences for clarification, produce only the thick oils used for soap-making.

The oils of Sicily, like those of Tunis, are too thin to be used singly in the making of soap; and being used only for mixing, are less valuable than most others.

At present (1858) a full crop of oil in the province of Terra d'Otranto is supposed to yield about 300,000 salme, or 41,666 tuns. To facilitate transactions, orders or *cedules* are circulated, representing quantities of oil deposited in the provincial *caricatori*. These orders are negotiable, like bills of exchange, and are indorsed by the intermediate holder, who receives their value in cash, without, however, becoming liable for their due satisfaction. The only responsible parties are the drawer and drawee. The latter is obliged to deliver the oil at sight of the order, or to hold it, at the bearer's disposal, till the 10th of November for the *caricatori* of Apulia, and till the 31st of December for those of Calabria. If the contract be for time, that is, from one year to another, the oil is usually placed at the purchaser's command on the 1st of March. Purchases for time are effected by means of a contract, wherein the vendor undertakes to deliver the oil by the end of January, on receiving payment of the money; but the oil, as observed above, is not really at the purchaser's disposal before the beginning of March. Hence, in time bargains, the payment of the money precedes the delivery of the oil more than a month: scarce an instance is on record of an engagement of this sort having been broken, and the order is as readily negotiable as any other security.

In purchases of oil at command, payment likewise precedes the delivery of the article; but in this case the advance is confined to the 5 days necessary to transmit the order to the *caricatore* where the oil is kept for delivery.

The oil remains in the *caricatore* under the care and responsibility of the vendor, to be delivered on demand to the bearer of the order, free of all costs and charges whatever for the first year; but for every successive year from 25 to 30 grains per salma are charged for keeping, and for renewal of warranty.—(We are indebted for these details to a very valuable Report by Mr. Steel, vice-consul at Gallipoli, and to a *brochure* of M. Millenet, entitled *Coup d'Œil sur le Royaume de Naples*. Naples, 1832.)

OMNIUM, a term used at the Stock Exchange, to express the aggregate value of the different stocks in which a loan is now usually funded.

Thus, in the loan of 36,000,000*l.* contracted for in June, 1815, the omnium consisted of 130*l.* 3 per cent. reduced annuities, 44*l.* 3 per cent. consols, and 10*l.* 4 per cent. annuities, for each 100*l.* subscribed.

The loan was contracted for on the 14th of June, when the prices of the above stocks were—3 per cent. reduced, 54; 3 per cent. consols, 55; 4 per cents., 70: hence the parcels of stock given for 100*l.* advanced, were worth—

	£.	s.	d.
130*l.* reduced at 54	70	4	0
44*l.* consols, at 55	24	4	0
10*l.* 4 per cents., at 70	7	0	0
Together	101	8	0

which would be the value of the omnium, or 1*l.* 8*s.* per cent. premium, independently of any discount for prompt payment.

ONION (Ger. *Zwiebel*; Fr. *Oignon*; It. *Cipolla*; Sp. *Cebolla*; Rus. *Luk*), a well known bulbous plant (*Allium Cepa* Linn.) cultivated all over Europe for culinary purposes. The Strasburg, Spanish, and Portuguese varieties are the most esteemed.

ONYX (Ger. *Onyx*; Fr. *Onix, Onice*; Sp. *Onique*; Lat. *Onyx*). "Any stone exhibiting layers of 2 or more colours strongly contrasted is called an *onyx*; as banded jasper, chalcedony, &c., but more particularly the latter, when it is marked with white, and stratified with opaque and translucent lines. But the Oriental onyx is considered a substance consisting of 2 or more layers or bands of distinct and different colours. A sard, or sardoine, having a layer of white upon it, would be called an onyx; and according to the number of layers it would be distinguished as an onyx with 3 or more bands. Some of the antique engravings are upon onyxes of 4 bands."—(*Mawe's Treatise on Diamonds, &c.*)

OPAL (Ger. *Opal*; Fr. *Opale*; It. *Opalo*; Sp. *Opalo, Piedra iris*; Port. *Opala*; Lat. *Opalus*), a stone, of which there are several varieties, found in different parts of Europe, particularly in Hungary, and in the East Indies, &c. When first dug out of the earth it is soft, but it hardens and diminishes in bulk by exposure to the air. The opal is always amorphous; fracture conchoidal; commonly somewhat transparent. Hardness varies considerably. Specific gravity from 1·958 to 2·54. The lowness of its specific gravity in some cases is to be ascribed to accidental cavities which the stone contains. These are sometimes filled with drops of water. Some specimens of opal have the property of emitting various coloured rays, with a particular effulgency, when placed between the eye and the light. The opals which possess this property are distinguished by lapidaries by the epithet *Oriental*; and often, by mineralogists, by the epithet *nobilis*. This property rendered the stone much esteemed by the ancients.—(*Thomson's Chemistry*; see also *Plin. Hist. Nat.* lib. xxxvii. c. 6., where there are some very curious details as to this stone.)

Mr. Mawe gives the following statement with respect to the precious opal, or opal *nobilis*:—"The colour of the opal is white or pearl grey, and when held between the eye and the light is pale red, or wine yellow, with a milky translucency. By reflected light it exhibits, as its position is varied, elegant and most beatiful iridescent colours, particularly emerald green, golden yellow, flame and fire red, violet, purple, and celestial blue, so beautifully blended, and so fascinating, as to captivate the admirer. When the colour is arranged in small spangles, it takes the name of the harlequin opal. Sometimes it exhibits

only 1 of the above colours, and of these the most esteemed are the vivid emerald green and the orange yellow. When the stone possesses the latter of these colours, it is called the golden opal.

"The precious opal is not quite so hard as rock crystal: it is frequently full of flaws, which greatly contributes to its beauty, as the vivid iridescent colours which it displays are occasioned by the reflection and refraction of light, which is decomposed at these fissures. It is never cut in facets, but always hemispherical. It is generally small, rarely so large as an almond or hazel nut, though I have seen some specimens the size of a small walnut, for which several hundred pounds were demanded. At present, a pretty opal may be bought at from 1 to 3 or 5 guineas, sufficiently large for a pin or ring stone. It requires great care and judgment in the cutting, as it is fragile and easily spoiled.

"The opal, in all ages, has been highly esteemed: the history of the Roman senator, who preferred death rather than give up his opal ring to the Emperor Nero, is familiar to every one. Among the Eastern nations, the opal ranks higher than in Europe.

"A spurious substance is sometimes sold for black and green opal, and often set in jewellery; it occurs of the size of a small almond, but more commonly not larger than a lentil or pea. This *precious gem* is nothing more than the cartilage of the hinge of a large shell. Glass, and even scoria, having an iridescent appearance, have also often been sold for opal."—(*Treatise on Diamonds, &c.* 2d ed. pp. 123—125.)

OPIUM (Ger. *Mohnsaft;* Fr. *Opium;* It. *Oppio;* Sp. and Port. *Opio;* Lat. *Opium;* Arab. *Ufyoon;* Hind. *Ufeem;* Turk. *Madjoon*), the concrete juice of the white poppy (*Papaver somniferum*), which is most probably a native of Asia, though now found growing wild in the southern parts of Europe, and even in England. Opium is chiefly prepared in India, Turkey, and Persia; but the white poppy is extensively cultivated in France, and other parts of Europe, on account of its capsules, and of the useful bland oil obtained from its seeds. It has also been cultivated, and opium made, in England: but there is very little probability of its ever being raised here to any considerable extent.

The poppy is an annual plant, with a stalk rising to the height of 3 or 4 feet; its leaves resemble those of the lettuce, and its flower has the appearance of a tulip. When at its full growth, an incision is made in the top of the plant, from which there issues a white milky juice, which soon hardens, and is scraped off the plants, and wrought into cakes. In India, these are covered with the petals of the plant to prevent their sticking together, and in this situation are dried, and packed in chests lined with hides and covered with gunny, each containing 40 cakes, and weighing 2 maunds or 149½ lbs.; they are exported in this state to the places where the opium is consumed. Turkey opium is in flat pieces, covered with leaves, and the reddish capsules of some species of *rumex;* which is considered an indication of its goodness, as the inferior kinds have none of these capsules adhering to them.

According to Dr. A. T. Thomson, Turkey opium has a peculiar, strong, heavy, narcotic odour, and a bitter taste, accompanied by a sensation of acrid heat, or biting on the tongue and lips, if it be well chewed. Its colour when good is a reddish brown, or fawn colour; its texture compact and uniform. Its specific gravity is 1·336. When soft, it is tenacious; but when long exposed to the air, it becomes hard, breaks with a uniform shining fracture, is pulverulent, and affords a yellowish brown powder.

East Indian opium has a strong empyreumatic smell; but not much of the peculiar narcotic, heavy odour of the Turkey opium; the taste is more bitter, and equally nauseous, but it has less acrimony. It agrees with the Turkey opium in other sensible qualities, except that its colour is blacker, and its texture less plastic, although it is as tenacious. Good Turkey opium has been found to yield nearly 3 times the quantity of *morphia*, or of the peculiar principle of the drug, that is yielded by East Indian opium.

Opium is regarded as bad, when it is very soft, greasy, light, friable, of an intensely black colour, or mixed with many impurities. A weak or empyreumatic odour, a slightly bitter or acrid, or a sweetish taste, or the power of marking a brown or black continuous streak when drawn across paper, are all symptoms of inferior opium.—(*Dispensatory.*)

The raising of opium is a very hazardous business; the poppy being a delicate plant, peculiarly liable to injury from insects, wind, hail, or unseasonable rain. The produce seldom agrees with the true average, but commonly runs in extremes; while one cultivator is disappointed, another reaps immense gain: one season does not pay the labour of the culture; another, peculiarly fortunate, enriches all the cultivators. This circumstance is well suited to allure man, ever confident of good fortune.—(*Colebrooke's Husbandry of Bengal,* p. 119.)

In England, opium is little used, except as a medicine. In 1856 and 1857, 42,443 and 56,174 lbs. were respectively entered for consumption. By far the largest part of our supply is brought from Turkey. Opium from the latter was worth, in the London market, in 1857, from 15*s.* to 16*s.* per lb.

Cultivation of Opium in India—Monopoly, &c.—Opium is produced in Bengal, principally in the provinces of Bahar* and Benares, in parts of Bombay, and in Malwa, in Central India. In Bengal the production of opium is a monopoly, no person being allowed to grow the poppy except on account of government. The latter make advances to the cultivators, who deliver the entire produce into their hands at a fixed price of

* The opium of Bahar is known in commerce by the name of Patna opium.

about 3*s.* 6*d.* per lb. It is afterwards sold by the Company for about 11*s.* per lb., so that the profit of the latter amounts to about 7*s.* 6*d.* per lb.

Opium may be grown and manufactured in Bombay; but it is subjected to the same high duty that is imposed on opium imported into the Presidency. The object of this high duty is to "discourage its production." Government purchase what little is produced in Bombay, supplying through licensed dealers all that is required for home consumption.

The poppy is extensively cultivated in Malwa, in Central India, and yields a large revenue. Down to 1831, it was produced under a monopoly. But in that year the business was thrown open to the public, and the revenue collected by imposing a duty on the opium when passing through the Company's territories to Bombay. The capture of Scinde, by closing the route for the smuggling of opium through Kurachee to the Portuguese settlements of Demaun, &c., enabled a large addition to be made to the transit duty on Malwa opium, which was raised in 1847 to 400 rup. per chest, affording a revenue to government of about 6*s.* 8*d.* per lb.—(We have borrowed these authentic details from the Official Papers relative to India, pp. 73—75, published in 1853.)

No one doubts that opium is an excellent subject for taxation; and the higher the rate to which the duty on it can be raised without encouraging smuggling, so much the better. But a great deal has been said for and against the system under which the opium revenue is raised in Bengal and other parts of India; and, perhaps, it might be the better policy to open the culture of the plant to the unfettered competition of the public, imposing a high duty on the drug when grown or when exported. Without, however, entering on the discussion of this difficult question, we may shortly observe that the monopoly does not appear to have the consequences stated by Mr. Colebrooke; who tells us (*Husb. Bengal*, p. 118.), that except in a few situations that are peculiarly favourable, its culture is unprofitable; and that the peasants engage in it with reluctance, being tempted thereto only by the advances made by the government agents. But if such were the case formerly it would seem that circumstances have changed in the interval; for it appears from the official accounts that the exports of Bengal opium, which amounted to 18,827 chests of 160 lbs. each in 1840–41, had increased to 53,321 chests in 1854–55. The number of chests of Malwa opium (140 lbs. each) exported from Bombay during the same period has advanced from about 15,000 to 25,000 a year.

Consumption and Trade of Opium in China.—Opium is pretty extensively used, both as a masticatory and in smoking, in Turkey and India; but its great consumption is in China and the surrounding countries, where the habit of smoking it has become almost universal. The Chinese boil or seethe the crude opium; and by this process the impurities, resinous and gummy matter, are separated, and the remaining extract only is reserved for use. Thus prepared, the drug loses its ordinary strong and offensive aromatic odour, and has even a fragrant and agreeable perfume. A small ball of it, inserted in a large wooden pipe with some combustible matter, is lighted, and the amateur proceeds to inhale four or five whiffs, when he lies down and resigns himself to his dreams, which are said to have no inconsiderable resemblance to the sensations produced by inhaling the oxide of azote. Those who do not carry the indulgence to excess, do not, it is said, experience any bad effects from it.

It is a curious fact that both the poppy and its produce appear to have been unknown, till a comparatively recent period, to the Hindoos. And it has been conjectured, apparently on good grounds, that the plant, the method of extracting its juice, and its use, were introduced into India and China by Mohammedan traders, probably in the 9th or 10th century. And if such be really the case, the disciples of the Arabian prophet will not only be entitled to the credit, whatever it may be, of having introduced the art of distillation and the use of ardent spirits into the western world, but also of having introduced its favourite luxury into the East. At all events, it is certain that opium had been introduced into China in the early part of the 16th century; a century and a half before the English had anything whatever to do with its cultivation.—(See the tract entitled, *China and its Trade*, p. 14., by John Crawfurd, Esq., the most eminent authority to whom reference can be made in a matter of this sort.)

Nine tenths of the supplies of opium for the consumption of China have always been derived from India, a comparatively small quantity only being derived from Turkey. The trade has till recently been contraband, the introduction of the drug having been prohibited by the Chinese government. Until about 1810 the trade did not attract much attention, or become of any very great importance, but it has since been very greatly extended, and has been since 1828 of first-rate consequence. It was at first carried on at Whampoa, about 15 miles below Canton; next at Macao, whence it was driven by the exactions of the Portuguese; and thereafter in the bay of Lintin. Here the opium was kept on board ships, commonly called receiving ships, of which there

are often 10 or 12 lying together at anchor. But latterly the trade has been carried on all along the south-east coast of China, by means of the fast sailing vessels called "clippers," built expressly for the purpose, and strongly armed. The sales have been mostly effected by English and American agents, who give orders for the delivery of the opium; which, on producing the order, is handed over to the Chinese smuggler, who comes alongside at night to receive it. Frequently, however, the smuggler purchases the opium on his own account, paying for it on the spot in silver; it being a rule of the trade, never departed from, to receive the money before the drug is delivered.

During the first 10 years of the present century, the exports of opium from India to China averaged about 2,500 chests, of 149⅓ lbs. each. But after the introduction of Malwa opium into the markets of Bombay and Calcutta, the exports began rapidly to increase. We subjoin

An Account of the Quantities of the various Descriptions of Opium exported from India to all Parts in each Year from 1830-31 to 1854-55, with the Profits realised on the same.

Years.	Chests of Patna and Benares.	Chests of Malwa.	Total No. of Chests.	Total Profits.	Years.	Chests of Patna and Benares.	Chests of Malwa.	Total No. of Chests.	Total Profits.
				Rupees.					*Rupees.*
1830-1	11,855	5,621	17,456	11,01,28,26	1843-4	15,104	13,563	28,667	20,24,82,62
1831-2	11,510	10,698	22,138	15,26,99,45	1844-5	18,550	20,660	39,010	21,81,28,85
1832-3	10,864	8,619	19,483	9,74,26,86	1845-6	21,437	12,635	34,072	28,03,35,05
1833-4	12,006	11,896	23,902	11,11,03,85	1846-7	21,648	18,602	40,250	28,86,20,15
1834-5	10,995	10,016	21,011	7,76,86,05	1847-8	30,515	15,485	46,000	16,98,25,26
1835-6	14,851	15,351	30,202	14,92,00,68	1848-9	36,566	16,509	53,075	28,45,76,28
1836-7	12,606	21,427	34,033	15,34,96,78	1849-50	34,863	18,062	52,925	7,29,48,85
1837-8	19,600	14,773	34,373	15,36,44,40	1850-1	33,561	22,000	55,561	
1838-9	18,212	21,988	40,200	9,53,15,08	1851-2	36,600	23,000	59,600	
1839-40	18,965	1,654	20,619	3,37,77,75	1852-3	39,465	27,111	66,574	1,86,83,49,25
1840-1	17,858	16,773	34,631	8,74,27,76	1853-4	48,319	26,204	74,523	
1841-2	18,827	14,681	33,508	10,18,76,58	1854-5	55,321	25,033	78,354	
1842-3	18,362	24,337	42,699	15,77,58,18					

It is necessary, however, to observe that the whole of the opium shipped from India does not go to China. That, indeed, is the destination of by far the largest portion of the exports. But it is supposed that within the last 8 or 10 years, from 8,000 to 12,000 chests of Indian opium have annually been consumed in Netherlands India, Siam, Cochin-China, and other ultra Gangetic countries ex China. In illustration of what is now stated, we subjoin

An Account of the Total Exports of Opium from India to China in each of the 4 Years ending with 1857-58.

Years.	Chests.	Value.	Years.	Chests.	Value.
1854-55	69,910	£5,684,978	1856-57	66,305	£6,505,586
1855-56	63,427	5,592,532	1857-58	68,004	8,241,032

Confiscation of Opium in 1839.—We have already seen (see art. CANTON) that opium has till very lately been prohibited in China, and that consequently its importation has always been looked upon as a smuggling speculation. There would seem, however, to be good grounds for thinking that the prohibition of the importation of opium was all along intended to be more apparent than real. At all events, it is certain that the trade grew gradually up, from a small beginning, to be one of great extent and value; and it is nugatory to suppose that this should have been the case, had it encountered any considerable opposition from the Chinese authorities. But the truth is, that these functionaries, instead of opposing the trade, or even merely conniving at it, were parties to its being openly carried on; and received certain regulated and large fees on all the opium that was imported. It has even been alleged that a part of these fees found its way into the Imperial treasury at Pekin, though that is more doubtful. The appetite for the drug increased with the increasing means of gratifying it; and there appeared to be no assignable limits to the quantity that might be disposed of in the empire.

The rapid extension of the trade seems at length to have drawn the attention of the court of Pekin to the subject. We doubt, however, notwithstanding what has been alleged to the contrary, whether a sense of the injurious consequences of the use of the drug had much to do in the matter. The alarm of the Chinese government was not so much about the health or morals of its subjects, as about their bullion! They are still haunted by the same visionary fears of being drained of a due supply of gold and silver, that formerly haunted the people of this country. The imports of opium having increased so rapidly as to be no longer balanced by the exports of tea and silk, sycee silver began also to be exported! The paternal government of Pekin might have tolerated what are called the demoralising effects of opium with stoical indifference, but the exportation of silver was not a thing to be endured. It is, however, only fair to state, that the Chinese statesmen were not all of the school of Mun and Gee; and that some of them appear to have taken an enlightened view of the question, and to

have emancipated themselves from the prejudices that influenced the majority of their colleagues. The statesmen in question contended, that whether the use of the drug were injurious or not, the taste for it was too deeply seated and too widely diffused to admit of its effectual prohibition; and they, therefore, proposed that its importation should be legalised, subjecting it, at the same time, to a heavy duty. There cannot be a doubt that this was the proper mode of dealing with the subject. In the end, however, the government of Pekin, influenced by unfounded theories, as to the mischievous effect of the export of the precious metals, came to a different conclusion, and resolved to put a stop to the traffic.

After this resolution had been come to, the Chinese appear to have acted with more than their usual vigour; and having proceeded to extremities, they confiscated and destroyed about 20,000 chests of opium. The reader does not require to be told that this violent conduct on the part of the Chinese led to a war with this country. This contest was terminated in 1842, when the Chinese agreed, among other things, to pay $21,000,000 towards the expenses of the war, and as an indemnity to the owners of the confiscated opium, to whom 1,250,000*l.* was ultimately awarded.

A good deal of discussion took place at the time in regard to the propriety of our conduct in compelling the Chinese to indemnify the opium holders. It was contended that as the introduction of opium into China was prohibited, the Chinese in destroying it had done nothing but what they were entitled to do, and what we should have done had we been in their place. That the only parties to blame were those who violated the law, and smuggled the opium into the empire: and that we acted unjustly, and abused our power in obtaining an indemnity for those in whose punishment we should have assisted.

But though specious, these objections are not really entitled to much weight. And though the interest in the subject be now gone by, it may be worth while to show that we had good grounds for what we did.

That the Chinese have the same right to exclude opium from their empire, that we have to prohibit the importation of beef, or ammunition, or to lay a duty on corn, does not admit of any question. But in endeavouring to suppress a trade that had been carried on under the sanction of the authorities at Canton, all of whom had largely participated in its profits, justice required that notice should have been given to the parties concerned of the intentions of government. It is necessary to bear in mind that the Chinese were in the habit of frequently issuing proclamations against the importation of opium; but as no attempt was ever made to give any real effect to these proclamations, the parties engaged in the trade were naturally led to conclude that such would always be the case. Hence the necessity for a distinct intimation being made, that the laws against the importation of opium were, in future, to be *bonâ fide* and truly carried into effect, and for fixing some period after which all parties found engaged in the trade would be subject to certain penalties. No valid objection could have been made to such a course of proceeding. The Chinese are clearly entitled to prohibit the importation of opium; but neither the Chinese nor any other nation are entitled, after having, by long connivance at and participation in a trade, induced foreigners to import a large amount of valuable property into their territories, to pounce upon and seize such property on pretence of its being contraband! The Chinese are a remarkably clever people; and it is impossible that they should not see that, in this instance, their government was guilty of gross injustice; and that it consequently rendered itself liable for the value of the property it so unwarrantably seized upon and destroyed.

Suppose the British parliament had, in 1796, passed an act prohibiting the importation of tea; and suppose, farther, that the collector of customs and other authorities in Liverpool had paid no attention whatever to this act, but that, from 1796 down to the present day, they had openly countenanced the trade; that it had rapidly increased; and that every year scores of Chinese ships laden with tea had arrived in the Mersey, safely unloaded their cargoes, and sailed either with silver or other British produce on board; what, under these circumstances, would the Chinese have said, had the British government suddenly turned round and declared, "You are engaged in an illegal trade;" and, without further intimation, have proceeded to seize and destroy all the tea belonging to them in England? Would not the Chinese, the Russians, French, and, in short, the whole world, have declared such an act to be flagrantly unjust? And would not every honest man in England have said that the Chinese had been swindled; and that the government of China did not deserve to be treated with ordinary respect, if it did not endeavour to procure redress for its subjects.

Now, this was precisely the case of England against the Chinese. The morality or immorality of the opium trade was wholly beside the question. Though the use of opium were ten times more injurious than has ever been represented, that would not alter the fact that the trade in it had been openly countenanced by the Chinese authorities for a period of more than forty years; and such being the case, foreigners were certainly entitled to infer that that countenance would not suddenly be withdrawn: and that, at all events, their property would be respected. This, in fact, is not a question about which there is any real room for doubt or difference of opinion. The conduct of the Chinese was most unwarrantable; and the government of this country had not only a well-founded claim for redress, but was called upon to enforce it by a just regard for the national honour and the interests of the British subjects, whose rights had been so outrageously violated at Canton.

But we may further observe, in reference to this matter, that though it be laid down by all writers on public law, that it depends wholly on the will of a nation to carry on commerce with another, or not to carry it on, and to regulate the manner in which it shall be carried on, (*Vattel*, book i. § 8.), we incline to think that this rule must be interpreted as applying only to such commercial states as recognise the general principles of public or international law. If a *state* possessed of a rich and extensive territory and abounding with products suited for the use and accommodation of the people of other countries, insulates itself by its institutions, and adopts a system of policy that is plainly inconsistent with the interests of every other nation, it appears to us that such nation may be justly compelled to adopt a course of policy more consistent with the general well-being of mankind. No doubt, the right of interference, in cases of this sort, is one that should be exercised with extreme caution, and requires strong grounds for its vindication. But that this right does exist, seems sufficiently clear. We admit that a slight degree of inconvenience, experienced from one nation refusing to enter into commercial transactions with another, or from its insisting that these transactions should be carried on in a troublesome and vexatious manner, would not warrant any interference with its internal affairs; but this, like all other questions of the same kind, is one of degree. Should the inconvenience resulting from such anti-social vexatious conduct become very oppressive on others, the parties so oppressed would have as good a right to interfere to enforce a change of conduct, as if the state that has adopted this anti-social offensive policy had openly attacked their territory or their citizens. A state has a *perfect* right to enact such rules and regulations for its internal government and the conduct of its trade as it pleases, provided they do not exercise any very injurious influence over others. But should such be the case — should the domestic or commercial policy of any particular state involve principles or regulations that trench on the rights or seriously injure the interest of other parties, none can doubt that these others

have a right to complain; and, if the injury be of a grave character, and redress be not obtained on complaint being made, — no reasonable doubt can be entertained that the aggrieved party is justified in resorting to force.

These principles appear to apply with peculiar force in the case of China. Tea, a peculiar product of that country, has become a necessary of life in England; and no one can doubt that a most serious injury would be inflicted on the people of Britain, were any considerable impediment thrown in the way of its importation; and as the arbitrary policy of the Chinese government, which is not influenced by the maxims, and is regardless of the forms, that prevail among civilised states, has on various occasions interrupted this trade, and constantly exposed it to great dangers, it certainly appears that this was a case for forcible intervention — *dignus vindice nodus*, — and that we were entitled to demand that the trade should be placed on a solid footing, that the import and export duties should be rendered intelligible and moderate, and that an end should be put to the extortion and interference of the Chinese authorities. And these desirable results appear to be secured by the treaty of 1858.

The prohibition against the importation of opium into China was not suppressed as it should have been by the treaty of 1842. But since that period the trade has been openly carried on at most places along the coast, and has met with little or no interruption. Since 1841–42, the imports into China have a good deal more than doubled. And, as already seen, the trade has attained to a magnitude that a few years ago the most sanguine would hardly have anticipated.

Repeal of the Prohibition. — Under the circumstances stated above, combined with the increasing cultivation of the drug in China, the continuance of the prohibition was out of the question. Its repeal was assented to by the Chinese in 1858; and among the trade regulations subjoined to the treaty of that year, is one legalising the importation of opium at a duty of 30 taels the picul. It may, however, be doubted whether this duty be not too high to stop the smuggling of the drug; but if so its reduction will be an easy matter.

Alleged injurious Influence of Opium. — The objections that have been made to the trade in opium, because of its supposed injurious influence over those by whom it is used, do not seem to be entitled to much weight. There are no good grounds for thinking that it is at all worse than brandy, gin, wine, or other stimulants. All of them are mischievous, as are most things, when taken in excess, but not otherwise. We do not anathematise the growers of barley, or distillers, or the importers of wines or spirits, and why should we adopt a different course in dealing with the cultivators and sellers of opium? Sir Benjamin Brodie, P.R.S., than whom there can be no higher authority, contends that the use of opium is not so injurious as indulgence in spirits. "The effect of opium," says he, "when taken into the stomach, is not to stimulate, but to soothe the nervous system. It may be otherwise in some instances, but these are exceptions to the general rule. The opium-taker is in a passive state, satisfied with his own dreamy condition, while under the influence of the drug. He is useless, but not mischievous. It is quite otherwise with alcoholic liquors. When Bishop and his partners murdered the Italian boy that they might sell his body, it appeared in evidence that they prepared themselves by a plentiful libation of gin. The same course is pursued by housebreakers and others who engage in desperate criminal undertakings. It is worthy of notice, also, that opium is much less destructive to the understanding than gin or brandy. Many opium-takers live to a great age, while dram drinking induces diseases of the liver, with their attendant bodily suffering, ill-temper, wretchedness, and premature death."—(*Physiological Inquiries.*)

It would be useless or worse to attempt to add anything to this conclusive statement. It disposes satisfactorily of the moral part of this question.

Opium as a Source of Revenue. — It is not easy to imagine a more unexceptionable source of revenue than the tax laid by the government of India on opium when exported. It is no part of their duty to look beyond the interests of their own subjects; but it is evident that in raising the duty on opium to the point at which it will yield the greatest amount of revenue, they are consulting, at one and the same time, the best interests of their own people and those of the Chinese. A large amount of revenue is produced for the service of the former by a tax laid on an article consumed by the latter. But as the abuse of opium, which, like the abuse of spirits, would be highly prejudicial, is checked and in part prevented by the duty, it is plain that the well-being, as well of the buyers as the sellers of the drug is promoted by its imposition. The tax is in truth one of the very best that has ever been imposed; and its productiveness is not one of the least of its good qualities. Of the entire nett revenue of India, amounting in 1855–56 to 22,147,347*l.*, no less than 3,714,358*l.* was derived from opium, that is, from a tax paid by the Chinese.

OPOBALSAM. See Balsam.

OPOPONAX (Ger. *Opoponax*; Fr. *Opopanax*; It. *Opoponasso*; Sp. *Opoponaca*; Arab. *Jawesheer*), a gum-resin obtained from the *Pastinaca Opoponax*, a species of parsnip.

It is a native of the south of Europe, and Asia Minor. The stem rises to the height of 4 or 5 feet, with a thick branched yellow-coloured root. The roots being wounded, a milky juice flows from them, which, being dried in the sun, is the opoponax of the shops. It is in lumps of a reddish yellow colour

and white within. Smell peculiar. Taste bitter and acrid. Specific gravity 1·622. It is imported from Turkey. Being used only to a small extent in medicine, the consumption is inconsiderable.—(*Thomson's Chemistry; Ainslie's Mat. Indica.*)

OPORTO, or PORTO, a large city and sea-port of Portugal, on the north bank of the Douro, about 2 miles from its mouth, lat. 41° 10′ 30″ N. lon. 80° 37′ 18″ W. It is a beautifully situated, well-built city; and is supposed to contain, including the suburbs of Villanova and Gaya, on the opposite bank of the river, about 80,000 inhabs.

Harbour.—The harbour of Oporto is a bar harbour, and can only be entered, at least by vessels of considerable burden, at high water; and it is seldom at any time practicable for vessels drawing more than 16 feet. On the north side of the entrance is the castle of St. Joao de Foz, whence a ledge of rocks, some of which are at all times above water, extends in a south-west direction. The outermost of these rocks, named Figueira, which is always visible, is left on the left or larboard side on entering. Cabedelo Point, forming the southern extremity of the entrance, is low and sandy. The bar being liable, from the action of the tides, and of sudden swellings or *freshes* in the river, to perpetual alterations, it is exceedingly dangerous for any vessel to attempt crossing it without a pilot. Pilots are always on the alert, and ready to offer their services when a vessel comes in sight, unless the weather be so bad that they cannot go off. On some few occasions of this sort, vessels have been detained for 3 weeks off the port, without having an opportunity of entering. The chapel of St. Catherine in a line with that of St. Michal leads over the bar. The ordinary rise of spring tides is from 10 to 12 feet, and of neaps from 6 to 8 feet. A light-house with a revolving light having the lantern 220 feet above the level of the sea, is erected on rising ground about 600 yards N.N.W. of St. Joao de Foz.

The swellings of the river, or *freshes*, as they are called, most commonly occur in spring, and are caused by heavy rains, and by the melting of the snow on the mountains. The rise of water at such times is frequently as much as 40 feet; and the rapidity and force of the current are so very great, that no dependence can be placed on anchors in the stream. Fortunately a *fresh* never occurs without previous warning; and it is then the practice to moor with a cable made fast to trees, or stone pillars erected on the shore for that purpose.—(For further information as to the harbour of Oporto, see *Purday's Sailing Directions for the Bay of Biscay.*)

Trade.—Oporto is the emporium of a large portion of the kingdom of Portugal and enjoys a pretty considerable foreign commerce. The well-known red wine, denominated Port, from its being exclusively shipped at this city, forms by far the largest article of export. The exports vary in different years, from about 30,000 to above 55,000 pipes. England is much the largest consumer of port. The high discriminating duties on French wine, originally introduced port into the British markets, and gave it a preference to which, though an excellent wine, it had no just title: this preference first generated, and its long continuance has since so confirmed, the taste for port among the great bulk of the population, that it bids fair to maintain its ascendancy as an after-dinner wine, notwithstanding the equalisation of the duties. At an average of the 7 years ending with 1858, there were shipped from Oporto for England 27,294 pipes a year. Next to England, Brazil, Russia, and the north of Europe are the principal consumers of port; but it appears, from the subjoined account, that the total exports to them do not amount to a half of those sent to England. The other exports are oil, oranges and other fruits, wool, refined sugar, cream of tartar, shumac, leather, cork, &c. The imports are corn, rice, beef, salt fish, and other articles of provision; sugar, coffee, &c. from Brazil; cotton and woollen goods, hardware, tin plates, &c. from England; hemp, flax, and deals, from the Baltic, &c.

Besides the British manufactured goods imported into Portugal for the use of the natives, a considerable quantity is destined for the consumption of Spain; being smuggled into that country through Braganza and other towns on the frontier.

Money, Weights, and Measures same as those of Lisbon; which see.

We subjoin

An Account of the Export of Port Wine from Oporto from 1852 to 1858, inclusive.

Years.	To United Kingdom.	To Continent of Europe.	To Countries out of Europe.	Totals.
1852	19,219	1,555	10,725	31,499
1853	46,855	2,887	6,089	55,811
1854	33,831	2,049	3,372	39,252
1855	26,755	2,696	4,935	34,386
1856	29,216	3,242	9,163	41,621
1857	23,614	1,919	3,203	28,736
1858	11,592	954	4,144	16,690
Total pipes	191,062	15,302	41,631	247,995
Annual average	27,294	2,186	5,947	35,428

The vintages in the Upper Douro fluctuate very greatly, but previously to the breaking out of the *oïdium* or vine disease, in 1853, they might at an average be taken at from 70,000 to 80,000 pipes, of which, about 33,000 were exported. The production and exportation of wine would, however, have been much greater but for the policy adopted by the Oporto Wine Company, to which government conceded a monopoly of the trade. They divided all wine produced on the Douro into 3 qualities, viz., 1st, 2d, 3d, and refuse. But the merchants engaged in the wine trade affirmed that the distinction between the 1st and 2nd qualities was quite imaginary; and that they were, in fact, "precisely the same."—(*Report of Commons Com. on Wine Duties*, 1852, part i. p. 65.) Delusive though it were, the classification was not, however, without an object. No wine, other than the 1st quality, was allowed to be shipped for any port in Europe, and it was charged on being exported with a duty of 3*l.* 10*s.* a pipe; whereas, what is called the 2nd quality, though it were really as good as the 1st, was only charged on being shipped for America, or any country out of Europe, with a nominal duty of 6*d.* a pipe. This extraordinary regulation, besides being injurious to the Portuguese, was offensive and unjust to others, and especially to us who are the great consumers of port. It had not, however, all the success which its contrivers anticipated; for it led to an indirect importation of port wine from the U. States, which would, no doubt, have continued till the duties on the wines shipped from Oporto had been equalised or abolished.

The British government did not fail strongly to remonstrate against this system, which, indeed, was in direct contradiction to the engagements in our treaties with Portugal. And in the end the Portuguese authorities appear to have become satisfied that by raising the cost of their wines, limiting their consumption, and making others be substituted in their stead, the system was a great deal more injurious to themselves than to any one else.

In consequence a decree was issued on the 13th of October, 1852, which has effected some very important reforms. Instead, for example, of being divided into 1st, 2nd and 3d qualities, wine is henceforth to be divided into wine fit and unfit for exportation. The latter is to be retained in the country either for home consumption or conversion into brandy, while the former, or the wine fit for exportation, may be sent to all parts of the world, on paying a reasonable duty of about 14*s.* a pipe. The Douro Wine Company has, also, been abolished, and other changes effected.

These are great improvements. Still, however, the trade is far from being free. Power is given to a "Regulating Commission" to say how much wine should be exported, so as to prevent a glut of the foreign markets! It would be but an equivocal compliment to the intelligence of the reader were we to dwell on the folly of such a regulation. Neither can there be any legitimate excuse for prohibiting the export of inferior wine. It would either be bought, under a free system, by the foreigner, or it would not. If it would not be bought, the prohibition is superfluous, and if it would be bought, then it is mischievous, and hinders the Portuguese from sending an important product to the best market. On the whole, however, a great change for the better has been effected, and it will most likely pave the way for others.

Sometimes wine is purchased from the farmer in the wine country. In this case, the casks are sent about 60 miles up the river, in boats, to be filled. Owing to the miserable state of the roads, the expense of carriage is very considerable; the cartage from and to the river side frequently costing from 1*l.* to 2*l.* per pipe. The freight from the upper country down the river to Oporto is about equal to that from the latter to England. There is also an internal duty on all wine brought down the river. Inasmuch, however, as these charges are perpetually varying, it is not possible to lay before the reader any *pro formâ* account of the cost of wine bought in the Upper Douro.

The *oïdium* or disease, which has attacked the vines here and elsewhere, first appeared in Portugal in 1853, and has continued more or less every year since. It has greatly diminished the production, as is evident from the following statement of the returns made to the government of the amount of each vintage from 1852 to 1858 inclusive, within the factory district. And this return is larger than the actual quantity; for, the wine within the factory limits being the most valuable, the farmers make their returns as large as possible.

Abstract of the Returns made to Government of the Quantities and Qualities of each Vintage from 1852 to 1858 inclusive.

Years.	Wines exportable.	Wines not exportable.	Total.	Years.	Wines exportable.	Wines not exportable.	Total.
	Pipes.	*Pipes.*	*Pipes.*		*Pipes.*	*Pipes.*	*Pipes.*
1852	35,833	56,217	92,050	1856	11,498	3,126	14,624
1853	49,742	20,982	70,724	1857	15,392	2,079	17,471
1854	35,190	12,058	47,248	1858	25,082	16,134	41,216
1855	13,945	10,829	24,774				

It is difficult to say whether the wine disease be or be not really diminishing. There can, indeed, be no doubt that the application of sulphur has given it a decided check. But this is an expensive remedy; and unless it be judiciously applied, it is apt to spoil the wine. (We have been indebted for most part of these details to the highest mercantile authority connected with Oporto.)

ORANGES (Ger. *Pomeranzen;* Du. *Orangen;* Fr. *Oranges;* It. *Melarance;* Sp. *Naranjas;* Rus. *Pomeranezü*; Hind. *Narunge;* Malay, *Simao-manis*), the fruit of the orange tree. The common or sweet orange (*Citrus sinensis* or *Citrus nobilis*), and the Seville, or bitter orange (*Citrus aurantium*), are natives of China: and the Portuguese are entitled to the honour of having transferred the plant to other countries. Particular species of *Citrus* seem to be indigenous to various Eastern countries; but the birth-place of the proper orange may be distinctly traced to China. It is now to be found in our green-houses. Oranges are imported in chests and boxes, packed separately in paper. The best come from the Azores and Spain; very good ones are also brought from Portugal, Italy, Malta, and other places.

The orange trade carried on by this country is of considerable value and importance. Oranges are not much more expensive than most of our superior domestic fruits, while they are, perhaps, the most refreshing and wholesome of those of warmer climates. The entries for home consumption amounted, at an average of the years 1850 and 1851, to 359,142 boxes a-year. The duty produced, at an average of the above years, 73,246*l.* a-year. The number of persons employed in the importation and sale of oranges must be very considerable. The duty was reduced in 1853, from about 2*s.* 8*d.* to 8*d.* the bushel. But the policy of charging any duty on oranges seems questionable. They are very apt to spoil; and as no abatement is made from the duty on account of damage, its influence on their price is more considerable than might at first be supposed. In 1857 no fewer than 917,797 bush. of oranges and lemons were entered for consumption.

ORCHILLA WEED, ORCHELLA, OR ARCHIL (Ger. *Orseille;* Fr. *Orseille;* It. *Oricello, Orcella;* Sp. *Orchilla*), a whitish lichen (*Lichen orcella*) found in the Isle of Portland; but that which is used is imported from the Canary and Cape de Verd Islands, Madeira, Barbary, and the Levant. From it is obtained the archil, or orchal, of commerce, which yields a rich purple tincture, fugitive, indeed, but extremely beautiful. The preparation of orchilla was long a secret, known only to the Florentines and Hollanders; but it is now extensively manufactured in this country. Orchil is generally sold in the form of cake, but sometimes in that of moist pulp; it is extensively used by dyers; and in times of scarcity the weed or lichen has sold as high as 1,000*l.* per ton!—(*Thomson's Dispensatory.*) At present (July 1843) Madeira orchilla fetches, in

the London market, 75*l.* a ton; but orchilla from the Canary Islands fetches a higher, and that from Barbary a much lower price. The entries for consumption amounted, at an average of the 3 years ending with 1842, to 6,050 cwt. 3 qrs. 10 lbs. The duty, which had been 3*s.* a cwt., was reduced in 1842 to 1*s.* a cwt., and was wholly repealed in 1846. In 1857 the imports amounted to 25,012 cwt. and the exports to 5,690 do.

ORGOL. See ARGOL.

ORPIMENT (Ger. *Operment*; Fr. *Orpiment*; It. *Orpimento*; Sp. *Oropimente*; Lat. *Auripigmentum*), the name usually given to sulphuret of arsenic.

When artificially prepared, it is in the form of a fine yellow-coloured powder; but it is found native in many parts of the world, particularly in Bohemia, Turkey, China, and Ava. It is exported from the last two in considerable quantities; and is known in the East by the name of hartal. Native orpiment is composed of thin plates of a lively gold colour, intermixed with pieces of a vermilion red, of a shattery foliaceous texture, flexible, soft to the touch like talc, and sparkling when broken. Specific gravity 3·45. The inferior kinds are of a dead yellow, inclining to green, and want the bright appearance of the best specimens. Its principal use is as a colouring drug among painters, bookbinders, &c.—(*Thomson's Chemistry*; *Milburn's Orient. Com.*)

OSTRICH FEATHERS, (Lat. *Plumæ Struthionis*; Fr. *Plumes d'Autruche*), the feathers of the ostrich, but more especially the long feathers of the wings and tail. These feathers have been highly prized from the remotest antiquity; and have been employed, either singly, or intermixed with others, (those of the swan, heron, peacock, &c.), to heighten the magnificence of processions, the splendour of warriors, and the beauty of the fair.

The ostrich, as every one knows, is chiefly found in the sandy deserts of Arabia and Africa. Dr. Livingston in his travels into the interior of the latter, recently published, says that, "notwithstanding the difficulty of their capture, the quantity of feathers collected annually shows that the numbers slain must be considerable, as each bird has only a few in the wings and tail. The male bird is of a jet-black glossy colour, with the single exception of the white feathers, which are objects of trade. Nothing can be finer than the adaptation of these glossy feathers for the climate of the Kalahari, where these birds abound; for they afford a perfect shade to the body, with free ventilation beneath them. The hen-ostrich is of a dark brownish-grey colour, and so are the half-grown cocks." (p. 155.)

The emu, or cassowary, a variety of the ostrich, is a native of Malacca, the Islands of the Asiatic Archipelago, and Australia. There is, also, a variety of the ostrich in S. America. But the feathers of these varieties have hardly as yet become articles of commerce; and are very inferior to those of the Arabian and African ostriches.

One of the earliest as well as the most celebrated notices of ostrich feathers in modern times refers to those which adorned the helmet of the king of Bohemia, who fell at Cressy in 1346. These, with the motto, *Ich dien* (I serve), having been assumed by the Black Prince, whose gallantry greatly contributed to the success of the English, have since formed the insignia of the Princes of Wales, and have been borne by them on state occasions. Henry VIII. is represented with an ostrich plume in his velvet cap, in a portrait by Holbein; and a portrait of his contemporary Francis I. is similarly decorated. In more recent times, these feathers, or substitutes for them, have been, and continue to be, used in the bonnets of the Scottish Highland regiments. At present they are extensively used in the decoration of ladies' bonnets and head-dresses; in children's hats, in artificial flower-making; funeral plumes; military plumes, and in various kinds of fancy trimmings and ornaments.

"Leghorn, after the decline of its commerce with the Levant, remained the great entrepôt of ostrich feathers, and did business in that article to the amount of about 1,200,000 francs annually. But since the establishment of steam navigation, London has gradually become the principal centre of that branch of trade, and Leghorn now only does business to about half the preceding amount: a part of the diminution is, however, owing to the decline which has taken place in prices. Seven-eighths of the ostrich feathers which Leghorn receives come from Egypt, and the rest from Tripoli and Aleppo."—(*Annales du Commerce Extérieur.*) The Cape of Good Hope supplies the most valuable feathers, chiefly on account of their *white* colour. *Black* feathers come principally from Mogadore and Aleppo. A good black feather comes from the Cape, but in small quantities. White and grey feathers may be dyed to suit the prevailing taste; but black feathers are always dyed to a darker shade before they are made into plumes by the manufacturer. It is estimated that, at present prices, the value of the annual consumption of the rough undressed article may amount to from 30,000*l.* to 35,000*l.*; of which a half may come from the Cape, 1-4th part from Mogadore, and the remaining 1-4th from Egypt and Aleppo, by way of France.

In the estimation of the value of ostrich feathers, dealers as a rule consider the *whitest* and most perfect to be the best. The best *whites* vary from 15*l.* to 30*l.* per pound avoirdupois, and the whites of all qualities mixed together, from 10*l.* to 17*l.* per lb. *Blacks* vary from 15*s.* to 5*l.* per lb., according to their length and quality, the longest being the most valuable. The ostrich feather is esteemed of the greatest value of all other feathers, if we except the Marabouts or feathers from the White Paddy bird, which are worth from 25*s.* to 5*l.* per ounce.

In this trade, which is carried on chiefly in London and the neighbourhood, there are about 60 persons engaged in business on their own account, who employ as workers and assistants between 350 and 400 others, chiefly women and young girls. The value of the produce may probably amount to 150,000*l.* a-year, or thereby.

The French have for many years past obtained supplies of Cape feathers and Marabouts from London, and they often purchase Mogadore feathers in the same market. They export to most of the cities in Europe both the manufactured and undressed article.

The fashion of wearing feathers in bonnets and hats, by women and children, perhaps never prevailed to so great an extent as at present (1859), and interferes very seriously with the ribbon trade. The dressing and preparation of these feathers give employment to vast numbers of women and girls, both in France and England. The feathers of many of our native birds, as well as of domestic poultry, are employed for that purpose. And here, as in the case of the ostrich, the white feathers are greatly superior in value, from their being capable of being dyed of different colours. Such is the existing demand

for the plumage of the white dunghill cock, that persons in the fancy feather trade in Paris keep large numbers of these birds, for the revolting but profitable object of yearly plucking them.

The imports in 1857 were entered at the custom-house for value, as under.

		lbs.	£					
Dressed ostrich feathers from France		85	value	858				
Ditto ditto other parts		2	—	24				
				882	duty 5s. per lb.			
Undressed ditto				£	s.	d.		
From France	7,490	—	55,990	=	7	9	6	per lb.
Egypt	125	—	688	=	5	10	0	—
Morocco	5,159	—	15,417	=	3	0	0	—
B. P. in S. Africa	2,010	—	28,945	=	14	8	0	—
Other parts	70	—	2,105	=	3	0	0	—
	14,834		101,250					

Free.

But the quantities imported this year and the prices were greatly above their ordinary level. [We are indebted for this curious and valuable article to our friend Robert Slater, Esq., of the house of Morrison, Dillon and Co., Fore Street.]

OWNERS OF SHIPS. Property in ships is acquired, like other personal property, by fabricating them, or by inheritance, purchase, &c.

No ship is entitled to any of the privileges of a British ship until she be duly registered as such, and all the provisions connected therewith, embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104., be complied with.—(See REGISTRY.)

A British ship may belong either to one individual, or to several individuals. It is ordered by the act just cited, that the property of every vessel of which there are more owners than one, shall be divided into 64th shares; that no person shall be entitled to be registered as an owner who does not, at least, hold one 64th share; but that any number of persons not exceeding five may be registered as joint owners of a share. It is further provided by the same statute, that not more than *thirty-two* persons shall be owners of any one ship at any one time. Companies or associations may hold property in ships on a special declaration in regard to the ownership of such body being made by their secretary or other authorised functionary in the terms prescribed by the statute.

Neither the property of an entire ship, nor any share or shares in such ship, can be transferred from one individual to another, except by bill of sale or other instrument in writing; and before the sale is valid, such bill or instrument must be produced to the registrar of the port at which the ship is registered, who is to enter the names, residences, &c. of the seller and buyer, the number of shares sold, &c. in the book of registry of such vessel, and to indorse the particulars on the bill of sale.—(See §§ 57 & 58 of statute, art. REGISTRY.)

But, though compliance with the directions in the statute accomplishes a complete transference of the property, when the transaction is not in its nature illegal, it gives no sort of security to a transference that is otherwise bad. The purchaser should in all cases endeavour to get *possession* of the ship, or of his share in her, as soon as his title to her or it is acquired, by the registration of the particulars of the bill of sale; for though all the formalities of sale have been completed, yet, if the sellers continue as apparent owners in possession of the ship, their creditors may in the event of their becoming bankrupt, acquire a right to it, to the exclusion of the purchasers. In the case of a sale or agreement for a part only, it is enough if, the sale being completed, the seller ceases to act as a part owner.—(*Lord Tenterden on the Law of Shipping*, part i. c. 1.)

Property in ships is sometimes acquired by capture. During war, his Majesty's ships, and private ships having letters of marque, are entitled to make prizes. But before the captors acquire a legal title to such prizes, they must be condemned in the admiralty or other court constituted for that purpose. When this is done, the captors are considered to be in the same situation, with respect to them, as if they had built or purchased them.

No person having the mortgage of a ship, or a share of a ship, made over to him as a security for a debt, shall be deemed an owner, or part owner, of such ship. And when such mortgage has been duly registered according to the provisions of the act, the right and interest of the mortgagee are not to be affected by the bankruptcy of the mortgagor, though he be the reputed owner, or part owner, of such ship.—(See §§ 70—72 of statute, art. REGISTRY.)

In the article MASTERS OF SHIPS is given an account of the liabilities incurred by the owners of ships for the acts of the masters. But it has been attempted to encourage navigation by limiting the responsibility of the owners, without, however, depriving the freighter of a ship of an adequate security for the faithful performance of the contract. To effect this desirable object, it has been enacted, that the owner or owners shall not be liable to make good any loss or damage happening *without their fault or privity*, to any goods put on board any ship or vessel belonging to such owner or owners, further than the value of such ship or vessel, with all its appurtenances, and the freight due, or growing due, during the voyage that may be in prosecution, or

contracted for, at the time when the loss or damage has taken place.—(17 & 18 Vict. c. 104. § 504.)

This limitation was first introduced into our law by the 7 Geo. 2. c. 15. But it had previously been adopted in the law of Holland, and in the justly celebrated French Ordinance of 1681. In the Ordinance of Rotterdam, issued in 1721, it is expressly declared, that "the owners shall not be answerable for any act of the master, done without their order, any further than their part of the ship amounts to." Independently, however, of this general agreement, the expediency of the limitation appears, for the reasons already stated, sufficiently obvious.

It was also enacted in 1786 (26 Geo. 3. c. 60.), that neither the master nor owners of any ship or vessel shall be liable to answer for or make good any gold or silver, diamonds, watches, jewels, or precious stones, lost or embezzled during the course of the voyage, unless the shipper thereof insert in his bill of lading, or declare in writing to the master or owners, the true nature, quality, and value of such articles. This restriction is embodied in the Mercantile Shipping Act (§ 503.); with the further condition that the owners shall not be liable for any damage done to goods on board by fire. We subjoin the clauses in the statute having reference to the liability of the owners.

Owner not liable in respect of certain Articles.—No owner of any sea-going ship or share therein shall be liable to make good any loss or damage that may happen without his actual fault or privity of or to any of the following things, viz.:

(1.) Of or to any goods, merchandise, or other things whatsoever taken in or put on board any such ship, by reason of any fire happening on board such ship.

(2.) Of or to any gold, silver, diamonds, watches, jewels, or precious stones taken in or put on board any such ship, by reason of any robbery, embezzlement, making away with or secreting thereof, unless the owner or shipper thereof has, at the time of shipping the same, inserted in his bills of lading or otherwise declared in writing to the master or owner of such ship the true nature and value of such articles,

to any extent whatever.—§ 503.

Measure of Owner's Liability.—No owner of any sea-going ship or share therein shall, in cases where all or any of the following events occur without his actual fault or privity, viz.:

(1.) Where any loss of life or personal injury is caused to any person being carried in such ship;

(2.) Where any damage or loss is caused to any goods, merchandise, or other things whatsoever on board any such ship;

(3.) Where any loss of life or personal injury is by reason of the improper navigation of such sea-going ship as aforesaid caused to any person carried in any other ship or boat;

(4.) Where any loss or damage is by reason of any such improper navigation of such sea-going ship as aforesaid caused to any other ship or boat or to any goods, merchandise, or other things whatsoever, on board any other ship or boat;

be answerable in damages to an extent beyond the value of his ship and the freight due or to grow due in respect of such ship during the voyage which at the time of the happening of any such events as aforesaid is in prosecution or contracted for, subject to the following proviso, (viz.) that in no case where any such liability as aforesaid is incurred in respect of loss of life or personal injury to any passenger, shall the value of any such ship and the freight thereof be taken to be less than 15*l.* per registered ton.—§ 504.

Value of Carriage of Goods and Passage Money to be considered as Freight.—For the purposes of this act, the freight shall be deemed to include the value of the carriage of any goods or merchandise belonging to the owners of the ship, passage money, and also the hire due or to grow due under or by virtue of any contract, except only such hire, in the case of a ship hired for time, as may not begin to be earned until the expiration of six months after such loss or damage.—§ 505.

Provision for separate Losses.—The owner of every sea-going ship or share therein shall be liable in respect of every such loss of life, personal injury, loss of or damage to goods as aforesaid arising on distinct occasions to the same extent as if no other loss, injury, or damage had arisen.—§ 506.

When several freighters sustain losses exceeding in the whole the value of the ship and freight, they are to receive compensation thereout in proportion to their respective losses; and any one freighter, on behalf of himself and the other freighters, or any part owner, on behalf of himself and the other part owners, may file a bill in a court of equity for the discovery of the total amount of the losses, and of the value of the ship, and for an equal distribution and payment. If the bill be filed by or on behalf of the part owners, the plaintiff must make affidavit that he does not collude with the defendants, and must offer to pay the value of the ship and freight, as the court shall direct.

It is usual in most countries, where the part owners of a ship disagree as to her employment, to give those possessed of the greater number of shares power to bind the whole. But in this country, while the majority of the owners in value have authority to employ the ship as they please, the interests of the minority are secured from being prejudiced by having their property engaged in an adventure of which they disapprove. For this purpose the Court of Admiralty has been in the practice of taking a stipulation from those who desire to send the ship on a voyage, in a sum equal to the value of the shares of those who object to it, either to bring back and restore to them the ship, or to pay them the value of their shares. When this is done, the dissentient part owners bear no portion of the expense of the outfit, and are not entitled to a share in the profits of the voyage; the ship sails wholly at the charge and risk, and for the profit, of the others.—(*Abbott*, part. i. c. 3.)

For the statutory enactments as to the sale and transfer of ships, see REGISTRY.

OYSTER (*Ostrea edulis*). OYSTERS (Lat. *Ostreæ*; Fr. *Huîtres*), a well-known and highly valued shell-fish found in great abundance and in the greatest perfection in many places along our shores. In antiquity, as in modern times, the oysters of Britain were held in the highest estimation. Juvenal, in illustration of the fastidious taste of the Roman epicures, says:

"Circæis nata forent, an
Lucrinum ad saxum, Rutupinove * edita fundo
Ostrea, callebat primo deprendere morsu." — *Sat.* IV. 140.

Oysters differ in size and quality according to the different nature of the grounds or beds on which they are found. They are particularly abundant in the creeks and rivers of Essex and Kent, and in various parts along the S. coast and the coast of Wales. Ireland is, also, well supplied with oysters; those of Carlingford being the greatest favourites. The beds in the Frith of Forth, adjacent to Edinburgh, are very valuable. And those of the Channel Islands, especially Jersey, furnish large supplies.

Oysters are not always carried direct from the places where they are found to market, but are frequently conveyed to artificial beds, where they are fattened, and where their flavour is said to be improved. This sort of industry has been long practised by the traders who supply the London market. The small, ovate, deep-shelled oysters, called *natives*, which are here most esteemed, are all brought from artificial beds at

* Richborough in Kent.

Whitstable, Rochester, Milton, Colchester, Burnham, &c.; those from Burnham being reckoned the best. Inasmuch as the oyster does not breed freely, and often not at all on these beds, they would require, even though they were not dredged, constant re stocking.

The consumption of oysters in London is immense; for, notwithstanding their high price, they are largely consumed by the middle and lower classes. It has been variously estimated, but may, perhaps, annually amount to from 25,000 to 30,000 bushels of natives, and to 100.000 bushels of other varieties. The consumption of oysters in Edinburgh and Leith has been e timated at 7,350 a day. The export of oysters from Jersey amounted, at an average of the 4 years ending with 1822, to 208,023 bushels a year: of these a large portion comes to London.

Oysters are very abundant on many parts of the shores of the U. States; and their consumption in New York and other great cities is very large, though some of the statements that have been put forth with respect to it appear to be extremely exaggerated. Baltimore is the grand seat of the American oyster trade. Supplies of oysters are sent from the feeding grounds and beds belonging to that city to most parts of the Union.—(For farther information with respect to this curious and interesting subject, see the excellent article on the oyster in the work of Forbes and Hanley on *British Mollusca*, ii. pp. 305—329; *Eyton on the Oyster, passim; Pennant's British Zoology, &c.*)

The disposition of the English and French, as of all other fishermen, to encroach, in pursuing their business, on the grounds belonging to the others, gave rise to many disputes and collisions. To terminate these a Convention was agreed to in 1839, by which commissioners were appointed to ascertain and fix the limits of the fishing grounds belonging to each nation. These, which were laid down in a chart affixed to the award of the commissioners, were fixed, speaking generally, at 3 miles distance from low water mark along the shores of both countries; and the fishing boats of either were prohibited from coming within these limits of the coasts of the other, except from stress of weather, the influence of the tides, or other specified cause. The regulations laid down by the commissioners were carried into effect by the act 6 & 7 Vict. c. 79. to which they are appended; and it farther provided that the oyster fisheries should open on the 1st of September and close on the 30th April. It has since been enacted by the 18 & 19 Vict. c. 101. that all oysters and dredges found on board fishing vessels between the 1st May and the 31st August may be seized, and that oysters landed between the above dates may also be seized. The execution of the act is committed to the officers of the coast-guard and customs.

The stealing of oysters, or oyster brood, from any oyster bed, laying, or fishery, is larceny; and the offender, being convicted thereof, shall be punished accordingly; and if any person shall unlawfully and wilfully use any dredge, net, &c. for the purpose of taking oysters, or oyster brood, within the limits of any oyster bed or fishery, every such person shall be deemed guilty of a misdemeanour, and, upon being convicted thereof, shall be punished by fine or imprisonment, or both, as the court may award; such fine not to exceed 20*l*., and such imprisonment not to exceed 3 calendar months. It is provided, that nothing in the act shall be construed as preventing any one from catching *floating fish* within the limits of any oyster fishery, with any net, instrument, or engine adapted to the catching of such fish.—(7 & 8 *Geo.* 4. c. 29. § 36.)

P.

PACKAGE, SCAVAGE, BAILLAGE, AND PORTAGE, were duties charged in the port of London on the goods imported and exported by aliens, or by denizens being the sons of aliens.

During the dark ages, it was usual to lay higher duties upon goods imported or exported by aliens, whether in British or foreign ships, than were laid on similar goods when imported or exported by natives. But according as sounder and more enlarged principles prevailed, this illiberal distinction was gradually modified, and was at length wholly abolished, in so far at least as it was of a public character, by the 24 Geo. 3. c. 16. This act, after reciting that "the several duties and restrictions imposed by various acts of parliament upon merchandise are, by the alterations of the trade now carried on between this kingdom and foreign states, in some cases become an unnecessary burden upon commerce, without producing any real advantage to the public revenue, and that it is expedient they should no longer continue," enacts, that the duty commonly called "the petty customs," imposed by the 12 Car. 2., and all other additional duties imposed by any act upon the goods of aliens above those payable by natural-born subjects, should be no longer payable. The act then goes on to provide, that nothing contained in it shall "alter the duties due and payable upon goods imported into or exported from this kingdom in any *foreign* ship, nor the duties of *package* and *scavage*, or any duties granted by charter to the city of London;" and then follow provisions to prevent the city being defrauded of such duties by false entries of aliens' goods in the name of a British subject.—(*Chitty's Commercial Law*, vol. i. p. 160.)

The duties thus preserved to the city were not very heavy; but the principle on which they were imposed was exceedingly objectionable, and their collection was attended with a great deal of trouble and inconvenience. Not being levied in other places, they operated to the prejudice of the trade of the metropolis. For these reasons, we observed, in the first edition of this work, that "if the funds of the corporation will not admit of their following the liberal example of the legislature by voluntarily abandoning this vexatious impost, it would be good policy to give them a compensation for relinquishing it." And we are glad to have to state that this suggestion has since been carried into effect. The act 3 & 4 Will. 4. c. 66. authorised the Lords of the Treasury to purchase up the duties in question from the city. This was done, at an expense of about 140,000*l*., and the duties were abolished. There is a Table of the Duties in the first edition of this work.

PACKETS. See NEW YORK, PASSENGERS, and POST-OFFICE.

PALERMO (anciently PANORMUS), a large city and sea-port, the capital of the noble island of Sicily, on the north coast of which it is situated, the light-house being in lat. 38° 8′ 15″ N., lon. 13° 21′ 56″ E. Population, in 1856, 200,000.

The bay of Palermo is about 5 miles in depth, the city being situated on its south-west shore. A fine mole, fully ¼ of a mile in length, having a lighthouse and battery at its extremity, projects in a southerly direction from the arsenal into 9 or 10 fathoms water, forming a convenient port, capable of containing

a great number of vessels. This immense work cost about 1,000,000*l.* sterling in its construction; but the lighthouse, though a splendid structure, is said to be very ill lighted. There is an inner port which is reserved for the use of the arsenal. Ships that do not mean to go within the mole may anchor about ½ a mile from it, in from 16 to 23 fathoms, the mole light bearing N.W. ¾ W. A heavy sea sometimes rolls into the bay, but no danger need be apprehended by ships properly found in anchors and chain cables. In going into the bay, it is necessary to keep clear of the nets of the tunny fishery, for these are so strong and well moored, as to be capable of arresting a ship under sail.—(*Smyth's Sicily*, p. 70. and *Appen.* p. 4.)

Money.—Since 1818, the coins of Sicily have been the same as those of Naples, their names only differing.—(See NAPLES.) The ducat, =3*s.* 5·2*d.* sterling, is subdivided into 100 *bajocchi* and 10 *piccioli*; but accounts are still generally kept in *oncie*, *tari*, and *grani*: 20 grani=1 taro; 30 tari=1 oncia. The oncia = 3 ducats; and 1 carlino of Naples = 1 taro of Sicily. The Spanish dollar is current at 12 tari 8 grani.

Weights.—These are the *cantaro grosso*, subdivided into 100 *rottoli grossi* of 33 oncie, or into 110 rottoli sottili of 30 oncie; and the *cantaro sottile*, subdivided into 100 rottoli sottili of 30 oncie, or 250 lbs. of 12 oncie. The rottolo of 33 ounces = 1·93 lbs. avoirdupois = 2·34 lbs. Troy = 8·73 hectogrammes = 1·77 lbs. of Amsterdam = 1·8 lbs. of Hamburg. The rottolo of 30 ounces = 1·75 lbs. avoirdupois = 2·13 lbs. Troy = 7·94 hectogrammes = 1·6 lbs. of Amsterdam = 1·64 lbs. of Hamburg.

100 Sicilian pounds of 12 ounces = 70 lbs. avoirdupois = 85·11 lbs. Troy = 31·76 kilog. = 64·23 lbs. of Amsterdam = 65·58 lbs. of Hamburg.

Measures.—The *salma grossa* = 9·48 Winch. bush.: the *salma generale* = 7·62 Winch. bush.

The principal liquid measure is the tonna, divided into 4 barili, each equivalent to 9⅝ wine gallons. 1 barile = 2 quartare; 1 quartara = 20 quartucci. The caffiso of oil = 4⅜ Eng. gallons.

The yard or *canna* = 8 *palmi*; 2½ palms = 1 yard Eng.—(*Nelkenbrecher*; *Smyth*, p. 62. App.)

Tares.—Coffee, indigo, pepper, and dye woods, 2 per cent. and weight of package. Cinnamon, 6 rottoli per *seron*, with 1 wrapper, or 8 rottoli, with 2 wrappers; cocoa, 2 per cent., weight of package, and 3 per cent. for dust; cod-fish, 3 per cent.; herrings, 12 per cent.; tin, 13 rottoli per barrel; wax, weight of package, and 3 to 4 per cent. extra allowance; Havanna sugars, 16 per cent.; Brazil do., in short cases, 18 per cent., and in long cases, 20 per cent.; crushed sugar, weight of cask, and 5 per cent., or 13 per cent. in all, at the option of the buyer; East India, do. in bags, 8 rot. to 10 rot. per bag. 1 rottoli taken as weight of bag, for coffee and cocoa in bags.

Charges on Goods.—The regular charges on the sale of goods consigned to Palermo, are—commission 3 per cent.; brokerage, ½ per cent.; warehouse rent, ¼ per cent.; and porterage and boat hire; with 2 per cent. *del credere*,—imports being almost always sold on credit. The charges may occasionally vary ¼ to 1 per cent., and imports are frequently sold duty paid; the prices, however, so obtained, fully compensate for the trifling increase of charges.

The charges on goods exported are—3 per cent. commission; brokerage, so much per *cantaro*, *salma*, &c., generally amounting to about ½ per cent., except on fruit, on which it is equivalent to from 2 to 3 per cent.

Imports and Exports.—The great articles of export from Sicily are—olive oil, grain, particularly wheat and barley; silk, brimstone, wine and brandy, barilla, lemons and oranges, lemon juice, manna, shumac, linseed, fruit, salted fish and salt; with argol, liquorice, pumice stone, rags, skins, honey, cotton wool, saffron, &c. Wheat is largely exported. It is of a mixed quality, hard, and is generally sold from the public magazines, or *caricatori* (see *post*), by measure, without weight. But the best hard wheat, grown in the neighbourhood of Palermo, is sold by the salma of 272 rottoli=476 lbs. Eng.; the difference between weight and measure being made good by the seller or buyer, as the case may be. Wine is principally shipped from Marsala; lemons, oranges, and lemon juice, from Messina; salt, from Trapani; and barilla, from the southern coast. But all the articles to be found on the coast may, for the most part, be had at Palermo; unless, however, the quantity required be small, it is usually best to ship them from the outports, the expense of their conveyance to Palermo being very heavy. The crops of barilla and shumac come to market in August; but brimstone, salt, oil, wine, rags, &c. may generally be had all the year round. The first shipments of lemons and oranges may be made in the beginning of November. Purchases of produce are always paid for in cash, generally ½ on making the purchase, and the other ½ on delivery, when in Palermo, and on receiving order for delivery on the coast.

The imports consist of cotton, stuffs, and linens and woollens; sugar, coffee, cocoa, dye stuffs, iron, earthenware, spices, coal, tin, hides, Newfoundland cod, timber for building, &c. The best of the old accounts of the trade of Sicily that we have met with is contained in *Swinburne's Travels in the Two Sicilies*, 4to ed. vol. ii. pp. 401—413. We have also, derived much valuable information from the elaborate and valuable reports of Mr. Consul Goodwin, one of the most intelligent of that class of functionaries.

Account of the Quantities and Values of the Principal Articles exported from Sicily in 1856 and 1857, specifying the Values of those exported to the U. Kingdom.

Articles.		Quantities.		Values.		
					1857.	
		1856.	1857.	1856.	To all parts.	To U. K.
Argol and cream of tartar	cwts.	4,881	7,524	£ 10,721	£14,971	£7,097
Barilla	—	27,369	184,620	12,768	15,400	7,090
Brimstone	—	5,474,540	2,545,560	428,910	611,130	260,091
Cantharides	—	274	125	1,989	377	
Cheeses	—	7,488	4,172	16,648	10,655	
Corn, grain, and pulse	qrs.	15,975	-	36,294		
Cotton wool	cwts.	7,812	-	20,000		
Essences	lbs.	145,197	110,647	35,136	24,994	
Fish, salted	cwts.	10,270	6,401	15,557	8,518	
Fruits: dry	—	70,037	85,829	107,510	82,729	23,198
,, oranges and lemons	boxes	810,411	no.1,255,015	185,162	321,400	55,135
Lemon juice	gallons	152,460	187,740	17,564	15,575	
Linseed	qrs.	50,023	20,090	84,306	54,003	7,053
Liquorice paste	cwts.	25,122	20,843	49,760	45,362	
Manna	—	6,165	2,825	44,329	35,680	
Oil: linseed	gallons	585	-	91		
,, olive	—	840,549	520,344	112,840	78,106	19,263
Rags	cwts.	63,246	67,411	45,291	48,556	
Salt	tons	124,148	62,700	52,130	35,662	
Seeds	cwts.	60,504	66,308	21,620	32,495	
Shumac	—	405,571	685,692	359,112	393,002	213,285
Silks	lbs.	127,827	116,779	194,814	157,250	71,251
Skins	no.	129,000	74,000	5,692	2,220	
Wine and spirits	gallons	2,037,042	1,791,468	164,150	149,182	101,071
Other articles		-	-	59,889	54,897	54,770
Totals		-	-	2,081,083	2,192,964	874,566

The value of the imports into Sicily from the U. Kingdom amounted in 1856 to 451,000*l.*, and in 1857 to 399,000*l.* The principal articles are cotton stuffs and yarn, linens and woollens, iron, coal, hardware, and earthenware, colonial produce, &c.

Remarks on the Trade, &c. of Sicily. — This noble island contains about 10,500 square miles, being the largest in the Mediterranean, and one of the most fertile and best situated in the world. Its population is about 2,100,000. In ancient times, Sicily was celebrated for the number, magnitude, and opulence of its cities. Notwithstanding, however, that its population was then probably treble its present amount, it obtained, from its furnishing vast supplies of corn and other articles of provision for the use of Rome, the appropriate epithet of *horreum Romanorum*, and is said by Livy to have been *Populoque Romano, pace ac bello, fidissimum annonæ subsidium.* — (Lib. xxvii. cap. 5.) But (*quantum mutatus!*) there are now few countries in which agriculture and the arts are in so degraded a state! It does not, however, appear very difficult to account for this melancholy change. After the overthrow of the Roman power, Sicily was occupied successively by the Greeks, Saracens, Normans, and French, till at length it became a dependency, first of the crown of Spain, and more recently of that of Naples. It is to this dependence, and to the introduction of the feudal system by the Normans, that its backward state is principally to be ascribed. The multiplied abuses which grew up in Spain under the reign of Ferdinand and his successors of the Austrian line, flourished with equal luxuriance in Sicily, and have proved no less destructive of the industry and civilisation of its inhabitants than those of Spain. Misgovernment, the abuses of the feudal system, insecurity, and unequal and arbitrary taxes, have here, as every where else, paralysed industry, and impoverished the people.

But the grand curse of Sicilian, as of Sardinian industry, will probably be found in the oppressive restrictions that have been laid on the importation of corn. Down to a late period, no corn could be exported without leave being obtained from the *Real Patrimonia*, a body that pretended to take an account of the crops, and which determined whether there were to be any exportation; and in the event of its being allowed it issued, or rather sold, licences to a few favoured individuals*, authorising them to export certain specified quantities! Even had Sicily been ten times more productive than she really is, it is quite impossible that agriculture could have flourished under such discouragements. Luckily, however, these oppressive restraints have been abolished, and there are no longer any obstacles to the free exportation of corn. Oppressive taxes, the want of leases of a reasonable length, and of practicable roads, are at present, perhaps, the greatest obstacles to agriculture.

The property of the island was valued in 1811, when the English garrison and fleet occasioned a great demand, and high prices for produce of all kinds; and this valuation has been continued to this day, as the basis on which the land and house tax (*fondiaria*) is levied. A rate of 7½ per cent. on the valuation was first charged, which was subsequently raised to 12½ per cent., at which it is now fixed. Owing, however, as is stated, to the fall in the price of agricultural produce since 1811, this tax has been alleged to be more than equivalent to a duty of 25 per cent. on the produce of the soil taken at its present value, and to be a very great obstacle to improvement. We believe, however, that its influence in this respect, though considerable, has been much over-rated; and that the backward state of Sicily is principally owing to other and different causes.

Though there be in Sicily a very considerable number of small proprietors, by far the greater part of the land belongs to the crown, the church, and the nobility, some of whom have very extensive and valuable estates. Down to a recent period, these were held under a system of strict entail, and their occupiers, as well as those of the estates of the crown and the church, usually held under triennial leases, and were in a state of feudal bondage, and subject to numerous exactions on the part of their lords. Under such circumstances, even though there had been neither restrictions on exportation nor a land tax, the depressed condition of the peasantry, and the low state of agriculture, need not be wondered at.

But we are glad to have to state that the dawn of a better day seems to have arisen, and that several important changes have lately been introduced. We have already noticed the removal of the restrictions on exportation; and in 1812 and 1838 laws were passed for the abolition of the feudal system, and the complete emancipation of the peasantry. And, notwithstanding the poverty and ignorance of the latter will hinder them from speedily profiting to the extent that might be anticipated from the passing of these laws, this cannot fail, in the end, to be productive of the best effects. It was also enacted in 1819, that in future, on the death of any individual possessed of an estate in land, and having more than one son, the half only of the estate should descend to the eldest son, and that the other half should be divided in equal shares among the other children. This law, which appears to have been framed on the model of that which regulates the succession to property in France, will probably have nearly similar effects. In both countries, the abuses of entails might have been obviated without running into

* The late Queen is said to have been a great dealer in corn on her own account!

the opposite extreme, and establishing a system that can hardly fail in the end to occasion the too great division of landed property.

Exclusive of wheat and barley, hemp, flax, and cotton are raised with but little labour. The culture of the last is said to be extending of late years, especially in the neighbourhood of Mazzara. It is mostly short-stapled, and but little is exported, and that only to Naples and Trieste. It is probable, however, that by attention to its culture, and the introduction of improved varieties, its quality might be improved, and it might become an article of some importance. The sugar-cane was formerly a staple product of the S. shore of Sicily. But owing to the introduction of cheaper sugar from the W. Indies and Brazil, the culture of the cane is now restricted to some small plantations near Avola, and will probably at no distant period be wholly abandoned.

The district round Marsala is the principal seat of the wine culture; and, thanks to the exertions of some English capitalists established in that city, the production of wine is become an important branch of industry, and it forms a principal article of export.—(See WINE.) But, except in the English establishments, little care is in general bestowed on the vintage. Along the N. coast, the mountain slopes and valleys are almost wholly covered with olive groves; though elsewhere they are rare, and do not furnish sufficient oil for the inhabitants. But for the imperfections in the mode of its preparation, the oil of Sicily would be excellent. The olives, however, are permitted to hang on the tree till they come off with shaking, or beating with light canes; and they are then kept in vats till they get quite black, so that the oil becomes pungent and rancid, and, though fit for the lamp, is totally unfit for the table. It is only near the capital and in a few other places, that a more improved process is followed. Lemons and oranges, which grow luxuriantly, are of excellent quality, well adapted for long voyages, and, when intended for exportation, are collected with more care than any other agricultural product. They are largely exported, and are altogether highly important. Almonds, pistachios, dates, madder, the barilla plant, hazel-nuts, the *Ricinus palma*, or castor oil plant, saffron, tobacco, &c., might all be raised in any quantity; but their culture is for the most part neglected, or ill-conducted. The mulberry is grown in the vicinity of Messina, and in the N. E. part of the island; but the produce of silk does not exceed 400,000 lbs. a year. The manna ash is grown near the capital, and, manna not being monopolised by the government in Sicily, as in Naples, it might be a much more extensive and profitable article of trade than it really is, if there were any public enterprise. Liquorice is found growing wild in several parts of the island, and considerable quantities of juice are exported. The culture of shumac is a good deal attended to, and it forms a principal article of export.

Formerly there were only certain ports from which corn could be exported; a limitation which gave rise to the establishment at these ports of public magazines or *caricatori*, where the corn may be deposited till an opportunity occurs of shipping it off. Provided it be of good quality (*mercantibile* or *recetible*), and provided it be brought in immediately after harvest, or, at farthest, in August, it is warehoused free of expense; what it gains in bulk after that period (about 5 per cent.) being sufficient to defray all expenses. The receipt of the *caricator*, or keeper of the magazine, is negotiable like a bill of exchange, and is the object of speculative purchases on the exchange at Palermo, Messina, &c., according to the expected rise or fall in the price of corn. The depositor of a quantity sells it in such portions as he pleases, the whole being faithfully accounted for. The public magazines, in some parts of the island, are either excavations into calcareous rocks, or holes in the ground shaped like a bottle, walled up, and made waterproof, containing each about 200 salme of corn, or about 1,600 English bushels. The neck of the bottle is hermetically closed with a stone fastened with gypsum. Corn may be thus preserved for an indefinite length of time; at least it has been found in perfectly good order after the lapse of a century.—(*Simond*, p. 540.; *Swinburne*, vol. ii. p. 405. For an account of the oil *caracatori* of Naples, see OLIVE OIL.)

The fisheries are chiefly conducted by corporations of fishermen, or monied individuals. That at Palermo employs, during the season, from 900 to 1,000 boats, and 3,500 fishermen; and the produce is valued at from 20,000*l.* to 25,000*l.* a year. Tunnies, the fish principally caught on the Sicilian coasts, and which were in great request in antiquity, as well as in modern times, are of large dimensions, being generally from 4 to 8 feet in length, with a nearly equal girth. Their flesh is highly nutritious. The shoals of tunny enter the Mediterranean early in the year. The *tonnare*, or fishing establishments, on the Sicilian coasts, are more extensive and valuable than those of any other part of the Mediterranean. The nets belonging to the one in the Bay of Palermo are so very strong as to be able to arrest the progress of a ship when under sail. The fishery of the sword-fish is confined chiefly to the Straits of Messina, and the anchovy and pilchard fisheries to Siculania. Lentini has some trade in *botarga*, made of the roe of the mullet. The coral fishery, near Bona, in Africa, is principally frequented by fishermen from Trapani, at which city the coral is polished, and brought for exportation to Catania, Naples, Leghorn, &c.

The minerals of Sicily are important and valuable. Sulphur ranks first; it is found in great quantities imbedded in blue marl, or in gypsum and limestone, over most of the central and S. parts of the island. The sulphur mines have been wrought for upwards of 300 years; but it is only since 1820 that any extraordinary quantity has been prepared for exportation. Subsequently to 1833, the trade with this country increased so much that the export of sulphur to the U. Kingdom rose from 19,122 tons in the above year, to 38,654 tons in 1838. In this year, however, the Neapolitan government granted to a French company the monopoly of the trade in sulphur, the production of which was to be limited to

600,000 quintals, to be supplied to the company by the proprietors of the mines at certain fixed prices, on condition of the latter paying to the government a bonus of 400,000 Neapolitan ducats a year! It is needless to dwell on the impolicy and absurdity of such a project. Instead of attempting to limit the export of sulphur, government should have given it every possible facility; and taking the export under a free system, at only 1,000,000 quintals, it would have yielded, at the low duty of 2s. a cwt. on export, a larger sum than was to be paid by the company for their monopoly. Luckily, however, a firm remonstrance by England occasioned the suppression of the monopoly, and the sulphur trade is again restored to its former state. Some sulphur mines are wrought by English speculators, with machinery brought from England, and workmen from Wales, Cornwall, and Scotland; but in most of the other mines the processes are very rude, and, in melting, a great part of the sulphur is allowed to escape in gas, to the destruction of the surrounding vegetation. Sicily furnishes saltpetre of excellent quality in sufficient quantity for her own consumption, but from want of enterprise none is produced for exportation. Rock salt, bitumen, gypsum, and marble of different kinds are found in various places; and good salt is made at Trapani, and other coast towns. There are also ores of copper, lead, mercury, and iron, but very few of these are wrought. There are no iron foundries in the island, and iron and tin goods are principally imported from England, lead from Spain, and steel from Germany.

Were the bounty of nature towards Sicily not counteracted by vicious laws and institutions, she would undoubtedly be one of the richest and finest of European countries. All that she requires is security of property and freedom of industry. Let but these be given to her, and a few years will develop her gigantic resources, and elevate Girgenti, Termini, and Sciacca, to a very high rank among corn-shipping ports.

PALM OIL (Ger. *Palmol*; Fr. *Huile de Palme, Huile de Senegal*; It. *Olio di Palma*; Sp. *Aceite de Palma*), is obtained from the fruit of several species of palms, but especially from that of the *Elais Guineensis*, growing on the W. coasts of Africa, S. of Fernando Po, for some distance inland, and in Brazil.

The oil palm reaches a height of from 15 to 40 feet. Its fruit consists of a nut or kernel, surrounded by an arillus or pulp, and when full grown is about the size of a chesnut, the pulp being about ½ of the whole bulk. The fruit grows in clusters, much after the manner of clusters of grapes, only a great deal larger, some clusters weighing as much as a cwt. When fully ripe, the fruit, which has a very thin skin, is of a beautiful bright orange colour; in taste, the pulp has a slight approach to sweetness, and is both wholesome and agreeable to eat.

The oil season on the W. coast of Africa is from February to September. When ripe, the fruit is collected in troughs or reservoirs of the most primitive description,—occasionally even in holes dug in the ground, paved at the bottom with stones,—where it is exposed to the heat of the sun, which in a short while partially separates the pulp from the kernels or nuts, the separation being completed by beating or bruising the fruit with pieces of wood or stones. The kernels and stems having been removed by hand, the pulp is put into earthen pots and boiled; the oil being in this way separated from a fibrous substance which pervades the pulp, and from other impurities. The whole of this process is so rudely performed, that there is necessarily great waste. When the oil has cooled down it concretes to about the consistence of butter, and is then ready for the cask. It retains nearly the same consistence upon importation into this country; it has no particular taste, but has a pleasant aromatic smell, and is of a yellowish to a deep orange colour. The finest oil is generally of the deepest shade. By keeping it loses its bright colour, fades into a dirty white, and becomes rancid, in which state it is rejected.

The natives on the coast use it for the same purposes that we use butter. In this country, and on the continent of Europe, it is made into soap, candles, &c.; and it is employed, in conjunction with other materials, to lubricate the axles of railway carriages. By far the greatest consumption of palm oil, however, is in soap making, for which purpose, as well as for candles, it requires to undergo the somewhat expensive process of bleaching. It is sometimes imitated with hog's lard, coloured with turmeric, and scented with Florentine iris root.

Hitherto our supplies of palm oil have been derived almost entirely, if not exclusively, from the Bights of Biafra and Benin, on the W. coast of Africa, of which it is the staple article of export. It is occasionally brought in small quantities from the Cape de Verd Islands, the West Indies, and Brazil; but it is nevertheless the produce of the coast of Africa indirectly imported.

The trade in palm oil, which took its rise some 50 years ago, is now of great magnitude and value. In 1806 the oil imported into England was estimated at only 150 tons, received from the Bight of Biafra; whereas, in 1857, the whole importations amounted, according to the official returns, to 42,740 tons, worth, at the market price of 40*l.* a ton, over 1,700,000*l.*, and affording employment to a large amount of shipping. The imports in 1858 were somewhat less than in 1857, which is to be attributed to local causes on the African coast, especially at the river Bonny, where the trade was for a time partially suspended. The re-exports of palm oil in 1857 were 10,690 tons, and in 1858, 8,726 tons.

Of late years an oil has to some small extent been extracted from the kernel or nut of the oil palm; but it is essentially different in character from that known as palm oil, and, probably from the unskilful manner in which the natives extract it, is of considerably less value. The present market value (June, 1859) of palm oil is from 45*l.* to 46*l.* per ton. It is hardly necessary to observe that the trade in palm oil promises to do more than anything to introduce a taste for commercial pursuits, and consequently for civilisation, among the natives of Africa.

PAMPHLET, a small book, usually printed in the octavo form, and stitched, popularly understood to comprise from 1 to 10 sheets or thereby.

It is enacted by 10 Ann. c. 19. § 113. that no person shall sell, or expose to sale, any pamphlet, without the name and place of abode of some known person, by and for whom it was printed or published, written or printed thereon, under a penalty of 20*l.* and costs.

It is enacted by the 55 Geo. 3. c. 185. that every book containing 1 whole sheet, and not exceeding 8 sheets, in 8vo. or any lesser size; or not exceeding 12 sheets in 4to. or 20 sheets in folio, shall be deemed a pamphlet. The same act imposed a duty of 3*s.* upon each sheet of *one* copy of all pamphlets published. This duty, which was at once vexatious and unproductive, hardly ever yielding more than 1,000*l.* or 1,100*l.* a year, was repealed in 1833.

We have given (*antè*, p. 176.) an account of the number and selling price of the pamphlets published in 1850, 1851, and 1852. Some pamphlets have a very large sale; but, speaking generally, their publication is quite as hazardous as that of books. The establishment of Quarterly Reviews has lessened the occasions and the demand for pamphlets.

PAPER, (Ger. and Du. *Papier*; Fr. *Papier*; It. *Carta*; Sp. *Papel*; Rus. *Bumaga*; Lat. *Charta*; Arab. *Kartas*; Pers. *Kaghas*). This highly useful substance is, as every one knows, thin, flexible, of different colours, but most commonly white, being used for writing and printing upon, and for various other purposes. It is manufactured of ve-

getable matter reduced to a sort of pulp. The term paper is derived from the Greek παπῦρος (*papyrus*, see *post*), the name of the plant on the inner bark of which (*Liber*, βιβλος, whence our word *book*) the ancients used to write. Paper is made up into *sheets*, *quires*, and *reams*; each quire consisting of 24 sheets, and each ream of 20 quires.

Historical Sketch of Paper. Difference between ancient and modern Paper. — Some of those learned and ingenious persons who have investigated the arts of the ancient world, have expressed their surprise that the Greeks and Romans, though they possessed an immense number of books, and approached very near to printing in the stamping of words and letters, and similar devices, should not have discovered the art; the first rude attempts at typography being sufficiently obvious, though much time and contrivance have been required to bring the process to its present state of perfection. But they should rather, perhaps, have wondered that the more civilised nations of antiquity did not invent paper, an invention which, it may easily be shown, necessarily preceded that of printing. But this was an exceedingly difficult task; the more so, that the vast importance of paper could not be appreciated, or even imagined, till after it had been generally introduced. At first, the memory of important events appears to have been handed down by inscriptions cut on rocks, pillars of stone or marble, and the walls of edifices; and this primitive usage is still retained in the monuments in our churches and cemeteries. In a later, though still very remote age, men were accustomed to write upon portable surfaces of various kinds. Everybody knows that the Decalogue was written upon tables of stone; and Joshua wrote a copy of the law upon the like materials. — (*Josh.* c. viii. v. 32.) The Greeks and Romans engraved laws, treaties, contracts, and other important documents, on plates of brass; and it is stated, that a fire which broke out in the capitol, in the reign of Vespasian, consumed above 3,000 such bronze muniments. — (*Nouveau Traité de Diplomatique*, i. 451.) But exclusive of plates of this sort, which were necessarily inconvenient, costly, and quite unfit for ordinary use, thin and flexible plates of lead and other metals, (*Job*, c. xix. v. 23, 24.) thin pieces of wood, skins, parchment, linen, and a variety of similar substances were used in writing. Cheaper materials, such as the leaves and bark of trees, palms, &c., were also used from a very remote period for the same purpose; but leaves (χαρτης, *chartæ*) being, when dry, apt to split in the direction of the fibres, it was found to be necessary, in preparing them for writing, to glue them together, so that the fibres might cross each other in opposite directions. The texture of the leaf, or sheet, if we may so call it, is thus greatly strengthened; and when it has been smoothed, polished, and fitted for use, it is less inconvenient and better looking than might be supposed. Such, in fact, is the principle on which the paper of the ancients was formed. This, however, which was called *Charta Egyptiaca*, from the place of its manufacture, did not consist of leaves, but of the inner bark of the famous reed or rush, the *Cyperus Papyrus*, found along the banks of the Nile, or rather in the pools and ditches which communicate with the river. The ancients applied this useful plant to an immense variety of purposes; but here we shall only notice that from which it has acquired an immortality of renown. The inner bark having been divided by a needle or other sharp instrument into very thin and broad layers or filaments, portions of these were placed side by side longitudinally, and glued together at the ends; another portion being glued crosswise on the backs of the latter, to give the page the requisite strength. Pliny and other writers have described the process (*Hist. Nat.* lib. xiii. c. 11, 12, 13.), which has been farther elucidated by Hardouin and other commentators. But the fullest and ablest discussion of this curious subject is contained in the very learned and elaborate work, the *Nouveau Traité de Diplomatique* (i. pp. 448—524.), where the most interesting particulars respecting the history and manufacture of papyrus, as well as of the greater number of the other writing materials used in antiquity, have been collected and set in the clearest point of view. — (See also the *Dictionnaire Diplomatique* of De Vaines, art. *Papier*, ii. pp. 165—174.) Bruce has given a summary of the authorities in the seventh volume of the octavo edition of his Travels; and, not satisfied with this, he attempted to make paper from the papyrus, in which not being very successful, he imputes his failure to errors in the statements of Pliny; not reflecting that, had he endeavoured, trusting to written directions, without experience and traditional art, to make modern paper, or even a pair of shoes, he would, most probably, have been equally infelicitous. Egypt enjoyed for a lengthened period a natural monopoly of this valuable article; and even attempted, in anticipation of a later policy, by prohibiting the growth of the papyrus, except in certain localities, and limiting its supply, to sell its produce at an artificially enhanced price! — (*Ameilhon. Commerce des Egyptiens*, p. 288.) But this policy ceased on the conquest of Egypt by the Romans, who, having imported the plant into Rome, succeeded in preparing from it a very superior article. Pliny enumerates the various kinds of paper, from the coarsest, which was used, like our brown paper,

for packing, to the most expensive and finest. The latter, which was made of the innermost filaments, was of a snowy whiteness; and when properly dressed and polished, was easily written upon. The consumption was very considerable; and being, after the foundation of Alexandria, principally made in that city, it formed an important article in her commerce, and furnished employment for many workmen and much capital. Flavius Vopiscus relates, that in the 3d century, the tyrant Firmus used to say there was so much paper there, and so large a quantity of the glue or size used in its preparation, that he could maintain an army with it: — "*Tantum habuisse de chartis, ut publicè sæpe diceret, exercitum se alere posse papyrô et glutinô.*" We may doubt whether the value of the paper at present belonging to any single city would do the like. *Charta Egyptiaca* is very ancient, having, notwithstanding the assertion of Varro and Pliny to the contrary, (*Hist. Nat.* lib. xiii. cap. 11.,) been in common use long before the age of Alexander. This is evident from the statement of Herodotus, who, though he lived about a century before that conqueror, tells us, that in former times, when papyrus was scarce, the Ionians wrote on the skins of goats and sheep; and that that practice continued to be customary among several barbarous nations. — (Lib. v. cap. 58.)

Though white, smooth, durable, and not ill-adapted for writing, ancient paper was not suited for the printer: by reason of the closeness of the grain, it would not have received the ink from types more kindly than shavings of wood, and such like materials; and its texture was so very brittle, that it would have shivered to pieces under the press. It was, in truth, an inartificial mass ("*viscera nivea virentium herbarum*"), no great invention or ingenuity being discovered in its preparation. Modern paper, on the other hand, is wholly artificial; and the contrivances for its manufacture are marvellous alike for the sagacity evinced in their design and their practical efficiency. Like the paper of antiquity, it is formed of the filaments of various sorts of vegetable substances, derived principally from the tearing to pieces or pounding cotton and linen rags, and similar materials, mixed with water. This process is called beating them into pulp; and when examined with a microscope, the floating filaments are found to be well fitted for adhering together, being jagged and rough, and mixed in every possible way. A portion of this mixture or pulp being, when properly prepared, poured upon moulds or sieves of fine woven wire, the water is drained off, and the suspended fibres, falling to the bottom, form a layer or sheet, which, being consolidated by pressure and dried, becomes paper; its strength and goodness depending, of course, in a great measure, on the quality of the rag or other material of which it is made. Paper used to be manufactured by dipping sieves or frames into the pulp; the portion of filaments so lifted up forming the sheet of paper. But the application of rotary motion to the manufacture has effected a total change in the mode in which it was carried on: instead of dipping the sieves or frames into the cistern of pulp, a circular web, or round towel of woven wire, revolves horizontally under the vessel, (technically called the vat,) receives the deposit, conveys it away, and, by an adjustment of extraordinary delicacy, transfers it uninjured, though as fragile as a wet cobweb, to a similar revolving towel of felt: thus an endless web of paper is spun, as long, at least, as the machine continues to move, and pulp is supplied.

The pervious and spongy texture of paper make it readily imbibe and retain the ink impressed on it by types in printing, and by the pen in writing; its toughness hinders it from being easily torn; and, in a well-bound book, under favourable circumstances, its duration is indefinite, and, for all practical purposes, eternal! It is true that legal documents are sometimes written or printed on parchment, which is less liable to be torn, or injured by rubbing; the luxury of typography occasionally, also, exhibits a few impressions of a splendid work upon vellum; and, it is farther true, that these substances were used for writing upon by the ancients: but they are necessarily expensive, and the cost of either far exceeds the means of the great majority of book buyers; so that it would be altogether unprofitable to cast types, to construct presses, and to incur the various and heavy charges of an establishment for printing, unless we possessed a cheaper material on which to print.

Almost all the more ancient and valuable existing Greek and Latin manuscripts are written either on parchment or vellum, but generally on the latter. It is singular, however, that while such is the case, all or almost all the very old charters and diplomas are written on papyrus. Indeed the learned authors of the *Nouveau Traité de Diplomatique* affirm that no parchment charter has been discovered anterior to the 6th century. — (i. 479.)

It appears to be sufficiently established that paper, fabricated like that now in use, of cotton and other vegetable materials, and of silk, has been manufactured in China from a very remote epoch — (*Nouveau Traité de Diplomatique*, i. 519.): the Arab historians state that similar paper was manufactured in Mecca in the beginning of the 8th century — (*Andres, Origine e Progressi d' Ogni Letteratura*, i. 202., ed. Rom. 1808,

and *Gibbon*, ix. 379.); and most probably the mode of its production was then, also, known to the Greeks. It appears to have been soon after introduced into Europe; but it is doubtful whether this were done by the Arabians or Greeks. The mode of fabricating paper from cotton and other vegetable materials being once discovered, its fabrication from linen rags was a comparatively easy, and in Europe, where cotton was then extremely scarce, an all but necessary step. It is singular, however, that we have no positive information either as to the country where, or the epoch when, paper from rags began to be manufactured in Europe. *Mais on ne peut reculer son invention plus tard, qu'au Treizieme siecle, ni son usage ordinaire au-delà du Quatorzième.* — (*Nouveau Traité, &c.*, i. 524.) In fact, Egyptian paper, or paper made of papyrus, in the manner described above, continued to be partially employed down to the middle of the 11th century, though parchment was then the principal material used in writing.

It is curious to observe how very shortly the introduction of paper preceded the invention of printing, to which, indeed, as already seen, it was an indispensable preliminary. Muratori attributes the ignorance of the barbarous ages principally to the scarcity and high price of paper, and the superior intelligence of modern times to its abundance and cheapness. — (*Andres*, i. 200.) And whatever opinion may be entertained as to the first part of this statement, there can be no question that the latter is perfectly well founded.

Not only are we in the dark as to the history of modern paper, but we are unable to make any very satisfactory conjectural estimate of the mode in which it was invented. It is, however, all but certain that the invention must have been suggested by accident, or by observing the effects produced by the accidental drying of triturated vegetable matter, or in some such way; and that the hint thus afforded was gradually improved upon. It is not possible to imagine that the invention should have been wholly the result of design; for, we cannot conceive how any one without any previous knowledge should have proposed to himself to produce paper by pounding rags, or other vegetable matter, mixing the mass in water, and then pressing and drying the deposit. But, without indulging in unprofitable conjectures, it is at all events certain, that however and by whomsoever discovered, no invention has been of greater importance. *Chartæ usu maxime humanitas vitæ constet et memoria.* — (*Plin. Hist. Nat.* lib. xiii. cap. 11.) The processes by which the most worthless and vilest materials are converted into such admirable substances as paper and glass, are probably the greatest triumphs of human talent and ingenuity. They have more than realised the dreams of the alchemists; and have been incomparably more advantageous than if we had become acquainted with a means of transmuting the inferior metals into gold.

Manufacture of Paper in England. — The application of paper to the purposes of writing and printing, and the fact of its being indispensable to the prosecution of the latter, render its manufacture of the highest utility and importance. But, even in a commercial point of view, its value is very considerable. France, Holland, and Genoa had, for a lengthened period, a decided superiority in this department. The finest and best paper being made of linen rags, its quality may be supposed to depend, in a considerable degree, on the sort of linen usually worn in the country where it is manufactured; and this circumstance is said to account for the greater whiteness of the Dutch and Belgian papers, as compared with those of the French and Italians, and still more the Germans. The rags used in the manufacture of writing paper in Great Britain are collected at home; but those used in the manufacture of the best printing paper are imported, principally, from Italy, Hamburg, and the Austrian States, by way of Trieste. — (See Rags.) We believe, however, that it was owing rather to the want of skill, than, as has sometimes been supposed, to the inferior quality of the linen of this country, that the manufacture of paper was not carried on with much success in England till a comparatively recent period. During the 17th century, most part of our supply was imported from the Continent, especially from France. The manufacture is said to have been considerably improved by the French refugees who fled to this country in 1685. But it is distinctly stated in the *The British Merchant* (vol. ii. p. 266.), that hardly any sort of paper, except brown, was made here previously to the Revolution. In 1690, however, the manufacture of white paper was attempted; and within a few years, most branches were much improved. In 1721, it is supposed that there were about 300,000 reams of paper annually produced in Great Britain, which was equal to about two thirds of the whole consumption. In 1783, the value of the paper annually manufactured was estimated at 780,000*l.* At present, besides making a sufficient quantity of most sorts of paper for our own use, and for exportation, we annually export about 100,000*l.* worth of books. The importation of foreign paper for British consumption has now nearly ceased. A small quantity of French paper was used in this country for copperplate printing till within these few years; but, in this respect, we now surpass the French, and there is no artist of either country, who does not consider English paper, manufactured according to the latest improvements, best

adapted for prints. The French have, however, always excelled in the manufacture of very thin letter paper; and a small portion of this article, and some paper hangings, are now the only articles of import.

In 1813, Dr. Colquhoun estimated the value of paper annually produced in Great Britain at 2,000,000*l.*; but Mr. Stevenson, an incomparably better authority upon such subjects, estimated it at only half this sum. From information obtained from those engaged in the trade, we incline to think that the total annual value of the paper manufactured in the United Kingdom, exclusive of the duty, may at present amount to about 1,600,000*l.* or 1,700,000*l.* There are about 700 paper-mills in England, and from 70 to 80 in Scotland. The number in Ireland is but inconsiderable. Of these mills, we believe very few have lately been unemployed. About 28,000 individuals are supposed to be directly engaged in the trade: and, besides the workmen employed in the mills, the paper manufacture creates a considerable demand for the labour of millwrights, machinists, smiths, carpenters, iron and brass founders, wire-workers, woollen manufacturers, and others, in the machinery and apparatus of the mills. Some parts of these are very powerful, and subject to severe strain; and other parts are complicated and delicate, and require continual renovation. Owing to this, the manufacture is of much greater importance, as a source of employment, than might at first be supposed, or than it would seem to have been formerly considered by government, who loaded it, down to a very recent period, with an excise duty amounting to more than *three times as much as the total wages of the workpeople employed!*

It was formerly customary to collect the rags used in the manufacture into large heaps, in order that, by their heating and fermentation, they might be the more easily reduced to filaments. But this injured the rags; and it is now the practice to tear them to pieces, without any such preparation, by powerful machines, constructed for the purpose.

During the present century this manufacture has been signally promoted by the combined influence of science, ingenuity, and mechanical skill. These have been successfully exerted in the preparation of the pulp; the conversion of the pulp into paper; and the provision of materials: and in none has their influence been more remarkable than in the last. This is evident from the fact, that while the manufacture has been more than doubled since 1820, the demand for continental rags and other foreign materials has actually been reduced within that time, in consequence of the immense home supply we derive from substances previously regarded as worthless, and treated as refuse. The sweepings of cotton and flax mills, owing to the grease and dirt with which they are mixed up, were, until within these few years, of no value whatever, except as manure. But means having been discovered of rendering them clean and white, they are now made into very good paper; and the neighbourhood of Manchester has, in consequence, become a principal seat of the manufacture. The chemical and mechanical processes by which these materials are purified, whitened, and made available for the production of paper, without their strength being impaired, are not only exceedingly interesting in themselves, but are of great national importance; and, by reducing the cost of paper, have done ten times more to lower the price of books, and diffuse literature, than all the efforts of all the societies that ever existed.

The first idea of a machine for converting pulp into paper, originated in France, the inventor being an ingenious workman of the name of Louis Robert. A model of this machine was brought to England by M. Leger Didot; and though at first it was far from giving an assurance of success, it sufficed to induce English capitalists and engineers, particularly Mr. Donkin, to follow up the scheme; and in the course of a few years they brought it to a high degree of perfection. Mr. Dickinson, of Hertfordshire, one of the most intelligent mechanists and extensive paper manufacturers in England, has invented a machine of a different construction for the same purpose, and has also introduced various subsidiary improvements into the manufacture. One of these consists in the application of air pumps to the process, by the action of which, he produces a partial vacuum under a portion of the wire on which the pulp is in the act of settling, and thus very much accelerates its consolidation; in fact, prepares it almost instantaneously for the first mechanical pressure. The result is all but miraculous. By the agency of a great deal of complicated machinery, so admirably contrived as to produce the intended effect with unerrring precision and in the very best manner, a process, which in the old system of paper-making occupied about *three* weeks, is performed in as many minutes! A continuous stream of fluid pulp is, within this brief space of time, and the short distance of 80 feet, not only made into paper, but actually dried, polished, and every separate sheet cut round the edges, and rendered completely ready for use! The paper manufactured by this wonderful combination of intelligence and power is, at once, moderate in price, and, for most purposes, superior in quality to what was formerly made by hand. The sample before the reader, though not the finest that is made, will warrant what is now stated.

Mr. Dickinson some time since made an important improvement in the paper manufacture, on the principle of veneering in cabinet work. He makes two webs of paper, each by a separate process; and by laying them together while in an early stage, they are rendered inseparable by the pressure to which they are subjected This paper is used in copperplate printing; and by adopting a peculiar method of preparing the pulp, and selecting a finer rag for the web which forms the face of the paper, it is much better calculated for taking a fine impression. Its introduction has put a total stop to the importation of that species of French paper, which was formerly used in considerable quantities by copperplate printers. Probably, however, the most ingenious of the modern inventions in the manufacture is that by which Mr. Dickinson has contrived, without increasing the thickness of paper, to embody parallel coloured threads in its fabric. This novel description of paper is now used in the printing of exchequer bills and postage envelopes, for which it is admirably fitted, inasmuch as it cannot be counterfeited, except by employing similar machinery, which it would cost a great deal to construct, and be all but impossible to conceal.

Duty on Paper.—Previously to 1836, all writing, coloured, or wrapping papers, cardboards, and pasteboards, were denominated 1st class paper, and paid 3*d.* per lb. duty (28*s.* a cwt.); unless *manufactured wholly of tarred ropes, without the tar being previously extracted,* in which case the paper was denominated 2d class, and paid 1½*d.* per lb. (14*s.* a cwt.). Millboards and scaleboards, made of the same materials as 2d class paper, paid 2¼*d.* per lb. (21*s.* a cwt.) duty.

This duty varied on the different descriptions of 1st class paper from about 25 or 30 per cent. on the finest, to about 200 per cent. on the coarsest! A duty so oppressive led to the commission of very great frauds, which all the vigilance of the officers, and the endless multiplication of checks and penalties, were unable to prevent; the real effect of such devices being to injure the honest manufacturers, and to give those of a different character greater facilities for carrying on their fraudulent schemes. But, laying out of view for a moment the oppressiveness of the duty, could any thing be more absurd, than to interdict the manufacturer of third class wrapping paper (for it is to him that the regulation applied) from using any other material than *tarred ropes?* After the peace, and the very general introduction of iron cables, tarred ropes advanced considerably in price; but as the use of *any other material whatever* would have occasioned an increase of 14*s.* a cwt. of duty, advantage could not be taken of this circumstance; so that the excise regulation, without putting one sixpence into the pockets of government, obliged the public to pay an increased price for an inferior article! Neither was this its only effect: a good deal of the refuse thrown out in sorting rags, which might have been used in the manufacture of coarse wrapping paper, was sold by the manufacturers for about 3*s.* a cwt.; while a good deal that might have been used in the same way could not be sold at all, but was absolutely lost. It is plain, therefore, that this regulation had a two-fold operation: first, in adding to the cost of wrapping paper, by compelling it to be made from a comparatively expensive article; and, secondly, in adding to the expense of fine paper, by preventing the refuse of the rags used in its manufacture from being beneficially employed.

It may, perhaps, be doubted, considering the purposes to which paper is applied whether it should be subject to any duty whatever. Printers, stationers, bookbinders, type-founders, artists, copperplate and lithographic printers, card-makers, paper-stainers and paper-hangers, &c., are all affected by a duty on it. And if it be not kept within reasonable bounds it increases the price, and hinders the publication, of books. "This places a great obstacle in the way of the progress of knowledge, of useful and necessary arts, and of sober, industrious habits. Books carry the productions of the human mind over the whole world, and may be truly called the raw materials of every kind of science and art, and of all social improvement."—(*Sir H. Parnell on Financial Reform,* 3d ed. p. 30.)

But though the exigencies of the public service have not permitted the total repeal of the duties on paper, we are glad to have to state that they have been most materially lowered. In 1836, the duty on first-class papers was reduced to the same level as that on papers of the second class, or from 3*d.* per lb. to 1½*d.* per lb.; the manufacturers of the coarser descriptions of paper being at the same time relieved from the restraints under which they had previously laboured, and allowed to use any material in the manufacture which they may judge best. The duty of 1¾*d.* per square yard laid on paper when printed or stained, over and above the ordinary duty on paper, was then also repealed, and the various acts relating to paper were combined into a single statute. At present, therefore, the same rate of duty is laid on all descriptions of paper, so that there is no longer any room for cheating the revenue by the substitution of superior for inferior paper, and, consequently, no necessity for exercising that vexatious surveillance over the manufacture which formerly prevailed.

The influence of this wise and judicious measure in reducing the price of paper used in printing and writing has since been decidedly manifested. The abolition of the discriminating duty on stained or printed paper has, also, been of material importance. The reduction of price it has occasioned has enabled a much larger class of persons to get their apartments papered; and it has been in this way productive, not only of an additional demand for paper and labour, but of an increase of comfort and cleanliness.

This measure has, also, in great part obviated the injustice done to authors and publishers, by compelling them to pay a duty on the paper used in printing books previously to their publication; and, consequently, before it can be known whether the books will sell. When they do not sell, the tax has obviously to be paid out of the capital of the authors or publishers, and the loss arising from an unsuccessful publishing speculation is increased by its amount.—(See *antè*, p. 174.) It is true that every duty on paper, how limited soever, operates in this way, and is, therefore, objectionable on principle; but the practical hardship inflicted on authors by the existing paper duty is not very material.

As respects revenue, too, the measure has been completely successful. In 1835, the nett produce of the old duties on paper, in the U. Kingdom, amounted to 796,305*l.* In 1840 the reduced duties produced 581,429*l.*; and in 1858 they produced 1,119,433*l.*, being 323,128*l.* more than their produce when the rate of charge was double! This statement, however, gives but an imperfect view of the progress of the manufacture; for, owing to the premium (for so it may be called) which the present postage regulations give on the use of thin and light paper, the increase in its production is, no doubt, a good deal greater than we might infer from the mere increase of weight. The following accounts show the former and present state of the manufacture.

An Account exhibiting the Quantities of the different Sorts of Paper charged with Duties, the Rates of Duty, and the Produce of the Duties, in 1835.

Year.	First Class Paper.	Second Class Paper.	Millboard, Glazed Paper, Sheathing Paper, Button Board, &c.		Pasteboard.		Total Weight of Paper, Millboard, and Paste board.	Gross Produce of the Duties.	Nett Produce of the Duties.	Drawbacks on Paper exported.
			First Class.	Second Class.	First Class.	Second Class.				
	Duty 3*d.* per lb.	Duty 1½*d.* per lb.	Duty 1*l.* 8*s.* per cwt.	Duty 1*l.* 1*s.* per cwt.	Duty 1*l.* 8*s.* per cwt.	Duty 14*s.* per cwt.				
1835.	*Lbs.*	*Lbs.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Lbs.*	£ s. d.	£ s. d.	£ s. d.
England -	45,329,243	15,586,171	2,328	25,004	9,543	2,487	64,899,901	705,292 15 4	645,578 7 6	41,960 8 9
Scotland -	8,626,830	2,045,766	- -	3,118	2,999	5,869	12,015,059	132,202 11 1	120,299 7 6	7,936 6 11
Ireland -	2,223,482	431,158	17	373	21	15	2,702,552	30,943 15 0	30,427 1 3	386 18 5
U. Kingdom	56,179,555	17,863,095	2,345	26,495	12,563	8,371	79,617,312	868,439 1 5	796,305 10 5	50,283 14 1

Account showing the Quantities of Paper made in England and Wales, Scotland, and Ireland, with the Gross and Nett Amount of the Revenue derived therefrom in the Years ending 31st March, 1857 and 1858.

	England and Wales.	Scotland.	Ireland.	U. Kingdom.
Paper made, 1857 - - - lbs.	143,588,281	40,998,354	7,910,764	192,297,399
,, 1858 - - - ,,	138,952,598	40,559,165	7,922,951	187,414,664
Gross revenue, 1857 - - - £	929,431 12 5	263,391 15 2	51,320 7 11	1,244,143 15 6
,, 1858 - - - ,,	920,933 11 1	271,661 10 0	52,126 18 4	1,244,721 19 5
Nett revenue, 1857 - - - ,,	827,909 18 9	246,554 2 6	51,085 0 4	1,125,549 1 7
,, 1858 - - - ,,	814,560 17 8	252,959 13 1	51,912 12 1	1,119,433 2 10

Causes of the Difference between the Gross and Nett Revenue.

Drawbacks and Allowances.	England and Wales.	Scotland.	Ireland.	U. Kingdom.
1857.				
Drawback on paper exported - -	£86,620 18 8	£13,763 8 7	£81 16 2	£100,466 3 5
Allowance on paper used:				
In printing bibles - - -	6,775 9 9	931 2 0	- -	7,706 11 9
In printing prayer books -	1,156 13 3	187 12 0	- -	1,344 5 3
In printing confessions of faith -	- -	8 7 3	- -	8 7 3
In printing books in Greek, Latin, &c. -	77 14 9	- -	- -	77 14 9
By hotpressers - - -	2,267 9 6	50 12 10	- -	2,318 2 4
In Jacquard looms - - -	4,610 13 9	1,896 10 0	153 11 5	6,660 15 2
Allowance for overcharges, &c. - -	12 14 0	- -	- -	12 14 0
	101,521 13 8	16,857 12 8	235 7 7	118,594 13 11
1858.				
Drawback on paper exported - -	89,997 14 8	14,467 4 4	51 14 0	104,516 13 0
Allowance on paper used:				
In printing bibles - - -	7,564 18 5	1,416 3 0	- -	8,981 1 5
In printing prayer books -	1,149 3 5	858 9 11	- -	2,207 13 4
In printing confessions of faith -	- -	18 14 2	- -	18 14 2
In printing books in Greek, Latin, &c. -	89 6 11	- -	- -	89 6 11
By hotpressers - - -	2,218 3 7	80 17 4	- -	2,299 0 11
In Jacquard looms - - -	4,570 11 1	1,665 3 0	162 12 3	6,398 6 4
Allowances for overcharges, &c. - -	29 0 0	176 4 9	- -	205 4 9
,, for waste in envelope cutting -	735 15 4	19 0 5	- -	772 15 9
	106,372 13 5	18,701 16 11	214 6 3	125,288 16 7

Note.—COSTS OF COLLECTION.—It is necessary to state that the "costs of collection" do not cause any difference between the gross and the nett-receipt, as the same are paid out of the votes of parliament for the expenses of the Inland Revenue Department.

FAILURE OF PAYMENT.—This item does not cause any difference between the gross and nett receipts, but between the amount of duty charged and the gross receipt, inasmuch as it consists of duty unreceived at the time due; and which at the close of the year ended 31st March, 1857, amounted to 235*l.* 6*s.*; ditto, 1858, 24*l.* 16*s.* 7*d.*—(*Parl. Paper*, No. 307, Sess. 1858.)

N.B.—There are at present (1859) about 400 paper-mills in the U. Kingdom, whereof about 312 are in England, 58 in Scotland, and the remainder in Ireland.

PARCEL, a term indifferently applied to small packages of wares, and to large lots of goods. In this latter sense, 20 hogsheads of sugar or more, if bought at one price, or in a single lot, are denominated "a parcel of sugar."

PARCELS, BILL OF, an account of the items composing a parcel.

PARCHMENT AND VELLUM. The former consists of the skins of sheep and goats, and the latter of those of calves, prepared in such a manner as to render them suitable for being written upon, for covering books, and other purposes. The consumpsion of these articles is very considerable. In this and most other countries, it is customary to use them instead of paper in the drawing up of a great variety of deeds and other legal instruments. They are also extensively used, especially in Italy, in the binding of books. The finest copies of the magnificent classics which issued from the Dutch presses, in the 17th century and the early part of the 18th, were all bound in vellum.

Parchment is coarser than vellum, and not so well adapted for writing upon. The qualities of both articles differ very widely; so much so that the best parchment is preferable to inferior or even middling vellum. The goodness of each depends partly on the quality of the skins of which they are made, and partly, and indeed in a very high degree, on the care and skill with which they are manufactured.

Historical Notice. — The history of these articles is involved in some obscurity. Varro and Pliny (*Hist. Nat.* lib. xiii. cap. 11.), who have been generally followed, state that they were originally manufactured at Pergamus, in Asia Minor, the capital city of Eumenes II., one of Alexander's successors *, during the reign of that prince; and that parchment owes to this circumstance its classical name of *charta Pergamena*. But there seems to be little if any foundation for this statement. We have seen, in the preceding article on paper, that Herodotus, who flourished rather more than a century before Alexander the Great, states distinctly, that previously to his æra, when paper (*charta Egyptiaca*) was scarce, the Ionians were accustomed to write on the skins of sheep and goats, and that that practice was then followed (viz. in his time) by several barbarous nations. — (Lib. v. cap. 58.) And it is all but certain, seeing that the practice of writing on skins had been in use for at least 2½ centuries, and probably much more, previously to the æra of Eumenes, that their preparation would, in the course of that lengthened period, be so much improved as to render them little different from parchment. It is probable, indeed, that their manufacture may have been improved in Pergamus; but we incline to think that parchment owes its name rather to the extensive demand for it in that city, in consequence of Eumenes having amassed a large and valuable library, than to any thing else. He was, in fact, compelled to use parchment and vellum in the copying of books, as his contemporary Ptolemy Philadelphus had prohibited the exportation of paper. — (*Plin. ubi suprà.*)

The scarcity of parchment during the middle ages, and in antecedent times, led to the practice of obliterating the writing on old parchments, by rubbing them with pumice stone, immersing them in boiling water, and such like devices; and there can be no manner of doubt that the prevalence of this practice has been most injurious to literature, and that it has most probably occasioned the total destruction of some of the noblest *chefs-d'œuvre* of antiquity. In the middle ages these were erased that room might be made for some worthless treatise on scholastic theology or logic! Sometimes, however, it happens that the ancient writing is not so much obliterated, but that it may still be read; and to that circumstance the recent discovery of a portion of Cicero's treatise *De Republica* is to be ascribed. It had been effaced to make room for a commentary of St. Augustine on the Psalms. — (See the preface of May, the ingenious discoverer of this lost treatise.)

Parchments that have been erased in this way are called *Palimpsests* (from παλιν, *again*, and ψαω, *to efface or clean*), or repeatedly cleaned parchments; because they have been repeatedly cleaned, renewed, or prepared for writing upon. If the learned world is ever to be gratified by the recovery of the lost comedies of Menander, or the lost books of Polybius, Livy, and Tacitus, it will most probably be by finding them under some homily or such like trash. — (*Nouveau Traité de Diplomatique*, i. 482, &c.; *Dom de Vaines*, ii. 177, &c.)

PARTIAL LOSS. See INSURANCE (MARINE).

PARTNERSHIP, the association of two or more individuals for carrying on some business or undertaking in common; each deriving a certain share of the profits, and bearing a corresponding share of the loss arising therefrom.

The term partnership is usually applied to those smaller associations in which the partners personally conduct their joint affairs: the term company being applied to those great associations conducted by directors and servants appointed by the body of the

* He was a successor of, but must not be confounded with, Eumenes, the secretary and general of the Conqueror.

partners to act for them; the latter having no direct concern in the management of the affairs of the company. — (See COMPANIES.)

The advantages of partnership are obvious. Many businesses could not be successfully carried on without a larger command of capital than usually belongs to an individual; and most of them require the combination of various species of talent. An individual may have capital sufficient to undertake a particular business; but he may not be thoroughly versed in any of its details, or he may be familiar with certain parts of it and not with others; so that it might be for his advantage to assume one or more individuals as his partners, supposing them to be without capital, provided they possessed the skill and other qualifications required in prosecuting the business. Associations of this sort enable capital and talent to derive all the assistance that each is capable of lending to the other. And as the gains of each partner usually consist of a certain *proportion* of the total profits made by the company, each has the most powerful motive to exert himself for the benefit of the concern. It is not, indeed, to be denied, that associations of this sort are occasionally productive of mischievous consequences. The public interest requires that the whole partners in a firm should be bound by the acts of any one of their number; so that the folly or fraud of a single partner may entail very serious consequences upon those associated with him. Generally, however, this is not an evil of frequent occurrence; and there can be no question that, both in a private and public point of view, partnerships are highly beneficial.

To enter into any thing like a full discussion of the law of partnership would very far exceed our limits. We shall, therefore, merely state a few of those leading principles with respect to it, as to which it is of importance that mercantile men, and the public generally, should be well acquainted.

Formation of Partnerships. — The mere consent of the partners, fixed and certified by acts or contracts, is quite sufficient to constitute a private copartnership; so that if two or more merchants, or other persons, join together in trade, or in any sort of business, with a mutual, though it may be unequal, participation in the profit and loss of the concern, they are in every respect to be considered as partners. No particular form of words or proceeding is necessary to constitute a partnership. It may be entered into either by an express written agreement, or by a merely verbal one. The former ought in almost all cases to be preferred. The contract of copartnery should state the parties to it, the business to be carried on, the space of time the partnership is to continue, the capital each is to bring into the business, the proportion in which the profit and loss are to be divided, the manner in which the business is to be conducted, the mode agreed upon for settling accounts at the dissolution of the partnership, together with the special covenants adapted to the circumstances of each particular case.

To constitute a partnership, there must be a participation in uncertain profits and losses: and the true criterion to determine, when money is advanced to a trader, whether the individual making the advance is to be looked upon as a partner or not, is to ascertain whether the *premium or profit be certain and defined, or casual, indefinite, and depending upon the accidents of trade.* In the former case he is a lender merely; in the latter he is a partner. The mere participation in the profits of any business or adventure, without a participation in the losses, constitutes a partnership, so far as to render the individual so participating liable to third parties for the engagements of the concern, though as between the parties themselves it may be no partnership. Thus, if a clerk or other servant stipulate for a share of the profits of any business as *a reward for his labour*, he becomes responsible to third parties as a partner, and no private arrangement can cancel his liability.

If an individual, by his own act or inadvertence, allow himself *to appear to the world as a partner*, he is precluded from disputing the fact, even though he have no interest in the profits. A partner who withdraws from a firm is liable on account of the remaining partners continuing his name in the firm, though without his consent, unless he take the necessary precautions — (see *post*) — to show that he has ceased to belong to it.

If there be no express stipulation as to the management of partnership property, the majority decide as to the disposition and management of the joint affairs of the firm; or, if there be but two parties in a firm, one may manage the concern as he thinks fit, provided it be within the rules of good faith, and warranted by the circumstances of the case. The general duty of a partner is to keep in view, at all times, and in all transactions, the interest and welfare of the partnership, by acting honestly and uprightly, and as a prudent man would conduct his own affairs.

Liability of Partners as to third Parties. — It may be laid down as a general rule, that partners, whether actual, ostensible, or dormant, are bound by the act of their partner, made in the course of and with reference to the partnership business, and in the regular course of dealing by the firm; and though the general rule of law be, that no one is liable upon any contract, except such as are privy to it, yet this is not contravened by the liability of partners, as they are supposed virtually present at and sanctioning the pro-

ceedings they singly enter into in the course of trade, or as being severally vested with a power enabling them to act at once as principals and as the authorised agents of their copartners. It is for the advantage of partners that they are thus held liable; for the credit of their firm is in consequence greatly enhanced, and facility is given to all their dealings, even when they reside in different parts of the country, or of the world. A due regard to the interest of strangers is at the same time observed; for where an individual deals with one of several partners, he relies upon the credit of the entire firm, and therefore ought to have his remedy against all the individuals who compose it.

Unless, however, the act of one partner relate to and be connected with the partnership trade, and in the *course of dealing by the firm*, such acting partner only will be bound; for it is only by acting in the course of their particular trade or line of business that an implied authority is delegated by partners to each other; and it is only in such transactions that third parties have a right to rely upon the partnership funds. To bind a partnership, credit must be given to the firm itself, and not to one merely of its partners. One of them may even, in furtherance of the objects of the firm, enter into a contract with some third party; but if such contract be made *exclusively and solely upon the credit of the individual partner*, it will only bind him, and not the firm. The presumption of the law, however, always is, that a contract with one of the partners in reference to the business of the firm has been entered into upon the credit of the whole; and this presumption is not to be rebutted, except by very clear evidence. One partner cannot, as such, except in bankruptcy, bind another by *deed*.

The authority of a partner is revocable; and it is now fully established that a *disclaimer* of the authority of the partners in any particular transaction will preclude him from binding his copartners. Even during the subsistence of the partnership, one partner may to a certain degree limit his responsibility; and if there be any particular speculation or bargain proposed, which he disapproves of, he may, by giving distinct notice to those with whom his partners are about to contract that he will not be concerned in it, relieve himself from all consequences. Such notice would rebut his *primâ facie* liability. The partnership would be suspended *quoad* this transaction. Thus, if a partner draw, accept, or indorse a bill or note, he will, in all ordinary cases, thereby render the firm liable. But, to use the words of Lord Ellenborough, "it is not essential to a partnership that every partner should have such power; they may stipulate among themselves that it shall not be done; and if a third party, *having notice of this*, will take such security from one of the partners, he shall not sue the others upon it, in breach of such stipulation, nor in defiance of notice previously given to him by one of them, that he will not be liable for any bill or note signed by the others."—(*Galway* v. *Matthew*, 10 East, 264.); and so in other cases.

However small the share a partner may have in a concern, he is liable for the *whole* of the debts contracted by the firm; and must seek his remedy in a rateable contribution against his partners. Should one party enter into a smuggling or other illegal transaction on the partnership account, the other partners are liable to the duties and the penalty; and the Crown may proceed against the real delinquent alone, or against all the partners. A bookseller, or newspaper proprietor, is answerable for the acts of his agent or copartner, not only civilly, but also *criminally*.

Dissolution of Partnerships. — A partnership may be dissolved by the effluxion or expiration of the time during which it was originally agreed that it should continue. When a copartnership is formed for a single dealing or transaction, the moment that is completed, it is at an end. Partnerships may also be dissolved by death, agreement, bankruptcy, outlawry, &c. A court of equity will interfere to dissolve a partnership, in cases where a partner so misconducts himself as to be injurious to the firm, or to defeat the object for which the partnership was formed; or when a partner becomes insane, or is in such a state of mind as to render him permanently incapable of transacting the peculiar business of the firm; or where a partnership is formed for an impracticable purpose. Indeed, in all cases, where even a partnership may be dissolved without the interference of a court of equity, it may be most prudent, if the dissolution be opposed by one of the partners, to file a bill, praying a dissolution and account, and an injunction against using the partnership name.

When a partnership is dissolved by agreement, or one of the partners withdraws from it, public notice of the dissolution must be given in the *London Gazette*; and *a specific intimation of the circumstance must be sent to* ALL *individuals accustomed to deal with the firm*. Where such intimation has not been sent, the individual withdrawing from the firm may be made liable to third parties after he has ceased to have any thing to do with it. A dormant partner, whose name has never been announced, may withdraw from a firm without making the dissolution of partnership publicly known.

When the joint debts of the firm are paid, and the property duly distributed among the partners, the dissolution may be said, in a general sense, to be accomplished. If any one of the firm be guilty of a breach of duty in misapplying the effects before the

concern is finally wound up, the proper course is to apply to the Court of Chancery to appoint a manager.

Within a reasonable time after the death of one partner, the survivors must account to the representatives of the deceased; and if not willing to do so, a court of equity will compel them. In taking partnership accounts at the death of a partner, they must commence with the last stated account; or, if there be none such, with the commencement of the partnership; and they must end with the state of the stock at the time of the partner's death, and the proceeds thereof until it be got in.

No notice is necessary to third parties of the death of a partner; the partnership is dissolved, and all liabilities for subsequent acts cease. The surviving parties are to be sued alone for the partnership liabilities and obligations, for which they are liable to the full extent. But they are not liable for the separate debts of the deceased partner, unless, after payment of all the joint debts, they have a surplus of the partnership effects in their hands.

Upon a dissolution by death, if the joint effects be insufficient to pay the partnership debts, the separate estate of the deceased partner, if he have any, is liable for the deficiency.

The statements now made will, probably, be sufficient to give our readers a tolerably distinct notion of the formation of partnerships; and of the more important rights, duties, liabilities, &c. arising out of such institutions. Those who wish to go deeper into the subject, may consult the treatises of *Watson* and *Montague* on the *Law of Partnership; Chitty's Commercial Law*, vol. iii. pp. 225—269.; *Woolrych on Commercial Law*, pp. 298—317., *&c.*

PARTNERSHIPS WITH LIMITED LIABILITY, *or "en Commandite."*—For an account of these partnerships, see COMPANIES, and SUPPLEMENT.

PASSENGERS, in commercial navigation, are individuals conveyed for hire from one place to another on board ship. Passage ships are those peculiarly appropriated to the conveyance of passengers.

Passage ships are generally placed under certain regulations; and the extent to which emigration is now carried renders it of the utmost importance that these regulations should be carefully compiled and properly carried out.

Account of the Number of Emigrants from the U. Kingdom during each of the 44 Years from 1815 to 1858, both inclusive, specifying the Countries for which they sailed, and the Numbers that sailed for each.

Years.	North American Colonies.	United States.	Australian Colonies and New Zealand.	All other Places.	Total.	Years.	North American Colonies.	United States.	Australian Colonies and New Zealand.	All other Places.	Total.
1815	680	1,209	- -	192	2,081	1838	4,577	14,332	14,021	292	33,222
1816	3,370	9,022	- -	118	12,510	1839	12,658	33,536	15,786	227	62,207
1817	9,797	10,280	- -	557	20,634	1840	32,293	40,642	15,850	1,958	90,743
1818	15,156	12,429	- -	222	27,787	1841	38,164	45,017	32,625	2,786	118,592
1819	23,534	10,674	- -	579	34,787	1842	54,123	63,852	8,534	1,835	128,344
1820	17,921	6,745	- -	1,063	25,729	1843	23,518	28,333	3,473	1,891	57,212
1821	12,955	4,958	- -	384	18,297	1844	22,924	43,660	2,929	1,873	70,680
1822	16,013	4,137	- -	279	20,429	1845	31,803	58,538	830	2,330	93,501
1823	11,355	5,032	- -	165	16,550	1846	43,439	82,259	2,547	1,826	129,854
1824	8,774	5,152	- -	99	14,025	1847	109,680	142,154	4,949	1,487	258,270
1825	8,741	5,551	485	114	14,891	1848	31,065	188,233	23,904	4,887	248,089
1826	12,818	7,065	903	116	20,900	1849	41,367	219,450	32,091	6,590	299,498
1827	12,648	14,526	715	114	28,005	1850	32,961	223,078	16,037	8,773	280,819
1828	12,084	12,817	1,056	135	26,092	1851	42,565	267,357	21,532	4,472	335,960
1829	13,307	15,678	2,016	197	31,198	1852	32,876	244,261	87,424	3,749	368,764
1830	30,574	24,887	1,242	204	56,907	1853	34,522	230,888	61,401	3,129	329,937
1831	58,067	23,418	1,561	114	83,160	1854	43,761	193,065	83,237	3,566	323,429
1832	66,339	32,872	3,733	196	103,140	1855	17,966	103,414	52,509	3,118	176,807
1833	28,808	29,109	4,093	517	62,527	1856	16,378	111,837	41,584	3,755	176,554
1834	40,060	33,074	2,800	288	76,222	1857	21,001	126,905	61,948	3,791	212,875
1835	15,573	26,720	1,860	325	44,478	1858	9,704	59,716	39,295	5,257	113,972
1836	34,226	37,774	3,124	293	75,417						
1837	29,884	36,770	5,054	326	72,034	Total	1,180,046	2,890,403	652,910	73,807	4,797,166
Average Annual emigration from the United Kingdom						From 1815 to 1858 -	-	-	-	-	109,026
						For the 10 years ending 1858	-	-	-	-	261,865

By far the largest proportion of these emigrants, especially of late years, has consisted of natives of Ireland. The scarcity, or rather famine, of 1846-47, gave an extraordinary stimulus to Irish emigration; and it has since been continued, partly by the depressed condition of the peasantry, partly by the wish of the bulk of the landlords to diminish the number of petty holdings on their estates, and partly also by the entreaties and more effectually still by the large sums of money which have been sent to Ireland by parties who have emigrated, to encourage and assist the emigration of others. But there is no reason to fear that this emigration, however promoted, will be carried to excess. The rise of wages consequent on the diminution of the population will effectually hinder this result. It has latterly, indeed, declined considerably; and there can be no manner of doubt that emigration from Ireland might be carried to a much greater extent than it has yet been carried, without its being otherwise than advantageous to that island and to the U. Kingdom generally.

It is seen from the above account that in 1852 no fewer than 368,764, and in 1855,

323,429 voluntary emigrants left the U. Kingdom; and such being the vast extent to which emigration is now carried, the propriety, or rather necessity, of enacting some general regulations, with respect to the conveyance of emigrants to their destination, must be obvious to every one at all acquainted with the subject. The greater number of emigrants are in humble life: few among them know any thing of ships, or of the precautions necessary to insure a safe and comfortable voyage; they are also, for the most part, poor, and exceedingly anxious to economise, so that they seldom hesitate to embark in any ship, however unfit for the conveyance of passengers, or inadequately furnished with provisions, if it be *cheap*. Unprincipled masters and owners have not been slow to take advantage of this; and in order to prevent the frauds that would otherwise be practised on the unwary, it has been found indispensable to lay down some general regulations as to the number of passengers to be taken on board ships as compared with their tonnage, the quantity of water and provisions as compared with the passengers, &c. But this is no very easy task. If the limitations be too strict, that is, if comparatively few passengers may be carried, or if the stock of provisions to be put on board be either unnecessarily large or expensive, the cost of emigration is proportionally enhanced; and an artificial and serious impediment is thrown in the way of what should be made as easy as possible, consistent with security. But, on the other hand, if too many passengers be allowed, their health is liable to suffer; and should the supply of provisions be inadequate, or the quality bad, the most serious consequences may ensue. The act 6 G. 4. c. 116. obliged too great a quantity of expensive provisions to be put on board, and was in consequence objected to by emigrants as well as shippers. The act 9 G. 4. c. 21. avoided this error; but it was defective, inasmuch as it made no provision with respect to the sufficiency of the ship, the having a surgeon, or other properly qualified medical person on board ships carrying a certain number of passengers, and in other particulars. These deficiencies were in part supplied by the act 5 & 6 W. 4. c. 53., and subsequent statutes, including the 15 & 16 Vict. c. 44. But the provisions in these acts having been found to be in several respects inadequate, they have been repealed, and the following regulations, embodied in the 18 & 19 Vict. c. 119., have been substituted in their stead. We doubt, however, whether these will be much longer lived than those by which they have been preceded. They seem to be singularly deficient in the precision and clearness so very necessary in such matters, and to be encumbered with a host of details altogether foreign to the real business of the statute.

ACT OF 1855, THE 18 & 19 VICT. CAP. 119., FOR REGULATING THE CARRIAGE OF PASSENGERS BY SEA.

Commencement of this Act, and repeal of former Act, &c. — On the 1st October next, when this Act shall commence and come in force, "The Passengers Act, 1852," shall be repealed; except so far as the said Act repeals any former act or enactment; and except as to existing passage brokers' licences, which shall continue in force as mentioned in § 68. of this Act, and except as to any ship which shall have cleared out from any colonial port under the said Act, and before this Act shall have come into operation in such colony; and except so far as may be necessary for supporting or continuing any proceeding taken or to be taken upon any bond given under the said Act, or upon any other civil process; and except as to the recovery and application of any penalty for any offence committed against the said Act; and except also as to an order in council made by H. Majesty on the 16th October, 1852 in pursuance of the powers given by § 55. of the said Act, which said order in council shall remain in force until altered or revoked by any order in council to be made under the provisions of this Act.—§ 1.

Section 2. directs that in reciting this Act in other acts of parliament, or in any instrument, document, or proceeding, it shall be sufficient to use the expression "The Passengers Act, 1855."

Section 3. lays down the definition of terms used in this Act.

To what Vessels and Voyages this Act extends. — This Act shall extend to every "passenger ship" proceeding on any voyage from the U. K. to any place out of Europe, and not being within the Mediterranean Sea, and on every colonial voyage as after described, and in the particulars mentioned or referred to in §§ 100, 101, and 102, to every ship bringing passengers into the U. K. from any place out of Europe, and not being within the Mediterranean Sea; but shall not extend to any of H. M.'s ships of war, nor to any ships in the service of the lords of the admiralty of the U. K., nor to any ship of war or transport in the service of the E. I. Company, nor to any steam vessel regularly employed in the conveyance of mails under an existing contract with the government of the state or colony to which such steam vessel may belong, provided the master thereof shall, on demand, produce to the emigration officer at the port of clearance or port of departure a certificate of exemption, in the form given in schedule (A.) hereto annexed, under the hand of the postmaster general of the U. K., or of some person deputed by him for the purpose, or in the case of a colony, under the hand of the governor thereof, or in the case of a foreign state, under the hand of the postmaster general or other competent government officer, whose signature shall be authenticated by the signature of a British consular officer in such foreign state.—§ 4.

Penalty on fraudulently using Certificates or using fraudulent Certificates. — Such certificate of exemption shall be issuable at the discretion of the officer authorised to grant the same as herein mentioned, and shall remain in force for the period specified therein, unless sooner revoked, or unless the vessel for which it shall have been issued shall sooner cease to be employed in carrying the public mails; and if any person shall make or attempt to make any fraudulent use of any such certificate, or shall forge, counterfeit, alter, or erase the whole or any part thereof, or shall use or attempt to use any spurious or fraudulent certificate, the person so offending, and every person aiding and abetting in such offence, shall be liable to a penalty not exceeding 500*l*., and the vessel for which the exemption is claimed shall not be cleared out until all the requirements of this Act have been complied with.—§ 5.

Clause 6. enacts that the commissioners of emigration shall carry this Act into execution.

Clause 7. enacts that the emigration commissioners may sue and be sued in the name of their secretary, &c.

Clause 8. enacts that the emigration officers and assistants are to act under the commissioners of emigration, and that existing appointments are to continue until revoked.

Clause 9. enacts that the duties of emigration officer may be performed by his assistant or by the chief officer of customs.

Facilities to be given for the Inspection of all Ships fitting for Passengers.—The master of every ship, whether a "passenger ship" or otherwise, fitting or intended for the carriage of passengers, or which shall carry passengers upon any voyage to which this Act extends, shall afford to the emigration officer at any port or place in H. M.'s dominions, and, in the case of British ships, to H. M.'s consular officer at any foreign port or place at which such ship shall be or arrive, every facility for inspecting such ship, and for communicating with the passengers, and for ascertaining that the provisions of this Act, so far as the same may be applicable to such ships, have been duly complied with; the master of any ship who shall omit or fail to comply with any of the requirements of this section shall be liable to a penalty not exceeding 50*l.*—§ 10.

No Passenger Ship to clear without Certificate from Emigration Officer, &c.—No ship fitted or intended for the carriage of passengers as a "passenger ship" shall clear out or proceed to sea until the master thereof shall have obtained from the emigration officer at the port of clearance a certificate of clearance under his hand that all the requirements of this Act, so far as the same can be complied with, before the departure of such ship, have been duly complied with, and that such ship is, in his opinion, seaworthy, in safe trim, and in all respects fit for her intended voyage, and that her passengers and crew are in a fit state to proceed, nor until the master shall have joined in executing such bond to the crown as required by § 63. of this Act: Provided, that if such emigration officer shall refuse to grant such certificate, and the owner or charterer of such ship shall appeal in writing to the emigration commissioners, such commissioners shall appoint any 2 other emigration officers, or any 2 competent persons, at the expense of the appellant, to examine into the matter, and if the persons so appointed shall grant a certificate under their joint hands to the purport herein-before required, such certificate shall be held to be of the same effect as if granted by the emigration officer of the port of clearance.—§ 11.

Forfeiture of Ship if Master proceeds to Sea without Certificate of Clearance, &c.—If any "passenger ship" shall clear out or proceed to sea without the master having first obtained such certificate of clearance, or without his having joined in executing such bond, as by this Act is required, or if such ship after having sailed shall put into any port or place in the U. K. in a damaged state, and shall put to sea again without the master having first obtained such certificate of clearance as required by § 50. of this Act, such ship shall be forfeited to the use of H. M., and may be seized by any officer of customs, if found, within 2 years from the commission of the offence, in any port or place in H. M.'s dominions; and such ship shall thereupon be dealt with in the same manner as if she had been seized as forfeited under any of the laws relating to the customs for an offence incurring forfeiture under those laws.—§ 12.

Where Passengers may be carried.—No ship shall carry passengers or cabin passengers on more than 2 decks; provided, that cabin passengers in a proportion not exceeding 1 cabin passenger for every 100 tons of the ship's tonnage, or sick persons placed in a hospital, as after provided, may be carried in a poop or deck house, notwithstanding that passengers are carried on 2 other decks, and if passengers are carried under the poop or in any round house or deck house, such poop, round house, or deck house shall be properly built and secured to the satisfaction of the emigration officer at the port of clearance: for any breach of this enactment the master of the ship shall for each offence be liable to a penalty not exceeding 500*l.* nor less than 20*l.* sterling.—§ 13.

Rule for determining the Number of Passengers to be carried.—For determining the number of passengers to be carried in any "passenger ship" the following rules shall be observed:

1. No ship propelled by sails only shall carry a greater number of persons (including every individual on board) than in the proportion of 1 statute adult to every 2 tons of her registered tonnage:
2. No ship shall carry under the poop, or in the round house or deck house, or on the "upper passenger deck," a greater number of passengers than in the proportion of 1 statute adult to every 15 clear superficial feet of deck allotted to their use:
3. No ship shall carry on her lower passenger deck a greater number of passengers than in the proportion of 1 statute adult to every 18 clear superficial feet of deck allotted to their use: Provided nevertheless, that if the height between such lower passenger deck and the deck immediately above it shall be less than 7 feet, or if the apertures (exclusive of side scuttles) through which light and air shall be admitted to the lower passenger deck shall be less in size than in the proportion of 3 sq. feet to every 100 superficial feet of the lower passenger deck, no greater number of passengers shall be carried on such deck than in the proportion of 1 statute adult to every 25 clear superficial feet thereof:
4. No ship, whatever be her tonnage or superficial space of "passenger decks," shall carry a greater number of passengers on the whole than in the proportion of 1 statute adult to every 5 superficial feet, clear for exercise, on the upper deck or poop, or (if secured and fitted on the top with a railing or guard to the satisfaction of the emigration officer at the port of clearance) on any round house or deck house:
5. In the measurement of the passenger decks, poop, round house, or deck house, the space for the hospital and that occupied by such portion of the personal luggage of the passengers as the emigration officer may permit to be carried there shall be included:

If there be on board of any ship at or after the time of clearance a greater number of persons or passengers (except by births at sea) than in the proportions before mentioned, the master of such ship shall be liable to a penalty not exceeding 20*l.* nor less than 5*l.* for each passenger or person constituting such excess.—§ 14.

Nothing to extend to repeal 16 & 17 Vict. c. 84.—Provided nevertheless, that nothing in this Act shall repeal the Act 16 & 17 Vict. c. 84., intituled, "An Act to amend the Passengers Act, 1852, so far as relates to the Passages of Natives of Asia or Africa, and also Passages between the Island of Ceylon and certain Parts of the East Indies."—§ 15.

Passengers' Lists to be delivered in Duplicate by the Master before Clearance.—The master of every ship, whether a "passenger ship" or otherwise, carrying passengers on any voyage to which this Act extends, shall, before demanding a clearance for such ship, sign 2 lists, made out according to the form contained in schedule (B.) hereto annexed, correctly setting forth in the manner therein directed the name and other particulars of the ship, and of every passenger on board thereof; and the said lists, when countersigned by the emigration officer, where there is one at the port, shall be delivered by the master to the officer of the customs from whom a clearance of the said ship shall be demanded, and such officer shall thereupon also countersign and return to the said master 1 of such lists, called "The Master's List;" and the said master shall note in writing on such last-mentioned list, and on any additional lists to be made out as next provided, the date and supposed cause of death of any passenger who may die, and the date of birth and sex of any child who may be born on the voyage, and shall exhibit such list, with any additions which may from time to time be made thereto, to the chief officer of customs at any port or place in H. M.'s possessions, or to H. M.'s consular officer at any foreign port at which the said passengers or any of them shall be landed, and shall deposit the same with such chief officer of customs or such consular officer, as the case may be, at the final port or place of discharge, and such officer of customs or consular officer shall thereupon forthwith transmit the particulars respecting any passenger who may die, or of any child who may be born on the voyage to the registrar general of births, deaths, and marriages in England, who shall file the same, and enter a copy thereof in the "marine register book," which entry shall be dealt with and be of the same value as any other entry made in such book under the provisions of the 6 & 7 W. 4. c. 86.: in case of noncompliance with any of the requirements of this section on the part of the master, or if such lists shall be wilfully false, the master shall for each offence be liable to a penalty of not more than 100*l.* nor less than 5*l.*—§ 16.

Lists of Passengers embarked after Clearance to be delivered by Master.—If at any time after such lists

have been signed and delivered any additional passenger shall be taken on board, in such case the master shall add to "the master's list" the names and other particulars of every such additional passenger, and shall also sign a separate list, made out according to the aforesaid form, containing the names and other particulars of every such additional passenger, and such last-mentioned list, when countersigned by the emigration officer, where there is 1 at the port, shall, with "the master's list" to which such addition have been made, be delivered to the chief officer of customs, and thereupon such officer shall countersign "the master's list," and shall return the same to the said master, and shall retain the separate list, and so on in like manner whenever any additional passenger or passengers may be taken on board; or if no officer of customs be stationed at the port or place where such additional passenger or passengers may be taken on board, the said lists shall be delivered to the officer of customs at the next port or place at which such vessel shall touch or arrive and where any such officer shall be stationed, to be dealt with as before mentioned: provided, that when any additional passengers are taken on board the master shall obtain a fresh certificate from the emigration officer of the port that all the requirements of this Act have been duly complied with before the ship proceed to sea: in case of noncompliance with any of the requirements of this section, the master of such ship shall for each offence be liable to a penalty of not more than 50*l*. nor less than 5*l*.—§ 17.

Penalty on Persons found on board Ships without Consent of Owners, &c.—If any person be found on board any passenger ship with intent to obtain a passage therein without the consent of the owner, charterer, or master thereof, such person, and every person aiding and abetting him in such fraudulent intent, shall respectively be liable to a penalty not exceeding 5*l*., and in default of payment to imprisonment, with or without hard labour, for not exceeding 3 calendar months; and such person so found on board may be taken before any justice of the peace, without warrant, and such justice may summarily hear the case, and on proof of the offence convict such offender as aforesaid.—§ 18.

All Passenger Ships to be surveyed before clearing out.—No "passenger ship" shall clear out or proceed to sea unless she has been surveyed, under the direction of the emigration officer at the port of clearance, but at the expense of the owner or charterer thereof, by 2 or more competent surveyors to be appointed by the said emigration commissioners for each port at which there may be an emigration officer, and for other ports by the commissioners of customs, nor unless it shall be reported by such surveyors that such "passenger ship" is in their opinion seaworthy, and fit for her intended voyage. The survey shall be made before any part of the cargo is taken on board, except so much as may be necessary for ballasting the ship, and such portion of cargo if laden on board shall be shifted, if required by the emigration officer or surveyors, so as to expose to view successively every part of the frame of the ship. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 100*l*. nor less than 5*l*. Provided always that in case any "passenger ship" be reported by such surveyors not to be seaworthy, or not fit for her said intended voyage, the owner or charterer, if he think fit, may require, by writing under his hand, the emigration officer, or in his absence the chief officer of customs, to appoint 3 other competent surveyors, of whom 2 at least shall be shipwrights, to survey the said ship, at the expense of the said owner or charterer; and the said officer shall thereupon appoint such surveyors, who shall survey the said ship, and if they shall, by an unanimous report under their hands (but not otherwise), declare the said ship to be seaworthy, and fit for her intended voyage, the said ship shall then, for the purposes of this Act, be deemed seaworthy for such voyage.—§ 19.

As to the Construction of Beams and Decks.—In every "passenger ship" the beams supporting the "passenger decks" shall form part of the permanent structure of the ship: they shall be of adequate strength, in the judgment of the emigration officer at the port of clearance, and shall be firmly secured to the ship to his satisfaction. The "passenger decks" shall be at least 1½ in. in thickness, and shall be laid and firmly fastened upon the beams continuously from side to side of the compartment in which the passengers are berthed. The height between that part of any deck on which passengers are carried and the deck immediately above it shall not be less than 6 ft. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l*. nor less than 5*l*.—§ 20.

Arrangement and Size of Berths.—There shall not be more than 2 tiers of berths on any 1 deck in any "passenger ship," and the interval between the floor of the berths and the deck immediately beneath them shall not be less than 6 in., nor the interval between each tier of berths and between the uppermost tier and the deck above it less than 2½ ft.: the berths shall be securely constructed, and of dimensions not less than 6 ft. in length and 18 in. in width for each statute adult, and shall be sufficient in number for the proper accommodation of all the passengers contained in the lists of passengers herein-before required to be delivered by the master of the ship. No part of any berth shall be placed within 9 in. of any water-closet erected in the between-decks. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 21.

Single Men to be berthed in a separate Compartment.—In every "passenger ship" all the male passengers of the age of 14 years and upwards who do not occupy berths with their wives shall, to the satisfaction of the emigration officer at the port of clearance, be berthed in the fore part of the ship, in a compartment divided off from the space appropriated to the other passengers by a substantial and well-secured bulk-head, without opening into, or communication with, any adjoining passenger berth, or in separate rooms if the ship be fitted with enclosed berths: Not more than 1 passenger, unless husband and wife, or females or children under 12 years of age, shall be placed in or occupy the same berth. In case of n ncompliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l*. nor less than 5*l*.—§ 22.

Berths not to be removed till Passengers are landed.—No berths in a "passenger ship" occupied by passengers during the voyage shall be taken down until 48 hours after the arrival of such ship at the port of final discharge, unless all the passengers shall have voluntarily quitted the ship before the expiration of that time. In case of noncompliance with any of the requirements of this section, the master of such ship shall be liable for each offence to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 23.

Space to be allotted as an Hospital.—In every "passenger ship" there shall be a sufficient space properly divided off to the satisfaction of the emigration officer at the port of clearance, to be used exclusively as an hospital or hospitals for the passengers: this space shall be under the poop, or in the round house, or in any deck house which shall be properly built and secured to the satisfaction of such emigration officer, or on the upper passenger deck, and not elsewhere, and shall in no case be less than 18 clear superficial feet for every 50 passengers which the ship shall carry. Such hospitals shall be fitted with bed-places, and supplied with proper beds, bedding, and utensils, to the satisfaction of the emigration officer at the port of clearance, and throughout the voyage kept so fitted and supplied. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master of the ship shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 24.

Regulation as to Construction of Privies.—No "passenger ship" shall clear out or proceed to sea unless fitted, to the satisfaction of the emigration officer at the port of clearance, with at least 2 privies, and with 2 additional privies on deck for *every 100* passengers on board, and in ships carrying as many as 50 female passengers, with at least 2 water-closets under the poop, or elsewhere on the upper deck, to the satisfaction of such emigration officer, for the exclusive use of the women and young children; all of which privies and water-closets shall be firmly constructed and maintained in a serviceable and cleanly condition throughout the voyage, and shall not be taken down until the expiration of 48 hours after the

arrival of the ship at the port of final discharge, unless all the passengers sooner quit the ship; provided that such privies shall be placed in equal numbers on each side of the ship, and need not in any case exceed 12 in number. In case of noncompliance with any of the requirements of this section, the master shall be liable to a penalty for each offence of not more than 50*l.* nor less than 5*l.*—§ 25.

As to Light and Ventilation. — No "passenger ship" shall clear out or proceed to sea without such provisions for affording light and air to the passenger decks as the circumstances of the case may, in the judgment of the emigration officer at the port of clearance, require; nor if there are as many as 100 passengers on board, without having an adequate and proper ventilating apparatus, to be approved by such emigration officer and fitted to his satisfaction; the passengers shall, moreover, have the free and unimpeded use of the whole of each hatchway situated over the space appropriated to their use, and over each such hatchway there shall be erected such a boobyhatch or other substantial covering as shall, in the opinion of such emigration officer, afford the greatest amount of light and air, and of protection from wet, as the case will admit. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master of the ship, or any of them, shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 20*l.*—§ 26.

Regulations as to the carrying of Boats.—Every "passenger ship" shall carry throughout the voyage a number of boats according to the following scale; viz.: —

2 boats for every ship of less than 200 tons:
3 boats for every ship of 200 and less than 400 tons:
4 boats for every ship of 400 and less than 600 tons:
5 boats for every ship of 600 and less than 1000 tons:
6 boats for every ship of 1000 and less than 1500 tons:
7 boats for every ship of 1500 tons and upwards: Provided that no "passenger ship" shall be required to carry a greater number of boats than are sufficient in the judgment of the emigration officer at the port of clearance to carry all the persons on board of such ship:

One of such boats shall in all cases be a long boat, and one shall be a properly fitted life boat, which shall be carried in such a manner as to be, in the opinion of the emigration officer, most available for immediate service: each of such boats shall be of a suitable size and description, to be approved by the emigration officer at the port of clearance, and shall be seaworthy, and properly supplied with all requisites, and kept clear at all times for immediate use at sea: there shall likewise be on board each "passenger ship" if proceeding to any place to the southward of the equator at least 2 chronometers, and if to any place to the northward of the equator at least 1 chronometer, and on board of all "passenger ships" at least 3 steering and 1 azimuth compass, 4 properly fitted life buoys, kept ready at all times for immediate use, and some adequate means, to be approved by the emigration officer at the port of clearance, of making signals by night and in fogs; also a fire engine, in proper working order, and of such description and power and either with or without such other apparatus for extinguishing fire as such officer may approve; and not less than 3 bower anchors of such weight, and with cables of such length, size, and material, as in the judgment of such emigration officer shall be sufficient for the size of the ship. In case of noncompliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty of not more than 50*l.* nor less than 5*l.*—§ 27.

Regulations as to carrying an efficient Crew. — Every "passenger ship" shall be manned with an efficient crew for her intended voyage, to the satisfaction of the emigration officer from whom a clearance of such ship may be demanded, and the strength of the crew shall not be diminished, nor any of the men changed when once passed by such emigration officer, without his consent in writing, or that of the shipping master of the port of clearance, as required by the laws then in force regulating the shipping of seamen on board merchant vessels. Where the consent of the shipping master is obtained, it shall, within 24 hours thereafter, be lodged with such emigration officer. In case of noncompliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l.*: provided, that if the emigration officer shall consider the crew inefficient, and the owner or charterer of the ship shall thereupon appeal in writing to the said emigration commissioners, such commissioners shall, at the expense of the appellant, appoint 2 other emigration officers or 2 competent persons to examine into the matter, and the unanimous opinion of the persons so appointed, expressed under their hands, shall be conclusive on the point.—§ 28.

Certain Articles prohibited as Cargo and Ballast.—No "passenger ship" shall clear out or proceed to sea if there shall be on board as cargo, horses, cattle, gunpowder, vitriol, lucifer matches, guano, or green hides, nor if there shall be on board any other article or number of articles, whether as cargo or ballast, which by reason of the nature or quantity or mode of stowage thereof shall, either singly or collectively, be deemed by the emigration officer at the port of clearance likely to endanger the health or lives of the passengers or the safety of the ship: no part of the cargo, or of the passengers luggage, or of the provisions, water, or stores, whether for the use of the passengers or of the crew, shall be carried on the upper deck or on the "passenger decks," unless in the opinion of such emigration officer it shall be so placed as not to impede light or ventilation, nor interfere with the comfort of the passengers; nor unless the same be stowed and secured to the satisfaction of such emigration officer, and the space occupied thereby or rendered, in the opinion of such officer, unavailable for the accommodation of the passengers, shall (unless occupied by passengers' luggage) be deducted in calculating the space by which, under the provisions of this Act, the number of passengers is regulated. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master, or any of them, shall for each offence be liable to a penalty not exceeding 300*l.* nor less than 5*l.*—§ 29.

Computation of Voyages. — For the purposes of this Act, the length of the voyage for a "passenger ship" proceeding from the U. K. to the under-mentioned places respectively shall be determined by the following scale; viz.—(See Table, next page.)

For the like purposes, the said emigration commissioners, acting by and under the authority of one of H. M.'s principal secretaries of state, from time to time, by any notice in writing issued under the hands of any 2 of such commissioners, and published in the "London Gazette," may nevertheless declare what shall be deemed to be the length of voyage from the U. K. to any of the before-mentioned places, or to any other port or place whatsoever, and may fix such different lengths of voyage as they may think reasonable for such different descriptions of vessels as aforesaid.—§ 30.

Before Clearance, Provisions and Water to be surveyed.—Before any "passenger ship" be cleared out the emigration officer at the port of clearance shall survey or cause to be surveyed by some competent person the provisions and water required by this Act to be on board for the consumption of the passengers, and shall satisfy himself that the same are of a good and wholesome quality, and in a sweet and good condition, and are in quantities sufficient to secure throughout the voyage the issues herein prescribed: in addition to the allowance of pure water for the use of each passenger there shall be shipped for cooking purposes an additional supply of pure water after the rate of at least 10 gallons for every day of the prescribed length of voyage for every 100 statute adults on board; and also for the use of the crew and all other persons on board an ample supply of wholesome provisions and pure water, which shall not be inferior in quality to the supply of the same articles provided for the consumption of the passengers: all such water, provisions, and stores shall be provided and properly stowed away in accordance with the requirements of the 29th section of this Act, by and at the expense of the owner, charterer, or master of the ship; and if a clearance be obtained for any "passenger ship" which is not then stored with the requisite quantities of such water, provisions, and stores as are required by this Act, the

	If the ship be propelled by sails alone, or by steam power not sufficient without the aid of sails, to propel the ship after the rate of 5 miles an hour.	If the ship be propelled either wholly or in aid of sails by steam engines of not less power than sufficient, without the aid of sails, to propel the ship after the rate of 5 miles an hour.
	Days.	Days.
To North America (except the W. coast thereof):—		
For ships clearing out between the 16th of January and the 14th of October, both days inc.	70	40
For ships clearing out between the 15th of October and the 17th of January, both days inc.	80	45
To the W. Indies, and any part of the E. coast of Central or S. America, N. of the Equator	70	40
To any part of the E. coast of S. America lying between the Equator and the 25th deg. of S. lat.	84	50
To the W. coast of Africa N. of the Equator	84	50
To the coast of Africa S. of the Equator, or to the Falkland Islands, or to any part of the E. coast of S. America, S. of the 25th deg. of S. lat.	105	65
To the Mauritius, and to the W. coast of America, S. of the Equator	126	75
To Ceylon	140	85
To Western Australia	120	85
To any other of the Australian colonies	140	90
To New Zealand and to the W. coast of America between the Equator and the 40th deg. of N. lat.	150	90
To the W. coast of America N. of the 40th deg. of N. lat. and the islands adjacent thereto	182	96

owner, charterer, or master of such ship, or any of them, shall for each offence be liable to a penalty not exceeding 300*l.*—§ 31.

Power to Emigration Officer to reject and mark bad Provisions, &c.—If such emigration officer shall consider that any of the provisions or stores or water are not of a good and wholesome quality, or are not in a sweet and good condition, it shall be lawful for him to reject and mark the same, or the packages or vessels in which they are contained, and to direct the same to be landed or emptied; and if such rejected provisions or stores or water be not thereupon forthwith landed or emptied, or if, after being landed, the same or any part thereof shall be reshipped in such ship, the owner, charterer, or master thereof, or any of them, or if reshipped in any other "passenger ship," the person causing the same to be reshipped, shall for each offence be liable to a penalty not exceeding 100*l.*—§ 32.

Water Tanks or Casks to be approved by Emigration Officer.—In every "passenger ship" the water to be laden on board, as herein required, shall be carried in tanks or in casks to be approved by the emigration officer at the port of clearance. When casks are used, they shall be sweet and tight, of sufficient strength, and if of wood properly charred inside, and shall not be capable severally of containing more than 300 gallons each: the staves of the water casks shall not be made of fir, pine, or soft wood. In case of noncompliance with any of the requirements of this section, the owner, charterer, or master of such ship, or any of them, shall for each offence be liable to a penalty of not more than 50*l.*—§ 33.

Provision for touching at intermediate Ports to fill up Water.—If any "passenger ship" be intended to call at any intermediate port or place during the voyage, for the purpose of taking in water, and if an engagement to that effect be inserted in the bond mentioned in the 63rd section of this Act, then it shall be sufficient to place on board at the port of clearance such supply of water as may be requisite, according to the rate herein-after mentioned, for the voyage of the said ship to such intermediate port or place, subject to the following conditions; viz.—

1. That the emigration officer signify his approval in writing of the arrangement, to be carried amongst the papers of the ship, and exhibited to the chief officer of customs, or to H. M.'s consular officer, as the case may be, at such intermediate port or place, and to be delivered to the chief officer of customs, or to H. M.'s consular officer, as the case may be, on the arrival of the said ship at the final port or place of discharge:

2. That if the length of either portion of the voyage, whether to such intermediate port or place, or from such intermediate port or place to the final port or place of discharge, be not prescribed in or under the provisions of this Act, the emigration officer at the port of clearance shall in every such case declare the same in writing to be carried amongst the papers of the ship:

3. That the ship shall have on board at the time a clearance is demanded, tanks or water casks, of the description hereinbefore mentioned, sufficient for stowing the quantity of water required for the longest of such portions of the voyage as aforesaid.—§ 34.

Dietary Scales of Provisions.—The master of every "passenger ship" shall, during the voyage, including the time of detention at any place before the termination thereof, issue to each passenger, or, where the passengers are divided into messes, to the head man for the time being of each mess on behalf and for the use of all the members thereof, an allowance of pure water and sweet and wholesome provisions, of good quality, according to the following dietary scale; viz., if the length of the voyage, computed as before mentioned, shall not exceed 84 days for ships propelled by sails only, or 50 days for ships propelled by steam, or steam in aid of sails, then according to the dietary scale marked "A.;" but if the length of the voyage, computed as aforesaid, shall exceed 84 days for ships propelled by sails only, or 50 days for ships propelled by steam, or steam in aid of sails, then according to the dietary scale marked "B."

WATER.

Three Quarts of Water daily to each Statute Adult, exclusive of the quantity before specified as necessary for cooking the articles herein required to be issued in a cooked state.

PROVISIONS.

Weekly per Statute Adult:—

	Scale A. For Voyages not exceeding 84 days for Sailing Vessels, or 50 days for Steamers.	Scale B. For Voyages exceeding 84 days for Sailing Vessels, or 50 days for Steamers.		Scale A. For Voyages not exceeding 84 days for Sailing Vessels, or 50 days for Steamers.	Scale B. For Voyages exceeding 84 days for Sailing Vessels, or 50 days for Steamers.
	lbs. oz.	lbs. oz.		lbs. oz.	lbs. oz.
Bread or Biscuit, not inferior in quality to Navy Biscuit	3 8	3 8	Salt	0 2	0 2
Wheaten Flour	1 0	2 0	Mustard	0 ½	0 ½
Oatmeal	1 8	1 0	Black or White Pepper, ground	0 ¼	0 ¼
Rice	1 8	0 8	Vinegar	One Gill.	One Gill.
Peas	1 8	1 8	Lime Juice	0 6	0 6
Potatoes	2 0	2 0	Preserved meat	1 0	1 0
Beef	1 4	1 4	Suet	0 6	0 6
Pork	1 0	1 0	Raisins	0 8	0 8
Tea	0 2	0 2	Butter	0 4	0 4
Sugar	1 0	1 0			

SUBSTITUTIONS.

Substitutions at the following rates may, at the option of the master of any "passenger ship," be made in the above dietary scales, that is to say:—

1 lb. of preserved meat, for 1 lb. of salt pork or beef.
1 lb. of flour or of bread or biscuit, or ½ lb. of beef or of pork, for 1½ lb. of oatmeal, or 1 lb. of rice, or 1 lb. of peas.
1 lb. of rice, for 1½ lb. of oatmeal, or vice versa.
½ lb. of preserved potatoes, for 1 lb. of potatoes.
10 oz. of currants, for 8 oz. of raisins.
3½ oz. of cocoa, or of coffee, toasted and ground, for 2 oz. of tea.
⅞ lb. of treacle, for ½ lb. of sugar.
1 gill of mixed pickles, for 1 gill of vinegar.

Provided, that the substituted articles be set forth in the contract tickets of the passengers. In case of noncompliance with any of the requirements of this section, the master of the ship shall be liable for each offence to a penalty not exceeding 50*l*.—§ 35.

Size of Messes.—The messes into which the passengers in any "passenger ship" may be divided shall not consist of more than 10 statute adults in each mess, and members of the same family, whereof 1 at least is a male adult, shall be allowed to form a separate mess. The provisions according to the above scale shall be issued, such of them as require to be cooked, in a properly cooked state, daily before 2 o'clock in the afternoon, to the head person for the time being of each mess on behalf and for the use of the members thereof. The first of such issues shall be made before 2 o'clock in the afternoon of the day of embarkation to or for such passengers as shall be then on board. In case of noncompliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l*.—§ 36.

Power to Emigration Commissioners to authorise an alternative Dietary Scale.—The emigration commissioners for the time being, acting under the authority of 1 of the principal secretaries of state, may from time to time, by any notice for that purpose, issued under the hands of any 2 of such commissioners, and published in the "London Gazette," authorise the issue of provisions in any "passenger ship" according to such other dietary scale (besides that before prescribed) as shall in their opinion contain in the whole an equivalent amount of wholesome nutriment; and after the publication of such notice it shall be lawful for the master of any "passenger ship" to issue provisions to his passengers either according to the scale by this Act prescribed, or according to the scale authorised by the said commissioners, whichever may have been set forth in the contract tickets of the passengers: provided always, that the said commissioners acting under such authority and by such notice as aforesaid, may revoke or alter any such dietary scale authorised by them, as occasion may require.—§ 37.

As to Passengers' Stewards.—Every "passenger ship" carrying as many as 100 passengers shall have on board a seafaring person, who shall be rated in the ship's articles as passengers' steward, and who shall be approved by the emigration officer at the port of clearance, and who shall be employed in messing and serving out the provisions to the passengers, and in assisting to maintain cleanliness, order, and good discipline among the passengers, and who shall not assist in any way in navigating or working the ship. In case of noncompliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 38.

As to Passenger Cooks and cooking Apparatus.—Every "passenger ship" carrying as many as 100 passengers shall also have on board a seafaring man, or if carrying more than 300 "statute adults," 2 seafaring men, to be rated and approved as in the case of passengers' stewards, who shall be employed in cooking the food of the passengers: a convenient place for cooking shall also be set apart on deck; and a sufficient cooking apparatus, properly covered in and arranged, shall be provided, to the satisfaction of the said emigration officer, together with a proper supply of fuel adequate, in his opinion, for the intended voyage. In case of noncompliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 39.

In what Cases Interpreters to be carried.—In every foreign "passenger ship" in which as many as half the passengers are British subjects, unless the master and officers or not less than 3 of them shall understand and speak intelligibly the English language, there shall be carried, where the number of passengers does not exceed 250, 1 person, and where it exceeds 250, 2 persons, who understand and speak intelligibly the language spoken by the master and crew and also the English language, and such persons shall act as interpreters, and be employed exclusively in attendance on the passengers, and not in the working of the ship; and no such ship shall clear out or proceed to sea without having such interpreter or interpreters on board; and the master of any such foreign ship clearing out or proceeding to sea without having such interpreter or interpreters on board as aforesaid shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 40.

In what Cases a Medical Man must be carried.—Every "passenger ship" shall in the following cases carry a duly qualified medical practitioner, who shall be rated on the ship's articles:—

1st, when the duration of the intended voyage, as before computed, exceeds 80 days in the case of ships propelled by sails, and 45 days in the case of ships propelled by steam, and the number of passengers on board exceeds 50:
2nd, whenever the number of persons on board (including cabin passengers, officers, and crew,) exceeds 300:

In case of noncompliance with any of the requirements of this section, the master shall for each offence be liable to a penalty not exceeding 100*l*. nor less than 20*l*.—§ 41.

Qualification of Medical Man.—No medical practitioner shall be considered to be duly qualified for the purposes of this Act unless authorised by law to practise in some part of H. M.'s dominions, or, in the case of a foreign ship, in the country to which such ship may belong, as a physician, surgeon, or apothecary, nor unless his name shall have been notified to the emigration officer at the port of clearance, and shall not be objected to by him, nor unless he shall be provided with proper surgical instruments to the satisfaction of such officer: provided nevertheless, that where the majority of the passengers in any "passenger ship," or as many as 300, are foreigners, any medical practitioner who may be approved by such emigration officer may be carried therein. In case any person shall proceed or attempt to proceed as medical practitioner in any "passenger ship" without being duly qualified as aforesaid, or contrary to any of the requirements of this section, such person and all persons aiding or abetting therein shall for each offence be liable to a penalty not exceeding 100*l*. nor less than 10*l*.—§ 42.

Medicines and Medical Comforts.—The owner or charterer of every "passenger ship" shall provide for the use of the passengers a supply of medicines, medical comforts, instruments, and other things proper and necessary for diseases and accidents incident to sea voyages, and for the medical treatment of the passengers during the voyage, including an adequate supply of disinfecting fluid or agent, together with printed or written directions for the use of the same respectively; and such medicines, medical comforts, instruments, and other things shall, in the judgment of the emigration officer at the port of clearance, be good in quality, and sufficient in quantity, for the probable exigencies of the intended voyage, and shall be properly packed and placed under the charge of the medical practitioner, when there is one on board, to be used at his discretion. In case of noncompliance with any of the requirements of this section, the master of the ship shall for each offence be liable to a penalty not exceeding 50*l*. nor less than 5*l*.—§ 43.

Medical Inspection of Passengers and Medicines, &c.—No "passenger ship," except as after provided, shall clear out or proceed to sea until some medical practitioner, to be appointed by the emigration officer at the port of clearance, shall have inspected such medicines, medical comforts, and other articles as are required to be supplied by the last section, and also all the passengers and crew about to proceed in the ship, and shall have certified to the said emigration officer that the said ship contains a sufficient supply of medicines, medical comforts, disinfecting fluid or agent, instruments, and other things requisite for

the medical treatment of the passengers during the intended voyage, nor until such medical practitioner shall have certified and the said emigration officer shall be satisfied that none of the passengers or crew appear, by reason of any bodily or mental disease, unfit to proceed, or likely to endanger the health or safety of the other persons about to proceed in such vessel. Such medical inspection of the passengers shall take place either on board the vessel, or, at the discretion of the said emigration officer, at such convenient place on shore before embarkation as he may appoint; and the master, owner, or charterer of the ship shall pay to such emigration officer a sum at the rate of 1*l.* for every 100 persons so examined: provided also, that in case the emigration officer on any particular occasion shall be unable to obtain the attendance of a medical practitioner, it shall be lawful for the master of any such ship to clear out and proceed to sea, on receiving from the said emigration officer written permission for the purpose. In case any "passenger ship" shall clear out or proceed to sea without having complied with all the requirements of this section, the master of such ship shall for each offence be liable to a penalty not exceeding 100*l.* nor less than 5*l.*—§ 44.

Relanding of Passengers on account of Sickness or for purifying Ships.—If the emigration officer at any port shall be satisfied that any person on board or about to proceed in any "passenger ship" is by reason of sickness unfit to proceed, or is for that or for any other reason likely to endanger the health or safety of the other persons on board, the said emigration officer shall prohibit the embarkation of such person, or if embarked shall require him to be relanded; and if such emigration officer shall be satisfied that it is necessary, for the purification of the ship or otherwise, that all or any of the passengers or persons on board should be relanded, the said emigration officer may require the master of the ship to reland all such passengers or persons and the master shall thereupon reland such passengers or persons, with so much of their effects and with such members of their families as cannot in the judgment of such emigration officer be properly separated from them; and in case of noncompliance with any of the requirements of this section, the master, owner, or charterer of the ship shall for each offence be liable to a penalty not exceeding 200*l.* nor less than 10*l.*; and any passenger or person embarking after such prohibition, or refusing or neglecting to leave the ship when so directed to be relanded, shall be liable to be summarily removed, and to a penalty not exceeding 2*l.* for each day which he shall remain on board after the giving of such prohibition or direction.—§ 45.

Return of Passage Money to Passengers relanded on account of Sickness, &c.—Any passenger so relanded on account of the sickness of himself or of any member of his family who may not be re-embarked and finally sail in such ship, or any emigration officer on his behalf, shall be entitled to recover, by summary process, the whole of the monies which may have been paid by or on account of such passenger for his passage, and that of the members of his family so relanded, from the party to whom the same may have been paid, or from the owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer.—§ 46.

Subsistence Money to be paid to Passengers relanded.—The master of any "passenger ship," from which the whole or any part of the passengers shall be relanded on account of any of the reasons mentioned in § 45, shall pay to each passenger so relanded (or if he shall be lodged and maintained in any hulk or establishment under the superintendence of the said emigration commissioners, then to the emigration officer at the port), subsistence money at the rate of 1*s.* 6*d.* a day for each statute adult until he shall be re-embarked or decline or neglect to proceed, or until his passage money, if recoverable under § 45 of this Act, be returned to him.—§ 47.

Return of Passage Money, &c.—If any person by whom or on whose behalf any contract shall have been made for a passage in any ship proceeding on any voyage to which this Act extends, shall be at the place of embarkation before 6 o'clock in the afternoon of the day of embarkation appointed in such contract, and shall, if required, pay the stipulated passage money, or the unpaid balance thereof, and if from any cause whatever, other than his own refusal, neglect, or default, or the prohibition of an emigration officer, as before mentioned, or the requirements of any order in council, such passenger shall not be received on board before that hour, or if from any such cause as aforesaid any passenger who shall have been received on board shall not either obtain a passage in such ship to the port at which he may have contracted to land, or, together with all the immediate members of his family who may be included in such contract, obtain a passage to the same port in some other equally eligible ship, to sail within ten days from the expiration of the said day of embarkation, and in the meantime be paid subsistence money from the time and at the rate after mentioned, such passenger, or any emigration officer on his behalf, shall be entitled to recover either from the party to whom or on whose account the same may have been paid, (or (in case such contract shall have been made with the owner, charterer, or master of such ship, or with any person acting on behalf or by the authority of any of them respectively), from such owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer, all monies which shall have been paid by or on account of such passengers for such passage, and also such further sum, not exceeding 10*l.*, in respect of each such passage, as shall in the opinion of the justices of the peace who shall adjudicate on the complaint, be a reasonable compensation for the loss or inconvenience occasioned to such passenger by the loss of such passage.—§ 48.

Subsistence in case of Detention.—If any ship, whether a "passenger ship" or otherwise, shall not actually put to sea, and proceed on her intended voyage before 3 o'clock in the afternoon of the day next after the said day of embarkation, the owner, charterer, or master of such ship, or his or their agent, or any of them, at the option of such passenger or emigration officer, shall pay to every passenger entitled to a passage (or if such passenger shall be lodged and maintained in any establishment under the superintendence of the said emigration commissioners, then to the emigration officer at the port of embarkation), subsistence money after the rate of 1*s.* 6*d.* for each statute adult in respect of each day of delay for the first 10 days, and afterwards 3*s.* a day for each statute adult, until the final departure of such ship on such voyage, and the same may be recovered in manner after mentioned; provided that if the passengers be maintained on board in the same manner as if the voyage had commenced, no such subsistence money shall be payable for the first 2 days next after the said day of embarkation, nor if they shall be maintained shall such subsistence money be payable if the ship be unavoidably detained by wind or weather, or by any cause not attributable in the opinion of the emigration officer to the act or default of the owner, charterer, or master.—§ 49.

Ships putting back to replenish Provisions, &c.—If any "passenger ship" shall, after clearance, be detained in port for more than 7 days, or shall put into or touch at any port or place in the U. K., she shall not put to sea again until there shall have been laden on board, at the expense of the owner, charterer, or master of such ship, such further supply of pure water, wholesome provisions of the requisite kinds and qualities, and medical comforts and stores, as may be necessary to make up the full quantities of those articles before required to be laden on board for the intended voyage, nor until any damage she may have sustained shall have been effectually repaired, nor until the master of the said ship shall have obtained from the emigration officer or his assistant, or, where there is no such officer, or in his absence, from the officer of customs at such port or place, a certificate to the same effect as the certificate before required to enable the ship to be cleared out; and in case of any default herein the said master shall be liable, on conviction, as herein-after mentioned, to a penalty not exceeding 100*l.* nor less than 50*l.* And if the master of any "passenger ship" so putting into or touching at any port or place as aforesaid shall not within 12 hours thereafter report, in writing, his arrival, and the cause of his putting back, and the condition of his ship, and of her stores and provisions, to the emigration officer, or, as the case may be, to the officer of customs at the port, and shall not produce to such officer the official or "master's list" of passengers, such master shall for each offence be liable to a penalty not exceeding 20*l.* nor less than 2*l.*—§ 50.

In case of Wreck or Damage Passengers to be provided with a Passage by some other Vessel, &c.—If any "passenger ship" shall put into any port or place in the U. K. in a damaged state, and the master, charterer, or owner shall not give a written undertaking that the said ship shall be made sound and seaworthy, and shall within 6 weeks from the day of her so putting into such port or place again proceed with her passengers on her intended voyage, and if the said ship shall not accordingly be made seaworthy and proceed on her intended voyage within that period, or if any such ship shall after the commencement of her voyage be wrecked, sunk, or otherwise destroyed, or shall from any cause whatsoever not land her passengers at the place where they may have respectively contracted to land, the owner, charterer, or master thereof shall provide the passengers with a passage in some other eligible ship to sail within 6 weeks to the port or place at which they respectively may have originally contracted to land, and shall in the meantime, if the passengers be not lodged and maintained on board in the same manner as if the ship were at sea, pay to such passengers (or if such passengers shall be lodged or maintained in any hulk or establishment under the superintendence of the said emigration commissioners, then to the emigration officer at such port or place), subsistence money after the rate of 1*s.* 6*d.* for each statute adult in respect of each day of delay until such passengers are duly forwarded to their destination; and if default shall be made in any of the requirements of this section such passengers respectively, or any emigration officer on their behalf, shall be entitled to recover, by summary process, as after mentioned, all monies which shall have been paid by or on account of such passengers or any of them for such passage, from the party to whom or on whose account the same may have been paid, or from the owner, charterer, or master of such ship, or any of them, at the option of such passenger or emigration officer: Provided that the said emigration officer may, if he shall think it necessary, direct that the passengers shall be removed from such "passenger ship" at the expense of the master thereof; and if after such direction any passenger shall refuse to leave such ship, he shall be liable to a penalty not exceeding 2*l.* or to imprisonment not exceeding 1 calendar month.—§ 51.

Secretary of State, &c., may pay Expenses of taking off Passengers at Sea.—If the passengers or cabin passengers of any "passenger ship" shall be taken off from any such "passenger ship" or shall be picked up at sea from any boat, raft, or otherwise, it shall be lawful, if the port or place to which they shall be conveyed shall be in the U. K., for one of the principal secretaries of state, or if in any colonial possession, for the governor of such colony, or for any person authorised by him for the purpose, or if in any foreign country, for H. M.'s consular officer, at such port or place therein, to defray all or any part of the expenses thereby incurred.—§ 52.

Governors or Consuls may send on Passengers if the Master of the Ship fail to do so.—If any passenger or cabin passenger of any "passenger ship" shall, without any neglect or default of his own, find himself within any colonial or foreign port or place other than that at which he may have contracted to land, it shall be lawful for the governor of such colony, or for any person authorised by him for the purpose, or for H. M.'s consular officer at such foreign port or place, as the case may be, to forward such passenger to his intended destination, unless the master of such ship shall, within 48 hours of the arrival of such passenger, give to the governor or consular officer, as the case may be, a written undertaking to forward or carry on within 6 weeks thereafter such passenger or cabin passenger to his original destination, and unless such master shall accordingly forward or carry him on within that period.—§ 53.

Expenses incurred under the two preceding Sections to be a Crown Debt.—All expenses incurred under the last two preceding sections or either of them, by or by the authority of such secretary of state, governor, consular officer, as aforesaid, including the cost of maintaining the passengers until forwarded to their destination, and of all necessary bedding, provisions, and stores, shall become a debt to H. M. and her successors from the owner, charterer, and master of such ship, and shall be recoverable from them, or from any one or more of them, at the suit and for the use of H. M., in like manner as in the case of other crown debts; and a certificate purporting to be under the hand of any such secretary of state, governor, or consular officer (as the case may be), stating the total amount of such expenses, shall in any suit or other proceeding for the recovery of such debt be received in evidence without proof of the handwriting or of the official character of such secretary of state, governor, or consular officer, and shall be deemed sufficient evidence of the amount of such expenses, and that the same were duly incurred: Provided nevertheless, that in no case shall any larger sum be recovered on account of such expenses than a sum equal to twice the total amount of passage money received by the owner, charterer, or master of such passenger ship, or any of them, from or on account of the whole number of passengers and cabin passengers who may have embarked in such ship; which total amount of passage money shall be proved by the defendant, if he will have the advantage of this limitation of the debt; but if any such passengers are forwarded or conveyed to their intended destination under the provisions of the last preceding section, they shall not be entitled to the return of their passage money, or to any compensation for loss of passage under the provisions of this Act.—§ 54.

Insurance of Passage Money not to be void on account of the nature of the Risk.—No policy of assurance effected in respect of any passages, or of any passage or compensation monies, by any person by this Act made liable, in the events aforesaid, to provide such passages or to pay such monies, or in respect of any other risk under this Act, shall be deemed to be invalid by reason of the nature of the risk or interest sought to be covered by such policy of assurance.—§ 55.

Penalty on wrongfully landing Passengers.—If any passenger in any ship, whether a "passenger ship" or otherwise, shall be landed at any port or place other than the port or place at which he may have contracted to land, unless with his previous consent, or unless such landing shall be rendered necessary by perils of the sea, or other unavoidable accident, the master shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 10*l.*—§ 56.

Passengers to be maintained for 48 *Hours after Arrival.*—Every passenger in a "passenger ship" shall be entitled for at least 48 hours next after his arrival at the end of his voyage, to sleep in the ship, and to be provided for and maintained on board thereof, in the same manner as during the voyage, unless within that period the ship shall quit such port or place in the further prosecution of her voyage. In case of noncompliance with any of the requirements of this section, the master shall for each offence be liable to a penalty not exceeding 5*l.*—§ 57.

Passengers Right of Action preserved.—Nothing herein contained shall take away or abridge any right of action which may accrue to any passenger in any ship, or to any other person, in respect of the breach or nonperformance of any contract made or entered into between or on behalf of any such passenger or other person, and the master, charterer, or owner of any such ship, or his or their agent, or any passage broker.—§ 58.

H. M. may, by Orders in Council, prescribe Rules for Purposes herein described.—It shall be lawful for H. M., by any order in council, to prescribe such rules and regulations as to H. M. may seem fit, for the following purposes; viz.—

1. For preserving order, promoting health, and securing cleanliness and ventilation on board of "passenger ships" proceeding from the U. K. to any port or place in H. M.'s possessions abroad.
2. For permitting the use on board of "passenger ships" of an apparatus for distilling water, and for defining in such case the quantity of fresh water to be carried in tanks or casks for the passengers.
3. For prohibiting emigration from any port or ports at any time when choleraic or any epidemic disease may be generally prevalent in the U. K. or any part thereof, or for reducing the number of passengers allowed to be carried in "passenger ships" generally, or from any particular ports under the provisions of this Act.
4. For requiring duly qualified medical practitioners to be carried in "passenger ships" in cases where they would not be required to be carried under the provisions of this Act.

Any such order in council may from time to time in like manner be altered, amended, and revoked, as occasion may require. Any copy of such order in council contained in the "London Gazette," or purporting to be printed by the Queen's printer, shall throughout H. M.'s dominions be received in all legal proceedings as good and sufficient evidence of the making and contents of any such order in council.—§ 59.

Surgeon or Master to exact Obedience to Rules and Regulations.—In every such "passenger ship" the medical practitioner on board, aided by the master thereof, or, in the absence of such medical practitioner, the master of such ship, is hereby empowered to exact obedience to all rules and regulations which may be prescribed by any such order in council to be observed on board passenger ships as aforesaid; and any person on board who shall neglect or refuse to obey any such rule or regulation, or who shall obstruct the medical practitioner or master of such ship in the execution of any duty imposed upon him by any such rule or regulation, or who shall offend against any of the provisions of this Act, or who shall be guilty of riotous or insubordinate conduct, shall be liable for each offence to a penalty not exceeding 2*l.*, and in addition thereto, to be confined in the common gaol for any period not exceeding 1 month, at the discretion of the justices who shall adjudicate on the complaint.—§ 60.

Emigration Commissioners to prepare an Abstract of Act and Orders in Council.—The said emigration commissioners shall from time to time prepare such abstracts as they may think proper of the whole or any part of this Act, and of any such order in council as aforesaid; and four copies of such abstracts, together with a copy of this Act, shall, on demand, be supplied by the principal officer of customs at the port of clearance to the master of every "passenger ship" proceeding from the U. K. to any port or place in H. M.'s possessions abroad; and such master shall, on request made to him, produce a copy of this Act to any passenger on board, for his perusal, and, further, shall post, previous to the embarkation of the passengers, and shall keep posted so long as any passenger shall be entitled to remain in the ship in at least two conspicuous places between the decks on which passengers may be carried, copies of such abstracts; and such master shall be liable to a penalty not exceeding 2*l.* for every day during any part of which by his act or default such abstracts shall fail to be so posted; and any person displacing or defacing such abstracts so posted shall be liable to a penalty not exceeding 2*l.*—§ 61.

Sale of Spirits prohibited on board Passenger Ships.—If in any "passenger ship" any person shall during the voyage, directly or indirectly, sell or cause to be sold any spirits or strong waters to any passenger, he shall be liable for every such offence to a penalty not exceeding 20*l.* nor less than 5*l.*—§ 62.

Bond to be given by Masters of British and Foreign Passenger Ships.—Before any "passenger ship" shall clear out or proceed to sea, the master, together with the owner or charterer of the ship, or, in the event of the absence of such owner or charterer, or if the master be the owner or charterer, one other good and sufficient person, to be approved by the chief officer of customs at the port of clearance, shall enter into a joint and several bond, in the sum of 2,000*l.* to H. M., her heirs and successors, according to the form contained in schedule annexed to the Act. Such bond shall not be liable to stamp duty, and shall be executed in duplicate.—§ 63.

Clause 64. enacts that a counterpart of the bond referred to shall be certified, and sent to the colony to which ship bound, and be received in evidence without further proof of execution.

In the Absence of Agreement to the contrary the Owner to be responsible in respect of Default.—In the absence of any agreement to the contrary, the owner shall be the party ultimately responsible, as between himself and the other persons hereby made liable in respect of any default in complying with the requirements of this Act; and if any such last-mentioned person shall pay any monies hereby made payable to or on behalf of any such passengers as aforesaid, the person so paying the same shall be entitled, in the absence of any such agreement as aforesaid, to sue for and recover from the owner the amount so paid, together with costs of suit.—§ 65.

No Person to act as a Passage Broker without a Licence.—No person whatever shall directly or indirectly act as a passage broker in respect of passages from the U. K. to any place out of Europe, and not being within the Mediterranean Sea, or shall sell or let, or agree to sell or let, or be in anywise concerned in the sale or letting of passages in any ship, whether a "passenger ship" or otherwise, proceeding from the U. K. to any such place as aforesaid, unless such person, with 2 good and sufficient sureties to be approved by the emigration officer at the port nearest to the place of business of such person, shall have previously entered into a joint and several bond, in the sum of 1000*l.* to H. M., her heirs and successors, which bond shall be renewed on each occasion of obtaining such licence as after mentioned, and shall be in duplicate, without stamps, and one part thereof shall be deposited at the office in London of the said emigration commissioners, and the other part thereof with the emigration officer at the port nearest to the place of business of such person; nor unless such person shall have obtained a licence, as after mentioned, to let or sell passages, nor unless such licence shall then be in force; and if any person shall offend in any particular against this enactment, every person so offending shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 20*l.* to be sued for and recovered as after mentioned: Provided that such bond shall not be required of any person who shall be one of the sworn brokers of the city of London: Provided also, that there shall be excepted from the operation of this section the said emigration commissioners, and any persons contracting with them, or acting under their authority, and also any person acting as the agent of any passage broker in pursuance of an appointment signed by such passage broker, and countersigned by such emigration officer as aforesaid: Provided further, that the acts and defaults of any person acting under the authority or as agent of any passage broker shall, for the purposes of this Act, be deemed to be also the acts and defaults of such passage-broker: Provided also that nothing before contained shall be held or construed to prevent the said emigration officer from accepting the bond of a guarantee society, such bond and such guarantee society as shall have been approved by the commissioners of H. M.'s treasury, in lieu of the bond of 2 good and sufficient securities as aforesaid.—§ 66.

Clause 67. directs how passage brokers are to obtain licences.

Clause 68. enacts that existing licences shall continue in force until 1st Feb. 1856.

Clause 69. enacts that passage brokers shall employ no agents except those expressly appointed by them.

Penalty on Persons fraudulently inducing others to engage Passages.—If any person shall by false representation as to the size of a ship, or otherwise, or by any false pretence or fraud whatsoever, induce any person to engage a passage in any ship, the person so offending shall for each offence be liable to a penalty not exceeding 20*l.* nor less than 5*l.*—§ 70.

Contract Tickets for Cabin and other Passengers.—Every person whatever, except the said emigration commissioners and persons acting for them and under their direct authority, who shall receive money from any person for or in respect of a passage in any ship, or of a cabin passage in any "passenger ship" proceeding from the U. K. to any place out of Europe, and not being within the Mediterranean Sea, shall give to the person paying such money a contract ticket, signed by the owner, charterer, or master of the ship or "passenger ship" (as the case may be) in which the passage is to be provided, or by some person in their or his name, and on their or his behalf: such contract ticket shall be made out in plain and legible characters on a printed form, which in the case of cabin passengers shall be according to the form contained in schedule annexed to the Act, and in the case of all other passengers in the form contained in schedule L. hereto annexed, or according to such other form as in either case may from time to time be prescribed by the said emigration commissioners in any notice issued under their hands, or the hands of any two of them, and published in the "London Gazette:" and any directions contained on the face of such form of contract ticket shall be obeyed in the same manner as is herein set forth. In case of noncompliance with any of the requirements of this section, or of any of the directions on such

form of contract ticket not inconsistent with this Act, the person so offending shall for each offence be liable to a penalty not exceeding 50*l.* nor less than 5*l.*: Provided always, that such contract tickets shall not be liable to any stamp duty.—§ 71.

Clauses 72. to 94. inclusive relate to matters of detail and to legal procedure.

Colonial Voyages defined.—And whereas it is expedient to provide in certain cases for the carriage of passengers by sea from H. M.'s possessions abroad: Be it therefore enacted as follows: For the purposes of this Act the term "colonial voyage" shall signify any voyage from any place within any of such possessions (except the territories under the government of the E. I. Company and the island of Hong Kong) to any place whatever where the distance between such places shall exceed 400 miles, or the duration of the voyage, to be prescribed as hereinafter mentioned, shall exceed 3 days.—§ 95.

This Act shall apply to all Colonial Voyages, except as relates to Matters herein named.—This Act shall apply, so far as the same is applicable, to all ships carrying passengers on any such "colonial voyage," except as to such parts of the Act as relate to the following matters; viz.

1. To passage brokers and their licences:
2. To passengers contract tickets:
3. To emigrant runners:
4. To the giving bond to H. Majesty:
5. To the keeping on board a copy of this Act:
6. To orders in council regulating emigration from the United Kingdom, or prescribing rules for promoting health, cleanliness, order, and ventilation:

Provided that if the prescribed duration of any "colonial voyage" be less than three weeks; then, in addition to the matters lastly hereinbefore excepted, the provisions of this Act shall not extend or apply so far as they relate to the following subjects; viz.

The construction or thickness of the decks:
The berths and berthing:
The height between decks:
Privies:
Hospitals:
Light and ventilation:
Manning:
Passengers stewards:
Passengers cooks and cooking apparatus:
The surgeon, and medicine chest:
The maintenance of passengers for 48 hours after arrival.

Provided also, that in the case of such "colonial voyages" whereof the prescribed duration is less than 3 weeks, the requirements of this Act respecting the issue of provisions shall not, except as to the issue of water, be applicable to any passenger who may have contracted to furnish his own provisions.—§ 96.

Clause 97. empowers the governors of colonies, by proclamation, to declare length of voyage, and prescribe scale of diet, medicines, and medical comforts.

Clause 99. authorises the governor-general of India in council, by any Act to be passed for that purpose to adopt this Act for India, and to make rules respecting food, passengers, surgeons, &c.

List of Passengers brought into the U. K., &c.—The master of every ship bringing passengers into the U. K. from any place out of Europe, and not within the Mediterranean Sea, shall, within 24 hours after arrival, deliver to the emigration officer or his assistant, or in their absence to the chief officer of customs at the port of arrival, a correct list, signed by such master, and specifying the names, ages, and callings of all the passengers embarked, and also the port or ports at which they respectively may have embarked, and showing which, if any of them, may have died, with the supposed cause of death, or been born on the voyage; and if any master shall fail so to deliver such list, or if the same shall be wilfully false, he shall, on conviction, as before mentioned, be liable to a penalty not exceeding 50*l.* Such emigration or customs officer shall, upon receipt of such list, transmit the particulars respecting any passenger named therein who may have died, with the supposed cause of death, or been born on the voyage, to the registrar-general of births, deaths, and marriages, who shall file the same, and enter a copy thereof under his hand in the "Marine Register Book," which entry shall be dealt with and be of the same value as evidence as any other entry made in such book under the provisions of the 6 & 7 W. 4. c. 86.—§ 100.

Penalty on Masters for having on Board a greater Number of Persons than prescribed by this Act.—If any ship bringing passengers into the U. K. from any place out of Europe shall have on board a greater number of passengers or persons than in the proportions respectively prescribed in §14 of this Act for ships carrying passengers from the U. K., the master of such ship shall be liable, on such conviction as before mentioned, to a penalty not exceeding 10*l.* nor less than 5*l.* for each such person or statute adult constituting any such excess.—§ 101.

Provisions and Water to be issued to Passengers brought into the U. K., &c.—The master of every passenger ship bringing passengers into the U. K. from any place out of Europe shall make to each statute adult during the voyage, including the time of detention, if any, at any port or place before the termination thereof, issues of pure water and of good and wholesome provisions in a sweet condition, in quantities not less in amount than is prescribed in §35 of this Act for passengers proceeding from the U. K.; and in case of non-compliance with any of the requirements of this section the master of such ship shall on such conviction as hereinbefore mentioned, be liable for each offence to a penalty not exceeding 50*l.*—§ 102.

SCHEDULE B. FORM OF PASSENGERS' LIST.

Ship's Name.	Master's Name.	Tons per Register.	Aggregate Number of Superficial Feet in the several Compartments set apart for Passengers other than Cabin Passengers.	Total Number of Statute Adults, exclusive of Master, Crew, and Cabin Passengers, which the Ship can legally carry.	Where bound.

I hereby certify, that the provisions actually laden on board this ship are sufficient, according to the requirements of the Passenger Act, for statute adults for a voyage of days.

Date _____ 185 . (Signature) _____ Master.

NAMES AND DESCRIPTIONS OF PASSENGERS.

Ports of Embarkation.	Names of Passengers.	Age of each Adult of 12 Years and upwards.				Children between 1 and 12 Years.		Infants.		Profession, Occupation, or Calling of Passenger.	State whether English, Scotch, or Irish.	Port at which Passengers have contracted to land.
		Married.		Single.								
		M.	F.	M.	F.	M.	F.	M.	F.			

SUMMARY.

	Number of Souls.				Equal to Statute Adults.
	English.	Scotch.	Irish.	Total.	
Adults					
Children between 1 and 12					
Infants					
Total					

We hereby certify, that the above is a correct list of the names and descriptions of all the passengers who embarked at the port of _____

(Signed) _____ Master.
_____ Emigration Officer.
(Countersigned) _____ Officer of Customs at _____.

Date _____ 185 .

N.B.—Lines should be ruled in the same Form for any additions to the list after the ship first clears out; and similar certificates be subjoined to such additions, according to the requirements of the Act.

Ship _____,
Counterpart of Passengers' contract ticket.

This part of the contract ticket is to be separated from the other, and to be delivered by the passenger to the emigration officer at the port of embarkation, (or if no such officer, to the officer of customs,) or to any one appointed by him to receive it, under a penalty not exceeding £10.

CONTRACT TICKET.

I engage that the persons mentioned below shall be provided with a steerage passage to _____ and be landed at the port of _____ in _____ in the ship _____ of _____ tons with not less than ten cubic feet for luggage for each statute adult, and shall be victualled during the whole voyage according to the dietary scale prescribed by law. The ship to receive her passengers at _____ on the _____ day of _____ 185—. Passage money, including government dues, if any, and all charges of landing, £ _____.

Names.	Ages.

_____ Souls, equal to * _____ statute adults.

To be signed in full by the party issuing the ticket.

* Insert number of souls and of statute adults respectively.

These directions, and the "Notices to Passengers" below, form part of, and must appear on, each contract ticket.

SCHEDULE L. FORM OF PASSENGER'S CONTRACT TICKET.

1. A contract ticket in this form must be given to every passenger engaging a passage from the United Kingdom to any place out of Europe, and not being within the Mediterranean Sea.
2. The victualling scale for the voyage must be printed in the body of the ticket.
3. All the blanks must be correctly filled in, and the ticket must be legibly signed with the christian names and surname and address in full of the party issuing the same.
4. The day of the month on which the passengers are to embark must be inserted in words and not in figures.
5. When once issued, this ticket must not be withdrawn from the passenger, nor any alteration, addition, or erasure made in it.

Ship _____ of _____ tons register, to take in passengers at _____ for _____ on the _____ day of _____ 185—.

Names.	Age.	Equal to Statute Adults.

I engage that the person named in the margin hereof shall be provided with a steerage passage to, and shall be landed at, the port of _____ in _____ in the ship _____ with not less than ten cubic feet for luggage for each statute adult, and shall be victualled during the voyage and the time of detention at any place before its termination, according to the subjoined scale, for the sum of £_____, including government dues before embarkation, and head money, if any, at the place of landing, and every other charge, except freight for excess of luggage beyond the quantity above specified, and I hereby acknowledge to have received the sum of £_____ in {full / part} payment.

The following quantities, at least, of water and provisions, (to be issued daily, will be supplied by the master of the ship, as required by law; viz., to each statute adult 2 quarts of water daily, exclusive of what is necessary for cooking the articles required by the Passengers Act to be issued in a cooked state; and a weekly allowance of provisions according to the following scale:—

[Here insert the victualling scale intended to be used on the voyage. This must be either the scale prescribed in the 35th section of the Passengers Act, 1855, or that scale modified by the introduction of articles authorised by the Act to be substituted for oatmeal, rice and potatoes.]

[N.B.—If mess utensils and bedding are to be provided by the ship, the stipulation must be inserted here.]

Signature in full _____
Place and date _____

[If signed by a broker or agent, state on whose behalf.]

Deposit £_____
Balance £_____ to be paid at _____
Total £_____

NOTICES TO PASSENGERS.

1. If passengers, through no default of their own, are not received on board on the day named in their contract tickets, or fail to obtain a passage in the ship, they should apply to the government emigration officer at the port, who will assist them in obtaining redress under the Passenger Act.
2. Passengers should carefully keep this part of their contract ticket till after the end of the voyage.

N.B.—This contract ticket is exempt from stamp duty.

The United States, in imitation of the policy followed in the U. Kingdom, have passed several Acts in regard to the conveyance of passengers in ships belonging to the different ports of the Union. The last of these Acts is as follows:—

AN ACT TO REGULATE THE CARRIAGE OF PASSENGERS IN STEAM SHIPS AND OTHER VESSELS, APPROVED 3. MARCH, 1855.

BE it enacted by the Senate and House of Representatives of the U. States of America in Congress assembled, that no master of any vessel owned in whole or in part by a citizen of the U. States, or by a citizen of any foreign country, shall take on board such vessel, at any foreign port or place other than foreign contiguous territory of the U. States, a greater number of passengers than in proportion of 1 to every 2 tons of such vessel, not including children under the age of 1 year in the computation, and com-

puting 2 children over 1 and under 8 years of age as 1 passenger. That the spaces appropriated for the use of such passengers, and which shall not be occupied by stores or other goods not the personal baggage of such passengers, shall be in the following proportions, viz.: — on the main and poop decks or platforms and in the deck-houses, if there be any, 1 passenger for each 16 clear superficial feet of deck, if the height or distance between the decks or platform shall not be less than 6 feet; and on the lower deck (not being an orlop deck), if any one passenger for 18 such clear superficial feet, if the height or distance between the decks or platforms shall not be less than 6 feet, but so as that no passenger shall be carried on any deck or platform, nor upon any deck where the height or distance between decks is less than 6 feet, with intent to bring such passenger to the U. States, and shall leave such port or place and bring the same, or any number thereof, within the jurisdiction of the U. States; or if any such master of any vessel shall take on board his vessel, or at any port or place within the jurisdiction of the U. States, any greater number of passengers than in the proportion aforesaid, to the space aforesaid, or to the tonnage aforesaid, with intent to carry the same to any foreign port or place other than foreign contiguous territory as aforesaid, every such master shall be deemed guilty of a misdemeanor, and upon conviction thereof, before any circuit or district court of the U. States, shall, for each passenger taken on board beyond the limit aforesaid, or the space aforesaid, be fined in the sum of 50 dollars, and may also be imprisoned, at the discretion of the judge before whom the penalty shall be recovered, not exceeding six months; but should it be necessary for the safety or convenience of the vessel that any portion of her cargo, or any other articles or article, should be placed on or stored in any of the decks, cabins, or other places appropriated to the use of passengers, the same may be placed in lockers or inclosures prepared for the purpose, on an exterior surface impervious to the wave, capable of being cleansed in like manner as the decks or platforms of the vessel. In no case, however, shall the places thus provided be deemed to be a part of the space allowable for the use of passengers, but the same shall be deducted therefrom, and in all cases where prepared or used, the upper surface of said lockers or inclosed spaces shall be deemed and taken to be the deck or platform from which measurement shall be made for all the purposes of this Act. It is also provided that one hospital in the space appropriated to passengers, and separate therefrom by an appropriate partition, and furnished as its purposes require, may be prepared, and when used, may be included in the space allowable for passengers, but the same shall not occupy more than 100 superficial feet of deck or platform — provided, that on board 2 deck ships, where the height between the decks is 7½ feet or more, 14 clear superficial feet of deck shall be the proportion required for each passenger. — § 1.

And no such vessel shall have more than two tiers of berths, and the interval between the lowest part thereof and the deck or platform beneath shall not be less than 9 inches, and the berths shall be well constructed, parallel with the sides of the vessel, and separated from each other by partitions, as berths ordinarily are separated, and shall be at least 6 feet in length and at least 2 feet in width, and each berth shall be occupied by no more than 1 passenger; but double berths of twice the above width may be constructed, each berth to be occupied by no more, and by no other, than two women, or by one woman and 2 children under the age of 8 years, or by husband and wife, or by a man and 2 of his own children under the age of 8 years, or by 2 men, members of the same family; and if there shall be any violation of this section in any of its provisions, then the master of the vessel and owners thereof shall severally forfeit and pay the sum of 5 dollars for each passenger on board of said vessel on such voyage, to be recovered by the U. States in any port where such vessel may arrive or depart. — § 2.

And all vessels, whether of the U. States or any foreign country, having sufficient capacity of space according to law, for fifty or more passengers (other than cabin passengers), shall, when employed in transporting such passengers between the U. States and Europe, have, on the upper deck, for the use of such passengers, a house over the passage-way leading to the apartments allotted to such passengers below deck, firmly secured to the deck or combings of the hatch with 2 doors, the sills of which shall be at least 1 foot above the deck, so constructed that a door or window in such house may at all times be left open for ventilation; and all vessels so employed, and having the capacity to carry 150 such passengers or more, shall have 2 such houses; and the stairs or ladder leading down to the aforesaid apartment shall be furnished with a hand-rail of wood or strong rope; but booby hatches may be substituted for such houses. — § 3.

And every such vessel so employed, and having the legal capacity for more than 100 such passengers, shall have at least 2 ventilators to purify the apartment or apartments occupied by such passengers; 1 of which shall be inserted in the after part of the apartment or apartments, and the other shall be placed in the forward portion of the apartment or apartments, and one of them shall have an exhausting cap to carry off the foul air, and the other a receiving cap to carry down the fresh air; which said ventilators shall have a capacity proportioned to the size of the apartment or apartments to be purified; namely, if the apartment or apartments will lawfully authorise the reception of 200 such passengers, the capacity of such ventilators shall each be equal to a cube of 12 inches diameter in the clear, and in proportion for larger or smaller apartments; and all said ventilators shall rise at best 4 feet 6 inches above the upper deck of any such vessel, and be of the most approved form and construction; but if it shall appear, from the report to be made and approved, as herein-after provided, that such vessel is equally well ventilated by any other means, such other means of ventilation shall be deemed and held to be a compliance with the provisions of this section. — § 4.

And every vessel carrying more than 50 such passengers shall have for their use on deck, housed and conveniently arranged, at least one camboose or cooking range, the dimensions of which shall be equal to 4 feet long and 1 foot 6 inches wide for every 200 passengers; and provision shall be made in the manner aforesaid, in this ratio, for a greater or less number of passengers; but nothing herein contained shall take away the right to make such arrangements for cooking between decks, if that shall be deemed desirable. — § 5.

And all vessels employed as aforesaid shall have on board, for the use of such passengers, at the time of leaving the last port whence such vessel shall sail, well secured under deck, for each passenger, at least 20 pounds of good navy bread, 15 pounds of rice, 15 pounds of oatmeal, 10 pounds of wheat flour, 15 pounds of peas and beans, 20 pounds of potatoes, 1 pint of vinegar, 60 gallons of fresh water, 10 pounds of salted pork, and 10 pounds of salt beef, free of bone, all to be of good quality; but at places where either rice, oatmeal, wheat flour, or peas and beans, cannot be procured, of good quality, and on reasonable terms, the quantity of either or any of the other last-named articles may be increased and substituted therefor; and in case potatoes cannot be procured on reasonable terms, 1 pound of either of said articles may be substituted in lieu of 5 pounds of potatoes; and the captains of such vessels shall deliver to each passenger at least one-tenth part of the aforesaid provisions weekly, commencing on the day of sailing, and at least 3 quarts of water daily; and if the passengers on board of any such vessel in which the provisions and water herein required shall not have been provided as aforesaid, shall at any time be put on short allowance during any voyage, the master or owner of any such vessel shall pay to each and every passenger who shall have been put on short allowance, the sum of 3 dollars for each and every day they may have been put on short allowance, to be recovered in the circuit or district court of the U. States; and it shall be the duty of the captain or master of every such ship or vessel to cause the food and provisions of all the passengers to be well and properly cooked daily, and to be served out and distributed to them at regular and stated hours, by messes, or in such other manner as shall be deemed best and most condusive to the health and comfort of such passengers, of which hours and manner of distribution due and sufficient notice shall be given. If the captain or master of any such ship or vessel shall wilfully fail to furnish and distribute such provisions, cooked as aforesaid, he shall be deemed

guilty of a misdemeanor, and upon conviction thereof before any circuit or district court of the U. States, shall be fined not more than 1000 dollars, and shall be imprisoned for a term not exceeding 1 year, provided that the enforcement of this penalty shall not affect the civil responsibility of the captain or master and owners to such passengers as may have suffered from said default.—§ 6.

And the captain of any such vessel so employed, is hereby authorised to maintain good discipline and such habits of cleanliness among such passengers as will tend to the preservation and promotion of health; and to that end he shall cause such regulations as he may adopt for this purpose to be posted up before sailing on board such vessel, in a place accessible to such passengers, and shall keep the same so posted up during the voyage; and it is hereby made the duty of said captain to cause the apartments occupied by such passengers to be kept at all times in a clean, healthy state, and the owners of every such vessel so employed are required to construct the decks, and all parts of said apartment, so that it can be thoroughly cleansed; and they shall also provide a safe, convenient privy or water-closet for the exclusive use of every 100 such passengers. And when the weather is such that said passengers cannot be mustered on deck with their bedding, it shall be the duty of the captain of every such vessel to cause the deck occupied by such passengers to be cleansed with chloride of lime, or some other equally efficient disinfecting agent, and also at such other times as said captain may deem necessary.—§ 7.

And the master and owner or owners of any such vessel so employed, which shall not be provided with the house or houses over the passageways, as prescribed in the third section of this chapter, or with ventilators, as prescribed in the fourth section of this chapter, or with the cambooses or cooking ranges, with the houses over them, as prescribed in the fifth section of this chapter, shall severally forfeit and pay to the U. States the sum of 200 dollars for each and every violation of, or neglect to conform to, the provisions of each said sections; and 50 dollars for each and every neglect or violation of any of the provisions of the seventh section of this chapter, to be recovered by suit in any circuit or district court of the U. States, within the jurisdiction of which the said vessel may arrive, or from which she may be about to depart, or at any place within the jurisdiction of such courts, wherever the owner or owners, or captain of such vessel may be found.—§ 8.

And the collector of the customs at any port of the U. States at which any vessel so employed shall arrive, or from which any such vessel shall be about to depart, shall appoint and direct one or more of the inspectors of the customs for each port to examine such vessel, and report in writing, to such collector, whether the requirements of law have been complied with in respect to such vessel; and if such report shall state such compliance, and shall be approved by such collector, it shall be deemed and held as *primâ facie* evidence thereof.—§ 9.

And the provisions, requisitions, penalties, and liens of this Act, relating to the space in vessels appropriated to the use of passengers are hereby extended and made applicable to all spaces appropriated to the use of steerage passengers in vessels propelled, in whole or in part, by steam, and navigating from, to, and between the ports, and in manner as in this Act named, and to such vessels and to the masters thereof; and so much of the Act entitled, "An Act to amend an Act entitled, 'An Act to provide for the better security of the lives of passengers on board of vessels propelled in whole or in part, by steam, and for other purposes,'" approved Aug. 30, 1852, as conflicts with this Act, is hereby repealed; and the space appropriated to the use of steerage passengers in the vessels so as above propelled and navigated, is hereby subjected to the supervision and inspection of the collector of the customs at any port of the U. States at which any such vessel shall arrive, or from which she shall be about to depart; and the same shall be examined and reported in the same manner and by the same officers, by the next preceding section directed to examine and report.—§ 10.

And the vessels bound from any port in the U. States to any port or place in the Pacific Ocean, or on its tributaries, or from any such port or place to any port in the U. States on the Atlantic or its tributaries, shall be subject to the foregoing provisions regulating the carriage of passengers in merchant vessels, except so much as relates to provisions and water; but the owners and masters of all such vessels shall in all such cases furnish to each passenger the daily supply of water therein mentioned; and they shall furnish a sufficient supply of good and wholesome food, properly cooked; and in case they shall fail so to do, or shall provide unwholesome or unsuitable provisions, they shall be subject to the penalty provided in the sixth section of this chapter, in case the passengers are put on short allowance of water or provisions.—§ 11.

And the captain or master of any ship or vessel arriving in the U. States, or any of the territories thereof, from any foreign place whatever, at the same time that he delivers a manifest of the cargo, and if there be no cargo, then at the time of making report or entry of the ship or vessel, pursuant to law, shall also deliver and report to the collector of the district in which such ship or vessel shall arrive, a list or manifest of all the passengers taken on board of the said ship or vessel at any foreign port or place, in which list or manifest it shall be the duty of the said master to designate, particularly, the age, sex, and occupation of the said passengers, respectively, the part of the vessel occupied by each during the voyage, the country to which they severally belong, and that of which it is their intention to become inhabitant; and shall further set forth whether any, and what number, have died on the voyage; which list or manifest shall be sworn to by the said master, in the same manner as directed by law in relation to the manifest of the cargo, and the refusal or neglect of the master aforesaid to comply with the provisions of this section, or any part thereof, shall incur the same penalties, disabilities, and forfeitures as are provided for a refusal or neglect to report and deliver a manifest of the cargo aforesaid.—§ 12.

And each and every collector of the customs, to whom such manifest or list of passengers as aforesaid shall be delivered, shall quarterly return copies thereof to the Secretary of State of the U. States, by whom statements of the same shall be laid before Congress at each and every session.—§ 13.

And in case there shall have occurred on board any ship or vessel arriving at any port or place within the U. States or its territories any death or deaths among the passengers (other than cabin passengers), the master or captain, or owner or consignee of such ship or vessel shall, within twenty-four hours after the time within which the report and list of manifest of passengers mentioned in § 12 of this Act is required to be delivered to the collector of the customs, pay to the said collector the sum of 10 dollars for each and every passenger above the age of 8 years who shall have died on the voyage by natural disease; and the said collector shall pay the money thus received at such times and in such manner as the Secretary of the Treasury by general rules shall direct, to any board or commission appointed by, and acting under the authority of, the State within which the port where such ship or vessel arrived is situated, for the care and protection of sick, indigent, or destitute emigrants, to be applied to the objects of their appointment; and if there be more than one board or commission who shall claim such payment, the Secretary of the Treasury for the time being shall determine which is entitled to receive the same, and his decision in the premises shall be final and without appeal—provided, that the payment shall in no case be awarded or made to any board or commission or association formed for the protection or advancement of any particular class of emigrants, or emigrants of any particular nation or creed; and if the master, captain, owner, or consignee of any ship or vessel, refuse or neglect to pay the collector the sum and sums of money required, and within the time prescribed by this section, he or they shall severally forfeit and pay the sum of 50 dollars in addition to such sum of 10 dollars for each and every passenger upon whose death the same has become payable, to be recovered by the U. States in any circuit or district court of the U. States where such vessel may arrive, or such master, captain, owner, or consignee may reside; and when recovered, the said money shall be disposed of in the same

manner as is directed with respect to the sum and sums required to be paid to the collector of customs.—§ 14.

And the amount of the several penalties imposed by the foregoing provisions, regulating the cariarge of passengers in merchant vessels, shall be liens on the vessel or vessels violating those provisions, and each vessel or vessels shall be libelled therefor in any circuit or district court of the U. States where such vessel or vessels shall arrive.—§ 15.

And all and every vessel or vessels which shall or may be employed by the American Colonisation Society, or the colonisation society of any State, to transport, and which shall actually transport, from any port or ports of the U. States to any colony or colonies on the west coast of Africa, coloured emigrants to reside there, shall be, and the same are hereby, subjected to the operation of the foregoing provisions regulating the carriage of passengers in merchant vessels.—§ 16.

And the collector of the customs shall examine such emigrant ship or vessel on its arrival at his port, and ascertain and report to the Secretary of the Treasury, at the time of sailing, the length of the voyage, the ventilation, the number of passengers, their space on board, their food, the native country of the emigrants, the number of deaths, the age and sex of those who died during the voyage, together with his opinion of the cause of the mortality, if any, on board, and if none, what precautionary measures, arrangements, or habits, are supposed to have had any, and what agency in causing the exemption.—§ 17.

And this Act shall take effect, with respect to vessels sailing from ports in the U. States, on the eastern side of the continent, within 30 days from the time of its approval; and, with respect to vessels sailing from ports in the U. States, on the western side of the continent, and from ports in Europe, within 60 days from the time of its approval; and, with respect to vessels sailing from ports in other parts of the world, within 6 months from the time of its approval: And it is hereby made the duty of the Secretary of State to give notice in the ports of Europe and elsewhere, of this Act, in such manner as he shall deem proper.—§ 18.

And from and after the time that this Act shall take effect with respect to any vessels, in respect to such vessels, the Act of 2nd March, 1819, entitled "An Act regulating passenger ships and vessels," the Act of 22nd February, 1847, entitled "An Act to regulate the carriage of passengers in merchant vessels," the Act of 2nd March, 1847, entitled "An Act to amend an Act entitled 'An Act to regulate the carriage of passengers in merchant vessels,' and to determine the time when said Act shall take effect," the Act of 31st January, 1848, entitled "An Act exempting vessels employed by the American Colonisation Society in transporting coloured emigrants from the U. States to the coast of Africa from the provisions of the Acts of 22nd February and 2nd March, 1847, regulating the carriage of passengers in merchant vessels." the Act of 17th May, 1848, entitled "An Act to provide for the ventilation of passenger vessels, and for other purposes," and the Act of 3rd March, 1849, entitled "An Act to extend the provisions of all laws now in force relating to the carriage of passengers in merchant vessels, and the regulation thereof," are hereby repealed: But nothing in this Act contained shall in anywise obstruct or prevent the prosecution, recovery, distribution, or remission of any fines, penalties, or forfeitures which may have been incurred in respect to any vessels prior to the day this Act goes into effect, in respect to such vessels under the laws hereby repealed, for which purpose the said laws shall continue in force.

But the Secretary of the Treasury may, in his discretion, and upon such conditions as he shall think proper, discontinue any such prosecution, or remit or modify such penalties.—§ 19.

Chinese Passenger Ships.—Our readers are aware that there is at present (1855), and that there has been for some considerable time past, an extensive emigration from China to California and Australia. This emigration (especially that to Australia) has been principally carried on in British ships; and the abuses connected therewith have been such as to attract the attention of Parliament, which has been induced, in the view of putting them down, to enact the following statute:—

ACT FOR THE PREVENTION OF ABUSE IN CHINESE PASSENGER SHIPS, AND THEIR REGULATION.
18 & 19 VICT. c. 104.

Clause 1. defines the terms used in the act.

Clause 2nd authorises the legislature of Hong Kong to make regulations respecting passenger ships, providing that until such regulations be made those contained in the annexed schedule A. shall be in force: provided always, that no ordinance shall come into operation until H. M.'s confirmation of the same shall have been proclaimed in Hong Kong by the governor thereof.

Governor of Hong Kong to declare Length of Voyages.—It shall be lawful for the governor of Hong Kong to declare, by proclamation, for the purposes of this Act and of the said regulations, what shall be deemed to be the duration of the voyage of any Chinese passenger ship, and by such proclamation to alter the scales of dietary, medicines, and medical comforts contained in the annexed schedule A.—§ 3.

No Chinese Passenger Ship to clear out on Voyage of more than 7 Days without, &c.—No Chinese passenger ship shall clear out or proceed to sea on any voyage of more than 7 days' duration until the master thereof have received from an emigration officer a copy of the aforesaid regulations, and a certificate in the form contained in the annexed schedule B., or in such other form as may be prescribed by the legislature, which copy and certificate, with any documents to be attached thereto (herein designated as emigration papers), shall be signed by the said emigration officer, nor until the master shall, with two sufficient sureties, to be approved by the said emigration officer, have entered into a joint and several bond in the sum of 1000*l.* to H. M., her heirs and successors, in such form as may be prescribed by the said legislature.—§ 4.

Penalty of Bond, when recoverable.—The said penal sum of 1000*l.* shall be due and recoverable notwithstanding any penalty or forfeiture imposed by this Act or by the aforesaid regulations, and whether such penalties or forfeitures shall have been sued for and recovered or not.—§ 5.

Clause 6. authorises the commanders of ships of war, &c. to search ships, require production of papers, &c.

Penalty for neglect to comply with Regulations, &c.—In case of any neglect or refusal to comply with any of the provisions of this Act or any of the regulations aforesaid, or to perform any stipulation in any of the contracts made with passengers, the master of the ship, and any other person who may have been guilty of or have aided or abetted such neglect or refusal, shall each be deemed for each offence guilty of a misdemeanor.—§ 7.

Ship to be forfeited for clearing without Emigration Papers, &c.—If any Chinese passenger ship clears out or proceeds to sea on any voyage exceeding 7 days in duration without such emigration papers as aforesaid, or if the emigration papers of any Chinese passenger ship are forged or fraudulently altered, such ship shall, if she is a British ship, or if, not being a British ship, the offence is committed and the ship is seized in H. M.'s dominions or in the territories of the E. I. Company, be forfeited to H. M.—§ 8.

Penalties in addition to Forfeiture.—Every person who commits or aids or abets in committing any act or default by which any Chinese passenger ship may become liable to forfeiture shall be liable to a penalty not exceeding 100*l.* for each offence.—§ 9.

The following clauses refer to the mode of enforcing and applying forfeitures.

SCHEDULE A.

Regulations respecting Chinese Passenger Ships.

Note.—The wilful and fraudulent breach of any of these regulations by the person in charge of any Chinese passenger ship is punishable by forfeiture of the ship, and every person concerned in such breach is liable to a fine of 100*l.* for each offence.

I. No Chinese passenger ship shall clear out or proceed to sea on any voyage of more than 7 days' duration without a certificate from an emigration officer; and such certificate shall be in the annexed form.

II. No emigration officer shall be bound to give such certificate in respect of any Chinese passenger ship till 7 days after receiving notice that the ship is to carry passengers, and of her destination, and of her proposed day of sailing, but unless there are on board a surgeon and an interpreter approved by such emigration officer.

III. After receiving such notice the emigration officer shall be at liberty at all times to enter and inspect the ship, and the fittings, provisions, and stores therein, and any person impeding him in such entry or inspection, or refusing to allow of the same, shall be liable to a fine of not more than 100*l.* for each offence.

IV. The emigration officer shall not give his certificate unless he be satisfied,—

(1.) That the ship is sea-worthy, and properly manned, equipped, fitted, and ventilated; and has not on board any cargo likely from its quality, quantity, or mode of stowage, to prejudice the health or safety of the passengers:

(2.) That the space appropriated to the passengers in the 'tween decks contains at the least 12 superficial and 72 cubical feet of space for every adult on board; that is to say for every passenger above 12 years of age, and for every two passengers between the ages of 1 year and 12 years.

(3.) That a space of 5 superficial feet per adult is left clear on the upper deck for the use of the passengers:

(4.) That provisions, fuel, and water have been placed on board, of good quality, properly packed, and sufficient to supply the passengers on board during the declared duration of the intended voyage, according to the following scale:

Dietary Scale.

Rice	lbs.	1½ per diem.
Salted Provisions,—		
Who'ly pork; or		
⅔ pork and ⅓ fish; or	,,	½ do.
⅓ pork, ⅓ beef, and ⅓ fish		
Salted vegetables or pickles	,,	½ do.
Water, imperial quarts		3 do.
Firewood	lbs.	2 do.
Tea	oz.	½ do.

(5.) That medicines and medical comforts have been placed on board according to the following scale:

For every 100 passengers, and in like proportion for any greater or less number.

Calomel	3 oz.
Blue pill	2 ,,
Rhubarb powder	2 ,,
Compound jalap powder	12 ,,
Ipecacuanha powder	12 ,,
Opium	2 ,,
Dover's powder	2 ,,
Magnesia	2 ,,
Epsom salts	6 lbs.
Chloride of lime	20 ,,
Tartar emetic	4 drams.
Quinine	2 oz.
Antimonial powder	0½ ,,
Extract of colocynth, compound	1 ,,
Carbonate of ammonia	1½ ,,
Assafœtida	1 ,,
Camphor	1½ ,,
Camphorated liniment	16 ,,
Catechu	2 ,,
Prepared chalk	2 ,,
Tincture of opium	8 ,,
Turpentine	16 ,,
Senna leaves	8 ,,
Blistering plaister	8 ,,
Sulphur, sublimed	16 ,,
Sulphur, ointment	12 ,,
Linseed flour	4 lbs.
Country soap	24 oz.
Castor oil	6 bottles.
Oil of peppermint	2 oz.
Adhesive plaister, spread	2 yards.
Simple ointment	16 oz.
Ringworm ointment	16 ,,
Jeremie's opiate	2 oz. phial.
Aromatic spirits of hartshorn	4 ,,
Cholera pills in phial	12 drams.
Cubebs powder	4 lbs.
Sweet spirits of nitre	16 oz.
Copaiba	16 ,,
Sulphate of copper	2 ,,
Sulphate of zinc	1 oz.
Lunar caustic	4 drams.
Lime juice	36 quarts.
Rum or brandy	36 ,,

Instruments, &c.

1 Set of amputating and other surgical instruments (if there be any person on board competent to use them).
1 One ounce glass measure.
1 Minim glass measure.
1 Pestle and mortar (Wedgewood).
1 Set of weights and scales (grains in box).
1 Set of common splints.
1 Set of bleeding lancets.
1 Silver catheter.
1 Spatula.
1 Dressing scissors.
1 Infusion box.
1 Quire of country paper.
1 Penknife.
2 Metal bed pans.
2 Trusses for hernia, right and left.
2 Small syringes.
4 Ounces prepared lint.
2 Pieces cloth for bandages.

V. The master of any Chinese passenger ship being a British ship and proceeding on a voyage of more than 7 days' duration shall, during the whole of the intended voyage, make issues of provisions, fuel, and water, according to the aforesaid dietary scale, and shall not make any alteration, except for the manifest advantage of the passengers, in respect of the space allotted to them as aforesaid, or in respect of the means of ventilation, and shall not ill-use the passengers or require them (except in case of necessity) to help in working the vessel; and shall issue medicines and medical comforts, as shall be requisite, to the best of his judgment, and shall call at such ports as may be mentioned in the emigration officer's clearing certificate for fresh water and other necessaries; and shall carry them without unnecessary delay to the destination to which they have contracted to proceed.

VI. The emigration officer shall not give his certificate until he has mustered the passengers, and ascertained to the best of his power that they understand whither they are going, and comprehend the nature of any contracts of service which they have made; he shall also take care that a copy of the form of such contracts, or an abstract of their substance, signed by himself, is appended to the said certificate: if any of the passengers are in bad health, or insufficiently provided with clothing, or if the contracts are unfair, or if there is reason to suspect that fraud or violence have been practised in their collection or embarkation, he may detain the ship, and, if he shall think fit, may order all or any of the passengers to be re-landed.

SCHEDULE B.

Emigration Officer's Certificate, &c.

I hereby authorise the Chinese passenger ship to proceed to sea for the port of in ; and I certify that the said ship can legally carry adults, and that there are on board passengers, making in all adults, viz., men, women, male children, and female children, such children being between the ages of 1 and 12 years: that the space set apart and to be kept clear for the use of such emigrants is as follows:—On the upper deck, superficial feet, being [*here describe the space*], and in the between decks superficial feet, being [*here describe the space*]; that the ship is properly manned and fitted, and that the means of ventilating the part of the between decks appropriated to passengers are as follows [*here describe the means of ventilation*]; that the ship is furnished with a proper quantity of good provisions, fuel, and water for days issues to the passengers according to the * annexed dietary scale, and with a proper quantity of medicines, instruments, and medical comforts according to the * annexed scale of medical necessaries; that I have inspected the contracts between the emigrants and their intended employers (the terms of which are annexed to this certificate), and consider them reasonable; that no fraud appears to have been practised in collecting the emigrants; and that there are on board a surgeon † [and interpreter] approved by me, and designated [respectively and]

‡ [The master of the ship is to put into and for water and fresh vegetables.].

(Signed)
Emigration Officer.

Dated this day of 18

* These scales must be those prescribed by the regulations in schedule A.

† In case the ship has been authorised to proceed without an interpreter, omit the part between brackets, and add "and that the ship has been authorised to proceed without an interpreter."

‡ The part between brackets is to be inserted or not, as may be required.

Exclusive of the statutes and regulations now referred to, and in cases to which they may not apply, the relation between masters of ships and passengers is governed by the general rules of maritime law. "Whatever," says Lord Tenterden, "is necessary for the security of the vessel, the discipline of the crew, the safety of all on board, the master may lawfully require, not only of the ships' company who have expressly contracted to obey him, but of those also whom he has engaged to carry to their destination on the implied condition of their submission to his rule." (*Law of Shipping*, part ii. cap. 8. p. 180, Shee's ed. 1854.) Hence in certain cases, such as those of imminent

peril, from whatever cause arising, passengers are to be considered as a portion of the crew, and may be called upon to contribute by their exertions to the safety of the ship and cargo. And in the event of their refusing so to act, they make themselves amenable to such reasonable punishment as the captain may choose to inflict. A passenger is not, however, bound to remain on board ship in the hour of danger, but may quit it if he have an opportunity; and he is not required to take upon himself any responsibility as to the *conduct* of the ship. If he incur any responsibility, and perform extraordinary services in relieving a vessel in distress, he is entitled to a corresponding reward. The goods of passengers contribute to general average; and their conduct should in all cases be such as may be consistent with the good order and discipline of the ship. They are not to set a bad example to the crew, or excite a spirit of insubordination, but to assist in maintaining the just and proper authority of the captain. The latter, however, in repressing disorder and improper conduct on the part of passengers, should act with much circumspection, and exercise his authority within the limits required by the exigencies of the case. His conduct in regard to passengers is always viewed with considerable jealousy; and though the courts of law will support him in the exercise of his authority when circumstances require it, they will not go beyond what is necessary; much less support him in any wanton or oppressive exercise of his authority. (See Tenterden, in *loco citato;* Holt's *Navigation Laws*, 2nd ed. p. 425, &c.)

PATENT, a privilege from the Crown granted by letters patent (whence the name), conveying to the individual or individuals specified therein the sole right to make, use, or dispose of some new invention or discovery, for a certain specified period.

The power to grant patents seems to exist at common law; but it is limited and defined by the famous statute 21 Jac. I. c. 3., which enacts, "That any declaration before mentioned shall not extend to any letters patent and grants of privilege for the term of 14 years or under, thereafter to be made, of the sole working or making of any manner of new manufactures within this realm, to the *true and first* inventor and inventors of such manufactures, which others at the time of making such letters patent and grants shall not use, so as also they be not contrary to the law, nor mischievous to the state, by raising prices of commodities at home, or hurt of trade, or generally inconvenient. The said 14 years to be accounted from the date of the first letters patent, or grant of such privilege thereafter to be made; but that the same shall be of such force as they should be if that act had never been made, and none other."

Policy of Patents.—The law with respect to patents is unavoidably encumbered with several difficulties. The expediency of granting patents has been disputed; though, as it would seem, without sufficient reason. Were they refused, the inducement to make discoveries would, in many cases, be very much weakened; at the same time that it would plainly be for the interest of every one who made a discovery to endeavour, if possible, to conceal it. And notwithstanding the difficulties in the way of concealment, they are not insuperable; and it is believed that several important inventions have been lost, from the secret dying with their authors. On the other hand, it is not easy to decide as to the term for which the patent, or exclusive privilege, should be granted. Some have proposed that it should be made perpetual; but this would be a very great obstacle to the progress of improvement, and would lead to the most pernicious results. Perhaps the term of 14 years, to which the duration of a patent is limited in England, is as proper a one as could be suggested. It may be too short for some inventions, and too long for others; but, on the whole, it seems a pretty fair average.

Specification.—Previously to the reign of Queen Anne, it was customary to grant patents without any condition, except that they should be for really new inventions. But a condition was then introduced into all patents, and is still retained, declaring that if the inventor did not, by an instrument under his hand and seal, denominated a specification, *particularly describe* and ascertain the nature of his invention, and in what manner the same is to be performed, and also cause the same to be enrolled in Chancery within a certain time (generally a month), the letters patent, and all liberties and advantages whatever thereby granted, should utterly cease and become void. This was a very judicious regulation. It secured the invention from being lost; and the moment the patent expired, every one was in a situation to profit by it. The deliverance of the specification is now made precedent to granting the letters patent; and they will not be granted unless it be distinct and explicit.

Letters patent were formerly obtained upon petition and affidavit to the Crown setting forth that the petitioner had, after great labour and expense, made a certain discovery, which, he believed, would be of great public utility; and that he was the first inventor. The petition was then referred to the Attorney and Solicitor-General, who were separately attended by the applicant and all competitors if there were any.

But it was found that this was a very clumsy and inconvenient mode of proceeding; and after a great many abortive attempts at legislation, it was enacted in 1852, by the

Patent Law Amendment Act, the 15 & 16 Vict. c. 83., that the Lord Chancellor, the Master of the Rolls, the Attorney and Solicitor-General for England, the Lord Advocate and Solicitor-General for Scotland, and the Attorney and Solicitor-General for Ireland for the time being, with such persons as may from time to time be appointed by H. Majesty, should be commissioners of patents for inventions. The vice of the former system had been that the law officers of the Crown were the sole judges of what patents should or should not be granted. But whatever their ability as lawyers, these gentlemen might not have the scientific or peculiar knowledge required to decide in numerous patent cases; and such being the authority under which patents were granted, we need not wonder at the numbers of them which were overthrown. Now, however, parties distinguished for their scientific attainments may be named commissioners of patents; and it may fairly be presumed that their opinions will have considerable influence in deciding whether they should or should not be granted.

Mode of applying for Patents.—Persons applying for letters patent present petitions to the Commissioners, accompanied by a declaration and a provisional specification. The object of the latter is to state distinctly the nature of the invention; and if properly made, it secures the inventor in his invention for a period of 6 months, when he may proceed to apply for and take out letters patent. The application for the letters must be advertised in the Gazette. Parties who suppose they have a right to object to the letters patent being issued, may then, if they think fit, come forward; and their objections being heard and decided upon, the letters are either granted or refused. The peculiar forms to be observed, and the routine to be followed on applications of this sort, may be learned from the compendious treatises of Webster and Norman on the new patent law.

Formerly letters patent had to be separately taken out for England, Scotland, and Ireland. Now, however, the same patent serves for the whole U. Kingdom, and the expenses have been greatly diminished.

Caveats used formerly to be lodged at the offices of the Attorney and Solicitor-General describing inventions in general terms, and requiring notice to be given to the person entering the caveat, when application was made for a patent for a like invention, but this practice has been abolished, and caveats are no longer allowed to be lodged. Those who mean to contest patents, or who are afraid of the encroachments of others, must, consequently, keep a watchful eye upon the notices in the Gazette, as they afford the only information in regard to the claims made for patents.

General Conditions as to Patents.—The *novelty* and *utility* of the invention are essential to the validity of a patent; if it can be shown to have been in use previously to the grant of the patent, or to be of no utility, it will be void. It must also be for something vendible—something "material and useful made by the hands of man."—(*Lord Kenyon*, 8 T. R. 99.) A philosophical principle only, neither organised, nor capable of being so, is no ground for a patent; because it is an element and rudiment of science, and which, till applied to some new production from these elements, cannot, with justice to other inventors, be applied to the exclusive use of any one of them. In all patents there is required, in the words of Lord Tenterden, "something of a *corporeal or substantial nature*, something that *can be made* by man from the matters subjected to his art and skill, or at the least some *new mode of employing practically his art and skill.*"—(*Godson on the Law of Patents*, p. 81.) Previously to Lord Tenterden, it had been ruled that a new process or method was not the subject of a patent. But his Lordship having suggested that "the word manufacture (in the statute) may, perhaps, extend to a *new process* to be carried on by known implements, or elements acting upon known substances, and ultimately producing some other known substance, &c."—(*Godson*, p. 83.)—this principle of interpretation has now been adopted.

A patent for a machine, each part of which was in use before, but in which the *combination* of the different parts is *new*, and *a new result* is obtained, is valid. But, in order to its being valid, the specification must clearly express that it is in respect of such new combination or application, and of that only; and not lay claim to original invention in the use of the materials.

A patent may be granted for an addition to an old invention. But the patent must be *confined to the addition* or improvement, that the public may purchase it without being encumbered with other things. If the patent include the whole, it will be void; for the property in the addition or improvement can give no right to the thing that has been improved.—(*Godson*, p. 71.)

A valid patent may be obtained for an invention, "*new in this realm*," though it may have been previously practised in a foreign country.

A patent is void, if it be for several distinct inventions, and *any one of them* fail of originality.

The specification must be prepared with *great care*. It should set forth the invention fully and correctly. The terms used must be clear and unambiguous; no

necessary description must be omitted nor what is unnecessary be introduced; and the invention must be described in the *best and most improved state* known to the inventor. If any one of these conditions be not complied with, the patent will be void. Any inaccurate or defective statement, were it even inserted through inadvertency, will vitiate the whole.

An injunction may be obtained for the infringement of a patent, in the same way as for a violation of the copyright acts.

Patents have been sometimes extended by act of parliament beyond the term of 14 years, on the ground that the term was too short properly to reward the inventor.

We subjoin the forms referred to in the Patent Act, the *15 & 16* Vict. c. 83.

No

PETITION.

To the Queen's most excellent Majesty.

The humble petition of [*here insert name and address of petitioner*] for, &c.

Sheweth, — That your petitioner is in possession of an invention for

[*the title of the invention,*]

which invention he believes will be of great public utility: that he is the true and first inventor thereof; and that the same is not in use by any other person or persons, to the best of his knowledge and belief.

Your petitioner therefore humbly prays, that your Majesty will be pleased to grant unto him, his executors, administrators, and assigns, your royal letters patent for the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man [*colonies to be mentioned, if any*], for the term of fourteen years, pursuant to the statutes in that case made and provided.

And your petitioner will ever pray, &c.

No.

DECLARATION.

I of in the county of do solemnly and sincerely declare, That I am in possession of an invention for, &c.

[*the title as in petition,*]

which invention I believe will be of great public utility; that I am the true and first inventor thereof; and that the same is not in use by any other person or persons, to the best of my knowledge and belief; [*where a complete specification is to be filed with the petition and declaration, insert these words:* — "and that the instrument in writing under my hand and seal, hereunto annexed, particularly describes and ascertains the nature of the said invention and the manner in which the same is to be performed;] and I make this declaration conscientiously believing the same to be true, and by virtue of the provisions of an act made and passed in the session of parliament held in the fifth and sixth years of the reign of his late Majesty King William IV., intituled "An Act to repeal an Act of the present Session of Parliament, intituled 'An Act for the more effectual abolition of Oaths and Affirmations taken and made in various Departments of the State, and to substitute Declarations in lieu thereof, and for the more entire Suppression of voluntary and extra-judicial Oaths and Affidavits,' and to make other Provisions for the Abolition of unnecessary Oaths." *A. B.*

Declared at this day of A. D. before me,

A Master in Chancery, *or* Justice of the Peace.

No.

PROVISIONAL SPECIFICATION.

I do hereby declare the nature of the said invention for

[*insert title as in petition,*]

to be as follows:—

[*here insert description.*]

Dated this day of A. D.

(*To be signed by applicant or his agent.*)

REFERENCE.

(*To be endorsed on the Petition.*)

Her Majesty is pleased to refer this petition to to consider what may be properly done therein.

, Clerk of the Commissioners.

WARRANT.

In humble obedience to her Majesty's command referring to me the petition of of , to consider what may be properly done therein, I do hereby certify as follows: That the said petition sets forth that the petitioner

[*Allegations of the petition.*]

And the petitioner most humbly prays,

[*Prayer of the petition.*]

That in support of the allegations contained in the said petition the declaration of the petitioner has been laid before me, whereby he solemnly declares, that

[*Allegations of the declaration,*]

That there has also been laid before me [a provisional specification signed , and also a certificate ,] *or* [a complete specification, and a certificate of the filing thereof,] whereby it appears that the said invention was provisionally protected [*or* protected] from the day of A. D. in pursuance of the statute:

That it appears that the said application was duly advertised.

Upon consideration of all the matters aforesaid, and as it is entirely at the hazard of the said petitioner whether the said invention is new or will have the desired success, and as it may be reasonable for her Majesty to encourage all arts and inventions which may be for the public good, I am of opinion: that her Majesty may grant her royal letters patent unto the petitioner, his executors, administrators, and assigns, for his said invention within the U. K. of Great Britain and Ireland, the Channel Islands, and Isle of Man [*colonies to be mentioned, if any*], for the term of fourteen years, according to the statute in that case made and provided, if her Majesty shall be graciously pleased so to do, to the tenor and effect following: viz.

Given under my hand, this day of A. D.

Seal of the Commissioners.

The letters patent are then issued.

The schedule of fees charged on applying for or taking out letters patent, in the 15 & 16 Vict. c. 83., has been repealed, and the following stamp duties have been imposed in their stead, 16 Vict. c. 5.

Schedule of Stamp Duties.

	£	s.	d.
On petition for grant of letters patent	5	0	0
On certificate of record of notice to proceed	5	0	0
On warrant of law officer for letters patent	5	0	0
On the sealing of letters patent	5	0	0
On specification	5	0	0
On the letters patent, or a duplicate thereof, before the expiration of the third year	50	0	0
On the letters patent, or a duplicate thereof, before the expiration of the seventh year	100	0	0
On certificate of record of notes of objection	2	0	0
On certificate of every search and inspection	0	1	0
On certificate of entry of assignment or licence	0	5	0
On certificate of assignment or licence	0	5	0
On application for disclaimer	5	0	0
On caveat against disclaimer	2	0	0
On office copies of documents, for every 90 words	0	0	2

The reader will find a great deal of curious and instructive information with respect to patents, in the *Report of the Committee of the House of Commons* on that subject (No. 332. Sess. 1829), particularly in the evidence and papers laid before the Committee by Mr. Farey. The treatise on the *Law of Patents and Copyrights*, by Mr. Godson, and the late treatise on the *Law of Patents*, by Mr. Norman, are clear and able.

PATRAS, OR PATRASSO, a sea-port in the N. W. corner of the Morea, near the entrance of the Gulph of Lepanto, lat. 38° 14′ 25″ N., lon. 21° 46′ 20″ E. Population, in 1856, 19,499.

The port lies a little to the northward of the town; but the part fronting it is unsafe, and exposed to heavy seas, particularly in winter. Vessels, therefore, go a little farther up the gulph, where there is a mole or quay, and where they can lie close to the wharf. Patras has a more extensive trade than any other port of Greece. The principal exports are currants, oil, valonia, wine, raw silk, raw cotton, grain, wool, skins, wax, &c. Of these, currants are by far the most important. The fruit is larger, and freer from sand and gravel, than that of the Ionian Islands. They are shipped in casks of various sizes; but as the weight of the cask is included in that of the fruit, it is said to be, for the most part, heavier and stronger than necessary. Morea currants are preferred in most countries, except England; but here the currants of Zante are held in equal, or perhaps greater, estimation. The export of currants from Patras may, in good seasons, average from 150,000 to 200,000 cwts. a year. Hitherto the produce of the crop has varied extremely in different seasons. But within the last few years it

has been found that through the judicious application of sulphur in the cultivation of the plant, the attacks of blight are obviated, and the security of the crop greatly increased. The entire produce of currants in Greece may at present (1859) be estimated at from 18,500 to 20,000 tons. In 1857 we imported 398,849 cwt. currants, of which 263,426 cwt. came from Greece, by far the greater portion being shipped at Patras. The crops of oil, the next great article of export from Patras, are even more fluctuating than those of currants formerly were. The imports at Patras, as at the other Greek ports, consist principally of sugar, coffee, and other colonial products; plain and printed cotton stuffs, woollen goods, salted fish, iron, tin plates, hardware, coal, cordage, hemp, deals, &c. Imported articles are brought principally from the Ionian Islands, Malta, Venice, Leghorn, Marseilles, and Trieste; but, from the want of authentic details, it is quite impossible to form any perfectly accurate estimate of their amount either as respects Patras, or any other Greek port. The consul, Mr. Wood, gives the following

Statement of British Shipping and Trade at the Port of Patras during each of the 5 Years ending with 1857; and of the Foreign Shipping, &c., in 1857.

	Year.	Vessels.	Tonnage.	Imports.	Exports.	Remarks.
	1853	86	12,524	£34,484	£134,639	24 from England and 9 Malta.
	1854	52	8,690	25,582	67,628	7 do. 3 do.
	1855	66	12,641	33,795	243,816	4 do. 9 do.
	1856	131	29,095	115,427	705,905	6 do. 16 do.
	1857	102	25,270	112,510	447,672	16 do. 11 do.
						Mostly all sailed for England.
Foreign shipping, &c., in	1857	582	32,097	224,852	103,711	Of the foreign shipping, 381 were Ionian boats.

Money.—Since the revolution, the Greeks have established a system of coinage in imitation of that of France. The phœnix is a silver coin, that should contain 9-10ths of pure metal, and 1-10th of alloy, or 4·029 grammes of the former, and 448 do. of the latter, being worth about 8½d. sterling. The lepta is a copper coin, being 1-100th part of the phœnix. But the silver coins are already so much debased, that they have been refused even by the officers of government

Weights and Measures.—The quintal is divided into 44 okes, or 132 lbs. Hence, 100 lbs. of Patras=88 lbs. avoirdupois. Silk weight is 1-5th heavier.

A sack of currants weighs 140 lbs. of the common weight, or about 123 lbs. avoirdupois.

The staro, corn measure,=2⅞ Winch. bushels.

The long pic, or pik, used in measuring linens and woollens, =27 English inches. The short pic, used in measuring silks, =25 ditto.

Port Charges in the Kingdom of Greece.

Tonnage.

In the ports of Patras, Syra, Nauplia, Piræus, Marathonensis, Pylos, Calamata, and Navarino.

	Drs. Lep.
On vessels under 5 tons	free.
— of 20 —	0 9
— above 20 —	0 12
In the other ports:—	
On vessels under 5 tons	free.
— of 20 —	0 6
— above 20 —	0 9
Permit of Departure.	
On vessels under 5 tons	free.
— of from 5 to 20 tons	0 50
— — 21 - 50 —	1 00
— — 51 - 100 —	2 00
— — 101 - 200 —	3 00
— — 301 and above	5 00
Lighthouse (only where there is one).	
On vessels under 5 tons	free.
— of from 5 to 20 tons	0 50
— — 21 - 50 —	1 00
— — 51 - 101 —	2 00
— — 101 - 200 —	5 00
— — 201 - 300 —	8 00
— — 301 - and above	9 00
When gunpowder remains on board, for every 2½ lbs. per month of 30 days	0 2
When it is placed in the public magazine, for the same quantity and time	0 3

Observations on the Tonnage Duty.—1. Vessels arriving from abroad loaded, and which discharge their cargoes, and depart loaded, pay the whole duty.

2. Vessels arriving from abroad loaded, and which depart in ballast, pay two thirds of the duty, which is also exacted if they arrive in ballast, and depart loaded.

3. Vessels arriving from abroad in ballast, and departing without lading, or arriving and departing with cargo, and not discharging any of it, pay one third of the duty.

4. Vessels arriving from and going to another port of the kingdom pay but one half of the duty.

5. A vessel is considered as loaded, whether she be so fully or partially.

Exceptions.—1. Every vessel forced to enter a port, either by a storm or in consequence of damage, is exempted from all charges during 8 days.

2. Every vessel entering a port, from whatever cause, and destined to another port, and the master of which shall immediately make a declaration to the captain of the port, that he has no intention either of loading or discharging his goods, may remain 5 days without paying any duty except the light-house duty. He is permitted also to receive or to deliver letters or money, unless otherwise provided for by special ordinances.

Commerce, Shipping, &c.—The Greeks have particularly distinguished themselves by the spirit and success with which they have engaged in naval and mercantile enterprises. Their commerce, next to their freedom, was the grand source of the prosperity of Athens, Corinth, and other Greek cities of antiquity. "C'est, au reste, à cet esprit de commerce, qui s'empara de la plus grande partie des habitans de la Grèce, que ces peuples ont été redevables de ce degré de puissance et de considération dont ils ont joui pendant quelques siècles. Une nation commerçante est, en général, une nation active et industrieuse. Le traffic maritime surtout exige beaucoup de travail, de hardiesse, et de sagacité. Ces qualités influent nécessairement sur les mœurs, et rendent les esprits plus propres aux grandes entreprises."—(*Goguet, de L'Origine des Loix, &c.*, iii. 155.) And in these respects the modern Greeks have been no unsuccessful imitators of their illustrious progenitors. The great articles of export from Greece consist of currants, silk, figs, wool, olive oil, valonia, wine, sponge, wax, tobacco, &c.; the principal imports being manufactured cotton and woollen goods, corn, with a great variety of subordinate articles, principally from England, but partly, also, from France and Germany. The mercantile navy of Greece may at present (1859) be estimated at 4,500 vessels, of the aggregate burden of 325,000 tons, employing about 30,000 seamen. The Greeks have, in fact, attained to the distinction of being the carriers, factors, and traders of the Levant.

We avail ourselves of this opportunity to observe that the prejudices entertained in this country against the Greeks are alike unreasonable and ill-founded. It was not to be expected that they should be trodden under foot, and subjected for centuries to the

brutal tyranny of the Turks, without contracting many of the vices incident to so degraded a state. But their enterprise, ingenuity, and activity have not been impaired; and the bad habits that were foreed upon them in their enslaved condition are gradually disappearing. Whatever there is of industry, or improvement, in Turkey is wholly owing to the Greeks, or, if not to them, to some Christian tribe. The Turks have not made, and, we believe, we may safely affirm never will make, the smallest advance. Their character and their religion are insuperable obstacles to their progress; and their expulsion from Europe would be more for the advantage of this quarter of the world than anything else that appears possible. Neither have we any doubt that eventually they will be expelled. The Greeks are gaining every day upon the Turks; and, as the antipathy between the races is strong, deep-rooted, and all but ineradicable, the presumption is, that as soon as the Christians gain the ascendancy, the Turks will themselves withdraw to Asia. The selfishness of some of the Christian powers, and the miserable jealousies of others, may retard for a time this desirable consummation. But in whatever way it may be brought about, whether with or without Russian assistance, it will be most beneficial; and we hardly think that it is likely to be long delayed.

We borrow the following statement in relation to its commerce and navigation from Mr. Green's excellent paper on Greece, in the SUPPLEMENT to the *Geographical Dictionary*: —

"There are Greek vessels of between 600 and 700 tons register, and a considerable number between 300 and 400 tons; but the majority consist of boats of 6 or 7 tons, having a large hatch in midships.

"The principal shipping port is Syra, where 468 vessels are registered. At Galaxidi, 149 vessels, measuring 14,359 tons, are registered as engaged in foreign trade; while at Patras, the most important commercial place of Greece, there are but 2 vessels registered. The Piræus possesses 298 vessels. There is no branch of trade to which the Greeks particularly confine their energies and views; nevertheless Greek commerce may be divided into the following principal great branches:—

"1st. The corn trade of the Black Sea and Alexandria includes the transport in their own vessels, either under Greek or Russian colours, to the ports of Turkey, Italy, Spain, and France, and speculations on the most extensive scale whenever bad harvests or other circumstances open markets to them. Some idea may be formed of the importance of this carrying trade to the Greeks, from the fact that in Galatz 270 Greek vessels loaded in 1844, besides 104 under Turkish colours, and 98 under Russian, of which the great majority were Greek. At Ibraila, during the same year, 225 Greek, 143 Turkish, and 53 Russian vessels loaded. Yet these ports are insignificant as compared to Odessa and Taganrog; and I only mention them and the particular year 1844, from having the returns before me.

"2ndly. The exportation of the produce of Turkey, Greece, Egypt, Persia, and southern Russia, to England, Italy, and France, principally to London, Trieste, and Marseilles. The great advantage the Greeks possess over foreigners in the purchase of produce in Turkey and Greece, is their having relatives and connections on whom they can depend for the collection of small parcels in the interior of the country, and at the places of growth, so that they are not imposed upon by their agents, and avoid the profits of middlemen. The Greek trader considers nothing beneath his notice, and will gather together a few bags of rags, or a ton or two of bones and horns, while he is chartering perhaps 50 vessels to load corn and tallow.

"3dly. The supply of Turkey, Persia, and Greece, with the cotton and woollen manufactures of England and Germany. The extensive operations of the Greeks at Manchester, where they have their own establishments for purchasing, examining, and packing their goods, attest the importance of this branch of their commerce. In supplying Persia and Constantinople with the cotton manufactures of England, these parties have almost driven the English out of the market, and defied their competition. This has been occasioned by their thorough knowledge of these countries, and by their readiness to execute the smallest as well as the largest commissions of the shopkeepers of Turkey and Greece; while their correspondents open and retail the largest parcels of manufactures in the exact proportions required by the purchasers.

"4thly. Banking and exchange operations. This, perhaps, is the most wonderful part of the Greek system of commerce, and is largely and successfully carried on."

It is deeply to be regretted that Candia, or Crete, was not either added to the new kingdom of Greece, or made independent. We cannot help considering it as disgraceful to the Christian nations of Europe, that this famous island, where European civilisation first struck its roots, should be consigned to the barbarians by whom it is now laid waste. It is as well entitled to the favourable consideration of England, France, and Russia, as any part of Continental Greece; and we do hope that measures may yet be devised for rescuing it from the atrocious despotism by which it has been so long weighed down.

PATTERNS, are specimens or samples of commodities, transmitted by manufacturers to their correspondents, or carried from town to town by travellers, in search of orders.

PAWNBROKERS AND PAWNBROKING. A pawnbroker is a species of banker, who advances money, at a certain rate of interest, upon security of goods deposited in his hands; having power to sell the goods, if the principal sum and the interest thereon be not paid within a specified time.

1. *Advantages and Disadvantages of Pawnbroking.* The practice of impledging or pawning goods, in order to raise loans, is one that must necessarily always exist in

civilised societies, and is, in many cases, productive of advantage to the parties. But it is a practice that is extremely liable to abuse. By far the largest proportion of the *bonâ fide* borrowers of money on pawn consist of the lowest and most indigent classes; and were the lenders not subjected to any species of regulation, advantage might be taken (as, indeed, it is frequently taken, in despite of every precaution) of their necessities, to subject them to the most grievous extortion. But, besides those whose wants compel them to resort to pawnbrokers, there is another class, who have recourse to them in order to get rid of the property they have unlawfully acquired. Not only, therefore, are pawnbrokers instrumental in relieving the pressing and urgent necessities of the poor, but they may also, even without intending it, become the most efficient allies of thieves and swindlers, by affording them ready and convenient outlets for the disposal of their ill-gotten gains. The policy of giving legislative protection to a business so liable to abuse, has been doubted by many. But though it were suppressed by law, it would always really exist. An individual possessed of property which he may neither be able nor willing to dispose of, may be reduced to a state of extreme difficulty; and in such case, what can be more convenient or advantageous for him than to get a loan upon a deposit of such property, under condition that if he repay the loan, and the interest upon it, within a certain period, the property will be returned? It is said, indeed, that the facilities of raising money in this way foster habits of imprudence; that the first resort for aid to a pawnbroker almost always leads to a second; and that it is impossible so to regulate the business, as to prevent the ignorant and the necessitous from being plundered. That this statement, though exaggerated, is to a certain extent true, no one can deny. On the other hand, however, the capacity of obtaining supplies on deposits of goods, by affording the means of meeting pressing exigencies, in so far tends to prevent crime, and to promote the security of property; and it would seem as if the desire to redeem property in pawn would be one of the most powerful motives to industry and economy. At the same time, too, it must be borne in mind, that it is not possible, do what you will, to prevent those who are poor and uninstructed from borrowing; and that they must, in all cases, obtain loans at a great sacrifice, and be liable to be imposed upon. But the fair presumption is, that there is less chance of any improper advantage being taken of them by a licensed pawnbroker, than by a private and irresponsible individual. Although, however, the business had all the inconveniences, without any portion whatever of the good which really belongs to it, it would be to no purpose to attempt its suppression. It is visionary to imagine that those who have property will submit to be reduced to the extremity of want, without endeavouring to raise money upon it. Any attempt to put down pawnbroking would merely drive respectable persons from the trade, and throw it entirely into the hands of those who have neither property nor character to lose. And hence the object of a wise legislature ought not to be to abolish what must always exist, but to endeavour, so far at least as is possible, to free it from abuse, by enacting such regulations as may appear to be best calculated to protect the ignorant and the unwary from becoming the prey of swindlers, and to facilitate the discovery of stolen property.

2. *Obligations under which Pawnbrokers should be placed.* — For this purpose it seems indispensable that the interest charged by pawnbrokers should be limited; that they should be obliged to give a receipt for the articles pledged, and to retain them for a reasonable time before selling them; that the sale, when it does take place, should be by public auction, or in such a way as may give the articles the best chance for being sold at a fair price; and that the excess of price, if there be any, after deducting the amount advanced, and the interest and expenses of sale, should be paid over to the original owner of the goods. To prevent pawnbrokers from becoming the receivers of stolen goods, they should be liable to penalties for making advances to any individual unable to give a satisfactory account of the mode in which he became possessed of the property he is desirous to pawn; the officers of police should at all times have free access to their premises; and they should be obliged carefully to describe and advertise the property they offer for sale.

3. *Law as to Pawnbrokers.* — It may appear singular that pawnbrokers should hardly have been named in any legislative enactment till after the middle of last century. It was enacted by the 30 Geo. 2. c. 24. that a *duplicate* or receipt should be given for goods pawned; and that such as were pawned for any sum less than 10*l.* might be recovered any time within *two* years, on payment of the principal and interest; but the rate of interest was not fixed. This defect was supplied by the 25 Geo. 3. c. 48.; but the act 39 & 40 Geo. 3. c. 99. contains the latest and most complete regulations on the subject.

Every person exercising the trade of a pawnbroker must take out a licence, renewable annually, 10 days at least before the end of the year, for which he shall pay, within the cities of London and Westminster, and the limits of the twopenny post, 15*l.*, and every where else, 7*l.* 10*s.* No person shall keep more than 1 house by virtue of 1 licence; but persons in partnership need only take out 1 licence for 1 house. All persons receiving goods by way of pawn or pledge for the repayment of money lent thereon, at a higher rate of interest than 5 per cent., to be deemed pawnbrokers.

Upon every pledge *on* which there shall have been lent not exceeding 2*s.* 6*d.*, interest may be charged at the rate of ½*d.* per month;

£	s.	d.		£	s.	d.	
If 0	5	0	-	0	0	1	per month.
0	7	6	-	0	0	1½	—
0	10	0	-	0	0	2	—
0	12	6	-	0	0	2½	—
0	15	0	-	0	0	3	—
0	17	6	-	0	0	3½	—
1	0	0	-	0	0	4	—
2	0	0	and not exceeding				
2	2	0	-	0	0	8	—

And for every sum exceeding 10*s.* and not exceeding 10*l.* at the rate of 3*d.* in the pound by the calendar month, including the current month; and so in proportion for any fractional sum.

Pawnbrokers are to give farthings in exchange.

Persons applying to redeem goods pawned within 7 days after the first calendar month after the same shall have been pledged, may redeem the same without paying any thing for the first 7 days; and, upon applying before the expiration of 14 days of the second calendar month, shall be at liberty to redeem such goods, upon paying the profit payable for 1 calendar month and the half of another; and in all cases where the parties so entitled, and applying as aforesaid, after the expiration of the first 14 days, and before the expiration of the second month, the pawnbroker is allowed to take the interest of the whole second month; and the same regulations and restrictions shall take place in every subsequent month.

When goods are pawned for more than 5*s.*, the pawnbroker, before advancing the money, shall immediately enter in his books a description of the pawn, the money lent thereon, the day of the month and year, the name of the person pawning and the name of the street, and number of the house, if numbered, where such person resides, and use of the letter L, if the person be a lodger, and the letters H K, if a housekeeper; and also the name and abode of the owner of the party offering such pledge; and if the money lent shall not exceed 5*s.*, such entry shall be made within 4 hours after *the goods* shall have been pawned; and the pawnbroker shall, at the time of taking the pawn, give to the person so pawning a duplicate, corresponding with the entry in the book, which the party pawning shall take in all cases; and the pawnbroker shall not receive any pledge, unless the party so pawning shall receive such duplicate.

Rates payable for Duplicates.

	£	s.	d.
If under 5*s.* - - -	-		gratis.
5*s.* and under 10*s.*	- 0	0	0½
10*s.* and under 20*s.*	- 0	0	1
20*s.* and under 5*l.*	- 0	0	2
5*l.* and upwards -	- 0	0	4

The duplicate to be produced to the pawnbroker before he shall be compelled to redeliver the respective goods and chattels, except as herein-after excepted.

The amount of profits on duplicates shall be added on pledges redeemed, and such duplicate shall be kept by the pawnbroker for 1 year.

Persons pawning other people's goods without their consent may be apprehended by the warrant of 1 justice, and convicted in a penalty not exceeding 5*l.* nor less than 20*s.*, and the full value of the goods pawned; and if the forfeiture be not immediately paid, the justice shall commit the party to *the house of* correction, to be kept to hard labour for 3 calendar months; and if within 3 days before the expiration of the commitment the forfeiture shall not be paid, the justice may order the person to be publicly whipped, and the forfeitures shall be applied towards making satisfaction to the party injured, and defraying the costs; but if the party injured shall decline to accept such satisfaction and costs, or if *there be any* overplus, such forfeitures or overplus shall be paid to the poor of the parish.

Persons forging or counterfeiting duplicates may be seized and delivered to a constable, who shall convey them before a justice; and, upon conviction, such person shall be committed to the house of correction for any time not exceeding 3 calendar months.

Persons offering pledges, not giving a satisfactory account of themselves, or the means by which they became possessed of such goods, or wilfully giving any false information, or if there shall be reason to suspect that such goods are stolen, or illegally obtained, or if any person not entitled to redeem goods in pawn shall endeavour to redeem the same, they may be seized and delivered to a constable, to be carried before a justice; and if there should appear ground for a second examination, they shall be committed to the common gaol or house of correction, to be dealt with according to law; or where such proceedings are not authorised by the nature of the offence, the party shall be committed for any time not exceeding 3 calendar months.

Persons buying or taking in pledge unfinished goods, linen, or apparel, intrusted to others to wash or mend, shall forfeit double the sum lent, and restore the goods.

Peace officers are empowered to search for unfinished goods which shall be come by unlawfully.

When goods are unlawfully pawned, the pawnbroker is to restore them; and their houses may be searched during the hours of business, by a warrant from a magistrate for the discovery of such property.

Persons producing notes or memorandums are to be deemed the owners of the property.

Where duplicates are lost, the pawnbroker, upon affidavit made by the owner of such loss before a magistrate, shall deliver *another duplicate*.

Goods pawned are deemed forfeited at the end of a year; but, on notice from persons having goods in pledge, 3 months further are to be allowed beyond the year for redemption; such notice to be given before the twelvemonth is expired.

All goods pawned may be sold at the expiration of *one* whole year; and all goods so forfeited, on which above 10*s.* and not exceeding 10*l.* shall have been *lent*, shall be sold by *public* auction, and not otherwise; notice of such sale being twice given, at least 3 days before the auction, in a public newspaper, upon pain of forfeiting to the owner of the goods not more than 5*l.* nor less than 2*l.*

All pictures, prints, books, bronzes, statues, busts, carvings in ivory and marble, cameos, intaglios, musical, mathematical and philosophical instruments, and china, shall be sold by themselves, and without other goods, 4 times only in every year; viz. on the 1st *Monday* in *January*, *April*, *July*, and *October*, in every year.

Pawnbrokers are not to purchase goods, while in their custody, nor take in pledges from persons under 14 years of age, or intoxicated; nor take in any goods before 8 in the forenoon or after 8 in the evening between *Michaelmas-day* and *Lady-day*, or before 7 in the forenoon or after 9 in the evening during the remainder of the year, excepting only until 11 on the evenings of *Saturday*, and the evenings preceding *Good Friday* and *Christmas-day*, and every fast or thanksgiving day.

An account of the sale of pledges for more than 10*s.* is to be entered by pawnbrokers in a book, and the surplus is to be paid to the owner of the goods pawned, if demanded within *three years* of the sale, under penalty of 10*l.* and treble the sum lent.

Pawnbrokers are to place in view the table of profits; and their *name* and business is to be placed over the door, on penalty of 10*l.*

Pawnbrokers injuring goods, or selling them before the time specified, shall, upon application to a magistrate, be compelled to make satisfaction for the same; and if the satisfaction awarded shall be equal to or exceed the principal and profits, the pawnbroker shall deliver the goods pledged to the owners without being paid any *thing* for principal or profit.

Pawnbrokers shall produce their books before a magistrate; or, refusing so to do, shall forfeit a sum not exceeding 10*l.* nor less than 5*l.*

Pawnbrokers offending against this act, shall forfeit for every *offence not* less than 40*s.* nor more than 10*l.*

It has been held by the Court of King's Bench, that a pawnbroker has no right to sell unredeemed pledges, after the expiration of a year from the time the goods were pledged, if, while they are in his possession, the original owner tender him the principal and interest due. — (*Walter* v. *Smith*, 22d of January, 1820.) On a motion for a new trial, Lord Tenterden said, "I am of opinion, that if the pledge be not redeemed at the expiration of a year and a day, (and no notice given that 3 months further are to be allowed for its redemption,) the pawnbroker has a right to expose it to sale so soon as he can, consistently with the provisions of the act: but if at any time *before the sale has actually taken place*, the owner of the goods tender the principal and interest, and expenses incurred, he has a right to his goods, and the pawnbroker is not injured; for the power of sale is allowed him merely to secure to him the money which he has advanced, together with the high rate of interest which the law allows to him in his character of pawnbroker."

Such is the present state of the law with respect to pawnbrokers. On the whole, the regulations seem to be judiciously devised. Perhaps, however, the rate of interest on small deposits might be advantageously lowered. The law allows interest at the rate of ½*d.* per month to be charged on loans of 2*s.* 6*d.*, which is at the rate of 20 per cent.: but the same sum of ½*d.* per month is exigible from all smaller loans; and as very many do not exceed 1*s.* 6*d.*, and even 6*d.*, the interest on them is exceedingly oppressive. No doubt there is a great deal of trouble with respect to such loans; but still, considering the vast number of advances under 2*s.* 6*d.*, it would seem that the interest on them might be somewhat reduced. Perhaps, too, it might be advisable, still better to secure compliance with the statute, to enact that no one should be licensed as a pawnbroker without producing sufficient security for a certain sum, to be forfeited in the event of his knowingly or wilfully breaking or evading any of its provisions. This would prevent (what Colquhoun says is not an uncommon practice) swindlers from becoming pawnbrokers, in order to get the means of selling stolen goods. — (*Treatise on the Police of the Metropolis*, 2d ed. p. 156.)

It would be a useful regulation to oblige pawnbrokers to insure against losses by fire. Much mischief has been occasioned by the neglect of this precaution.

The duties on pawnbrokers' licences produced, in 1841, 16,365*l.*

4. *Notices of Pawnbroking in Italy, France, &c.* — The practice of advancing money to the poor, either with or without interest, seems to have been occasionally followed in antiquity. — (*Beckmann*, vol. iii. p. 14. 1st Eng. ed.) But the first public establishments of this sort were founded in Italy, under the name of *Monti di Pietà*, in the 14th and 15th centuries. As it was soon found to be impossible to procure the means of supporting such establishments from voluntary contributions, a bull for allowing interest to be charged upon the loans made to the poor was issued by Leo X. in 1521. These establishments, though differing in many respects, have universally for their object to protect the needy from the risk of being plundered by the irresponsible individuals to whom their necessities might oblige them to resort, by accommodating them with loans on comparatively reasonable terms. And though their practice has not, in all instances, corresponded with the professions they have made, there seems no reason to doubt that they have been, speaking generally, of essential service to the poor.

From Italy these establishments have gradually spread over the Continent. The *Mont de Piété*, in Paris, was established by a royal ordinance in 1777; and after being destroyed by the Revolution, was again opened in 1797. In 1804, it obtained a monopoly of the business of pawnbroking in the capital. Loans are made, by this establishment, upon deposits of such goods as can be preserved, to the amount of *two thirds* of the estimated value of all goods other than gold and silver, and to *four fifths* of the value of the latter. No loan is for less than 3 francs (*2s. 6d.*). The advances are made for a year, but the borrower may renew the engagement. Interest is fixed at the rate of *one* per cent. per month.

The *Mont de Piété* has generally in deposit from 600,000 to 650,000 articles, worth from 12,000,000 to 13,000,000 francs. The expense of management amounts to from 60 to 65 *centimes* for each article; so that a loan of 3 francs never defrays the expenses it occasions, and the profits are wholly derived from those that exceed 5 francs. At an average the profits amount to about 280,000 francs, of which only about 155,000 are derived from loans upon deposit, about 125,000 being the produce of other funds at the disposal of the company.

In some respects, particularly the lowness of interest upon small loans, and the greater vigilance exercised with respect to the reception of stolen goods, the *Mont de Piété* has an advantage over the pawnbroking establishments in this country. It may be doubted, however, whether it is, on the whole, so well fitted to attain its objects. The limitation of the loans to 3 francs would be felt to be a serious grievance here, and it can hardly be otherwise in France; nor is it to be supposed, that the servants of a great public establishment will be so ready to assist poor persons, having none but inferior articles to offer in security, as private individuals anxious to get business. And such, in point of fact, is found to be the case, not in Paris only, but in all those parts of the Continent where the business of pawnbroking is confined to a few establishments. And hence, though the question be not free from difficulty, it would seem that, were the modifications already suggested adopted, our system would be the best of any.

For further information with respect to this curious and interesting subject, the reader is referred to the *Traité de la Bienfaisance Publique* of Degerando, iii. 1—*55.*; besides giving a succinct historical notice of *Monts de Piété*, the learned author has discussed most part of the knotty questions connected with the proper organisation of these establishments, and with their influence on society, with equal sagacity and ability.

PEARL-ASH. See POTASH.

PEARLS (Du. *Paarlen*; Fr. *Perles*; Ger. *Perlen*; It. *Perle*; Lat. *Margaritæ*; Rus. *Shemtschug, Perlü*; Sp. *Perlas*; Arab. *Looloo*; Cyng. *Mootoo*; Hind. *Mootie*), are well known globular concretions found in several species of shell-fish, but particularly the mother-of-pearl oyster (*Concha margaritifera* Lin.). Pearls should be chosen round, of a bright translucent silvery whiteness, free from stains and roughness. Having these qualities, the largest are of course the most valuable. The larger ones have frequently the shape of a pear; and when these are otherwise perfect, they are in great demand for ear-rings. Ceylon pearls are most esteemed in England.

Value, &c. of Pearls.—Pearls were in the highest possible estimation in ancient Rome, and bore an enormous price. — (*Principium culmenque omnium rerum pretii, margaritæ tenent.—Plin. Hist. Nat.* lib. x. c. *35.*) Their price in modern times has very much declined; partly, no doubt, from changes of manners and fashions; but, more probably, from the admirable imitations of pearls that may be obtained at a very low price. According to Mr. Milburn, a handsome necklace of Ceylon pearls, smaller than a large pea, costs from 170*l.* to 300*l.*; but one of pearls about the size of peppercorns may be had for 15*l.*: the pearls in the former sell at a guinea each, and those in the latter at about 1*s. 6d.* When the pearls dwindle to the size of small shot, they are denominated *seed* pearls, and are of little value. They are mostly sent to China. One of the most

remarkable pearls of which we have any authentic account was bought by Tavernier, at Catifa, in Arabia, a fishery famous in the days of Pliny, for the enormous sum of 110,000*l.*! It is pear-shaped, regular, and without blemish. The diameter is ·63 inch at the largest part, and the length from 2 to 3 inches.

Much difference of opinion has existed among naturalists with respect to the production of pearls in the oyster; but it seems now to be generally believed that it is the result of disease, and is formed in the same manner as bezoar — (see BEZOAR); pearls, like it, consisting of successive coats spread with perfect regularity round a foreign *nucleus*. In fact, the Chinese throw into a species of shell-fish (*mytilus cygneus*, or swan muscle), when it opens, 5 or 6 very minute mother-of-pearl beads strung on a thread; and in the course of a year they are found covered with a pearly crust, which perfectly resembles the real pearl. — (*Milburn's Orient. Com.; Ainslie's Mat. Indica, &c.*)

Pearl Fisheries. — The pearl oyster is fished in various parts of the world, particularly on the west coast of Ceylon; at Tuticoreen, in the province of Tinnevelley, on the coast of Coromandel; at the Bahrein Islands, in the Gulph of Persia; at the Sooloo Islands; off the coast of Algiers; off St. Margarita, or Pearl Islands, in the West Indies, and other places on the coast of Colombia; and in the Bay of Panama, in the South Sea. Pearls have sometimes been found on the Scotch coast, and in various other places.

The pearl fishery of Tuticoreen is monopolised by the East India Company, and that of Ceylon by government. But these monopolies are of no value; as in neither case does the sum for which the fishery is let equal the expenses incurred in guarding, surveying, and managing the banks. It is, therefore, sufficiently obvious that this system ought to be abolished, and every one allowed to fish on paying a moderate licence duty. The fear of exhausting the banks is quite ludicrous. The fishery would be abandoned as unprofitable long before the breed of oysters had been injuriously diminished; and in a few years it would be as productive as ever. Besides giving fresh life to the fishery, the abolition of the monopoly would put an end to some very oppressive regulations, enacted by the Dutch more than a century ago.

Persian Gulph.—The most extensive pearl fisheries are those on the several banks not far distant from the island of Bahrein, on the west side of the Persian Gulph, in lat. 26° 50′ N., long. 51° 10′ E.; but pearl oysters are found along the whole of the Arabian coast, and round almost all the islands of the gulph. Such as are fished in the sea near the islands of Karrak and Corgo contain pearls said to be of a superior colour and description. They are formed of 8 layers or folds, whilst others have only 5, but the water is too deep to make fishing for them either very profitable or easy. Besides, the entire monopoly of the fishery is in the hands of the sheik of Bushire, who seems to consider these islands as his immediate property.

"The fishing season is divided into two portions — the one called the short and cold, the other the long and hot. In the cooler weather of the month of June, diving is practised along the coast in shallow water; but it is not until the intensely hot months of July, August, and September, that the Bahrein banks are much frequented. The water on them is about 7 fathoms deep, and the divers are much inconvenienced when it is cold; indeed, they can do little when it is not as warm as the air, and it frequently becomes even more so in the hottest months of the summer. When they dive, they compress the nostrils tightly with a small piece of horn, which keeps the water out, and stuff their ears with bees' wax for the same purpose. They attach a net to their waists, to contain the oysters; and aid their descent by means of a stone, which they hold by a rope attached to a boat, and shake it when they wish to be drawn up. From what I could learn, 2 minutes may be considered as rather above the average time of their remaining under water. Although severe labour, and very exhausting at the time, diving is not considered particularly injurious to the constitution; even old men practise it. A person usually dives from 12 to 15 times a day in favourable weather; but when otherwise, 3 or 4 times only. The work is performed on an empty stomach. When the diver becomes fatigued, he goes to sleep, and does not eat until he has slept some time.

"At Bahrein alone, the annual amount produced by the pearl fishery may be reckoned at from 200,000*l.* to 240,000*l.* If to this, the purchases made by the Bahrein merchants or agents at Aboottabee Sharga, Ras-ul Khymack, &c. be added, which may amount to half as much more, there will be a total of about 300,000*l.* or 360,000*l.*; but this is calculated to include the whole pearl trade of the gulph; for it is believed that all the principal merchants of India, Arabia, and Persia, who deal in pearls, make their purchases, through agents, at Bahrein. I have not admitted in the above estimate much more than *one sixth* of the amount some native merchants have stated it to be, as a good deal seemed to be matter of guess or opinion, and it is difficult to get at facts. My own estimate is in some measure checked by the estimated profits of the small boats. But even the sum which I have estimated is an enormous annual value for an article found in other parts of the world as well as here, and which is never used in its best and most valuable state, except as an ornament. Large quantities of the seed pearls are used throughout Asia, in the composition of majoons, or electuaries, to form which all kinds of precious stones are occasionally mixed, after being pounded, excepting, indeed, diamonds; these being considered, from their hardness, as utterly indigestible. The majoon, in which there is a large quantity of pearls, is much sought for and valued, on account of its supposed stimulating and restorative qualities.

"The Bahrein pearl fishery boats are reckoned to amount to about 1,500, and the trade is in the hands of merchants, some of whom possess considerable capital. They bear hard on the producers or fishers, and even those who make the greatest exertions in diving hardly have food to eat. The merchant advances some money to the fishermen at cent. per cent., and a portion of dates, rice, and other necessary articles, all at the supplier's own price; he also lets a boat to them, for which he gets one share of the gross profits of all that is fished; and, finally, he purchases the pearls nearly at his own price, for the unhappy fishermen are generally in his debt, and therefore at his mercy." — (*Manuscript Notes communicated by Major D. Wilson, late Political Resident at Bushire.*)

The fishery at Algiers was farmed by an English association in 1826, but we are ignorant of their success.

The pearl fisheries on the coast of Colombia were at one time of very great value. In 1587, upwards of 697 lbs. of pearls are said to have been imported into Seville. Philip II. had one from St. Margarita, which weighed 250 carats, and was valued at 150,000 dollars. But, for many years past, the Colombian pearl fisheries have been of comparatively little importance. During the mania for joint stock companies, in 1825, two were formed; — one, on a large scale, for prosecuting the pearl fishery on the coast of Colombia; and another, on a smaller scale, for prosecuting it in the Bay of Panama and the Pacific. Both were abandoned in 1826.

The best fishery ground is said to be in from 6 to 8 fathoms water. The divers continue under water from a minute to a minute and a half, or at most 2 minutes. They have a sack or bag fastened to the neck, in which they bring up the oysters. The exertion is extremely violent; and the divers are unhealthy and short-lived.

PEARL SHELLS, commonly called *Mother-of-pearl shells*, are imported from various parts of the East and consist principally of the shells of the pearl oyster from the Gulph of

Persia and other places, particularly the Sooloo Islands, situate between Borneo and the Philippines, the shores of which afford the largest and finest shells hitherto discovered. On the inside, the shell is beautifully polished, and of the whiteness and water of pearl itself: it has the same lustre on the outside, after the external laminæ have been removed. Mother-of-pearl shells are extensively used in the arts, particularly in inlaid work, and in the manufacture of handles for knives, buttons, toys, snuff-boxes, &c. The Chinese manufacture them into beads, fish, counters, spoons, &c.; giving them a finish to which European artists have not been able to attain. Shells for the European market should be chosen of the largest size, of a beautiful pearly lustre, thick and even, and free from stains. Reject such as are small, cracked or broken, or have lumps on them. When stowed loose as dunnage, they are sometimes allowed to pass free of freight.—(*Milburn's Orient. Com.*) The imports during the 3 years ending with 1842 amounted, at an average, to about 950,000 lbs. a year.

PEAS (Ger. *Erbsen*; Fr. *Pois*; It. *Piselli, Bisi*; Sp. *Pesoles, Guisantes*; Rus. *Goroch*). The pea is one of the most esteemed of the leguminous or pulse plants. It is supposed to be indigenous to the south of Europe, and was cultivated by the Greeks and Romans, the latter of whom probably introduced it into Britain. There are many varieties; but the common garden pea (*Pisum sativum*), and the common grey or field pea (*Pisum arvense*), are the most generally cultivated; being reared in large quantities in all parts of the country, particularly in Kent. But since the introduction of the drill husbandry the culture of the pea as a field crop has been to a considerable extent superseded by the bean. Sometimes, however, it is drilled along with the latter; for, being a climbing plant, it attaches itself to the bean, so as to admit the ground being hoed; at the same time that the free admission of air about its roots promotes its growth. It is not possible to frame any estimate of the consumption of peas. The field pea is now hardly ever manufactured into meal for the purpose of being made into bread, as was formerly the case in many parts of the country; but there is reason to think that the garden pea is now more extensively used than ever. — (*Loudon's Ency. of Agriculture*; *Brown on Rural Affairs*, vol. ii. p. 72. For an account of the laws regulating the importation, &c. of peas, see CORN LAWS AND CORN TRADE.) Leguminous crops are very extensively cultivated in India.

PECK, a dry measure for grain, pulse, &c. The standard, or Imperial peck, contains 2 gallons, or 554·55 cubic inches. Four pecks make a bushel, and 4 bushels a coomb. — (See WEIGHTS AND MEASURES.)

PELLITORY, the root of a perennial plant (*Anthemis pyrethrum*), a native of the Levant, Barbary, and the south of Europe. The root is long, tapering, about the thickness of the finger, with a brownish cuticle. It is imported packed in bales, sometimes mixed with other roots, from which, however, it is easily distinguished. It is inodorous. When chewed, it seems at first to be insipid, but after a few seconds it excites a glowing heat, and a pricking sensation on the tongue and lips, which remains for 10 or 12 minutes. The pieces break with a short resinous fracture; the transverse section presenting a thick brown bark, studded with black shining points, and a pale yellow radiated inside. It is used in medicine as a stimulant. — (*Thomson's Dispensatory.*)

PENCILS (Ger. *Pinsel*; Du. *Pinseelen*; Fr. *Pinceaux*; It. *Pennelli*; Sp. *Pinceles*), the instruments used by painters in laying on their colours. They are of various kinds, and made of various materials; some being formed of the bristles of the boar, and others of camel's hair, the down of swans, &c.

PENCILS, BLACK LEAD. See BLACK LEAD PENCILS.

PENKNIVES (Ger. *Federmesser*; Fr. *Canifs*; It. *Temperini*; Sp. *Corta plumas*), small knives, too well known to need any particular description, used in making and mending pens. The best and most highly ornamented penknives are manufactured in London and Sheffield.

PENNY, formerly a silver, but now a copper coin. This was the first silver coin struck in England by our Saxon ancestors, being the 240th part of their pound; so that its weight was about 22½ grains Troy.

PENS (Fr. *Plumes à écrire*; Ger. *Schreibfedern*; It. *Penne da scrivere*; Rus. *Pera Stwoli*), well known instruments for writing, usually formed of the quills of the goose, swan, or some other bird. Metallic pens have been occasionally employed for a lengthened period; but it is only within these few years that they have been extensively introduced. They are now, however, manufactured in vast quantities, and of an immense variety of forms. But though they have superseded, to a very considerable extent, the use of quills, and have some peculiar advantages, it does not appear possible to give them the elasticity of the quill, nor to fit them so well for quick and easy writing on common descriptions of paper.

PENNYWEIGHT, a Troy weight, being the 20th part of an ounce, containing 24 grains.

PEPPER (Fr. *Poivre;* Ger. *Pfeffer;* Du. *Peper;* It. *Pepe;* Sp. *Pimienta;* Rus. *Perez;* Lat. *Piper*), the berry or fruit of different species of plants, having an aromatic, extremely hot, pungent taste, used in seasoning, &c. The following sorts of pepper are met with in commerce: —

I. Black Pepper (Fr. *Poivre;* Ger. *Schwarzen pfeffer;* It. *Pepe negro;* Sp. *Pimienta;* Sans. *Mercha;* Hind. *Gol-mirch;* Malay, *Lada;* Jav. *Marihà*), the fruit of a creeping plant (*Piper nigrum*), one of the pepper genus, of which there are upwards of 80 species. It is cultivated extensively in India, Siam, the Eastern islands, &c. It requires the support of other trees, to which it readily adheres. It climbs to the height of 20 feet; but is said to bear best when restrained to the height of 12 feet. It begins to produce at about the 3d year, and is in perfection at the 7th; continues in this state for 3 or 4 years; and declines for about as many more, until it ceases to be worth keeping. The fruit grows abundantly from all the branches, in long small clusters of from 20 to 50 grains; when ripe, it is of a bright red colour. After being gathered, it is spread on mats in the sun, when it loses its red colour, and becomes black and shrivelled as we see it. The grains are separated from the stalks by hand rubbing. That which has been gathered at the proper period shrivels the least; but if plucked too soon, it will become broken and dusty in its removal from place to place. The vine produces two crops in the year; but the seasons are subject to great irregularities.

Pepper should be chosen of a pungent aromatic odour, an extremely hot and acrid taste, in large grains, firm, sound, and with few wrinkles — for of these it always has some. Reject that which is shrivelled, or small grained, or which on being rubbed will break to pieces.

In point of quality, the pepper of Malabar is usually reckoned the best; but there is no material difference between it and that of Sumatra, and the other islands. In the market of Bengal, where they meet on equal terms, the produce of Malabar is generally about 2 per cent. higher than the other. In Europe, there is generally a difference of ¼*d.* per lb. in favour of Malabar; but in China they are held in equal estimation.

Black pepper sold ground, is said to be often adulterated with burnt crust of bread.

II. White Pepper is made by blanching the finest grains of the common black pepper by steeping them for a while in water, and then gently rubbing them, so as to remove the dark outer coat. It is milder than the other, and is much prized by the Chinese; but very little is imported into England.

III. Cayenne Pepper is the produce of several varieties of the *Capsicum*, an annual plant, a native of both the Indies. The best, which is brought home from the West Indies ready prepared, is made from the *Capsicum baccatum* (bird pepper). It has an aromatic, extremely pungent, acrimonious taste, setting the mouth, as it were, on fire, and the impression remaining long on the palate. It is sometimes adulterated with muriate of soda; and sometimes with a very deleterious substance, the red oxide of lead; but this fraud may be detected by its weight, and by chemical tests. — (See Chillies.)

IV. Long Pepper. — This species is the produce of a perennial (*Piper longum*), a native of Malabar and Bengal. The fruit is hottest in its immature state; and is therefore gathered while green, and dried in the sun. It is imported in entire spikes, which are about 1½ inch long. It has a weak aromatic odour, an intensely fiery pungent taste, and a dark grey colour. The root of long pepper is a favourite medicine among the Hindoos.

The quantities of the last 3 species of pepper imported are quite inconsiderable, compared with the quantity of black pepper. — (*Milburn's Orient. Com.; Ainslie's Mat. Indica; Thomson's Dispensatory, &c.*)

Trade in Pepper. Consumption of, and Duties on, in England. — Pepper is extensively used, all over Europe and the East, as a condiment. It was originally imported into this country by way of the Levant (see *antè*, p. 540.); and for many years after the establishment of the East India Company, it formed the most important article of their imports. In nothing has the beneficial effect of opening the Indian trade been so unequivocally displayed as in the instance of pepper. The private traders have resorted to new markets, and discovered new sources of supply, which had hitherto been wholly unexplored; so that there has been not only a very great increase in the quantity of pepper brought to Europe, but also a very great fall in its price, which does not now exceed a third part of what it amounted to in 1814!

Pepper for a lengthened period was one of the most grossly over-taxed articles in the British tariff. Until 1823, the duty was 2*s.* 6*d.* per lb. — a duty so exorbitant, that one would be inclined to think it had been imposed to put a total stop to the use of the article. In 1826, the duty on pepper from a British possession was reduced to 1*s.* per lb.; but even this duty, as compared with the price of the article (3*d.* to 5*d.* per lb.), was quite oppressive, amounting to no less than from 240 to 400 per cent.; so that it was further and most properly reduced in 1837, to 6*d.* per lb. And in consequence principally of these reductions, the entries of pepper for home consumption,

which, previously to 1826, had not amounted to 1,450,000 lbs. in any one year, amounted in 1846 to 3,303,365 lbs.! Still, however, the duty, as compared with the price of pepper, is decidedly too high; and should not exceed 1*d.* or at most 2*d.* per lb. And in proof of this statement it is enough to mention that the entries for consumption have not sensibly increased since 1846; and in 1857 amounted to only 3,656,445 lbs. But, were the duty reduced to 1*d.* or 2*d.* per lb., pepper would become accessible to the lower classes, to whom its free use would be of much importance; and if so, the probability is, that the consumption would in no very lengthened period be doubled or more, which would either prevent the revenue from sustaining any loss by such a measure, or make it not worth mentioning.

Account of the Quantities of Pepper imported into the U. Kingdom in the undermentioned Years, and of the Quantities re-exported, and the Quantities entered for Consumption during the same Years.

Years.	Imports from India.	Imports from all Parts.	Quantities re-exported from U. Kingdom.	Quantities entered for Consumption.
1838	3,547,003 *lbs.*	3,682,342 *lbs.*	3,077,109 *lbs.*	2,635,130 *lbs.*
1840	5,874,366	5,927,859	5,049,423	2,741,953
1845	9,302,740	9,852,984	7,274,350	3,210,257
1850	7,388,405	8,082,319	3,727,183	3,174,425
1857	4,652,336	5,463,738	3,171,084	3,656,145

The duty of 6$\frac{3}{10}$*d.* per lb. produced, in 1857, 95,983*l.*

Supply of Pepper.—The following instructive details with respect to the supply of pepper are taken from the *Singapore Chronicle*, to which they were contributed by John Crawfurd, Esq. — than whom there can be no more competent authority as to such subjects.

Of all the products of the Eastern islands, and of the countries immediately in their neighbourhood, in demand among strangers, black pepper is the most important, both in value and quantity.

The pepper countries extend from about the longitude of 96° to that of 115° E., beyond which no pepper is to be found; and they reach from 5° S. latitude to about 12° N., where it again ceases. Within these limits we have Sumatra, Borneo, the Malayan peninsula, and certain countries lying on the east coast of the Gulph of Siam.

The whole produce of the island of Sumatra is estimated not to fall short of 168,000 piculs of 133$\frac{1}{3}$ lbs. each; the south-west coast being said to produce 150,000, and the north-east coast 18,000 piculs.

The pepper ports on the north-east coast of Sumatra are Lankat and Delli, with Sardang. The first 2 produce 15,000 piculs, and the latter 3,000 annually. The cultivation is carried on by the Batta nation in the interior.

The ports on the south-west coast, and the amount of their produce, as given in a recent estimate, are as follows: viz. port and district of Trumah, 40,000; district of Pulo Dua, 4,000; ditto of Ciuat, 30,000; coast from Tampat Tuan to Susu, 33,000; port of Susu, 1,000; Kualla Batta, 20,000; Analabu, 2,000; districts to the north of Analabu, 20,000; making in all, 150,000 piculs.

Here it is of importance to remark that the culture and production are extremely fluctuating.

During the last pepper season, there obtained cargoes on the west coast of Sumatra, 27 American ships, 6 country traders, 4 large French ships, besides the ships belonging to the East India Company, which generally take away 500 tons. Nearly the whole of this trade is in the hands of Europeans or Americans; the pepper finds its way to Europe, to America, and in a small proportion to China.

The north-east coast of Sumatra, from Pedier down to the Carimons, is estimated, as already mentioned, to produce 18,000 piculs. Prince of Wales Island is the principal *depôt* for this, from whence the greatest part is exported to India and China. The produce of Prince of Wales Island itself is about 15,000 piculs.

Of the islands at the mouth of the Straits of Malacca and Singapore, Bingtang, on which Rhio is situated, and adjacent islands, produce 10,000 piculs; and Lingga about 2,000. A large proportion of this is brought to Singapore, which exported last year about 21,000 piculs; some part to Bengal and China, but principally to Europe direct, in free traders.

The west coast of the Malayan peninsula produces no pepper, with the exception of about 4,000 piculs afforded by the territory of Malacca.

On the east coast of the peninsula, the production of pepper is very considerable. The ports of Patani and Calantan—chiefly the latter—yield about 16,000 piculs annually, and Tringanu about 8,000. A portion of this is brought to Singapore and Penang; but we believe the greater proportion goes direct to China in junks, of which 3 large ones frequent Tringanu annually, and 1 Calantan. The Americans, too, occasionally visit these ports. In the year 1821, 3 vessels of considerable burden obtained cargoes.

The east coast of the Gulph of Siam, from the latitude of 10$\frac{1}{2}$° to that of 12$\frac{1}{2}$° N., affords an extensive produce of pepper. This coast is scarcely known, even by name, to the traders of Europe. The principal ports here are Chantibun, Tungyai, Pongsom, and Kampop; the first 2 being under the dominion of Siam, and the latter under that of Kamboja. The whole produce is estimated at not less than 60,000 piculs; 40,000 of which are brought at once to the capital of Siam as tribute to the king, and the whole finds its way to China in junks. It remains only to estimate the produce of the island of Borneo. The whole produce of Borneo is estimated at about 20,000 piculs; of which a large share is carried to China direct in junks, some by Portuguese vessels; and about 7,000 piculs are now annually brought by the native craft of the country itself to Singapore in the course of that free trade, which is happily flourishing at this settlement. The data which have been stated will enable us to estimate the whole production of the Malayan Archipelago, including that of the peninsula of Malacca, and that of the east coast of the Gulph of Siam, at 308,000 piculs; and as there is no other part of the world that affords pepper, excepting the western coast of the peninsula of India, and this affords but 30,000 piculs, or less than 1-10th part of what the places we have enumerated produce, we have, accordingly, at one view, the whole production of the earth, being 338,000 piculs, or 45,066,666 lbs. avoirdupois. The average price of pepper has been lately about 9 Spanish dollars a picul; so that the whole value drawn into India from Europe, China, and the New World, on account of this single commodity, is 3,042,000 dollars. The quantity given in this statement may appear enormous; but if meted out to the whole population of the globe, or to 1,000,000,000 of people, it would be found that the average annual consumption of an individual would amount to no more than 323 grains.

Mr. Crawfurd has more recently supplied us with a revised estimate of the production of pepper as follows:—

	Lbs.		Lbs.
Sumatra (west coast) - -	20,000,000	Siam - - - -	8,000,000
Do. (east do.) - - -	8,000,000	Malabar - - - -	4,060,000
Islands in the Straits of Malacca -	3,600,000		
Malay peninsula - - -	3,733,333	Total -	50,000,000
Borneo - - - -	2,666,667		

The localities in the previous estimate are quite correct; and we, therefore, did not think it would be right to suppress it.

PERCH, a long measure, 16½ feet in length. — (See WEIGHTS AND MEASURES.)

PERIODICAL PUBLICATIONS. These, as the name implies, are publications which appear at fixed periods or stated intervals, and consequently include newspapers, monthly and other magazines, quarterly reviews, and journals, and all such books as appear at monthly or other intervals. But the term "periodical publications" is usually understood in a more confined sense, or as comprising only magazines and such political, literary, and scientific journals as appear at regular intervals, without including newspapers or works published in parts.

Even when thus restricted, this is a very extensive and important department of literature. No doubt a vast deal of trash gets into print by the agency of magazines that might not otherwise see the light; but most part of these publications contain at the same time some superior articles; and a few are ably conducted and embrace a wide range of topics. Since the establishment of the Edinburgh Review in 1802, the quarterly journals, especially those that embrace politics and literature, have risen to great eminence, and have had a powerful influence over the public mind. At present, however, and for some time past, the influence of this class of journals has been declining. An ably conducted daily paper is, at this moment, by far the most powerful engine the press can bring into the field.

In a mercantile point of view periodical literature is of more importance than most persons would probably be at first disposed to admit. We have inquired with some care into the subject, and we are inclined to think that the following estimate of its extent and value in 1853 may be relied on with pretty considerable confidence.

Monthly Magazines. — These in the U. Kingdom amount, including all descriptions, to about 300: and taking their average price at 7*d.*, and their average sale at 1,500 copies, their produce will be 13,125*l.* a month, and 157,500*l.* a year.

Quarterly Journals. — There are 35 of these; and taking the average price of each at 4*s.*, and their average sale at 2,000 copies, they will produce 14,000*l.* a quarter, and 56,000*l.* a year. Hence, supposing these estimates to be nearly accurate, the annual produce of the sale of periodical publications (exclusive of what they yield by advertisements) will amount to about 213,500*l.*

PERMIT, a licence or instrument, granted by the officers of excise, certifying that the excise duties on certain goods have been paid, and permitting their removal from some specified place to another.

The acts relative to permits were consolidated by the stat. 2 Will. 4. c. 16. The commissioners of excise provide moulds or frames for making the paper used in the printing of permits, which have the water mark "Excise Office" visible in its substance; and the counterfeiting of such frames or paper, or the having the latter in one's possession without being able satisfactorily to account for it, are felonies punishable by transportation. Permits are not delivered except on the receipt of "request notes," specifying the places from and to which the goods are to be conveyed. A penalty of 500*l.* is to be imposed on all persons counterfeiting "request notes," or fraudulently procuring or misapplying permits, and all goods, for the removal of which permits are necessary, if they be removed without them, are to be forfeited, and the various parties engaged in their removal are to be each amerced in a penalty of 200*l.* It is needless to dwell on the extreme inconvenience that would result from such regulations were permits in extensive use. But such is not the case, and they are now wholly dispensed with, except in the case of a very few articles.

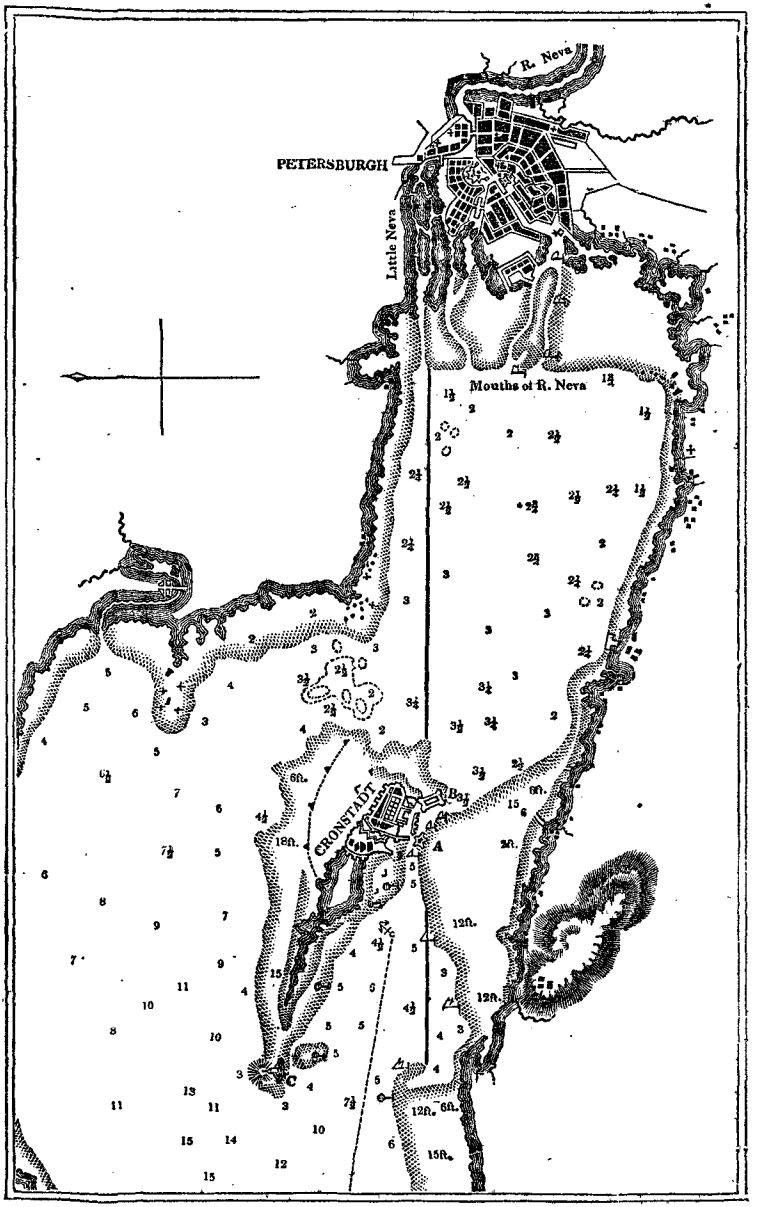
PERRY, a fermented liquor made from pears, in the same manner as cider from apples. The pears best fitted for producing this liquor are exceedingly harsh and tart; but it is itself pleasant and wholesome. — (See CIDER.)

PETERSBURG, the modern metropolis of the Russian empire, situated at the confluence of the river Neva with the eastern extremity of the Gulph of Finland, in lat. 59° 56′ 23″ N., lon. 30° 18¾′ E. Population in 1852, 532,241.

This flourishing emporium was founded by Peter the Great, whose name it bears, in 1703. In the same year, the first merchant ship that ever appeared on the Neva arrived from Holland: and the Czar, to mark his sense of the value of such visitors, treated the captain and crew with the greatest hospitality, and loaded them with presents. In 1714, 16 ships arrived at Petersburg; in 1730, the number had increased to 180; and so rapid has been the progress of commerce and civilisation in Russia since that period, that, at present, from 1,200 to 1,500 ships annually enter and clear out from Petersburg!

It is much to be regretted, that, although favourable to commerce, the situation of Petersburg is, in other respects, far from good. The ground on which it stands is low and swampy; it has, on different occasions, sustained great injury from inundations; and the country round is, generally speaking, a morass and forest, so that almost

every thing required for the subsistence of the inhabitants must be brought from a distance. No one less bold and daring than Peter the Great would have thought of selecting such a situation for the metropolis of his empire; and none possessed of less



References to Plan, — A, Cronslot; B, Men-of-war haven; C, Tolboken light-house, 88 feet high, furnished with a fixed light. Soundings in fathoms. It appears, from the above plan, that the depth of water between Cronstadt and Petersburg does not, in some places, exceed 6 or 7 feet; but it is increased about a foot by continued westerly, and is diminished about as much by continued easterly, winds. Cronstadt is, therefore, as already observed, in reality, the port of Petersburg; and has, indeed, no separate Custom-house or jurisdiction. The transfer of goods between the two places by means of lighters has of late years been materially facilitated by the employment of steam-tugs.

power and resolution could have succeeded in overcoming the all but insuperable obstacles which the nature of the country opposed to the completion of his gigantic schemes.

Cronstadt, situated on a small island about 20 miles W. of Petersburg, may, in some measure, be considered as the port of the latter. Almost all vessels bound for Petersburg touch there; and those drawing above 8 feet water load and unload at Cronstadt; the goods being conveyed from and to the city in lighters, the charges of which vary according to the demand at the time. The merchants' harbour at Cronstadt is fitted to contain about 600 ships; but it is exposed to the westerly winds. Cronstadt is strongly fortified, and is the principal station of the Russian fleet. Vessels bound for Petersburg must pass by the narrow channel to the south of the island, commanded by the fortifications of Cronstadt on the one side, and of Cronslot on the other. The woodcut on the previous page, taken from the official survey published by the Russian government, gives a better idea of the situation of Petersburg, Cronstadt, &c. than could be derived from any description.

Money.—Accounts are kept at Petersburg, and throughout Russia, in roubles of 100 copecks.

The only gold coin at present struck is the ½ Imperial, or 3 rouble piece, =16*s.* sterling very nearly. The silver rouble, worth 3*s.* 2¾*d.* sterling very nearly, was declared, by a ukase issued in 1839, to be worth 3½ paper roubles.

But another ukase, issued on the 14th June, 1843, directs that the old bank note roubles in circulation, amounting to the sum of 595,776,510, being equal, at the exchange of 3½, to 170,221,803 silver roubles, should be called in, and replaced by an issue of 170,221,000 *billets du credit*, to be exchangeable at the pleasure of the holder for silver roubles. This is a most important regulation, and if it be fully carried out, the distinction between silver and paper roubles will disappear; at the same time that additional security will be given to all sorts of industrious undertakings, and to the credit of the government.

Weights and Measures.—The Russian weights are the same for gold, silver, and merchandise, viz.—

3 Soltnicks = 1 Loth.	40 Pounds = 1 Pood.
32 Loths = 1 Pound.	10 Poods = 1 Berkovitz.

The Russian pound contains, according to Kelly, 6318·5 English grains. Hence, 100 lbs. Russian = 90·26 lbs. avoirdupois = 40·93 kilog. The pood = 36 lbs. 1 oz. 11 drs., but among merchants it is reckoned = 36 lbs. According to Nelkenbrecher, 100 lbs. Russian = 90·19 lbs. avoirdupois = 40·9 kilog. = 82·8 lbs. of Amsterdam = 84·444 of Hamburg.

The principal measure for corn is the chetwert, divided into 2 osmins, 4 pajocks, 8 chetwericks, or 64 gernitz. The chetwert = 5·77 Imperial bushels. Hence, 100 chetwerts = 72·12 Imperial quarters.

In liquid measure,	3 Wedros = 1 Anker.
11 Tsharky = 1 Krashka.	6 Ankers = 1 Oxhof.
8 Krashka = 1 Wedro.	2 Oxhoft = 1 Pipe.
40 Wedros = 1 Sorokovy.	In long measure,
The wedro = 3¼ English wine gallons.	16 Wershok = 1 Arsheen.
	3 Arsheen = 1 Sashen.
13 1/3 Bottles = 1 Wedro.	500 Sashen = 1 Verst.

1 sashen = 7 English feet. 1 arsheen = 28 English inches. 100 Russian feet = 114½ English feet. The verst, or Russian mile, = 5 furlongs 12 poles. The *English* inch and foot are used throughout Russia, chiefly, however, in the measuring of timber.—(*Kelly's Cambist*, art. *Russia*; *Nelkenbrecher, Manuel Universel.*)

In fixing freight to England, a ton is 63 poods of hemp, flax, tallow, iron, copper, and ashes; 44 poods of bristles, isinglass, leather, and wax; 5 dozen of deals; 3,500 hare skins; 8 chetwerts of wheat or linseed; and 60 pieces of sail-cloth.

The following regulations for the importation of foreign goods are strictly enforced:—

All goods imported must be accompanied by the following documents:—

1. The declaration of the captain, according to the form ordered by the Custom-house.

2. An attestation from the Russian consul, and, where there is no consul, from the Custom-house of the place, of the quantity and quality of the goods, and a declaration that they are not the produce, manufacture, or property of an enemy's country.

3. Bills of lading of all goods, in which the weight, measure, or quantity of each package must be specified. In case the bills of lading are not exactly after this regulation, the goods pay double duty as a fine. In case more is found than specified in the bill of lading, the surplus is confiscated; if less is found, the duty must be paid on the quantity specified. Of wine, it is not sufficient to specify the number of pipes or hogsheads only, but also their contents in gallons, &c. Of lemons, the number in each box must be specified. Of manufactured goods, the measure of each piece must be specified, and the number of pieces in each bale. It is indifferent whether the gross or the nett weight be specified. If the packages be all of the same weight, measure, or contents, a general specification will do; as, for example, 100 casks alum, of 17 lispound each. Of dye woods, the weight of the whole need only be mentioned. Of goods of small bulk, as pepper, &c., it is sufficient to state the weight of every 5 or 10 bales, but with specification of the numbers. There must not be any erasures or blots in the bill of lading. All goods not accompanied by these documents, or where the documents are not according to the above regulations, will be sent back.

Bills of lading may be made out either to some house, or to order.

The following charges have been fixed by the merchants of Petersburg:—

	Per cent.
Commission on sales and purchases	2
Extra charges on all goods	1
Commission and extra charges for goods delivered up	2
Brokerage on sales and purchases	½
Ditto on bills	¼
Ditto on freight, per ton, 60 copecks.	
Stamps	⅛

	Per cent.
Charges on duty, paid inwards	4
Ditto, paid outwards	4
Commission for collecting freight, or average inwards	3
Commission for procuring freight outwards	2
For clearances, 40 roubles.	

Dues to be paid to the church, 10 roubles each vessel.

Clearing of ships, of or under

25 lasts each,	40 roubles each vessel.
25 to 50 do.	60 —
50 — 75	80 —
75 — 100	100 —
100 — 150	150 —
150 or above,	200 —

Tare on Goods exported, as fixed by the Custom-house.

Dry Goods.	Per cent.
In barrels or chests	10
In sacks	2
In mats, or sacks made of mats	3
Except Muscovy leather, of which is deducted	5

Moist Goods.	Per cent.
Pressed caviare	13
Soap	3
Meat and salt fish	20
Tallow	10

Moist Goods.	Per cent.
Honey	17
Treacle	10
All other moist goods	17

Tare on Goods imported.

Dry Goods.	Per cent.
In barrels or chests	10
In vessels of glass or earthenware	20
In sacks	2

Dry Goods.	Per cent.
In double sacks	4
In mats	5

Dry Goods.	Per cent
In casks and mats together	5
In baskets	5

Moist Goods imported.—The following are some of the tares specified in the tariff:—

Olive oil in casks	17 per cent.
of Italy, in flasks and straw	20 —
of France, in flasks and earthenware	40 —
Salt fish in barrels	36 —
And generally on all moist goods in barrels	17 —
in glass and earthenware	20 —
Miscellaneous Goods.	
Cotton twist in bales	6 —
in chests and barrels	15 —

Cochineal must be weighed in the sacks after being taken from the casks; for every sack of from 4 to 7 poods	2 lbs.
sacks of from 2 to 3½ poods	1 —
Indigo in serons; every seron of from 5½ to 7 poods	34 —
in ½ serons, 2½ to 4 poods	20 —
of Guatemala	20 per cent.
in boxes	20 —

Bills drawn in Russia, and payable after date, are allowed 10 days' grace: but if payable at sight, 3 days only: Sundays and holidays are included in both cases. The Julian calendar, or old style, is still retained throughout Russia. This is 12 days later than the new style; and in leap-years, 13 days, after the month of February.

Port Charges. — The regular charges which British ships have to pay at the ports of Petersburg and Cronstadt, comprise the following fixed dues and expenses, viz. lastage, passes, clearing at Cronstadt, address money, Petersburg and Cronstadt church money, Cronstadt expedition and allowance to the Russia Company's agent, for all which a charge is made in the ship's account in one sum, proportionally to the ship's register tonnage, according to the following scale, viz.: —

	Silv. roub.		*Silv. roub.*
For 61 tons register - - -	48 0	For 322 to 341 tons register - -	136 0
62 to 81 — - - -	56 0	342 — 361 — - -	141 14
82 — 101 — - - -	61 14	362 — 381 — - -	149 14
102 — 121 — - - -	66 28	382 — 401 — - -	154 0
122 — 141 — - - -	74 0	402 — 421 — - -	162 0
142 — 161 — - - -	79 14	422 — 441 — - -	167 14
162 — 181 — - - -	84 28	442 — 461 — - -	175 14
182 — 201 — - - -	92 0	462 — 481 — - -	180 0
202 — 221 — - - -	97 14	482 — 501 — - -	188 0
222 — 241 — - - -	102 29	502 — 521 — - -	193 14
242 — 261 — - - -	110 28	522 — 541 — - -	200 86
262 — 281 — - - -	115 14	542 — 561 — - -	206 0
282 — 301 — - - -	125 14	562 — 581 — - -	214 0
302 — 321 — - - -	128 28	582 — 600 — - -	218 86

Trade, &c. — Petersburg has the most extensive foreign trade of any city in the north of Europe. This arises from its being the only great maritime outlet on the Gulph of Finland, and from its vast and various communications with the interior of the country. Few countries have such an extent of internal navigation as Russia. By means partly of rivers, and partly of canals, Petersburg is connected with the Caspian Sea. Goods are conveyed from the latter to the capital, through a distance of 1,434 miles, without once landing them! The iron and furs of Siberia, and the teas of China, are received at Petersburg in the same way; but owing to the great distance of those countries, and the short period of the year during which the rivers and canals are navigable, they take 3 years in their transit. Immense quantities of goods are also conveyed during winter upon the ice, in sledges, to the different ports, and to the nearest *pristans*, or places in the interior where barks are built for river or canal navigation. They are put on board in anticipation of the period of sailing, that the barks may be ready to take advantage of the high water, by floating down with the current as soon as the snow and ice begin to melt. The cargoes carried up the river into the interior during summer are principally conveyed to their ultimate destinations by the sledge roads during winter. The conveyance by the latter is generally the most expeditious; and it, as well as the internal conveyance by water, is performed at a very moderate expense.

The barks that come from the interior are mostly of a very rude construction, flat-bottomed, and seldom drawing more than 20 or 30 inches water. When they arrive at their destination, they are sold or broken up for fire-wood. Those that leave the ports for the interior are of a superior description, and are comparatively few in number; the commodities imported, being at an average, of much greater value relatively to their bulk and weight than those that are exported.

Principal Articles of Export. — The principal articles of export are tallow, hemp, and flax; grain, particularly wheat; linseed, timber, copper; hides, potashes, bristles, hempseed oil, furs, leather; fox, hare, and squirrel skins; canvass and coarse linen, cordage, caviare, wax, isinglass, quills, tar, &c. Tallow, both for candles and soap, is more largely exported from this than from any other port in the Baltic or elsewhere, and is an article of great commercial importance. — (See TALLOW.) Hemp is of good quality, though inferior to that of Riga: it is assorted, according to its quality, into *clean*, or firsts; *outshot*, or seconds; and *half-clean*, or thirds. The first sort should be quite clean, and free from spills; the second is less so; and the third, or *half-clean*, contains a still greater portion of spills, and is, besides, of mixed qualities and colours. Russian flax is much esteemed for the length of its fibre; it is naturally brownish, but becomes very white after the first bleaching. Three qualities are distinguished; viz. 12 head, 9 head, and 6 head. — (See HEMP, and FLAX.) Iron of good quality, and preferable to that from the other Russian ports, is of two kinds, old and new sables, the former being the best. It used to be exported in considerable quantities; but the shipments are now much reduced.* The grain trade between this country and Petersburg

* M. de Tegoborski observes in regard to the exportation of iron from Russia: — "Bien des personnes croient que puisque la Russie exporte du fer, c'est une preuve qu'elle en produit plus que ne porte les besoins de la consommation intérieure. C'est une manière de juger très-superficielle. D'abord, cette exportation n'a jamais été très-considérable; elle ne s'élève plus qu'à environ 700,000 ou 800,000 poods, représentant un valeur d'à peu près 1 million de roubles d'argent. Puis cette exportation, qui ne se soutient que par la bonne qualité de quelques espèces de nos fers, tres-recherchées pour certains usages, n'est nullement une preuve que les besoins de la consommation intérieure soient satisfaits, *car si le fer en Russie était à meilleur marché, on pourrait consommer plus du double de la production actuelle.*" (i. 300.)

is of very considerable importance; and Russia has become one of the principal sources of our foreign supplies.

But by far the larger portion of the wheat and all the Indian corn which comes to us from Russia, is brought from Odessa, Taganrog (which see), and other ports on the Black Sea and the Sea of Azoff. The oats come principally from Archangel, but the exports from Petersburg are also very considerable. The *Russian wheat*, so called to distinguish it from the *azemaia*, or soft wheat, and the *kubanka*, or hard wheat, is the lowest description of wheat shipped from Petersburg. It is small-grained, and dingy coloured; being though sound, unfit for the manufacture of fine bread. The azemaia is of a larger, though still not a large grain, and better colour, and has of late been extensively imported into England. The kubanka, or hard wheat, is a large semi-transparent grain. Its hardness has nothing of the flinty character of the Spanish hard wheat, which it most resembles. When first brought to London, the millers objected to it, on account of the difficulty experienced in grinding it; but it is now much esteemed. All the Russian wheats are well calculated for keeping, either in granary, or when made into bread: but the kubanka has this quality in a peculiar degree; and is in great demand for mixing with other wheats that are old, stale, or out of condition. A shipment of 100 chetwerts of wheat in Petersburg is found, when delivered here, to yield about 72 imperial quarters.

M. de Tegoborski, in his elaborate and excellent treatise on the *Forces Productives de la Russie* (i. 350.), gives the following—

Account of the Gross Quantities and Values of all Sorts of Corn (Wheat, Barley, Rye, and Oats, ex Indian Corn) exported from Russia in triennial Periods from 1824—26 to 1845—47, both included.

	Corn of all Sorts.	Value in Sil. Roub.		Corn of all Sorts.	Value in Sil. Roub.
1824—26 - - chet.	3,398,127	11,913,200	1836—38 - - chet.	7,540,299*	31,875,200
1827—29 - - —	7,486,012	24,141,500	1839—41 - - —	8,864,564	47,753,900
1830—32 - - —	11,324,831	39,407,400	1842—44 - - —	8,685,907	40,131,400
1833—35 - - —	2,241,266	10,357,900	1845—47 - - —	14,349,986	115,483,700

Imports.—The principal imports are sugar, especially from the Havannah; coffee; madder, indigo, cochineal, and dye woods; cotton wool, cotton stuffs and yarn; machinery and mill work; woollen fabrics and woollen yarn; linen and linen yarn; silk goods; coals and salt, our exports of the former to Russia in 1857 being 277,866 tons, and of the latter 79,826 tons; iron, lead, and shot; hardware and cutlery; wines, especially champagne; spices; fruits; tobacco; tea via Kaichta; with a great variety of other articles.

Commercial Policy.—The policy of Russia, previously to 1857, in regard to commerce, was of a mixed character with, however, a large predominance of illiberality. Machinery and mill-work, including ships with their tackle, steamers, &c., were admitted duty free; as were most other articles necessary to the prosecution of art and science. But most articles of consumption, and some even of those most necessary in production, were either excluded or loaded with oppressive duties. Those on iron, for example, were so very heavy that they went far to prohibit its importation, which did not exceed 10,000 or 12,000 tons a-year. And as the whole, or almost the whole of the iron made in Russia is smelted by means of wood, it cannot be furnished except at a very high price.

The government authorities admit that such is the case. Thus it is stated in the *Supplément au Journal de l'Intérieur* (p. 27), 4 March, 1853, that "*L'emploi exclusif de bois dans nos usines entrave d'une manière invincible le développement ultérieur de l'indu trie de fer.*" And it is further stated in the same article that such, in many parts of the empire, is the scarcity and high price of iron, that the peasants are all but ignorant of its use, and neither employ it in their implements, nor even in shoeing their horses, whose feet are left without any protection! It may be supposed, perhaps, that this can be true only of the more remote and backward districts; but such is not the case. And nothing is more common in the immediate vicinity of Petersburg and Moscow, than for horses to be unshod, and spades, ploughshares, harrows, and such like instruments, to consist wholly of wood.*

It is really astonishing that any government, and especially one so generally intelligent as that of Russia, does not eagerly adopt every possible means of putting an end to such a state of things, and of adding to the efficacy of the labour of its subjects. And to introduce a better system all that is required is to admit foreign iron and iron-ware free of duty; that is, to allow the people freely to exchange their corn, tallow, &c., for the iron and iron implements of England and the Netherlands. The extraordinary magnitude of the exports of corn from the empire, even with its present barbarous husbandry, shows what they might amount to were agriculture a

* See a remarkable and conclusive paragraph to the same effect in the work of Tegoborski, referred to above, i. 298.

little improved, and means of communication opened from the interior to the sea-ports. Under such circumstances there can be little doubt that the exportation of corn, tallow, flax, bristles, &c., would speedily be doubled or trebled; and the population and the government would be enriched by abandoning a system which confers no kind of advantage on any one, except, perhaps (for even that is very doubtful), a mere handful of forest proprietors.

But we are glad to have to state that a better system has been fairly inaugurated. The new tariff, introduced in 1857, though in many respects most objectionable, has effected sundry beneficial changes, and is a very great improvement on that by which it was preceded. It has repealed various prohibitions; and has effected large reductions in the duties on some important articles. Pig iron, bars, and rails that were formerly prohibited, are now admitted at reasonable duties; the duty on cotton twist has been reduced from 5 roub. per pood to 3 1-3rd do.; while cotton, linen, woollen, and silk fabrics, earthenware, sugar, salt, &c. may all be imported at considerably lower rates of duty than formerly. It is true that many of these duties are still much too high. But in matters of this sort it is a great thing to have laid the foundations of a better system. And as the reductions that have been made in the rates of duty have not occasioned any reduction of revenue, and have given a great stimulus to commerce, it would seem that their prospective reduction may be anticipated. There can be no question that it will be at once the readiest and most effective means of developing the productive capacities of this vast empire.

Notwithstanding its reduction the duty on raw sugar imported by sea rather exceeds 3*d.* per lb. English, which, for a country like Russia, is a great deal too high. But it has been imposed not so much for the sake of revenue, as to encourage the production of beet-root sugar, the duty on which is under 1*d.* per lb. Tegoborski has shown the pernicious influence of this system over the trade and revenue of the empire, and the interests of the consumers. And this immense sacrifice is incurred for no better purpose than to divert a portion of the scanty capital and labour of the country to a business of which the eventual success, even with this extraordinary encouragement, is, if not problematical, not worth the cost.

Speaking, generally, the duties are a good deal higher (frequently as much as a third part) on goods imported by sea than on the same goods when imported by land. This is a most unwise distinction. It matters not through what channel an article finds its way to the consumers. Its cost is the only thing to which they attend. And if they can get it cheaper by sea than by land, why force them to resort to the dearer mode of conveyance? If this distinction be resorted to as a means of raising revenue it is, perhaps, the very worst that can be devised. The business of government is to impose reasonable duties on commodities, leaving it to their subjects to import, or procure them through the cheapest channels.

According to Tegoborski (iii. 37.) the imports of raw cotton and cotton yarn into the empire since 1824–6 have been as under, viz.

Years.	Raw Cotton.	Cotton Thread.	Years.	Raw Cotton.	Cotton Thread.
	Poods.	*Poods.*		*Poods.*	*Poods.*
1824–6 av.	74,268	337,001	1842–4 av.	524,511	592,193
1827–9 —	98,100	440,582	1845–7 —	780,149	504,536
1830–2 —	115,996	553,690	1848–50 —	1,339,051	281,590
1833–5 —	171,189	649,399	1851 —	1,460,712	157,931
1836–8 —	282,799	626,713	1852 —	1,748,346	112,733
1839–41 —	355,774	542,125			

It is seen from this table that the annual imports of raw cotton have increased between 1824–26 and 1852, from a mere trifle to about 63,000,000 lbs., while the imports of yarn appear to have declined during the same period to about $\frac{1}{5}$th part of their amount at its commencement. But the imports of the latter have greatly increased since the introduction of the new tariff, though the check thereby given to smuggling may, perhaps, make them appear greater than they really are. But however this may be, we cannot but regard the extension of the cotton manufacture as a serious loss to Russia; for, to suppose that a country without coal, without improved means of communication, with iron at an exorbitant price, and whose inhabitants, thinly scattered over the surface, are mostly in a state of prædial slavery, should succeed in manufacturing industry, is to suppose what is contradictory and absurd. It may be fairly presumed that under a free commercial system the progress of Russia in agriculture and in the ruder and coarser species of manufactures, would be surpassed by few other countries. But she has no aptitude or means for the successful prosecution of the finer description of manufactures. And it is mere *felo de se* policy to make her, as has been done, neglect the former by forcing the cultivation of the latter.

In addition to those on imports, some of the most important articles of native growth were subjected to duties on their being exported; the effect of these being to increase

their price, and narrow their sale in the foreign market. But these have, for the most part, been either repealed or reduced. It is a common, though, perhaps, an exaggerated complaint that the customs authorities are extremely corrupt; and the procedure in contested cases slow, cumbrous, and expensive.

We may farther observe that the accuracy of the official returns of the trade of the empire is not always to be relied on. They frequently involve very grave errors. And though they were as accurate as they might be made, they would necessarily be very defective, inasmuch as they take no account of the smuggling which is extensively carried on.

The charge sometimes made against the Russians of designedly underrating the exports to England is wholly groundless. It arises from the circumstance of many of the ships destined for England clearing out for the Sound. And these being classed in the official returns, under the head of cleared for "other countries," it is proportionally though unintentionally exaggerated, while the clearances for England are proportionally and unintentionally diminished.

Inspection of Goods.—At Petersburg, Riga, and other Baltic ports, when goods are brought from the interior to be shipped, they are inspected and classified according to their qualities, by officers (*brackers*) appointed by government for that purpose, and sworn to the faithful performance of their duty. All sorts of timber, linen and canvass, flax and hemp, linseed and hempseed, ashes, wax, &c. are subject to such inspection. They are generally divided into three qualities: *Krohn* (crown), or superior; *Brack*, or middling; and *Bracks-Brack*, or inferior. This classification is said to be, in most cases, made with considerable fairness. A factor or commission agent in Russia, instructed to buy, on account of his correspondent in England or Holland, a specified quantity of any description of produce subject to the official visit, is not liable to any action in the event of the article being found upon delivery to be of inferior quality, provided he produce a certificate to show that it had been officially inspected, or *bracked*. But a factor is at liberty, should any article delivered to him be manifestly defected, to name 1 or 2 other *brackers* to decide whether the article be merchantable or not.

Native and Foreign Merchants, &c.—Every Russian carrying on trade must be a burgher, and have his name registered in the burghers' book. All whose names are in this book are either townsmen who have property within the city, or members of a guild. There are three guilds. Those who belong to the first must possess 15,000 silver roubles; they may engage in all sorts of commercial transactions, may establish banks, fit out privateers in case of war, and drive about the city in carriages drawn by two horses. Those belonging to the second guild declare themselves possessed of 6,000 roubles; they are not confined to inland trade, but they can only import foreign goods worth 90,000 roubles. A capital of 2,400 roubles entitles its owner to admission into the third guild, which comprises shopkeepers and petty dealers. The rates paid by the members of these guilds amount to 1 per cent. upon their declared capital, the "statement of which is left to the conscience of every individual." Burghers are not obliged to serve in the army, but may provide a substitute, or pay a fine. The *guests*, or foreign merchants, who enrol themselves in the city register on account of their commercial affairs, enjoy privileges nearly similar to those enjoyed by members of the first guild.

Tegoborski gives (iii. 319.) the following account of the number of merchants inscribed in the different guilds, viz: —

Years.	1st Guild.	2nd Guild.	3rd Guild.	Total.
1838—1840 av.	917	1,874	33,516	36,304
1841—1843	908	1,941	35,877	38,726
1844—1846	874	2,132	36,671	39,674
1847—1849	862	2,293	37,774	40,926
1850—1852	924	2,594	42,327	45,642

Tegoborski supposes that the capital belonging to the merchants of the first guild may amount, at an average, to 100,000 silver roubles; to the second, to 40,000 roubles; and to the third, to 1,000 roubles. In addition to the above there are about 4,500 small dealers with certificates.

It is useless to enlarge on the impolicy of these distinctions. They prevent men of limited capital, but of enterprise and intelligence, from engaging in those branches in which they would be most likely to succeed. The duties on *guests*, or foreign merchants, may, at an average, amount to about 180*l.* or 190*l.* a year.

None but native Russians are allowed to engage in the internal trade of the country; and hence a foreigner who imports goods into Russia, must sell them to Russians only, and at the port where they arrive. A few foreigners, indeed, settled in Russia, and having connections with the natives, do carry on a trade with the interior; but it is contrary to law, and the goods are liable to be seized.

The merchants engaged in foreign trade are mostly foreigners, of whom the English are the principal. The peculiar privileges formerly enjoyed by the latter are now nearly obsolete and their rights, in common with those of other foreigners, are merely those of *guests*. The English factory is, at present, little more than a society formed of some of the principal English merchants, several of whom, however, do not belong to it: its power extends to little else than the management of certain funds under its control.

Purchase and Sale of Commodities, &c. — Owing to the scarcity of capital in Russia, goods the produce of the country are frequently paid for in advance; and foreign goods are most commonly sold upon credit. From the month of November till the shipping season in May, the Russians who trade in flax, hemp, tallow, bristles, iron, &c. either come themselves to Petersburg, or employ agents to sell their goods to foreigners, to be delivered, according to agreement, in May, June, July, or August. The payments are made according to the circumstances of the sellers and buyers; sometimes the buyer pays the whole amount, in the winter months, for the goods which are to be delivered in the summer or autumn; and sometimes he pays a part on concluding the contract, and the remainder on delivery of the goods. The manufacturers and dealers in linen usually come to Petersburg in March, and sell their goods for ready money.

Foreign goods were formerly almost entirely sold at a twelvemonth's credit, and some at a still longer term; but of late years several articles, as coffee and sugar, are sold for ready money; still, however, the great bulk of foreign goods for the supply of the interior is sold on credit. Most part of the Russians who buy goods on credit of foreigners, for the use of the interior, have no other connection or trade with Petersburg, than merely coming there once or twice a year to make purchases; which having accomplished, they set off with the goods, and the foreigner neither sees nor hears of them again till the bill becomes due.

It is obvious from this statement, that experience and sagacity are nowhere more requisite in a merchant than here. He has nothing, in fact, but his own knowledge of the native dealers to depend upon; and it is highly creditable to the Russians, that foreigners do not hesitate to trust them with immense sums on such a guarantee. A foreign merchant, carrying on business in Russia, must also be acquainted with the customary forms and obligations of contracts; the mode of making payments; the many formalities that encumber, and sometimes turn aside, the course of justice; the spirit, still more than the letter, of the tariff and the Custom-house regulations; the privileges claimed by the Crown, and the different orders; with a variety of other particulars, which attentive able men may learn on the spot, and nowhere else.

"Another circumstance connected with the British trade is too curious to be passed in silence. Every mercantile house in Petersburg employs certain men, called in the language of the country *artelschicks*, who are the counting-house men, and employed by every merchant to collect payment on bills, and to receive money, as well as, in many instances, to pay it in very considerable sums. This is an important part of their trust. There being no bankers in Russia, every mercantile house keeps its own cash; and as the payments between merchants, and for bills of exchange, are made entirely of bank notes of no higher value than 5, 10, 25, 50, and 100 roubles — most of them in so tattered a state as to require several hours to count over a sum of 2,000*l.* or 3,000*l.*— this business is performed by artelschicks; and very few instances have occurred of loss by their inattention, either in miscounting the notes, in taking false notes, or, where they are much torn, in receiving parts of different bank notes.

"These artelschicks are also employed to superintend the loading and unloading the different cargoes; they receive the most valuable into the warehouse, where they are left solely under their care; and in these warehouses, not merely merchandise, but often large quantities of dollars, are deposited. These Russians are mostly natives of Archangel, and the adjacent governments, of the lowest class: are often slaves, generally of the Crown; and the only security of the merchant arises in some degree from the natural reluctance of the Russian to betray confidence reposed in him; but in a much greater from their association, which is called an artel.

"An artel consists of a certain number of labourers, who voluntarily become responsible, as a body, for the honesty of each individual. The separate earnings of each man are put into the common stock; a monthly allowance is made for his support; and at the end of the year the surplus is equally divided. The number varies in different associations from 50 to 100; and so advantageous is it considered to belong to one of these societies, that 500 and even 1,000 roubles are paid for admission. These societies are not bound by any law of the empire, or even written agreement; nor does the merchant restrain them under any legal obligation; yet there has been no instance of their objecting to any just claim, or of protecting an individual whose conduct had brought a demand on the society." — (*Coxe's Travels in Russia*, vol. iii. p. 315.)

Few Russian merchants engage in foreign trade. It is carried on principally in foreign bottoms, of which by far the larger proportion are English. Marine insurances are generally effected in London or Amsterdam: there being no establishment for that department of business in Russia. An insurance company against fire has been established in Petersburg, and enjoys several privileges. It is a joint stock company, divided into actions or shares. It has been very successful: and its shares are at a high premium. No insurance on houses or goods in Russia, made in a foreign country, can be legally recovered; no official documents of loss being allowed to be furnished for such a purpose. A life insurance company has, also, been established.

Trade of the U. Kingdom with Russia.

Imports.—Account of the Quantities and Values of the Principal Articles imported from the Northern Ports of Russia into the U. Kingdom in 1853, 1856, and 1857.

Principal Articles.		Quantities.			Computed Values.	
		1853.	1856.	1857.	1856.	1857.
					£	£
Bones of animals and fish (except whale fins)	tons.	1,386	13,383	12,292	68,588	76,210
Bristles	lbs.	2,477,789	1,692,368	2,105,555	210,786	278,675
Corn—Wheat	qrs.	251,971	467,617	296,906	1,426,252	769,782
Oats	,,	370,059	331,321	640,421	397,585	735,246
Other kinds	,,	12,100	20,308	26,048	24,861	47,920
Feathers for beds	cwts.	3,506	2,193	1,535	14,710	10,029
Flax, undressed	,,	1,067,364	927,252	1,081,657	2,039,954	1,924,707
Tow and codilla	,,	216,424	148,924	193,195	223,386	284,996
Hair, horse	,,	5,491	2,600	2,369	16,152	13,286
Hemp, dressed	,,	23,141	17,417	29,747	36,576	75,642
undressed	,,	815,189	522,738	550,950	914,278	883,708
Hides, not tanned	,,	11,115	6,805	32,199	29,514	178,135
tanned, tawed, curried, or in any way dressed	lbs.	17,692	21,943	251,669	1,653	13,456
Muscovy or Russia hides	,,	49,477	36,696	83,809	4,587	9,429
Iron in bars, unwrought	tons	5,079	11,700	5,118	194,512	79,915
Isinglass	cwts.	971	525	861	20,598	33,751
Mats and matting	,,	-	-	-	13,538	16,259
Oil seed cake	tons.	2,218	1,349	696	11,602	5,887
Quills, goose and swan	no.	11,328,500	17,653,500	10,280,900	19,360	13,493
Rags and other materials for making paper	tons	1,040	975	2,111	21,450	46,295
Seeds—Linseed and flaxseed	qrs.	378,320	465,184	368,830	1,161,248	1,034,998
Tallow	cwts.	824,854	611,249	738,919	1,604,528	1,976,872
Tar	lasts	11,551	11,062	14,128	127,216	131,390
Wood and timber, not sawn or split	loads	47,279	38,232	30,346	118,520	91,055
Deals, battens, boards, &c. sawn or split	,,	255,855	251,224	249,863	838,462	738,885
Eathwood	fathoms	5,420	4,134	5,614	38,809	44,214
Wool or hair, goats'	lbs.	244,742	13,019	39,881	1,410	4,819
Wool, sheep and lambs'	,,	3,714,752	2,106,017	3,588,678	82,266	132,477
Total value of the above and of all other articles		-	-	-	9,999,579	9,929,104

The years 1854 and 1855, being those of the war with Russia, are omitted. The computed value of the imports was not ascertained previously to 1854.

Account of the Quantities and Computed Values of the Principal Articles imported into the U. Kingdom from the Southern Ports of Russia in 1853, 1856, and 1857.

Principal Articles.		Quantities.			Computed Values.	
		1853.	1856.	1857.	1856.	1857.
					£	£
Corn—Wheat	qrs.	818,930	291,842	409,469	890,117	1,039,721
Barley	,,	51,088	35,284	169,940	58,219	215,366
Maize or Indian corn	,,	180,554	61,386	313,330	98,217	554,352
Other kinds	,,	19,812	695	142,000	836	168,411
Seeds—Linseed and flaxseed	,,	386,699	144,579	516,739	446,388	927,464
Rapeseed	,,	-	55	1,006	74	1,760
Tallow	cwts.	21,048	17,789	100,338	46,697	280,042
Wool, sheep and lambs'	lbs.	5,360,467	455,957	6,919,365	19,473	288,497
All other articles	value	-	-	-	2,524	44,867
Total		-	-	-	1,562,345	3,518,480

Account of the Quantities and Declared Values of the Principal Articles of the Produce and Manufacture of the U. Kingdom, exported to the Northern Ports of Russia in 1853, 1856, and 1857.

Principal Articles.		Quantities.			Declared Values.		
		1853.	1856.	1857.	1853.	1856.	1857.
					£	£	£
Apothecary wares, &c.	cwts.	1,714	-	-	7,589	12,631	14,414
Apparel, slops, and haberdashery	value	-	-	-	2,795	3,618	11,190
Beer and ale	barrels	4,244	2,256	3,213	12,861	8,044	11,554
Bricks	no.	927,488	1,085,661	1,454,350	2,085	2,709	3,734
Coals, cinders, and culm	tons	204,865	228,297	277,866	74,830	103,171	123,116
Cottons, entered by the yard	yards	1,520,685	875,763	4,589,065	34,333	21,275	117,658
,, ,, at value	value	-	-	-	8,592	4,481	11,122
Cotton yarn	lbs.	2,290,800	3,859,008	12,982,699	137,324	215,226	693,857
Earthenware and porcelain	value	-	-	-	3,673	3,804	15,595
Hardwares and cutlery	cwts.	9,614	14,030	20,065	56,521	69,214	106,568
Iron, wrought and unwrought, including unwrought steel	tons.	9,329	20,389	12,693	104,625	223,626	174,353
Lead and shot	,,	2,753	6,382	3,425	59,217	159,246	82,929
Linen yarn	lbs.	115,575	35,576	83,047	9,426	3,608	6,578
Machinery, steam engines	value	-	-	-	60,892	24,193	61,644
,, all other sorts	,,	-	-	-	190,856	235,923	517,654
Painters' colours	,,	-	-	-	6,893	21,296	8,848
Salt	tons	59,536	59,485	79,826	35,574	40,391	53,428
Soda	cwts.	13,845	82,667	153,264	6,452	38,912	67,495
Silk manufactures	value	-	-	-	6,729	11,882	16,009
Stationery	,,	-	-	-	5,582	5,114	8,406
Tin, unwrought	cwts.	5,225	5,338	4,951	28,370	34,812	33,578
Tin plates	value	-	-	-	5,601	5,513	23,645
Woollen yarn	lbs.	1,017,744	492,016	2,532,656	129,617	52,460	360,099
Woollens, entered by the piece	pieces	7,162	4,819	14,678	16,988	19,419	55,570
,, ,, by the yard	yards	62,299	75,251	390,539	7,538	6,959	23,881
,, ,, at value	value	-	-	-	910	1,386	3,088
Total value of the above and of all other articles		-	-	-	1,106,766	1,446,542	2,828,287

Account of the Exports of Foreign and Colonial Produce and Manufactures from the U. Kingdom to the Northern Ports of Russia in 1853, 1856, and 1857.

Principal Articles.	Quantities.			Computed Values.	
	1853.	1856.	1857.	1856.	1857.
				£	£
Cochineal - - - cwts.	1,715	1,651	2,124	35,682	46,409
Coffee - - - lbs.	626,963	1,952,508	2,047,647	52,818	63,763
Cotton, raw - - - cwts.	456,941	331,351	279,059	977,323	993,469
Indigo - - - „	14,755	10,762	10,656	324,743	341,258
Logwood - - - tons	1,165	1,706	2,198	11,671	13,290
Pepper - - - lbs.	83,169	97,600	274,403	2,033	5,717
Pimento - - - cwts.	682	880	835	1,898	1,754
Quicksilver - - - lbs.	93,552	66,683	84,431	5,765	8,795
Rice, not in the husk - - cwts.	15,606	15,151	26,557	7,069	15,160
Silk, thrown - - - lbs.	1,191	26,407	4,244	36,311	7,181
Spirits—rum - - proof gallons	50,133	45,739	43,748	5,493	5,206
Sugar, unrefined - - cwts.	782	2,671	6,026	4,376	12,611
refined - - „	12,589	9,946	7,623	17,590	17,470
Tobacco, unmanufactured - lbs.	9,879	77,006	372,136	3,209	15,506
Wine - - - gallons	63,238	86,368	56,569	34,303	20,468
Total value of the above and all other articles - - - -	- -	- -	- -	1,712,594	1,793,290

The value of the exports of British produce to Southern Russia in 1857 amounted to 270,532*l.*; and that of colonial and foreign produce from the U. Kingdom to 82,950*l.*

M. de Tegoborski gives the following Account of the Exports of Flax and Hemp from Russia from 1822 downwards (ii. 9.)

Years.	Flax and Codilla of Flax.	Hemp and Codilla of Hemp.	Total of Flax and Hemp.
	Average of 4 Years.	Average of 4 Years.	Average of 4 Years.
1822—1826	1,906,641 poods	2,938,673 poods.	4,845,314 poods
1827—1831	2,539,978 —	2,526,095 —	5,066,073 —
1832—1836	2,499,922 —	3,065,420 —	5,565,342 —
1837—1841	3,125,597 —	3,260,817 —	6,386,394 —
1842—1846	3,665,766 —	2,802,419 —	6,466,175 —
1847—1850	4,616,755 —	2,819,781 —	7,436,536 —

We borrow the following Statement in regard to the Trade of Russia in 1857 from the Official Account published at Petersburg (in Russ) in 1858.

List of Goods cleared for exportation at the Custom House of Petersburg and other Baltic Ports.

Articles.	Petersburg.	Other Ports.	Articles.	Petersburg.	Other Ports.
Bristles . . . poods	69,324	31	Samvay and others . „	. .	2,790
Caviare . . . „	1,072	4	Linen manufactures: flems . pieces	12,942	43
Copper . . . „	154,424		ravensduck . . „	23,328	713
Cordage . . . „	378,737	42,252	sailcloth . . „	5,880	903
Down: eider . . „			diaper, drilling, crash . arshines	3,793,334	20,327
goose . . „	. .	2,676	Meal different kinds . chet.	158,213	1,772
goats . . „	. .	10,360	Oil, linseed and hempseed . poods	272,597	52,774
Drug wares . . val. roub.	. .	277,954	Oleine . . . „	. .	14,895
Feathers . . . poods	35,829	6,161	Peas . . . chet.	1,282	5,963
Flax . . . „	698,824	3,288,615	Potasses . . . poods	605,312	1,878
codilla . . „	368,857	178,454	Seeds: aniseed . . „	. .	1,719
yarn . . „	2,629	10,745	cuminseed . . „	. .	2,099
Glue . . . „	. .	28,641	hempseed . . chet.	. .	13,579
Grain: barley . . chet.	14,602	172,042	linseed . . „	333,032	306,574
oats . . „	492,150	249,446	Skins: wolf, badger, cat, and others (from the tariff of 1857) „	. .	1,630
rye . . „	588,430	132,077		. .	4,026
wheat . . „	325,484	4,439			
Hair: goats, cow, horse, etc. poods	. .	627	hares . . „	4,105	
Hemp . . . „	1,575,012	1,265,529	Tallow . . . „	2,692,576	15,742
codilla . . „	50,261	40,399	candles . . „	. .	665
yarn . . „	111,769	67,759	Stearine . . . poods	. .	13,995
Hides: red . . „	24,756	3	candles . . „	. .	25,818
other sorts . „	167,116	49,684	Wax, yellow . . „	199	
dressed . . piece	1,484		Wood . . per val. of roub.	1,155,359	2,028,081
Horses manes . . poods	14,458	2,280	Wool, sheep . . poods	167,251	1,330
tails . . „	11,780	413	yarn . . „	. .	1,616
Iron . . . „	259,102		Sundries . . per val. of roub.	3,324,820	
sheet . . „	138,049				
wire . . . „	. .	28,200	Total value . . .	50,364,111	26,311,702
cast . . . „	. .	43,025	Total value of the exports from the Baltic . .	. .	76,675,813
Isinglass . . . „	3,995				

Summary Account of the Shipment of some leading Articles from Petersburg and other Baltic Ports in 1857 and some previous Years.

	Petersburg.	Other Ports.	Total.		Petersburg.	Other Ports.	Total.
Hemp, poods				1857 . .	605,312	1,878	607,190
1849 . .	1,952,927			Flax, poods			
1857 . .	1,737,042	1,373,667	3,110,709	1849 . .	891,885		
Wheat*, chetw.				1857 . .	1,126,118	3,477,812	4,603,912
1847 . .	555,500			Barley, chetw.			
1857 . .	325,484	4,439	329,923	1851 . .	1,466		
Rye				1857 . .	14,602	172,042	186,644
1851 . .	195,330			Linseed, chetw.			
1857 . .	588,430	132,077	720,507	1849 . .	302,665		
Oats,				1857 . .	333,032	306,574	639,606
1847 . .	380,056			Corn—spirits			
1857 . .	492,150	249,446	741,596	1857 . . vedras	100,375		
Potashes, poods				For the sum of silver roubles	. .		183,055
1851 . .	506,905						

N.B.—The new tariff came into operation on the 9th June, 1857.

* The greatest export of wheat is from the S. ports.

Account of the Principal Imports from abroad in 1856 and 1857.

Articles.		1856.	1857.	Articles.		1856.	1857.
Coffee	poods	273,815	295,760	Dyes	s. roub.	7,394,891	8,959,584
Raw sugar	—	1,134,194	1,441,757	Silk	poods	22,687	14,321
Lump sugar	—	263,894	281,912	Wool	—	152,964	167,100
Olive oil	—	555,592	672,855	Cotton manufactures	s. roub.	5,136,635	7,380,419
Wines and spirits	s. roub.	8,009,581	9,088,066	Silk ditto	—	6,703,632	7,169,966
Fruits	—	3,762,910	4,996,251	Woollen ditto	—	2,207,445	4,244,808
Cotton	poods	2,220,622	2,438,573	Linen ditto	—	1,916,284	2,075,759
Cotton yarn, white	—	121,112	334,803	Machinery and models	—	2,392,013	7,611,305

Account of the Prices free on Board, Exchange, 34½*d.* to 35½*d.* per Roub. of some of the Principal Articles of export at Petersburg in December, 1857.

		Ro.			*Ro.*
Tallow, yellow candle	cwt.	47, 43	Potashes	cwt.	27
Hemp, clean, common	—	27	Linseed	chet.	11
outshot	—	24	Wheat	—	10
half-clean	—	23	Rye	—	6
Flax, twelve-head	—	30	Oats	—	4
nine-head	—	27	Iron	pood.	1, 55
six-head	—	24	sheets	—	3, 10

A General Review of the Foreign Trade of Russia in 1857.

The foreign trade of Russia in 1857 compared with that of 1856, shows the following results, viz.:

To Europe and America.—

Exports—the amount was: 1856. 1857.

From Russia, S. Rs.	136,492,398	S. Rs.	141,363,189
From Poland —	10,279,496	—	12,056,784
To Asia —	10,593,882	—	11,945,598
To Finland —	2,884,096	—	4,322,563
Total S. Rs.	160,249,872	S. Rs.	169,688,134

The *Imports* amounted from Europe & America

1856.		1857.	
Into Russia S. Rs.	90,171,961	S. Rs.	117,941,761
Into Poland —	14,823,464	—	13,833,817
From Asia —	17,002,189	—	19,347,199
From Finland —	564,828	—	564,022
Total S. Rs.	122,562,442	S. Rs.	151,686,799

It appears from this that the export trade of Russia was greater in 1857 than in 1856 by 9,438,262 S. Rs., and the imports greater by 29,124,357 S. Rs.

Gold and silver coined, were exported—

From Russia	S. Rs.	17,778,304
Poland	—	146,554
To Asia	—	5,745,228
Total	S. Rs.	23,670,076

Gold and silver coined and in bars, were brought in—

To Russia	S. Rs.	8,286,980
Poland	—	291,795
From Asia	—	196,952
Total	S. Rs.	8,775,727

The Exports of the Principal Articles in 1856 and 1857 were

Articles.		1856.	1857.	Articles.		1856.	1857.
Corn	S. R.	56,602,374	51,588,981	Iron	poods	1,387,011	828,693
Wood	—	5,945,924	6,005,325	Coffee	—	171,388	161,570
Hides	—	1,450,716	4,643,969	Wool, sheeps'	—	634,298	1,036,350
dressed	—	1,151,787	1,537,460	Potashes	—	528,727	610,411
Flax	poods	4,459,482	4,610,067	Bristles	—	85,481	83,845
Tallow	—	3,945,325	3,503,594	Hemp and linseed	chet.	1,960,051	1,464,574
Hemp	—	3,340,540	2,932,606				

Trade with Finland.—The imports were almost the same in both years, 1856 and 1857, but the exports in 1857 were much higher.

All the import from Finland was for S. R. 564,022; 806 r. less than in 1856. The export to Finland was for S. R. 4,322,694; 1,438,467 r. more than in 1856.

The principal articles exported are—corn for 3,174,694 r.; tobacco for 135,187 r.; cordage for 129,706 r.; and stearine and tallow candles for 100,225. The imports are—iron, cast iron, and copper for 227,381 r.; and cotton manufactures for 144,838 r.

Trade with the Transcaucasian Provinces and the Caspian Sea.—Exports in 1856, S. R. 1,306,217; in 1857, S. R. 1,757,493. Imports in 1856, S. R. 4,350,063; in 1857, S. R. 4,775,263.

Principal export articles: silk, in 1857, for val. of 826,719 s. r.—247,942 r. more than in 1856; metal in bars and objects for 269,082 r.; hides for 185,284 r.; and silk manufactures for 61,676 r.

Principal import articles: from Asia—cotton manufactures for val. of 1,366,436 r.; silk manufactures for 403,158 r.; and fruits for 332,389 r. From Europe: sugar in loaf, for 507,034 r.; cotton manufactures for 414,926 r.; and silk manufactures for 82,382 r.

The export trade of Astrakhan in 1857 exceeded by 70,767 r. the export of 1856, and the imports were 172,052 r. less. The exports were copper, iron, and other metals, in bars and objects, for val. of 215,842 r. The import into Astrakhan was for val. of 1,045,848 r.; the principal articles were—silk, for 360,633 r.; fruits for 211,339 r.; and cotton for 115,972 r.

The trade on the Orenburg and Siberian lines has been very successful. Exports in 1856, val. S. R 2,935,289; in 1857, 3,838,867. Imports in 1856, val. S. R. 5,098,964; in 1857, 6,047,545.

The principal articles exported: cotton manufactures for 1,942,116 r.; hides dressed, 528,556 r.; corn, 297,852 r.; and metals, in bars and objects, 277,455 r.

The principal articles imported: cotton and cotton-yarn, 761,882 r.; cotton manufactures, 717,361 r.; hides, 659,152 r.; fruits, 169,522 r.; and leaf and brick-tea, 4,250 poods, for val. of 88,064 r.; cattle by barter from the Kirgises, for val. of 2,354,696 r.

Trade at Kiachta.—The trade was not only greater than in 1856, but more even than in 1848, which was the most profitable. In 1857 the imports of leaf tea, 165,202½ chests, and brick tea 45,599 chests; being 46,406 of the first, and 15,737 bales of the last, more than in 1856.

From this quantity and from the tea remaining at Kiachta of the former year, there were cleared out at the custom-house, leaf-tea, 146,714, and brick-tea, 43,479 chests.

There was paid to the Chinese in articles of all sorts, in gold and silver, the sum of 7,478,543 r.

The quantities and value of the woollens sold to the Chinese were 651,446 arshines, worth 1,416,298 r.

The custom duties produced 5,560,531 r.; being 1,150,372 r. more than in 1856.

Navigation in 1857.—English and Dutch ships were more numerous than any other: of the former there arrived 1,989, and of the latter, 959. Of ships which arrived under other flags were Russian, 780; Swedish, 677; Austrian, 512; Turkish, 498; Danish, 449; Sardinian, 449; and of other nations, 2,525.

Commercial Shipping in 1856 and 1857.

	Ships arrived.		Ships sailed.	
	1856.	1857.	1856.	1857.
Baltic ports	5,881	4,680	5,550	5,020
White Sea ports	842	779	880	794
Southern ports	4,252	3,379	4,040	3,272
Total	10,976	8,838	10,470	9,086
Of which:—				
With goods	5,178	4,517	9,448	8,427
In ballast	5,798	4,321		
Agg. tonnage in lasts	937,404	867,413	928,684	944,053

Foreign Steamers.—The steam communication with foreign ports has greatly increased. At Cronstadt steamers arrived from England 171 times, from Prussia 66, from Lubeck 50, from Holland 40, from France 23, from Denmark 17, from Sweden 10, from Italy 2, from Spain 1, from Belgium 1; in all 381 times.

At the port of Riga: from Lubeck 26 times, from England 15, from Prussia 10, from Denmark 1; in all 52 times.

At the port of Odessa: from Turkey 83 times, from England 41, from France 4, and from Italy 1; in all 129 times.

Coasting Steamers.—The Russian and Finnish steamers, which maintain a communication between Petersburg and the Finnish ports and ports of the Ostsea provinces, arrived at Petersburg 97 times. The steamers, which convey passengers and goods between Odessa, Cherson, and the other ports of southern Russia, made 557 trips. Besides steamers kept up a communication between the ports on the Sea of Azoff and on the Caspian Sea.

Custom-house Revenues in 1857.

	S. Ro.	Co.
Custom-house receipts, *i. e.* duties on imports and exports; lastage on ships, and other fines	31,667,379	66
Levies for various towns	1,027,360	1¼
Towards repayment of the loans for the construction of the Nicholas bridge, and for the quay of Vassily Ostrof	271,185	4
Excise of Crimean salt	249,183	63
For bonding goods and warehouse rent	247,197	18¾
Levy for the Lyceum at Odessa	60,106	67½
Total	33,522,491	20¾

Increase over 1856: in duties, 5,581,250 S. Ro. 34½ Co.; other fines, 321,251 S. Ro. 55½ Co.

The custom-house receipts in Poland, in 1857, were in all 2,276,090 S. Ro., being 88,458 S. Ro. 6¾ Co. more than in 1856.

We beg again to observe that this increase of the custom-house revenues concurs with the lowering of the tariff, though the new tariff was only in action about half a year.

Account of the Quantities of the principal Articles exported from St. Petersburg in 1858, specifying the Countries to which they were mostly sent, and the Quantities sent to each.

Articles.	Great Britain.	France.	America.	Other Countries.	Total.
Hemp poods.	1,168,799	32,499	58,639	167,900	1,427,837
Hemp yarn "	61,695	64	61,740	4,369	127,868
Flax "	829,546	156,483	631	11,181	997,841
Tow and codilla of flax "	138,393	34,384	. .	38,353	211,970
Tallow "	2,544,311	71,700	. .	270,146	2,886,157
Bar iron "	70,000	2,500	. .	5,663	78,163
Bones "	691,475	204	. .	886	692,545
Potashes "	44,485	56,446	. .	461,724	562,655
Bristles "	49,395	10,930	6,306	5,585	72,014
Isinglass "	3,503	648	14	1,012	5,177
Feathers "	7,781	283	1,225	26,604	35,893
Wool "	72,434	869	368	1,073	74,744
Horsetails "	5,302	360	9	4,140	9,811
Raw hides "	8,569	. .	. .	2,105	10,674
Cordage "	10,312	17,783	29,443	45,787	103,325
Oil rope "	31,647	154,364	10,486	5,580	182,077
Stearine "	10,331	. .	. .	2,373	12,704
" candles "	5,524	8,859	. .	30,029	44,412
Linseed chetverts	177,499	2,537	2,000	32,709	214,745
Wheat "	216,034	. .	. .	907	216,941
Oats "	814,157	4,335	. .	89,189	907,681
Crash arsheens	3,154,000	. .	1,567,000	82,000	4,803,000
Deals standard dozen	292,297	3,006	. .	8,670	303,973
Lathwood pieces	335,791	. .	. .	. .	335,791
Mats "	220,769	11,445	9,650	74,851	316,715
Number of vessels, British	676	. .	. .	3	679
" foreign	544	105	10	541	1,200

The total value of the exports from St. Petersburg during the same year, in gold and silver, was estimated at 68,641,030 S. roub.

Account of the Quantities and Values of the Imports into the Port of St. Petersburg in 1853, 1856, 1857 and 1858.

Articles.	1853.	1856.	1857.	1858.
Gold and silver roubles	7,974,935	9,343,672	3,125,963	4,145,556
Raw sugar poods	946,533	1,259,906	1,826,213	835,286
Loaf "	No return.	22,225	1,461	No return.
Coffee "	159,244	201,072	186,006	202,010
Tobacco "	No return.	80,647	59,914	52,836
Wine in casks ankers	182,119	No return.	No return.	No return.
" in poods	No return.	438,935	366,674	277,887
" in bottles	104,110	1,045,110	978,794	690,774
Champagne, in "	709,953			
Olive oil poods	No return.	211,787	367,121	612,250
Dye stuffs "	"	864,292	1,186,609	600,207
Salt "	"	808,051	578,160	537,678
Coal "	"	11,966,400	14,485,115	14,992,269
Raw cotton "	1,833,675	2,037,175	1,811,518	2,235,406
Cotton yarn "	49,686	83,173	290,261	141,982
Raw and spun silk "	No specific return.	5,494	3,994	3,618
Spun wool "	"	58,603	66,310	No return.
Manufactured goods:				
Cotton "	7,549	5,774	26,237	29,625
Flaxen "	511	2,451	6,899	12,401
Silk "	3,299	1,952	4,482	5,462
Woollen "	6,756	6,092	14,543	17,530
Various goods, value in roub.	31,653,002	15,728,080	25,589,419	23,611,268
Total value of imports, roub.	71,473,328	68,871,752	88,908,190	95,297,774

Entries of Shipping at the Port of St. Petersburg.

	1853.	1856.	1857.	1858.
American	41	40	43	39
Belgian	.	6	2	2
Bremen	8	8	11	8
Danish	178	545	212	188
Dutch	221	575	549	312
English	787	867	902	817
French	41	89	128	122
Greek	1			
Hamburg	3	26	7	7
Hanoverian	46	200	139	89
Lubeck	78	90	92	68
Mecklenburg	19	25	28	6
Neapolitan	22	15	35	55
Norwegian	78	148	90	103
Oldenburgh	42	59	62	57
Portuguese	.	1	2	1
Prussian	97	255	141	107
Rostock	26	10	.	53
Russian	105	97	130	72
Spanish	1			
Swedish	127	318	150	56
Total number of ships	1,921	3,374	2,725	2,140
Of which were steamers	225	430	478	574
And of these were British	16	155	171	146
Total tonnage	357,548	519,710	456,464	455,519
Of which was British	186,216	211,380	209,352	221,570
Ships with coal	627	531	680	754

Account of the Real Value of the British Products and Manufactures exported from the U. Kingdom to Russia in each of the 7 Years ending with 1858.

Russia.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
	£	£	£	£	£	£	£
Northern ports	994,330	1,106,766	4,798	—	1,446,542	2,828,287	2,728,398
Southern ports	105,587	121,638	49,503	—	148,695	270,532	367,880
Total	1,099,917	1,228,404	54,301	—	1,595,237	3,098,819	3,096,278

This statement sets the influence of the reduction of the duties in 1857 in the most striking point of view. It is most likely, indeed, as already observed, that the increase may have been in some degree occasioned by a decrease of clandestine importation. But, independently of this indirect effect, there can be no manner of doubt that there has been a large increase of consumption. And we would fain hope that the extremely advantageous results of the reductions already made may speedily lead to others. It may be observed with reference to our trade with Russia, that a large proportion of the British ships and produce destined for Odessa and other ports on the Black Sea, and the Sea of Azoff, clear out for Constantinople, and are included among the clearances and exports for Turkey.

Exports of Wool from Russia.

	Poods.		Poods.
From 1800 to 1813, average annual exportation,	19,813	In 1841, average annual exportation	456,181
— 1814 — 1823 — —	35,173	— 1845 — —	783,588
— 1824 — 1833 — —	111,546	— 1849 — —	601,636
— 1834 — 1837 — —	300,100	— 1856 — —	617,062
— 1838 — 1841 — —	375,680	— 1857 — —	1,036,550

In addition to the modifications of the tariff, the measures that the Russian government have lately adopted in regard to the emancipation of the slaves, and the construction of railways, are of the highest importance. The capacities of production possessed by Russia are not surpassed by those of any other country, and their greater development cannot fail to give a vast stimulus to her trade and civilisation, and to add greatly to her political influence.

In compiling this article, we have consulted *Schnitzler, Essai d'une Statistique Générale de la Russie*, pp. 133—157.; and his *Russie, Pologne, et Finlande*, pp. 187—289.; *Ricard, Traité Général du Commerce*, ed. 1781, ii. pp. 268—317.; *Tegoborski, Forces Productives de la Russie, passim*; *Coxe's Travels in the North of Europe*, 8vo ed. iii. pp. 283—358, &c.; *Clark's Russian Trader's Assistant*, a valuable and useful work; *Supplement au Journal de St. Petersbourg*, for 1852—53; *Consular Returns* from Petersburg and Odessa; but we have derived our principal information from the official returns published by government, and *private communications* of eminent Russian merchants.

PEWTER (Ger. *Zinn, Zinngeisserzinn*; Fr. *Etain*; It. *Stagno*; Sp. *Estano, Peltre*; Rus. *Olowo*), a factitious metal used in making plates, dishes, and other domestic utensils. It is a compound, the basis of which is tin. The best sort consists of tin alloyed with about 1-20th or less of copper, or other metallic bodies, as the experience of the workmen has shown to be most conducive to the improvement of its hardness and colour, such as lead, zinc, bismuth, and antimony. There are 3 sorts of pewter, distinguished by the names of plate, trifle, and ley-pewter. The 1st was formerly much used for plates and dishes; of the 2d are made the pints, quarts, and other measures for beer; and of the ley-pewter, wine measures and large measures. — (*Ure.*)

PHILADELPHIA, a large city and sea-port of the United States, in Pennsylvania, near the confluence of the rivers Delaware and Schuylkill, lat. 39° 57′ N., lon. 75° 10′ 59″ W. Population, in 1855, 423,000.

Harbour, Light-houses, Pilotage, &c.—Vessels of the largest burden ascend the river as far as Newcastle, but those drawing above 18 or 20 feet water cannot reach Philadelphia, on account of a bar a little below the city. The entrance to the magnificent bay formed by the embouchure of the Delaware, has Cape May on its north, and Cape Henlopen on its south side. The former, in lat. 38° 57′ N., lon. 75° 47′ 45″ W., is a sandy headland, rising about 12 feet above the level of the sea. It has recently been surmounted by a light-house 60 feet in height. The light revolves once a minute; an eclipse of 50 seconds being succeeded by a brilliant flash of 10 seconds. It is seen in clear weather from 20 to 25 miles off. Cape Henlopen, marking the southern boundary of the bay, is in lat. 38° 47′ N., lon. 75° 4′ 45″ W. A little south from it is a hill, elevated about 60 feet above the level of the sea; and on it is erected a light-house, 72 feet in height, furnished with a powerful *fixed* light visible in clear weather 10 leagues off. To the N. of this principal light, and close to the extremity of the cape, a second light-house has been constructed, 36 feet above the level of the sea, which is also furnished with a *fixed* light, which may be seen about 6 leagues off. The channel for large ships is between Cape Henlopen and the banks called the Overfalls. The navigation is, however, a little difficult, and it is compulsory on ships to take pilots. The latter frequently board them at sea; but if not, as soon as a ship comes between the capes, she must hoist the signal for a pilot, and heave to as soon as one offers to come on board.—(*Coulier sur les Phares*, 2d ed. See *post*, for regulations as to pilotage.)

Trade. — The trade of Philadelphia is pretty extensive. She communicates by various canals (one of which, 395¼ miles in length, unites her with Pittsburg, on the Ohio) and railways with the interior, and is the grand dépôt for the coal of the Union, the increase of the trade in which has been quite unprecedented. Previously to 1825 no coal had been sent down the Schuylkill, and in that year only 5,306 tons were brought by that channel to Philadelphia, whereas in 1857 the quantity amounted to 3,042,378 tons, exclusive of about twice as much supplied by other channels. Large quantities of this coal are sent coastwise to other parts of the Union. Exclusive of coal and iron, the exports principally consist of wheat and wheat flour, Indian corn, of which large quantities have latterly been sent to England, and other agricultural products; but the exports of these articles have not increased much of late years; and Philadelphia is, in truth, becoming more a manufacturing than a trading city. The principal imports are cotton, woollen, and silk goods, sugar, coffee, and tea; iron and hardware; wines, brandies, spices, dye-stuffs, &c. In point of shipping, Philadelphia is the third port in the Union, being, in this respect, inferior only to New York and Boston. The registered, enrolled, and licensed tonnage belonging to the port on the 30th June, 1858, amounted to 219,852 tons, of which more than 2-3rds (158,615 tons) were engaged in the coasting trade, which is very large. The total value of the articles imported into Pennsylvania from foreign countries in the year ending the 30th of June, 1858, amounted to $12,892,215, and that of the exports to $6,036,411, of which $5,662,334 were domestic produce. The coasting trade of the port is, however, more extensive and of greater importance than its foreign trade.

There are numerous banks in Philadelphia, but they stand no higher in point of character than those in most other parts of the Union, and have over and over again suspended payments. The Bank of the United States had its head office here. Besides banks, there are numerous insurance companies and joint-stock associations.

The exports of flour, wheat, corn, &c., or of bread-stuffs, as they are called by the Americans, from Philadelphia to foreign countries, have been as follows: —

Years.	Flour.	Corn Meal.	Rye Flour.	Wheat.	Corn.
	Barrels.	*Barrels.*	*Barrels.*	*Bushels.*	*Bushels.*
1839	191,380	73,800	24,527	37,831	17,117
1840	287,774	89,486	36,171	280,047	76,749
1841	195,555	103,822	26,866	56,571	80,266
1842	161,866	97,884	22,250	37,935	83,772
1843	128,517	106,484	22,303	32,435	74,613
1844	196,453	101,556	21,901	25,375	110,068
1845	201,956	115,101	17,098	86,089	129,256
1846	366,610	144,857	19,730	245,136	279,820
1847	420,684	300,531	20,407	523,538	1,102,201
1848	179,507	140,014	15,557	207,092	817,150
1849	220,786	91,349	26,536	177,312	906,823
1850	83,024	94,334	25,054	205,670	602,680
1851	299,466	65,385	10,505	225,201	554,545
1852	341,453	68,182	6,285	494,163	113,993
1853	543,476	74,189	5,780	882,910	522,702
1854	251,495	70,024	9,192	187,629	923,619
1855	218,197	95,168	12,757	226,071	686,252
1856	346,356	91,830	15,043	643,859	1,094,255
1857	198,560	47,571	8,354	201,200	603,230

The Quantities of the Principal Articles imported into Philadelphia, both Foreign and Coastwise, were in 1853, 1854, and 1855, as follows: —

Articles.	1853.	1854.	1855.	Articles.	1853.	1854.	1855.
Brandy - - packages	11,030	1,962	2,720	Molasses - - barrels	6,932	28,147	18,107
Brimstone - - tons	5,194	2,371	1,610	Mackerel, &c. - -	29,450	294,431	31,117
Coffee - - bags	177,044	177,085	221,597	Naval stores, &c. - -	99,611	85,440	89,726
Cotton - - bales	62,000	54,320	53,470	Oranges - - boxes	39,702	19,679	58,010
Hides - - number	149,404	197,328	168,200	Rice - - tierces	15,378	8,557	7,715
Honey - - packages	1,378	944	600	Salt - - sack	157,363	169,569	248,300
Indigo - - "	754	472	524	Ditto - - bushels	164,627	225,708	188,159
Iron - - tons	24,644	18,950	3,100	Saltpetre - - bags	12,658	13,639	19,565
Iron - - bars	375,077	323,540	200,500	Sugar - - hogsheads	42,589	48,300	41,600
Iron - - bundles	194,338	153,129	122,000	Ditto - - boxes	24,333	25,855	25,412
Lead - - pigs	40,657	21,768	30,540	Ditto - - barrels	3,009	2,910	3,560
Lemons - - boxes	16,712	15,470	30,679	Ditto - - bags	81,804	35,618	41,917
Logwood - - tons	1,528	4,928	8,276	Wine - - packages	5,883	904	357
Molasses - hogsheads	18,026	12,229	13,595				

Banks. — Subjoined is a list of all, or mostly all, the banks of Philadelphia existing in 1857, with their capital, dividends, &c., in that year. It will be seen that the dividend payable in May was much greater than that payable in November; a consequence of a law passed in the interval, which restricted the dividends payable by banks that had suspended to the liberal allowance of 6 per cent. per annum.

Banks.	Capital.	May.	Nov.	Dividend.
	Dollars.			*Dollars.*
Philadelphia - - - -	1,150,000	5	3	34,500
Bank of Commerce - - -	250,000	5	3	7,500
Manufacturers and Mechanics' Bank - -	300,000	5	3	9,000
Mechanics' Bank - - - -	800,000	6	3	24,000
Western Bank - - - -	418,500	6	3	12,555
Northern Liberties Bank - - -	500,000	5	3	15,000
Farmers' and Mechanics' Bank - - -	1,966,980	5	3	59,069
Penn Township Bank - - - -	350,000	5	3	10,500
Commercial Bank - - - -	1,000,000	4	3	30,000
Girard Bank - - - -	1,250,000	3½	3	37,500
Southwark Bank - - - -	250,000	5	3	7,500
Kensington Bank - - - -	250,000	6	3	7,500
Tradesmen's Bank - - - -	150,000	5	3	4,500
Consolidation Bank - - - -	250,000	4	3	7,500
City Bank - - - - -	500,000	0	3	15,000
Germantown Bank - - - -	200,000	6	3	6,000
Total - - - -	9,587,580	- -	- -	287,627

The number of Insurance Companies seems to have been multiplied to an inconvenient and indeed absurd extent. In 1857 they amounted to 49, classified as follows, viz.: — Fire, marine, and inland, 22; fire only, 14; fire, buildings only, 2; fire and life, 1; fire and live stock, 1; fire and life, marine and inland, 1; life, trust, and annuities, 3; life and trust, 2; marine and inland, 3—each of which is of the "mutual" class. Besides the above, there are a few district mutual fire companies doing a limited local business in insurance on buildings.

Arrivals.—In 1857 there entered the port of Philadelphia 506 foreign ships, and 1267 coasters.

In Pennsylvania, the dollar is worth 7*s.* 6*d.* currency; so that 1*l.* sterling = 1*l.* 13*s.* 4*d.* currency.—(See NEW YORK.)

Weights and Measures same as those of England.

Regulations of the Port.—If any master or captain of any ship or vessel, or other person, shall refuse or neglect to comply with the directions of the harbour master, in matters within the jurisdiction of his office, such person shall, for each and every such offence, severally forfeit and pay any sum not exceeding 100 dollars. And the said harbour master shall, in full compensation for his services, be entitled to have, recover, and receive from the master, captain, owner, or consignee of each and every ship or vessel arriving at the port of Philadelphia (coasting vessels not exceeding the burden of 75 tons excepted) the sum of 1 dollar for each and every voyage by such ship or vessel performed, and no more.

Every ship or vessel that may arrive in this harbour, and that shall come to anchor in the stream anywhere between Almond and Vine Streets, having previously caused her gunpowder, if any she had on board, to be landed as the law directs, may remain in that situation 24 hours, and no longer, taking care to lie as near to the island or sand bar as may be consistent with safety. But if, from the circumstance of a vessel having servants on board, or from any other cause, it may be thought necessary or convenient to lie a longer time in the stream, then, and in every such case, the owner, master, pilot, or other person having the charge or direction of such vessel, shall remove her from opposite the city, and shall moor her, or cause her to be moored, to the northward of Vine Street with 1 anchor and cable up and 1 anchor and cable down the stream; and in both the above mentioned situations, the regulation contained in the next succeeding article to be duly attended to.

If any vessel properly moored in the stream shall have her anchor or cable overlaid by any other vessel in anchoring or mooring, the master or person having the care or direction of such last-mentioned vessel shall immediately, or as soon as may be after application made to him by the party aggrieved, cause the said anchor or cable so overlaying to be taken up and cleared. When any ship or vessel shall be hauled in to any wharf or dock, or alongside of another vessel that may be lying at such wharf or dock, the owner, master, pilot, or whoever may have the command, care, or direction of her, shall have her securely made fast; and if outside of another vessel, shall get one good fast from each end of the vessel to the shore, with sufficient fenders between them and the inside vessel; and shall cause the flukes of their anchors to be taken on board; and, within 24 hours thereafter, cause her jib boom, spritsail-yard, main boom, spanker and ringtail booms, if any they have, to be rigged in, and their lower yards topped up, in such a manner as least to interfere with vessels passing.

If the fasts of vessels when moored at a wharf shall extend across a dock, so as to obstruct the passing or repassing of shallops, lighters, or other craft or vessel, the master or other person having the command of such ship or vessel shall, upon the first application, immediately cause such fast or fasts to be cast off or slacked down.

No outward-bound vessel, putting off from a wharf, shall lie longer in the stream, between Vine Street and Almond, in the district of Southwark, above mentioned, than 24 hours. And if vessels lying at the end of wharfs so much interfere with each other as to prevent vessels hauling in and out of docks, the master, owner, pilot, or other person having the charge of the same, shall, immediately on application from any person so wanting to haul his vessel in or out of docks aforesaid, have the vessel or vessels so interfering, moved in such a manner as to accommodate the one applied for; in which case the vessel making room for another to haul in or out shall have liberty to make her warps fast to the most convenient place adjacent, for a reasonable time; and all sea vessels, when transporting or wanting to haul into a wharf or dock, or to make sail in order to proceed to sea, shall have the same privilege.

When any ship or vessel may be lying alongside any wharf, and not taking in or discharging, she shall make way for and permit any vessel that wants to unload or load, to come inside, next the wharf, until she discharges or loads her cargo; and the said vessel, when so discharged or loaded, shall haul outside and give way to the vessel that first occupied the wharf; provided that, from the 10th of December to the 1st of March, no vessel shall be compelled to move from her berth (only those

at Gloucester Point piers), excepting to let vessels in and out of docks.

No ship or vessel loading or discharging hemp at any wharf, or within any dock, shall be allowed to have any fire on board; neither shall any vessel lying outside or near her be permitted to have fire on board, while it may be considered dangerous. And no tar, turpentine, rosin, or pitch shall be heated on the wharf, or on board any vessel lying at any wharf within the limits of the city.

Rates of Pilotage.—Inwards, up to 12 feet, at 2·67 dollars per foot; above 12 feet, at 3·33 dollars.

Outwards, up to 12 feet, at 2 dollars; above 12 feet, at 2·67 dollars.

Inwards.		Outwards.	
	Dolls. Cents.		*Dolls. Cents.*
5 feet is	13 33	5 feet is	10 0
5½ —	14 67	5½ —	11 0
6 —	16 0	6 —	12 0
6½ —	17 33	6½ —	13 0
7 —	18 67	7 —	14 0
7½ —	20 0	7½ —	15 0
8 —	21 33	8 —	16 0
8½ —	22 67	8½ —	17 0
9 —	24 0	9 —	18 0
9½ —	25 33	9½ —	19 0
10 —	26 67	10 —	20 0
10½ —	28 0	10½ —	21 0
11 —	29 33	11 —	22 0
11½ —	30 67	11½ —	23 0
12 —	32 0	12 —	24 0
12½ —	33 67	12½ —	25 33
13 —	35 33	13 —	26 67
13½ —	37 0	13½ —	28 0
14 —	38 67	14 —	29 33
14½ —	40 33	14½ —	30 67
15 —	42 0	15 —	32 0
15½ —	43 67	15½ —	33 33
16 —	45 33	16 —	34 67
16½ —	47 0	16½ —	36 0
17 —	48 67	17 —	37 33
17½ —	50 33	17½ —	38 67
18 —	52 0	18 —	40 0
18½ —	53 67	18½ —	41 33
19 —	55 33	19 —	42 67
19½ —	57 0	19½ —	44 0
20 —	58 67	20 —	45 33

Every vessel arriving from, or bound to, a foreign port, is equired by law to receive a pilot, or to pay half pilotage in the warden's office, where the master of every such vessel is required, under a penalty of 10 dollars, to make report within 36 hours after his arrival, and again before his departure, signing his name to said report in the warden's book.

Every vessel of 75 tons and upwards arriving from, or bound to, any port within the United States, and the master of all such vessels, are bound as above.

The pilot of every vessel is required to inform the master of his having to report at the warden's office.

All vessels obliged to receive a pilot are required to pay 10 dollars in addition, as winter pilotage, from the 20th of November to the 10th of March, both days inclusive.

Foreign vessels, *i. e.* Spanish, Portuguese, Neapolitan, Danish, Russian, South American, and Haytian, to pay 2 dollars 67 cents in addition to other pilotage.

Every pilot detained more than 24 hours by any master, owner, or consignee, is entitled to 2 dollars per day for every day he is so detained.

Every pilot detained more than 48 hours by the ice, after he has conducted his vessel to a place of safety, is entitled to 2 dollars per day for every day he is so detained.

Every pilot compelled to perform quarantine is entitled to 2 dollars per day, for every day he is so detained, and cannot be discharged in less than 6 days, without his consent.

Every pilot obliged by the ice or stress of weather to proceed to another port, is, when there, entitled to his pilotage; and if there discharged, to 8 cents a mile for every mile he has to travel home.

Every pilot is required, under a penalty of 12 dollars, to make report, within 48 hours, at the warden's office, of every vessel he conducts to the city.

Rates of Commission on Sales adopted by the merchants of Philadelphia.

Flour	*Cents.* 12½ per bbl.
Corn meal	2½ ditto.
Ditto	50 per hhd.
Grain, all kinds	1 per bush.
Seeds	2½ per ct.
Coal	5 ditto.
Lumber	5 per ct.
Whiskey	2½ ditto.
Produce not specified	2½ ditto.
Guarantee	1½a2½ ditto.
Accepting without property in hand	2½ ditto.

PHOSPHORUS, a substance of a light amber colour, and semi-transparent; but, when carefully prepared, nearly colourless and transparent. When kept some time, it becomes opaque externally, and has then a great resemblance to white wax. It may be cut with a knife, or twisted to pieces with the fingers. It is insoluble in water; its specific gravity is 1·77. When exposed to the atmosphere, it emits a white smoke, and is luminous in the dark. When heated to 148° it takes fire, and burns with a very bright flame. When phosphorus is inflamed in oxygen, the light and heat are incomparably more intense; the former dazzling the eye, and the latter cracking the glass vessel.—(*Thomson's Chemistry.*)

PIASTRES, OR DOLLARS, Spanish and American silver coins in very extensive circulation. Value, at an average, about 4*s.* 4*d.* sterling.—(See COINS.)

PILCHARDS, fishes closely resembling the common herring, but smaller, and at the same time thicker and rounder. They are rarely found on the British shores, except on the coasts of Cornwall and Devon, particularly the former, where they are taken in great numbers from the middle of July to the end of November, or even the middle of December. It is a saying of the Cornish fishermen, that the pilchard is the least fish in size, most in number, and greatest for gain, taken from the sea.

Pilchard fishery.—This is carried on along the coasts of Cornwall and Devon, from the Bolt Head in the latter, round by the Land's End to Padstow and Bossiney in the former. Its principal seats are St. Ives, Mount's Bay, and Mevagissey. The fish usually make their appearance in vast shoals in the early part of July, and disappear about the middle of October; but they sometimes reappear in large quantities in November and December. They are taken either by *seans* or by drift nets, but principally, perhaps, by the former. A sean is a net, varying from 200 to 300 fathoms in length, and from 10 to 14½ do. in depth, having cork buoys on one edge and lead weights on the other. Three boats are attached to each sean, viz. a boat (*sean boat*), of about 15 tons burden, for carrying the sean; another (*follower*), of about the same size, to assist in mooring it; and a smaller boat (*lurker*), for general purposes. The number of hands employed in these 3 boats varies from about 13 to 18, but may be taken, at an average, at about 16. But at St. Ives, where the fishery is conducted in a peculiar manner, or by *turns*, one crew serves for from 10 to 15 seans. When the shoals of fish come so near the shore that the water is about the depth of the sean, it is employed to encircle them; the fishermen being directed to the proper places for casting or shooting the nets by persons (*huers*) stationed for that purpose on the cliffs and in the boats.* The practice is to row the boat with the sean on board gently round the shoal; and the sean being, at the same time, thrown gradually into the water, assumes, by means of its buoys and weights, a vertical position, its loaded edge being at the bottom, and the other floating on the surface. Its 2 ends are then fastened together; and, being brought into a convenient situation, it is moored by small anchors or grapnels; sometimes, however, one or two smaller seans are employed to assist in securing the fish. At low water, the enclosed fish are taken out by a *tuck net*, and carried to the shore. A single sean has

* The tunny fish in the Archipelago was caught in a similar way:—"Ascendebat quidam (Anglicè *huer*, Græcè *thunoscopos*) in altum promontorium, unde thunnorum gregem specularetur, quo viso, signum piscatoribus dabat, qui retibus totum gregem includebant."—(*Bishop Bloomfield's Notes on the Persæ of Æschylus*, quoted by Dr. Paris, in his *Guide to Mount's Bay*, p. 150.)

been known to enclose at once as many as 4,200 hogsheads (1,200 tons) of fish! But this was the greatest quantity ever taken, and it is but seldom that as many as 1,200 hogsheads are caught at a time. The "take," in fact, depends on so many accidental circumstances, that while one sean may catch and cure in a season from 1,000 to 2,000 hogsheads, others in the neighbourhood may not get a single fish. In some places, the tides are so strong as to break the seans and set the fish at liberty. When the quantity enclosed is large, it requires several days to take them out, as they must not be removed in greater numbers than those who salt them can conveniently manage.

Drift nets are usually about ½ mile in length by about 4½ fathoms in depth; they are shot in the open sea, and entangle the fish in their meshes in the same way as the herring nets. The fish thus taken are said to be superior to those taken by the seans, though it be doubtful, from their being strangled in the nets whether they are so good for curing.

As soon as the fish are brought on shore, they are carried to cellars or warehouses, where they are piled in large heaps, having a sufficient quantity of salt interspersed between the layers. Having remained in this state for about 35 days, they are, after being carefully washed and cleaned, packed in hogsheads, each containing, at an average, about 2,600 fish*; they are then subjected to a pressure sufficient to extract the oil, of which each hogshead yields, provided the fish be caught in summer, about 3 gallons; but those that are taken late in the season do not yield above half this quantity. This oil usually sells for from 12 to 15 per cent. under the price of brown seal oil. The broken and refuse fish and salt are sold to the farmers, and are used as manure with excellent effect. The skimmings which float on the water in which the pilchards are washed are called *dregs*, and are chiefly sold as grease for machinery.

The fresh fish in a hogshead of pilchards weigh about 6 cwt., and the salt about 3½ cwt.; but the weight of the hogshead when cured and pressed is reduced to about 4¼ cwt.; including the weight of the cask, from 20 to 24 lbs. We subjoin

An Account of the Exports of Pilchards during each of the Nine Years ending with 1858; specifying the Places for which they were exported, the Quantity shipped for each, and their Price at the Port of Shipment.

Years.	Genoa.	Leghorn.	Civita Vecchia.	Naples.	Ancona, Venice, Trieste.	Total.	Price per Hogshead on Shore.
1850	2,034	4,500	1,102	10,170	8,017	25,823	44*s.* to 50*s.* to 60*s.*
1851	2,594	4,672	1,352	8,964	9,161	26,743	43*s.* 6*d.* to 45*s.* 0*d.*
1852	2,971	4,445	828	3,248½	3,648½	15,141	30*s.* 0*d.* — 50*s.* 0*d.*
1853	2,229	5,129	1,237	5,657	7,042	21,275	36*s.* 0*d.* — 42*s.* 6*d.*
1854	1,165	2,293	460	1,357	1,429	6,704	37*s.* 0*d.* — 50*s.* 0*d.*
1855	1,987½	2,225½	- -	881½	1,007½	6,102	42*s.* 0*d.* — 54*s.* 0*d.*
1856	1,851	4,657	1,718	5,258	5,369	18,833	70*s.* 0*d.* — 75*s.* 0*d.* 40*s.* 0*d.* — 51*s.* 0*d.*
1857	2,517	3,627	1,020	4,334	4,617	15,915	42*s.* 0*d.*
1858	1,881	1,429	791	6,686	4,992	18,479	60*s.* to 50*s.* to 47*s.*

Of the fish cured in 1857, 3,026 hhds. were caught eastward of Lizard; 3,768 in Mount's Bay; 7,641 in St. Ives; 1,480 North of St. Ives. Total, 15,915 hogsheads.

N.B.—Of the quantity sent to the Adriatic full 3-4ths have been sold in Venice, and the remainder chiefly in Ancona.

The export of pilchards has been rather declining of late years. This has been ascribed to various causes, such as the withdrawal of the bounty of 8*s.* 6*d.* a hogshead formerly paid on their export, the relaxed observance of Lent in the countries to which they are principally exported, and the imposition of a heavy duty on their importation into Naples. The falling off in the demand of the latter has, however, been in great measure compensated by the increased demand at Venice.

Pilchards are not used in England, except in Cornwall and Devon, where from 4,000 to 5,000 hhds. a year may at present be made use of; and the consumption increases slowly.

The sean fishery employs about 1,500 hands regularly throughout the season, and a vast number more when any considerable shoals are inclosed. There are at present (1859) about 260 seans afloat, of which above 180 belong to St. Ives. The first cost of a sean on the South coast is about 450*l.*; but a St. Ives sean does not cost above 300*l.* The drift fishery employs, during the season, from 900 to 1,000 men, and about 230 boats; the cost of each boat and nets amounting to about 250*l.* The labour in the cure of the fish may be taken at about 5*s.* a hogshead. The total capital embarked in the fishery has been estimated by those engaged in it at from 200,000*l.* to 250,000*l.*

The drift fishermen employ themselves, when not engaged in the pilchard fishery, in the mackarel, herring, and hook-line fisheries. The sean fishermen consist principally of agricultural labourers, miners, &c., attracted to the business in the expectation (in which, however, they are not unfrequently disappointed) of making a comparatively large sum by a few weeks' exertion. But at St. Ives only able-bodied and expert fishermen are employed. In all sean boats 3 or 4 individuals of the crew are regularly bred, expert fishermen.

Four fifths of the persons employed on shore in the salting, curing, packing, &c., of the fish, are women.

The wages of those employed in the fishery are made sometimes to depend on the number of fish taken; but in other instances they are independent of any such contingency.

The fishery at St. Ives is carried on under a particular act of parliament, passed in 1841. The exaction of a tithe of the fish is a very serious burden on the fishery; sometimes it is taken in kind, but is more generally compounded for.—(*Dr. Paris's Guide to Mount's Bay and the Land's End*, 2d ed. pp. 146—156.; *Beauties of England and Wales*, vol. ii. p. 471.: but we are principally indebted to *private information* obtained from the most authentic sources, and obligingly communicated, by Mr. Coulson, of Penzance.)

PILOTS AND PILOTAGE. The name of pilot or steersman is applied either to a particular officer, serving on board a ship during the course of a voyage, and having charge of the helm and the ship's route; or to a person taken on board at any particular place, for the purpose of conducting a ship through a river, road, or channel, or from or into a port.

It is to the latter description of persons that the term pilot is now usually applied; and pilots of this sort are established in various parts of the country by ancient charters of incorporation, or by particular statutes. The most important of these corporations are those of the Trinity House, Deptford Strond, with which the fellowship of the

* Mr. Pennant inadvertently states the number of fish in a hogshead at 35,900.—(*British Zoology*, iii. 344. ed. 1776.) Trusting to his authority, we fell into the same error in the 1st edition of this work.

pilots of Dover, Deal, and the Isle of Thanet, commonly called the *Cinque Port Pilots*, is now consolidated; and the Trinity Houses of Hull and Newcastle. The 5 Geo. 4. c. 73. established a corporation for the regulation and licensing of pilots in Liverpool.

Principles of the Law as to Pilots.—These are sufficiently obvious, and differ but little in most maritime codes. When a master is obliged by law to employ a pilot, and does so accordingly, the vessel having ceased to be under the command of their servants, the owners are no longer responsible for such loss or damage as may be occasioned by her mismanagement (17 & 18 Vict. c. 104. § 388.) unless it be made to appear that it arose from the neglect or misconduct of the master or crew in obeying or carrying out the orders of the pilot. It is, therefore, a very serious matter for a master or captain to interfere with or supersede a pilot in the exercise of his peculiar functions. But still there are cases, and those, too, not of rare occurrence, of such a nature as to make interference indispensable. Pilots are anything but infallible; and whenever it becomes evident to a master, or to the authorities on board, that the pilot is acting inconsiderately, or that he is drunk or incompetent, it is not the right only, but the bounden duty of the master to provide for the safety of the ship by resuming his authority, and taking the command upon himself. On this being done the responsibility of the pilot ceases of course; and the owners become liable for the proceedings of their servant, the master. In those cases, again, in which it is in the election or discretion of the master to take a pilot or not, and he thinks fit to take one, the pilot so taken is considered as the servant of the owners, who are responsible for his conduct.—(*Abbott on the Law of Shipping*, part ii. c. 5.; *Maude and Pollock on ditto*, c. 5. and the authorities there quoted.)

The statute 6 Geo. 4. c. 125. consolidated the laws with respect to the licensing, employment, &c., of pilots. But all that portion of the act which related to the Cinque Port pilots was repealed by the 16 & 17 Vict. c. 129. This statute united the Trinity House and Cinque Port pilots; or, rather, it included the latter in the former. It provided that the Cinque Port pilots should in future be subject to the same rules and regulations as the Trinity House pilots, and that they might pilot ships inwards and outwards within the limits for which they were licensed. The property belonging to the Cinque Port pilots was at the same time transferred to the Trinity House; and the act laid down the rules by which the debts and claims of the Cinque Port pilots on the Trinity House funds were to be adjusted.

The general rules and regulations now (1855) existing with respect to pilotage have been embodied in Part V. of the Merchant Shipping Act, 17 & 18 Vict. cap. 104. And as a knowledge of these rules and regulations is indispensable to masters and other parties engaged in shipping, we subjoin a full abstract of the portion of the statute now referred to.

POWERS OF PILOTAGE AUTHORITIES (GENERAL).

Jurisdiction of Pilotage Authorities.—Every pilotage authority shall retain all powers and jurisdiction which it now lawfully possesses, so far as the same are consistent with the provisions of this act; but no law relating to such authority, or to the pilots licensed by it, and no act done by such authority, shall, if inconsistent with any provision of this act, be of any force whatever.—§ 331.

To make and extend Exemptions from compulsory Pilotage.—Every pilotage authority shall have power, by byelaw made with the consent of H. Majesty in council, to exempt the masters of any ships, or of any classes of ships, from being compelled to employ qualified pilots, and to annex any terms or conditions to such exemptions, and to revise and extend any exemptions now existing by virtue of this act or any other act of Parliament, law, or charter, or by usage, upon such terms and conditions and in such manner as may appear desirable to such authority.—§ 332.

Powers of Pilotage Authorities.—Subject to the provisions contained in this Act, it shall be lawful for every pilotage authority, by byelaw made with the consent of H. M. in council, from time to time to do all or any of the following things within its districts, viz.:

(1.) To determine the qualifications to be required from persons applying to be licensed as pilots, whether in respect of their age, skill, time of service, character, or otherwise:

(2.) To make regulations as to the approval and licensing of pilot boats and ships, with power to establish and regulate companies for the support of such boats and ships, and for a participation in the profits made thereby; the companies so established to be exempt from the provisions of the Act, 7 & 8 Vict. c. 110.

(3.) To make regulations for the government of the pilots licensed by them, for insuring their good conduct, and their constant attendance to and effectual performance of their duty, either at sea or on shore:

(4.) To fix the terms and conditions of granting licences to pilots and apprentices, and of granting pilotage certificates as herein-after mentioned to masters and mates, and to make regulations for punishing any breach of the conditions committed by such pilots or apprentices or by such masters and mates by the withdrawal or suspension of their licences or certificates, as the case may be, or by the infliction of penalties to be recoverable summarily before two justices, so that no such penalty exceed the sum of £20., and so that every such penalty be capable of reduction at the discretion of the justices by whom the same is inflicted:

(5.) To fix the rates and prices or other remuneration to be demanded and received for the time being by pilots licensed by such authority, or to alter the mode of remunerating such pilots, in such manner as such authority may, with such consent as aforesaid, think fit, so that no higher rates or prices be demanded or received from the masters or owners of ships in the case of the Trinity House than the rates and prices specified in the table A. hereto annexed; and in the case of all other pilotage authorities, than the rates and prices which might have been lawfully fixed or demanded by such pilotage authorities respectively under any act of Parliament, charter, or custom in force immediately before the commencement of this Act:

(6.) To make such arrangements with any other pilotage authority for altering the limits of their respective districts, and for extending the powers of such other authority or the privileges of the pilots licensed by such other authority or any of them to all or any part of its own district, or for limiting its own powers or the privileges of its own pilots or any of them, or for sharing the said last-mentioned powers and privileges with the said other authority and the pilots licensed by it, or for delegating or surrendering such powers and privileges or any of them to any other pilotage authority constituted or to be constituted by agreement between such authorities, and to the pilots licensed by it, as may appear to such pilotage authorities to be desirable for facilitating navigation or for reducing charges on shipping:

(7.) To establish, either alone or in conjunction with any other pilotage authority or authorities, funds for the relief of superannuated, or infirm qualified pilots, or of their wives, widows, or children, or to make any new regulations with respect to any funds already applicable to such purposes with power to determine the amount, manner, time, and persons (such persons to be in the service of such pilotage authority) to and in which and by and upon whom the contributions in support of such existing or future funds may be made or levied; and further, to declare the persons or class of persons (such persons or class of persons being confined to men in the service of such pilotage authority, their wives, widows, or children), entitled to participate in the benefits of such existing or future funds, and the terms and conditions upon which they are to be so entitled:

(8.) To repeal or alter any byelaw made in exercise of the above powers, and to make a new byelaw or new byelaws in lieu thereof: And every byelaw duly made by any pilotage authority in exercise of the powers hereby given to it, shall be valid and effectual, notwithstanding any Act of Parliament, rule, law, or custom to the contrary.—§ 333.

Publication of Byelaws.—Every byelaw proposed to be enacted by any pilotage authority in pursuance of the foregoing powers shall, before it is submitted to H. M. in council for Her assent, be published in such manner as may from time to time be prescribed by the B. of Trade.—§ 334.

Byelaws to be laid before Parliament.—Every order in council made in pursuance of the provisions of this Act shall be laid before both Houses of Parliament as soon as possible after the making thereof.—§ 335.

Power of Appeal to Board of Trade.—If the greater part in number of the qualified pilots belonging to any port, or the Local Marine Board, where there is one, or at any port where there is no Local Marine Board, if any masters, owners, or insurers of ships, being not less than six in number, consider themselves aggrieved by any regulation or byelaw in force when this Act comes into operation or hereafter made under some authority other than the provisions of this Act, or by any defect or omission therein, they may appeal to the Board of Trade, and the said Board may thereupon revoke or alter any such regulation or byelaw or may make additions thereto in such manner as, having regard to the interests of the persons concerned, may appear to be just and expedient; and every order so made shall be conclusive in the matter.—§ 336.

RETURNS BY PILOTAGE AUTHORITIES (GENERAL).

Pilotage Authorities to make Returns to B. of Trade.—Every pilotage authority shall deliver periodically to the B. of Trade, in such form and at such times as such Board requires, returns of the following particulars with regard to pilotage within the port or district under the jurisdiction of such authority, viz.:

(1.) All byelaws, regulations, orders, or ordinances relating to pilots or pilotage for the time being in force:
(2.) The names and ages of all pilots or apprentices licensed or authorised to act by such authority, and of all pilots or apprentices acting either mediately or immediately under such authority, whether so licensed or authorised or not:
(3.) The service for which each pilot or apprentice is licensed:
(4.) The rates of pilotage for the time being in force, including therein the rates and descriptions of all charges upon shipping made for or in respect of pilots or pilotage:
(5.) The total amounts received for pilotage, distinguishing the several amounts received from British ships and from foreign ships respectively, and the several amounts received in respect of different classes of ships paying different rates of pilotage, according to the scale of such rates for the time being, and the several amounts received for the several classes of service rendered by pilots; and also the amount paid by such ships (if any) as have before reaching the outer limits of pilotage water if outward-bound, or their port of destination if inward-bound, to take or pay for two or more pilots, whether licensed by the same or by different pilotage authorities; together with the numbers of the ships of each of the several classes paying such several amounts as aforesaid:
(6.) The receipt and expenditure of all monies received by or on behalf of such authority, or by or on behalf of any sub-commissioners appointed by them, in respect of pilots or pilotage:

And shall allow the B. of Trade, or any persons appointed by such Board for the purpose, to inspect any books or documents in its possession relating to the several matters herein required to be returned to the B. of Trade.—§ 337.

The Jurisdiction of local Authorities failing to give the required Returns, to be transferred to Trinity House.—If any of such pilotage authorities as aforesaid (other than the Trinity House, or Sub-Commissioners of Pilotage appointed by it), fail to deliver to the B. of Trade the periodical returns above required within one year of such time as may be fixed by such Board for the purpose, or if any of such authorities do not allow the said Board, or any persons who may be appointed by it for the purpose, to inspect any books or documents in their possession relating to the matters herein required to be returned by them, it shall be lawful for H. Majesty, by and with the advice of her Privy Council, to direct that all the rights and powers of such authorities in respect of pilotage shall cease or be suspended during such time as H. M. directs; and thereupon the Trinity House shall thereafter or during such time as such suspension may continue, have and exercise the same powers of appointing Sub-Commissioners of Pilotage, and of licensing pilots, and of establishing and altering rates of pilotage, within the district within which the authority so making default has previously appointed or licensed pilots, as it is by this Act authorized to exercise in any district for which no particular provision is made by any Act of Parliament or charter for the appointment of pilots, and shall also during such time as aforesaid have and exercise the same rights, title, and powers to and in respect of any pilotage funds or other pilotage property which the said pilotage authorities would or might have had or exercised if not so suspended as aforesaid.—§ 338.

Returns to be laid before Parliament.—The B. of Trade shall without delay cause the several returns herein-before required to be made to such Board to be laid before both Houses of Parliament.—§ 339.

LICENSING OF MASTERS AND MATES (GENERAL).

Master or Mate, if examined and passed, to receive a Pilotage Certificate.—The master or mate of any ship may, upon giving due notice, and consenting to pay the usual expenses, apply to any pilotage authority to be examined as to his capacity to pilot the ship of which he is master or mate, or any one or more ships belonging to the same owner, within any part of the district over which such pilotage authority has jurisdiction; and such master or mate shall, if such authority thinks fit, thereupon be examined; and if found competent a pilotage certificate shall be granted to him, containing his name, a specification of the ship or ships in respect of which he has been examined, and a description of the limits within which he is to pilot the same, such limits to be within such jurisdiction as aforesaid; and such certificate shall enable the person therein named to pilot the ship or any of the ships therein specified, of which he is acting as master or mate at the time, but no other, within the limits therein described, without incurring any penalties for the non-employment of a qualified pilot.—§ 340.

Renewal of Pilotage Certificate.—The pilotage certificate so granted shall not be in force for more than one year, unless the same is renewed, which may from time to time be done by an indorsement under the hand of the secretary or other proper officer of the authority by whom such certificate was granted.—§ 341.

Board of Trade examine and grant Pilotage Certificates.—If upon complaint to the B. of Trade it appear to such board that any such authority as aforesaid has without reasonable cause refused or neglected to examine any master or mate who has applied to them for the purpose, or after he has passed the examination, has without reasonable cause refused or neglected to grant him a pilotage certificate, or that the examination of any such master or mate has been unfairly or improperly conducted, or that any terms imposed or sought to be imposed by such authority are unfair or improper, or that any pilotage certificate granted by such authority has been improperly withdrawn, the B. of Trade may, if in its judgment the circumstances appear to require it, appoint persons to examine such master or mate, and if he is found competent may grant him a pilotage certificate, containing the same particulars as would have been inserted in any certificate granted by such pilotage authorities as aforesaid, upon such terms and conditions, and subject to such regulations, as such board may think fit; and such certificate shall have the same effect as if it had been granted by such pilotage authority as aforesaid; and such certificate shall be in force for one year, and may be renewed from year to year, either by the said authorities in manner herein-before mentioned, or by the B. of Trade, if such board thinks fit, such renewal to be indorsed on the said certificate, either by such person as the B. of Trade may appoint for the purpose, or in manner herein-before provided as to certificates granted by any pilotage authority.—§ 342.

Fees paid upon Certificates and Renewals thereof.—All masters or mates to or for whom any such pilotage certificates are granted or renewed by any pilotage authority shall pay to such authority, or as it directs, such fees upon their respective certificates and upon the renewals thereof, as are from time to time fixed for that purpose by such authority, with the consent of the B. of Trade; and all masters and mates to or for whom any such certificates are granted or renewed by the B. of Trade shall pay to

such board, or as it directs, such fees upon their certificates and upon the renewals thereof as may be fixed by such board, so nevertheless that in the case of pilotage certificates granted or renewed by the B. of Trade, such fees shall in no case be less than the fees payable by the qualified pilots in the same district upon their licences and the renewal thereof; and such fees shall in the case of certificates and renewals granted by pilotage authorities be applicable either to paying the expense of the examinations, or any other general expenses connected with pilotage incurred by such authorities, or to the Pilots Superannuation Fund of the district (if any), or otherwise for the benefit of the pilots appointed by such authorities, as such authorities think fit; and such fees shall in the case of pilotage certificates granted or renewed by the B. of Trade be applicable to the expense of the examinations, and the surplus (if any) shall be applied for the benefit of the qualified pilots of the port or district to which such certificates apply, in such manner as such board thinks fit.—§ 343.

Power to withdraw Pilotage Certificates.—If at any time it appear to the B. of Trade or to any pilotage authority that any master or mate to whom a pilotage certificate has been granted by such board or authority has been guilty of misconduct, or has shown himself incompetent to pilot his ship, such board or such authority (as the case may be) may thereupon withdraw his certificate, and such certificate shall thenceforth cease to be of any effect whatever.—§ 344.

PILOT BOATS (GENERAL).

Pilot Boats how to be provided.—All boats and ships regularly employed in the pilotage service of any district shall be approved and licensed by the pilotage authority of such district, who may, at their discretion, appoint and remove the masters of such boats and ships.—§ 345.

Characteristics of Pilot Boats.—Every pilot boat or ship shall be distinguished by the following characteristics, viz:

(1.) A black colour painted or tarred outside, with the exception of the names and numbers herein-after mentioned; or such other distinguishing colour or colours as the pilotage authority of the district, with the consent of the B. of Trade, directs:

(2.) On her stern the name of the owner and of the port to which she belongs painted in white letters at least 1 inch broad and 3 inches long, and on each bow the number of the licence of such boat or ship:

(3.) When aflout, a flag at the mast-head or on a sprit or staff, or in some other equally conspicuous situation; such flag to be of large dimensions compared with the size of the boat or ship carrying the same, and to be of two colours, the upper horizontal half white, and the lower horizontal half red:

And it shall be the duty of the master of such boat or ship to attend to the following particulars: First that the boat or ship possess all the above characteristics; secondly, that the aforesaid flag is kept clean and distinct, so as to be easily discerned at a proper distance; and, lastly, that the names and numbers before mentioned are not at any time concealed; and if default is made in any of the above particulars he shall incur a penalty not exceeding 20*l.* for each default.—§ 346.

Qualified Pilot to display Flag though not in Pilot Boat.—Whenever any qualified pilot is carried off in a boat or ship not in the pilotage service he shall exhibit a flag of the above description, in order to show that such boat or ship has a qualified pilot on board; and if he fail to do so, without reasonable cause, he shall incur a penalty not exceeding 50*l.*—§ 347.

Penalty on ordinary Boat displaying Pilot Flag.—If any boat or ship, not having a licensed pilot on board, display a flag of the above-mentioned description, there shall be incurred for every such offence a penalty not exceeding 50*l.*, to be recovered from the owner or from the master of such boat or ship.—§ 348.

PILOT LICENCES (GENERAL).

Registry of Pilot Licence.—Every qualified pilot on his appointment shall receive a licence, containing his name and usual place of abode, together with a description of his person, and a specification of the limits within which he is qualified to act: and it shall be the duty of the principal officer of Customs at the place at or nearest to which any qualified pilot may reside, upon his request, to register his licence; and no qualified pilot shall be entitled to act as such until his licence is so registered; and any qualified pilot acting beyond the limits for which he is qualified by his licence shall be considered as an unqualified pilot.—§ 349.

Regulations to be furnished to qualified Pilot, and produced by him.—Every qualified pilot shall, upon receiving his licence, be furnished with a copy of such part of this Act as relates to pilotage, together with a copy of the rates, byelaws, and regulations established within the district for which he is licensed; and he shall produce such copies to the master of any ship, or other person employing him, when required to do so, under a penalty in case of default not exceeding 50*l.*—§ 350.

Qualified Pilot to produce Licence to Employer.—Every qualified pilot, while acting in that capacity, shall be provided with his licence, and produce the same to every person by whom he is employed, or to whom he tenders his services as pilot; and if he refuse to do so at the request of such person, he shall incur for each offence a penalty not exceeding 10*l.*, and shall be subject to suspension or dismissal by the pilotage authority by whom he is licensed.—§ 351.

Licences to be delivered up, when required, &c.—Every qualified pilot, when required by the pilotage authority who appointed him, shall produce or deliver up his licence; and on the death of any qualified pilot the person into whose hands his licence happens to fall shall without delay transmit the same to the pilotage authority who appointed the deceased pilot; and any pilot or person failing to comply with the provisions of this section shall incur a penalty not exceeding 10*l.*—§ 352.

COMPULSORY PILOTAGE (GENERAL).

Compulsory Pilotage, how enforced.—Subject to any alteration to be made by any pilotage authority in pursuance of the powers in that behalf given, the employment of pilots shall continue to be compulsory in all districts in which the same was by law compulsory immediately before the time when this Act comes into operation; and all exemptions from compulsory pilotage then existing within such districts shall also continue in force; and every master of any unexempted ship navigating within any such district who, after a qualified pilot has offered to take charge of such ship or has made a signal for that purpose, either himself pilots such ship without possessing a pilotage certificate enabling him so to do, or employs or continues to employ an unqualified person to pilot her, and every master of any exempted ship navigating within any such district who after a qualified pilot has offered to take charge of such ship or has made a signal for that purpose employs or continues to employ an unqualified pilot to pilot her, shall for every such offence incur a penalty of double the amount of pilotage demandable for the conduct of such ship.—§ 353.

Home Trade Passenger Ships to employ qualified Pilots, unless, &c.—The master of every ship carrying passengers between any places situate in the U. K., or the Islands of Guernsey, Jersey, Sark, Alderney, and Man, and any other place so situate, when navigating upon any waters situate within the limits of any district for which pilots are licensed by any pilotage authority under the provisions of this or any other Act, or upon any part thereof so situate, shall, unless he or his mate has a pilotage certificate enabling such master or mate to pilot the said ship within such district, employ a qualified pilot to pilot his ship; and if he fail so to do he shall for every offence incur a penalty not exceeding 100*l.*—§ 354.

Certificates, how to be granted to Masters and Mates.—Any master or mate of a ship which by the preceding section is made subject to compulsory pilotage may apply to the B. of Trade for a certificate, and the B. of Trade shall thereupon, on satisfactory proof of his having continuously piloted any ship within the limits of any pilotage district or of any part or parts thereof for two years prior to the commencement of this Act, or upon satisfactory proof by examination of his competency, or otherwise as it may deem expedient, cause to be granted to him, or to be indorsed on any certificate of competency or service obtained by him under this Act, a certificate to the effect that he is authorized to pilot any ship or

ships belonging to the same owner, and of a draft of water not greater than such draft as may be specified in the certificate within the limits aforesaid; and the said certificate shall remain in force for such time as the B. of Trade directs, and shall enable the master or mate therein named to conduct the ship or ships therein specified within the limits therein described to the same extent as if the preceding section had not been passed, but not further or otherwise; and every such master or mate shall, upon applying for such certificate or for any renewal thereof, pay to the B. of Trade or as it directs such fees not exceeding the fees payable on an examination for a master's certificate of competency under this Act as the B. of Trade directs; and such fees shall be applied in the same manner in which the fees payable on such last-mentioned examination are made applicable.—§ 355.

RIGHTS, PRIVILEGES, AND REMUNERATION OF PILOTS (GENERAL).

Qualified Pilot unable to board when entitled to Pilotage.—If any boat or ship, having a qualified pilot on board, leads any ship which has not a qualified pilot on board when such last-mentioned ship cannot from particular circumstances be boarded, the pilot so leading such last-mentioned ship shall be entitled to the full pilotage for the distance run as if he had actually been on board and had charge of such ship.—§ 356.

Allowance to qualified Pilot taken out of his District.—No pilot, except under circumstances of unavoidable necessity, shall without his consent be taken to sea or beyond the limits for which he is licensed in any ship whatever; and every pilot so taken under circumstances of unavoidable necessity or without his consent shall be entitled, over and above his pilotage, to the sum of 10*s.* 6*d.* a day, to be computed from and inclusive of the day on which such ship passes the limit to which he was engaged to pilot her up to and inclusive of the day of his being returned in the said ship to the place where he was taken on board, or up to and inclusive of such day as will allow him, if discharged from the ship, sufficient time to return thereto; and in such last-mentioned case he shall be entitled to his reasonable travelling expenses.—§ 357.

Penalty on Pilot receiving or Master offering improper Rate.—Any qualified pilot demanding or receiving, and also any master offering or paying to any pilot, any other rate in respect of pilotage services, whether greater or less, than the rate for the time being demandable by law, shall for each offence incur a penalty not exceeding 10*l.*—§ 358.

Penalty on making a Declaration as to Draught of Ship, &c.—If any master, on being requested by any qualified pilot having the charge of his ship to declare her draught of water, refuse to do so, or himself makes or is privy to any other person making a false declaration to such pilot as to such draught, he shall incur a penalty for every such offence not exceeding double the amount of pilotage which would have been payable to the pilot making such request; and if any master or other person interested in a ship make or is privy to any other person making any fraudulent alteration in the marks on the stern or stem post of such ship denoting her draught of water, the offender shall incur a penalty not exceeding 500*l.*—§ 359.

Qualified Pilot to supersede unqualified Pilot.—A qualified pilot may supersede an unqualified pilot, but it shall be lawful for the master to pay to such unqualified pilot a proportionate sum for his services, and to deduct the same from the charge of the qualified pilot; and in case of dispute the pilotage authority by whom the qualified pilot is licensed shall determine the proportionate sums to which each party is entitled.—§ 360.

Penalty on unqualified Person acting as Pilot.—An unqualified pilot assuming or continuing in the charge of any ship after a qualified pilot has offered to take charge of her, or using a licence which he is not entitled to use for the purpose of making himself appear to be a qualified pilot, shall for each offence incur a penalty not exceeding 50*l.*—§ 361.

Occasions on which unlicensed Persons may act as Pilots.—An unqualified pilot may, within any pilotage district, without subjecting himself or his employer to any penalty, take charge of a ship as pilot under the following circumstances, viz.—

When no qualified pilot has offered to take charge of such ship, or made a signal for that purpose; or

When a ship is in distress or under circumstances making it necessary for the master to avail himself of the best assistance which can be found at the time; or,

For the purpose of changing the moorings of any ship in port, or of taking her into or out of any dock, in cases where such act can be done by an unqualified pilot without infringing the regulations of the port or any orders which the harbour master is legally empowered to give.—§ 362.

Liability for and Recovery of Pilotage Dues.—The following persons shall be liable to pay pilotage dues for any ship for which the services of a qualified pilot are obtained, viz., the owner or master, or such consignees or agents thereof as have paid or made themselves liable to pay any other charge on account of such ship in the port of her arrival or discharge, as to pilotage inwards, and in the port from which she clears out as to pilotage outwards; and in default of payment such pilotage dues may be recovered in the same manner as penalties of the like amount may be recovered by virtue of this Act; but such recovery shall not take place until a previous demand thereof has been made in writing, and the dues so demanded have remained unpaid for 7 days after the time of such demand being made.—§ 363.

Power of Consignees to retain Pilotage Dues paid by them.—Every consignee and agent (not being the owner or master) hereby made liable for the payment of pilotage dues in respect of any ship may, out of any monies in his hands received on account of such ship or belonging to the owner thereof, retain the amount of all dues so paid by him together with any reasonable expenses he may have incurred by reason of such payment or liability.—§ 364.

OFFENCES OF PILOTS (GENERAL).

Penalties on qualified Pilots.—If any qualified pilot commits any of the following offences, viz.—

(1.) Keeps himself, or is interested in keeping by any agent, servant, or other person, any public house or place of public entertainment, or sells or is interested in selling any wine, spirituous liquors, tobacco, or tea;

(2.) Commits any fraud or other offence against the revenues of Customs or Excise or the laws relating thereto;

(3.) Is in any way directly or indirectly concerned in any corrupt practices relating to ships, their tackle, furniture, cargoes, crews, or passengers, or to persons in distress at sea or by shipwreck, or to their monies, goods, or chattels;

(4.) Lends his licence;

(5.) Acts as pilot whilst suspended;

(6.) Acts as pilot when in a state of intoxication;

(7.) Employs or causes to be employed on board any ship of which he has the charge any boat, anchor, cable, or other store, matter, or thing beyond what is necessary for the service of such ship, with the intent to enhance the expenses of pilotage for his own gain or for the gain of any other person;

(8.) Refuses or wilfully delays, when not prevented by illness or other reasonable cause, to take charge of any ship within the limits of his licence upon the signal for a pilot being made by such ship, or upon being required to do so by the master, owner, agent, or consignee thereof, or by any officer of the pilotage authority by whom such pilot is licensed, or by any principal officer of Customs;

(9.) Unnecessarily cuts or slips or causes to be cut or slipped any cable belonging to any ship;

(10.) Refuses, on the request of the master, to conduct the ship of which he has the charge into any port or place into which he is qualified to conduct the same, except on reasonable ground of danger to the ship;

(11.) Quits the ship of which he has the charge, without the consent of the master, before the service for which he was hired has been performed;

He shall for each such offence, in addition to any liability for damages at the suit of the person aggrieved, incur a penalty not exceeding 100*l.*, and be liable to suspension or dismissal by the pilotage authority by whom he is licensed; and every person who procures, abets, or connives at the commission of any such offence shall likewise, in addition to any such liability for damages as aforesaid, incur a penalty not exceeding 100*l.*, and, if a qualified pilot, shall be liable to suspension or dismissal by the pilotage authority by whom he is licensed.—§ 365.

Penalty on Pilot endangering Ship, Life, or Limb.—If any pilot, when in charge of any ship, by wilful breach of duty, or by neglect of duty, or by reason of drunkenness, does any act tending to the immediate loss, destruction, or serious damage of such ship, or tending immediately to endanger the life or

limb of any person on board such ship; or if any pilot, by wilful breach of duty or by neglect of duty, or by reason of drunkenness, refuse or omit to do any lawful act proper and requisite to be done by him for preserving such ship from loss, destruction, or serious damage, or for preserving any person belonging to or on board of such ship from danger to life or limb; the pilot so offending shall for each such offence be deemed guilty of a misdemeanor, and, if a qualified pilot, also be liable to suspension and dismissal by the authority by which he is licensed.—§ 366.

Penalty on Pilot in charge of a Ship doing her wilful Injury.—If any person, by wilful misrepresentation of circumstances upon which the safety of a ship may depend, obtains or endeavours to obtain the charge of such ship, such person, and every other person procuring, abetting, or conniving at the commission of such offence, shall, in addition to any liability for damages at the suit of the party aggrieved, incur a penalty not exceeding 100*l*., and, if the offender be a qualified pilot, he shall also be liable to suspension or dismissal by the pilotage authority by which he is licensed.—§ 367.

GENERAL POWER OF TRINITY HOUSE.

Power of Trinity House to alter Regulations.—The Trinity House may, in exercise of the general power herein-before given to all pilotage authorities of doing certain things in relation to pilotage matters, alter such of the provisions herein-after contained as are expressed to be subject to alteration by them in the same manner and to the same extent as they might have altered the same if such provisions had been contained in any previous Act of Parliament instead of in this Act.—§ 368.

SUB-COMMISSIONERS AND PILOTS (TRINITY HOUSE).

Power of Trinity House to appoint Sub-Commissioners.—The Trinity House shall continue to appoint sub-commissioners, not being more than 5 nor less than 3 in number, for the purpose of examining pilots in all districts in which they have been used to make such appointments, and may, with the consent of H. M. in council, but not otherwise, appoint like sub-commissioners for any other district in which no particular provision is made by any act of Parliament or charter for the appointment of pilots; but no pilotage district already under the authority of any sub-commissioners, appointed by the Trinity House, shall be extended, except with such consent as aforesaid, and no sub-commissioners so appointed shall be deemed to be pilotage authorities within the meaning of this Act.—§ 369.

Trinity House to license Pilots to act within certain Limits.—The Trinity House shall continue, after due examination by themselves or their sub-commissioners, to appoint and license under their common seal pilots for the purpose of conducting ships within the limits following or any portion of such limits; (that is to say,)

(1.) "The London district," comprising the waters of the Thames and Medway as high as London Bridge and Rochester Bridge respectively, and also the seas and channels leading thereto or therefrom as far as Orfordness to the North and Dungeness to the South; so nevertheless, that no pilot shall be hereafter licensed to conduct ships both above and below Gravesend:

(2.) "The English Channel District," comprising the seas between Dungeness and the Isle of Wight:

(3.) "The Trinity House Outport Districts," comprising any pilotage district for the appointment of pilots within which no particular provision is made by any Act of Parliament or charter.—§ 370.

Publication of Notice of Licences of Pilots by Trinity House.—Subject to any alteration to be made by the Trinity House, the names of all pilots licensed by the Trinity House shall be published in manner following, viz.:

(1.) The Trinity House shall at their house in London fix up a notice specifying the name and usual place of abode of every pilot so licensed, and the limits within which he is licensed to act:

(2.) The Trinity House shall transmit a copy of such notice to the Commissioners of Customs in London, and to the principal officers of Customs resident at all ports within the limits for which such pilot is licensed; and such notice shall be posted up by the commissioners at the Custom House in London, and by such officers at the Custom Houses of the ports at which they are respectively resident.—§ 371.

Bonds to be given.—Subject to any alteration to be made by the Trinity House, every Trinity House pilot on his appointment shall execute a bond for 100*l*. conditioned for the due observance on his part of the regulations and byelaws of the Trinity House, such bond to be free from stamp duty, and from any other charge except the actual expense for preparing the same.—§ 372.

Liability limited.—No qualified pilot who has executed such bond as is herein-before mentioned shall be liable for neglect or want of skill beyond its penalty and the amount of pilotage payable to him in respect of the voyage on which he is engaged.—§ 373.

Continuance and Renewal of Licences.—Subject to any alteration to be made by the Trinity House, no licence granted by them shall continue in force beyond the 31st day of January next ensuing the date of such licence, but the same may, upon the application of the pilot holding such licence, be renewed on such 31st day of January in every year, or any subsequent day, by indorsement under the hand of the Secretary of the Trinity House, or such other person as may be appointed by them for that purpose.—§ 374.

Power to revoke and suspend Licences.—The Trinity House shall have power to revoke or suspend the licence of any pilot appointed by them, in such manner and at such time as they think fit.—§ 375.

COMPULSORY PILOTAGE (TRINITY HOUSE).

Penalty on Masters employing unlicensed Pilots.—Subject to any alteration to be made by the Trinity House, and to the exemptions herein-after contained, the pilotage districts of the Trinity House within which the employment of pilots is compulsory are the London district, and the Trinity House outport districts, as herein-before defined; and the master of every ship navigating within any part of such district or districts, who, after a qualified pilot has offered to take charge of such ship, or has made a signal for that purpose, either himself pilots such ship without possessing a certificate enabling him so to do, or employs or continues to employ an unqualified person to pilot her, shall for every such offence, in addition to the penalty herein-before specified, if the Trinity House certify in writing under their common seal that the prosecution is at their liberty to proceed for the recovery of such additional penalty, incur an additional penalty not exceeding 5*l*. for every 50 tons burden of such ship.—§ 376.

Trinity House to ensure constant Supply of qualified Pilots at Dungeness.—Subject to any alteration to be made by the Trinity House, a sufficient number of qualified pilots shall always be ready to take charge of ships coming from the westward past Dungeness; and the Trinity House shall make such regulations with respect to the pilots under their control as may be necessary to provide for an unintermitted supply of qualified pilots for such ships, and to insure their constant attendance upon and due performance of their duty both by night and day, whether by cruising between the South Foreland and Dungeness, or by going off from shore upon signals made for the purpose, or by both such means, or by any other means, and whether in rotation or otherwise, as the Trinity House think fit.—§ 377.

Ship coming past Dungeness without Pilot to take the first qualified Pilot who offers.—Subject to any alteration to be made by the Trinity House, every master of any ship coming from the westward, and bound to any place in the rivers Thames and Medway, (unless she has a qualified pilot on board or is exempted from compulsory pilotage,) shall, on the arrival of such ship off Dungeness, and thenceforth until she has passed the South Buoy of the Brake, or a line to be drawn from Sandown Castle to the said buoy, or until a qualified pilot has come on board, display and keep flying the usual signal for a pilot; and if any qualified pilot is within hail, or is approaching and within ½ mile, and has the proper distinguishing flag flying in his boat, such master shall, by heaving to in proper time or shortening sail, or by any practicable means consistent with the safety of his ship, facilitate such pilot getting on board, and shall give the charge of piloting his ship to such pilot; or if there are two or more of such pilots offering at the same time, to such one of them as may, according to the regulations for the time being in force, be entitled or required to take such charge; and if any such master fail to display or keep flying the usual signal for a pilot in manner herein-before required, or to facilitate any such qualified pilot aforesaid getting on board as herein-before required, or to give the charge of piloting his ship to such pilot as before mentioned, he shall incur a penalty not exceeding double the sum which might have been demanded for the pilotage of his ship, such penalty to be paid to the Trinity House, and to be carried to the account of the Trinity House Pilot Fund.—§ 378.

Exemptions from compulsory Pilotage.—The following ships, when not carrying passengers, shall be exempted from compulsory pilotage in the London district, and in the Trinity House outport districts; viz.:

(1.) Ships employed in the coasting trade of the U. K.:

(2.) Ships of not more than 60 tons burden:

(3.) Ships trading to Boulogne or to any place in Europe north of Boulogne:

(4.) Ships from Guernsey, Jersey, Alderney, Sark, or Man, which are wholly laden with stone being the produce of those islands:

(5.) Ships navigating within the limits of the port to which they belong:

(6.) Ships passing through the limits of any pilotage district on their voyages between two places both situate out of such limits, and not being bound to any place within such limits nor anchoring therein.—§ 379.

CHARGES ON ACCOUNT OF PILOTAGE, (A. *anté*, p. 995, 17 & 18 Vict. c. 104. § 333.)

Table of the Rates of Pilotage to be demanded and received by qualified Pilots, for piloting Ships and Vessels within the under-mentioned Limits.

From	To	7 Feet and under.	8 Feet.	9 Feet.	10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.	16 Feet.	17 Feet.	18 Feet.	19 Feet.	20 Feet.	21 Feet.	22 Feet.	23 Feet and upwards.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
The Sea, Orfordness, the Downs, Hozely Bay, and *vice versâ*	Nore or Warps	3 13 6	4 2 9	4 12 0	5 1 3	5 5 9	6 5 0	6 13 6	7 7 3	7 16 6	8 14 9	9 8 6	10 17 0	11 10 0	12 17 6	14 5 3	16 11 3	18 8 0
	Gravesend, Chatham, Standgate Creek, or Blackstakes	4 12 0	5 7 9	6 3 3	6 18 0	7 11 9	8 5 6	8 19 6	9 13 3	10 7 0	11 0 9	11 14 6	12 8 6	13 2 3	14 14 6	16 13 0	19 6 6	21 5 0	23 3 9	25 2 3
	Long Reach	4 16 6	5 12 3	6 8 0	7 3 6	7 18 3	8 14 9	9 8 6	10 0 0	10 16 3	11 10 0	13 3 6	15 9 0	18 11 9	21 5 0	23 0 0	24 16 9	26 13 6
	Woolwich or Blackwall	5 5 9	6 1 6	6 17 0	7 11 9	8 10 3	9 4 0	10 2 6	11 0 9	11 14 6	12 8 6	14 3 6	16 5 9	19 11 0	22 1 6	24 16 9	27 12 0		
	Moorings or London Docks	5 16 0	6 9 9	7 3 6	7 17 3	8 19 6	9 13 3	10 11 6	11 10 0	12 8 6	13 2 3	14 14 6	17 0 6	20 10 3	23 4 6				
The Nore or Warps, and *vice versâ*	Gravesend, Standgate Creek, or Blackstakes	1 18 9	2 3 3	2 7 0	2 10 6	2 19 9	3 6 3	3 11 9	3 15 6	4 2 9	4 10 3	5 1 3	5 16 0	6 8 9	7 14 6	8 14 0	9 13 3	10 12 6
	Long Reach or Chatham	2 6 0	2 10 6	2 15 3	2 19 9	3 9 0	3 18 3	4 2 9	4 7 0	4 13 9	5 5 0	5 16 0	6 15 3	8 5 6	9 13 3	10 12 6	11 11 9	12 15 3
	Woolwich or Blackwall	2 15 3	3 1 9	3 8 0	3 13 6	4 2 9	4 10 3	4 19 0	5 8 6	5 16 0	6 4 3	7 2 6	8 3 9	9 4 0	11 11 9	12 11 3	13 16 0	
	Moorings or London Docks	3 4 6	3 10 9	3 17 6	4 2 9	4 12 6	5 1 3	5 10 6	6 4 3	6 13 6	7 2 6	8 1 9	9 4 0	11 0 9	12 17 6	13 16 0		
Gravesend Reach, and *vice versâ*	Long Reach	0 9 3	0 14 9	1 0 3	1 5 3	1 10 0	1 14 6	1 19 0	2 3 9	2 8 3	2 13 0	2 17 6	3 2 0	3 6 9	3 11 3	4 12 0	5 10 6	
	Woolwich or Blackwall	1 3 0	1 7 6	1 12 3	1 16 9	2 4 3	2 13 6	3 2 6	3 11 9	3 18 3	4 5 6	4 13 9	5 1 2	6 4 3	7 11 9	8 19 6	9 13 3	
	Moorings or London Docks	1 7 6	1 14 0	2 0 6	2 6 0	2 15 3	3 4 6	3 13 6	4 2 9	4 12 0	5 1 3	5 10 6	5 19 6	7 7 3	8 14 9			
	Sheerness, Standgate Creek, or Blackstakes	2 15 3	2 19 0	3 1 9	3 4 6	3 13 6	4 2 9	4 12 0	5 1 3	5 10 6	5 19 6	6 8 9	6 18 0	7 7 3	7 16 5			
Long Reach, and *vice versâ*	Chatham	3 4 6	3 8 0	3 10 9	3 13 6	4 2 9	4 12 0	5 1 3	5 10 6	5 19 6	6 8 9	6 18 0	7 7 3	7 16 5	8 5 6			
	Woolwich or Blackwall	0 18 6	1 2 9	1 7 6	1 16 9	2 6 0	2 15 3	3 4 6	3 13 6	4 2 9	4 12 0	5 3 6	5 16 0	6 8 9	7 7 3	8 5 6	9 4 0	
	Moorings or London Docks	1 7 6	1 11 3	1 14 0	1 16 9	2 6 0	2 15 3	3 4 6	3 13 6	4 2 9	4 12 0	5 3 6	5 16 0	6 8 9	7 7 3	8 5 6		
	Sheerness, Standgate Creek, or Blakstakes	3 4 6	3 8 0	3 10 9	3 13 6	4 2 9	4 12 0	5 1 3	5 10 6	5 19 6	6 8 9	6 18 0	7 7 3	7 17 6	8 5 6	8 14 9		
	Chatham	3 13 6	3 17 3	4 0 0	4 2 9	4 12 0	5 1 3	5 10 6	5 19 6	6 8 9	6 18 0	7 7 3	7 16 6	8 5 6	8 14 9	9 4 0		
Woolwich, or Blackwall, and *vice versâ*	Moorings or London Docks	0 18 6	1 2 0	1 4 9	1 7 6	1 16 9	2 6 0	2 15 3	3 4 6	3 13 6	4 2 9	4 12 0	5 3 6	5 16 0	6 8 9	7 7 3	8 5 6	
	Sheerness, Standgate Creek, or Blackstakes	3 13 6	3 17 3	4 0 0	4 2 9	4 12 0	5 1 3	5 10 6	5 19 6	6 8 9	6 18 0	7 7 3	7 16 6	8 5 6	8 14 9			
	Chatham	4 2 9	4 6 6	4 9 3	4 12 0	5 1 3	5 10 6	5 19 6	6 8 9	6 18 0	7 7 3	7 17 6	8 5 6	8 14 9	9 4 0			

From	To	Under 7 Feet.	From 7 Feet to 10 Feet.	11 Feet.	12 Feet.	13 Feet.	14 Feet.	15 Feet.	16 Feet.	17 Feet.	18 Feet.	19 Feet.	20 Feet.	21 Feet.	22 Feet.	23 Feet and upwards.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
The Downs	Nore, Sheerness, Standgate Creek, Gravesend	5 5 0	7 17 6	8 13 3	9 9 0	10 4 9	11 0 6	11 16 3	12 12 0	13 7 9	16 1 3	19 0 0	22 1 0	21 5 0	26 9 2	28 13 3
	Long Reach	5 16 0	8 8 6	9 9 0	10 4 10	11 3 0	11 18 10	12 18 3	13 14 0	15 0 9	17 14 4	21 4 2	24 5 1	26 9 2	28 13 3	30 17 4
	Blackwall or London	6 12 3	8 19 6	10 4 9	11 0 6	12 1 6	12 17 3	14 0 4	14 16 0	16 13 9	19 7 5	25 8 3	26 9 2	28 13 3		
Standgate Creek	Gravesend	3 6 2	3 17 0	4 8 2	4 19 0	5 10 3	6 1 3	6 12 3	7 3 3	7 14 4	8 5 4	8 16 4	9 7 4			

NOTE 1. Foreign ships are to pay one-fourth more than British ships, except when privileged to enter the ports of the United Kingdom upon paying the same duties of tonnage as are paid by British ships, in which cases such ships are to pay the same rates of pilotage only as are payable by British ships.

NOTE 2. For half a foot exceeding the above draughts of water, the medium price between the two limits.—For intermediate distances a proportionate rate.

For putting a Pilot on board, and for Pilotage of Ships to the Anchorage to the Downs.*	60 Tons, and under 150.	150 Tons, and under 250.	250 Tons, and under 400.	400 Tons, and under 600.	600 Tons, and upwards.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
From off Dungeness to off Folkstone; the church bearing N.N.W. by compass	2 0 0	3 0 0	3 10 0	4 0 0	5 5 0
From off Folkstone to the South Foreland, the lights in one	1 10 0	2 0 0	2 10 0	3 0 0	4 4 0
From off the South Foreland to the Downs	1 5 0	1 5 0	1 10 0	2 0 0	3 3 0

* When the Pilot is put on board by a boat from the shore, one seventh to the pilot, and the remaining six sevenths to the boat and crew.

In the river Thames, above Gravesend.	For a boat of a class carrying an anchor of above 4 cwt. with a corresponding tow line	£2 2 0	Per trip for the whole distance from Gravesend to London; and in proportion for any part of that distance.
	Do.	Do.	2 cwt. 1 1 0
	Do.	Do. under	2 cwt. 0 15 0

And for each man's service in those boats, 8s. per tide.

For removing a ship from moorings into a dry or wet dock:

For a ship under 300 tons	£0 15 0
„ 300 to 600 „	1 1 0
„ 600 to 1,000 „	1 11 6
„ above 1,000 „	2 2 0

RATES OF PILOTAGE (TRINITY HOUSE).

Rates of Pilotage.—Subject to any alteration to be made by the Trinity House, there shall continue to be paid to all Trinity House pilots, in respect of their pilotage services, such dues as are immediately before the time when this Act comes into operation payable to them in respect of such services. —§ 380.

Payment of Pilotage Due from Foreign Ships, &c.—Subject to any alteration to be made by the Trinity House, and notwithstanding anything herein-before contained, there shall be paid in respect of all foreign ships trading to and from the port of London, and not exempted from pilotage, the following pilotage dues, viz.: as to ships inwards, the full amount of dues for the distance piloted, and as to ships outwards, the full amount of dues for the distance required by law; and payment of such pilotage dues shall be made to the collector of customs in the port of London by some one or more of the following persons, viz.: the master or other person having the charge of such ship, or the consignees or agents thereof who have paid or made themselves liable to pay any other charge for such ship in the said port of London; and such pilotage may be recovered in the same manner as other pilotage dues.—§ 381.

Certificate of Payment of Pilotage to be given.—Subject to any alteration to be made by the Trinity House, the collector of Customs shall, on receiving any pilotage dues in respect of foreign ships, give to the person paying the same a receipt in writing; and no officer of Customs in the port of London shall grant a clearance or transire for any such foreign ship as aforesaid without the production of such receipt: and if any such ship attempts to go to sea without such clearance or transire, any such officer may detain her until the said receipt is produced.—§ 382.

Application of such Monies by Trinity House.—Subject to any alteration to be made by the Trinity House, the said collector shall pay over to the Trinity House the pilotage dues received by him in respect of any foreign ship; and the Trinity House shall apply the same in manner following:

1st, in paying to any pilot who may bring sufficient proof of his having had the charge of such ship such dues as would have been payable to him for such pilotage service if the ship had been a British ship, after deducting therefrom the poundage due to the Trinity House:

2nd, in paying to any unlicensed person who may bring sufficient proof of his having, in the absence of a licensed pilot, had the charge of such ship, such amount as the Trinity House may think proper, not exceeding the amount which would under similar circumstances have been payable to a licensed pilot, after deducting poundage:

And 3rd, shall pay over to the Trinity House Pilots Fund the residue, together with all poundage deducted as aforesaid.—§ 383.

Settlement of Difference as to Draught of Ship.—Whenever any differences arise between the master and the qualified pilot of any ship trading to or from the port of London as to her draught of water, the Trinity House shall upon application by either party, made, in case of a ship inward-bound, within 12 hours after her arrival or at some time before she begins to discharge her cargo, and in the case of a ship outward-bound before she quits her moorings, appoint some proper officer who shall measure the ship, and settle the difference accordingly: and there shall be paid to the officer measuring such ship, by the party against whom he decides, the following sums, viz., *1l. 1s.* if the ship be below and *10s. 6d.* if the ship be above the entrance of the London Docks at Wapping.—§ 384.

PILOT FUND (TRINITY HOUSE).

Payments to be made to the Pilot Fund.—Subject to any alteration to be made by the Trinity House, there shall continue to be paid to them, and carried over to the Trinity House Pilot Fund, the sums of money following, viz.:—

(1.) A poundage of sixpence in the pound upon the pilotage earnings of all pilots licensed by the Trinity House:

(2.) A sum of *5l. 3s.* to be paid on the 1st of January in every year by every person licensed by the Trinity House to act as pilot in any district not under the superintendence of sub-commissioners, or in any part of such district:

And any qualified pilot giving a false account of his earnings, or making default in payment of any sum due from him under this section, shall forfeit double the amount payable, and shall further be liable, at the discretion of the Trinity House, to suspension or dismissal.—§ 385.

Application of Fund.—Subject to any prior charges subsisting thereon, the Trinity House Pilot Fund shall be chargeable in the first instance with such expenses as the Trinity House may duly incur in performing their duties in respect of pilots and pilotage, and after payment thereof shall be administered by the Trinity House for the benefit of such pilots licensed by them after the 1st of October, 1853, as are incapacitated for the performance of their duty by reason of age, infirmity, or accident, or of the widows and children of pilots so licensed, or of such incapacitated pilots only.—§ 386.

APPOINTMENT OF SUB-COMMISSIONERS BY TRINITY HOUSES OF HULL AND NEWCASTLE.

Section 387 authorises the corporations of the Trinity Houses of Hull and Newcastle to appoint such sub-commissioners for the purpose of examining pilots in all districts in which they have been used to make such appointments.

SAVING OF OWNERS' AND MASTERS' RIGHTS.

Limitations of Liability of Owner where Pilotage is compulsory.—No owner or master of any ship shall be answerable to any person whatever for any loss or damage occasioned by the fault or incapacity of any qualified pilot acting in charge of such ship within any district where the employment of such pilot is compulsory by law.—§ 388.

ACCOUNT OF THE RATES CHARGED FOR THE PILOTAGE OF VESSELS, AND OF THE OTHER CHARGES AFFECTING THEM IN THE UNDERMENTIONED PORTS.

ABERDEEN.

Tonnage Duty.

	£	s.	d.
Class 1.—For all vessels to or from any place between Flamborough Head, on the southward, and Cape Wrath, on the westward, passing through the Caledonian and Forth and Clyde Canals, but including the Orkney and Shetland Isles, per register ton			
	0	2	
Class 2.—To or from all other ports or places in Great Britain and Ireland	0	4	
Class 3.—To or from all parts of Europe to the northward of Gibraltar, including the Canaries, Western Islands, Madeira, Azores, Guernsey, Jersey, Alderney, Sark, the Faroe Isles and Iceland, also the whole of the Baltic and White Seas	0	9	
Class 4.—All parts on the eastern coast of North America, including Greenland and Davis's Straits fisheries, all parts within the Straits of Gibraltar and W. coast of Africa, as far S. as the Tropic of Cancer	1	0	
Class 5.—The West Indies, and all parts within the Tropics of Capricorn and Cancer	1	6	
Class 6.—All vessels navigating to the southward of the Tropic of Capricorn, and all other parts of the world	2	0	

Leading Lights, Tidal Pier Light, and Flag Dues.

	£	s.	d.
All vessels under 40 tons	1	0	
40 tons and under 50	1	6	
50 — 80	2	0	
80 — 100	2	6	
100 — 120	3	0	
120 — 200	3	6	
200 tons and upwards	4	0	

The above rates are payable for all vessels entering the harbour.

Pilotage.	First Boat.			Second Boat.			Third Boat.		
	£	s.	d.	£	s.	d.	£	s.	d.
Vessels under 50 tons	0	7	0	0	6	0	0	5	0
50 tons and under 60	0	8	0	0	7	0	0	6	0
60 — 85	0	9	0	0	7	6	0	6	6
85 — 110	0	10	0	0	8	0	0	7	0
110 — 150	0	11	0	0	8	6	0	7	6
150 — 200	0	12	0	0	9	0	0	8	0
200 — 250	0	14	0	0	10	0	0	9	0
250 tons and above it	0	15	0	0	11	0	0	10	0

Ballast.—All ships or vessels furnished with ballast by the Aberdeen harbour commissioners pay—

Vessels belonging to Aberdeen, 9*d.* per ton.

All other vessels, 1*s.* per ton.

Vessels launched at the port of Aberdeen to pay half dues on first voyage, if sailing in ballast, but if landing goods, to pay full dues.

Vessels entering the harbour for safety, or windbound, and not breaking bulk, to pay half dues, but if they break bulk, or take in goods (stores for their own use excepted), to pay full dues.

Foreign vessels to pay one-half more dues than British vessels.

One arrival and one sailing to constitute a voyage.

Vessels remaining in the harbour after 3 calendar months (and 14 days allowed for loading and discharging) to pay 1*d.* per register ton per calendar month, and for each part of a month, in advance.

It shall be in the option of the trustees to charge either the dues on the voyage, inwards or outwards, at the rates specified in the foregoing Table, according to the distance; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

Exemptions for shipping, not including loading, lights, &c. or pilotage—

All open boats under the burthen of 10 tons to be exempted from dues.

All ships, steamers, or vessels having made 50 voyages in any 1 year, from January to December inclusive, shall pay no more harbour dues for any additional voyages made by them within the same year.

Vessels sailing from the harbour and put back by stress of weather, or other cause, without having accomplished the voyage, shall not be liable in additional dues for such returns.

All ships or vessels belonging to, or exclusively employed in the service of H. M., the Customs, Excise, or Post-Office, or of the Commissioners of the Northern Lighthouses, or of the Corporation of the Trinity House of Deptford Strond, to be exempted from dues.

British vessels *bona fide* employed in the white fishery, to be exempted from the payment of harbour dues, provided they have no cargo on board but the fish caught, and their stores and fishery implements.

AYR.

Tonnage Dues.

	£	s.	d.
Vessels under 29 tons register - per ton	0	0	2½
— 20 and under 40 tons register — —	0	0	3
— 40 — 80 — —	0	0	3½
Vessels 80 tons and upwards - - per ton	0	0	4
Foreign vessels, not privileged - - —	0	1	0

Vessels in ballast, 2*d.* per register ton.

Anchorage Dues.

	£	s.	d.
Vessels under 20 tons register - Per ton	0	1	0
— 20 to 40 — -	0	1	6
Vessels from 40 to 60 tons register -	0	2	0
— 60 to 80 — -	0	2	6

	£	s.	d.
Vessels 80 and under 100 tons - Per ton	0	3	0
— 100 — 150 — - -		4	0
— 150 — 200 — - -	0	5	0
Vessels 200 and upwards - - -	0	7	0

Pilotage, 1½d. per register ton.
Plankage:—Vessels under 100 tons, 1s.; vessels 100 tons and upwards, 2s.
No charge for ballast, except carting, about 4d.
No charge for local lights.

ARBROATH.

	Per Ton. £	s.	d.
Harbour Dues.—On vessels navigating to the south of the tropic of Capricorn - - - -	0	1	6
On vessels navigating between the equator and the tropic of Capricorn - - - - -	0	1	3
On vessels navigating between the tropic of Cancer and the equator - - - - -	0	1	0
On vessels navigating to and from any port in North America, and within the Straits of Gibraltar -	0	0	8
On vessels navigating to and from any port in Norway, north of Drontheim, Azores, Madeira, or Teneriffe Islands - - - -	0	0	7
On vessels navigating to and from any port between Gibraltar and Dunkirk, and any port in the Baltic -	0	0	5
On vessels navigating to and from any port in Great Britain - - - - - - -	0	0	3
On vessels with coals or lime from any port in Great Britain, excepting Scotland - - - -	0	0	2
On vessels with coals or lime from any port in Scotland, and all vessels engaged in the herring trade - - - - - -	0	0	1½
On all steam vessels, with passengers and their luggage exclusively, from any port in Great Britain - - - - - -	0	2	0
On all steam vessels, with goods and passengers, to pay the same rates as sailing vessels - -	0	0	3
On vessels entering the harbour for refuge, half the above dues are to be charged.			
All vessels remaining in harbour, after 2 months, to pay 1d. per ton per month, in advance.			
Vessels loading or unloading goods, or ballast, to pay in name of plank-money, viz.:—			
On vessels under 20 tons - - - -	0	1	0

	Per Ton. £	s.	d.
On vessels 20 and under 50 tons - -	0	1	6
50 — 100 — - -	0	2	0
100 — 150 — - -	0	2	6
150 — 200 — - -	0	3	0
200 — 250 — - -	0	3	6
250 — 300 — - -	0	4	0
300 — 350 — - -	0	4	6
350 — 400 — - -	0	5	0
400 and upwards - -	0	6	6

Lights.—Local harbour light, ¼d. per ton on each vessel.

Pilotage in and out of the Harbour.—Coasting vessels, laden or in ballast, 3d. per register ton.
All vessels employed in the foreign trade, 3½d. per register ton.
Vessels taking refuge, 2½d. per register ton.
And in addition to the above, on
Vessels under 40 tons, 6d.
40 & un. 80 tons, 1s.
80 — 100 — 1s. 6d.
100 — 120 — 2s.
120 — 150 — 2s. 6d.
150 — 180 — 3s.
180 and upwards, 4s.

Ballast.—The charge for ballast varies from 7d. to 10d. per ton, the parties purchasing where it can be had cheapest, and not under the management of any party.

The charge for harbour dues, lights, and pilotage, levied under the act 2 Vict. c. 16., by the Harbour Commissioners.

BELFAST.

Tonnage. For every ton of the burthen of every vessel coming into the harbour of Belfast, except through stress of weather, 4d.

Pilotage.	Vessels not having British Registers, arriving from or Sailing on a Foreign Voyage. £	s.	d.	Vessels with British Registers arriving from or Sailing on a foreign Voyage. £	s.	d.	Vessels not Steamers trading to or from a Port in the United Kingdom. £	s.	d.	Vessels being Steamers. £	s.	d.
For all vessels carrying merchandise, or passengers, coming from sea into Garmoyle, or to the quay, and going from the quay to Garmoyle, or to the sea:												
15 tons and under 20 tons - -	0	8	0	0	6	0	0	4	0	0	2	0
20 — 30 — - -	0	10	0	0	7	6	0	5	0	0	2	6
30 — 40 — - -	0	16	0	0	12	0	0	8	0	0	4	0
40 — 50 — - -	1	0	0	0	15	0	0	10	0	0	5	0
50 — 60 — - -	1	4	0	0	18	0	0	12	0	0	6	0
60 — 70 — - -	1	8	0	1	1	0	0	14	0	0	7	0
70 — 80 — - -	1	12	0	1	4	0	0	16	0	0	8	0
80 — 90 — - -	1	16	0	1	7	0	0	18	0	0	9	0
90 — 100 — - -	2	0	0	1	10	0	1	0	0	0	10	0
100 — 110 — - -	2	4	0	1	13	0	1	2	0	0	11	0
110 — 120 — - -	2	8	0	1	16	0	1	4	0	0	12	0
120 — 130 — - -	2	12	0	1	19	0	1	6	0	0	13	0
130 — 140 — - -	2	16	0	2	2	0	1	8	0	0	15	0
140 — 150 — - -	3	0	0	2	5	0	1	10	0	0	17	0
150 — 160 — - -	3	4	0	2	8	0	1	12	0	0	19	0
160 — 175 — - -	3	8	0	2	11	0	1	14	0	1	1	0
175 — 200 — - -	3	12	0	2	14	0	1	16	0	1	3	0
200 — 250 — - -	4	0	0	3	0	0	2	0	0	1	8	0
250 — 300 — - -	4	8	0	3	6	0	2	4	0	1	13	0
300 — 400 — - -	5	8	0	4	1	0	2	14	0	2	3	0
400 and upwards - -	6	0	0	4	10	0	3	0	0	2	5	6

Pilotage.	£	s.	d.
Outside the Black Head, or outside the buoy of the Brigs, to the Whitehouse Roads:			
Vessels of 200 tons and upwards -	2	2	0
— above 100 and under 200 tons -	1	11	6
— not exceeding 100 tons - -	1	0	0
Outside the Grey Point, or outside Kilnot Point, to the Whitehouse Roads:			
Vessels of 200 tons and upwards -	1	1	0
— above 100 and under 200 tons -	0	15	0
— not exceeding 100 tons -	0	10	0

These charges are for out-pilots, stationed by the corporation at Groomsport, Donaghadee, Carrickfergus, and Island Magee, for the accommodation of strangers to the port, but it is optional with the masters of vessels to employ them or not.

Mooring Buoys.

At Garmoyle, vessels under 200 tons, per week -	0	10	0
At Garmoyle, vessels 200 and not exceeding 300 tons, per week - - -	1	0	0
At Garmoyle, vessels 300 tons and upwards, per week	0	15	0
At the quays, per ton - - -	0	0	1
In the old channel, per ton - -	0	0	1

Sand Ballast.

For every ton delivered at any place between the Pool of Garmoyle and Belfast Bridge - - 0 1 4

	£	s.	d.
For every ton delivered in the Pool of Garmoyle, or below it towards the sea - -	0	2	0
Foreign vessels to be charged one-third part more.			
For every ton delivered to any vessel at the ballast wharf - - - -	0	1	6

Stone Ballast.

Common stone ballast, per ton -	0	2	6
Small sea stone for cotton vessels, per ton -	0	3	0
An extra charge of 6d. per ton if sent from the quays to Garmoyle.			

Quayage at the Corporation Quays.

On vessels from foreign ports, per ton -	0	0	5
On vessels coastways, per ton -	0	0	3
On all vessels loading outwards, per ton -	0	0	3
On lighters loading or discharging, each -	0	7	0

Vessels discharging from one to the other pay half quayage.
Vessels are charged half quayage when loaded to the beams only; if above the beams, whole quayage.
Steamers to pay per special agreement.
Local lights or beacons. No charge.
Note.—Foreign vessels belonging to countries having treaties of reciprocity with Great Britain are charged with the like rates as are paid by British vessels to this corporation.

BERWICK.

Tonnage Dues.—Every vessel trading between Berwick and any place between Sunderland, in that port and Fifeness - -	2d.	per ton.
Ditto between the Humber and Aberdeen -	3d.	—
Ditto between the N. Foreland and Shetland	4d.	—
Ditto any other place in Great Britain, or any place in Ireland - - -	6d.	—
Ditto any place on the coast of Europe between Dunkirk and the North Cape -	6d.	—
Ditto any place in the Baltic Sea, or on the coast of Europe between Dunkirk and the Straits of Gibraltar - - -	7d.	—
Ditto any place in the White Sea, or in the Mediterranean Sea, the West Indies, America, Greenland, or any other foreign port or place not before mentioned -	9d.	per ton
For every vessel coming into the harbour for shelter, laden and not breaking bulk -	1½d.	—
Ditto, in ballast and departing in ballast -	1d.	—
Foreign vessels pay double the above rates and duties.		
For every ship or vessel coming into the harbour, over and above rates and duties -	3s. 4d.	Vess. per f
Pilotage.—In summer; viz. from April 1. to Oct. 1. -	1s. 4d.	
In winter; viz. from October 1. to April 1. -	1s. 6d.	

These rates are payable on bringing a vessel into the harbour and over again on taking her out.

BRISTOL.

Harbour Rates	Pilot Rates.	Ballast.	Local Lights and Beacons.
Upon Vessels delivering Cargoes in Coasting and Foreign Trade.			
6d. per ton.	1s. per foot.	Nil.	Nil.
9d. per ton foreign vessels.	1s. 6d. per foot.		
Wheat, 1d. per quarter; grain, ½d. per quarter.	2s. per foot.		
Goods, 1d. per ton.	3s. per foot.		
Coals, 1d. per chaldron.	Foreign vessels, double.		

BRIDGWATER.

Harbour Dues. On all vessels, whether British or Foreign, entering the River Parret (under act 34 Geo. 3. c. 105). 1d. per ton and 1s. per vessel.

Pilotage. On all vessels whether British or Foreign, various rates, according to distance and tonnage, from 2s. 6d. to 5l. per vessel, authorized by bye-laws, &c. made by Corporation of Bridgwater in 1838.

Ballast Dues. Nil.

BRISTOL.

DOCK RATES AND DUES ON SHIPPING ENTERING THE PORT OF BRISTOL, THOSE LEAVING THE SAME BEING FREE OF ALL PORT CHARGES.

Dock Dues.

	£	s.	d.
For every vessel trading from Africa, Honduras, Surinam, and other ports in South America, the U. States of America, the East and West Indies, all the ports within the Straits of Gibraltar, the Southern Whale Fishery, the British Colonies, Portugal, Prussia, Russia, Spain, without the Straits, and Sweden, per ton	0	1	0
For every vessel trading from Flanders, France, without the Straits, Germany, Guernsey, Holland, Jersey, Norway, Poland, and Zealand, per ton	0	0	6
For every vessel trading from Ireland, the Isle of Man, Scotland, or as a coaster, not including vessels from Cardiff, Newport, and other ports to the eastward of the Holms, per ton	0	0	4
For every vessel from Cardiff, Newport, or any other port to the eastward of the Holms (not being vessels one third part of the lading of which shall consist of coal, scroff, iron, tin, tin plates, grain, copper, bricks, stone, coal, tar, slate, bark, timber, or wood) as follows:—			
If such vessel shall be under 40 tons burthen, for each voyage	0	7	6
If such vessel shall be 40 tons burthen, and under 75 tons, for each voyage	0	12	6
If such vessel be 75 tons burthen, and under 100 tons, for each voyage	0	16	0
If such vessels shall be 100 tons burthen or upwards, for each voyage	1	1	0
For every vessel from Cardiff, Newport, or any other port to the eastward of the Holms, one third part of the lading of which shall consist of coal, scroff, iron, tin, tin plates, grain, copper, bricks, stone, coal, tar, slate, bark, timber, or wood, as follows:—			
If such vessel shall not exceed 75 tons burthen, for each voyage	0	5	0
If such vessel shall exceed 75 tons burthen, for each voyage	0		6

N. B.—There are no dock rates or other port charges payable on vessels leaving the port of Bristol. And a vessel having once paid the dock dues on entering the port may remain for an indefinite period in the floating harbour without any further charge.

Anchorage and Moorage chargeable only on Vessels coming from Ports to the westward of the Holms.

	Anchorage and Moorage. s.	d.
All *coasting vessels*, from ports to the westward of the Holms, not exceeding 40 tons burthen, each voyage	0	9
Ditto, at and above 40 tons, ditto	1	6

	Anchorage each. s.	d.	Moorage per ton. s.	d.
All *other vessels*, not being coasters,				
— under 30 tons	2	6	0	0½
— above 30 and under 100 tons	5	0	0	0½
— above 100 tons	5	0	0	1

Mayor's Dues payable only by Vessels coming from Places westward of the Holms to the Port of Bristol, and payable by such Vessels not more than Three Times within the Space of Twelve Calendar Months.

	By voyage. s.	d.
60 tons and under 100 tons, each vessel	5	0
100 — 150 —	10	0
150 — 200 —	15	0
200 — 250 —	30	0
250 and upwards	40	0

Quay Warden's Fees.

	s.	d.
Vessels above 60 tons	5	0
— under —	2	6
Boat traw, or barge	0	4

Whether from eastward or westward of Holms.

The docks and quays in Bristol are not enclosed. The warehouses, whether bonded or otherwise, are all private property; they are for the most part close to the quays, and are all easy of access.

REGULATION AND RATES OF PILOTS.

All vessels navigating up, down, or upon the British Channel, to the E. of Lundy Island, except coasting vessels and Irish traders, shall be piloted, and navigated by pilots, duly authorised and licensed by the mayor, the burgesses, and commonalty of the city of Bristol; and the master, owner, or owners of every vessel which shall be navigated in the limits aforesaid, without a licensed pilot, shall forfeit double the sum that would have been demandable, for the pilotage of such vessel, together with 5l. for every 50 tons burthen of such vessel.

It shall be lawful for any licensed pilot to supersede any person not licensed as a pilot, in the charge of any vessel within the limits aforesaid; and every master who shall continue any person not licensed, after any licensed pilot has offered to take charge of such vessel; and every person assuming, or continuing in, the charge of any such vessel, without being duly licensed, after any other licensed pilot has offered to take charge thereof, shall, respectively, forfeit for every such offence, a sum not exceeding 10l.

For rates of pilotage from Lundy Island to Kingroad, &c., see art. Bristol, p. 527.

For each man employed on board, or for hauling or towing any vessel, and mooring or unmooring, from Bathurst or Cumberland Basin, to Hungroad Pill, and Broad Pill, and from either of those places to Cumberland or Bathurst Basin, the pilot shall receive and be entitled to 3s. 9d. per man; or from Bathurst or Cumberland Basin to Kingroad and Portshead, or either of them, or from either of those places to Cumberland or Bathurst Basin, he shall receive 3s. 9d. per man, and no more. When the pilot remains on board a vessel, he shall be entitled to 5s. per day, and the man to 3s. per day.

And the pilot shall be entitled to and shall receive for each tow-boat and yawl employed in towing or assisting, mooring and unmooring any vessel from Portshead, Kingroad, Hungroad, or Broad Pill, into Cumberland or Bathurst Basin, and out of Cumberland or Bathurst Basin to Portshead, Kingroad, Hungroad, or Broad Pill, the sums following, viz.—for a tow-boat, 6s.; for a yawl, 3s.

And he shall receive for every boat used in towing, unmooring and mooring any ship or vessel from either of the following places, to any part of such places, viz.—Portshead, Kingroad, Pill, or Hungroad; or for unmooring, new berthing, and again mooring any ship or vessel in either of the said last mentioned places, the sums following, viz.—for every yawl, 2s. 6d.

And every man who shall be engaged, or be discharged at Hungroad or Pill, without being employed to assist in mooring or unmooring, shall be entitled to, for his fee or wages, 2s. 9d.; and the pilot shall be entitled, for the boats not employed in so mooring and unmooring, for a tow-boat, 4s.; and for a yawl, 2s. 6d., and no more.

The pilot of all vessels above 300 tons shall be allowed for an assistant pilot in the river pilotage, the sum of 10s.—such an assistant being a licensed pilot; in default whereof, only 3s. 9d. shall be paid for such assistant.

There shall be allowed for each horse used in towing any ship or vessel, a sum not exceeding 6s., and to the driver, 1s.

	£	s.	d.
If under 100 tons reg. burthen	0	1	0
If 100 tons and under 200	0	2	0
If 200 and upwards	0	3	0

And that such sums shall be added to the pilotage note and paid therewith by the master and commander, merchant or owner of such ship or vessel.

In case any ship or vessel shall be in distress, either in the outward or homeward bound voyage, and any pilot or men shall run an imminent risk or hazard in going to the relief of such ship or vessel, the pilots or men assisting shall have reasonable satisfaction for the assistance so given, according to such assistance, and the risk and hazard run; and in case of a difference of opinion as to the amount of such satisfaction, the same to be ascertained by two of her Majesty's Justices of the Peace, acting for the city and county of Bristol.

If any licensed pilot shall proceed with any ship or vessel as far as Minehead, Combe, or Lundy Island, and shall be forced by stress of weather to return to Kingroad or Portshead, he shall be allowed one third part of the channel pilotage, according to the distance such vessel may have reached before she shall have put back.

Each pilot shall, within two days after his return from a voyage to the westward, return to the Haven-Master the number of the skiff so returned from the westward, the time of her sailing, the time of her return, the distance she has been, and the names of the persons employed in navigating her, and all the material particulars of the voyage; and each pilot who shall neglect to make such return, or shall make a false return, shall for each offence, forfeit and pay any sum not exceeding 40s.

Addenda to Pilotage.—From Lundy Island to Swansea.
An uniform charge of 4l. 4s.

From Lundy Island to Bridgwater.

	£	s.	d.
If such vessel be under 100 tons reg.	2	13	0
If 100 tons and under 200	3	10	0
If 200 — 300	4	7	6
If 300 and upwards	5	5	0

From Lundy Island to Cardiff.
The same rates as to Bridgwater.

From Lundy Island to Newport.
The same rates as to Kingroad.

COWES.

Description of Dues and Charges collected.

Anchorage and groundage for all boats, vessels, and barges liable to registry or licence, not registered at this port and which shall anchor within this harbour, for each vessel under 50 tons, 1s. 4d.; above 50 tons and not exceeding 100 tons, 2s. 6d.; above 100 tons, 5s.; payable to harbour-master of the port of Cowes.

On all vessels anchoring in Cowes Roads; viz. the sum of 4*s.* 6*d.* per vessel, on all foreign vessels; and the sum of 1*s.* on all British vessels; payable to the gunner of Cowes castle.

Ballast.—There are no regular charges for ballast within this port, each captain of a vessel employing whom he may choose, and paying such price as they may agree for.

CORK.

Tonnage:—	£	s.	d.
On every vessel reporting at custom-house, except coasters and colliers - - - per ton	0	0	3
Colliers - - - - - —	0	0	2
Vessels from any port in Ireland - - - —	0	0	1
Ballast:—			
Other than limestone - - - - —	0	1	0
Limestone - - - - - —	0	1	6
For every ton of ballast taken from any vessel, if by lighter - - - - - —	0	0	1
Otherwise - - - - - —	0	0	4
Anchorage:—On vessels calling for orders or refuge	0	0	1

Pilotage.—During summer months, British vessels outside the limits of Cork Harbour, by special agreement.

From the outward Limits of Cork Harbour into Cove, Passage, and Cork; per vessel.

	Cove.			Passage.			Cork.		
	£	s.	d.	£	s.	d.	£	s.	d.
British vessels									
Under 80 tons - -	0	6	0	0	8	0	0	12	0
80 to 120 — - -	0	8	0	0	10	0	0	16	0
120 to 160 — - -	0	10	0	0	15	0	1	0	0
160 to 220 — - -	0	12	0	0	17	0	1	2	0
220 to 300 — - -	1	0	0	1	10	0	—		
300 to 400 — - -	1	10	0	2	0	0	—		
400 and upwards, ditto -	1	15	0	2	5	0	—		
Coasters and colliers									
Under 80 tons	0	5	0	0	7	0	0	10	0
80 to 120 — - -	0	6	0	0	8	0	0	12	0
120 and upwards, ditto -	0	8	0	0	10	0	0	15	0
One-fourth additional in winter months, and one-fourth additional on vessels not British registered.									

The whole of the foregoing charges are levied by the Cork Harbour Commissioners, established by local act 1 Geo. 4. c. 52.

COLCHESTER.

Channel Dues on all Vessels, whether in the Coasting or Foreign Trade.	Pilotage Charges.	Ballast Charges.	Observations.
Vessels belonging to the port, under 50 tons, charged 1*d.* per ton; above 50 tons, 2*d.* per ton. Vessels not belonging to the port, under 50 tons, 3½*d.* per ton; above 50 tons, 5¼*d.* per ton. Vessels with coal, culm, and cinders, 6*d.* per ton on the quantity delivered, by the act 51 Geo. 3., Sept. 1811.	1*s.* 6*d.* per foot from East Ness to Pyefleet, and 1*s.* per foot from Pyefleet into the harbour, collected under the authority of the Trinity Board.	From 1*s.* to 1*s.* 3*d.* per ton, according to the description of ballast required; collected by consent, being private property.	The charge on vessels taking refuge in the harbour is 1*s.* per vessel for anchorage, and collected by prescriptive right.

DARTMOUTH.

Dues and Charges levied by Corporation of Dartmouth under Lease from Duchy of Cornwall.

	£	s.	d.
On vessels going upon the ground - -	0	1	0
On vessels anchoring - - - -	0	0	6
By prescription:			
On vessels graving their bottoms - -	0	2	6
On vessels going alongside the quays -	0	1	0
By consent:			
On vessels passing the Castle - - -	0	0	6

Dues and Charges levied by Corporation of Dartmouth under Lease from Duchy of Cornwall.

	£	s.	d.
On all vessels taking in ballast, per ton -	0	0	2½

Dues and Charges levied under Act 6 Geo. 4. c. 125.

Pilotage.—All ships, if boarded without the run of the Newstone East or the Blackstone West, are to pay as follows, viz.—

	£	s.	d.
Drawing 10 feet water and under, per foot -	0	2	6
— 10 to 12 feet — - -	0	3	0
— 12 to 14 feet — - -	0	5	6
— 14 to 16 feet — - -	0	4	0
— 16 feet and upwards — - -	0	5	0

All ships, if boarded within that line, are to pay ½ part less.
All ships boarded within the Castle are to pay only ¼ pilotage.
In carrying ships out of the harbour, the pilotage is to be in all cases ⅓ less than the inward pilotage.

DOVER.

Charges on Vessels when delivering Cargoes in whole or in part.

Foreign Vessels.

Dover harbour duty, per act 9 Geo. 4. c. 31., 3*d.* per ton.
Ramsgate harbour duty, per acts 32 Geo. 3. c. 74., and 55 Geo. 3. (1815), payable in respect of vessels which have passed that port on their voyages, viz. vessels privileged as British, if 20 tons, and not exceeding 300 tons, 2*d.* per ton.
Ditto, exceeding 300 tons, 4*d.* per ton.
On vessels not privileged as British, if 20 tons and not exceeding 300 tons, 4*d.* per ton.
Ditto, exceeding 300 tons, 1*d.* per ton.

Light Dues, payable for such Lights as have been passed on the Voyage.

Barque money, to fund for cast-away seamen, by prescription, 1*s.* per vessel.
Water-bailiff's fee, by prescription, 1*s.* per vessel.
Harbour-master's fee, by prescription, 3*s.* per vessel.

British Vessels.

Dover harbour duty, per act 9 Geo. 4. c. 31., 3*d.* per ton.
Ramsgate harbour duty, per acts 32 Geo. 3. c. 74., and 55 Geo. 3. (1815), payable in respect of vessels which have passed that port on their voyage, viz. if 20 tons and not exceeding 300 tons, 2*d.* per ton.
Ditto, exceeding 300 tons, ½*d.* per ton.

Light Dues, payable for such Lights as have been passed on the Voyage.

Water-bailiff's fee, by prescription, 6*d.* per vessel.
Harbour-master's fee, by prescription, 1*s.* per vessel.

Coasting Vessels, when not laden with Coals or Stone.

Dover harbour duty, per act 9 Geo. 4. c. 31., payable once only during the year, 3*d.* per ton.
Ramsgate harbour duty, per acts 32 Geo. 3. c. 74., and 55 Geo. 3. (1815), payable once only during the year, 2*d.* per ton.

Coasting Vessels, when laden with Coals or Stone.

Dover harbour duty on coals, 1½*d.* per chaldron.
Ditto on stone, 1½*d.* per ton.
Ramsgate harbour duty on coals, 1*d.* per chaldron.
Ditto on stone, 1*d.* per ton.

Light Dues, payable for such Lights as have been passed on the Voyage.

Water-bailiff's fee, by prescription, 6*d.* per vessel.
Harbour-master's fee, by prescription, 1*s.* per vessel.
Vessels taking refuge in the harbour only are liable to the above-mentioned charges, except light dues, and except also Dover harbour duty when in ballast.

Charges for Pilotage, per Act 6 Geo. 4. c. 125.

Per foot draught of water, in, 5*s.*
Ditto out, 5*s.*
Vessels are not compelled to employ pilots.
Charge for ballast, per charter under the Lord Warden and Assistants of Dover harbour, 1*s.* 5*d.* per ton.

N. B.—Vessels belonging to Dover are exempt from water-bailiff's and harbour-master's fees. Vessels belonging to the following ports are exempt from Dover harbour dues, and water-bailiff's and harbour master's fees; viz. Great Yarmouth, Ramsgate, Sandwich, Weymouth, and Melcombe Regis, Lyme Regis, and Arundel. And vessels belonging to Dover, Weymouth, Melcombe Regis, Lyme Regis, Great Yarmouth, and Arundel, are exempt from Ramsgate Harbour dues.

DUBLIN.

Nature of the Dues and Charges.	Date.	Particulars and Rates of the several Charges and Dues.	In what manner charged.	Amount.
				£ s. d.
City dues - -	Corporation cannot trace the date, but very old.	On every vessel arriving with cargo		
		Anchorage - - - -	per vessel -	0 3 1
		Shippage - - - -	per vessel -	0 0 11
		On every vessel, if under 40 tons register		
		Anchorage - - -	per vessel -	0 1 10½
		On vessels with coals		
		Anchorage - - - -	per vessel -	0 3 1
		Shippage - - - -	per vessel -	0 0 11
		Lord Mayor - - 2*s.* 3½*d.* Water bailiffs - - 5*s.* 6¼*d.*	per vessel -	0 7 10½
		With coals under 40 tons; anchorage	per vessel -	0 1 10½
		In addition to the above charges, on each vessel, once in every year, for chapter and guild - - - -	per vessel -	0 1 6
Harbour dues: Dunleary, now called Kingstown.		On all vessels with foreign cargo, whether delivering in whole or in part		
		Invoice or report inwards - -	per vessel -	0 2 0
		On burthen or tonnage - - -	per ton -	0 0 4
		Ditto on vessels not privileged - -	per ton -	0 0 6
		Anchorage, &c. - - -	per vessel -	0 7 6
		Invoice or report outwards - -	per vessel -	0 2 0

Charges and Dues payable by Shipping to the Corporation, for preserving and improving the Port.

Dues and Charges.	Particulars and Rates of the several Dues and Charges.	Tonnage Duty.	Ballast put on Board.	Quay Walls.
Tonnage -	Foreign vessels not privileged under treaties of reciprocity.	1s. 4½d. per ton measurement.	2s. 6½d. per ton of 21 cwt.	1¾d. per ton measurement.
	Foreign vessels privileged under treaties of reciprocity.	8½d. - ditto	1s. 9½d. - ditto -	- ditto.
Ballast -	British vessels from Foreign ports, or from Colonies of Great Britain.	8½d. per ton register.	- ditto - -	1¾d. per ton register.
Quay walls	Colliers, British and Irish coasting vessels	5½d. - ditto -	- ditto - -	1d. ditto.
	All vessels in distress, or seeking refuge, or calling for orders.	Exempt.		

Nature of the Dues and Charges.	Particulars and Rates of the several Dues and Charges.	From outside Banks over Bar.	From inside Banks over Bar.	From the Bay over Bar.	From Poolbeg to Basin, Docks, or Quays.	Outwards.
Pilotage -	Foreign vessels not privileged. - -	5s. 6½d. per foot.	3s. 8½d. per foot.	2s. 9½d. per foot.	1s. 4½d. per foot.	1s. 10½d. per foot.
	Foreign vessels privileged - -	2s. 9½d. per foot.	1s. 10½d. per foot.	1s. 4½d. per foot.	11d. per foot.	
	British vessels from Foreign ports -	- ditto -	- ditto -	- ditto -	- ditto -	
	Colliers and coasters - - -	1s. 10½d. per foot.	11d. per foot.	11d. per foot.	5½d. per foot.	
	Vessels in distress, seeking refuge, or calling for orders, exempt from dues.					

DUNDALK. *Tonnage Duty.* — Sailing vessels, 6d. per ton registered tonnage.

Steam Vessels, 1½d. per ton, registered tonnage.

Ballast. — British vessels, 1s. 2d. per ton, on quantity delivered on board.

Foreign vessels, ½ more on quantity delivered on board.

Vessels taking Refuge. — British and Foreign, under 50 tons registry, 5s. per vessel.

British and Foreign, 50 and under 100 tons registry 10s. per vessel.

British and Foreign, above 100 tons registry 20s. per vessel.

Pilotage.

Registered Tonnage.	Vessels not having British Registers, arriving from or sailing on a Foreign Voyage.	Vessels with British Registers, arriving from or sailing on a Foreign Voyage.	Vessels not Steamers, trading to or from a Port in the U. Kingdom
	£ s. d.	£ s. d.	£ s. d.
30 and under 40 -	0 12 0	0 9 0	0 6 0
40 — 50 -	0 15 0	0 11 3	0 7 6
50 — 60 -	0 18 0	0 13 6	0 9 0
60 — 70 -	1 1 0	0 15 9	0 10 6
70 — 80 -	1 4 0	0 18 0	0 12 0
80 — 90 -	1 7 0	1 0 3	0 13 6
90 — 100 -	1 10 0	1 2 6	0 15 0
100 — 110 -	1 13 0	1 4 9	0 16 6
110 — 120 -	1 16 0	1 7 0	0 18 0
120 — 130 -	1 19 0	1 9 3	0 19 6
130 — 140 -	2 2 0	1 11 6	1 1 0
140 — 150 -	2 5 0	1 13 9	1 2 6
150 — 160 -	2 8 0	1 16 0	1 4 0
160 — 175 -	2 11 0	1 18 3	1 5 6
175 — 200 -	2 14 0	2 0 6	1 7 0
200 — 225 -	2 17 0	2 2 9	1 8 6
225 — 250 -	3 0 0	2 5 0	1 10 0
250 — 275 -	3 3 0	2 7 3	1 11 6
275 — 300 -	3 6 0	2 9 6	1 13 0
300 — 325 -	3 9 0	2 11 9	1 14 6
325 — 350 -	3 12 0	2 14 0	1 16 0
350 — 375 -	3 15 0	2 16 3	1 17 6
375 — 400 -	3 18 0	2 18 6	1 19 0
400 and upwards -	4 1 0	3 0 9	2 0 6

N. B. — Steam vessels do not at present come within 1½ mile of the quays. No distinction between coasting and foreign trade as to tonnage duty.

DUNDEE. — *Tonnage Rates and Duties.* Per Register Ton.

	£ s. d.
For all vessels navigating to the southward of the tropic of Capricorn - - - -	0 1 6
Between the equator and the tropic of Capricorn -	0 1 3
Between the tropic of Cancer and the equator -	0 1 0
To and from any port in North America, Greenland, Davis' Straits fisheries, and all within the Straits of Gibraltar - - - -	0 0 8
To and from any port in Europe to the north of Drontheim, in Norway, and to or from the Azores, Madeira, or Teneriffe Islands, and the west coast of Africa, between the tropic of Cancer and the Straits of Gibraltar	0 0 7
To and from any port on the coast of Europe, between Gibraltar and Drontheim, in Norway, including both these ports, and all ports in the Baltic - - - - -	0 0 5
To or from any port in Great Britain or Ireland, including the Islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys - - - -	0 0 3
All vessels loaded with coals, lime, or manure only, from any port in Great Britain, &c., excepting Scotland - - - - -	0 0 2
All vessels loaded with coals, lime, or manure only, from any port in Scotland - -	0 0 1½
All vessels employed in the River Tay, carrying goods and entering the precincts of the port or harbour of Dundee - - -	0 0 1½
All steam vessels from any port in Great Britain or Ireland, including the Islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys, carrying passengers and their luggage exclusively - - -	£ s. d. 0 0 2
All steam vessels (from any port in Great Britain) employed on the river Tay, carrying passengers and their luggage exclusively, and vessels trading from the harbour, or carrying passengers to any port within the precincts - - -	0 0 1

All steam vessels carrying goods and passengers to pay the same rates as sailing vessels.

All vessels from any part of the river Tay, not exceeding 30 tons register, with stones, and having no other goods on board, and delivering their cargoes in the precincts of the said harbour to pay 2s. each voyage in name of tonnage dues, and 1s. for every 20 tons, or part of 20 tons, additional.

All vessels from any part of the river Tay with sand, and having no other goods on board, to pay 1s. for each trip in name of tonnage dues.

It shall be in the option of the trustees to charge either the tonnage dues on the voyage inwards or on the voyage outwards, at the rates specified in the above schedule; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of the dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

All vessels launched within the harbour of Dundee, or precincts thereof, to pay half dues on the voyage outwards, if sailing in ballast; but if loaded in whole or in part, or taking passengers, to pay full dues.

All vessels to be permitted to enter the harbour of Dundee for safety, by payment of one-half of the tonnage dues; but if such vessels shall remain in the harbour, or any of the docks, beyond the space of 21 days, or shall take goods on board (stores for their own use excepted), or break bulk, they shall be liable in the full tonnage dues.

All vessels remaining in harbour to pay, after 2 months, 1d. per register ton per month in advance, when they are lying in any of the tide-harbours, and 1½d. per ton when lying in any of the docks.

Each vessel, with the exception after-mentioned, entering the harbour and loading or unloading goods or ballast within the same, or performing both operations, before leaving the harbour, to pay, in name of plank-money (whether a plank be used or not) as follows:—

			£ s. d.
Vessels not exceeding 20 tons -	-	-	0 1 0
Vessels exceeding 20 tons	and not exceeding	50	0 1 6
—	50	— 100	0 2 0
—	100	— 150	0 2 6
—	150	— 200	0 3 0
—	200	— 250	0 3 6
—	250	— 300	0 4 0
—	300	— 350	0 4 6
—	350	— 400	0 5 6
—	400 tons and upwards		0 6 6

All vessels loaded with lime, coals, or manure only, and discharging their cargoes within the precincts of the harbour, to the eastward of the Rood Yards, or to the westward of the Magdalen Yard, to pay one-half of the dues in the above schedule.

Vessels with fish of any kind for curing, per ton register, or admeasurement, 2d.

Exemptions.

All vessels leaving the harbour for the purpose of taking on board ballast in any part of the River Tay, and returning to the said harbour, or precincts thereof, with ballast, shall not be liable in shore dues for such return.

Any vessel sailing from the port of Dundee, and put back by stress of weather or any other cause, without having accomplished her voyage, shall not be liable in additional dues for such return.

Vessels partly loaded with coals, lime, or manure, or in ballast, but having dunnage deals, or stow-wood on board, which have been used as such, and are intended to be unloaded; or having goods on board, which are neither to be landed nor reshipped into any other vessel within the harbour or precincts, shall be charged the same dues as vessels wholly loaded with coals, lime, or manure.

All vessels arriving in ballast for the purpose of being repaired in the graving-dock, or on the patent slip, and departing in ballast, shall be exempted from tonnage dues, provided such vessels enter for the dock or slip immediately on arrival, and sail within 1 month after leaving such graving-dock or patent slip; otherwise to be charged 1d. per register ton per month in advance, when they are lying in any of the tide-harbours, and 1½d. per ton when lying in any of the docks.

Vessels with cargoes, arriving for the express purpose of

being repaired in the graving-dock, or on the patent slip, shall not be liable in shore dues, provided they neither take goods on board (stores for their own use excepted) nor break bulk, except to lighten for getting into the dock, or upon the slip, and that they shall again re-load all the goods so landed.

All vessels loading or unloading goods within the precincts of the harbour of Dundee, to the eastward of the Rood Yards, and the westward of the Magdalen Yard, shall be exempted from payment of plank-money.

All vessels not carrying passengers arriving in the harbour in ballast, and departing again in ballast, shall be subject only in half dues; but if such vessels, after arriving in ballast, shall take in cargoes, or parts of cargoes, before their departure, they shall be liable in full dues.

Table of Rates for Pilots licensed by the Trustees of the Harbour of Dundee.

For vessels to or from foreign, boarded at the distance of not more than 3 miles outward of the Fairway Buoy of Tay, or at any point between that distance and the said buoy, and from thence to and including the harbour of Dundee, *3s. 6d.* per foot, according to the draught of water.

For vessels to or from foreign, boarded between the Fairway Buoy of Tay and the buoy on the Elbow-end, marked No. 3, and from thence to and including the harbour of Dundee, *2s. 6d.* per foot.

For vessels to or from foreign, boarded between the Elbow-end Buoy, No. 3, and Broughty Castle, and from thence to and including the harbour of Dundee, *1s. 3d.* per foot.

All coasting vessels boarded at the respective distances above mentioned, to pay as follows: viz. vessels boarded not more than 3 miles outward of the Fairway Buoy of Tay, to pay *3s.* per foot; between the Fairway Buoy of Tay and the Elbow-end Buoy, No 3, *2s.* per foot; and between the Elbow-end Buoy and Broughty Castle, to and including the harbour, *1s.* per foot.

All vessels, whether foreign or coasting boarded above Broughty Castle, to and including the harbour, *1s.* per foot.

In the event of vessels having to stop in Carolina Roads for want of water in the harbour, or otherwise, the master of the vessel shall have it in his option either to dispense with the services of the pilot, or detain him on board till the vessel can enter the harbour. In the former case the pilot shall be entitled to full pilotage dues; in the latter, the pilot shall be entitled, besides these dues, to *5s.* for each day, or part of a day, in name of river fees.

When pilots enter the river on board vessels bound for places above Dundee, the river or sea pilotage, including the harbour, shall be payable in full by such vessels when moored or off Carolina Roads.

All vessels boarded between 3 miles and 6 miles beyond the Buoy of Tay, to pay *10s. 6d.* additional for distance-money; and vessels boarded 6 miles beyond said Buoy of Tay, to pay *15s.* of distance-money.

In case of dispute, the distance to be ascertained by the bearings of the different headlands when the vessel was boarded.

Tay Light Duties (local).

The "Fraternity of Masters and Seamen of Dundee, incorporated by Royal Charter," possess the right, by charter, to levy, *inter alia*, the following dues on vessels arriving within the Firth of Tay, being the whole charges presently made in respect of said right; and those for and in name of the expense of erection and maintenance of 4 lighthouses owned exclusively by said fraternity, 2 of which are situated on the north side and 2 on the south side of said Firth; and of certain buoys placed in the Fairway thereof:—

On every British ship coming within the entrance of the Firth of Tay, whether with cargo on board or in ballast, or driven therewithin by stress of weather or otherwise, at the rate of *1s.* for every 10 tons register; under 10 tons, charged at the same ratio.

On every foreign ship, privileged, the same rate of dues when in either of the above situations; but the Trinity House makes good an equal amount to the said incorporation, in consequence of the half charge being only made on foreign vessels so privileged.

On every foreign ship, unprivileged, situated as above, the rate of charge is *2s.* for every 10 tons register; under 10 tons charged at this ratio.

No dues are levied on British ships, nor on foreign vessels privileged or otherwise, leaving the Tay on their outward voyage, whether laden or in ballast, excepting in the case of new ships, built within the ports of Dundee and Perth respectively, which pay the above dues on British shipping when leaving on their first voyage, whether foreign or coasting.

EXETER.—River Exe.

Harbour Dues.	Canal Dues.	Ballast.	Pilotage.	
One halfpenny per vessel, provided she proceeds above Powderham, payable to municipal corporation by prescription.	All vessels entering and passing through the canal, not otherwise, if less than 10 tons burthen, *5s.* each; if 100, and less than 110 tons, *6d.* per ton; if above 110 tons, *9d.* per ton each, up and down.	*4d.* per ton, payable to the lord of the manor.	As per annexed rate, established under act 6 Geo. 4. c. 125, but amended under sanction of the Trinity Board of 6th May, 1833.	Vessels coasting, or in the foreign trade, are liable to the same charges, except pilotage. Vessels taking shelter only, are not liable to any charges beyond pilotage.
		River Teign.		
One penny per ton for every British vessel, and *2d.* per ton if foreign, and not privileged as British. Sixpence upon every vessel not belonging to the port.	- - -	- -	As per annexed rate, established under act 6 Geo. 4. c. 125, but amended under sanction of the Trinity Board of 6th May, 1833.	Vessels coasting, or in the foreign trade, are liable to the same charges, except pilotage. Vessels taking shelter only are not liable to any charge beyond pilotage.

Rates of Pilotage for Vessels in and over Exmouth Bar, to the Moorings in the Bight at Exmouth, and out again over the Bar.

	Inwards.			Outwards.		
	£	s.	d.	£	s.	d.
Coasters.						
If above per register:						
60 tons, and not exceeding 80 tons	0	2	4	0	1	2
80 — 90 —	0	2	8	0	1	4
90 — 100 —	0	3	0	0	1	6
100 — 125 —	0	3	8	0	1	10
125 — 150 —	0	4	0	0	2	0
150 — 175 —	0	4	8	0	2	4
175 — 200 —	0	5	0	0	2	6
200 — 250 —	0	6	4	0	3	2
250 — 300 —	0	7	8	0	3	10
300 — 400 —	0	8	4	0	4	2
Ships from Foreign Parts.						
If above, per register or measurement:						
60 tons, and not exceeding 80 tons	0	4	4	0	2	2
80 — 100 —	0	5	0	0	2	6
100 — 150 —	0	6	4	0	3	2
150 — 200 —	0	7	8	0	3	6
200 — 250 —	0	8	4	0	4	2
250 — 300 —	0	9	0	0	4	6
300 — 400 —	0	10	4	0	5	2

Per foot draught of water.

Foreign vessels, not privileged as British, one-fourth extra.

Coasters.

All vessels carried up from the Bight, at Exmouth, to the Sands, *4s. 8d.*; back, *2s. 4d.* extra.

All vessels under 100 tons, carried up to Topsham quay *14s.*; back, *7s.* extra.

All vessels under 100 tons, carried up to Turf, *9s. 4d.*; back, *4s. 8d.* extra.

All vessels upwards of 100 tons, carried up to Topsham, per ton, *2d.*; back, *1d.* extra.

All vessels upwards of 100 tons, carried up to Turf, per ton, *1½d.*; back, *¾d.* extra.

Ships from Foreign parts.

All vessels carried up from the Bight, at Exmouth, to the Sands, *4s. 8d.*; back, *2s. 4d.* extra.

All vessels under 100 tons, carried up to Topsham quay *14s.*; back, *7s.* extra.

All vessels under 100 tons, carried up to Turf, *9s. 4d.*; back, *4s. 8d.* extra.

All vessels upwards of 100 tons, carried up to Topsham quay (British, per ton,) *2d.*; back, *1d.* extra.

All vessels upwards of 100 tons, carried up to Topsham quay (foreign, per ton,) *2½d.*; back, *1¼d.* extra.

All vessels upwards of 100 tons, carried up to Turf, (British per ton,) *1¼d.*; back, *½d.* extra.

All vessels upwards of 100 tons, carried up to Turf, (foreign, per ton) *1¾d.*; back, *¾d.* extra.

Pilots to provide a boat and crew to assist over the bar to a mooring berth, for which they shall be paid, over and above the pilotage, *2s. 6d.* for each man or oar employed for that purpose.

FLEETWOOD.

	On Foreign Vessels.	On Vessels in the Foreign Trade:		On Vessels in the Coasting Trade.	
	Loading or Unloading.	Loading or Unloading.	Taking Refuge only.	Loading or Unloading.	Taking Refuge only.
	Rate per Ton.	*Rate per Ton.*	*Rate per Ton.*	*Rate per Ton.*	*Rate per Ton.*
Wyre Harbour Dues -	*3d.*	*5d.*	*1¼d.*	*1d.*	*½d.*
Wyre Lights - - -	*3d.*	**3d.*	*1¼d.*	**3d.* per ann.	*1¼d.* per ann.
Walney Light - - -	*3d.* per ann.	*3d.* per ann.	*1d.* per Voyage.	*3d.* ditto.	*1d.* per Voyage.
Pilotage inwards - -	From *2s. 6d.* to *5s.* per foot, according to distance.			From *1s. 6d.* to *3s.* per foot, according to distance.	
Ditto outwards - - -	*4s.* per foot.			*2s.* per foot.	

* Vessels wholly in ballast are exempt from Wyre Light duties.

Rates of Pilotage for Vessels in and over Teignmouth Bar.

	Inwards.	Outwards.		Inwards.	Outwards.
	£ s. d.	£ s. d.		£ s. d.	£ s. d.
Coasters.			*Ships from Foreign Parts.*		
If above, per register:			If above, per register or measurement:		
60 tons, and not exceeding 100 tons	0 2 4	0 1 2	60 tons, and not exceeding 80 tons	0 2 4	0 1 2
100 — 150 —	0 2 8	0 1 4	80 — 100 —	0 2 8	0 1 4
150 — 200 —	0 3 2	0 1 6	100 — 150 —	0 3 2	0 1 6
200 — 250 —	0 3 6	0 1 9	150 — 200 —	0 3 6	0 1 9
250 — 300 —	0 3 10	0 2 0	200 — 250 —	0 3 10	0 2 0
300 — 400 —	0 4 3	0 2 2	250 — 300 —	0 4 8	0 2 4
	Per foot draught of water.		300 — 400 —	0 5 6	0 2 8
				Per foot draught of water.	

Foreign vessels, not privileged as British, one-fourth extra.

Pilots to provide a boat and crew to assist over the Bar to a mooring berth, for which they shall be paid, over and above the pilotage, 2*s.* 6*d.* for each man or oar employed for that purpose.

Masters of ships taking a pilot off the Bill of Portland or the start (which is optional to them) are to pay, beyond the pilotage, from Bob's Nose, or Lyme, as follows, viz.:—

Colliers and coasters - - 2*l.* 2*s.*
Ships from foreign parts - - 3*l.* 3*s.*

And proportionably for intermediate distances.

FALMOUTH.

	Pilotage.	Harbour Dues.	Ramsgate Harbour Dues.	Dover Harbour Dues.	Ballast.
Upon vessels delivering cargoes in whole or in part from foreign countries.	As per rates annexed.	2*s.* 6*d.* ℔ vessel.	If or about to be passed not exceeding 300 tons, 2*d.* ℔ ton; above 300 tons, 3*d.* per ton.	If or about to be passed; not exceeding 300 tons, 1½*d.* ℔ ton; above 300 tons, free.	Ballast is put on board any vessel, from alongside the quay, at 9*d.* per ton, and in the harbour, afloat, at 1*s.* per ton. These charges are not regulated by any authority whatever.
Upon vessels taking refuge.	ditto -	ditto. -	Nil. -	ditto. - -	
Upon coasting vessels -	Nil. -	2*s.* ℔ vessel.	If passing, 2*d.* per ton per annum.	If passing, 1½*d.* per ton per annum.	
Upon coasting vessels, taking refuge only.	Nil. -	ditto. -	Nil. - -	Nil. - -	

Definition of limits.—From the Dodman to the Lizard and *vice versâ*, and to and from and into and out of all ports and places within those limits.

N.B. No master of a vessel is compelled to take a pilot within this district, except going in or coming out of any port within a line drawn from the Manacles to the Dodman.

Rates of Pilotage, for piloting Ships within the Falmouth District,

From	To	8 Feet & under.	8 to 10	11	12	13	14	15	16	17	18	19	20	21	22
		s.	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*	*s.*
Sea & *vice versâ*	Carrick Road, Falmouth, & St. Mawes Harbour, & St. Just Pool - -	24	30	35	42	46	50	55	60	67	75	84	94	105	120
Do. do. - -	Helford Harbour - -	21	24	27	30	34	38	42	47	52	60				
Carrick roads, & *vice versâ*	Falmouth, & St. Mawes Harbours, & St. Just Pool.	1*s.* 6*d.* per foot of the draught of water.													

	£	*s.*	*d.*
Masters of vessels taking a pilot at sea, are to pay—			
For putting a pilot on board without a line drawn from the Manacles to the Dodman - -	2	2	0
Ditto, from the entrance of Helford Harbour to the Gull Rock - - -	1	1	0
Ditto, a mile without the Shag Rock, or Pendennis Point - - - -	0	10	6
Ditto, of the Lizard, or in the parallel of the Lizard, or meeting a vessel there, and running before her, not being able to put a pilot on board, provided the master of the vessel consents to receive a pilot at that distance - -	3	3	0

All vessels belonging to the port of Truro, bound to or from foreign parts, are to pay no more than one half of the above rates of pilotage, when navigating within the limits of this port, on their passage to or from Truro; otherwise to pay the usual rates.

GAINSBOROUGH.

Nature of Dues.	Rates.				Under what Authority.
		£	*s.*	*d.*	
Anchorage - - -	On alien ships:				
	if under 100 tons, per ship - -	0	1	6	
	100 and under 200 - - -	0	2	0	
	200 and upwards - - -	0	3	0	
	British ships, from foreign or coastwise:				
	if 40 tons and under 45, per ship -	0	1	0	
	45 — 100 — -	0	1	4	
	100 — 200 — -	0	2	0	
	200 and upwards - - -	0	2	6	
Buoyage and beaconage -	On all British vessels from or to foreign parts, or coastwise, laden:				Payable each voyage to Trinity House, Hull, and the authority is derived from them.
	under 20 tons, per vessel - -	0	2	0	
	and an additional 6*d.* for every 10 tons.				
	Foreign vessels, in or out-laden:				Foreign vessels entitled to reciprocity are charged the same as British; but the difference is afterwards claimed of government by the Trinity House, Hull.
	under 65 tons, per vessel - -	0	11	0	
	65 and under 135 - -	0	14	0	
	135 — 170 - -	0	17	0	
	170 — 180 - -	1	0	0	
	180 — 190 - -	1	1	0	
	190 — 200 - -	1	2	0	
	and for every additional 10 tons -	0	1	0	
A fine - - - -	On alien vessels taking on board goods for foreign parts, per ship - - -	6	13	4	Payable to the Trinity House, Hull, under their authority.
	On importing goods - - -	1	0	0	Vessels entitled to reciprocity are exempt; but the charge is afterwards claimed of government.
Pilotage - - -	All vessels arriving from foreign parts, with cargoes, are subject to sea pilotage up to Hull, of from 2*s.* 6*d.* to 5*s.* per foot, depending on the place where the pilot is taken on board.				These dues are received under the authority of the pilot office at Hull; but their authority for levying them we do not know.
	British vessels and foreign vessels entitled to reciprocity, loading outwards for foreign parts, are charged with pilotage of, per foot	0	4	0	
	out in ballast - - - -	0	2	8	
	On foreign vessels not entitled to reciprocity, with goods, - - - -	0	5	0	
	in ballast - - - -	0	3	4	

Nature of Dues.	Rates.	Under what Authority.
	Vessels drawing less than 6 feet water are not liable. A further pilotage on vessels proceeding from Hull to Gainsborough, or departing from thence to foreign parts: On British vessels: not exceeding 6 feet - per foot 0 3 6 6 feet and not exceeding 8 feet — 0 4 0 8 feet and not exceeding 10 feet — 0 4 6 10 feet and upwards - — 0 5 0 coastwise, if piloted - — 0 2 6 Foreign vessels: not exceeding 6 feet - per foot 0 4 4 6 feet and not exceeding 8 feet — 0 5 0 8 feet and not exceeding 10 feet — 0 5 1½ 10 feet, and upwards - — 0 6 3	A receiver (not in the custom-house) is appointed, under the authority of the pilot office at Hull, to collect these rates.
Dover harbour	On British or foreign vessels passing Dover Harbour: 20 to 300 tons, per ton - - 0 0 1½	Payable on foreign and British vessels from foreign parts each voyage, and on coastwise once a year, under the authority of 9 Geo. 4. c. 31.
Ramsgate harbour	British ships and foreign ships entitled to reciprocity: under 300 tons, per ton - - 0 0 2 above 300 tons, — - - 0 0 0½ Foreign ships not entitled to reciprocity: under 300 tons, per ton - - 0 0 4 above 300 tons, — - - 0 0 1	Payable each voyage on passing Ramsgate, except on coasting vessels, which pay once a year, under the authority of 2 Geo. 3. c. 74.

GALWAY.

Dues payable to the Harbour Commissioners on all Vessels, whether British or Foreign, entering the Harbour, whether for Refuge or to discharge their Cargoes in whole or in part, or in Ballast.

Vessels, Coasting or Foreign, delivering whole or part of cargo.	Vessels taking Refuge.	Lights.	Ballast.	Authority.
Sixpence per ton register.	No charge, except in using the docks and quays; in such case 6d. per ton register.	No charge.	No charge.	11 Geo. 4., sess. 1830.

Pilotage on all Vessels entering the Harbour, whether in Ballast, or with Cargoes, to discharge same in whole or part, or for Refuge.

Tons, Register Tonnage.																				
20 to 50.			50 to 100.			100 to 150.			150 to 200.			200 to 250.			250 to 300.			300 to 350.			350 to 400.		
£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
0	15	0	1	1	0	1	10	0	2	2	0	2	12	0	3	0	0	4	0	0	5	0	0

GLASGOW.

Harbour, Quay, or Wharfage Dues.			Local Lights and Beacons, per Ton.		Charges for Pilotage into and out of the Harbour upon Vessels both in Foreign and Coasting Trade.	Charges for Ballast.
Upon Vessels both in delivering or receiving Cargo.		Upon Vessels taking Refuge only.	Foreign Trade.	Coasting Trade.		
Per Ton.	*Per Ship.*					
2d. on arrival, and 1d. per ton per week upon vessels remaining in the harbour for any period exceeding 24 lawful days; no other charge made on departure. Steam vessels making a direct voyage to or from ports or places only in the Firth of Clyde or adjacent locks, and situated anywhere between and within Glasgow and a line drawn from east to west across the channel of the Clyde at the Cumray lighthouse, including all such ships passing through the Crinan Canal, 1d.	- - -	The same charges as upon vessels trading to the harbour; but no vessels ever make use of this harbour for refuge.	1d. per ton on arrival: 1d. per ton on departure.	½d. per ton on arrival, if they have passed the lighthouse on the island of Little Cumbrae, in the Firth of Clyde; and the same sum on departure, if they will pass the said lighthouse in the course of the voyage.	From Greenock to Glasgow, or Glasgow to Greenock, for all vessels not exceeding 6 feet draught of water, 18s., and 3s. additional per foot for vessels not exceeding 80 tons. 2s. 6d. additional per foot for vessels exceeding 80 tons and not exceeding 100 tons. 4s. additional per foot for vessels exceeding 100 tons and not exceeding 110 tons. 5s. additional per foot for vessels exceeding 110 tons; odd inches to be paid in proportion. Vessels plying on the river, towed by steam, to be charged at two-thirds of the above rates. Vessels starting from Port Glasgow upwards, or stopping at Port Glasgow Harbour downwards, to be charged 3s. less than the sum payable by the preceding rates. Vessels to or from Dumbarton for Bowling Bay are charged at one-half of the above rates.	None.
	3d. on passenger ships only, and in those cases only where they receive on board from the wharf 2 or more passengers.	- - -	Ditto.	Ditto.	Ditto.	None.
British vessels, 2d.; foreign vessels, 3d.	6d. for every 50 tons per register for lighting the harbour.	- - -	Ditto. Ditto; if vessels arrive or depart by western termination of the Forth and Clyde navigation only.	Ditto. Ditto.	One-half of the above rates. Ditto, if vessels arrive or depart by western termination of Forth and Clyde navigation only.	None. None.

GLASGOW.

Rates of Duty.	Rate.
Foreign Trade.	d. Per Ton.
Harbour dues on vessels inwards with cargoes	7
Harbour dues on vessels outwards with cargoes	7
Harbour dues on vessels inwards in ballast	3½
Harbour dues on vessels outwards in ballast	3½
Coasting Trade.	
Harbour dues on vessels trading between Glasgow and the Craig of Ailsa — inwards	½
Harbour dues on vessels trading between Glasgow and the Craig of Ailsa — outwards	½
Harbour dues on vessels to or from ports beyond the Craig of Ailsa, with full cargoes — inwards	3
Harbour dues on vessels to or from ports beyond the Craig of Ailsa, with full cargoes — outwards	3
Harbour dues on vessels to or from ports beyond the Craig of Ailsa, with part cargoes — inwards	½
Harbour dues on vessels to or from ports beyond the Craig of Ailsa, with part cargoes — outwards	½
Anchorage on vessels generally	From 6d. to 5s. per vessel, according to size, inwards and outwards.
Charge for ballast	1s. 4½d.
Pilotage into and out of the harbour	nil.
Pilotage from sea to this port (British ships) — inwards	2½
Pilotage from this port to sea (British ships) — outwards	2½
Vessels sailing under foreign flags to pay one-half more than British ships.	
Vessels taking refuge	nil.
Creek of Dumbarton.	
Vessels of all descriptions	2

GRANTON, ADJOINING LEITH.

Tonnage Dues.

Classes of Voyages.	Per Registered Ton. Foreign Vessels, &c. £	s.	d.	British Vessels, &c. £	s.	d.
CLASS 1.—To or from any port or place in the river or Frith of Forth to the westward of St. Abb's Head and Fifeness, excepting vessels coming or going through the Forth and Clyde Canal, not exceeding	0	0	4	0	0	2
CLASS 2.—To or from any other port or place in Scotland, and to or from Newcastle and the River Tyne in England, or any other port or place in England to the north of the River Tyne, not exceeding	0	0	4½	0	0	3
CLASS 3.—To or from any port or place in Great Britain or Ireland, excepting those in classes first and second, not exceeding	0	0	6	0	0	4
CLASS 4.—To or from any port or place in Europe, excepting those in the preceding classes, not exceeding	0	1	0	0	0	8
CLASS 5.—To or from other parts of the world, not exceeding	0	1	6	0	1	0

A voyage shall comprehend an arrival at and departure from the pier or its boundaries, so that a vessel paying tonnage dues at its arrival shall not pay these dues at its departure, and *vice versâ*.

All vessels performing more than 10 voyages in one year shall pay the above rates and dues for each of the first 10 voyages only, and for each of the remaining voyages within the year, if these remaining voyages shall not exceed 90, they shall pay only half dues; and for all voyages above 100 in the year they shall pay only one-fourth dues.

All vessels performing more than one voyage in one day shall only be charged for one voyage that day.

The charges at Granton are not levied under any Board.

GREENOCK.

Harbour Rates.	Per Reg. Ton. Inw. d.	Outw. d.
Class 1. All British vessels, of every description, arriving at or departing from the Port of Greenock to or from Glasgow, or any of the intermediate ports on the river Clyde		½
Class 2. To or from any place inside of the Cumbrae Head; also from or to all places on the Forth and Clyde Canal, west of Grangemouth, including the Union and other canals leading into it	1	1
Class 3. To or from all places between the Cumbrae on the north and the Mulls of Galloway and Kintyre on the south, including Lochryan, Lochfine, &c. in these limits; also by the Forth and Clyde Canal to or from places on the Firth of Forth, extending from Stirling to Fifeness on the north side, and Dunbar on the south; likewise by the Crinan canal to or from all ports and places in the Highlands, situated betwixt West Loch Tarbert on the south, and the north end of the Isle of Skye, including Skye, Mull, Coll, Tiree, Islay, Jura, and other islands betwixt these and the mainland	1½	1½
Class 4. To or from any place situated betwixt the Mulls of Galloway and St. David's head on the British side of St. George's channel, including the Isle of Man, and, on the Irish side, from Tuskar along the east and north coasts of the island to Torry; and from the Mull of Kintyre to Cape Wrath, including all the Hebrides; also by the Forth and Clyde Canal to or from places betwixt Pittenies and Kinnaird's Head, and betwixt Dunbar and Flamborough Head	2	2
Class 5. To or from all places in Ireland extending from Torry along the west and south coasts of the island to Tuskar; and in England and Wales, betwixt the Land's End and St. David's Head; also in Scotland, betwixt Cape Wrath and Kinnaird's Head, including the Orkney and Shetland Islands; likewise to or from places north of Flamborough Head navigating otherwise than by the canals.	3	3
Class 6. To or from all places on the east and south coasts of England extending from Flamborough Head to the Land's End, including Scilly Islands	4	4
Class 7. To or from any port or places in Europe, or island in the European seas	4	4
Class 8. To or from any port or place in the British province of Canada, New Brunswick, Nova Scotia, Newfoundland, Iceland, the Greenland and Davis' Strait fisheries, and all ports or places on the south coast of the Mediterranean Sea	5	5
Class 9. To or from all ports or places in the United States of America, West Indies, and east coast of America, north of the river Amazon; also the west coast of Africa, from the Straits of Gibraltar to the equator, including the islands of these coasts.	5	5
Class 10. To or from any port, place, or island lying betwixt the River Amazon and Cape Horn in South America, and between the equator and Cape of Good Hope on the west coast of Africa	6	6
Class 11. To or from all ports, places, or islands south and east of the Cape of Good Hope and west of Cape Horn		

Class 12. All vessels navigating under foreign flags to pay double the foregoing rates, corresponding to their respective voyages.

Class 13. All vessels, British or foreign, arriving at or departing from the port of Greenock in ballast, and all steam-packets employed solely in carrying passengers, to be charged only a moiety of the rates, corresponding to their voyages.

Class 14. Whenever any vessel propelled by steam, whether employed in carrying goods, partly goods and passengers, or passengers solely, shall have entered inwards and cleared outwards so frequently as to have paid 13*s.* 4*d.* per ton of port charges, viz. of harbour rates, police dues, anchorage, and water money, inclusive, as chargeable to shipping; or when any sailing vessel shall have entered inwards and cleared outwards so often as to have paid 6*s.* 8*d.* per ton, including the above enumerated dues, such vessels shall be exempt from further payment of port charges, during whatever part of 12 current months may be unexpired from the date of making payment of first portion of said 13*s.* 4*d.* or 6*s.* 8*d.*, as the case may be. Owners or masters of either description of shipping, wishing to save trouble, may have a clearance of 12 months, by paying at the Harbour Dues Office 13*s.* 4*d.* per ton for steamers, and 6*s.* 8*d.* per ton for sailing vessels. The sums arising from vessels compounding as before-mentioned will fall to be allocated among the different trusts interested.

Class 15. All vessels not bound to or from the port of Greenock, but taking shelter in either of the harbours thereof, to pay, in addition to the anchorage dues, 1*d.* per ton.

Class 16. All vessels at clearing outwards shall pay the rate applicable to the most distant port of their intended voyage.

Class 17. All vessels outward bound for foreign ports from any other port in the river or channel, coming to anchor in the roadstead of this harbour for stores only, shall be exempt from harbour dues.

Class 18. All vessels outward bound for foreign ports from any other port in the river or channel, touching at the quays of this harbour for stores merely, and not taking in any cargo here, shall be admitted on payment of ½*d.* per ton of harbour dues.

Class 19. All vessels outward bound for foreign ports, partly laden at any other port or ports in the river or channel, and taking on board goods from this port, not exceeding one-third of a full cargo, shall pay 3*d.* per ton of harbour dues.

Class 20. All vessels coming into the port of Greenock to lay up for any space not exceeding 8 days, shall on arrival pay 4*d.* per ton, and on departure pay the like sum of 4*d.* per ton.

Class 21. All vessels discharging a cargo or part cargo of lime, or limestone, or flintsome, to be charged inwards as if arriving in ballast.

Class 22. All lighters from and for Glasgow and intermediate places are chargeable with harbour dues, when with

cargo, at ¼d. per ton per voyage, inwards and outwards making a voyage.

Class 23. All lighters with coals for the use of the inhabitants of the town, but not for the manufactories, are not chargeable with harbour dues inwards, but when loading a cargo are chargeable outwards at ¼d. per ton, and if departing light, without cargo, at ¼d. per ton.

Class 24. Vessels under 15 tons, excepting when entering at or clearing from the custom-house with cargo, are exempted from the payment of harbour dues, and pay only anchorage dues, as per anchorage table.

Class 25. All vessels arriving at this port in distress, or for repair (excepting such vessels as have sailed from the port and paid the outward dues) shall, upon arrival, pay the one-half harbour dues applicable to the most distant port or place for which such vessel was bound, and on sailing shall pay the full dues applicable to the port or place to which such vessel is destined.

Class 26. All vessels clearing for foreign ports in ballast, with stores only, and having to proceed to Troon, Ardrossan, or any other place in the United Kingdom, to load, are to be charged the ballast rates applicable to coasting vessels.

Class 27. All steamers plying to and from ports or places, as per Class 1 of harbour rates, when with passengers only, are chargeable at the rate of ¼d. per ton per trip, or ½d per ton per voyage, and when entering or clearing at the custom-house, or with cargoes, at the rate of ½d. per ton per trip, or 1d. per ton per voyage.

Class 28. All steamers plying to or from ports or places, as per Class 2 of harbour rates, when with passengers only, are chargeable at the rate of ½d. per ton per trip, or 1d. per ton per voyage; and when entering or clearing at the custom-house, or with cargo, at the rate of 1d. per ton per trip, or 2d. per ton per voyage.

Class 29. All steamers plying to or from ports or places, as per Class 3 of harbour rates table, and passing to or repassing from Glasgow with passengers only, are chargeable at the rate of 1d. per ton per trip, or 2d. per ton per voyage; and when entering at or clearing out from the custom-house, or with cargo, at the rate of 2d. per ton per trip, or 4d. per ton per voyage.

Class 30. All steamers plying to or from ports or places, as per Class 4 of harbour rates table, when with passengers only, are chargeable at the rate of 1d. per ton per trip, or 2d. per ton per voyage; and when entering at or clearing out from the custom-house, or with cargo, at the rate of 2d. per ton per trip, or 4d. per ton per voyage.

Class 30. All steamers plying to or from ports or places, as per Class 4 of harbour rates table, when with passengers only, are chargeable at the rate of 1d. per ton per trip, or 2d. per ton per voyage; and when entering at or clearing out from the custom-house, or with cargo, at the rate of 2d. per ton per trip, or 4d. per ton per voyage; and so on for steamers plying to or from ports or places, as per Classes 5 and 6 of harbour rates, according to the table.

The rates in the foregoing table are exclusive of the harbour police rates on shipping, and of the town dues for anchorage.

Harbour Police Rates.	Per Register Ton.	
	Inward.	Outward.
	d.	d.
All ships or other vessels trading to or from ports, bays, or islands, in Classes 7th, 8th, 9th, 10th and 11th of the table of harbour rates - - - - - -	½	½
All ships or other vessels trading to or from ports, bays, or islands, in Classes 3d, 4th, 5th and 6th of the table of harbour rates - - - - - -	¼	¼
Steam packets on the above lines, from the frequency of their voyages - - -	⅛	⅛
All vessels of every description plying in Classes 1 and 2 of table, 1½ per ton per annum.		

Tables of Anchorage and Ring Money, inclusive: payable at Clearing Outwards, or previous to leaving the Port of Greenock.

Ships.	400 tons and upwards.	350 to 400	300 to 350	250 to 300	200 to 250	150 to 200	125 to 150	100 to 125	75 to 100	50 to 75
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Rate per voyage	10 0	9 0	8 0	7 0	6 0	4 6	3 6	3 0	2 6	2 0

All vessels above 200 tons, whether ship, barque, or brigantine rigged, to rank as ships; and smaller vessels, of whatever rigg, the size to regulate the rate.

Modified Table of Anchorage Dues, calculated for Steam Packets, and Boats making frequent Voyages.

Tons.	350 to 400	300 to 350	250 to 300	200 to 250	175 to 200	150 to 200	125 to 150	100 to 125	90 to 100	80 to 90	70 to 80	60 to 70	50 to 60	40 to 30	30 to 40	20 to 30
When plying on line —	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Class 1, harbour rates	3 4	3 0	2 8	2 4	2 0	1 8	1 4	1 0	0 10	0 8½	0 7	0 6	0 5	0 4	0 3	0 2
Class 2, ditto - -	3 6	3 2	2 10	2 6	2 2	1 10	1 6	1 2	1 0	0 11	0 8½	0 7½	0 6½	0 5	0 4	0 3
Class 3, ditto - -	3 8	3 6	3 2	2 10	2 6	2 2	1 8	1 4	1 2	1 0½	0 10	0 9	0 8	0 6	0 5	0 4
Class 4, ditto - -	4 0	3 8	3 4	3 0	2 8	2 4	2 0	1 8	1 4	1 2	1 0	0 10½	0 9½	0 7	0 6	0 5

Table of Anchorage, Shore, Bay, and Ring Dues, as applicable to Lighters, &c., plying on the River, and to Canal Traders, whether propelled by Sail, by Steam, or towed by Steamers.

Tons.	150 to 135	135 to 120	120 to 105	105 to 90	90 to 75	75 to 60	60 to 45	45 to 30
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Rate per voyage	2 6	2 3	2 0	1 9	1 6	1 3	1 0	0 9

The charges levied for local lights on vessels arriving at or departing from the Port of Greenock (exclusive of those of the Trinity House, the Irish Ballast Board, and the Commissioners of Northern Lights) are the Cloch, Cumbrae, and Toward Lights, under the authority of 27 Geo. 2, 31st May, 1754, as follows:—

One penny per ton on British ships on foreign voyages inwards, and the same charge outwards.

One halfpenny per ton on British ships on coasting voyages inwards or outwards.

Twopence per ton on Foreign ships on foreign voyages, inwards or outwards.

One penny per ton on foreign ships proceeding to, or coming from any port in Great Britain.

The above charges are levied on all vessels, whether with or in ballast.

Rates of Pilotage on the Clyde.

1. From any place betwixt the Cumbray Light and the Cloch Light, or from the anchorages at Fairlie roads, Rothesay Bay, or Quarantine Station, Holy Loch, to Greenock Roads, and mooring, or to the quay and berthing, 1½d. per ton register.

2. When a vessel, inward bound, is boarded outside of the south entrance of Lamlash harbour, the pilot to receive ½d. per ton additional.

3. From any place inside of the Cloch Light, or from the anchorage at Gourock road, or the tail of the bank, to Greenock, 1d.

4. Vessels inward bound, not boarded until nearer Greenock than the Bay of Quick, ½d. per ton.

5. From Greenock to Port Glasgow, 1d. per ton.

6. From Greenock roads, unmooring, and bringing into any of the harbours or docks, a ship, &c., a brigantine, &c.

The same rates chargeable for like distances outwards, with the exception of the charge under article 2, which is leviable on outward-bound vessels only in the event of the pilot being required to proceed with the vessel so far as the south entrance of Lamlash harbour.

All vessels sailing under foreign flags to pay one-half more than the above rates.

Any vessel anchoring at the tail of the bank, outward bound, the pilot, if required, is afterwards to go and assist her out to any distance the master may require, betwixt the Cloch and the Cumbray, without any additional charge to the 1½d. per ton; failing the pilot's attending, another may be hired in his stead, who is to have 1d. per ton for taking the vessel from the tail of the bank out, leaving ½d. per ton as the allowance for piloting from the quay to the tail of the bank.

Any pilot going on board ship (liable to quarantine) at the request of the owner or master, is to be paid, in addition to his pilotage, 4s. 6d. per day of 24 hours for every day he may be detained on board.

HARWICH.

Vessels coming in to Discharge or Load, either in Coasting or Foreign Trade.	Vessels discharging Coals.	Charge for Ballast.	Vessels putting in for Refuge.	Under what Authority levied, and what Date.
s. d.	d.	d.	d.	
4 4 ℔ vessel.	1 ℔ ton.	2 ℔ ton.	4 ℔ vess.	The corporation of Harwich, by prescription.

Harwich Harbour Pilotage.				
From.	To	Under 10 Feet.	10 Feet to 15 Feet.	13 Feet & upwards.
		£ s. d.	£ s. d.	£ s. d.
Inwards.				
Sea, or Orfordness.	Harwich harbour -	2 2 0	3 3 0	4 4 0
The Rolling Grounds.	Ditto -	1 1 0	1 11 6	2 2 0
Outwards.				
Harwich harbour.	Sea, or Orfordness -	1 11 6	2 2 0	3 3 0
Ditto -	The Rolling Grounds. -	Two thirds of the above.		

HULL

Payable to the Trustees for the Maintenance of Dover Harbour under Act 9 Geo. 4.	Payable to the Trustees for the Maintenance of the Royal Harbour of Ramsgate, under Act 32 Geo. 3.	Payable to the Commissioners for the Maintenance of Scarborough Pier, under the Act 45 Geo. 3.
On vessels under 300 tons burthen, for each time of passing, if laden, 1½d. per ton.	On all vessels passing, whether laden or in ballast, if above 300 tons' burthen, ½d. per ton; if under 300 tons, 2d per ton.	On all coasters, if laden, for each time of passing Scarborough pier, 1d. for every five tons burthen.
Coasters to pay only once a year.	Coasters to pay only once a year.	

Dock and Harbour Dues payable to the Dock Company at Kingston-upon-Hull.

	£	s.	d.
For every ship or vessel coming to or going between the port of Kingston-upon-Hull, and any port to the northward of Yarmouth, in Norfolk, or any port to the southward of the Holy Island, for every ton	0	0	2
For every ship or vessel coming to or going between the port of Kingston-upon-Hull, and any port or place between the North Foreland and Shetland, on the east side of England, except as above, for every ton, the sum of	0	0	3
For every ship or vessel trading between the said port of Kingston-upon-Hull, and any other port or place in Great Britain, not before described, for every ton, the sum of	0	0	6
For every ship or vessel trading between the said port of Kingston-upon-Hull and any port or place in the Baltic Seas, and all other ports or places above the Sound, for every ton, the sum of	0	1	3
For every ship or vessel trading between the said port of Kingston-upon-Hull, and any port or place in Denmark, Sweden, or Norway, below Elsinore, or any port or place in Germany, Holland, Flanders, France to the eastward of Ushant, Ireland, the Islands of Guernsey and Jersey, for every ton, the sum of	0	0	10
For every ship or vessel trading between the said port of Kingston-upon-Hull and any island or port or place of Europe to the westward of Ushant, without the Straits of Gibraltar, for every ton, the sum of	0	1	3
For every ship or vessel trading between the said port of Kingston-upon-Hull and any port or place in the West Indies, North or South America, Africa, Greenland, or any place to the eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the ocean to the southward of Cape St. Vincent, not hereinbefore named, for every ton, the sum of	0	1	9
For every foreign ship or vessel coming to or going (with merchandize) from any of the above named ports or places, double the rates, tonnage, or duties above-mentioned, unless the said ships belong to British owners.			
For every ship or vessel sailing coastwise or otherways, or coming into the said haven in ballast to be laid up, for every ton (coasting duty included), the sum of	0	0	6

N.B.—River craft using the docks and harbour at Hull are not charged any tonnage dues, except in cases where they come from and go to other ports.

Mem.—It is important to note here, that the dues here given include any period of time during which a vessel may lie in the docks. It may also be stated that there is no trans-shipping duty on goods at Hull. There is no general dock-rate on goods; but for merchandize landed on the quays, wharfage is charged. The importer, however, may remove goods by lighters, &c., without placing them on the quays; and the quays are perfectly open to the merchant's labourers, if he choose to land them there, so that the charge of the company may, if the merchant and shipowner so desire, be strictly limited to the tonnage rates on the vessel, as stated in the above table.

An Account of Charges levied on Shipping by the Corporation of Hull.

	£	s.	d.
Buoyage and beaconage on British vessels.			
Vessels under 20 tons	0	2	0
And for every additional 10 tons	0	0	6
Buoyage and beaconage on Alien vessels			
Vessels under 65 tons	0	11	0
65 tons, and under 155 tons	0	14	0
155 — 170 —	0	17	0
170 — 180 tons	1	0	0
And for every additional 10 tons.	0	1	0

The above duty of buoyage and beaconage is payable once during the voyage, coasting or foreign, either inward or outward for the maintenance of the buoys, beacons, lighthouses, and vessels erected and placed in and about the river Humber, by the corporation of the Trinity House, Hull.

Fine on alien vessels importing a cargo, or part of a cargo	1	2	8
Fine on alien vessels exporting a cargo, or part of a cargo	6	13	4

Vessels taking refuge in the port are chargeable only with the buoyage and beaconage.

Authority:—Charter.

A Scale of ancient and usual Dues payable to the Corporation of Hull, upon Ships and Vessels Entering Inwards and Clearing Outwards, Foreign and Coastwise.

Alien Ships.	£	s.	d.
Anchorage.			
If under 100 tons burthen	0	1	6
100 not 200 tons	0	2	0
200 and upwards	0	3	0
Jettage.			
If under 100 tons	0	13	6
loads out more	0	3	6
100 not 200 tons	0	17	0
loads out more	0	5	0
200 tons and upwards	1	0	0
loads out more	0	7	0
Hostage.			
per each pound sterling of the freight inwards	0	0	2
and among the officers, per ship	0	5	0
Ballast.			
per each ton taken outwards	0	0	2

British Ships.	Anchorage.			Jettage. Inwards.			Jettage. Outwards.		
	£	s.	d.	£	s.	d.	£	s.	d.
If under 40 tons burthen	0	1	0	0	1	6	0	1	0
40 and not 45 tons	0	1	0	0	2	0	0	1	0
45 — 50 —	0	1	6	0	2	0	0	1	6
50 — 100 —	0	1	6	0	2	6	0	2	6
100 — 150 —	0	2	0	0	3	6	0	3	6
150 — 200 —	0	2	0	0	4	6	0	4	0
200 — 250 —	0	2	6	0	5	0	0	5	0
250 — 300 —	0	2	6	0	6	0	0	6	0
300 and upwards	0	2	6	0	7	0	0	6	6

Freemen are exempt from anchorage; but freemen, as well as non-freemen, pay jettage. The charge for jettage is not made, unless with goods landed at or taken in at Hull, or within the harbour.

British ships pay no hostage, and nothing for ballast.

The above charges are payable to the corporation by prescription and charter.

No charge made on vessels coming into port in distress, unless they take in cargo.

Alien Vessels not in Reciprocity.	British Vessels and Aliens in Reciprocity.	Alien Vessels not in Reciprocity.	British Vessels and Aliens in Reciprocity.
Inwards.	Inwards.	Outward.	Outward.
s. d.	s. d.	s. d.	s. d.
6 3 per foot.	5 0 per foot.	5 0 per foot	4 0 per foot
5 0 —	4 0 —	with	with
4 5 —	3 6 —	goods.	goods.
3 2 —	2 6 —	3 4 per foot	2 8 per foot
1 11 —	1 6 —	with ballast.	with ballast.
		s. d.	s. d.
Stone ballast		2 5	
Ditto.		2 3	
Sand ballast		1 4	

IPSWICH.

Dock Dues on Vessels entering or departing from the Port, laden.

		£	s.	d.
Vessels under 50 tons	per ton	0	0	1
— from 50 to 60 tons	—	0	0	2
— — 60 to 70 —	—	0	0	3
— 70 to 80 —	—	0	0	4
— 80 to 90 —	—	0	0	5
— 90 to 100 —	—	0	0	6
Vessels from 110 to 130 tons	per ton	0	0	7
— 130 to 150 —	—	0	0	8
— 150 to 175 —	—	0	0	9
— 175 to 200 —	—	0	0	10
— 200 to 250 —	—	0	0	11
— 250 to 300 —	—	0	1	0
— 300 tons and upwards	—	0	1	6

Foreign vessels, unpriviledged, double the above rates.

All vessels bringing coals only, and departing in ballast only, half dues. All colliers bringing goods are charged full tonnage duty for the quantity of goods on board, in proportion the goods bear to the register tonnage of such vessel.

Pilotage.

The charges for pilotage, which are levied under the dock commissioners, are as follows:	Per Foot. £	s.	d
From the dock entrance to Downham Reach, for British vessels with one mast	0	1	0
For every British vessel with 2 or more masts	0	1	3
From Downham Reach to Levington Creek, and *vice versâ*	0	0	6
From Levington Creek to Harwich Harbour	0	0	6
Inwards from Harwich Harbour to Downham Reach	0	1	0
Outwards from Downham Reach to Harwich Harbour	0	1	0
For every foreign ship, double the aforesaid rates.			

Ballast.

The charge for ballast is, for Ipswich vessels, 11*d.* per ton, and 1*s.* 5*d.* per ton to all other vessels, which must be taken from the dock commissioners' ballast wharf, under the authority of 1 Vict. c. 74.

Water Bailiff's Dues.

This is a charge of 1*s.* 8*d.* for every vessel not belonging to the port, under charter of corporation.

ISLE OF MAN.

Ports, Harbours &c.		Charge per Ton.	Pilotage.	Under what Authority the Charges are levied.
		s. d.		
Douglas, Derbyhaven, Peel, Ramsey.	For every British ship arriving in ballast	0 2	British vessels under 40 tons, 5s.	Harbour dues on vessels by Act 54 Geo. 3., c. 143.
	For every British ship laden, but not breaking bulk	0 3	Vessels of 40 tons and under 60 tons, 7s.	Charges for ballast and pilotage, bye-laws of the Harbour Commissioners, Oct. 10 1828.
	For every British ship laden, breaking bulk or discharging	0 4	Vessels of 60 tons and under 100 tons, 10s. 6d.	Charges levied for local lights and beacons, nil.
	For every foreign vessel arriving in ballast	0 4	Vessels of 100 tons and larger, 16s.	
	For every foreign vessel laden, but not breaking bulk	0 5	Foreign vessels to pay double the above rates.	
	For every foreign ship laden, breaking bulk or discharging, in addition	0 4		
	For every foreign ship anchoring in any of the bays of the said isle	7 6		
	Charge for ballast	0 6		
	The above charges are the same on vessels in the coasting or foreign trade.			

KIRKCALDY.

Harbours.	Harbour Dues per Ton. On delivering Cargo. Coasting Trade.	Harbour Dues per Ton. On delivering Cargo. Foreign Trade.	Harbour Dues per Ton. On taking Refuge. British.	Harbour Dues per Ton. On taking Refuge. Foreign.	Charges for Local Lights and Beacons.	Charges for Pilotage. Into Harbour.	Charges for Pilotage. Out of Harbour.	Charge for Ballast, Per Ton.
Kirkcaldy	2d. to freemen. 3d. to strangers.	3d. to freemen. 4d. to strangers.	same as on delivering cargo.		-	1s. per foot	1s. per foot	1d. to freemen. 1½d. strangers.
Creeks:								
Aberdour	1d.	1d.	½d.	½d.	-	-	-	-
Burntisland	1d.	1d.	1d.	1d.	½d. per ton, under act of parliament of 1791.	-	-	1d.
Pettycur	1d.	1d.	1d.	1d.	½d. per ton	-	-	½d.
Dysart	3d.	4d.	1d.	1d.	-	6d. per foot	1s. per foot	—
Wemyss	-	-	-	-	-	-	1s. per 20tons of coals shipped.	—
Methel	1d., but only one-half thereof on vessels belonging to Methel.		1d.	1d.	-	1s. per foot, out and in		—
Leven	1d., but only one-half thereof on vessels belonging to Leven.		-	-	-	not fixed, but when loaded with coals 5s. for 30 tons, and 1s. for every 10 tons additional.		—
Anstruther (sub port.)	British vessels two-thirds of a penny, and foreign 1½d. in addition to 6d. on the vessel if under 30 tons, and 1s. if above 30 tons.		-	-	-	Decked vessels, viz.: Under 30 tons - 7s. 30 to 40 — - 10s. 40 to 50 — - 12s. 50 to 60 — - 14s.		—
Crail	1d. in addition to 1s. on the vessel		same as on delivering cargo.		-	-	-	-
Pittenweem	½d. to freemen. ½d. strangers	foreigners 1½d.	half of the sums charged on delivering cargo.		Under 30 tons 1d. 30 to 50 — 2d. 50 to 100 — 3d. 100 & upwards 4d. and double these sums to strangers.	Decked vessels under 30 tons 3s., and above 30 tons, 3s., with 6d. for every additional 10 tons.		—
St. Andrew's	1½d. to freemen		same as on delivering cargo.		½d. per ton	not fixed		2d.
Guard Bridge.	1½d. to strangers	1½d.	1½d.	1½d.	-	2s. per foot in and out		—

LEITH.

Pilotage (by consent).

	Per Foot. £ s. d.
For a vessel drawing 7 feet water and under	0 0 10
— 8 —	0 1 0
— 9 —	0 1 1
— 10 —	0 1 2
— 11 —	0 1 3
— 12 —	0 1 4
— 13 — and all upwards	0 1 6

All masters of vessels to pay for each 24 hours' attendance on board their ships:

	Per Vessel. £ s. d.
To the master pilot	0 2 0
To each of the boatmen	0 1 0

No vessel under 40 tons register shall be obliged to pay pilotage unless she employs a pilot; and the masters or commanders of ships or vessels belonging to the port of Leith shall not be liable in any fees for pilots or pilotage, except when they make a signal for a pilot, or employ one to navigate their ships or vessels.

All vessels from foreign ports shall pay to each able-bodied man, but not to exceed 2 (2 boys being held equivalent to the second man), unless required by the master - - - - 0 3 0

And for the boat's attendance, exclusive of pilotage 0 3 0

All coasting vessels shall be charged for boats and men's attendance, exclusive of pilotage - 0 2 6

Flag or Light Dues (Act 28 Geo. 3. c. 58. s. 36.)

Every vessel, of whatever burthen, to pay to the shore-master 1s. 6d., and to the man for hoisting the flag or putting up the light, 1s. - - 0 2 6

Every vessel of 40 tons burthen and upwards, to pay for each coasting voyage 1s. 6d. to the shore-master, and 1s. to the man for hoisting the flag or putting up the light - - - 0 2 6

Berthage (Act 28 Geo. 3. c. 58 s. 36.)

Every passage-boat to pay each time they come into the harbour - - - - 0 0 2

Every passage-boat to pay each time they come into the harbour loaded with goods - - 0 1 0

British vessels, from 10 to 25 tons burthen, to pay for each coasting voyage - - - 0 1 0

Vessels of the same burthen, from foreign ports, - 0 2 6

Ditto, from 25 to 50 tons burthen, for each coasting voyage - - - - 0 1 6

Vessels of the same burthen, from foreign ports, - 0 4 0

— of 50 tons burthen, for a coasting voyage, - 0 2 6

— of the same burthen, from foreign ports, - 0 5 0

— of 70 tons burthen, and upwards - 0 5 0

Vessels loaded with coal, under 20 dale - - 0 0 3

— loaded with coal, from 20 to 40 dale - 0 0 6

— loaded with coal, from 40 to 50 dale - 0 0 9

— containing above 50 dale - - 0 1 0

Foreign vessels, of whatever burthen, to pay as formerly - - - - 0 5 0

Vessels coming into the harbour for London, or other ports, loaded with coals, and unloading any part of their cargo to take in other goods - 0 2 6

N.B. Vessels coming into the harbour loaded with corn or other goods, and going out again without breaking bulk, pay no berthage.

Harbour Dues (Act 28 Geo. 3. c. 58. s. 34.)

All vessels, whether ships, barques, or boats, (except drag-boats, haddock-boats, yawls, ferry-boats, and pinnaces), shall pay every time they come into the harbour for each ton of four-fifths of their burthen 0 0 1½

Ballast (Act 1 & 2 Vict. c. 55.)

	Per Ton. £ s. d.
Is shipped - - - -	0 1 3
Is landed - - - -	0 0 7

Dock Dues (Act 39 Geo. 3. c. 44. s. 23.)

For every ship or vessel from any port between Buchanness and Eyemouth, including the great canal and the river Clyde, as far down as Greenock, coming by the canal - - - 0 0 4

For every ship from any other port in Great Britain and Ireland - - - - 0 0 8

For every ship or vessel from Norway, Sweden, Denmark, Holstein, Hamburgh, Bremen, Holland, and Flanders, that is, without the Baltic, and no further south than Dunkirk - 0 0 10½

For every ship or vessel coming from the Baltic, all above the Sound, Onega, Archangel, Jersey or Guernsey, Portugal, France, and Spain, without the Straits of Gibraltar, Newfoundland, Madeira, or Western Islands - - - 0 1 1½

For every ship or vessel from within the Straits of Gibraltar, or from America - - 0 1 4

For every ship or vessel coming from the West Indies, Asia, Africa, or the Cape de Verde islands 0 1 8

For every ship or vessel from Greenland or Davis's Straits, first voyage - - - 0 2 0

For every ship or vessel from Greenland or Davis's Straits, second voyage - - - 0 1 8

But, if cleaned, to be charged as in ballast.

For every ship or vessel in ballast coming into the dock - - - 0 0 8

For all ships and vessels remaining in the dock

above 3 calendar months, for each after month, or any part thereof, excepting ships or vessels from Greenland or Davis's Straits - £ 0 0 2¾

For all foreign vessels from any of the before-mentioned ports or places, the aforesaid respective rates, and one-half more; but those privileged under the reciprocity act pay no more than British vessels.

For all loaded vessels not breaking bulk, and for all vessels in ballast which do not take in goods, coming into the present harbour, provided they do not make use of any of the docks, nor remain in the harbour above four weeks, one-half of the aforesaid respective rates or duties; applicable also to vessels taking refuge.

For every ship or vessel going from the port of Leith to any other port in the Frith of Forth to take in a part of a cargo, and return to Leith, upon her return - - - - £ 0 0 2

No ship or vessel is subjected in payment of the aforesaid rates and duties for more than 8 voyages in any one year.

Vessels loaded with coals, sold in retail to the inhabitants of Edinburgh and Leith, who are hereby debarred from entering the said dock, are exempted.

LIVERPOOL.

Rates on Shipping.							Total Charge.	
	Tonnage Duty.	Light-House Duty.	Floating Light Duty.	Anchorage.	Pilotage per Foot of Water drawing.	Ballast.	Dock and Town Duties.	Pilotage.
	Per Ton. s. d.	*Per Ton.* s. d.	*Per Ton.* s. d.	*Per Vess.* s. d.	s. d.		s. d.	
Coasting Trade.								
CLASS 1.—Between the *Mull* of Galloway and St. David's Head, including the Isles of Man and Anglesea - - -	0 2¼	0 0½	0 0⅛	1 0	4 6 inw. 2 0 out.	- -	On CLASS 1. 2 2⅛ per ton. 4 6 per ft. inw. 1 0 per vess. 2 0 per ft. out.	
Ditto, if taking refuge in the harbour only - - -	Nil.	0 0½	0 0⅛	1 0	ditto.	- -	0 0⅛ per ton. 1 0 per vess.	Ditto.
CLASS 2.—Between the Mull of Galloway and Duncan's Bay Head, including the Orkney Isles, and all the Islands on the Western Coast of Scotland, and between St. David's Head and the Land's End, including the Scilly Islands and the East Coast of Ireland, from Cape Clear to Malling Head -	0 2¾	0 0½	0 0¼	1 0	ditto.	- -	CLASS 2. 0 4½ per ton. 1 0 per vess	Ditto.
Ditto, if taking refuge in the harbour only - - -	Nil.	0 0½	0 0¼	1 0	ditto.	- -	0 0⅛ per ton. 1 0 per vess.	Ditto.
CLASS 3.—All parts of the East and Southern Coasts of Great Britain between Duncan's Bay Head and the Land's End, including the Islands of Shetland and all parts of the West Coast of Ireland, from Cape Clear to Malling Head, including the islands on that coast -	0 5¼	0 0½	0 0¼	1 0	ditto.	- -	CLASS 3. 0 6 per ton. 1 0 per vess.	Ditto.
Ditto, if only taking refuge -	Nil.	0 0⅛	0 0¼	1 0	ditto	- -	0 0⅛ per ton. 1 0 per vess.	Ditto.
Foreign Trade; viz. —								
CLASS 4.—All parts of Europe to the Northward of Cape Finisterre, and to the Westward of the North Cape, and without the Cattegat and Baltic Sea, and including the Islands of Guernsey, Jersey, Alderney, Sark, the Favo Isles and Iceland - - -	0 9	0 1	0 0½	1 3	9 0 inw. 4 0 out.	- -	CLASS 4. 0 10½ per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British ship.	
	0 9	0 1	0 0½	1 6	12 0 inw. 7 0 out.	- -	0 10½ per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign ship.	
Ditto, if only taking refuge -	Nil.	0 1	0 0½	1 3	9 0 inw. 4 0 out.	- -	0 1½ per ton. 9 0 per ft. inw. 1 3 per ship. 4 0 per ft. out. Per British ship.	
	Nil.	0 1	0 0½	1 6	12 0 inw. 7 0 out.	- -	0 1½ per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign ship.	
CLASS 5.—All parts within the Cattegat and Baltic, including Sweden, the White Sea, and all parts to the Eastward of the North Cape, all parts in Europe to the South of Cape Finisterre without the Mediterranean, Newfoundland, Greenland, Davis's Straits, Canaries, Western Islands, Madeira, and Azores - - -	1. 0	0 1	0 0½	1 3	9 0 inw. 4 0 out.	- -	CLASS 5. 1 1½ per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British vessel.	
	1 0	0 1	0 0½	1 6	12 0 inw. 7 0 out.	- -	1 1½ per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign vessel.	
Ditto, if only taking refuge in the harbour - -	Nil.	0 1	0 0½	1 3	9 0 inw. 4 0 out.	- -	0 1½ per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British vessel.	
	Nil.	0 1	0 0½	1 6	12 0 inw. 7 0 out.	- -	0 1½ per ton. 12 0 per ft. inw. 1 6 per vess. 4 0 per ft. out. Per Foreign vessel.	
CLASS 6.—All parts on the East Coast of North America, the West Indies, the East Coast of South America to the Northward of Rio la Plata, inclusive; all the West Coast of Africa and Islands to the North of the Cape of Good Hope, and all parts within the Mediterranean, including the Adriatic, the Black Sea and Archipelago, the Islands of St. Helena, Ascension, and Cape de Verds - -	1 6	0 1	0 0½	1 3	9 0 inw. 4 0 out.	- -	CLASS 6. 1 7½ per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British vessel.	
	1 6	0 1	0 0½	1 6	12 0 inw. 7 0 out.	- -	1 7½ per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign vessel.	
Ditto, if only taking refuge in the harbour - - -	Nil.	0 1	0 0½	1 3	9 0 inw. 4 0 out.	- -	0 1½ per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British ship.	
	Nil.	0 1	0 0½	1 6	12 0 inw. 7 0 out.	- -	0 1½ per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign ship.	
CLASS 7.—All parts in South America to the South of Rio la Plata, in the Pacific Ocean, in Africa and Asia to the Eastward of the Cape of Good Hope - - -	2 3	0 1	0 1	1 3	9 0 inw. 4 0 out.	- -	CLASS 7. 2 5 per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British ship.	
	2 3	0 1	0 1	1 6	12 0 inw. 7 0 out.	- -	2 5 per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign ship.	
Ditto, if only taking refuge in the harbour - - -	Nil.	0 1	0 1	1 3	9 0 inw. 4 0 out.	- -	0 2 per ton. 9 0 per ft. inw. 1 3 per vess. 4 0 per ft. out. Per British ship.	
	Nil.	0 1	0 1	1 6	12 0 inw. 7 0 out.	- -	0 2 per ton. 12 0 per ft. inw. 1 6 per vess. 7 0 per ft. out. Per Foreign ship.	

LONDON.

Port or Dock Duties.—The following rates are received by the officers of this port on all vessels, whether British or foreign, entering inwards or clearing outwards, except in ballast, under the authority of act 4 & 5 Will. 4. c. 32.; and the amount so received is paid into the chamber of the city of London, in conformity with the 6th section of the said act; viz.

From or to Denmark, Norway or Lapland, Holstein, Hamburgh, Bremen, or any other part of Germany bordering on or near the German Ocean, Holland, or any other of the United Provinces, Brabant, Antwerp, Flanders, the Netherlands, France (within Ushant), Finland, Russia (without or within the Baltic Sea), Livonia, Courland, Poland, Prussia, Sweden, or any other country or place within the Baltic Sea, ½*d.* per ton.

From or to all other places, 1*d.* per ton.

Ramsgate Harbour Duty (per act 32 Geo. 3 c. 74.), chargeable on all Vessels trading to or from Foreign Ports or Places passing the Harbour, Laden or in Ballast.

For every British vessel, or vessel belonging to foreign states under treaties of reciprocity—

Under 300 tons - - - 2*d.* per ton.
Above 300 — - - - ½*d.* —

For every vessel belonging to foreign states not under treaties of reciprocity—

Under 300 tons - - - 4*d.* per ton.
Above 300 — - - - 1*d.* —

For every British vessel trading coastwise passing the harbour, the British rates not oftener than once a year.

Also 1*d.* per chaldron on coals, and 1*d.* per ton on stone payable for each voyage.

Dover Harbour Duty (per act 9 Geo. 4.), chargeable on all Vessels, British or Foreign.

From 20 to 300 tons burthen *trading* over-sea, for each time passing the harbour, if laden, 1½*d.* per ton; also the like sum for entering the harbour.

Coasters:—The passing and entering, duty once a year; also 3*d.* per chaldron on coals, and ¾*d.* per ton on stone, each time passing.

Cinque Ports Surplus Pilotage Rates (per act 52 Geo. 3. c. 39.), chargeable on all foreign vessels not under treaties of reciprocity.

Not having corn or provisions for the greater part of the cargo, having come through the Cinque Port water, a fourth part of the Cinque Port pilotage rates.

Scarborough Pier Duty, chargeable on coasting vessels.

If laden, passing the pier, one-fifth of a penny per ton.

LONDONDERRY.

Tonnage.—Collected under 2 & 3 Will. 4.

Foreign ships, 6*d.* per ton; British ships from Foreign, 3*d.* per ton; coasters, 2*d.* per ton; vessels in distress, or taking refuge from stormy weather, free; vessels in ballast, free; vessels under 20 tons, free; no deduction on vessels delivering their cargo in part.

Pilotage.—Collected under 2 & 3 Will. 4., and reduced by bye-laws to the following rates, viz.:

British Ships of every Description, or Steam-Boats.

Inwards.

7 feet and under to pay 14*s.*					per foot, and inches in proportion.
Above 7 feet and under 8 to pay at the rate of			2	0	
8	—	9	—	2	2	
9	—	10	—	2	4	
10	—	11	—	2	8	
11	—	12	—	3	0	
12	—	13	—	3	4	
13	—	14	—	3	8	
14	—	15	—	4	0	
15 feet and upwards at the rate of				4	4	

Outwards.

7 feet and under to pay 10*s.* 6*d.*					per foot, and inches in proportion.
Above 7 feet and under 8 to pay at the rate of			1	6	
8	—	9	—	1	9	
9	—	10	—	2	0	
10	—	11	—	2	3	
11	—	12	—	2	6	
12	—	13	—	2	9	
13	—	14	—	3	0	
14	—	15	—	3	3	
15 feet and upwards at the rate of				3	6	

Alien Ships of every Description, or Steam-Boats.

Inward.

7 feet and under to pay 1*l.* 1*s.*					per foot, and inches in proportion.
Above 7 feet and under 8 to pay at the rate of			3	0	
8	—	9	—	3	4	
9	—	10	—	3	8	
10	—	11	—	4	0	
11	—	12	—	4	4	
12	—	13	—	4	8	
13	—	14	—	5	0	
14	—	15	—	5	4	
15 feet and upwards at the rate of				5	8	

Outwards.

7 feet and under to pay 17*s.* 6*d.*					per foot, & inches in proportion.
Above 7 feet and under 8 to pay at the rate of			2	6	
8	—	9	—	2	9	
9	—	10	—	3	0	
10	—	11	—	3	3	
11	—	12	—	3	6	
12	—	13	—	3	9	
13	—	14	—	4	0	
14 feet and upwards at the rate of				4	4	

Vessels of 30 tons burthen, per register, and under, shall pay 10*s.* inward pilotage, and 6*s.* outward pilotage; above 30 tons and not exceeding 40 tons, if bound coastways, and sailing in ballast, only 3*s.* outwards. Boats which have discharged potatoes, under 20 tons, 3*s.* 6*d.* outward pilotage, if British. Wind-bound vessels half pilotage in and half pilotage out, to or from Moville or Quigley's Point. Vessels towed by steamers 1-5th off, if demanded by the master or owner, or by any person for them, on producing a proper order.

All vessels laden with bark, under 120 tons, to pay 6*d.* per foot extra; 120 tons and not exceeding 150 tons, 9*d.*; exceeding 150 tons, 1*s.* per foot extra. All British ships from foreign ports, or, if bound to foreign ports, having on board half their registered tonnage of cargo, or with passengers, to pay 8*d.* per foot extra, in addition to the above charges.

Vessels which have cleared the Lough, and by stress of weather obliged to return:—It is hereby directed that as these vessels have paid the full amount of pilotage, they shall pay but 1-3rd in, and 1-3rd out, of the amount of their outward pilotage to be ascertained by the master's account from the collector of pilotage.

Pilots detained on board vessels, the sum of 2*s.* 6*d.* per day; when the measurement exceeds 150 tons, 3*s.* 6*d.* per day; detaining them unnecessarily in Derry, the like amount.

Ballast.—Collected under the 2 & 3 Will. 4. Masters of vessels may procure their own ballast in the best and cheapest manner; but those who may wish to be supplied by the Ballast office pay, for gravel, 1*s.* 3*d.* per ton; sand or sufficient ballast, 1*s.* per ton.

Anchorage.—Collected from time immemorial. Vessels with one mast, 1*s.* 6*d.*; Vessels with 2 masts or more, 2*s.* 6*d.* Vessels, unless they come to the ship quays, are not charged.

Merchant's Quays.—Vessels arriving or sailing with a cargo are free; the owners of the goods pay the wharfage.

Vessels arriving in ballast for the purpose of repairing, pay 2*d.* per ton on the register tonnage, for the berth and use of the quays.

Vessels coming to the quays for the purpose of discharging or taking in ballast, pay 2*d.* per ton on the quantity discharged or taken in.

Vessels arriving in ballast for the purpose of taking passengers, pay 2*d.* per ton on the register tonnage, for the berth and use of the quays, and the passengers' luggage is free.

Vessels that have discharged their cargoes, and take in ballast for the purpose of taking passengers, pay 2*d.* per ton on their register tonnage; the ballast and the luggage are free.

LYNN.

Town Dues. Foreign and Coasting Vessels.	*s.*	*d.*
Beaconage, per ton delivered - - -	0	1
Stakage, ditto - - - -	0	0½
Anchorage, per vessel - - -	0	6
Bulkbreaks, per vessel, to foreign parts and not belonging to Lynn - - - -	3	4
Ballast, for every 3 tons delivered. *Vide* Ballast.	0	4
Unprivileged vessels:		
Beaconage, per ton in addition - -	0	0½
Stakage, ditto - - - -	0	0½
Ballast — double.		

In addition to these charges, there is also a due of 4*d.* per chaldron (of 25 cwts.) of coals, payable by vessels not belonging to Lynn.

[This due is collected with the town dues. *It is* understood to have been assigned to the courts of guardians of the poor; and the produce of it is paid to the said guardians, and applied in relief of the poor rates.]

These dues are not payable from vessels taking refuge or discharging their cargoes for the purpose of repairs and are under the superintendence of the corporation

Mooring Dues.

2*d.* per ton delivered; unprivileged vessels double.

Not chargeable upon vessels taking refuge, &c.

Under the control of the commissioners under the pilot act.

Pilotage.	*s.*	*d.*
To 10 feet draught of water -	1	6 per foot.
Exceeding 10 feet to 12 feet -	1	9 —
— 12 — 14 ft. 6 in. -	2	0 —
— 14 ft. 6 in. - -	2	6 —

The rate is the same whether loaded or in ballast, and is chargeable each time up and away, as well as on vessels taking refuge or in distress. The company of pilots is under the control of the commissioners under the pilot act.

Ballast is supplied to vessels by private individuals at 1*s.* 3*d.* per ton. This charge is independent of that of ballast, under the head of Town Dues, which is payable from all vessels not belonging to freemen of the borough of King's Lynn.

MONTROSE.

Dues and Charges levied under the 1st Victoria, cap. 99.

Vessels from Foreign Parts.	£	*s.*	*d.*
For all vessels navigating to the southward of the Tropic of Capricorn, per register ton -	0	1	6
Between the Equator and the Tropic of Capricorn -	0	1	3
Between the Tropic of Cancer and the Equator -	0	1	0
To and from any port in North America, Greenland, Davis' Straits Fisheries, and all within the Straits of Gibraltar - - - - - -	0	0	8
To or from any port to the north of Drontheim, in Norway, or from Azores, Madeira, or Teneriffe Islands - - - - -	0	0	7
To or from any port between Gibraltar and Dunkirk, including Dunkirk, and from any port in the Baltic, per register ton - - - -	0	0	5
On Coasting Vessels.			
To or from any port in Great Britain or Ireland, including the islands of Guernsey, Jersey, Alderney, Sark, Man, the Shetland Islands, and Orkneys -	0	0	3
All vessels loaded with coals or lime only, from any port in Great Britain, &c., excepting Scotland -	0	0	2
All vessels loaded with coals or lime only, from any port in Scotland, and all vessels engaged in the herring trade - - - - - -	0	0	1½
All steam vessels from any port in Great Britain, or places enumerated in No. 7, carrying passengers and their luggage exclusively - -	0	0	2
All steam vessels carrying goods and passengers, to pay the same rates as sailing vessels.			

It is in the option of the harbour trustees to charge either the tonnage dues on the voyage inwards, or on the voyage outwards, at the rates specified in the above schedule, according to the distance; and if the charge be made on the voyage outwards, there shall be deducted from it the amount of the dues that may have been previously paid on the voyage inwards; but if such vessels sail in ballast, they shall be charged with dues on the inward voyage only.

All vessels launched at this port pay half tonnage dues on the voyage outwards, according to the distance of the port to which such vessels sail, provided they take goods on board, but if they sail in ballast no dues shall be charged.

All vessels with cargoes are permitted to enter this harbour

for safety or convenience by payment of one-half of the tonnage dues; but if they shall take goods on board (stores for their own use excepted), or break bulk, they shall pay full tonnage dues.

All vessels remaining in harbour pay, after 2 months, 1*d.* per register ton per month in advance.

Plankage.

Each vessel entering the harbour, and loading or unloading goods or ballast within the same, or performing both operations before leaving the harbour, pay, in name of plank money (whether a plank be used or not), as follows, viz.:—

				£	s.	d.
On vessels amounting to and not exceeding			20 tons	0	1	0
—	exceeding	20	and not exceeding 50 —	0	1	6
—	—	50	— 100 —	0	2	0
—	—	100	— 150 —	0	2	6
—	—	150	— 200 —	0	3	0
—	—	200	— 250 —	0	3	6
—	—	250	— 300 —	0	4	0
—	—	300	— 350 —	0	4	6
—	—	350	— 400 —	0	5	6
—	—	400	and upwards -	0	6	6

Local Lights and Beacons.

The harbour trustees are empowered by the before-mentioned act to charge at the rate of ¾*d.* per ton on vessels, for the support of the harbour lights and beacons, but finding that a less rate would cover the expenditure, they reduced it to ½*d.* per ton.

Pilotage.

By virtue of the powers conferred on the harbour trustees, the following rates of pilotage were fixed by them, viz:

Tons Register.	First Boat.		Second Boat.	
	Inwards.	Outwards.	Inwards.	Outwards.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
All under 40 tons	0 6 0	0 4 6	0 5 0	0 4 0
40 and under 50 —	0 7 0	0 5 3	0 6 0	0 4 6
50 — 60 —	0 8 0	0 6 0	0 6 6	0 5 0
60 — 70 —	0 9 0	0 6 9	0 7 0	0 5 6
70 — 85 —	0 10 0	0 7 6	0 7 6	0 6 0
85 — 100 —	0 12 0	0 9 0	0 8 0	0 6 6
100 — 120 —	0 15 0	0 11 3	0 9 0	0 6 9
120 — 150 —	1 0 0	0 15 0	0 10 0	0 7 6
150 — 175 —	1 5 0	0 18 9	0 11 0	0 8 3
175 — 200 —	1 7 6	1 0 7	0 12 0	0 9 0
200 — 250 —	1 10 0	1 2 6	0 13 0	0 9 9
250 — 300 —	1 15 0	1 6 3	0 14 0	0 10 6
300 and upwards.	2 0 0	1 10 0	0 15 0	0 11 3

The third boat is paid the same as the second, and the pilotmaster's charge is 6*d.* per mast on each vessel entering the harbour.

Ballast.

The charge for ballast at this port is 1*s.* per ton, 2*d.* of which is paid to the magistrates and town council for the privilege of removing the sand, and 10*d.* for the cartage thereof.

NEWCASTLE.

Description of Dues, &c.	Rates. British and Privileged Vessels.	Unprivileged Vessels.
Harbour light dues -	On each vessel under 100 tons - - 0 11 On ditto above 100 — and under 200 1 1 On ditto above 200 — and under 300 1 3 On ditto above 300 — - - 1 5	On each vessel - - - - 2 0
Buoys - -	On each vessel under 50 tons - - 0 4 On ditto above 50 — and under 100 0 9 On ditto above 100 — and under 200 0 11 On ditto above 200 — and under 300 1 1 On ditto above 300 — - - 1 3	On each vessel - - - - 1 6
Beacons - -	On each vessel under 200 tons - - 0 2 On ditto above 200 tons - - 0 3 *Note.* — A vessel with a cargo inwards, and another outwards, pays double the above. In any other case she pays as above.	On each vessel under 200 tons - - 0 2 On each vessel above 200 tons - - 0 3
Pilotage - -	Each vessel into or out of Shields Harbour, from 1st April to 1st October, 1*s.* 3*d.* per foot on ship's draught; and from 1st October to 1st April, 1*s.* 6*d.* per foot.	Each vessel 6*d.* per foot more than those privileged, viz. 1*s.* 9*d.* or 2*s.*, according to the season.
Duke of Northumberland's.	- - - - - - - -	Each vessel entering over Shields Bar - 1 0
Ballast, ship and boat.	Each vessel with ballast, per voyage - - 3 2 Each vessel without ballast, per voyage - 2 2	Each vessel with ballast, per voyage - 3 4 Each vessel without ballast, per voyage - 2 4
Ballast-office dues -	Each vessel with ballast, per voyage - - 1 0 Each vessel with chalk, sand, loam, stones, &c., per voyage, in addition - - 2 6	Each vessel with ballast, per voyage - 2 6 Each vessel with chalk, dung, sand, stones, &c., per voyage, in addition - - 1 6
Groundage and plankage.	Each vessel with a cargo, either whole or in part, per voyage - - - 1 4	Each vessel with a cargo, either whole or in part, per voyage - - 2 0
Ballast, for conveyance and deposit.	Per ton, on quantity delivered - - 1 4	Per ton, on quantity delivered - - 1 4
Ballast delivered on board of other ships, and also delivered under certain circumstances, not conveyed and deposited.	Per ton - - - - - - 0 6	Per ton - - - - 0 6
Sand, loam, stones, Chalk, &c.	Per ton - - - - - 0 1	Per ton - - - - - 0 1
Harbour dues -	On each *ship* entering the port for refuge, without delivering any part of the cargo - 3 2 *Note.* — The above dues are the same, whether the voyage be foreign or coastwise.	On each ship entering the port for refuge, without delivering any part of the cargo 4 10

NEWPORT. — *Harbour Dues.*

Vessels in the coasting trade, with cargo:—1 farthing per ton register inwards, and 1 farthing per ton register outwards.

Vessels in the foreign trade, with cargo.—1 halfpenny per ton register inwards, and 1 halfpenny per ton register outwards.

Vessels not privileged, double dues. Vessels coming in in ballast pay only on the outward cargo.

Pilotage Dues.

	Coasting, Per Foot.	Foreign, Per Foot.
	£ s. d.	£ s. d.
From Newport to Pillgwenlly to the mouth of the River Usk, or *vice versâ*:		
Vessels under 9 feet draught of water - - - -	0 0 9	0 1 0
Vessels drawing 9 ft., and under 12 ft. - - -	0 1 0	0 1 3
— 12 ft., and under 15 ft.	0 1 3	0 1 6
— 15 ft. and upwards - - - -	0 1 6	0 2 0
From Newport or Pillgwenlly to Rumney River, or Redwick Pill, or any place outside of the River Usk, within the district, or *vice versâ*:		
Vessels under 9 feet draught of water - - - -	0 1 3	0 1 6
Vessels drawing 9 ft., and under 12 feet. - - - -	0 1 6	0 1 9
Vessels drawing 12 ft., and under 15 ft. - - - -	0 1 9	0 2 0
— 15 ft. and upwards - - - -	0 2 0	0 2 6
From Newport or Pillgwenlly to Penmarth, or Ringroad, or *vice versâ*, (provided no Bristol pilot should offer this side the Newport district):		
Vessels under 9 feet draught of water - - - -	0 1 6	0 1 9
Vessels drawing 9 ft., and under 12 ft. - - - -	0 1 9	0 2 0
— 12 ft., and under 15 ft. - - - -	0 2 0	0 2 6
— 15 ft. and upwards - - - -	0 2 3	0 3 0
Vessels not privileged to pay one-fourth more than British or privileged vessels.		

Pilots employed on tides work on board vessels:	s.	d.
Under 50 tons	2	0
60 tons, and under 100	2	6
100 — 150	3	0
150 — 200	4	0
200 — 300	5	0
300 tons and upwards	7	6

Haven-master's fees, received under the authority of the sub-commissioners, for pilotage:

	s.	d.
For vessels under 50 tons	0	6
— 50 tons, and under 100	0	9
— 100 — 200	1	0
— 200 — 250	1	6
— 250 — 300	2	0
— 300 tons, and upwards	2	6

There is a charge made for what is called a keelage, of 1*d.* per ton, upon the number of tons of goods shipped or landed, paid by consent, and under the authority of the merchants. This is paid by the masters of vessels on clearing, and we believe is very generally charged to the ship.

Ballast Charges, levied by Harbour Commissioners, under act 6 *Will.* 4. *c.* 66.

Vessels coming in in ballast pay only on the outward cargo.

The dues levied on vessels for discharging their ballast on the east side of the river are 1½*d.* per ton register on vessels coming from any place westward of the Holmes Islands; and 1½*d.* per ton on those from places eastward of the Holmes.

Dock Dues. First Class:—Vessels Entering with Cargoes or Departing with Cargoes.

	Inwards. Per Ton. £ s. d.	Outwards. Per Ton. £ s. d.
Vessels from or to any part of Great Britain, Ireland, the Isle of Man, or any of the Islands of Guernsey, Jersey, Alderney, and Sark, not exceeding 100 tons measurement	0 0 2	0 0 2
For vessels exceeding 100 tons measurement	0 0 3	0 0 3
Rent after two weeks from date of entrance, 1*d.* per ton, per week.		
Vessels from or to any other part of Europe, except places within the Straits of Gibraltar, and round the North Cape	0 0 5	0 0 5
Rent after 4 weeks, as before, 1*d.* per ton, per week.		

	Inwards. Per Ton. £ s. d.	Outwards. Per Ton. £ s. d.
From or to any port or place in Europe, round the North Cape, any port or place within the Straits of Gibraltar, whether in Europe, Asia, or Africa	0 0 6	0 0 6
Rent after 4 weeks, as before, 1*d.* per ton, per week.		
From or to any port or place in British America, except the West Indies, and any port or place in United States	0 0 9	0 0 9
Rent after 4 weeks, as before, 1*d.* per ton, per week.		
From or to any port or place in any other part of the world	0 0 9	0 0 9
Rent after 4 weeks, as before, 1*d.* per ton, per week.		

For every vessel, with a cargo, which shall enter the said dock and depart therefrom, without breaking bulk, or which shall discharge, and afterwards take on board and depart with the same cargo, per ton measurement, 6*d.*

Entering and departing in ballast, per ton, 3*d.*

Rent after 1 week from date of entrance, 1*d.* per ton per week.

Every vessel of less burthen than 20 tons measurement to be rated at 20 tons measurement.

For removing and taking away the ballast, a charge of 2½*d.* per ton is made on the register tonnage.

Ballast discharged at various private wharves on the west side of the river, costs from 1½*d.* to 2½*d.* per ton register, from any place whatever, varying according to the nature of the ballast, whether gravel or limestone; payable by custom or consent.

NEWRY.

Description of Charge.	How levied.	Rates. £ s. d.
Harbour dues	Anchorage on a smack, coasting trade	0 2 6
	Ditto — ditto, foreign	0 5 0
	Ditto — schooner, coasting	0 4 0
	Ditto — ditto, foreign	0 8 0
	Ditto — brig, coasting	0 5 0
	Ditto — ditto, foreign	0 10 0
	Ditto — ship, coasting	0 10 0
	Ditto — ditto, foreign	1 0 0
	(Newry vessels exempt by courtesy.)	
	Dockage per ton on the registered measurement	0 0 1½
Pilotage	From the bar of Carlingford — each vessel	0 2 6
	If the vessel is 5 miles at sea	0 3 6
	On the river, up and down, per foot on the draught of water	0 1 0
	N. B. Pilotage is in some cases paid by agreement, there being no branch or established pilots.	
Canal dues	Each vessel — per ton	0 1 1
	On goods	nil
	Charge for each horse towing or tracking a vessel	0 2 0

PLYMOUTH.

Sallash Dues.

1*s.* per vessel of every description (except Spanish), whether taking refuge in the harbour only, or to deliver the cargo, or whole or in part.

6*s.* per vessel, Spanish, ditto.

SUTTON POOL.

Dues payable to the Sutton Pool Company.—Tolls on Ships.

For all ships or vessels belonging to foreign subjects, coming within the said harbour of Sutton Pool, 4*d.* per ton.

For all ships or vessels belonging to H. M.'s subjects, coming from foreign parts, 2*d.* per ton.

For all ships and vessels belonging to H. M.'s subjects employed in the coasting trade, or coming from Ireland, above 50 tons, 1*d.* per ton.

For all such ships or vessels of 50 tons, or under, ½*d.* per ton.

All vessels employed in fishing, and belonging to the port, 1*l.* 1*s.* per annum.

All barges, lighters, and other craft above 20 tons, 1*l.* per annum.

All barges, lighters, and other craft under 20 tons, 16*s.* per annum.

All ships or vessels lying within the said harbour more than 3 calendar months, (unless under repair at a shipwright's yard) shall pay, at the expiration thereof, the same dues as if she had again entered the harbour; and so on at the expiration of every 3 months she shall continue therein.

For the Use of the Graving Beach.

For every ship or vessel of 60 tons, and under 80 tons, 2*s.* per week.

of 80 tons and under 100 tons, 2*s.* 6*d.* per week.

of 100 tons and under 200 tons, 3*s.* per week.

of 200 tons or upwards, 5*s.* per week.

For the Use of the Mooring Chains.

For every ship under 200 tons, 3*s.* per week.

Above 200 and under 250 tons, 4*s.* per week.

Above 250 tons, 5*s.* per week.

For the anchorage and groundage of every ship or vessel entering or coming into Sutton Pool, 1*s.* 8*d.*

For moorage, 8*d.*

(The aforegoing charges are levied per acts 51 Geo. 3. and 2 Will. 4.)

DEVONPORT.

Dues charged on Vessels entering Mutton Cove, New Passage, and Stonehouse Quay.

Foreign ships, per ton register, 4*d.*

British ships of 80 tons register, each, 6*s.*

British ships under 80 tons, 4*s.* 6*d.*

British sloops, 3*s.* 6*d.*

British barge or hoy 20 tons, and not exceeding 40 tons register, 1*s.*

British boats or vessels under 20 tons, laden, 6*d.*

For vessels lying up, per week, 2*s.* 6*d.*

For the use of the graving beach, 3*s.*

(Levied, by prescription, by the lord of the manor.)

Rates for Pilotage.

1. All British ships of 14 feet water and upwards, except East Indiamen, if boarded without the land off Penlee Point or the Mewstone, which must be known by the western land being open off the Ram Head, shall pay 5*s.* per foot pilotage, if carried into the harbour of Hamoaze, Catwater, or Sutton Pool.

2. British ships under 14 feet water down to 8 feet, boarded as above stated, are to pay 4*l* per foot for the like service.

3. Ships above 14 feet, within that line, are to pay only 4*s.* per foot; and ships under 14 feet, boarded as above, only 3*s.* per foot for the like service.

4. All ships under 8 feet water are to pay as above stated, as if the vessel was of that draught.

5. All the above rates are to be paid in proportion for every half foot water, but no allowance is to be made for any draught of water less than half a foot.

6. In carrying ships to sea from the said harbours, the pilotage is to be in all cases the same as the inward pilotage.

7. All ships which may anchor on their arrival either in Cawsand Bay or Plymouth Sound, are to pay only ½ of the before-mentioned rates of pilotage.

8. All pilots employed to carry ships from any one of the harbours to another, is to be paid the same pilotage as if the said ship had been boarded within the headlands coming from sea.

9. Should any ship above 17 feet water be boarded while the western land is open off the Ram Head by one of the second class pilots, and he runs the ship as far in as either of the buoys on the Panther or Shovel, and is there superseded by one of the first class, he shall be entitled to ½ of the pilotage.

10. Masters of ships taking a pilot at sea

	£	s.	d.
3 leagues without a line drawn from the Ram Head to the Mewstone, are to pay - - -	3	3	0
6 leagues ditto - - - - -	4	4	0
10 leagues ditto - - - - -	6	6	0

and proportionably for intermediate distances.

11. Ships not having British registers are to pay ½ more than ships having British registers, except when such first-mentioned ships shall, by any order of H. M.'s most honourable privy council, be privileged to enter the ports of this kingdom, upon paying the same duties of tonnage as are paid by British ships, in which case such ships and vessels not having British registers shall pay the like rates of pilotage only as are payable by ships having British registers.

12. If a master choose to retain or employ a pilot whilst at anchor, the rate for the lay-days is to be 7*s.* 6*d.* a day, not including the day coming in or going out.

The aforegoing rates are levied by authority of the Trinity Board, under an act of parliament, 6 Geo. 4. cap. 125.

There are no charges levied for local lights or beacons at this port.

There is no regulated charge for ballast, nor any Board appointed for its supply: the parties obtain it on the best terms they can from different quarters, the quarries here abounding with matter fit for the purpose.

PORTSMOUTH.

Harbour Dues payable to the Corporation of the Borough of Portsmouth, per act 3 Vict. in respect of all Ships or other Vessels arriving and casting Anchor, or making fast to the Harbour of Portsmouth, for each and every time such Ship or other Vessel shall enter or come into the Harbour—

Under 30 tons	-	-	-	1*s.* per ship.
30 and under 60 tons	-	-	-	2*s.* —
60 — 150 —	-	-	-	3*s.* —
150 — 200 —	-	-	-	4*s.* —
200 — 300 —	-	-	-	5*s.* —
300 — 400 —	-	-	-	8*s.* —
400 and upwards	-	-	-	10*s.* —

Steam-boats to be charged only once a day.

Exemptions. — Pilot-boats, fishing-vessels, boats not decked, and ships and vessels arriving in distress.

Tonnage dues payable in respect of all ships, boats, or other vessels, lading or unlading, upon or from the wharfs and quays or other works, or in the Camber, within a line drawn from the north-east angle of Mr. Lindegren's Store, to the south-west angle of the New Gun Wharf.

To or from Rye or Salcombe, or any port or place between them, 2*d.* per ton.

To or from any port or place in Great Britain or Ireland, coastwise, 3*d.* per ton.

To or from parts (foreign), 4*d.* per ton.

General Exemptions.—H. M.'s ships, vessels, or boats, or any ship, vessel, or boat in the service or employ of H. M.'s Customs or Excise, or Board of Ordnance.

No charge for local lights and beacons at this port.

Pilotage into and out of Portsmouth Harbour, per Act 6 Geo. 4. c. 125.

Vessels drawing not exceeding 17 feet water, 2*s.* per foot above 17 feet water, 3*s.* per foot.

On unprivileged ships, ½ more than the above rates.

PRESTON.

	On Foreign Vessels.	On Vessels in the Foreign Trade.		On Vessels in the Coasting Trade.	
	Loading or Unloading.	Loading or Unloading.	Taking Refuge only.	Loading or Unloading.	Taking Refuge only.
	Rate per Ton.	*Rate per Ton.*	*Rate per Ton.*	*Rate per Ton.*	*Rate per Ton.*
Ribble Sea Line - -	9*d.*	6*d.*	- -	6*d.*	- -
Ribble Middle Line -	9*d.*	6*d.*	- -	6*d.*	- -
Ribble Harbour Line -	9*d.*	6*d.*	- -	6*d.*	- -

Vessels navigating the river Ribble for the conveyance of goods and passengers, 6*d.* per ton.
Vessels under 10 tons burthen, and wholly employed in fishing, the sum of 2*s.* 6*d.* per ton per annum.
2*d.* per ton for each line allowed on vessels coming up to Preston.
Vessels wholly in ballast are *exempt from* the above charges.
Pilotage 1*s.* per foot.

RAMSGATE.

	Harbour Dues.		Pilotage, 6 Geo. 4.	Ballast.	Town Dues.	Other Charges.	Observations.
	Taking Refuge.	Delivering Cargoes.					
Foreign vessels, unprivileged	4*d.* per ton.	4*d.* per ton, in and out.	5*s.* per foot on the draught of water, in and out.	1*s.* per ton, sand; 1*s.* 6*d.* per ton, chalk; 4*s.* ℔ load, flints.	2*s.* ℔ ton.	- -	These coasters pay a yearly bill of 2*d.* per ton to Ramsgate Harbour.
English and privileged, of 20 tons, and not exceeding 300 tons	2*d.* —	2*d.* per ton, in and out, if bound foreign.					
All above 300 tons -	½*d.* —	½*d.* per ton.					
Coasting vessels—coals	nil.	1*d.* per chald.					
stone	nil.	1*d.* per ton.					
All others -	nil.	nil.					

Other Charges under Ramsgate Harbour Act;—

For use of dry dock,	50 tons and under 200, £2	2*s.*, and 10*s.* every day after	- -	- -
—	200 — 300, 3	3*s.*, and 15*s.* —		
—	350 — 4	4*s.*		

Wharfage for pitch and tar, 2*s.* per barrel.

For putting in a mast,	under 50 tons,	5*s.*	0*d.*
—	100 —	7	6
—	200 —	12	0
—	and upwards	20	0

SCARBOROUGH.

Denomination and Description of Dues and Charges.	On Vessels taking Refuge only.	On Vessels delivering Cargoes from Foreign Parts.	On Vessels delivering Cargoes Coastwise.
Harbour-light duty - - -	10*s.* per mast, unless have paid any of the other duties levied by the act.	10*s.* per mast.	
	3*d.* per ton on Sunderland ships only.	3*d.* per ton on Sunderland ships only.	3*d.* per ton on Sunderland ships only.
			1*d.* for every 5 tons, except with coals.
Harbour dues - -	6*d.* to 1*s.* 2*d.* on each ship.	6*d.* to 1*s.* 2*d.* on each ship.	6*d.* to 1*s.* 2*d.* on each ship.
Pilotage into the harbour and out of ditto.	From 15*s.* to 20*s.* each vessel.	From 20*s.* to 30*s.* each vessel.	From 15*s.* to 20*s.* each vessel.
Charge for ballast - - -	1*s.* per ton, including the labour of heaving into the vessel.	1*s.* per ton, including the labour of heaving into the vessel.	1*s.* per ton, including the labour of heaving into the vessel.
Harbour dues - - -	1*s.* 6*d.* on each ship.	1*s.* 6*d.* on each ship.	1*s.* 6*d.* on each ship.

ST. IVES.

Denomination of Vessels.	Harbour Dues, per Ton.	Pilotage for Vessels coming into the Port to discharge their Cargoes.				Pilotage for Vessels taking Refuge in the Port.				Ballast.	
		From 1 April to 30 Sept.		From 1 Oct. to 31 March.		From 1 April to 30 Sept.		From 1 Oct. to 31 March.		Vessels taking in.	Vessels discharging.
		In.	Out.	In.	Out.	In.	Out.	In.	Out.		
	Irish Currency.	per Foot.		per Foot.		per Foot.		per Foot.		per Ton.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
British vessels from ports in Ireland	0 3	2 6	2 0	3 0	2 6	1 3	1 0	1 6	1 3	1 0	0 4
Ditto from Great Britain	0 6	2 6	2 0	3 0	2 6	1 3	1 0	1 6	1 3	1 0	0 4
Ditto from foreign parts	0 6	2 6	2 0	3 0	2 6	1 3	1 0	1 6	1 3	1 0	0 4
Foreign vessels	1 0	3 6	3 0	4 0	3 6	1 9	1 6	2 0	1 9	1 0	0 4

SOUTHAMPTON.

Vessels, whether coasting or foreign, entering the port of the town of Southampton, and not belonging to the port, are chargeable with a boomage duty:—

Under 50 tons	1s. 6d. per vessel.
Above 50 and under 100 tons	2s. 6d. —
100 tons and upwards	5s. —

And all vessels, upon loading or unloading in the roads, at the legal quays, or in the docks, 2d. per ton, register tonnage, each voyage.

The above are collected under the authority of the acts of 43 Geo. 3. c. 21., and 50 Geo. 3. c. 168.

Rates on Shipping in the Southampton Dock, per Act 6 Will. 4 c. 26.

All vessels landing or shipping cargo in the dock, not being coasters, per register ton, 1d., with privilege to remain 3 weeks from date of entry.

	£	s.	d.
Rent after 3 weeks, per register ton, per week	0	0	0¾
Coasters landing cargo or passengers, or loading out, with 1 week's privilege			free.
Rent after 1 week, per register ton, per week	0	0	0¾
Colliers, transhipping their cargoes into vessels in dock, per collier	1	1	0

The docks are part of the port of Southampton, and, consequently, vessels using them are subject to no extra dues of pilotage.

Rates of Pilotage for the Port of Southampton.

From any place within the Isle of Wight to Southampton, Hamble, or Bursledon:	Per Foot. £	s.	d.
For vessels drawing 17 feet water and under	0	2	0
For vessels drawing more than 17 feet	0	3	0
From any place within the Isle of Wight to Eling, Redbridge, Northam, or Chapel, 1s. per foot more than the above rates.			
From Southampton to sea:			
For vessels drawing 17 feet water and under	0	6	0
— 17 feet and not exceeding 20 feet	0	7	0
more than 20 feet	0	9	0
Vessels belonging to the port of Southampton are to pay one-half only of the above rates.			
For removing vessels from one place to another within the Southampton Water, or within the Isle of Wight, the following rates; viz.			
From Southampton to Redbridge, Eling, Northam, or Chapel, and *vice versâ*	0	1	0
From Southampton to Hamble, Bursledon, Lepe, or Buckler's Hard, or Beaulieu, and *vice versâ*	0	1	6

and for any intermediate distance a proportionate part of the above rates.

If a master choose to retain or employ a pilot whilst at anchor, the rate for the lay-days is to be 7s. 6d. per day, exclusive of the day on which the vessel comes in or goes out.

STOCKTON.

Foreign Trade.

	Per Ton Register. £	s.	d.
Vessels inwards, with cargoes	0	0	6
Vessels outwards, with general cargoes	0	0	6
Vessels outwards, with coals	0	0	3

And these vessels 4s. 9d. per mast per voyage.

Coasting Trade.

Vessels inwards, with general cargo,	0	0	4
Vessels inwards, with hazlewood, corfe rods, pit props, old lead, and old iron	0	0	0¾
Old lead and old iron from the port of London considered general cargo.			
Vessels outwards, with general cargo	0	0	4
Vessels with coals	0	0	3

And these vessels pay 3s. 3d. per mast per voyage.

Exempt from Dues.

Ships in ballast, or with manure, lime, bluestone, or ships taking refuge within the Tees by stress of weather.

The above dues are levied and collected under acts 48 Geo. 3. c. 48 and 9 Geo. 4. c. 57.

And all vessels entering the Tees bay, 2s. 6d. per voyage for anchorage and plankage dues to the Stockton Corporation, leased by them from the Bishop of Durham, who holds the same as owner of the port; whether by ancient charter, prescription, or by what right unable to ascertain.

Life-boats, by consent, on vessels above 140 register tons, 6d. per voyage.

Life-boats, by consent, on vessels under 140 register tons, 3d. per voyage.

Ballast discharged at the Middlesboro' Crane at 5d. per ton.

Rates of Pilotage for every Foot of Water the Vessel draws.

		British Ships. s.	d.	Foreign Ships. s.	d.
From the sea and any intermediate place, and *vice versâ*.	To the 8th buoy, being the first safe place of anchorage, as allowed by act of parliament.	1	3	1	9
	To Cargo Fleet	1	9	2	9
From Cargo Fleet, and any intermediate place, and *vice versâ*.	To Middleburg	0	6	1	0
	To Stockton	1	6	2	6

Between the 1st day of October and 1st day of April, 3d. per foot extra, and for every foreign vessel having lee boards, 5s. over and above the said rates to be paid for lee boards from sea, and in the river likewise.

N. B. Owners and masters of ships using the Tees and port of Stockton are not to pay more, or any other rates of pilotage, than the above-mentioned rates; and all pilots acting under the licence and authority of the master, wardens, &c. of this Trinity House, are hereby ordered and directed not to ask, demand, or receive for pilotage any more than the rates as above stated.

SUNDERLAND.

Dues and Charges.	Rate. Vessels taking Refuge in the Harbour.	Vessels delivering Cargo, in Whole or in Part.	Vessels in the Coasting and Foreign Trade.
Local pier light	1s. per ship, and 1s. 4d. per 2 tons every voyage outwards; all vessels alike.	The same.	The same.
Harbour dues or groundage	1s. 2d. per voyage; all ships alike.	The same.	The same.
River duty			1d. per ton, charged 3 times each year, outwards; all ships alike.
Refuge duty	1½d. per ton each case; all ships alike.		
River watch	1d. per ton first voyage each year, inwards or outwards; all ships alike.	The same.	The same.
Life-boat	6d. per voyage; all ships alike.	The same.	The same.
Scarborough Old Pier dues			Under 50 tons, 4d. per ship; above 50 tons, 8d. per ship, outwards; all ships alike.
Scarborough New Pier dues			1s. 4d. per chaldron on all coals and cinders, outwards; all ships alike.
Scarborough New Pier dues		1d. per 5 tons register on vessels inwards coastwise with goods; a passing toll.	The same.

Dues and Charges.	Rate. Vessels taking Refuge in the Harbour.	Vessels delivering Cargo, in Whole or in Part.	Vessels in the Foreign and Coasting Trade.
Whitby Pier duty			½d. per chaldron on all coals and cinders, outwards; all ships alike.
Bridlington Pier duty			½d. per 2½ tons of coals, outwards; a passing toll; all ships alike.
Dovor Harbour duty		¾d. per chaldron on coals; 1½d. per register ton on vessels carrying goods; a passing toll; all ships alike.	The same.
Ramsgate Harbour duty		1d. per chaldron on coals; 2d. per register ton on vessels carrying goods; a passing toll; all ships alike.	The same.
Dues of the Newcastle Trinity-House			Under 100 tons, 11d. per ship; Under 200 tons, 1s. 1d. per ship; Under 300 tons, 1s. 3d. per ship; Above 300 tons, 1s. 5d. per ship, outwards, with cargoes. Unprivileged ships, 2s. per ship.
Fair Way buoys		1s. per ship, paid each way, passing with a cargo; all ships alike.	The same.
Pilotage	From 1st April to 1st October, 1s. 3d. per foot. From 1st October to 1st April, 1s. 6d. per foot. Unprivileged ships 6d. per foot extra.	The same.	The same.
Ballast	No charge.		

SWANSEA.

Port or Creek.	Harbour Dues, &c.	Local Lights.	Charges for Ballast, &c.	Whether under any Board, &c.
Port of Swansea	4d. per ton register harbour dues on all vessels, whether foreign or British, or engaged in foreign or the coasting trade, or in ballast. And further for keelage and layerage, each vessel: under 100 tons, in ballast, 1s. 8d. ea. above 100 tons, loaded or not, 2s. ea. above 100 tons, bound foreign, 3s. 6d. ea. above 100 tons, foreign ship, 1s. ea. If carrying coals or laden with copper ore, 4d. per ton on cargo extra.	Nil.	1½d. per ton register at the West Pier. ½d. if at the East Pier, or if the ballast be discharged into another vessel.	Trustees of the Harbour.
Creek of Neath	1d. per ton, and 1s. 6d. each vessel.	Nil.	No specific charge.	Ditto.
Creek of Port Talbot	5d. per ton on all vessels.	Nil.	2d. per ton.	Ditto.
Creek of Porthcawl	2d. per ton on all ships. And further for the use of the pilot boat: 1s. if under 50 tons. 2s. if above 50 tons. 3s. if above 100 tons.	Nil.	6d. per ton of ballast.	Ditto.

N. B. — Vessels entering the harbour of Swansea in distress are charged 2d. per ton register only, but in respect to other dues the full charge.

Pilotage.

Swansea. Register Tonnage.	Swansea. In or Out.	Neath. Register Tonnage.	Neath. Over the Bar, to or from the Layor, Giant's Grave, &c. Loaded.	Neath. Over the Bar, to or from the Layor, Giant's Grave, &c. Ballast.	Neath. Over the Bar, to or from Fox's Coal Bank, the Copper Works, &c. Loaded.	Neath. Over the Bar, to or from Fox's Coal Bank, the Copper Works, &c. Ballast.	Neath. Over the Bar, to or from Melincryddan Wharf or Neath Bridge. Loaded.	Neath. Over the Bar, to or from Melincryddan Wharf or Neath Bridge. Ballast.	Port Talbot. Register Tonnage.	Port Talbot. To their Destination, if in One Tide in 3 Hours.	Port Talbot. To Sea, from their Berths, if in One Tide of 3 Hours.	Porthcawl. Register Tonnage.	Porthcawl. In or Out.
	£ s. d.		s. d.	s. d.	s. d.	s. d.	s. d.	s. d.		s. d.	s. d.		s. d.
30 to 50	0 6 0	If 20	4 0	3 0	4 6	3 6	6 0	5 0	25 to 40	4 0	3 0	Under 30	2 6
under 75	0 9 0	under 30	4 6	4 0	6 0	4 6	7 0	6 0	under 50	4 6	3 6	— 50	3 0
— 100	0 11 6	— 50	6 0	5 0	7 0	6 0	8 6	7 6	— 60	5 0	4 0	— 75	4 6
— 125	0 12 0	— 75	6 6	6 0	8 0	7 0	10 0	8 6	— 70	5 6	4 6	— 100	6 0
— 150	0 13 6	— 100	8 0	7 0	9 6	8 0	12 0	10 0	— 80	6 0	5 0	— 125	7 6
— 175	0 14 6	— 125	8 6	8 0	10 6	9 0	13 0	11 6	— 90	6 6	5 6	— 150	9 0
— 200	0 15 0	— 150	10 0	8 6	11 6	10 0	14 6	13 0	— 100	7 0	6 0	— 175	11 0
— 250	1 0 6	— 175	12 6	10 0	16 0	12 0	18 0	14 0	— 125	8 0	7 0	— 200	13 0
— 300	1 5 6	— 200	16 0	12 0	20 0	16 0	24 0	20 0	— 150	9 0	9 0	— 250	16 0
— 350	1 10 0	— 250	20 0	16 0	24 0	20 0	28 0	24 0	— 175	10 0	10 0	— 300	20 0
— 400	1 15 0	— 300	25 0	21 0	28 0	24 0	33 0	28 0	— 200	11 0	11 0		
		above 300	30 0	25 0	33 0	28 0	40 0	33 0	— 250	14 6	14 6		
									— 300	20 0	20 0		
									— 350	27 6	27 6		
									above 350	40 0	40 0		

TROON.

	£	s.	d.
Vessels under 12 tons register	0	1	0
12 tons and under 15, per ton	0	0	1
15 — 25 —	0	0	1½
25 and upwards	0	0	2

All vessels, whether in the coasting or foreign trade, whether with or without cargoes, or put into the harbour for refuge, pay the above rates.

Charges levied by the Duke of Portland.

Water Dues, per 20 tons register	0	0	6
Discharging Ballast, per ton	0	0	4½
Discharging Limestone, per ton	0	0	6

Hawser money on each vessel, as follows; viz.

	£	s.	d.
Vessels under 50 tons register	0	0	3
50 tons and under 100	0	0	6
100 — 200	0	1	0
200 — 300	0	1	6
300 — 400	0	2	0
400 — 500	0	2	6
500 tons and upwards	0	3	0

Double the above rates are charged if the hawser is used.

Pilotage: 1d. per ton register on all vessels above 45 tons register.

No charge for local lights.

Foreign vessels are charged double these rates.

WATERFORD. *Tonnage Duty.*

On British vessels with goods or ballast, 3*d.* per ton register.
On British vessels coal laden, 2*d.* per ton register.
On British vessels, 50 tons register and upwards, from any port in Ireland, 1½*d.* per ton register.
On all foreign vessels, double the above rates.

Ballast Dues.

For every ton of ballast	British Vessels.	Foreign Vessels.
brought alongside by lighters	1*s.* per ton.	1*s.* 10*d.* per ton.
discharged by lighters	8*d.* —	1*s.* 4*d.* —
delivered at ballast quay	8*d.* —	1*s.* 6*d.* —
discharged at ditto	6*d.* —	1*s.* 2*d.* —
limestone supplied	1*s.* 6*d.* —	2*s.* 4*d.* —

Pilotage. — Every vessel entering the harbour of Waterford, between the 25th day of March and 29th day of September, drawing 12 feet and upwards, for every foot of her draught pays as follows: — viz.

Taking Pilots at the following Places.		Above Arden Head, and no further than Passage.		To Check Point, or Glasshouse Reach, and no further.		Above Glasshouse Reach, or up to Waterford.	
		British.	Foreign.	British.	Foreign.	British.	Foreign.
Westward.	Eastward.	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*	*s. d.*
Great Newtown Head	Salters - - -	1 4	2 8	2 3	4 1	3 5	5 5
Foilskirt - -	Bag and Bun Head -	1 0	2 3	1 11	3 8	3 1	4 9
Below Duncannon, and Bag and Bun Head.	nearer than Foilskirt or	0 8	1 9	1 8	3 2	2 9	4 4
		Every vessel of the above class entering said harbour between the 29th September and 25th March, pays for every foot of her draught as follows: viz. —					
Great Newtown Head	Salters - - -	1 9	3 2	2 8	4 7	3 10	5 8
Foilskirt - -	Bag and Bun Head -	1 4	2 8	2 3	4 1	3 5	5 3
Below Duncannon, and Bag and Bun Head.	nearer than Foilskirt or	1 0	2 3	1 11	3 8	3 1	4 9
		Every vessel entering said harbour between the 25th March and 29th September, which shall draw more than 6 feet and less than 12 feet water, shall pay as follows: viz. —					
Great Newtown Head	Salters - - -	0 10	2 3	1 7	3 2	2 7	4 4
Foilskirt - -	Bag and Bun Head -	0 8	1 9	1 5	2 8	2 5	3 10
Below Duncannon, and Bag and Bun Head.	nearer than Foilskirt or	0 5	1 4	0 10	2 3	2 2	3 5
		Every vessel of the above class entering said harbour between the 29th September and 25th March, shall pay for every foot of her draught the following rates: viz.					
Great Newtown Head	Salters - - -	1 4	2 8	2 0	3 8	3 1	4 9
Foilskirt - -	Bag and Bun Head -	1 2	2 3	1 9	3 2	2 11	4 4
Below Duncannon, and Bag and Bun Head.	nearer than Foilskirt or	0 10	1 9	1 6	2 8	2 7	3 10

Vessels taking refuge in this harbour are subject to no other charge than pilotage, at the above-named rates.

Vessels not exceeding 50 tons register, arriving from or sailing to any port in Ireland, are not required to take pilots or pay tonnage duty.

Vessels laden, two-thirds laden, or having 20 tons potatoes, without any other goods on board, arriving at the port of Waterford, and retailing same at the quay, are not charged any of the aforesaid rates and duties.

Water Bailiff's Fees.

Late Currency.

Tonnage dues on British and foreign vessels 1*d.* per ton.
Anchorage for vessels not exceeding 20 tons register - - - 1*s.* 6*d.* each vessel.
Ditto, exceeding 20 and not exceeding 50 tons register - - - - 2*s.* 6*d.*
Ditto, exceeding 50 tons register, and upwards - - - - - 5*s.*

Colliers requiring the use of beams, scales, and weights, are supplied with same at the following rates; viz. —

	s.	*d.*
For every vessel not exceeding 50 tons register, for use of each set of beams, scales, and weights - - -	5	0
Ditto, exceeding 50 and not exceeding 100 tons register, ditto - - - - - -	4	0
Ditto — 100 — 150, ditto, ditto -	5	0
For every vessel exceeding 150 and not exceeding 200 tons - - - - -	6	0
Ditto — 200 — 250 — ditto, ditto -	7	0
Ditto — 250 and upwards — ditto, ditto -	8	0

WESTPORT.

Pilotage. — From Clare Island to Dornick, being about 9 miles, and called the Out Pilotage, per vessel - - - -	£	*s.*	*d.*
	1	1	0
From Dornick to the quay, vessels are conducted up and down by a river pilot, the charge per foot up, and the same down - -	0	2	0
Harbour dues, quayage. — Vessels taking in or delivering cargoes, pay per ton - - -	0	0	4
Vessels coming in ballast and departing with cargo, per ton - - - -	0	0	3

N. B. — There is no charge for anchorage in any of the lower roads or harbour.

Ballast. — Delivered to vessels - -	0	1	0

No charge on discharging from the vessel, the master paying the labourers himself, as per agreement.

Lighterage. — When large vessels finish their loading down the river, per ton of goods delivered	0	2	0

The foregoing charges, with the exception of ballast discharged and lighterage, are levied by prescription under the harbour commissioners of Westport.

WEXFORD.

Dues and Charges.	Tonnage.	Ballast.	Pilotage.
	Per Ton. £ *s. d.*	*Per Ton.* £ *s. d.*	*Per Ton.* £ *s. d.*
For every vessel which shall enter within the limits of said harbour, and be entitled to the privileges of a British ship, upon every ton such vessel shall measure - - -	0 0 5		
For every vessel not so entitled - - - - -	0 1 0		
For every ton of ballast taken in by any vessel (though the act levies 1*s.* 3*d.* per ton), there is however at present only levied		0 0 10	
For every ton of ballast discharged from any vessel - -		0 0 2	
For every vessel discharging and receiving cargo, upon every ton such vessel shall measure - - - - - -			0 0 5
For every vessel that shall enter into the harbour or leave the same in ballast, or shall discharge her cargo, or any part thereof, without taking in any new cargo, or shall, without discharging her cargo or any part thereof, take in new cargo, then, in any of those cases, for every ton such vessel shall measure - - - - - - - -			0 0 4
For every vessel taking refuge in the harbour - - -			0 0 2

Steam vessels liable only to one-half the foresaid rates of pilotage.

WHITEHAVEN.

Charges on Vessels in the Foreign and Coasting Trade.

Harbour Tonnage Dues.

Inwards.	£	*s.*	*d.*
On vessels with goods, in whole or in part, or in ballast, viz:			
From any port of Great Britain, Ireland and Isle of Man, per ton register - - -	0	0	3½
From any other port of Europe, the Islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland, per ton register - -	0	0	10
From any part of Asia, Africa, or America, to the northward of the river La Plata inclusive, and to the northward of the Cape of Good Hope, the Islands of St. Helena, Ascension, Cape de Verde Islands, Canaries, Western Islands, Madeira, Azores, Newfoundland, Greenland, and Davis' Straits, per ton register - - -	0	1	2½
From any part of South America to the southward of Rio La Plata, in the Pacific Ocean, in Africa and Asia, to the eastward of the Cape of Good Hope, per ton register - - - -	0	1	7
Outwards.			
To any part of Great Britain and Ireland and Isle of Man - - - -		nil.	
To any other part of the world, viz.:			
With goods, per ton register - -	0	0	4½
With ballast, per ton register - -	0	0	2¼

Pilotage.

Inwards and outwards.

There are no established charges, but made by verbal agreement with the pilots, and vary from 1*l.* 1*s.* to 3*l.*, according to the size of the vessel.

Ballast.

For every ton discharged, either from foreign or coastwise, 6*d.*

Outwards - - - nil.

Local Lights and Beacons.

2*d.* per ton register per annum, foreign or coastwise.

Harbour Boat.

	£	s.	d.
Inwards, foreign.			
For each vessel under 120 tons register -	0	5	0
For ditto above 120 tons register -	0	7	6
Coasters, inwards.			
For every vessel 150 tons register and upwards and less in proportion.	0	5	0
Outwards - - - -	nil.		

Charges on Vessels taking Refuge only

Harbour Tonnage Dues.

From any port of Great Britain, Ireland, and Isle of Man, per ton register - -	0	0	3½
From any other part of Europe, the Islands of Guernsey, Jersey, Alderney, Sark, the Faro Isles, and Iceland, per ton register - -	0	0	7
From any part of Asia, Africa, or America, to the northward of the river La Plata inclusive, and to the northward of the Cape of Good Hope, the Islands of St. Helena, Ascension, Cape de Verde Islands, Canaries, Western Islands, Madeira, Azores, Newfoundland, Greenland, and Davis' Straits, per ton register - -	0	0	10
From any part of South America to the southward of Rio La Plata, in the Pacific Ocean, in Africa and Asia, to the eastward of the Cape of Good Hope -	0	1	1

Pilotage.

There are no established charges, but made by verbal agreement with the pilots, and vary from 1*l.* 1*s.* to 3*l.*, according to the size of the vessel.

Local Lights and Beacons.

2*d.* per ton register per annum, either foreign or coastwise.

Harbour Boat.

	£	s.	d.
Inwards, foreign.			
For each vessel under 120 tons register -	0	5	0
Per ditto above 120 tons register -	0	7	6
Coasters, inwards.			
For every vessel 150 tons register and upwards and less in proportion.	0	5	0
Outwards - - - -	nil.		

WHITBY.

Rates of Dues.	Vessels, with their Tonnage.	Harbour Dues to Trustees of the Piers.	Harbour Dues to the Lord of the Manor.	Pilotage In and Out.	Ballast.	Total.
Vessels in Foreign and Coasting Trade, with or without Cargoes.						
Harbour Dues. s. d.						
Per vessel - - - - 1 0	300	Vessels with Cargo in, and Ballast out.				
Per ton - - - - 0 4	200	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Per ship, loaded - - - 1 4	100	0 3 8	0 1 4	1 19 0	5 0 0	7 2 4
Per ship, light - - - 0 8	50	0 1 8	0 1 4	1 13 0	3 10 0	5 6 0
Pilotage.		0 1 4	0 1 4	1 5 6	1 10 0	2 18 2
In the winter months, draught of water, per foot - - - 1 6	300	0 1 0	0 1 4	0 19 6	1 0 0	2 1 10
In summer, per foot - - 1 3	200	Vessels sheltering.				
Ballast.	100	0 2 0	0 0 8	1 10 0	- -	1 12 8
Sand taken from the harbour with the sanction of the lord of the manor and trustees of the piers, and a charge made of 1*s.* per ton to pay the expense.	50	0 1 8	0 0 8	1 4 0	- -	1 6 4
		0 1 4	0 0 8	1 1 0	- -	1 3 0
		0 1 0	0 0 8	0 15 0	- -	0 16 8
		No charge for local lights or beacons.				

WICK.

Nature of the Dues.	Particulars and Rates.	£	s.	d.
Harbour dues - -	On every vessel in the Foreign or Coasting trade, being British, or Foreign privileged:			
	If under 15 tons, per ton - - - - -	0	0	1
	15 to 45 tons, per register ton - - - -	0	0	2
	45 tons and upwards, per register ton - - -	0	0	4
	Vessels in ballast, per ton - - - - -	0	0	2
	Foreign vessels not privileged, double rates.			
Pilotage - -	All vessels, in and out, per ton register - - - -	0	0	3
Lights - -	The same rates for Scotch, English, and Irish lights as at other ports. No local lights.			

YARMOUTH.

Dues upon Vessels delivering Cargoes.

3*d.* per ton burthen per register of such vessel, and an additional ½*d.* per ton upon her first entry in each and every year, and also 1*s.* for every vessel for the use of the pier-master.

N. B.—Fishing vessels, with their catch of fish, are exempted (except fishing vessels not belonging to the port of Great Yarmouth, which shall pay 1*s.*, for the use of the pier-master).

Foreign vessels to pay double the duties, except such as are privileged, which pay the like rates only as are payable by vessels having British registers.

Dues upon Vessels taking Refuge.

2*d.* per ton burthen per register of such vessels, and an additional ½*d.* per ton upon her first entry in each and every year, to be paid but once in respect of the same voyage on which the first dues have been paid by such vessel, and 1*s.* for the pier-master.

Foreign vessels to pay double the duties, except such vessels as are privileged by H. M.'s most honourable privy council to enter ports of the kingdom upon paying the same duties of tonnage as are paid by British vessels, in which case such vessels shall pay the like rates only as are payable by vessels having British registers.

Fishing vessels (except fishing vessels belonging to the port of Great Yarmouth) to pay 1*s.* only for the use of the pier-master.

Charges for Pilotage in and out of the Haven, and also the Gatways or Channels.

Into and Out of the Haven.	Per Foot. £	s.	d.
Vessels drawing 8 feet water and under -	0	1	6
— 8 — 9 feet -	0	1	9
Vessels drawing 9 feet water and under 10 feet -	0	2	0
— 10 — 11 — -	0	2	3
— 11 — 12 — -	0	2	6
— 12 — 13 — -	0	2	9
— 13 — 14 — -	0	3	0
— 14 — 15 — -	0	3	6
— 15 — 16 — -	0	4	0

And an additional 2*l.* 10*s.* per cent. above the above rates.

Ships not having British registers to pay one-fourth more than ships with British registers, except vessels privileged by H. M.'s privy council, in which case such vessels not having British registers shall pay the like rates of pilotage only as are payable by ships having British registers.

In and out of the Gatways or Channels into the Roads.

		£	s.	d.
From sea through any of the channels into Yarmouth Roads.	14 feet draught of water	5	5	0
From sea through any of the channels into Yarmouth Roads.	under 14 —	3	10	0
Outwards from the roads	14 —	3	10	0
—	under 14 —	2	2	0

Charges for Ballast.

5*d.* per ton for every ton of ballast which is brought alongside of the vessel in lighters, and if it is put on board by the lightermen, an additional 6*d.* per ton for heaving.

Local lights and beacons - - nil.

PIMENTO, ALLSPICE, OR JAMAICA PEPPER (Fr. *Poivre de Jamaïque*; Ger. *Nelkenpfeffer*; It. *Pimenti*), the fruit of the *Myrtus pimenta*, a beautiful tree which grows in great plenty on the hills on the north side of Jamaica. The berries are spherical, and, when ripe, of a black or dark purple colour. But, as the pulp is in this state moist and glutinous, the berries are plucked when green; and being exposed in the sun to dry, they lose their green colour, and become of a reddish brown. They are packed in bags and hogsheads for the European market. The more fragrant and smaller

they are, the better are they accounted. They have an aromatic, agreeable odour, resembling that of a mixture of cinnamon, cloves, and nutmegs, with the warm, pungent taste of the cloves. Pimento is used in medicine; but its principal use is in the seasoning of soups and other dishes.

"The returns," says Mr. Bryan Edwards, "from a pimento walk in a favourable season are prodigious. A single tree has been known to yield 150 lbs. of the raw fruit, or 100 lbs. of the dried spice; there being commonly a loss in weight of ¼ in curing; but this, like many other of the minor productions, is exceedingly uncertain, and perhaps a very plenteous crop occurs but once in 5 years. The price in the British market, as may be supposed, fluctuates accordingly; but I believe its average for some years past may be set down at 7*d.* per lb., exclusive of the duty (3*d.*)."—(Vol. ii. p. 372. ed. 1819.) The price of pimento in bond, in the London market, has varied of late years from 4*d.* to 5½*d* per lb.

At the period when Edwards's work was published, the annual imports of pimento from Jamaica, which supplies more than 9-10ths of the pimento brought to England, amounted to about 672,000 lbs., and were decreasing every year — (*loc. cit.*). But at an average of the 3 years ending with 1832, the annual imports were 2,349,893 lbs.; and in 1833 they amounted to 4,844,973 lbs.; since then, however, there has been a considerable falling off in the imports, which in 1841 were only 1,013,400 lbs. We subjoin

An Account of the Quantities of Pimento entered for Consumption in the U. Kingdom, during each of the 3 Years ending with 1842, and of the Amount of the Duties thereon.

Quantities.			Duties.								
1840.	1841.	1842.	1840.			1841.			1842.		
Cwts.	*Cwts.*	*Cwts.*	£	*s.*	*d.*	£	*s.*	*d.*	£	*s.*	*d.*
3,031	2,654	4,074	4,577	2	7	3,900	19	1	1,846	1	4

The duty on pimento, which amounted, when the former edition of this work was published, to 5*d.* per lb., was reduced in 1836 to 3*d.* per lb., and in 1842 to 5*s.* a cwt. Its price averages in the London market from 2½*d.* to 3*d.* per lb., ex. duty.

PINCHBECK (Ger. *Tomback*; Du. *Tombak*; Fr. *Tambac, Similor*; It. *Tombacco*; Sp. *Tambac, Tumbaga*), a name given to one of the many imitations of gold. By melting zinc in various proportions with copper or brass, some alloys result, the colours of which approach more or less to that of gold. This composition is frequently employed as a substitute for gold, in the formation of watch-cases, and various other articles of a like description. Pinchbeck is sometimes called *Tambac*, and sometimes *Similor*, and *Petit-or*.

PINE, OR FIR, a species of forest tree, next, if not superior, to the oak, in point of utility and value. There are above 20 species of pine. They do not bear flat leaves, but a species of spines, which, however, are real leaves. They are mostly, though not all, evergreens; but the appearance of the tree, as well as the quality of the timber, varies with the species, and also with the situation in which it grows. Generally speaking, the timber is hardest and best in exposed cold situations, and where its growth is slow. We shall only notice those species, the timber of which is most in use in this country.

1. SCOTCH PINE (*Pinus sylvestris*) is a native of the Scotch mountains, and of most northern parts of Europe; being common in Russia, Denmark, Sweden, Norway, and Lapland. It is straight, abruptly branched, rising in favourable situations to the height of 80 or 90 feet, and being from 3 to 4 feet in diameter. It is at perfection when 70 or 80 years old. The colour of the wood differs considerably; it is generally of a reddish yellow, or of a honey yellow, of various degrees of brightness. It has no larger transverse septa, and it has a strong resinous odour and taste. In the best timber, the annual rings are thin, not exceeding $\frac{1}{10}$th of an inch in thickness; the dark parts of the rings of a bright reddish colour; the wood hard and dry to the feel, neither leaving a woolly surface after the saw, nor filling its teeth with resin. The best Norway is the finest of this kind, and the best Riga and Memel are not much inferior. The inferior sorts have thick annual rings; in some, the dark parts of the ring are of a honey yellow, the wood heavy, and filled with a soft resinous matter, feels clammy, and chokes the saw. Timber of this kind is not durable, nor fit for bearing strains. In some inferior species, the wood is spongy, contains less resinous matter, and presents a woolly surface after the saw. Swedish timber is often of this kind.

Scotch fir is the most durable of the pine species. It was the opinion of the celebrated Mr. Brindley, "that red Riga deal, or pine wood, would endure as long as oak in all situations." Its lightness and stiffness render it superior to any other material for beams, girders, joists, rafters, &c. It is much used in joiners' work, as it is more easily wrought, stands better, is much cheaper, and is nearly, if not quite, as durable as oak.

Scotch fir is exported from Norway and Sweden, under the name of *redwood*. Norway exports no trees above 18 inches diameter, consequently there is much sapwood; but the heart wood is both stronger and more durable than that of larger trees from other situations. Riga exports a considerable quantity under the name of masts and spars: pieces from 18 to 25 inches diameter are called *masts*, and are usually 70 or 80 feet in length; those of less than 18 inches diameter are called *spars*.—(See RIGA.) Yellow

deals and planks are imported from various parts of Norway, Sweden, Prussia, Russia, &c. Tar, pitch, and turpentine are obtained from the Scotch fir.—(See these titles.) When the tree has attained to a proper age, it is not injured by the extraction of these products.

2. SPRUCE PINE.—Of this there are 3 species: the Norway spruce, or *Pinus abies;* white spruce, or *Pinus alba;* and black spruce, or *Pinus nigra.* These are noble trees, rising in straight stems from 150 to 200 feet in height. They yield the timber known by the name of *white fir,* or *deal,* from its always being imported in deals or planks.

Deals imported from Christiania are in the highest estimation.—(See CHRISTIANIA.) The trees are usually cut into 3 lengths, generally of about 12 feet each: and are afterwards cut into deals by saw-mills, each length yielding 3 deals. The Norway spruce thrives very well in Britain, and produces timber little inferior to the foreign: it is somewhat softer, and the knots are extremely hard.

The white spruce, or *Pinus alba,* is brought from British North America. The wood is not so resinous as the Norway spruce: it is tougher, lighter, and more liable to twist in drying.

The black spruce, or *Pinus nigra,* is also an American tree; but it is not much imported into this country. The black and white spruce derive their names from the colour of the bark; the wood of both being of the same colour.

The colour of spruce fir, or white deal, is yellowish or brownish white; the hard part of the annual ring a darker shade of the same colour; it often has a silky lustre, especially in the American and British grown kinds. Each annual ring consists of two parts; the one hard, the other softer. The knots are generally very hard. The clear and straight-grained kinds are often tough, but not very difficult to work, and stand extremely well when properly seasoned. White deal, as imported, shrinks about $\frac{1}{10}$th part in becoming quite dry.

3. WEYMOUTH PINE, or WHITE PINE (*Pinus strobus*), is a native of North America, and is imported in large logs, often more than 2 feet square and 30 feet in length. It is one of the largest and most useful of the American trees, and makes excellent masts; but it is not durable, nor fit for large timbers, being very subject to dry rot. It has a peculiar odour.

4. SILVER FIR (*Pinus picea*) is a native of the mountains of Siberia, Germany, and Switzerland, and is common in British plantations. It is a large tree, and yields the Strasburg turpentine. The wood is of good quality, and much used on the Continent both for carpentry and ship building. The harder fibres are of a yellow colour, compact, and resinous; the softer nearly white. Like the other kinds of fir, it is light and stiff, and does not bend much under a considerable load; consequently, floors constructed of it remain permanently level. It is subject to the worm. It has been said to last longer in the air than in the water; and, therefore, to be fitter for the upper parts of bridges, than for piles and piers.

5. LARCH (*Pinus larix*). There are 3 species of this valuable tree; 1 European, and 2 American. The variety from the Italian Alps is the most esteemed, and has lately been extensively introduced into plantations in Great Britain. It is a straight and lofty tree, of rapid growth. A tree 79 years of age was cut down at Blair Athol, in 1817, which contained 252 cubic feet of timber; and one of 80 years of age, at Dunkeld, measured 300 cubic feet. The mean size of the trunk of the larch may be taken at 45 feet in length, and 33 inches diameter. The wood of the European larch is generally of a honey yellow colour, the hard part of the annual rings of a redder cast; sometimes it is brownish white. In common with the other species of pine, each annual ring consists of a hard and a soft part. It generally has a silky lustre; its colour is browner than that of the Scotch pine, and it is much tougher. It is more difficult to work than Riga or Memel timber; but the surface is better when once it is obtained. It bears driving bolts and nails better than any other species of resinous wood. When perfectly dry, it stands well; but it warps much in seasoning.

It is in all situations extremely durable. It is useful for every purpose of building, whether external or internal: it makes excellent ship timber, masts, boats, posts, rails, and furniture. It is peculiarly adapted for flooring boards, in situations where there is much wear, and for staircases: in the latter, its fine colour, when rubbed with oil, is much preferable to that of the black oaken staircases to be seen in some old mansions It is well adapted for doors, shutters, and the like; and, from the beautiful colour of its wood when varnished, painting is not necessary.—(We have abstracted these particulars from *Mr. Tredgold's* excellent work, *The Principles of Carpentry,* pp. 209—217.)

PINE-APPLE, OR ANANAS, though a tropical fruit, is now extensively cultivated in hothouses in this country, and is well known to every one. When of a good sort and healthy, it is the most luscious, and, perhaps, the best fruit that this country produces; and when carefully cultivated, is superior in point of quality to that produced in the West Indies. A pine-apple raised at Stackpool Court, Pembrokeshire, and

served up at the coronation dinner of George IV., weighed 10 lbs. 8 oz. — (*Vegetable Substances*, p. 379., *Lib. Entert. Knowledge.*)

PINT, a measure used chiefly in the measuring of liquids. The word is High Dutch, and signifies a little measure of wine. The English pint used to be of 2 sorts; the one for wine, the other for beer and ale. Two pints make a quart; 2 quarts a pottle; 2 pottles a gallon, &c. The pint, Imperial liquid measure, contains 34·659 cubic inches.

PIPE, a wine measure, usually containing 105 (very nearly) Imperial, or 126 wine gallons. Two pipes, or 210 Imperial gallons, make a tun. But, in practice, the size of the pipe varies according to the description of wine it contains. Thus, a pipe of port contains 138 wine gallons, of sherry 130, of Lisbon and Bucellas 140, of Madeira 110, and of Vidonia 120. The pipe of port, it is to be observed, is seldom accurately 138 gallons, and it is usual to charge what the vessel actually contains.

PIPE-CLAY, a species of clay abounding in Devonshire, and other parts of England, employed in the manufacture of various sorts of earthenware, and in bleaching.

PIRACY, consists in committing those acts of robbery and violence upon the seas, that, if committed upon land, would amount to felony.

Pirates hold no commission or delegated authority from any sovereign or state, empowering them to attack others. They can, therefore, be only regarded in the light of robbers or assassins. They are, as Cicero has truly stated, the common enemies of all (*communes hostes omnium*); and the law of nations gives to every one the right to pursue and exterminate them without any previous declaration of war; but it is not allowed to kill them without trial, except in battle. Those who surrender, or are taken prisoners, must be brought before the proper magistrates, and dealt with according to law.

By the ancient common law of England, piracy, if committed by a *subject*, was held to be a species of treason, being contrary to his natural allegiance; and, by an *alien*, to be felony only: but since the statute of treasons (25 Edw. 3. c. 2.), it is held to be only felony in a subject. Formerly this offence was only cognisable by the admiralty courts, which proceed by the rules of the civil law; but it being inconsistent with the liberties of the nation that any man's life should be taken away, unless by the judgment of his peers, the statute 28 Hen. 8. c. 15. established a new jurisdiction for this purpose, which proceeds according to the course of common law.

It was formerly a question whether the Algerines, and other African states, should be considered pirates: but, however exceptionable their conduct might have been on many occasions, and however hostile their policy might be to the interests of humanity, still, as they had been subjected to what may be called regular governments, and had been admitted to enter into treaties with other powers, they could not be treated as pirates.

Pirates having no right to make conquests, or to seize upon what belongs to others, capture by them does not divest the owner of his property. At a very early period of our history, a law was made for the restitution of property taken by pirates, if found within the realm, whether belonging to strangers or Englishmen: but any foreigner suing upon this statute must prove that, at the time of the capture, his own sovereign and the sovereign of the captor were in mutual amity; for it is held that piracy cannot be committed by the subjects of states at war with each other.

Piracy was almost universally practised in the heroic ages. Instead of being esteemed infamous, it was supposed to be honourable. — (*Latrocinium maris gloriæ habebatur.* — *Justin.* lib. xliii. c. 3.) Menelaus, in the Odyssey, does not hesitate to inform his guests, who admired his riches, that they were the fruit of his piratical expeditions — (lib. iv. ver. 90.); and such, indeed, was the way in which most of the Greek princes amassed great wealth. — (*Goguet, Origin of Laws*, vol. i. p. 383. Eng. trans.)

The prevalence of this piratical spirit in these early ages may, perhaps, be explained by the infinite number of small independent states into which the country was divided, and the violent animosity constantly subsisting amongst them. In this way ferocious and predatory habits were universally diffused and kept alive; and it is not to be supposed that those who were at all times liable to be attacked by hosts of enemies, should very accurately examine the grounds upon which they attacked others. According, however, as a more improved system of government grew up, Greece, and a few states, as Athens, Corinth, &c., had attained to distinction by their naval power, piracy was made a capital offence: but though repressed, it was never entirely put down. Cilicia was at all times the great stronghold of the pirates of antiquity: and in consequence of the decline of the maritime forces of Athens, Rhodes, &c., which had kept them in check, they increased so much in numbers and audacity as to insult the majesty of Rome herself; so that it became necessary to send Pompey against them, with a large fleet and army, and more extensive powers than had been ever previously conferred on any Roman general.

During the anarchy of the middle ages, when every baron considered himself a sort of independent prince, entitled to make war on others, piracy was universally practised. The famous Hanseatic League was formed chiefly for the purpose of protecting the ships of the confederated cities from the attacks of the pirates by which the Baltic was then infested. The nuisance was not finally abated in Europe till the feudal system had been subverted, and the ascendancy of the law everywhere secured. In more modern times, some of the smaller West India islands have been the great resort of pirates: latterly, however, they have been driven from most of their haunts in that quarter. They are still not unfrequently met with in the Indian seas east of Sumatra.

Besides those acts of robbery and depredation upon the high seas, which, at common law, constitute piracy, some other offences have been included under that term. Thus, by the stat. 11 & 12 Will. 3. c. 7., if any natural-born subject commits any act of hostility upon the high seas against others of his Majesty's subjects, under colour of a commission from any foreign power, this, though it would only be an act of war in an alien, shall be construed piracy in a subject. And further, any commander or other seafaring person betraying his trust, and running away with any ship, boat, ordnance, ammunition, or goods, or *yielding them up voluntarily to a pirate*, or conspiring to do these acts; or any person assaulting the commander of a vessel, to hinder him from fighting in defence of his ship, or confining him, or causing or endeavouring to cause a revolt on board, shall for each of these offences be adjudged a pirate, felon, and robber, and shall suffer death, whether he be principal, or merely accessory by setting forth such pirates, or abetting them before the fact, or receiving them, or concealing them or their goods after it; and the stat. 4 Geo. 1. c. 2. expressly excludes the principals from the benefit of clergy. By the stat. 8 Geo. 1. c. 24., the trading with known pirates, or furnishing them with stores or ammunition, or fitting out any vessel for that purpose, or in any wise consulting, combining, confederating, or corresponding with them; or the forcibly boarding any merchant vessel, though without seizing or carrying her off, and destroying or throwing any of the goods overboard, shall be deemed piracy; and such accessaries to piracy as are described by the statute of King William are declared to be principal pirates, and all pirates convicted by virtue of this act are made felons without benefit of clergy. To encourage the defence of merchant vessels against pirates, the commanders and seamen wounded, and the widows of such seamen as are slain in any engagement with pirates, are entitled to a bounty, to be divided among them, not exceeding the *one fiftieth* part of the value of the cargo saved; and the wounded seamen are entitled to the pension of Greenwich Hospital. — (11 & 12 *Will.* 3. c. 7.; 8 *Geo.* 1. c. 24.) The first of these statutes also enacts, that if any mariner or inferior officer of any English ship decline or refuse to fight when commanded by the master, or shall utter any words to discourage the other mariners from defending the same, he shall lose all the wages due to him, together with such goods as he hath in the ship, and be imprisoned and kept to hard labour for 6 months.

The 6 Geo. 4. c. 49. enacts that a bounty shall be paid to the officers and crews of such of his Majesty's ships of war as may be engaged in the actual taking, sinking, burning, or otherwise destroying any vessel or boat manned by pirates, of 20*l.* for each pirate taken or killed during the attack, and of 5*l.* for every other man of the crew not taken or killed, who shall have been alive on board the said piratical vessel at the attack thereof.

The same statute (§ 3.) enacts that vessels and other property taken from pirates, proved to have belonged to any of his Majesty's subjects, are to be delivered up to them, on their paying a sum of money as salvage, equal to 1-8th part of the true value of the same.

PISTACHIA OR PISTACHIO NUTS (Ger. *Pistaschen*; Du. *Pistasjes*; Fr. *Pistaches*; It. *Pistacchi*, *Fastucchi*; Sp. *Alfocigos*; Lat. *Pistaciæ*), the fruit of the *Pistachia vera*, a kind of turpentine tree. It grows naturally in Arabia, Persia, and Syria; also in Sicily, whence the nuts are annually brought to us. They are oblong and pointed, about the size and shape of a filbert, including a kernel of a pale greenish colour, covered with a yellowish or reddish skin. They have a pleasant, sweetish, unctuous taste, resembling that of sweet almonds; their principal difference from which consists in their having a greater degree of sweetness, accompanied with a light grateful flavour, and in being more oily. Pistachias imported from the East are superior to those raised in Europe. — (*Lewis's Mat. Med.*)

PITCH (Ger. *Pech*; Fr. *Poix*, *Brai*; It. *Pece*; Sp. *Pez*; Rus. *Smola gustuja*), the residuum which remains on inspissating tar, or boiling it down to dryness. It is extensively used in ship building, and for other purposes. Large quantities are manufactured in Great Britain; but exclusive of these, 13,284 cwts. imported from foreign countries were entered for consumption in 1841. The duty, which was then 10*d.* a cwt., after being reduced in 1842 to 6*d.*, was finally abolished in 1853.

An allowance is to be made for tare on pitch, of 93 lbs. each on Archangel casks, 36 lbs. each on Swedish do., and 56 lbs. each on American do.

PLANE, a forest tree, of which there are 2 species; the Oriental plane (*Platanus Orientalis*), and the Occidental plane (*Platanus Occidentalis.*)

The Oriental plane is a native of the Levant, and other Eastern countries, and is considered one of the finest of trees. It grows to about 60 feet in height, and has been known to exceed 8 feet in diameter. Its wood is much like beech, but more figured, and is used for furniture and such like articles. The Occidental plane is a native of North America, and is one of the largest of the American trees, being sometimes more than 12 feet in diameter. The wood of the Occidental plane is harder than that of the Oriental. It is very durable in water.

The tree known by the name of plane in England, is the sycamore, or great maple (*Acer pseudo-platanus*). It is a large tree, grows quickly, and stands the sea spray better than most trees. The timber is very close and compact, easily wrought, and not liable either to splinter or warp. It is generally of a brownish white or yellowish white colour, and sometimes it is very beautifully curled and mottled. In this state it

takes a fine polish, and bears varnishing well. It is chiefly used in the manufacture of saddle trees, wooden dishes, and a variety of articles of furniture and machinery. When kept dry, and protected from worms, it is pretty durable; but it is quite as liable as beech to be attacked by them. — (*Tredgold*, p. 196.)

PLANKS (Ger. and Du. *Planken*; Da. *Planker*; Sw. *Plankor*; Fr. *Planches, Bordages*; Rus. *Tolstüle olosku*), thick strong boards, cut from various kinds of wood, especially oak and pine. Planks are usually of the thickness of from 1 inch to 4. They are imported in large quantities from the northern parts of Europe, particularly from the ports of Christiania, Dantzic, Archangel, Petersburg, Narva, Revel, Riga, and Memel, as well as from several parts of North America.

PLANTAIN, OR BANANA, the pulpy fruit of the *Musa paradisiaca*, an herbaceous plant, extensively cultivated in most intertropical countries, but especially in Mexico. It is not, like most other fruits, used merely as an occasional luxury, but is rather an established article of subsistence. Being long and extensively cultivated, it has diverged into numerous varieties, the fruit of which differs materially in size, flavour, and colour. That of some is not above 2 or 3 inches long, while that of others is not much short of a foot; some sorts are sweet, and of a flavour not unlike nor inferior to that of a good mellow pear; but the larger kind are, for the most part, coarse and farinaceous. The latter are either used fresh or dried in the sun, in which latter state they are occasionally ground into meal and made into bread. In Mexico, the sweeter sorts are frequently pressed and dried, as figs are in Europe; and, while they are not very inferior to the last mentioned fruit, they are infinitely cheaper.

"I doubt," says M. Humboldt, "whether there be any other plant that produces so great a quantity of nutritive substance in so small a space. Eight or 9 months after the sucker is planted, it begins to develope its cluster. The fruit may be gathered in the 10th or 11th month. When the stalk is cut, there is always found, among the numerous shoots that have taken root, a sprout (*pimpollo*), which, being 2-3ds the height of its parent plant, bears fruit 3 months later. Thus a plantation of bananas perpetuates itself, without requiring any care on the part of man, further than to cut the stalks when the fruit has ripened, and to stir the earth gently once or twice a year about the roots. A piece of ground of 100 square metres of surface will contain from 30 to 40 plants. During the course of a year this same piece of ground, reckoning the weight of the cluster at from 15 to 20 kilog. only, will yield 2,000 kilog., or more than 4,000 lbs., of nutritive substance. What a difference between this product and that of the cereal grasses in most parts of Europe! The same extent of land planted with wheat would not produce above 30 lbs.; and not more than 90 lbs. of potatoes. Hence the product of the banana is to that of wheat as 133 to 1, and to that of potatoes as 44 to 1." — (*Essai sur la Nouvelle Espagne*, tom. ii. p. 388. 2d. ed.)

The banana forms a principal part of the food of the people of Mexico; and the apathy and indolence of the natives in the *tierras calientes*, or hot regions, has been ascribed, and probably with good reason, to the facility with which it supplies them with subsistence. It is by no means in such extensive use in tropical Asia; and comes nowhere in it into competition with corn as an article of food.

PLATE, the denomination usually given to gold and silver wrought into articles of household furniture.

In order partly to prevent fraud, and partly for the purpose of collecting a revenue, the manufacture of plate is placed under certain regulations. Those who carry it on are obliged to take out a licence, renewable annually on the 31st of July. Assay offices are established in different places; and any one selling any article previously to its having been assayed and marked, forfeits 50*l.* — (24 *Geo.* 3. c. 53.) No plate is passed at the assay offices, unless it be of the fineness of the old standard or 11 oz. and 2 dwts., or of the new standard of 11 oz. and 10 dwts. Gold plate, with the exception of gold watch-cases, is to pay a duty of 17*s.* an oz., and silver plate a duty of 1*s.* 6*d.*; but watch-cases, chains, tippings, mountings, collars, bottle tickets, teaspoons, &c. are exempted. The 52 Geo. 3. c. 143. made the counterfeiting, or the transference from one piece of plate to another, of the marks, stamps, &c. impressed on plate by the assayers, felony without the benefit of clergy. But the offence is now punishable by transportation or imprisonment only. — (1 *Will.* 4. c. 66.)

The subjoined account (from *Porter's Progress of the Nation*, iii. 25.) gives a very complete view of the plate manufacture from 1800 downwards. It appears from it that the annual consumption of silver plate has increased from about 800,000 oz. at the commencement of the century, to about 1,050,000 oz. at present. Most persons may, perhaps, be inclined to think that this is not so great an increase as might have been anticipated from the increased wealth and population of the country. But it should be borne in mind that this account refers only to articles of standard silver and gold, and that the great consumption of the precious metals consists in plated and gilt articles, which are now made of a very superior quality. Owing also to the fact of old plate being held in the greatest estimation, but little of it is melted down to be remanufactured, so that the principal consumption is by new families. The returns for the year 1826, in the subjoined Table, afford a striking proof of this. During a considerable portion of that year a crowd of speculators, most of whom were previously worth little or nothing, believed they had made large fortunes, and launched out, with the proverbial ostentation of *parvenus*, into all sorts of lavish expenditure. Hence the wonderful increase in the demand for plate in the course of that year. No doubt, also, the consumption of plate appears less than it really is, from the facility with which the duties are evaded. We subjoin

Account of the Number of Ounces of Gold and Silver Plate upon which Duty was paid, and for which Drawback was allowed, showing the Quantity retained for Home Use in each Year, in the undermentioned Years, from 1800 to 1850.

Year ended 5th January,	Duty paid on		Drawback allowed on		Retained for Home Use.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
	Ounces.	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*	*Ounces.*
1801	5,251	902,966	77	142,705	5,174	760,261
1805	4,854	902,788	21	114,829	4,833	787,959
1810	6,582	1,242,208	53	71,116	6,529	1,171,092
1815	6,779	974,245	29	55,948	6,750	918,297
1820	6,037	1,220,104	1,607	116,507	4,430	1,113,597
1821	6,651	1,081,310	5,735	114,224	2,916	967,086
1822	5,434	1,022,761	1,436	120,600	3,998	902,161
1823	6,997	1,027,722	1,370	64,783	5,627	962,939
1824	6,516	1,073,244	20	97,016	6,496	976,228
1825	7,662	1,258,658	38	70,482	7,624	1,188,176
1826	8,486	1,585,254	81	112,017	8,405	1,473,237
1827	7,108	1,247,880	- -	71,493	7,108	1,176,387
1828	7,266	1,207,887	10	60,910	7,256	1,146,977
1829	7,106	1,361,332	2	86,157	7,104	1,275,175
1830	6,441	1,271,322	12	109,907	6,429	1,161,415
1831	5,716	1,076,076	6	84,444	5,710	992,632
1832	4,574	826,052	9	100,127	4,565	725,925
1833	5,189	914,096	15	79,659	5,174	834,437
1834	5,434	879,117	2	72,005	5,432	807,112
1835	6,116	1,050,232	- -	102,251	6,116	947,981
1836	6,678	1,071,026	16	110,247	6,662	960,779
1837	7,966	1,272,920	- -	164,064	7,966	1,108,856
1838	6,811	1,178,568	4	177,539	6,807	1,001,029
1839	6,784	1,195,483	21	161,458	6,763	1,034,025
1840	6,875	1,270,390	7	155,923	6,868	1,114,467
1841	6,992	1,209,266	7	179,904	6,985	1,029,362
1842	6,580	1,149,070	5	160,495	6,575	988,575
1843	6,305	1,026,045	4	171,574	6,301	854,472
1844	6,415	911,220	2	122,689	6,413	788,531
1845	7,242	1,091,412	8	170,987	7,234	854,425
1846	8,036	1,158,050	16	181,759	8,020	976,291
1847	8,535	1,188,736	18	167,513	8,517	1,021,223
1848	7,629	1,049,268	5	161,483	7,624	887,785
1849	6,810	756,388	- -	109,136	6,810	647,252
1850	7,373	735,865	3	76,759	7,370	659,106

It is not easy to account for the nearly stationary demand for plate as exhibited in this return. Most probably it has been mainly occasioned by the greater use of plated articles, which have, to a great extent, been substituted for those made of silver. Perhaps, also, it may be in part accounted for by the fact of the cost of gold and silver having increased from 1809 down to 1849 or 1850. But a large increase in the consumption of the precious metals may now be expected to result from their increasing supply and diminishing value.

PLATINA, a metal which, in respect of scarcity, beauty, ductility, and indestructibility, is hardly inferior to gold, was unknown in Europe till about the middle of last century, when it began to be imported in small quantities from South America. It has since been discovered in Estremadura in Spain, and, more recently, in the Ural Mountains in Asiatic Russia, where it is now raised in very considerable quantities.

Platina is of a white colour, like silver, but not so bright, and has no taste or smell. Its hardness is intermediate between copper and iron. Its specific gravity is about 21·5, that of gold being 19·3; so that it is the heaviest body with which we are acquainted. It is exceedingly ductile and malleable; it may be hammered out into very thin plates, and drawn into wires not exceeding 1-1940th of an inch in diameter. In these properties it is probably inferior to gold, but it seems to surpass all the other metals. Its tenacity is such, that a wire of platina 0·078 inch in diameter is capable of supporting a weight of 274·31 lbs. avoirdupois without breaking. It is one of the most infusible of all metals; but pieces of it may be welded together without difficulty when heated to whiteness. It is not in the smallest degree altered by the action of air or water. — (*Thomson's Chemistry.*)

The late Dr. Wollaston discovered a method of fusing platina, and consequently, of rendering it easily available in the arts. The Russians have, within these few years, issued platina coins of the value of 3, 6, and 20 silver roubles. Platina first began to be an object of attention in Russia in 1824, when 1 pood 33 lbs. were collected. In 1836, the produce amounted to 138 poods 42 lbs. In 1831, a piece of native platina was discovered at Demidoff's gold mines, weighing 29 lbs. 2½ zolt. — (*Official Statements* published by the Russian Government.)

PLATTING, slips of bast, cane, straw, &c. woven or plaited for making into hats, &c. — (See Hats, Straw.)

PLUMS, the fruit of the *Prunus domestica*, are too well known to require any description. They were introduced into England in the 15th century, and are cultivated in all parts of the country. There are said to be nearly 300 varieties of plums.

PLUMBAGO. See Black Lead.

POMEGRANATE, POMEGRANATES (Ger. *Granatäpfel*; Fr. *Grenades*; It. *Granati, Melagrani*; Sp. *Granadas*), the fruit of the pomegranate tree (*Punica granatum*). This tree, which grows to the height of 15 or 20 feet, appears to be a native of Persia, whence it has been conveyed, on the one side, to Southern Europe, and on the other to the tropical parts of Asia, and eventually to the New World. The fruit is a pulpy, many-seeded berry, the size of an orange, covered with a thick, brown, coriaceous rind. The pulp has a reddish colour, and a pleasant subacid taste. The value of the fruit depends on the smallness of the seed and the largeness of the pulp. The finest, called by the Persians, *badana*, or seedless, is imported into India from Caubul and Candahar, where the pomegranate grows in perfection. The tree thrives all the way to the equator: but, within the tropics, the fruit is hardly fit for use. The pomegranates brought to England from the south of Europe and the West Indies are very inferior to those of Persia. — (*Private information.*)

POPLAR (Ger. *Pappel, Pappelhaum*; Du. *Popelier*; Fr. *Peuplier*; It. *Pioppa*;

Sp. *Alamo*; Lat. *Populus*). Of the poplar (*Populus* of botanists) there are about 15 species described; of these 5 are common in England; viz. the common or *White*, the *Black*, the *Aspen* or trembling poplar, the *Abele* or great white poplar, and the Lombardy poplar. In most favourable situations, the white poplar grows with great rapidity, sometimes sending forth shoots 16 feet long in a single season. The wood is soft, and not very durable unless kept dry; but it is light, not apt either to swell or shrink, and easily wrought. The Lombardy poplar grows rapidly, and shoots in a complete spire to a great height; its timber does not differ materially from that of the white poplar. It is very light; and is, therefore, well adapted for the manufacture of packing-cases. None of the species is fit for large timbers.—(*Tredgold's Principles of Carpentry; Veget. Sub., Lib. of Entert. Knowledge.*)

POPULATION. It would be quite inconsistent with the objects and limits of this work, to attempt giving in this place any explanation of the laws which regulate the progress of population. It may, indeed, be thought that the word has no business here. However, as it is frequently of importance in commercial questions, and in others affecting commercial interests, to be able to compare the consumption of an article with the population, we believe we shall gratify our readers by laying before them the following Tables, showing the results of the different censuses that have been taken of the population of Great Britain and Ireland, and showing also the increase in the population of the principal British cities.

I.—Table exhibiting the Population of Ireland in 1821, 1831, 1841, and 1851, according to the Censuses of these Years, and showing the Increase or Decrease per Cent. in the intervening Periods.

Counties, &c.	1821.	Increase or Decrease per Cent.	1831.	Increase or Decrease per Cent.	1841.	Increase or Decrease per Cent.	1851.
Leinster.							
Carlow	78,952	Inc. 3	81,988	Inc. 5	86,228	Dec. 21	68,059
Dublin County	150,011	22	176,912	Inc. 14	140,047	Inc. 4¾	146,731
Dublin City	185,881	9	204,155	1/4	232,726	11	258,351
Kildare	99,055	9	108,424	6	114,488	Dec. 16	95,168
Kilkenny County	158,716	6	169,945	7¼	183,349	23	138,775
Kilkenny City	23,230	2	23,741	Dec. 20	19,071	Inc. 4½	19,973
King's County	131,088	9	144,225	2	146,857	Dec. 23	112,080
Longford	107,570	4	112,558	2	115,491	28	82,350
Louth	101,011	7	107,481	4	111,979	18	90,812
Drogheda Town	18,118	Dec. 4	17,365	Dec. 4¼	16,261	Inc. 3½	16,845
Meath	159,183	Inc. 11	176,826	Inc. 4	183,828	Dec. 24	140,750
Queen's County	134,275	8	145,851	5	153,930	28	111,623
Westmeath	128,819	6	136,872	3	141,300	23	111,409
Wexford	170,806	7	182,713	11	202,033	10	180,159
Wicklow	110,767	10	121,557	3	126,143	21	98,978
Total	1,757,492	Inc. 9	1,909,713	Inc. 3	1,973,731	Dec. 15¼	1,672,591
Munster.							
Clare	208,089	24	258,322	11	286,394	Dec. 25	212,428
Cork County	629,786	12	703,716	9	773,398	23	595,326
Cork City	100,558	6	107,016	Dec. 25	80,720	Inc. 6	85,745
Kerry	216,185	22	265,126	Inc. 12	293,880	Dec. 19	238,239
Limerick County	218,432	6	248,801	15	281,638	28	203,688
Limerick City	59,045	12	66,554	Dec. 27½	48,291	Inc. 10	53,448
Tipperary	346,936	16	405,563	Inc. 8	435,553	Dec. 25	331,487
Waterford	127,842	15	148,233	11	172,971	21	136,754
Waterford City	28,679		28,821		23,216	Inc. 8½	25,297
Total	1,935,612	Inc. 15	2,227,152	Inc. 8	2,396,161	Dec. 22½	1,857,412
Ulster.							
Antrim	217,683	23	268,685	2¾	276,188	Dec. 9	251,381
Belfast	45,177	6¾	48,224	56	75,308	Inc. 33	100,300
Carrickfergus	8,023	8	8,706	8	9,379	Dec. 11	8,320
Armagh	197,427	11	220,134	6	232,593	15	196,085
Cavan	195,076	17	227,933	7	243,158	28	174,071
Donegal	248,270	16	289,149	3	296,448	14	255,160
Down	325,410	8	352,012	3	361,446	11	320,817
Fermanagh	130,997	14	149,763	4	156,481	25	116,007
Londonderry	195,869	15	225,012	1-20th	222,174	13	191,868
Monaghan	174,697	6	185,536	8	200,442	29	141,813
Tyrone	261,865	16	304,468	3	312,956	18	255,734
Total	1,998,494	Inc. 4	2,286,622	Inc. 4	2,386,373	Dec. 16	2,011,756
Connaught.							
Galway	309,599	27	381,564	Inc. 10¾	422,923	Dec. 29	298,136
Galway Town	27,775	19	33,120	Dec. 48½	17,275	Inc. 37	23,695
Leitrim	124,755	13	141,524	Inc. 9	155,297	Dec. 28	111,841
Mayo	225,112	25	366,328	6	388,887	29	274,612
Roscommon	208,729	19	249,613	1	253,591	31	173,417
Sligo	146,229	17	171,765	5	180,886	28	128,510
Total	1,110,229	Inc. 21	1,343,914	Inc. 5	1,418,859	Dec. 28½	1,010,211
SUMMARY.							
Provinces.							
Leinster	1,757,492	Inc. 9	1,909,713	Inc. 3	1,973,731	Dec. 15¼	1,672,591
Munster	1,935,612	15	2,227,152	8	2,396,161	22½	1,857,412
Ulster	1,998,494	14	2,286,622	4	2,386,373	16	2,011,756
Connaught	1,110,229	21	1,343,914	5	1,418,859	28½	1,010,211
Total	6,801,827	Inc. 14	7,767,401	Inc. 5	8,175,124	Dec. 20	6,551,970

Population of Great Britain, excl. Army and Navy, as determined by the Censuses of 1801, 1811, 1821, 1831, 1841, and 1851, showing its Amount in each of these Years in each County of England and Scotland, and in the Principality of Wales, with the Ratio of its Increase or Decrease, in the intervening Decennial Periods.

Counties.	1801.	Inc. per Cent.	1811.	Inc. per Cent.	1821.	Inc. per Cent.	1831.	Inc. per Cent.	1841.	Inc. or Dec. per Cent.	1851.
ENGLAND:—											
Bedford	63,393	11	70,213	20	84,052	14	95,483	13	107,936	16	124,478
Berks	110,480	7	119,430	11	132,639	10	146,234	10	161,759	5	170,065
Buckingham	108,159	9	118,065	14	135,153	9	146,977	6	156,439	5	163,723
Cambridge	89,346	13	101,109	21	122,387	18	143,955	14	164,459	13	185,405
Chester	192,305	18	227,031	19	270,098	24	334,391	18	395,660	15	455,725
Cornwall	192,281	14	220,525	18	261,045	15	301,306	14	342,159	4	355,558
Cumberland	117,230	14	133,665	17	156,124	8	169,262	5	178,038	10	195,492
Derby	161,567	14	185,187	15	213,651	11	237,170	15	272,202	9	296,084
Devon	340,508	12	382,773	15	438,417	13	493,908	7	532,959	6	567,098
Dorset	114,459	9	124,718	16	144,930	10	159,385	10	175,054	5	184,207
Durham	149,384	10	165,293	17	193,511	24	239,256	29	307,963	27	390,997
Essex	227,682	11	252,473	15	289,424	10	317,507	9	344,979	7	369,318
Gloucester	250,723	14	285,955	18	336,190	15	387,308	11	431,495	6	458,805
Hereford	88,436	6	93,526	10	102,669	8	110,617	2	113,272	2	115,489
Hertford	97,393	14	111,225	17	129,731	10	142,844	10	156,660	7	167,208
Huntingdon	37,566	12	42,206	16	48,946	9	53,192	10	58,549	10	64,183
Kent	308,667	20	371,701	15	427,224	12	479,558	12	549,353	11	615,766
Lancaster	673,486	22	828,499	27	1,052,948	27	1,336,854	24	1,667,054	22	2,031,236
Leicester	130,082	15	150,559	16	174,571	13	197,003	10	215,867	7	230,308
Lincoln	208,625	14	237,634	22	283,058	12	317,465	14	362,602	12	407,222
Middlesex	818,129	16	955,774	20	1,145,057	19	1,358,330	16	1,576,636	20	1,886,578
Monmouth	45,568	35	62,105	22	75,801	29	98,126	56	154,368	17	157,418
Norfolk	273,479	7	291,947	18	344,568	13	390,054	6	412,664	7	442,714
Northampton	131,523	7	141,255	15	163,097	10	179,356	11	199,228	7	212,380
Northumberland	168,078	19	183,269	15	212,589	11	236,959	12	266,020	14	303,568
Nottingham	140,350	16	162,964	15	186,873	21	225,327	11	249,910	8	270,427
Oxford	111,977	7	120,376	15	138,224	11	153,526	6	163,127	5	170,459
Rutland	16,300	Sta.	16,380	13	18,487	5	19,385	10	21,302	8	22,983
Salop	169,248	9	184,973	7	198,311	8	213,518	6	225,820	2	229,111
Somerset	273,577	10	302,356	17	355,789	13	403,795	8	435,599	2	443,916
Southampton	219,290	12	246,574	15	283,827	11	313,976	12	354,682	13	405,370
Stafford	242,693	21	294,940	17	345,972	18	409,489	24	509,472	20	608,716
Suffolk	214,404	9	233,965	16	271,541	9	296,317	6	315,073	7	337,215
Surrey	268,233	20	323,851	23	399,417	22	486,434	20	584,036	17	683,082
Sussex	159,471	19	190,343	23	233,528	17	272,644	10	300,075	15	336,841
Warwick	206,798	10	228,906	20	274,482	23	336,645	19	401,703	19	475,015
Westmoreland	40,805	12	45,922	12	51,359	7	55,041	3	56,454	3	58,287
Wilts	183,820	4	191,853	14	219,574	8	237,244	8	256,280	Dec. 1	254,221
Worcester	146,441	15	168,982	15	194,074	15	222,655	12	248,460	Inc. 12	276,926
York, East Riding	111,192	20	133,975	15	154,643	9	168,891	15	194,936	12	220,983
City	16,846	13	19,099	14	21,711	21	26,260	10	28,812	26	36,303
North Riding	158,927	7	170,127	11	188,178	2	192,206	6	204,701	5	215,214
West Riding	572,168	16	662,875	22	809,363	22	984,609	18	1,163,580	14	1,325,195
Total of England	8,350,859	14	9,553,021	18	11,281,885	16	13,090,523	14	14,997,427	13	16,921,888
WALES	541,677	13	611,235	18	718,355	12	806,274	13	911,705	10	1,005,721
Totals of England and Wales	8,892,536	14	10,164,256	18	12,000,236	16	13,896,797	14	15,914,148	13	17,927,609
SCOTLAND:—											
Aberdeen	121,065	10	133,871	16	155,049	15	177,657	8	192,387	10	212,032
Argyll	81,277	6	86,541	12	97,316	4	100,973	Dec. 4	97,371	Dec. 9	89,298
Ayr	84,907	23	103,839	23	127,299	14	145,055	Inc. 13	164,356	Inc. 15	189,858
Banff	37,216	5	38,435	14	43,665	11	48,337	5	49,679	9	54,171
Berwick	30,206	2	30,893	3	33,585	2	34,048	1	34,438	5	36,297
Bute	11,791	2	12,033	15	13,797	3	14,151	11	15,740	5	16,608
Caithness	22,609	4	23,419	25	29,181	18	34,529	5	36,343	6	38,709
Clackmannan	10,858	10	12,010	10	13,263	11	14,729	30	19,155	20	22,951
Dumbarton	20,710	16	24,189	15	27,817	22	33,211	33	44,296	1	45,103
Dumfries	54,597	15	62,960	15	70,878	4	73,770	Dec. 1	72,830	7	78,123
Edinburgh	122,597	21	148,607	29	191,514	15	219,345	Inc. 2	225,254	15	259,435
Elgin or Moray	27,760	1	27,967	12	31,398	10	34,498	1	34,912	11	38,959
Fife	93,745	8	101,272	13	114,556	12	128,859	9	140,140	10	153,546
Forfar	99,053	8	107,187	6	113,355	23	139,606	22	170,453	12	191,261
Haddington	29,986	3	31,050	13	35,127	3	36,145	Dec. 1	35,886	1	36,386
Inverness	72,672	7	77,671	16	89,961	5	94,797	Inc. 3	97,799	Dec. 2	96,500
Kincardine	26,349	4	27,439	6	29,118	8	31,431	5	33,075	Inc. 5	34,599
Kinross	6,725	8	7,245	7	7,762	17	9,072	Dec.	8,763	2	8,924
Kirkcudbright	29,211	15	33,681	15	38,803	4	40,590	Inc. 1	41,119	5	43,121
Lanark	147,692	29	191,291	28	244,587	30	316,819	34	426,972	24	530,169
Linlithgow	17,841	9	19,451	17	22,685	3	23,291	15	26,872	12	30,135
Nairn	8,322	2	8,496	9	9,268	1	9,354	Dec. 1	9,217	8	9,956
Orkney and Shetland	46,824	Dec. 1	46,153	15	53,124	10	58,239	Inc. 5	61,065	2	62,533
Peebles	8,735	In. 13	9,935	1	10,046	5	10,578	Dec. 1	10,499	2	10,758
Perth	125,583	7	134,390	5	138,247	3	142,166	Dec. 3	137,457	1	138,660
Renfrew	78,501	18	93,172	20	111,175	19	133,445	Inc. 16	155,072	4	161,091
Ross and Cromarty	56,318	8	60,833	13	68,762	9	74,820	5	78,685	5	82,707
Roxburgh	33,721	10	37,230	10	40,892	7	43,663	5	46,025	12	51,642
Selkirk	5,388	9	5,889	13	6,637	3	6,833	17	7,990	23	9,809
Stirling	50,825	14	58,174	12	65,376	11	72,621	13	82,057	5	86,237
Sutherland	23,117	2	23,629	1	23,840	7	25,518	Dec. 3	24,782	4	25,793
Wigtown	22,918	17	26,891	21	33,240	6	36,258	Inc. 8	39,195	11	43,589
Total of Scotland	1,608,420	12	1,805,864	16	2,091,521	13	2,364,386	11	2,620,184	10	2,888,742

Summary of Great Britain and Ireland, including Army and Navy.

	1801.	Inc. per Cent.	1811.	Inc. per Cent.	1821.	Inc. per Cent.	1831.	Inc. per Cent.	1841.	Inc. per Cent.	1851.
England	8,350,859	14½	9,553,02	17½	11,281,883	16	13,090,523	14·5	14,997,427	12·8	16,921,888
Wales	541,677	13	611,235	17	718,355	12	806,274	13·0	911,705	10·3	1,005,721
Scotland	1,608,420	14	1,805,864	16	2,091,521	13	2,364,386	10·7	2,620,184	10·2	2,888,742
Army, Navy, &c.	470,598	-	640,500	-	319,306	-	277,617	-	195,469	-	210,474
Islands in British Seas	-	-	-	-	89,508	15·8	103,710	19·6	124,040	15·3	143,126
Total	10,971,554	15·1	12,610,620	14·2	14,500,565	14·9	16,552,410	13·2	18,846,825	12·3	21,169,951
Ireland	-	-	-	-	6,801,827	14½	7,767,401	5·2	8,175,124	Dec. 18½	6,551,970
Total Pop. of U.K.	-	-	-	-	21,302,392	15·1	24,319,811	10·6	27,021,949	Inc. 3·9	27,721,921

An Account of the Population of the Principal Cities and Towns of the United Kingdom, in 1801 1811, 1821, 1831, 1841, and 1851.

N.B.—The same limits have been preserved throughout, or as near as was practicable.

Cities or Towns.	1801.	1811.	1821.	1831.	1841.	1851.
ENGLAND—						
London	958,863	1,138,815	1,378,947	1,654,994	1,948,417	2,362,236
Manchester and Salford	94,876	115,874	165,635	237,832	311,009	401,321
Liverpool	82,295	104,104	138,554	201,751	286,487	375,955
Birmingham	70,670	82,753	101,722	143,986	182,922	232,841
Leeds	53,162	62,534	83,796	123,393	152,074	172,270
Bristol	61,153	71,433	85,108	104,408	125,146	137,328
Sheffield	45,755	55,231	65,275	91,692	111,091	135,310
Wolverhampton	30,584	43,190	53,011	67,514	93,245	119,748
Bradford	13,264	16,012	26,307	43,527	66,715	103,778
Plymouth and Devonport	39,787	50,886	55,169	65,963	70,340	90,401
Newcastle-upon-Tyne	33,048	32,573	41,794	53,613	70,337	87,784
Hull	29,580	37,005	44,520	43,510	67,308	84,690
Stoke-upon-Trent	23,278	31,557	40,237	51,589	68,444	84,027
Oldham	21,677	29,479	38,201	50,513	60,451	72,357
Portsmouth	33,226	41,587	46,745	50,569	53,032	72,096
Brighton	7,440	12,205	24,741	41,994	49,170	69,673
Preston	12,174	17,360	24,859	33,871	50,887	69,542
Norwich	36,238	36,748	49,705	60,505	61,846	68,195
Sunderland	24,998	25,821	31,891	40,755	53,335	67,594
Merthyr Tydvil	10,127	14,945	20,959	27,281	43,031	63,080
Bolton	17,966	24,799	32,045	42,245	51,029	61,171
Leicester	17,005	23,453	31,036	40,639	50,906	60,584
Nottingham	28,861	34,253	40,415	50,680	53,091	57,407
Bath	33,196	38,408	46,700	50,800	53,196	54,240
Stockport	14,830	17,545	21,726	25,469	50,154	53,835
Blackburn	11,980	15,083	21,940	27,091	36,629	46,536
Exeter	17,412	18,896	23,479	28,242	37,231	40,688
Derby	10,852	13,043	17,423	23,627	32,741	40,609
Macclesfield	13,255	17,143	23,164	30,911	32,629	39,094
Dudley	10,107	13,925	18,211	23,430	31,232	37,062
Coventry	16,034	17,923	21,448	27,298	31,032	36,812
York	16,846	19,099	21,711	26,260	28,842	36,303
Southampton	7,913	9,617	13,353	19,324	27,744	35,305
Cheltenham	3,076	8,325	13,396	22,942	31,411	35,051
Halifax	12,010	12,766	17,056	21,552	27,520	33,582
Ipswich	11,277	13,670	17,186	20,201	32,384	32,914
Wigan	10,989	14,060	17,716	20,774	25,517	31,941
Swansea	10,117	11,963	14,896	19,672	24,604	31,461
Bury	9,152	11,302	13,480	19,140	24,846	31,262
Huddersfield	7,268	9,671	13,284	19,035	25,068	30,880
Yarmouth	16,573	20,448	21,007	24,535	27,865	30,879
Ashton-under-Lyne	5,727	7,037	9,229	12,441	22,678	29,791
Rochdale	8,040	10,392	12,998	18,551	24,272	29,195
Tynemouth	13,171	17,548	23,173	23,206	25,416	29,170
South Shields	11,011	15,165	16,503	18,756	23,072	28,974
Chatham	12,940	15,787	19,177	21,124	24,269	28,424
Oxford	11,694	12,931	16,364	20,649	24,258	27,943
Cambridge	10,087	11,108	14,142	20,917	24,453	27,815
Chester	15,052	16,140	19,949	21,344	23,866	27,666
Worcester	11,400	13,814	17,023	18,610	27,004	27,528
Northampton	7,020	8,427	10,793	15,351	21,242	26,657
Carlisle	9,415	11,476	14,416	18,865	21,550	26,310
Walsall	10,399	11,189	11,914	15,066	19,857	25,680
Gateshead	8,597	8,782	11,767	15,177	20,123	25,568
Birkenhead	110	105	200	2,569	8,223	24,285
Dover	7,084	9,074	10,527	11,922	17,795	24,244
Warrington	11,321	12,682	14,822	18,184	21,116	23,363
Wakefield	10,581	11,393	14,164	15,932	18,842	22,057
Reading	9,742	10,788	12,867	15,595	18,937	21,456
Burnley	3,918	5,405	8,242	10,026	14,224	20,828
Maidstone	8,027	9,443	12,508	15,790	18,086	20,801
Stalybridge	-	-	-	-	-	20,760
Gloucester	7,579	8,280	9,744	11,933	14,152	17,572
Lincoln	8,676	10,217	11,776	13,203	16,172	17,556
Boston	-	-	-	-	14,618	17,518
Hastings	-	-	-	-	11,614	17,011
Gravesend	-	-	-	-	-	16,633
Lancaster	-	-	-	-	14,589	16,168
Leamington	-	-	-	-	-	15,692
Shrewsbury	-	-	-	-	17,688	19,681
Colchester	11,520	12,544	14,016	16,167	17,532	19,443
King's Lynn	10,096	10,259	12,253	13,370	15,751	19,555
Kidderminster	6,110	8,038	10,709	14,981	15,427	18,462
Canterbury	9,000	10,200	12,799	15,579	15,492	18,398
Cardiff	-	-	-	-	9,714	18,351
Whitehaven	-	-	-	-	15,841	18,916
SCOTLAND—						
Edinburgh	66,544	81,784	112,235	136,301	133,182	160,302
Glasgow	83,769	110,460	147,043	202,426	280,682	347,001
Aberdeen	-	25,370	44,796	58,019	61,923	71,973
Dundee	-	29,616	30,575	45,355	62,873	78,931
Paisley	26,084	-	-	-	47,695	47,952
Greenock	17,458	19,042	22,088	27,571	35,645	36,689
Perth	14,378	-	-	-	20,167	23,835
IRELAND—						
Dublin	-	-	185,881	204,155	232,726	258,361
Cork	-	-	-	-	80,720	85,745
Belfast	-	-	45,177	48,224	75,308	100,300
Limerick	-	-	-	-	48,391	53,448
Waterford	-	-	-	-	23,216	25,297
Kilkenny	-	-	-	-	19,071	19,973
Drogheda	-	-	-	-	16,261	16,845
Galway	-	-	-	-	17,275	23,695

PORCELAIN, or CHINA WARE, a very fine species of earthenware. The first specimens of this fabric were brought to Europe from China and Japan. The best Chinese porcelain is of a very fine texture, white, semi-transparent, and sometimes

beautifully coloured and gilt; is infusible, and not subject to break by the sudden application of heat or cold. The Chinese term for the article is *tse-ki*. But the Portuguese, by whom it was first brought in considerable quantities into Europe, bestowed on it the name of porcelain, from *porcella*, a cup.

Common earthenware, sometimes of a very good quality, is manufactured in Canton, Fokien, and several other provinces of China. But it is a curious fact, that the beautiful porcelain imported into Europe is made only in the town of Kingtesing, in the province of Kyangsi. Its manufacture is fully described by Duhalde, in his account of China, under the head "Porcelain and China ware." The porcelain of Japan is decidedly inferior to that of China; very little is imported, and it is valued only as a curiosity.

After porcelain began to be imported, its beauty soon brought it into great request, notwithstanding its high price, as an ornament for the houses and tables of the rich and the great. The emulation of European artists was in consequence excited. Very little information was, however, obtained as to the mode of manufacturing porcelain till the early part of last century, when the process was developed in a letter from a French Jesuit in China, who had found means to make himself pretty well acquainted with the subject. The knowledge that thus transpired, and the investigations of Reaumur and other chemists, prepared the way for the establishment of the manufacture in Europe. It was first commenced at Dresden, which has been famous ever since for the beauty of its productions; but the finest and most magnificent specimens of European china have been produced at Sèvres, in France, in the factory carried on at the expense of the French government.

British Porcelain Manufacture.— This, though unable to boast of such fine specimens of costly workmanship as have been produced at Sèvres and Dresden, is of much greater national importance. Instead of exclusively applying themselves to the manufacture of articles fitted only for the consumption of the rich, the artists of England have exerted themselves in preference to produce China ware suitable for the middle classes; and have succeeded in producing articles at once excellent in quality, elegant in form, and cheap. We are principally indebted for the improvements made in this important manufacture to the genius and enterprise of the late Mr. Josiah Wedgwood. This extraordinary man owed none of his success to fortuitous circumstances. Devoting his mind to patient investigation, and sparing neither pains nor expense in accomplishing his aims, he gathered round him artists of talent from different countries, and drew upon the stores of science for aid in pursuing the objects of his praiseworthy ambition. The early and signal prosperity that attended his efforts served only as an incentive to urge him forward to new exertions, and as means for calling forth and encouraging talent in others, in a manner calculated to promote the welfare of his country. Previously to his time, the potteries of Staffordshire produced only inferior fabrics, flimsy as to their materials, and void of taste in their forms and ornaments; the best among them being only wretched imitations of the grotesque and unmeaning scenes and figures portrayed on the porcelain of China. But such have been the effects resulting from the exertions and example of this one individual, that the wares of that district are now not only brought into general use in this country, to the exclusion of all foreign goods, which had been largely imported, but English pottery has since been sought for and celebrated throughout the civilised world, and adopted even in places where the art was previously practised. An intelligent foreigner, M. Faujas de St. Fond, writing on this subject, says, — "Its excellent workmanship, its solidity, the advantage which it possesses of sustaining the action of fire, its fine glaze impenetrable to acids, the beauty and convenience of its form, and the cheapness of its price, have given rise to a commerce so active and so universal, that, in travelling from Paris to Petersburg, from Amsterdam to the farthest part of Sweden, and from Dunkirk to the extremity of the south of France, one is served at every inn upon English ware. Spain, Portugal, and Italy are supplied with it; and vessels are loaded with it for both the Indies and the continent of America." — See the quotation in the *Account of the Porcelain Manufacture*, p. 16., in *Lardner's Cyclopædia*; for the statistical details with respect to the manufacture, see the article EARTHENWARE, in this work.)

The British porcelain manufacture is principally carried on at the potteries in Staffordshire, and at Worcester, Derby, Colebrook Dale, and other places.

Murrhine Cups.—It was long a prevalent opinion among modern critics, that the *vasa murrhina*, so famous in Roman history, were formed of porcelain. Pompey was the first who brought them to Rome from the East, about 64 years before the Christian æra. They were used as drinking cups, and fetched enormous prices; Nero having given, according to the common method of interpreting, 58,000*l.* for a single cup! The extravagance of the purchaser may, in this instance, be supposed to have increased the price; so that the degree of estimation in which these cups were held may be more accurately inferred from the fact, that, of all the rich spoils of Alexandria, Augustus was content to select one for his share.—(*Sueton.* lib. ii. c. 71.) Pliny (lib. xxxvii. c. 2.) says they were made in Persia, particularly in Karamania. But those who contend they were China ware chiefly found on the following line of Propertius: —

Murrheaque in Parthis pocula COCTA FOCIS.—(Lib. iv. Eleg. 5. lin. 26.)

In despite, however, of this apparently decisive authority, Le Blond and Larcher have, in two very learned dissertations (*Mémoires de l'Academie des Inscriptions*, tom. xliii.), which Robertson has declared are quite satisfactory, endeavoured to prove that the *vasa murrhina* were formed of transparent stone, dug out of the earth in some Eastern provinces, and that they were imitated in vessels of coloured glass.—(*Robertson's Disquisition on India*, note 39.) Dr. Vincent (*Commerce and Navigation of the Ancients*, vol. ii. p. 723.) inclines to the opposite opinion; but the weight of authority is evidently on the other side. At all events, it is plain that if the murrhine cups were really porcelain, it had been exceedingly scarce at Rome, as their price would otherwise have been comparatively moderate. But it is most probable that the ancients were wholly unacquainted with this article; which, indeed, was but little known in Europe till after the discovery of the route to India by the Cape of Good Hope.—(For some further details on this question, see *Kippingii Antiq. Rom.* lib. iv. c. 3.)

PORK, BACON, and HAMS consist, the first of the fresh or uncured flesh of the hog, the second of the sides and belly when cured or salted, and the third of the hind legs when cured.

These form important articles of food in this quarter of the world and in America. But they are rejected by many nations, and among others by the Jews and Moham-

medans, partly from superstitious motives, but in part, also, from sanitary considerations.—(See the profound work of *Michaelis on the Laws of Moses*, iii. 230. *Eng. Trans.*)

Previously to 1842, the duty on bacon and hams being 28*s.* a cwt. was in effect prohibitory of the former, and little or none was imported. It was then, however, reduced to 14*s.* a cwt. In 1846, the duty on bacon was entirely repealed, and that on hams reduced to 7*s.* a cwt.; the latter being, also, repealed in 1853. There has been, in consequence of the abolition of the duty, a great increase in the demand for foreign bacon. The imports in 1852, which amounted to 13,952 cwts., having increased, in 1857, to 346,083 cwts.; the exports of foreign bacon in the same year being only 23,368 cwts. The imports of hams are much less considerable. We subjoin

An Account of the Quantities of Bacon, Hams, and Pork imported into the U. Kingdom during the Year 1857, specifying the Countries whence they were brought, and the Quantities brought from each.

Countries whence imported.		Bacon.	Hams.	Pork.
Denmark	cwts.	2,212	-	4,036
Hanse Towns	„	52,761	4,524	41,639
France	„	-	-	14,699
United States	„	290,718	15,880	23,486
Other parts	„	392	2,447	4,872
Total	„	346,085	20,851	88,732

PORT. See WINE.

PORT-AU-PRINCE, the capital of Hayti, or St. Domingo, in lat. 18° 33′ 42″ N., lon. 72° 27′ 11″ W. Population variously estimated, probably from 15,000 to 18,000. It is situated on the west coast of the island, at the bottom of a large and deep gulph. It was founded in 1749; since which, with few intervals, it has been the capital of French St. Domingo. It is partially fortified; the harbour being protected by a battery on a small island at a little distance from the shore. The country round is low and marshy; and the heat in the summer months being excessive, the climate is then exceedingly unhealthy. The buildings are principally of wood, and seldom exceed 2 stories in height.

Harbour.—The entrance to the harbour is between White Island and the southern shore. The depth of water varies from about 18 feet at ebb to about 21 do. at full tide. It is customary, but not compulsory, to employ a pilot in entering the harbour. They are always on the look-out. Ships moor head and stern, at from 100 to 500 yards from shore; loading and unloading by means of boats, as there are neither docks nor quays to assist these operations. The harbour is perfectly safe, except during hurricanes, which may be expected from August to November.

Hayti is, next to Cuba, the largest of the West India islands. It was discovered by Columbus, on the 5th of December, 1492. Its greatest length may be about 400 miles, and its greatest breadth 155. Its superficies is estimated at about 29,500 square miles. Three principal chains of mountains (from which emanate smaller mountain arms) run from the central group of Cibao. The whole of these are described as fertile and susceptible of cultivation, even to their summits; affording great variety of climate, which, contrary to what is the fact in the plains, is remarkably healthy. The soil of the plains is, in general, a very rich vegetable mould, exceedingly fertile, and well watered. There are several large rivers, and an immense number of smaller streams, some tributary and others independent. The ports are numerous and good. The harbour of Cape St. Nicholas, the fortifications of which are now in ruins, is one of the finest in the West Indies; being inferior only to the Havannah. Timber of the finest description is most abundant; and mines of gold, silver, copper, tin, iron, and rock salt, besides other natural productions, are said not to be wanting. The French were therefore fully justified in designating this magnificent island, *La Reine des Antilles*. The principal towns, besides Port-au-Prince, are Cap Haïtien, formerly Cap François, on the north coast, St. Domingo on the south, Les Cayes, and Jacmel.

Previously to the revolt of the blacks, Hayti was divided in unequal portions between the French and Spaniards; the former possessing the west, and the latter the eastern and larger portion of the island. The revolution began in 1789; and terminated, after the most dreadful massacres, and the destruction of a vast deal of property, in the total abolition of slavery, and the establishment of an independent black republic. The Spanish part of the island and the French, after being consolidated in 1820, were again separated in 1844. Since which time, the former has been, speaking generally, a mock empire, and the latter a mock republic. But in both disorder and revolution have been recurring at short intervals.

Population.—In 1789, the French part of Hayti was by far the most valuable and flourishing colony in the West Indies. The population was estimated at 524,000; of which 31,000 were white, 27,500 people of colour, and 465,500 slaves. The Spanish part of the island was much less densely peopled; the number in 1785 being estimated at 152,640; of which 122,640 were free people of all colours, mostly mulattoes, and the rest slaves. The population of the entire island, in 1827, was estimated by Humboldt at 820,000, of whom 30,000 were whites: but there are good grounds for thinking that that estimate was exaggerated, and that the present population does not exceed 700,000 or 750,000.

Exports.— There has been an extraordinary falling off in the trade of Hayti since the revolution. The exports of sugar, for example, which amounted to above 141,000,000 lbs. in 1789, have wholly disappeared. The cultivation of the cane has not, however, been entirely relinquished; but its produce is now wholly converted into tafia, an inferior description of rum, of which the blacks are excessively fond. The produce of coffee has, also, fallen off; and its export, which may amount to about 60,000,000 lbs., is in great part derived from the old coffee plantations of the French, which are now almost wild. The remaining articles of export consist principally of mahogany, logwood, and other dye and fancy woods, which merely require to be cut down; with small quantities of cotton, cacao, tortoiseshell, honey, wax, &c. But so inconsiderable is their amount, that the entire value of the exports is not supposed to exceed 30,000,000 fr. or 1,200,000*l.*, not certainly 1-10th part of what it would amount to were the island occupied by a reasonably intelligent and industrious population. The greater part of its foreign trade is with the U. States: that with France and England is nearly equal. In 1857, the value of our exports to Hayti amounted to only 269,000*l.*, principally consisting of cottons (154,909*l.*) and linens. It is an instructive fact that it took from us no machinery, and only 2,511*l.* worth of iron!

Besides its imports from England, it imports flour, rice, mess and cargo beef, fish, &c., and timber, from the U. States; wines, satins, liqueurs, jewellery, toys, haberdashery, &c. from France; and linens, canvas, gin, &c. from Holland and Germany; but the amounts of the latter are inconsiderable.

The greater part of this extraordinary falling off is to be accounted for by the change in the condition of the inhabitants. The blacks, being no longer compelled to labour, and regarding with abhorrence the culture of sugar and the other occupations in which they had been principally engaged, sunk into a state of idleness and apathy. The condition of all the great branches of industry that were formerly carried on became, in consequence, most deplorable, and the commerce of the island was reduced within the narrowest limits. Its successive rulers have endeavoured, though with little success, to bring about a revival of industry. The *Code Rural*, enacted for this purpose by Boyer in 1826, was exceedingly stringent, its principal provisions being in fact copied from the regulations as to slaves embodied in the *Code Noir*. But even this code had little influence; and as a proof of the low state of industry in the island, it is enough to refer to the previous statements. And this result is, after all, only what should have been anticipated. To expect that half-civilised Africans, under a burning sun, and without the wants or desires of Europeans, should be equally industrious, is to expect what is contradictory, and all but absurd.

Port-Charges.—The charges on a native and foreign ship of 300 tons are the same, and as follows: —

	Dollars.
Tonnage duty	300
Administrator	12
Commandante de place	12
Commissaire de guerre	12
Commandante de port	12
Director of customs	12
Interpreter	12
Treasurer	12
Doctor	12
Stamps for entry and clearing	16 50
Fountain tax	20
Pilotage	2
Total, currency	434 50

Custom-house Regulations. — On arrival, the master of the vessel proceeds to the Custom-house with the interpreter, where he makes his declaration whether he discharges his cargo in the port. If he discharge, his invoices are translated, and the goods verified in the presence of the consignee, who is allowed to land and store them. On clearing outwards, the merchant pays the duties on the cargoes both ways, and exhibits a receipt at the office of the commissaire de guerre, commandante de place, and commandante de port, who sign a certificate that the vessel may depart.

Warehousing.—The warehousing and bonding system is established by law, but there are at present no buildings appropriated to the reception of bonded goods. Until very recently, goods were permitted to be bonded under this law in the merchants' stores; a late order has, however, suspended that indulgence. The rate is 1 per cent. per year, and no allowance made for waste or loss. Goods exported in the same vessel they arrive in, pay, if landed, ½ per cent. and wharfage fees.

Money.—The weight of the dollar is 216 grains; the ½ and ¼ dollar being in proportion. But nearly ⅛ the weight of the coin consists of tin or other alloy; so that the value of the dollar does not exceed 1*s.* 6*d.* sterling.

Weights in Hayti are divided as in avoirdupois and apothecaries' weight; but they are about 8 per cent. heavier than British weights.

Measures.— Same as those used in France.

Regulations as to Trade.—It is enacted, that all persons exercising any trade or profession, excepting that of cultivating the soil, must be provided with a patent or licence to carry on such trade or profession; that all strangers admitted as merchants into the republic, must, in the first place, procure the permission of the president to take out a patent, which, when obtained, only authorises them, under heavy penalties, to carry on a wholesale business, not with each other but with the Haytians, in the open ports, which are Port-au-Prince, Gonaives, Cap Haitien, Port-à-Plate, Santo Domingo, Jacmel, Les Cayes, and Jérémie. The minimum quantities of goods that may be sold are fixed by the same law. The Haytian consignee may be also a retailer, on taking out a corresponding patent.

A charge of 2,000 dollars is made for each patent to a foreigner trading to Port-au-Prince; 1,800 for Les Cayes, Cap Haitien, and Jacmel; and 1,600 for each of the remaining ports.

Duties.—The duties on all imported commodities consigned to foreign merchants are 17½ per cent. on an established tariff, whether they be brought in native or foreign ships, with the exception of those from the United States, which pay an additional 10 per cent. on the amount of the duties. Goods consigned to native merchants pay only 16½ per cent.

The coasting trade is entirely confined to Haytian citizens.

The commerce of Port-au-Prince is carried on by various classes of persons. The imports from Europe and America are principally consigned to European and North American commission houses, besides a few Haytian establishments.

We have derived these details with respect to Hayti partly from the published *Notes* of Charles Mackenzie, Esq., late consul in that island; and partly from consular and other returns.

PORT LOUIS, OR NORTHWEST PORT, the capital of the Mauritius, at the bottom of a triangular bay, the entrance to which is rather difficult, in lat. 20° 9′ 56″ S., lon. 57° 28′ 41″ E. Every vessel approaching the harbour must hoist her flag and fire 2 guns; if in the night, a light must be shown; when a pilot comes on board, and steers the ship to the entrance of the port. Though not very extensive, the anchorage in Port Louis is generally quite safe; and the dangers to which ships in it were sometimes exposed during the hurricane season have been in great measure obviated by the formation of docks. It used to be reckoned a convenient port for the careening and repair of vessels. But, owing to the greatly increased magnitude of the ships and steamers which now navigate the Indian seas, increased means of accommodation in this

respect became highly desirable; and these, we are glad to say, will speedily be supplied by the formation of a dry dock capable of admitting the largest ships, which is (1859) being constructed. The houses are low, and principally built of wood. The town and harbour are pretty strongly fortified. Almost all the foreign trade of the island is carried on here.

The Mauritius was so called by the Dutch in honour of Prince Maurice; but it was first settled by the French in 1720; and is indebted for most part of its prosperity to the skilful management of its governor, the famous M. de la Bourdonnais. It was taken by the English in 1810, and was definitively ceded to us in 1814.

Exports and Imports, &c.—Mauritius is pretty fertile, a considerable part of the surface being, however, occupied by mountains. Its shape is circular, being about 150 miles in circumference. The climate is healthy, but subject to hurricanes. The principal product is sugar, which is now cultivated to the almost total neglect of everything else, and the island may, indeed, be said to have become an immense sugar-factory. But it also produces excellent coffee, indigo, and cotton. The blackwood or ebony of the Mauritius is very abundant, and of superior quality. Very little corn or grain of any kind is raised; most articles of provision being imported. Previously to 1825, the sugar and other articles brought to Great Britain from the Mauritius were charged with the same duties as the like articles from India: but in the above-mentioned year this distinction was done away, and it was enacted (6 Geo. 4. c. 111. s. 44.), that all goods of the Mauritius should, on being imported into the U. Kingdom, be subject to the same duties and regulations as the like goods from the British West Indies; and that the trade with the Mauritius should be placed as nearly as possible on the same footing as that of the West India islands.

This was a great boon to the Mauritius, but it is not to it that the increase of its sugar cultivation is to be ascribed. The emancipation of the slaves was as injurious to the planters here as to those in the West Indies; but owing to its more convenient situation, vast numbers of Hill-coolies and other labourers from India, and some, also, from Madagascar, have been introduced into the Mauritius, and it is to the supply of labour that has thus been obtained that the prosperity of the island is wholly owing. All the best insular authorities admit that but for the immigration it would have retrograded; the emancipated negroes would not have engaged in any sort of severe labour; and it is in part by the example of the immigrants, but more through necessity, that the blacks have been stimulated to exert themselves. The number of Indian immigrants has been as follows, viz.: —

Number of immigrants at the end of 1857:—			
Males			107,072
Females			35,462
			142,534
Introduced in 1858:			
Men	18,435		
Women	6,963		
Children	3,720		
		29,118	

Number in January 1859:—			
Men	6,257		
Women	1,034		
Children	869		
		8,160	
			20,958
Total immigrants in January, 1859			163,492

The following Table, showing the Number and Tonnage of the Vessels which entered Port Louis in 1857, and the Countries whence they came, sets in a striking point of view the extended relations of the Colony:—

	Countries whence arrived.	British.			Foreign.			Total.		
		Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.	Vessels.	Tons.	Crews.
	United Kingdom	78	39,220	1,693	3	1,097	45	81	40,317	1,738
Europe, British Possessions.	Ascension	1	332	12	1	275	12	2	607	24
	Australasia	47	11,806	534	15	4,511	182	62	16,317	716
	Cape of Good Hope	72	18,488	805	4	1,738	55	76	20,226	860
	Ceylon	4	1,450	60				4	1,450	60
	Continental India	126	76,917	4,527	48	19,597	881	174	96,514	5,408
	Dependencies of Mauritius	4	278	34				4	278	34
	Gibraltar	2	959	42				2	959	42
	Nova Scotia	1	209	12				1	209	12
	St. Helena	2	695	28				2	695	28
	Singapore	9	2,884	145	3	912	45	12	3,796	188
Europe.	France	2	883	35	74	29,235	1,205	76	30,118	1,238
	Hanseatic Towns				1	253	12	1	253	12
	Portugal	1	245	10				1	245	10
	Spain	2	841	29				2	841	29
	Sweden				4	1,152	45	4	1,152	45
Africa.	Brava	1	181	16				1	181	16
	Ichaboe	7	1,528	68				7	1,528	68
	Johanna				1	132	10	1	132	10
	Madagascar	71	13,958	1,492	5	1,509	174	76	15,467	1,666
	Reunion Island	5	1,605	248	53	10,967	732	58	12,572	980
Asia.	Bussorah	2	681	24				2	681	24
	Java				4	1,979	75	4	1,979	75
	Lombock	3	534	43	2	211	28	5	745	71
	Mahé				1	253	15	1	253	15
	Muscat	4	727	93	6	1,479	121	10	2,206	214
	Pondicherry	1	197	12	5	1,634	74	6	1,831	86
	Rangoon	1	558	19				1	558	19
	Rotteé				1	253	12	1	253	12
	Timor	1	108	9				1	108	9
	Sumatra				3	1,720	56	3	1,720	56
America.	United States				7	3,912	115	7	3,912	115
	Brazil	9	3,632	154	1	234	10	10	3,866	144
	St. Pierre N. F. L.				3	1,045	45	3	1,045	45
	States of the Rio de la Plata	12	3,362	154	14	5,257	212	26	8,599	346
The Fisheries					1	421	31	1	421	31
		468	182,278	10,256	260	89,716	4,186	728	271,994	14,442

The imports of sugar into the U. Kingdom from the Mauritius have increased from 516,076 cwt. in 1840, to 1,184,343 cwt. in 1857. But this statement does not give a fair view of the real increase of production, inasmuch as a far greater quantity of sugar is now sent to France, the Cape of Good Hope, and Australia, than formerly. Thus, of the total shipments from the island in the season up to the 9th February, 1859, amounting to 177,613,000 lbs., only 107,409,000 lbs. were for the U. Kingdom, 26,563,000 lbs. being for France, 877,000 lbs. for the Cape of Good Hope, and the residue for Australia. The entire exports amounted in 1855 to 126,000 tons, and in 1858 to 118,000 tons; but, owing to the increase of price, the smaller produce brought more money than the greater. With the exception of rum, molasses, and ebony, the other exports are too trifling to deserve notice.

The principal imports consist of provisions, particularly grain and flour; the supply required for the use of the island being almost entirely derived from the Cape of Good Hope, Madagascar, India, Reunion, &c. Cotton stuffs; iron, hardware and cutlery; machinery, copper, linens, wine, coals, &c., are also largely imported. Guano has of late years been extensively imported, and has been found to be of the greatest service in the raising of sugar. The total declared value of the exports from the U. Kingdom to the Mauritius in 1857 amounted to 663,554*l.*

In 1856 the population of the Mauritius amounted, inc. military and seamen, to 261,651 souls; of whom between 10,000 and 12,000 were whites. The population of the Seychelles—small islands dependent on the Mauritius—amount to about 8,000.

Monies, Weights, and Measures.—According to the regulations of government, the franc is deemed equal to 10*d.*, and the Spanish dollar to 4*s.* 4*d.* The government accounts are kept in sterling money; but merchants, shopkeepers, &c. keep their accounts in dollars and cents, and dollars, livres, and sous.

The measures and weights are those of France previously to the Revolution. 100 lbs. French=108 lbs. English; the French foot is to the English foot as 100 to 93·89, but in practice they are supposed to be as 16 to 15. The velte=1 gallon 7·8 pints English; but in commercial transactions it is always taken at 2 gallons.

Duties, &c.—A new system of customs duties was introduced in 1854. Spirits are now charged with a duty of 6*s.* a gall.; ale, beer, and porter 9*d.* per 12 bottles, or 15*s.* per hhd.; silk manufactures, jewellery, plate, woollen and leather manufactures, hardware and cutlery, glass, and all other goods not enumerated, and not especially exempted from duty, 6 per cent. *ad valorem*. The exemptions comprise bread and biscuit, corn and grain unground, flour, provisions, machinery, books, animals, &c., &c.

A duty of 4½*d.* per 100 lbs., charged on all sugar when exported, was reduced in 1853 to 3*d.* per 100 French lbs.

The following charges are leviable, by an Ordinance of 1852, on all vessels entering or clearing from Port Louis:—

	£	s.	d.
For Pilotage.—Vessels remaining at the bell-buoy, per foot	0	2	6
Vessels entering the harbour:—			
Piloting inwards and mooring, per foot	0	5	0
Do. outwards and unmooring, per foot	0	5	0
Vessels under 100 tons of burthen entering the harbour shall not be required to take a pilot.			
For the Use of Warps and Boats, viz. Inwards, for each vessel of 100 tons burthen and above	3	0	0
The same, if the port office steamer be employed	1	0	0
Outwards	3	0	0
For the Use of Boats without Warps.—For each launch (manned) per day	1	10	0
Anchorage Dues.—Vessels trading with Madagascar or the dependencies of Mauritius per ton of register	0	0	3
Such vessels shall not be charged anchorage dues more than twice in any one year.			
Vessels entering the harbour in distress, or for repairs, provided that they do not receive cargo, nor break bulk, or that they discharge cargo solely for the purpose of repairs, and that the whole of the same be reshipped (excepting any part condemned as damaged)	Free.		
Vessels entering the harbour, but not breaking bulk nor receiving cargo, per ton of register	0	0	4
All other vessels breaking bulk or receiving cargo, per ton of register	0	0	8
Port and Police Clearance.—On vessels trading with Madagascar and dependencies of Mauritius, each	0	5	0
On all other vessels	0	15	0

	£	s.	d.
For the dredging Service.—An additional proportional amount on all other port charges (excepting the charges for the use of the steamer and for remaining swung upon the warps), levied upon all vessels, except those which remain at the bell-buoy, viz.			
On vessels under 350 tons, per register, 10 per cent.			
Of 350 tons or upwards, — 15 per cent.			
For tugging vessels by the post office steamer inwards or outwards, viz.—			
For vessels under 100 tons, each	3	0	0
— from 100 to 150 tons, — —	4	0	0
— — 150 to 200 — —	5	0	0
— — 200 to 400, per ton —	0	0	6
— above 400 tons, each additional 100 tons	1	0	0

§ 2. In order to prevent the crowding of the harbour with hulks, the harbour-master is empowered to grant licences for such a number of careening hulks as shall be fixed in the port regulations; and every such hulk is liable to a charge of 9*l.* quarterly, payable in advance to the harbour-master.

§ 3. All vessels abandoned at this port and sold must either be broken up or fitted for sea within six months from the date of sale, subject to a charge of 1*l.* per diem for every day after six months, during the time that the vessel remains not broken up or not fitted for sea.

§ 4. The owner or owners of all such careening hulks and other vessels abandoned, are bound to have a keeper and two men on board of each, and to moor the same severally with four bower anchors, two a-head and two a-stern, in the situation pointed out by the harbour-master. Any such owner or owners failing to comply with these provisions is subject to a penalty not exceeding 50*l.*

This island is, as everybody knows, the scene of St. Pierre's inimitable tale of Paul and Virginia. The wreck of the St. Geran, so striking and affecting an incident in the story, is a real event which took place on the 18th of August, 1744.—(This article has been compiled from information supplied by the *Port Louis Commercial Gazette*, the *Almanack de l'Isle Maurice*, &c.)

PORTO-RICO, the capital of the valuable Spanish island of the same name, on the north side of the island, on a peninsula joined to the main land by a narrow isthmus, lat. 18° 29′ 10″ N., lon. 66° 7′ 2″ W. The fortifications are very strong: the town, which stands on a pretty steep declivity, is well built, clean, and contains about 16,000 inhabitants.

Harbour.—The harbour of Porto-Rico has a striking resemblance to that of the Havannah, to which it is but little inferior. The entrance to it, about 300 fathoms in width, has the Morro Castle on its east side, and is defended on the west side by forts erected on 2 small islands. Within, the harbour expands into a capacious basin, the depth of water varying from 5 to 6 and 7 fathoms. On the side opposite to the town there are extensive sand banks; but the entrance to the port, as well as the port itself, is unobstructed by any bar or shallow.

The island of Porto-Rico lies in the same latitude as Jamaica. Though the smallest of the greater Antilles it is of very considerable size. Its form is that of a parallelo-

gram; being about 110 miles in length from east to west, with a mean breadth of about 38, containing an area of 3,750 square miles. Surface pleasantly diversified with hills and valleys; soil generally fertile. It has, however, suffered much from hurricanes; those of 1742 and 1825 having been particularly destructive. Since the breaking up of the old Spanish colonial system, the progress of Porto-Rico has hardly been less rapid than that of Cuba. Her population, which in 1778 was estimated at 80,650, amounted, according to a census taken in 1836, to 357,086, of whom 188,869 were whites, and only 41,818 slaves. It is obvious from this statement that a large proportion of the free inhabitants are coloured: but the law knows no distinction between the white and the coloured *roturier;* and this circumstance as well as the whites being in the habit of freely intermixing with people of colour, has prevented the growth of those prejudices and deep-rooted antipathies that prevail between the white and the black and coloured population in the U. States, and in the English and French islands. The population is now (1853), probably above 500,000.

Trade. — Sugar and coffee are by far the greatest articles of export. Next to them are molasses, tobacco, cotton, rum, &c. The imports consist principally of flour, fish, and other articles of provision, lumber, &c. from the U. States; cottons, hardware, machinery, &c. from England; wines, silks, jewellery, perfumery, &c. from Spain and France; linen from the Hanse Towns; iron from Sweden, &c. Large quantities of rice, maize, &c. are raised in the island. The pasture lands in the north and east are superior to any in the West Indies for breeding and fattening cattle.

Previously to 1815, Porto-Rico, being excluded from all direct intercourse with other countries, excepting Old Spain, was either stationary or but slowly progressive, the entire value of the exports in that year having amounted to only 65,274 dollars! But at that epoch a royal decree appeared, which exempted the trade between Spain and the Spanish colonies and Porto-Rico from all duties for 15 years; and she was then, also, permitted to carry on a free trade, under reasonable duties, with other countries. In consequence principally of these wise and liberal measures, but partly, also, of a considerable immigration of rich Spanish colonists from S. America, Porto-Rico has latterly made an extraordinary progress. Great improvements have been effected in the police and internal administration, and roads have been constructed in all parts of the island.

The following statements as to the trade of Porto-Rico, taken from the *Balanza Mercantil*, published in the capital, afford the most conclusive proofs of the advancing prosperity of the island.

Account of the Quantities of the different Articles of Colonial Produce exported from Porto Rico in 1851.

Articles.		Quantities.	Articles.		Quantities.
Sugar	lbs.	118,416,300	Cocoa-nuts		40,363
Coffee	—	12,111,900	Cocoa	lbs.	9,000
Tobacco	—	6,478,100	Ox horns	No.	6,925
Molasses	hhds.	45,976	Oranges	M.	1,669
Hides	lbs.	632,700	Plantains	—	675
Cotton	—	366,500	Cigars	—	34,800
Rum	hhds.	547	Lignum vitæ	tons	4
Oxen	No.	5,881	Logwood	—	178
Horses and mules	—	172	Pimento	lbs.	6,800
Bay water	galls.	6,161	Annatto	—	7,862
Corn	ears	1,429	Castor oil	qts.	600

Total value of exports 5,761,974 dols., of which 43⅝ per cent. to United States, 5½ to foreign West Indies, 9⅝ to Spain, 21⅛ to Great Britain, 6⅛ to British North America, 7⅛ to Germany, 1½ to Austria, 3 to Sardinia, 1½ to France, ⅝ to Cuba and Jamaica.

Total value of imports 6,073,870 dols., of which 19½ per cent. was from the United States, 32½ from West Indies, chiefly St. Thomas, 21½ from Spain, 12⅝ from South America, mostly in cocoa, 4⅛ from Great Britain, 4⅛ from B. N. America, 4 from Cuba, and 1½ from Germany, Sardinia, and France.

The number of vessels entered inward was 1,324, measuring 160,586 tons, of which 42 per cent. were American, 22⅛ Spanish; 21½ British. Customs revenue 1,069,418 dols. against 1,189,091 dols. in 1850.

* PORTS. See HARBOURS.

POSTAGE AND POST-OFFICE. Postage is the duty or charge imposed on letters or parcels conveyed by post; the Post-office being the establishment by which such letters or parcels are conveyed.

1. *Establishment of Post-offices.* — Regular posts or couriers were instituted at a very early period, for the safe, regular, and speedy transmission of public intelligence. Herodotus informs us (lib. viii. c. 98.), that in Persia, men and horses, in the service of the monarch, were kept at certain stations along the public roads; and that the despatches, being given to the first courier, were by him carried to the second, and so on, with an expedition that neither snow, nor rain, nor heat, nor darkness, could check. A similar institution, under the name of *cursus publicus*, was established at Rome by Augustus, and was extended and improved by his successors. Horses and carriages were kept in readiness at the different stations along the public roads, not only for the transmission of despatches, but also for the conveyance of official personages, or others who had obtained an order from authority allowing them to travel post. By this means government was speedily apprised of whatever took place in the remotest corners of the empire; and instructions or functionaries could be sent to, or recalled from, the most distant provinces, with a celerity that would even now appear considerable. — (*Bergier, Histoire des Grand Chemins*, liv. iv. c. 4.; *Bouchaud sur la Police des Romains*, pp. 136—151.)

Posts appear to have been established, for the first time, in modern Europe, in 1477, by Louis XI. They were originally intended to serve merely, as the ancient posts, for the conveyance of public despatches, and of persons travelling by authority of government. Subsequently, however, private individuals were allowed to avail themselves of this institution; and governments, by imposing higher duties or rates of postage on the letters and parcels sent through the Post-office than are sufficient to defray the expense of the establishment, have rendered it productive of a considerable revenue. Nor, while the rates of postage are confined within due limits, or not carried so high as to form any serious obstacle to correspondence, is there, perhaps, a more unobjectionable tax.

English Post-office. — The Post-office was not established in England till the 17th century. Postmasters, indeed, existed in more ancient times; but their business was confined to the furnishing of post-horses to persons who were desirous of travelling expeditiously, and to the despatching of extraordinary packets upon special occasions. In 1635, Charles I. erected a letter office for England and Scotland; but this extended only to a few of the principal roads, the times of carriage were uncertain, and the postmasters on each road were required to furnish horses for the conveyance of the letters at the rate of 2½*d.* a mile. This establishment did not succeed; and at the breaking out of the civil war, great difficulty was experienced in the forwarding of letters. At length a post-office, or establishment for the *weekly* conveyance of letters to all parts of the kingdom, was instituted in 1649, by Mr. Edward Prideaux, attorney-general for the Commonwealth; the immediate consequence of which was a saving to the public of 7,000*l.* a year on account of postmasters. In 1657, the Post-office was established nearly on its present footing, and the rates of postage that were then fixed were continued till the reign of Queen Anne. — (*Black. Com.* book i. c. 8.)

From the establishment of the Post-office by Cromwell, down to 1784, mails were conveyed either on horseback, or in carts made for the purpose; and instead of being the most expeditious and safest conveyance, the post had become, at the latter period, one of the slowest and most easily robbed of any in the country. In 1784, it was usual for the diligences between London and Bath to accomplish the journey in *seventeen* hours, while the post took *forty* hours; and on other roads their rate of travelling was in about the same proportion. In consequence of this difference in point of despatch, a very great number of letters were sent by those conveyances; the law being very easily evaded, by giving them the form of small parcels.

Under these circumstances, it occurred to Mr. John Palmer, of Bath, afterwards comptroller general of the Post-office, that a very great improvement might be made in the conveyance of letters, in respect of economy, as well as of speed and safety, by contracting with the proprietors of the coaches for the carriage of the mail; the latter being bound to perform the journey in a specified time, and to take a guard with the mail for its protection. Mr. Palmer's plan encountered much opposition, but was at length carried into effect. The consequences have proved most beneficial: the use of mail-coaches has extended to every part of the empire; and while the mail is conveyed in less than half the time that was required under the old system, the coaches by which it is conveyed afford, by their regularity and speed, a most desirable mode of travelling. Mr. Palmer was the author of several other improvements in the economy of the Post-office; nor is there any other individual to whose exertions this department owes so much. — (*Macpherson's Hist. of Commerce*, anno 1784.)

The Scotch Post-office was established on its present footing in 1710: but, owing to the backward state of Scotland, the limited amount of its trade and population, and the extreme badness of the roads — (see ROADS), — it was very defective in most parts of the country till after the American war. In proof of this, we may mention that the first mail-coach, from London to Glasgow direct, arrived at the latter on the 7th of July, 1788. Previously to that period, the course of post from London to Glasgow was five days; this, however, is not to be entirely ascribed to the slowness of the conveyance by horseback; for the mail came round by Edinburgh, and was detained there *twelve hours*, or till the usual Edinburgh despatch was made up for Glasgow in the evening!

The construction of railways between most of the great towns of the empire has, within these few years, gone far to supersede the use of mail-coaches on the principal lines of road, and has added prodigiously to the facilities of correspondence and travelling. The journey from London to Liverpool, which had been accomplished by the mail, when in its most improved state, in about 20 or 22 hours, is now accomplished by railway in 9 or 10 hours! and on other roads in the same proportion. The principal expense of the Post-office consists, however, not so much in the conveyance of letters from place to place, though that amounts to a very large sum, as in their previous collection and their subsequent distribution. This necessitates the establishment of a vast number of subordinate offices in the remoter parts of the kingdom, many of which do not repay their expenses. This is particularly the case in Ireland, and in the Highlands and islands of Scotland.

It does not really seem, though the contrary has been sometimes contended, that the Post-office could be so well conducted by any one else as by government. It is indispensable to its satisfactory working that it should be conducted with the greatest regularity and precision; and that all the departments should be made subservient to each other, and conducted on the same plan. It is plain that such results could not be obtained in any extensive country otherwise than by the agency of government; and the interference of the latter is also required to make arrangements for the safe and speedy conveyance of letters to, from, and through foreign countries.

The organisation of the Post-office supplies one of the most striking examples of the advantages resulting from the division and combination of employments. "Nearly the same exertions that are necessary to send a single letter from Falmouth to New York will send 50,000. If every man were to effect the transmission of his own correspondence, the whole life of an eminent merchant might be passed in travelling, without his being able to deliver all the letters which the Post-office forwards to him in a single evening. The labour of a few individuals devoted exclusively to the forwarding of letters, produces results which all the exertions of all the inhabitants of Europe could not effect, each person acting singly." — (*Senior on Political Economy.*)

Rates of Postage.— Previously to the introduction of the new system of a uniform penny rate of postage in 1839, under the provisions of the act 2 & 3 Vict. cap. 52., the following rates of postage, increasing progressively according to the distance, were charged on all letters (not privileged) conveyed by post from place to place in Great Britain and in Ireland, and from places in Great Britain to places in Ireland, and conversely.

Great Britain.	Postage of a Single Letter in Pence.
From any post-office in Great Britain to any place not exceeding 8 miles from such office	2
For any distance above 8 miles, and not exceeding 15 miles	4
15 — 20 —	5
20 — 30 —	6
30 — 50 —	7
50 — 80 —	8
80 — 120 —	9
120 — 170 —	10
170 — 230 —	11
230 — 300 —	12

And so in proportion; the postage increasing progressively 1*d.* for a single letter for every 100 miles.

Letters containing 1 enclosure charged with 2 single rates. Letters containing more than 1 enclosure, and not exceeding 1 ounce, charged with 3 single rates. Letters exceeding 1 ounce, whatever the contents may be, were charged with 4 single rates; and for every ¼ of an ounce above that weight, an additional single rate was chargeable.

Ireland.	Postage of a Single Letter in Pence.
From any post-office in Ireland to any place within the same, not exceeding 7 Irish miles from such office	2
Exceeding 7 and not exceeding 15 Irish miles	3
15 — 25 —	4
25 — 35 —	5
35 — 45 —	6
45 — 55 —	7
55 — 65 —	8
65 — 95 —	9
95 — 120 —	10
120 — 150 —	11
150 — 200 —	12
200 — 250 —	13
250 — 300 —	14

And for every 100 miles, Irish measure, above 300 miles, a further sum of 1*d.* Double and treble letters charged according to the same scale of advance as in England.

Great Britain and Ireland.

Rates of Postage taken in the Currency of the United Kingdom for the Port and Conveyance of Letters and Packets by Post, from any Place in Great Britain to any Place in Ireland, or from any Place in Ireland to any Place in Great Britain.

Distance.	Single Letter.	Double Letter.	Treble Letter or other under an Ounce Weight.	For every Ounce Weight, and for every Packet not exceeding an Ounce in Weight.
	s. *d.*	*s.* *d.*	*s.* *d.*	*s.* *d.*
Not exceeding 15 miles, British measure	0 4	0 8	1 0	1 4
Exceeding 15, and not exceeding 20 such miles	0 5	0 10	1 3	1 8
20 — 30 —	0 6	1 0	1 6	2 0
30 — 50 —	0 7	1 2	1 9	2 4
50 — 80 —	0 8	1 4	2 0	2 8
80 — 120 —	0 9	1 6	2 3	3 0
120 — 170 —	0 10	1 8	2 6	3 4
170 — 230 —	0 11	1 10	2 9	3 8
230 — 300 —	1 0	2 0	3 0	4 0
300 — 400 —	1 1	2 2	3 3	4 4
400 — 500 —	1 2	2 4	3 6	4 8
500 — 600 —	1 3	2 6	3 9	5 0
600 — 700 —	1 4	2 8	4 0	5 4
700 —	1 5	2 10	4 3	5 8

Exclusive of an additional charge for the packets plying between the two countries.

On comparing the number of non-privileged letters conveyed by the general post with the gross amount of postage, it appears that of late years they had paid an average rate of about 7*d.* or 7⅛*d.* each.

Exclusive, however, of these rates of postage, letters posted in London and other large towns for delivery in such towns, were charged 2*d.* each in London, and 1*d.* each in the other towns in which such local posts were established.

In addition, too, to the letters on which postage was charged, all the principal officers of government, and the members of both houses of parliament, enjoyed (either to a greater or less extent) the privilege of "franking," or of sending and receiving letters by the post free of postage, and this privilege was very extensively exercised.

Post-Office Revenue. — The gross produce, deducting overcharges, of the post-office revenue of Great Britain, exclusive of Ireland, in the undermentioned years, has been —

Years.	Duty.	Years.	Duty.	Years.	Duty.	Years.	Duty.
	£		£		£		£
1722	201,804	1810	1,675,076	1830	2,053,720	1839	2,162,915
1755	210,663	1814	2,005,987	1835	2,107,677	1840	1,249,248
1775	545,321	1820	1,993,885	1837	2,103,994	1841	1,369,134
1793	745,238	1825	2,160,390	1838	2,116,798	1842	1,449,162
1800	1,083,950						

The progress of the Scotch branch of the post-office revenue has been quite extraordinary. In 1698, Sir Robert Sinclair of Stevenson had a grant from William III. of its entire produce, with an extra allowance of 300*l.* a year, on condition of his keeping up the post; but, after trial, he abandoned the undertaking as disadvantageous. In 1709, the Scotch post-office revenue was under 2,000*l.*; whereas its amount in 1838 was 223,491*l. gross*, and 211,543*l. nett*; having increased more than a *hundred* fold in little more than a century! In 1781, the Glasgow post-office produced only 4,341*l.* 4*s.* 9*d.*, while in 1839 it produced 47,527*l.* — (*Stark's Picture of Edinburgh*, p. 144.; *Cleland's Statistics of Glasgow*; *Finance Book for* 1838 *and* 1839, *&c.*)

The expenses of collecting the post-office revenue amounted, under the old system, to from 24 to 30 per cent. on the gross receipt. In 1842, however, they amounted, for the U. Kingdom, to 966,759*l.*, being no less than 60 per cent. on the gross revenue.

Introduction of the New System. — The increase of the post-office revenue, as evinced by the above statements, has been very remarkable. It is mostly, no doubt, to be ascribed to the increase of population, the diffusion of education, and the growing intercourse among all classes of the community; though a good deal must also be ascribed to the efforts made in the early part of the reign of George III. to suppress some of the grosser abuses that had grown out of the privilege of franking, and still more to the additions that were repeatedly made to the rates of postage. Unfortunately, however, the latter were, in the end, carried far beyond their proper limits, imposing a heavy burden on the public, without any corresponding advantage to the revenue. This is obvious from the fact of the post-office revenue having continued stationary for the 20 years ending with 1839; though, from the great increase of population and commerce during that period, it is obvious, had the rates of postage not been so high as to force recourse to other channels, the revenue must have rapidly increased from the termination of the war downwards. When the rates of postage are moderate, the greater despatch and security of their conveyance by post, prevent any considerable number of letters being sent through other channels. But when the rates become oppressive, when, for example, a postage (as under the late system) of 11*d.* is charged on the conveyance of a single letter between London and York, of 13*d.* between London and Edinburgh, and so on, a serious interruption is given to that facility of intercourse which is so important, at the same time that a very large proportion of the correspondence which is carried on is unavoidably forced into private channels. It was, no doubt, attempted to prevent the transfer of letters from the post, by forbidding, under heavy penalties, their conveyance by private parties. But, as might have been anticipated, this prohibition could not be enforced, and had little or no effect. Considering, indeed, the facilities which have long existed for the transmission of letters in parcels between different parts of the country, and the oppressive rates of postage, the wonder is, not that the post-office revenue was nearly stationary previously to 1839, but that it did not fall off. Although, however, the rates of postage then existing, amounting, as already stated, to an average charge of about 7*d.* or 7½*d.* on all single letters conveyed by the general post, were very decidedly too high, it did not therefore follow that an invariable charge of 1*d.*, whether a letter were conveyed 1 mile or 1,000 miles, or singly or with 10,000 others, was the precise charge that should have been imposed! But, notwithstanding this was rushing blindfold from one extreme, or rather absurdity, to another, and endangering a large amount of revenue without any equivalent advantage, the ingenious project, brought forward by Mr. Rowland Hill, for a uniform penny postage, to be paid in advance, was eagerly adopted. It must be admitted, too, that it had various recommendations in its favour. Being calculated to obviate trouble and save expense to the public, it could not fail to be generally acceptable, (what reduction of taxation is not?) especially to mercantile men and others having an extensive correspondence. No doubt, however, the scheme was far more indebted for its popularity to the oppressiveness of the old rates of postage, than to any intrinsic merits of its own. Had these rates been properly redueed in 1837 or 1838, that is, had the postage of letters of ½ oz. weight passing between Scotland and Ireland and London been reduced to 4*d.* or 6*d.*, and other letters in proportion, and mercantile circulars, advertisements, and notices of sales, &c. been allowed to pass under covers open at the ends at 1*d.* or 2*d.* each, we venture to say that the clamour for a uniform penny postage would never have made any way. But government, though hostile to the project, took no step calculated to stop the agitation in its favour.

They neither reduced the old rates of postage, nor attempted to give any increased facilities for the conveyance of letters by post. And it happened in this, as it all but invariably happens on similar occasions, that those who decline making reasonable and necessary concessions at the outset, are, in the end, compelled to concede a great deal more than would at first have been satisfactory. Such, at all events, was the case in this instance. The clamour for a uniform penny rate became too powerful to be resisted; and parliament, whether it were so inclined or not, was obliged to lend its sanction to the measure. The act 2 & 3 Victoria, cap. 52., for regulating the duty on postage, did not indeed enact that the charge for conveying letters of a given weight, should, in all cases, be reduced to 1*d.*; but it was introduced for the avowed purpose of enabling the Treasury to take the necessary steps to bring the change about with the least inconvenience to all parties. In this view it gave the Treasury power to alter and reduce the rates of postage, without reference to the distance which letters may be conveyed, according to the weight of the letters, and not to the number or description of their enclosures; it also gave them power to adopt such regulations as they might think expedient as to stamped covers or envelopes: to suspend parliamentary franking, &c.

In virtue of the powers so conveyed, regulations have been issued (rendered permanent by the act 3 & 4 Vict c. 96.) by which all inland letters, without regard to the number of enclosures or the distance conveyed, provided they be paid when posted or despatched, are —

If not exceeding ½ oz. weight, charged 1*d.*; 1 oz. 2*d.*; 2 oz. 4*d.*; 3 oz. 6*d.*; and so on, 2*d.* being added for every additional ounce. At the outset of the system all packets that weighed more than 16 oz. were sent to the Dead Letter Office, except: —

1. Parliamentary petitions and addresses to her Majesty.
2. Parliamentary proceedings.
3. Letters and packets addressed to or received from places beyond sea.
4. Letters and packets to and from public departments.
5. Deeds, if sent open, or in covers open at the sides. They may be tied with string and sealed, in order to prevent inspection of the contents, but they must be open at the sides, that it may be seen that they are entitled to the privilege.
6. Bankers' parcels, despatched from London, and specially delivered at the General Post Office, under certain regulations.

But now (1859) there are no limits to the weight, but merely to the bulk of the parcels sent by the post.

All letters not paid when they are posted or despatched are charged *double the above rates*.

All parliamentary and official franking has been put an end to; but members of either house of parliament are entitled to receive petitions and addresses to her Majesty, and petitions to parliament, free of charge, provided such petitions and addresses be sent in covers open at the ends, and do not exceed 32 oz. weight.

The punctual delivery of letters may be insured by getting them *registered* when posted. A fee of 6*d.*, in the shape of additional stamps of that amount, is charged for the registration of each letter over and above the rate of postage to which it may be liable.

To facilitate the working of the plan, government furnish adhesive stamps of 1*d.* &c. each, which being pasted on letters, they are of course delivered to those to whom they are addressed free of any farther charge for postage; and it also furnishes stamped envelopes at the low rate of 24 for 2*s.* 3*d.*, the 3*d.* being for the paper and manufacture. Hence, as any quantity of stamps or of stamped envelopes may, in most parts of the country, be procured beforehand, the necessity that must otherwise have existed of paying the postage at the moment when letters are posted, has been pretty generally obviated.

Such are the more prominent features of the new system; and no doubt it has the recommendations of simplicity (if we may apply such a phrase to a uniform charge for services costing widely different sums) and cheapness in its favour, and has greatly facilitated correspondence. But it may, notwithstanding, be easily shown that its adoption was most unwise. It is, no doubt, very convenient for merchants, bankers, middlemen, retail dealers, and indeed for most persons, to get letters for 1*d.* that previously cost them 7*d.* or 7½*d.*; but their satisfaction is not the only thing to be attended to in forming a fair estimate of the measure. The public exigencies require that a sum of about 70 millions a year should be raised, one way or other; and so long as we are pressed by an unreasoning necessity of this sort, it is not much to say in favour of the repeal or diminution of any tax, that those on whom it fell with the greatest severity are delighted with the reduction. Sugar has, in England, become a necessary of life; and its consumption, to say the least, is quite as indispensable to the bulk of the people, and especially to the labouring classes, as the writing of letters. But would it, therefore, be a wise measure to repeal the duty on sugar, or to reduce it to 1*s.* a cwt.? It has been alleged, indeed, that taxes on the transmission of letters are objectionable on principle, and should therefore be repealed, independently altogether of financial considerations! But it is easier to make an allegation of this sort than to prove it. All taxes, however imposed, if they be carried (as was the case with the old rates of postage) beyond their proper limits, are objectionable; but provided these be not exceeded, we have yet to learn why a tax on a letter should be more objectionable than a tax on the paper on which it is written, on the food of the writer, or on fifty other things.

It was contended, when the plan was under discussion, that there would be no loss of revenue, and that the increase of correspondence growing out of the reduction of the postage would be so vast as fully to balance the reduced rate of charge! But though there has been a great increase in the number of letters, it has fallen far short of this. Notwithstanding all that has been said about the *furor scribendi*, letter-writing is generally looked upon as a duty rather than a pleasure; and it does not follow, when the expense of postage is reduced, that the occasions for writing letters are proportionally increased.

The total *gross* receipt of the Post-office revenue of the U. Kingdom, deducting overcharges and returned letters, amounted in 1838 (before the changes began) to 2,346,278*l.*, while the expenses of the establishment for the same year amounted to 686,768*l.*, leaving a *nett* revenue of 1,659,510*l.* In 1858, however, 18 years after the new system had been in full operation, and the Post-office had been converted into a great carrying establishment for the conveyance of books, &c., its gross revenue amounted to only 3,087,535*l.*, while the expenses of the establishment for the same year amounted to 1,926,103*l.*, leaving a nett revenue of only 1,161,427*l.*, being no less than 498,083*l.*, under its amount in 1838. This, however, is not all. Of the Post-office revenue in 1838, 45,156*l.* consisted of postage paid by public offices, which, being a mere charge by one government department against others, must be deducted in order to learn the nett available revenue produced by the Post-office. Owing, however, to the abolition of franking, the postage charged against government departments is now greatly increased, and in 1858 amounted to no less than 138,631*l.* Hence it will be found, on deducting these sums, that in 1838 the Post-office produced to government, over and above all charges, a clear available income of 1,614,354*l.*, which in 1858 was sunk to 1,022,796*l.*, being a nett diminution of 591,558*l.*! The subjoined account sets these important particulars in the clearest point of view.

An Account, showing the Gross and Nett Post Office Revenue, and the Cost of Management for the U. Kingdom, for the 21 Years ending the 5th January, 1859.

Years.	Gross Revenue.*	Cost of Management.	Nett Revenue.	Postage charged on Government Departments.	Nett Revenue, ex Charges on Government Departments.
	£	£	£	£	£
1837 - - - -	2,339,737	687,313	1,652,424	38,528	1,613,896
1838† - - - -	2,346,278	686,768	1,659,510	45,156	1,614,354
1839‡ - - - -	2,390,763	756,999	1,633,764	44,277	1,589,487
1840§ - - - -	1,359,466	858,677	500,789	90,761	410,028
Average of five years, 1841-45 -	1,658,214	1,001,405	656,809	112,468	544,341
" " 1846-50 -	2,145,717	1,204,772	858,944	110,798	728,146
" " 1851-55 -	2,569,856	1,441,334	1,128,502	157,003	971,499
1856 - - - -	2,867,954	1,660,229	1,207,725	154,229	1,053,496
1857 - - - -	3,035,713	1,720,815	1,314,898	135,517	1,179,581
1858 - - - -	3,087,535	1,926,108	1,161,427	138,631	1,022,796

* Namely, the gross receipts, after deducting the returns for "refused letters," &c.
† 1838 was the last complete year before the general reduction of postage.
‡ On 5th December, 1839, the maximum inland postage for a single letter was reduced to 4d.
§ On 10th January, 1840, the postage on all inland letters weighing not more than ½ oz. was reduced to a uniform charge of one penny.

We subjoin a detailed statement of the Post Office Expenditure in 1856 and 1857.

Heads of Service.	Actual Expenditure. 1856.	Actual Expenditure. 1857.	Heads of Service.	Actual Expenditure. 1856.	Actual Expenditure. 1857.
	£	£		£	£
Salaries, pensions, &c. - -	909,094	918,573	Manufacture of postage stamps, &c.	26,164	28,566
Hereditary pensions -	29,310	1,573	Miscellaneous, inc. the conveyance of mails in colonies, under the direction of the Postmaster-General; the conveyance of the mails through Egypt; clothing for letter carriers and guards; rents, taxes, law expenses, &c. - -	108,822	109,672
Buildings - - -	33,330	29,367			
Conveyance of Mails.					
By railways - - -	376,363	422,943			
coaches, carts, &c., and wages of mail guards - -	162,837	167,823			
mail packets (when paid for by the Post Office) and private ships - - -	14,309	12,298	Totals - - -	£1,660,229	£1,720,815

It is plain, therefore, that the adoption of the new Post-office system has occasioned the sacrifice of nearly 600,000*l.* a year of revenue, as compared with the revenue of 1838. And considering the extraordinary progress of the country in the interval, and especially the increase of population and commerce, the loss will immediately be seen to be very much greater, perhaps more than double that amount. And though it be true that a sacrifice of this amount might not, under other circumstances, have been of much consequence, it is to be borne in mind that it was incurred when the revenue was already inadequate to meet the expenditure, and when, consequently, the deficiency had to be otherwise provided for, though probably in some more onerous way. We should not, however, have thought the loss of revenue, nor even the introduction of a uniform penny rate, a valid objection to the new plan, had there been no means other than its adoption of getting rid of the inconveniences attached to the old system. But such was not the case. All its defects might have been effectually obviated without any, or with but a very inconsiderable, loss of revenue. Had frank-

ing been abolished, and the old rates of postage so reduced that the average charge might have been about 2½*d.* or 3*d.* a letter, the revenue would not probably have lost any thing, while every really advantageous object effected by the present system would have been secured. Indeed, we see no good reason why the present rates of postage should not, and very many why they should, be doubled, or increased to 2*d.* for a letter weighing ½ oz., 4*d.* for one weighing 1 oz., and so on. We are well convinced that, were this done, and the troublesome practice of forcing the prepayment of letters abandoned, the revenue would be nearly doubled, with little or no inconvenience to the public.

It redounds nothing to the credit of the new system that the Post-office revenue increases while it is maintained; for this must necessarily follow from the increasing population, wealth, commerce, and education of the country. The revenue would increase quite as fast under any reasonably well contrived system; all taxes on articles in general use are sure, provided they be not excessive, to increase with every increase of population and wealth.

The abolition of franking, which, however, is in nowise connected with a penny rate of postage, was by far the least exceptionable of the alterations introduced in 1837. Franked letters were in most instances addressed to those who could best afford to pay the expense of postage; and who in this way escaped a burden that fell with its full weight on their less opulent and less known neighbours.

Estimated Number of Chargeable Letters delivered in the U. Kingdom in the Year immediately preceding the first general reduction of Postage, on the 5th of December, 1839, and in the Years subsequent thereto; also (in the first year) the Number of Franks.

Year ending 31st December.	Delivered in England and Wales.			Total in England and Wales.	Total in Ireland.	Total in Scotland.	Total in United Kingdom.
	By Country Offices.	In London District, exclusive of Local Letters.	Local Letters in London District.				
Estimated No. of letters, 1839 - -	- -	- -	13,000,000	59,983,000	8,302,000	7,623,000	75,908,000
Estimated No. of Franks, 1839 - -	- -	- -	- -	5,172,000	1,055,000	336,000	6,563,000
Estimated No. of letters, 1840 -	88,071,000	23,560,000	20,372,000	132,003,000	18,211,000	18,551,000	168,768,000
Average of 5 years, 1841–45 -	121,708,000	31,587,000	25,838,000	179,135,000	24,226,000	24,419,000	227,777,000
„ „ 1846–50 -	179,651,000	44,089,000	34,883,000	258,622,000	31,757,000	33,627,000	327,006,000
„ „ 1851–55 -	232,569,000	54,043,000	43,168,000	329,783,000	39,384,000	40,999,000	410,166,000
Estimated No. of letters, 1856 -	275,454,000	64,961,000	47,895,000	388,310,000	41,851,000	48,233,000	478,394,000
„ „ 1857 -	291,636,000	66,233,000	52,134,000	410,003,000	42,806,000	51,612,000	504,421,000
„ „ 1858 -	300,506,000	68,961,000	58,401,000	427,871,000	44,208,000	50,795,000	522,874,000

This extraordinary increase is owing partly to letters and all sorts of circulars being now almost wholly sent by the post, which formerly was very far from being the case, and partly from increase of population, education, and civilisation, here and elsewhere.

Estimated Number of Book Packets and Chargeable Newspapers * delivered in the U. Kingdom in the Years 1856, 1857, and 1858.

Year ending 31st December.	Delivered in England and Wales.			Total in England and Wales.	Total in Ireland.	Total in Scotland.	Total in United Kingdom.
	By Country Offices.	In London District, ex. Local Book Packets and Chargeable Newspapers.	Local Book Packets and Chargeable Newspapers in London District.				
Estimated No. of book packets and chargeable newspapers - 1856	12,386,000	1,197,000	1,904,000	15,487,000	1,766,000	2,996,000	20,249,000
„ „ - 1857	15,386,000	1,405,000	2,495,000	19,286,000	2,284,000	3,623,000	25,193,000
„ „ - 1858	17,573,000	1,919,000	2,567,000	22,059,000	2,525,000	3,800,000	28,384,000

Money Orders. — The granting of money orders at the different post-offices for the payment of sums of 5*l.* and under, is a very great accommodation to the public, and is very extensively resorted to. Such orders cost 3*d.* if for 2*l.* or under, and 6*d.* for all sums between 2*l.* and up to 5*l.* As orders are not paid unless the parties in whose favour they are drawn, or other parties well known to the postmaster by whom they are payable, appear to receive payment, there is no risk of the money getting into improper hands. The following account shows the great increase in this department.

Number and Amount of Money Orders Issued in the U. Kingdom, during the 20 Years, ending with 1859.

Years.	England and Wales.		Ireland.		Scotland.		Total U. Kingdom.	
	Number.	Amount.	Number.	Amount.	Number.	Amount.	Number.	Amount.
		£		£		£		£
1839 - - -	142,723	210,063	30,015	47,295	16,183	25,765	188,921	313,124
1840 - - -	482,764	802,827	53,507	77,167	51,526	80,980	587,797	960,975
Average of five years, 1841–45	2,080,977	4,211,885	198,785	339,433	210,093	385,936	2,489,855	4,937,256
„ „ 1846–50	3,365,969	6,688,684	347,547	585,151	374,187	680,696	4,087,703	7,954,533
„ „ 1851–55	4,393,045	8,488,175	407,608	685,277	418,906	769,863	5,219,559	9,941,316
1856 - - -	5,231,736	10,099,366	461,723	806,942	485,523	899,253	6,178,982	11,805,562
1857 - - -	5,417,203	10,410,863	459,625	818,537	512,875	950,873	6,389,763	12,180,273
1858 - - -	5,674,441	10,821,901	485,220	857,558	529,735	982,646	6,689,396	12,662,105

In 1840 the commission on Money Orders was reduced as follows: — For any sum not exceeding 2*l.*, from 6*d.* to 3*d.* For any sum above 2*l.*, and not exceeding 5*l.*, from 1*s.* 6*d.* to 6*d.*

* By "Chargeable Newspapers" are meant newspapers not bearing the impressed newspaper stamp, and the postage of which is consequently paid in postage stamps or money.

Despatching of Letters.—Full details as to the posting of letters in London and elsewhere may be found in the *Postal Guide*, published quarterly—a useful and valuable publication, to which we beg to refer. It is sufficient here to state that, speaking generally, letters may be put into the receiving boxes of the different post-offices throughout the country at all hours of the day, and mostly, also, of the night. The mails for particular places are made up at certain specified hours, of which public intimation is given in the *Postal Guide*, and letters put in after those hours are not of course despatched till next mail.

We abridge from the *Postal Guide* the following statements, viz.—

Inland Letters.—The rates of postage on inland depend on weight only, and are as follows, if paid in advance:—

Letter weighing not more than ½ oz. . . . 1*d.* | Weighing not more than 1 oz. and not exceeding 2 oz. . 4*d.*
„ „ more than ½ oz. and not exceeding 1 oz. . 2*d.* | „ more than 2 oz. „ 3 oz. . 6*d.*

and so on; 2*d.* being charged for every additional ounce.

As a general rule, the postage, if not paid in advance, is doubled; and if the payment in advance be insufficient, double the deficiency is charged.

Petitions and addresses to Her Majesty, forwarded direct, are exempted from postage; and such petitions and addresses, and petitions to either House of Parliament, if sent to a member, are likewise exempted, provided they do not weigh more than 2 lbs., and are without covers, or are in covers open at the ends.

Newspapers and other periodical Publications bearing the Newspaper Stamp.—All periodical publications, inc. newspapers, published in the U. Kingdom, at intervals not exceeding 31 days, and which bear a stamp or stamps denoting the stamp duty, may be transmitted and re-transmitted through the post within the U. Kingdom free of postage under the following rules:—

Stamps impressed on the Publication.	Greatest Number of Sheets.	Greatest Superficial Extent of Letter-press on one side.
One Penny . . .	Two . . .	2,295 inches.
Three Halfpence . . .	Three . . .	3,443 „
Two Pence . . .	Four . . .	4,591 „

No publication, or portion thereof, can pass through the post unless the stamp which it bears be of the value of 1*d.* at least.

The title and date of the publication must be printed at the top of every page.

It must be folded in such a manner that the whole of the stamp or stamps shall be exposed to view, and be distinctly visible on the outside.

It must not be printed on pasteboard.

It must be posted within 15 days from the date of issue.

It must have either no cover or be open at the ends.

It must not contain any enclosure.

It must have no writing or other mark thereon, but the name and address of the person to whom it is sent; nor anything on the cover but such name and address, the printed title of the publication, and the printed name and address of the publisher or vendor who sends it.

Newspapers may also be sent abroad by the Post Office. But the regulations and postage to which they are liable vary so often that it would be useless to mention them here.

Parliamentary Proceedings.—Printed proceedings of Parliament, without covers, or in covers open at the ends, circulate within the U. Kingdom at the following rates of postage:—

Weighing not more than 4 oz. . . . 1*d.* | Weighing not more than 8 oz. and not exceeding 12 oz. 3*d.*
„ more than 4 oz. and not exceeding 8 oz. . 2*d.* | „ more than 12 oz. „ 16 oz. 4*d.*

and so on; 1*d.* being charged for every additional ¼ lb. or fraction of a ¼ lb.

The words Parliamentary Proceedings must be written or printed on the cover of the packet, otherwise it is liable to the letter-rate of postage.

Prepayment when the circulation is within the U. Kingdom is optional; and if it be made in part, the difference only is charged.

Parliamentary proceedings may be sent as books to all the colonies, and to those Foreign States between which and this country there is a book post.

Book Post, including Newspapers and other periodical Publications, and also Parliamentary Proceedings.—The following are the regulations of the Inland Book Post:—

Rates of Postage:

Weighing not more than 4 oz. . . . 1*d.* | Weighing not more than 8 oz. and not exceeding 16 oz. 4*d.*
„ more than 4 oz. and not exceeding 8 oz. . 2*d.* | „ more than 1 lb. „ 1½ lb. 6*d.*

and so on; 2*d.* being charged for every additional ½ lb. or fraction of a ½ lb.

The postage must be prepaid in full, by means of postage stamps.

Every packet must be sent either without a cover, or in a cover open at the ends or sides.

A book-packet may contain any number of separate books or other publications (inc. printed letters and printed matter of every kind), prints, or maps, and any quantity of paper, parchment, or vellum. And the books, &c. may be bound or unbound, &c.

No book-packet to contain anything sealed or otherwise closed against inspection; nor any letter, nor any communication of the nature of a letter, unless such letter or communication be printed.

No book-packet must exceed 2 feet in length, width, or depth; and if any such packet be presented at a post-office it will not be received.

Any packet not open at the ends or sides or which has any written letter or any communication of the nature of a letter written in it, or upon its cover, will be charged with the "unpaid" letter postage.

Book-packets (those to India and N. S. Wales not to exceed 3 lbs. weight), may be sent to the colonies, &c. at the following rates of postage, viz:—

To India, Ceylon, N. S. Wales, Victoria, Van Diemen's Land, S. Australia, W. Australia, New Zealand, Mauritius, and Hong Kong:—

	Viâ Southampton.	Viâ Marseilles.		Viâ Southampton.	Viâ Marseilles.
Weighing not more than 4 oz. . . .	4*d.*	6*d.*	Weighing not more than 1 lb. but not exceeding 1½ lb. .	2*s.* 0*d.*	3*s.*
„ more than 4 oz. but not exceeding 8 oz.	8*d.*	1*s.*	1½ lb. „ 2 lb. .	2*s.* 8*d.*	4*s.*
„ „ 8 oz. „ 1lb.	1*s.*4*d.*	2*s.*			

and so on; double rates being charged for every additional ½ lb. or fraction of ½ lb.

Book packets are forwarded to every other British colony, at the following rates, viz.:—

Weighing not more than 4 oz.	3d.	Weighing not more than 1 lb. but not exceeding 1½ lb.	1s. 6d.
„ more than 4 oz. but not exceeding 8 oz.	6d.	„ 1½ lb. „ 2 lbs.	2s. 0d.
„ „ 8 oz. „ „ 1 lb.	1s. 0d.		

and so on; 6d. being charged for every additional ½ lb. or fraction of ½ lb.

Book parcels may when necessary be delayed.

Registration.—By the prepayment of a fee of sixpence paid in stamps, any letter, newspaper, book, or other packet on which the postage has been prepaid in stamps, may be registered to any place in the U. Kingdom. The registration of a packet makes its transmission more secure by rendering it practicable to trace it, when inland, from its receipt to its delivery; and when colonial, if not to its delivery, at least to the port of despatch. The Post Office does not guarantee the safe delivery of the letter.

Money Orders.—Applicants for Money Orders should use printed "Forms," which save time, and afford greater security, than verbal messages, against mistakes. These Forms are sold by Postmasters at the rate of 10 per 1*d.*, or 5 or any smaller number for ½*d.*

The commission on a Money Order not exceeding 2*l.* is threepence, and on one above 2*l.* it is sixpence; no order being granted for more than 5*l.*

No order is allowed to contain a fractional part of a penny.

With few exceptions, no Money Order is issued unless the applicant furnish, in full, the surname and at least the initial of one Christian name both of the remitter who sends the order, and the payee (or person to whom the money is to be paid), together with the remitter's address.

An order once issued cannot be cancelled.

Money Orders do not require a receipt stamp.

Payment of an order must be obtained before the end of the second calendar month after that in which it was issued (for instance, if issued in January it must be paid before the end of March), otherwise the order becomes lapsed, and a new order will be necessary, for which a second commission will be charged. Persons presenting lapsed orders are furnished with copies of a printed notice headed "Lapsed Money Orders," containing directions how to proceed. If the order be not paid before the end of the twelfth calendar month after that in which it was issued (for instance, if issued in January, and not paid before the end of next January), all claim to the money is lost.

No application is entertained for compensation for alleged injury from the nonpayment of a money order at the expected time; and after once paying a money order, by whomsoever presented, the Office is not liable to any further claim.

All necessary information with regard to the sailing of packets, the postage to foreign countries, &c., may be found in the Postal Guide, in Kelly's Post Office Directory and other publications.

Local Postal Guides, price one penny, containing information special to the locality, are issued at the Post Offices at Birmingham, Belfast, Bristol, Cork, Dublin, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, and Sheffield.

Post Office Establishment of U. K., 1st of January, 1858.

1. Officers in British Isles:—			Letter carriers, messengers, &c.	10,582	
Postmaster-general	1		Marine mail officers	7	
Secretary, assistant secretaries, and secretaries for Ireland and Scotland	5				23,545
Surveyors	15		2. Postmasters, clerks, letter carriers, &c. in the colonies, the posts of which are under the direction of the Postmaster-general	1 5	
Other superior officers, viz., heads of departments, chief clerks in the metropolitan offices, &c.	19				125
Postmasters	11,101		3. Agents in foreign countries for collection of postage, &c.	61	
Clerks, &c.	1,610				61
Guards	205				
					23,731

Of the above staff nearly 2,000 belong to the chief office in London; and (inc. this number) about 3,200 to the London District.

Account showing the Number of Miles along which the Mails are conveyed in the U. K., with the Mode and Cost of Conveyance.

	Mails conveyed by Railways.			Mails conveyed by Coaches, Omnibuses, Mail Carts, &c.		Mails conveyed on Foot.		Mails conveyed by Packets and Boats between different Places in the U. K.		
	No. of Miles per Week Day.	Average Charge per Mile.	Minimum.	No. of Miles per Week Day.	Average Charge per Mile.	No. of Miles per Week Day.	Average Charge per Mile.	No. of Miles per Week Day.	Maximum.	Minimum.
		s. d.	*d.*		*d.*		*d.*		*s. d.*	*d.*
England	23,620	0 8½	½	19,097	2½	46,643	1½	1451	5 6½	½
Ireland	2,850	1 4	½	8,603	2	6,721	1	52	0 5½	½
Scotland	3,702	0 10½	½	5,297	2½	10,091	1½	1376	1 1½	½
U. Kingdom	30,172	0 9½	½	32,997	2½	63,432	1½	2879	5 6½	½

Offences against the Post-office.—The laws relative to offences against the Post-office were consolidated by the act 1 Vict. c. 36., of the more important parts of which we subjoin an abstract.

Contravening the Privilege of Post-Office.—Every person who shall convey otherwise than by the post a letter not exempted from the exclusive privilege of the postmaster general shall for every letter forfeit 5*l.*, and every person who shall be in the practice of so conveying letters not so exempted, shall for every week during which the practice shall be continued forfeit 100*l.*; and every person who shall perform otherwise than by the post any services incidental to conveying letters from place to place, whether by receiving, taking up, collecting, ordering, despatching, carrying, re-carrying, or delivering a letter not exempted from the exclusive privilege of the postmaster general, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of so performing any such incidental services shall for every week during which the practice shall be continued forfeit 100*l.*; and every person who shall send a letter not exempted from the exclusive privilege of the postmaster general otherwise than by the post, or shall cause a letter not so exempted to be sent or conveyed other than by post, or shall tender or deliver a letter not so exempted in order to be sent otherwise than by post, shall forfeit for every letter

5*l.*; and every person who shall be in the practice of committing any of the acts last mentioned shall for every week during which the practice shall be continued, forfeit 100*l.*; and every person who shall make a collection of exempted letters for the purpose of conveying or sending them otherwise than by the post, or by the post, shall forfeit for every letter 5*l.*; and every person who shall be in the practice of making a collection of exempted letters for either of these purposes, shall forfeit for every week during which the practice shall be continued 100*l.* And be it declared that the term post shall herein include all post communications by land or by water (except by outward-bound vessels not employed by the Post-office or the Admiralty to carry post letters); and the above penalties shall be incurred whether the letter be sent singly or with any thing else, or such incidental service be performed in respect to a letter either sent or to be sent singly or together with some other letter or thing; and in any prosecution for the recovery of any such penalty the onus shall lie upon the party prosecuted to prove that the act in respect of which the penalty is alleged to have been incurred was done in conformity to the post-office laws.—§ 2.

Ship Letters retained after delivering of Letters to Post Office.—Every person, being either the master of a vessel inward-bound, or one of the officers, or one of the crew, or a passenger thereof, who shall knowingly have any letter in his possession not exempted from the privilege of the postmaster general, after the master shall have sent any part of his ship's letters to the post-office, shall forfeit for every letter 5*l.*; and every such person who shall detain any such letter after demand made, either by the officer of the customs or by a person authorised by the postmaster general to demand ship's letters, shall forfeit for every letter 10*l.*—§ 3.

Clause 4. relates to the abuse of the privilege of franking, and is no longer of importance.

Penalties on Masters of Ships not taking Letter Bags.—Every master of a vessel bound to Ceylon, the Mauritius, the East Indies, or the Cape of Good Hope, who shall refuse to take a post letter bag delivered or tendered to him by an officer of the post office for conveyance, shall forfeit 200*l.**; and every master of a vessel who shall open a sealed letter bag, with which he shall be intrusted for conveyance, shall forfeit 200*l.*; and every master of a vessel who shall take out of a letter bag with which he shall have been intrusted for conveyance a letter or any other thing shall forfeit 200*l.*; and every master of a vessel who shall not duly deliver a letter bag with the contents at the post-office on his arrival in port, without wilful or unavoidable delay on his arrival, shall forfeit 200*l.*; and every person to whom letters may have been intrusted by the master of a vessel to bring on shore who shall break the seal, or in any manner wilfully open the same, shall forfeit 20*l.*; and every master of a vessel who shall refuse or wilfully neglect to make declaration of having delivered his ship's letters to the post-office, shall forfeit 50*l.*; and every collector, comptroller, or officer of the customs who is required by the act 1 Vict. c. 34. to prohibit any vessel reporting until the requisites of such act have been complied with, who shall permit such vessel to report before the requisites of such act shall have been complied with, shall forfeit 50*l.*; and every master of a vessel (not having been able to send his letters ashore previous to his arrival at the port where the vessel is to report) who shall break bulk or make entry before all letters on board shall be sent to the post-office shall forfeit 20*l.*; and every master of a vessel, or any other person on board any ship liable to the performance of quarantine, who shall neglect or refuse to deliver to the person or persons appointed to superintend the quarantine all letters in his possession, shall forfeit 20*l.*—§ 6.

Penalties on the Carelessness of Persons engaged or employed in carrying, conveying, &c. Letters.—Every person employed to convey or deliver a post letter bag or a post letter who shall, whilst so employed, or whilst the same shall be in his custody, care, or possession, leave a post letter bag or a post letter, or suffer any person, not being the guard or person employed for that purpose, to ride in the place appointed for the guard in or upon any carriage used for the conveyance of a post letter bag or post letter, or to ride in or upon a carriage so used and not licensed to carry passengers, or upon a horse used for the conveyance on horseback of a post letter bag or a post letter, or if any such person shall be guilty of any act of drunkenness, or of carelessness, negligence, or other misconduct, whereby the safety of a post letter bag or a post letter shall be endangered, or who shall collect or receive, or convey or deliver, a letter otherwise than in the ordinary course of the post, or who shall give any false information of an assault or attempt at robbery upon him, or who shall loiter on the road or passage, or wilfully mispend his time so as to retard or delay the progress or arrival of a post letter bag or a post letter, or who shall not use due and proper care and diligence safely to convey a post letter bag or a post letter at the rate of speed appointed by and according to the regulations of the post-office for the time being, being thereof convicted, shall forfeit 20*l.*—§ 7.

Clauses 8. to 24. inclusive impose penalties on hackney carriages plying for hire opposite the general post-office in London or Dublin; exempt mail coaches from toll; and direct how penalties shall be sued for.

Opening or delaying Post Letters a Misdemeanour.—Every person employed by or under the post-office who shall, contrary to his duty, open or procure or suffer to be opened a post letter, or shall wilfully detain or delay, or procure or suffer to be detained or delayed, a post letter, shall in England and Ireland be guilty of a misdemeanour, and in Scotland of a crime and offence, and being convicted thereof shall suffer such punishment by fine or imprisonment, or by both, as to the court shall seem meet; provided always, that nothing herein contained shall extend to the opening or detaining or delaying of a letter returned for want of a true direction, or of a letter returned by reason that the person to whom the same is directed is dead or cannot be found, or shall have refused the same, or shall have refused or neglected to pay the postage thereof; nor to the opening or detaining or delaying of a post letter in obedience to an express warrant in writing under the hand (in Great Britain) of one of the principal secretaries of state, and in Ireland under the hand and seal of the lord lieutenant of Ireland.

Embezzlement, &c. of any Letter or Packet, Felony.—Every person employed under the post-office who shall steal, or shall for any purpose whatever embezzle, secrete, or destroy a post letter, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall, at the discretion of the court, either be transported beyond the seas for the term of 7 years, or be imprisoned for any term not exceeding 3 years; and if any such post letter so stolen or embezzled, secreted or destroyed, shall contain therein any chattel or money whatsoever, or any valuable security, every such offender shall be transported beyond the seas for life.—§ 26.

Stealing Money, &c. from or out of Letters, Felony.—Every person who shall steal from or out of a post letter any chattel or money, or valuable security, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for life.

Persons stealing Post Letter Bags, &c. to be transported for Life.—Every person who shall steal a post letter bag, or a post letter from a post letter bag, or shall steal a post letter from a post-office, or from an officer of the post-office or from a mail, or shall stop a mail with intent to rob or search the same, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for life.

Persons stealing Post Letter Bags or Post Letters to be transported for 14 Years.—Every person who shall steal or unlawfully take away a post letter bag sent by a post-office packet, or who shall steal or unlawfully take a letter out of any such bag, or shall unlawfully open any such bag, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and shall be transported beyond the seas for any term not exceeding 14 years.

* The 3 & 4 Vict. c. 96. extends this penalty to the master of *every* vessel *outward* bound who shall refuse to take a post letter bag delivered or tendered to him for conveyance.

Receivers of Property sent by the Post, and stolen or embezzled, guilty of Felony.— Every person who shall receive any post letter or post letter bag, or any chattel or money or valuable security, the stealing or taking or embezzling or secreting whereof shall amount to a felony under the Post-Office Acts, knowing the same to have been feloniously stolen, taken, embezzled, or secreted, and to have been sent or intended to be sent by the post, shall in England and Ireland be guilty of felony, and in Scotland of a high crime and offence, and may be indicted and convicted either as an accessory after the fact or for a substantive felony, and in the latter case, whether the principal felon shall or shall not have been previously convicted, or shall or shall not be amenable to justice; and every such receiver, howsoever convicted, shall be liable to be transported beyond the seas for life.

Fraudulently retaining, after Delivery thereof, &c.— Every person who shall fraudulently retain, or shall wilfully secrete or keep or detain, or being required to deliver up by an officer of the post-office, shall neglect or refuse to deliver up a post letter which ought to have been delivered to any other person, or a post letter bag or post letter which shall have been sent, whether the same shall have been found by the person secreting, keeping, or detaining, or neglecting or refusing to deliver up the same, or by any other person, shall in England and Ireland be guilty of a misdemeanour, and in Scotland of a crime and offence, and on conviction shall be liable to be punished by fine and imprisonment.

Stealing, &c. printed Votes or Proceedings in Parliament, &c.— Every person employed in the post-office who shall steal, or shall for any purpose embezzle, secrete, or destroy, or shall wilfully detain or delay in course of conveyance or delivery thereof by the post, any printed votes or proceedings in parliament, or any printed newspaper, or any other printed paper whatever, sent by the post without covers, or in covers open at the sides, shall in England and Ireland be guilty of a misdemeanour, and in Scotland of a crime and offence, and on conviction shall suffer such punishment by fine or imprisonment, or both, as the court shall direct.

Forging the handwriting of the Receiver General in England or Ireland, Felony.— Every person who shall knowingly and wilfully forge or counterfeit, or cause or procure to be forged or counterfeited, the name or handwriting of the receiver general for the time being of the general post office in England or Ireland, or of any person employed by or under him, to any draft, instrument, or writing whatsoever, for or in order to the receiving or obtaining of any money in the hands or custody of the governor and company of the bank of England or Ireland on account of the receiver general of the post-office, or shall forge or alter, or shall offer, utter, dispose of, or put off, knowing the same to be forged or altered, any draft, warrant, or order of such receiver general, or of any person employed by or under him, for money or for payment of money, with intent to defraud any person whomsoever, shall be guilty of felony, and on conviction shall be transported beyond the seas for life.

Clause 34. relates to the forging or altering franks.

The remaining clauses relate to the punishment of accessaries, determine the mode in which the postage duties shall be sued for, define terms, &c.

Irish Post-office.—The most gross and scandalous abuses were long prevalent in every department of the Irish post-office. The commissioners of Revenue Inquiry exerted themselves to abate the nuisance; but, as it would appear from the evidence of the Duke of Richmond before the committee of the House of Commons on public salaries, without much effect. His Grace, however, and subsequent postmasters, have laboured with laudable activity and zeal to introduce something like honesty, order, and responsibility into this department. The revenue of the Irish post-office amounted, in the financial year 1857-58, to 230,950*l.* The expenses of collection are still very heavy but they are no longer distinguished from those of the British post-office.

Amount of Postage collected at the undermentioned Towns of the U. Kingdom (inc. Postage Stamps sold by the Post Office and by the Office of Inland Revenue) during the Years 1856 and 1857.

	1856.	1857.		1856.	1857.
ENGLAND.					
Bath	£14,384	£15,215	Preston	£7,581	8,042
Birmingham	38,849	42,107	Sheffield	14,778	16,565
Bradford, Yorkshire	15,836	15,250	Southampton	11,585	12,219
Bristol	29,967	31,264	Wolverhampton	8,780	9,498
Cheltenham	9,760	10,503	York	10,096	11,132
Coventry	4,620	4,911	IRELAND.		
Derby	8,659	9,053	Belfast	15,031	15,547
Exeter	11,915	12,630	Cork	10,868	11,915
Hull	16,980	18,803	Drogheda	2,215	2,442
Leeds	21,423	23,344	Dublin	55,103	60,591
Leicester	7,853	8,125	Limerick	6,986	7,115
Liverpool	100,379	104,865	Londonderry	4,365	4,720
London	834,927*	853,952†	Waterford	3,195	3,594
Macclesfield	2,231	2,295	SCOTLAND.		
Manchester	85,301	89,765	Aberdeen	11,150	12,274
Newcastle-on-Tyne	19,647	21,909	Dundee	8,883	9,365
Norwich	11,870	12,161	Edinburgh	56,270	59,177
Nottingham	11,366	12,572	Glasgow	63,441	68,877
Plymouth	10,221	10,569	Perth	4,007	4,258
Portsmouth	10,894	9,394	Stirling	3,830	4,284
Newcastle, Staffordshire, and Potteries	6,032	6,256			

UNITED STATES.—We subjoin an account of the number of post-offices, the extent of the post roads, the rates of postage, &c. in the United States.

POST-OFFICES AND POSTAGE.

Post-offices in 1790	75	extent of post roads in miles,	875
— 1800	903	—	20,817
— 1810	2,300	—	36,406
— 1820	4,500	—	72,492
— 1830	8,004	—	115,000
— 1840	13,468	—	155,739
— 1850	18,417	—	178,672
— 1853	22,320	—	217,745

Rates of Postage within the U. States.

For a single letter, sent not ex. 3,000 miles, if prepaid	3 cents.
If not prepaid	5 ,,
Sent over 3,000 miles, if prepaid	6 ,,
If not prepaid	10 ,,
For such a letter, conveyed wholly or in part by sea to or from a foreign country not ex. 2,500 miles	10 cents.
Sent over 2,500 miles	20 ,,
For a double letter, double the above rates; for a treble letter, treble do. Every letter or parcel not ex. ½ oz. weight is a single letter, and every additional weight of ½ oz. or of less than ½ oz. is charged with an additional single postage. When advertised, 1 cent. additional is charged on each letter. For a letter delivered by a carrier, there is an additional charge of 1 or 2 cents.	
For drop letters (not to be mailed) each	1 ,,
For all letters or packages (ship letters) conveyed by any vessel not employed in conveying the mail	2 ,,
To this charge of 2 cents is added 4 cents, when the letters are not transmitted through the mail, but are delivered at the post-office where deposited; and the ordinary rates of postage are	

* Including 142,261*l.* for postage charged to Government Departments.
† Including 135,517*l.* for postage charged to Government Departments.

added when the letter is transmitted through the mails.
Each newspaper, periodical, unsealed circular, or other article of printed matter, not ex. 3 oz. weight, to any part of the U. States - - 1 cent.
For every additional oz. or fraction of an oz. - 1 „
If the postage on any newspaper or periodical be paid quarterly or yearly in advance, at the office where the same is mailed or delivered, then ½ the above rates are charged. Newspapers and periodicals not weighing over 1½ oz., circulated in the State where published, are charged ½ the above rates. Small newspapers and periodicals, published monthly or oftener, and pamphlets not containing more than 16 8vo. pages each, when sent in single packages, weighing at least 8 oz. to one address, and prepaid by affixing postage stamps thereto, shall be charged only ½ cent for each oz. or fraction of an oz. Double postage charged on all transient matter, unless prepaid.
Books bound or unbound, not over 4 lbs., shall be deemed mailable matter, and shall pay,
For all distances under 3,000 miles, per oz. - 1 cent.
„ over 3,000 miles, - - 2 „
50 per cent. shall be added when not prepaid. All printed matter chargeable by weight to be weighed when dry.
No printed matter shall be sent at the above rates, unless either without any wrapper, or with one open at the ends or sides.

The total post-office revenue of the United States, in the year ended the 30th June, 1853, amounted to 4,946,725 dollars, the expenditure during the same year being 7,982,757 dollars.—(*American Almanack* for 1855.)

POST ENTRY. When goods are weighed or measured, and the merchant has got an account thereof at the Custom-house, and finds his entry, already made, too small, he must make a *post* or additional *entry* for the surplusage, in the same manner as the first was done. As a merchant is always in time, prior to the clearing of the vessel, to make his post, he should take care not to over-enter, to avoid as well the advance, as the trouble of getting back the overplus. However, if this be the case, and an over-entry has been made, and more paid or bonded for customs than the goods really landed amount to, the land-waiter and surveyor must signify the same, upon oath made, and subscribed by the person so over-entered, that neither he, nor any other person, to his knowledge, had any of the said goods over-entered on board the said ship, or anywhere landed the same without payment of custom; which oath must be attested by the collector or comptroller, or their deputies, who then compute the duties, and set down on the back of the certificate, first in words at length, and then in figures, the several sums to be paid.

POTASH (Da. *Potaske*; Fr. *Potasse*; Ger. *Pottasche*; It. *Potassa*; Pol. *Potasz*; Rus. *Potasch*). If vegetables be burned, the ashes lixiviated, and the solution boiled to dryness in iron vessels, the mass left behind is the *potash* of commerce—the impure carbonate of potass of chemists.

It is intensely alkaline, solid, and coloured brown by the admixture of a small portion of vegetable inflammable matter, which generally becomes moist. When potash is calcined in a reverberatory furnace, the colouring matter is destroyed, it assumes a spongy texture, and a whitish pearly lustre; whence it is denominated *pearl-ash*. The latter generally contains from 60 to 83 or 84 per cent. of pure carbonate of potass.

The ashes of those vegetables only which grow at a distance from the sea are employed in the manufacture of potash. Herbaceous plants yield the largest portion, and shrubs more than trees. It is principally manufactured in America, Russia, and Poland, the vast forests of which furnish an inexhaustible supply of ashes.

Potash is of great importance in the arts, being largely employed in the manufacture of flint glass and soft soap, the rectification of spirits, bleaching, making alum, scouring wool, &c. At an average of 1853 and 1854, the imports of pot and pearl ashes amounted to 132,765 cwt. a year. Of 155,739 cwt. imported in 1853, 98,774 cwt. were brought from the British possessions in North America, 37,604 cwt. from Russia, and 10,398 cwt. from the U. States, &c. The ashes of the U. States are the purest and bring the highest prices.

Ashes from Canada have always been duty free; but those from Russia and the United States used to pay a duty of 6*s.* a cwt., which, after being reduced in 1842 to 6*d.*, was finally repealed in 1845.

POTATOES (Ger. *Kartoffeln*; Du. *Aardappelen*; Fr. *Pommes de terre*; It. *Patate, Pomi de terra*; Sp. *Patatas manchegas*; Rus. *Jabloki semleniie*), the roots of the *Solanum tuberosum*, of innumerable varieties, and too well known to require any description.

I. *Historical Notice.* — The potato, which is at present to be met with everywhere in Europe, and forms a principal part of the food of a considerable proportion of its inhabitants, was entirely unknown in this quarter of the world till the latter part of the 16th century. It is a native of America, but whether of both divisions of that continent is doubtful.—(*Humboldt, Nouvelle Espagne*, liv. iv. c. 9.) Some authors affirm that it was first introduced into Europe by Sir John Hawkins, in 1545; others, that it was introduced by Sir Francis Drake, in 1573; and others, again, that it was for the first time brought to England from Virginia, by Sir Walter Raleigh, in 1586. But this discrepancy seems to have arisen from confounding the common, or Virginian potato (the *Solanum tuberosum* of Linnæus), with the sweet potato (*Convolvulus battatas*). The latter was introduced into Europe long before the former, and it seems most probable that it was the species brought from New Granada by Hawkins. Sweet potatoes require a warm climate, and do not succeed in this country; they were, however, imported in considerable quantities, during the 16th century, from Spain and the Canaries, and were supposed to have some rather peculiar properties. The kissing comfits of Falstaff, and such like confections, were principally made of battatas and eringo roots. —(See Collins' elaborate note to *Troilus and Cressida*, act. v. scene 2.) On the whole, we are inclined to think that we are really indebted for the potato (as well as for tobacco) to Sir Walter Raleigh, or the colonists planted by him in Virginia. Gerarde, an old English botanist, mentions, in his *Herbal*, published in 1597, that he had

planted the potato in his garden at London about 1590; and that it succeeded there as well as in its native soil, Virginia, whence he had received it. Potatoes were at first cultivated by a very few, and were looked upon as a great delicacy. In a manuscript account of the household expenses of Queen Anne, wife of James I., who died in 1618, and which is supposed to have been written in 1613, the purchase of a very small quantity of potatoes is mentioned at the price of 2s. a pound. The Royal Society, in 1663, recommended the extension of their cultivation, as a means of preventing famine. Previously, however, to 1684, they were raised only in the gardens of the nobility and gentry; but in that year they were planted, for the first time, in the open fields in Lancashire, — a county in which they have long been very extensively cultivated.

Potatoes, it is commonly thought, were not introduced into Ireland till 1610, when a small quantity was sent by Sir Walter Raleigh to be planted in a garden on his estate in the vicinity of Youghal. Their cultivation extended far more rapidly than in England; and have long furnished from $\frac{3}{5}$ to $\frac{1}{2}$ of the entire food of the people of Ireland!

Potatoes were not raised in Scotland, except in gardens, till 1728, when they were planted in the open fields by a person of the name of Prentice, a day labourer at Kilsyth, who died at Edinburgh in 1792.

The extension of the potato cultivation has been particularly rapid during the last 40 years. The quantity that is now raised in Scotland is supposed to be from 10 to 12 times as great as the quantity raised in it at the end of the American war; and though the increase in England has not been nearly so great as in Scotland, it has been greater than during any previous period of equal duration. The increase on the Continent has been similar. Potatoes are now very largely cultivated in France, Italy, and Germany: and, with the exception of the Irish, the Swiss have become their greatest consumers. They were introduced into India some 70 or 80 years ago; and are now successfully cultivated in Bengal, and have been introduced into the Madras provinces, Java, the Philippines, and China. But the common potato does not thrive within the tropics unless it be raised at an elevation of 3,000 or 4,000 feet above the level of the sea, so that it can never come into very general use in these regions. This, however, is not the case with the sweet potato, which has also been introduced into tropical Asia; and with such success, that it already forms a considerable portion of the food of the people of Java, and some other countries. So rapid an extension of the taste for, and the cultivation of, an exotic, has no parallel in the history of industry; it has had, and will continue to have, the most powerful influence over the condition of mankind. — (For further details with respect to the history of the potato, see *Sir F. M. Eden on the State of the Poor*, vol. i. p. 508.; *Humboldt, Essai sur la Nouvelle Espagne*, iii. 460—465. 2d ed.; *Sir Joseph Banks on the Introduction of the Potato*; *Phillips's History of Cultivated Vegetables*, vol. ii. art. *Potato*.)

2. *Influence of the Cultivation of the Potato on the Number and Condition of the People.* — There is a considerable discrepancy in the statements of the best authors as to the number of individuals that might be supported on an acre of land planted with potatoes, as compared with those that might be supported on an acre sown with wheat; some stating the proportion as high as *six* to *one*, and others at only *two* to *one*. According to Mr. Arthur Young, 1 lb. of wheat is about equal in nutritive power to 5 lbs. of potatoes. But Mr. Newenham, who has carefully investigated this subject, states that "3 lbs. of good mealy potatoes are, undoubtedly, more than equivalent to 1 lb. of bread," — (*Newenham on the Population of Ireland*, p. 340.); and his estimate is rather above Mr. Wakefield's. Supposing, however, that 1 lb. of wheat is fully equal to *four* lbs. of potatoes, still the difference in favour of the superior quantity of food derived from a given quantity of land planted with the latter is very great. According to Mr. Young, the average produce of potatoes in Ireland may be taken at 82 barrels the Irish acre; which, at 20 stone the barrel, is equal to 22,960 lbs.; and this being divided by *four*, to bring it to the same standard, in point of nutritive power, as wheat, gives 5,740 lbs. Mr. Young further estimates the average produce of wheat, by the Irish acre, at 4 quarters; which, supposing the quarter to weigh 480 lbs., gives in all 1,920 lbs., or about $\frac{1}{3}$ part of the solid nourishment afforded by an acre of potatoes. — (*Tour in Ireland*, Appen. pp. 12. 24. &c. 4to ed.) This estimate must, however, be somewhat modified, when applied to Great Britain; the soil of which, while it is better adapted to the growth of wheat, is generally supposed not to be quite so suitable for the potato as that of Ireland. But it notwithstanding admits of demonstration, that even here, "*an acre of potatoes will feed double the number of individuals that can be fed from an acre of wheat.*" — (*General Report of Scotland*, vol. i. p. 571.)

It is clear, therefore, on the most moderate estimate, that the population of a potato-feeding country may become, *other things being about equal*, from 2 to 3 times as dense as it would be, were the inhabitants fed wholly on corn. But it is exceedingly

doubtful whether an increase of population, brought about by the substitution of the potato for wheat, be desirable. Its use as a subordinate or subsidiary species of food is attended with the best effects — producing both an increase of comfort and security; but there are certain circumstances inseparable from it, which would seem to oppose the most formidable obstacles to its advantageous use as a *prime* article of subsistence. The discussion of this subject can hardly be said properly to belong to a work of this sort; but its importance may, perhaps, excuse us for making a few observations with respect to it.

It is admitted on all hands, that the rate of wages is principally determined by the species of food made use of in a country. Now, as potatoes form that species which is produced at the very least expense, it may be fairly presumed, on general grounds, that wages will be reduced to a minimum wherever the labouring classes are mainly dependent on potatoes; and the example of Ireland shows that this conclusion is as consistent with fact as with principle. It is clear, however, that when the crop of potatoes happens to be deficient in a country thus situated, the condition of its inhabitants must be in the last degree unfortunate. During a period of scarcity, men cannot go from a low to a high level: if they would elude its pressure, they must leave the dearer and resort to cheaper species of food. But to those who subsist on potatoes this is not possible; they have already reached the lowest point in the descending scale. Their wages being determined by the price of the least expensive sort of food, they cannot, when it fails, buy that which is dearer; so that it is hardly possible for them to avoid falling a sacrifice to absolute want. The history of Ireland abounds, unfortunately, in examples of this sort. Nothing is more common than to see the price of potatoes in Dublin, Limerick, &c. rise, because of a scarcity, to 5 or 6 times their ordinary price, and the people to be involved in the extreme of suffering; and yet it rarely happens, upon such occasions, that the price of corn is materially affected, or that any less quantity than usual is exported to England.

It may be said, perhaps, that, had potatoes not been introduced, wheat, or barley, or oats would have been the lowest species of food; and that, whenever they happened to fail, the population would have been as destitute as if they had been subsisting on potatoes. It must, however, be observed, that the proportion which the price of wheat, or any species of grain, bears to the price of butcher's meat, tea, beer, &c., is always decidedly greater than the proportion which the price of potatoes bears to these articles: and it therefore follows, that a people who have adopted wheat, or any species of corn, for the principal part of their food, are much better able to make occasional purchases of butcher's meat, &c.; and will, consequently, be more likely to have their habits elevated, so as to consider the consumption of a certain quantity of animal food, &c. as indispensable to existence. And hence it appears reasonable to conclude, that a people who chiefly subsist on corn would, in most cases, subsist partially on butcher's meat, and would enjoy a greater or less quantity of other articles; so that it would be possible for them, in a period of scarcity, to make such retrenchments as would enable them to elude the severity of its pressure.

But, though the population in corn-feeding countries were dependent on the cheapest species of grain, not for a part only, but for the whole, of their food, their situation would, notwithstanding, be less hazardous than that of a population subsisting wholly on potatoes.

In the *first* place, owing to the impossibility, as to all practical purposes at least, of preserving potatoes, the surplus produce of a luxuriant crop cannot be stored up or reserved as a stock to meet any subsequent scarcity. The whole crop must necessarily be exhausted in a single year; so that, when the inhabitants have the misfortune to be overtaken by a scarcity, its pressure cannot be alleviated, as is almost uniformly the case in corn-feeding countries, by bringing the reserves of former harvests to market. Every year is thus left to provide subsistence for itself. When, on the one hand, the crop is luxuriant, the surplus is of comparatively little use, and is wasted unprofitably; and when, on the other hand, it is deficient, famine and disease necessarily prevail.

In the *second* place, the general opinion seems to be, that the variations in the quantities of produce obtained from land planted with potatoes are greater than the variations in the quantities of produce obtained from land on which wheat, or any other species of grain, is raised.

And *lastly*, owing to the great bulk and weight of potatoes, and the difficulty of preserving them on shipboard, the expense of conveying them from one country to another is so very great, that a scarcity can never be materially relieved by importing them from abroad. In consequence, those who chiefly depend on potatoes are practically excluded from participating in the benevolent provision made by nature for equalising the variations in the harvest of particular countries by means of commerce, and are thrown almost wholly on their own resources.

We should, therefore, be warranted in concluding, even though we were not possessed

of any direct evidence on the subject, from the circumstance of the potato being a crop that cannot be kept on hand, from its natural fickleness, and from the incapacity of importing it when deficient, or of exporting it when in excess, that the oscillations in its price must be greater than in the price of wheat; and such, in point of fact, is the case. The oscillation in wheat is thought great when its price is doubled; but in a scarce year the potato is not unfrequently *six* times as dear as in a plentiful one!—(*Minutes of Evidence taken before the Agricultural Committee of* 1821, p. 212.) And the comparatively frequent recurrence of scarcities in Ireland, and the destitution and misery in which they involve the population, afford but too convincing proofs of the accuracy of what has now been stated.

It is, therefore, of the utmost consequence to the well-being of every people, and to their protection in years of scarcity, that they should not subsist principally on the potato. In this country, the pressure of a scarcity is evaded by resorting to inferior species of food, such as potatoes, and a lower standard of comfort; but if our people were habitually fed on the potato, this would be impracticable. The chances of famine would thus be vastly increased; while, owing to the low value of the potato as compared with most other things, the labourers would have less chance of preserving or acquiring a taste for animal food, or other necessaries and luxuries; and, consequently, of changing at any future period their actual condition for a better.

It is not easy to form any very accurate estimate of the profit and loss attending the cultivation of potatoes to the farmer, as compared with other crops. This is a point as to which the statements of those best qualified to give an opinion differ very considerably. Mr. Loudon says, "they require a great deal of manure from the farmer; while, generally speaking, little is returned by them; they are a bulky, unhandy article, troublesome in the lifting and carrying processes, and interfering with the seed season of wheat,—the most important one to the farmer. After all, from particular circumstances, they cannot be vended unless when raised in the vicinity of large towns; hence they are, in most respects, an unprofitable article to the agriculturist. To him, the real criterion is the profit which potatoes will return in feeding beasts; and here we apprehend the result will be altogether in favour of turnips and *rutabaga*, as the most profitable articles for that purpose."

It seems difficult to reconcile this statement with the rapid progress of the potato cultivation: but those who assent to what has been previously advanced with respect to the mischievous consequences that arise from the mass of the population becoming dependent on the potato as a principal article of food, will not regret though it should turn out to be accurate.

Dr. Colquhoun estimated the entire value of the potatoes annually consumed in Great Britain and Ireland at the end of the late war at *sixteen millions* sterling. But it is needless to say that there are no materials by which to form an estimate of this sort with any pretensions to accuracy. The one in question has been suspected, like most of those put forth by the same learned person, of exaggeration: and we incline to think that, had he estimated the value of the yearly produce of potatoes in the empire at *twelve millions*, he would have been nearer the mark. But on a point of this sort it is not possible to speak with anything like confidence.

POUND, the name given to a weight used as a standard to determine the gravity and quantity of bodies. — (See WEIGHTS AND MEASURES.)

POUND, a money of account, = 20*s*.

POWDER, GUN. See GUNPOWDER.

PRECIOUS METALS, a designation frequently applied to gold and silver. We have given, under the articles GOLD, and SILVER, a short account of each metal; and we now propose laying before the reader some details with respect to their supply and consumption.

To enter fully into this interesting and difficult subject would require a long essay, or rather a large volume. Mr. Jacob published, in 1831, an "Historical Inquiry into the Production and Consumption of the Precious Metals," in which he takes up the subject at the earliest period, and continues it to the above epoch. And, though far from being so learned, complete, or satisfactory as might have been expected, this work contains a good deal of valuable information, and deserves the attention of those who take an interest in such inquiries. But within the last eight or ten years the subject has acquired an interest and importance with which it was not previously invested.

1. *Supply of the Precious Metals.* — Since the discovery of America, the far greater part of the supplies of gold and silver have been derived from that continent. Previously to the publication of Humboldt's great work, *Essai Politique sur la Nouvelle Espagne*, several estimates, some of them framed by individuals of great intelligence, were in circulation, of the quantities of gold and silver imported from America. They, however, differed widely from each other, and were all framed from comparatively limited sources of information.* But these have been wholly superseded by the more extensive

* Humboldt brought these estimates together as follows:—

Authors.	*Epochs.*	*Dollars.*
Ustariz	1492—1724	3,536,000,000
Solorzano	1492—1628	1,500,000,000
Moncada	1492—1595	2,000,000,000
Navarete	1519—1617	1,536,000,000
Raynal	1492—1780	5,154,000,000
Robertson	1492—1775	8,800,000,000
Necker	1763—1777	304,000,000
Gerboux	1724—1800	1,600,000,000
The Author of the *Recherches sur le Commerce*, Amst. 1779.	1492—1775	5,072,000,000

(*Essai sur la Nouvelle Espagne*, tome iii. p. 412.)

and laborious investigations of Humboldt. This illustrious traveller, besides being acquainted with all that had been written on the subject, and having ready access to official sources of information unknown to the writers already alluded to, was well versed in the theory and practice of mining, and critically examined several of the most celebrated mines. He was, therefore, incomparably better qualified for forming correct conclusions as to the past and present productiveness of the mines, than any of those who had hitherto speculated on the subject. His statements have, indeed, been accused of exaggeration; and we incline to think that there are grounds for believing that this charge is, in some measure, well founded, particularly as respects the accounts of the profits made by mining, and of the extent to which the supplies of the precious metals may be increased. But this criticism applies, if at all, in a very inferior degree, to the accounts Humboldt has given of the total produce of the mines, and the exports to Europe. And making every allowance for the imperfection inseparable from such investigations, it is still true that the statements in question, and the inquiries on which they are founded, are among the most valuable contributions that have been made to statistical science.

According to Humboldt, the annual average supplies of the precious metals derived from America have been as follows: —

	Dollars a Year at an Average.		Dollars a Year at an Average.
From 1492 to 1500	250,000	From 1600 to 1700	16,000,000
— 1500 — 1545	3,000,000	— 1700 — 1750	22,500,000
— 1545 — 1600	11,000,000	— 1750 — 1803	32,300,000

(*Essai sur la Nouvelle Espagne*, iii. 428. 2nd ed.)

The following is Humboldt's estimate of the annual produce of the mines of the New World, at the beginning of the present century: —

Annual Produce of the Mines of America at the Commencement of the Nineteenth Century.

Political Divisions.	Gold.		Silver.		Value of the Gold and Silver in Dolls.
	Marcs of Castile.	Kilogs.	Marcs of Castile.	Kilogs.	
Vice-royalty of New Spain	7,000	1,609	2,338,220	537,512	23,000,000
Vice-royalty of Peru	3,400	782	611,090	140,478	6,240,000
Captain Generalship of Chili	12,212	2,807	29,700	6,827	2,060,000
Vice-royalty of Buenos Ayres	2,200	506	481,330	110,764	4,850,000
Vice-royalty of New Granada	20,505	4,714	- -	- -	2,980,000
Brazil	29,900	6,573	- -	- -	4,360,000
Total	75,217	17,291	3,460,840	795,581	43,500,000

Taking the dollar at 4*s.* 6*d.* this would give 9,666,000*l.* as the total annual produce of the American mines. Humboldt further estimated the annual produce of the European mines of Hungary, Saxony, &c., and those of Northern Asia, at the same period at about 1,000,000*l* more, making in round numbers their entire produce nearly 11,000,000*l.*

The *quantity* of gold produced in America at the beginning of the century, was to the quantity of silver as 1 to 46; in Europe the proportions were as 1 to 40. The *value* of equal quantities of gold and silver were then in the proportion of 15 or 15½ to 1.

From 1800 to 1810, the yield of the American mines continued to increase; and their produce, and that of the European and Russian mines was then probably rather above than below 11,000,000*l.* But in the last-mentioned year the contest began, which terminated in the dissolution of the connection between Spain and her American colonies. The convulsions and insecurity arising out of this struggle; the proscription of the old Spanish families, to whom the mines principally belonged, who repaired, with the wrecks of their fortunes, some to Cuba, some to Spain, and some to Bordeaux and the south of France; caused the abandonment of several of the mines, and an extraordinary falling off in the amount of their produce. There are no means of estimating the precise extent of this decline; but according to Jacob, who collected and compared all the existing information on the subject, the total average produce of the American mines, inclusive of Brazil, during the 20 years ending with 1829, may be estimated at 4,036,838*l.* a year: being less than ½ their produce at the beginning of the century! — (*Jacob*, ii. 267.)

It has, however, been supposed that Jacob rather exaggerated the falling off. And, at all events, the supplies of bullion obtained from Mexico and S. America began soon after the publication of his work (1831) to increase: and notwithstanding the anarchy to which they have continued to be a prey, that increase has been maintained down to the present time (1858).

It appears from the returns sent home by the British consuls, that the coinage of gold and silver in the Mexican mints, amounted in 1847, to 16,923,948 doll., and in 1848 to 19,506,754 doll. But it is well known that considerable quantities of these metals are

raised and exported from Mexico without being brought to the mints to be coined. And taking this item into account, we shall not, perhaps, be very wide of the mark, if we estimate the entire produce of the Mexican mines in 1847 and 1848 at about 19 and 21½ millions of dollars, of which from 17 to 20½ millions were in silver. And, notwithstanding the anarchy that has continued to prevail in the country, there has been a considerable increase in the interval.

In 1850, the produce of the Peruvian mines was estimated at about 6,000,000 dolls.; and it is not supposed to have varied much in the intervening period.

The produce of the Bolivian mines is usually estimated at about 1-third part of the produce of those of Peru.

In 1857 the value of the gold and silver in coin, bars, and ore, exported from Chili, amounted, according to the Custom-house returns, to 4,185,284 doll.; and we believe we shall not be far wrong if we estimate the total produce of the Chilian mines at 5,000,000 dolls.

The elaborate estimates of Birkmyre *, Chevalier (*Monnaie*, p. 228.), and other authorities, in regard to the produce of the mines of Brazil and other parts of America, differ very widely; and there is, in truth, little besides conjecture on which to form an estimate. Probably, however, it may amount (ex California) to about 4 million doll. The above results when brought together give for the

Estimated Produce of the American Mines (ex California) in 1857-58.

	Dollars.		Dollars.
Mexico	23,000,000	Chili	5,000,000
Peru	6,000,000	All other parts	4,000,000
Bolivia	2,000,000		
		Total	40,000,000

It is, perhaps, unnecessary to observe that all investigations into matters of this sort are liable to be affected by so many sources of error, that, even when they are most

* Birkmyre's estimate of the production of the precious metals in 1846 and 1850, the most elaborate and valuable of any hitherto published, appeared in the "Times" of the 19th May, 1851. We subjoin some of its principal portions.

"Comparative Table, showing the Annual Produce (approximate Calculation) in value of fine Gold and Silver for 1846 and 1850, the first being Two Years before the Discovery of the rich deposits of Gold in California; the latter, Two Years after the Discovery.

Countries.	1846.			1850.		
	Gold.	Silver.	Total.	Gold.	Silver.	Total.
	£	£	£	£	£	£
California	-	-	-	12,000,000	62,088	12,062,088
United States	237,336	1,864	239,230	115,430	11,144	126,574
Mexico	249,753	3,457,020	3,706,773	382,901	5,383,333	5,766,234
New Grenada	252,407	42,929	295,336	252,407	42,929	295,336
Peru	96,241	1,000,583	1,096,824	96,241	1,000,583	1,096,824
Bolivia	60,357	460,191	520,548	60,357	460,191	520,548
Chili	145,585	297,029	442,614	145,585	297,029	442,614
Brazil	259,871	2,603	261,874	289,068	2,227	291,295
Total of North and S. America	1,301,560	5,261,619	6,563,179	13,311,989	7,259,824	20,601,813
Russia	3,414,427	167,831	3,582,258	4,175,860	171,817	4,347,477
Norway	-	32,346	32,346	-	35,607	35,607
North Germany	357	138,022	138,379	357	138,022	138,379
Saxony	-	198,200	198,200	-	198,200	198,200
Austria	282,750	282,651	565,401	288,708	286,971	575,679
Piedmont	17,841	7,444	25,285	17,841	7,444	25,285
Spain	2,498	227,499	229,997	2,498	440,210	442,708
United Kingdom	-	109,989	109,989	-	160,000	160,000
Africa	203,900	1,056	204,956	203,901	1,056	201,956
Borneo	305,930	1,584	307,484	305,850	1,584	307,434
Ava	100,000	517	100,517	100,000	517	100,517
Malacca	72,240	374	72,614	72,240	374	72,614
Sumatra	63,719	330	64,049	63,719	330	64,049
Annam or Tonquin	30,585	53,460	84,045	30,585	53,460	84,045
Various countries *	50,975	33,000	83,975	50,975	33,000	83,975
Total of Europe, Africa, and Asia	4,545,192	1,254,306	5,799,498	5,512,533	1,628,592	6,840,975
Total of North and S. America	1,301,560	5,261,619	6,563,179	13,311,989	7,259,824	20,601,813
Total	5,846,752	6,515,925	12,362,677	18,654,522	8,788,416	27,442,788

* Exclusive of China and Japan, which produce large quantities of gold and silver, the amount of which is quite unknown to Europeans.

"The quantities of gold and silver produced at the under-mentioned epochs were,—

"In 1801, the quantity of pure gold produced in America was 46,331 lb.; in Europe and Northern Asia (exclusive of China and Japan), 4,916; total produce, 51,247 lbs. = 55,910 lb. British standard gold = 2,612,200*l.*

"In 1846 the quantity of pure gold produced in America was 25,503 lb.; in Europe, Africa, and Asia (exclusive of China and Japan), 89,171 lb.; total produce, 114,674 lb. = 125,108 lb. British standard gold = 5,846,772*l.*

"In 1850, the quantity of pure gold produced in America was 261,731 lb.; in Europe, Africa, and Asia (exclusive of China and Japan), 104,219 lb.; total produce, 365,950 lb. = 399,247 lb. British standard gold = 18,654,322*l.*

"The above quantities are probably less than the actual production. The duties on gold in Russia on the produce of the private mines are heavy, varying from 12 to 24 per cent.; in Austria they amount to 10 per cent., in Brazil to 5 per cent., and are understood to lead to a great deal of smuggling. In other countries, such as the United States, where there are no duties, the gold and silver stated in the table are only the quantities brought to the mints to be coined, there being no means of determining the quantity used in jewellery and other arts and manufactures."

skilfully and cautiously conducted, their results are not always to be depended on. But speaking generally, we are disposed to think that the foregoing estimates are rather within than beyond the mark. And it is worthy of notice that they do not differ much from Humboldt's estimate (43,500,000 doll.) of the produce of the American mines at the beginning of this century.

Russian Mines. — Small supplies of the precious metals have for a lengthened period been obtained from Russia. But since 1830, and more especially since 1840, the produce of the Russian mines and washings, but principally the latter, has been rapidly and largely increased. Thus the produce of gold from the Siberian washings and the mines of the Ural, which amounted (according to the official returns) to 3,875 kilog. in 1826, had increased in 1840 to 8,736 kilog., and in 1847 to 27,362 kilog. Since then, however the produce has rather fallen off; and during the three years ending with 1854, their average yield amounted to only 22,768 kilog. a year.* Formerly the value of the silver supplied by Russia greatly exceeded that of the gold; but since 1830 this has not been the case; for while the produce of gold has been so very greatly increased, that of silver has varied but little (from 17,000 to 18,000 kilog. a year,) so that the value of the former is now about twenty times that of the latter. The following table, extracted from the work of M. Otreschkoff, is founded on official returns, and gives a view of the production of the precious metals in Russia down to 1855: —

Account of the Quantity and Value of the Precious Metals produced in Russia from 1810 to 1855.

Years.	Gold.		Silver.		Annual Average of Total Prod.
	Kilog.	*Francs.*	*Kilog.*	*Francs.*	*Francs.*
1810 to 1825	16,485	54,830,448	189,189	42,077,480	6,459,856
1825 „ 1848	231,543	772,445,780	445,262	98,565,008	37,869,948
1848 „ 1851	73,547	252,054,380	55,959	11,998,348	88,000,908
1851 „ 1855	92,085	307,206,156	68,426	15,215,200	80,605,339
Totals	415,610	1,386,516,764	754,836	167,844,036	

The Russian authorities have ascribed the falling off in the produce of the mines and washings since 1847 to the exhaustion of the deposits and the unskilfulness of those engaged in the business. But though this be most probably the case to some extent, it is believed that it has been in part also occasioned by the heavy taxes imposed on the gold raised by private parties. These vary in amount, according to the productiveness of the mines and washings, from about 12 to 24 or 25 per cent., and are most oppressive.

While, however, it may be fairly assumed that these heavy duties have tended to lessen the produce of gold, there can be little doubt that their principal effect has been to defeat themselves by tempting the parties concerned to adopt every means for their evasion, which the notorious corruption of the revenue officers renders an easy matter. And in addition to the influence of these circumstances over the private mines, the depredations and carelessness of the parties employed to work the crown mines tells quite as much over their produce: so that we need not be surprised that it has been doubted whether from a third to a half, or more, of the gold furnished by the Russian mines and washings be not omitted in the official returns. But, taking the deficit at a fourth part only, and supposing the official produce of the washings and mines to amount at present (1858) to about 70,000,000 fr. a year, the real produce would be equal to 87,500,000 fr. or 3,500,000*l.* sterling. It is said that the Russian government intend to throw open the crown mines and washings to the public, and at the same time to make a large reduction in the duties on the produce obtained from the private mines. This would be sound policy; and if it be adopted, a considerable increase in the supplies of gold and silver may be anticipated.

Produce of Gold and Silver in other parts of Europe.—It might have been supposed that the late extraordinary influx of the precious metals from California and Australia would have given a serious check to their production in Europe; such, however, has not been the case, but on the contrary it has considerably increased within the last ten or twelve years.

Our readers are aware that lead ore always contains a greater or less quantity of silver; and when the value of the latter is sufficient to repay the expense, it is usual to extract it by means of the process of "refining." This process has latterly been much improved, and is now profitably applied to ores to which it was formerly unsuitable. And as silver in Europe is mostly obtained from lead, this has been a principal source of its late increase.

In 1845 some rich mines of argentiferous lead were discovered in the provinces of Murcia and Granada in Spain, not far from Alicant; the yield of silver from which,

* Otreschkoff, *De l'Or et de l'Argent, &c.*, i. 179. The author is a councillor of state in the service of the Czar.

and the mines in other parts of the peninsula, is believed to amount to 500,000*l.* or 600,000*l.* a year. The produce of the Austrian and German gold and silver mines has also increased, and small quantities are furnished by Piedmont, France, and other parts of the Continent.

The reader may perhaps be surprised to learn that, in consequence principally of the improved process of refining already referred to, no fewer than 532,866 oz. of silver were obtained from lead in the United Kingdom in 1857, which at 5*s.* an oz., was worth 133,216*l.* 10*s.**

The total annual production of the precious metals in Europe, exclusive of Russia, may be roughly estimated to have amounted in 1857 and 1858 to 1,500,000*l.* or 1,600,000*l.* a year.

On the whole, therefore, it may reasonably be concluded that the aggregate production of the precious metals (excluding the produce of the Californian and Australian gold fields) in America, Asiatic Russia, and Europe in 1857, or rather in each of the three years ending with 1857, amounted to about 14,050,000*l.*, viz. : —

America	-	£9,000,000
Asiatic Russia	-	3,500,000
Europe	-	1,550,000
Total	-	14,050,000

And deducting from this sum the total estimated produce of the same countries in 1809, when the American mines had attained the maximum of their productiveness previously to the revolutionary disturbances (12,500,000*l.*), there is an increase of 1,550,000*l.*

In addition to the supplies of the precious metals already specified, further quantities are supplied by China and other parts of Asia, Japan, the Eastern Archipelago, &c., and also by various parts of Africa. There is, however, no authentic information in regard to this produce; and excepting small supplies of gold dust brought from some parts of the African coast, the bullion of the countries referred to has but little influence in the markets of the civilised world. M. Otreschkoff estimates, or rather conjectures, that the produce of gold and silver in Asia (exclusive of Russia), the Eastern Archipelago, Oceanica, &c., amounted at an average of the four years ending with 1854, to 114,527,820 fr. (4,581,000*l.*) a year, and that of Africa to 13,980,672 fr. (560,000*l.* a year.) (*De l'Or et de l'Argent, &c.* i. 287, 293.)

Supplies of Gold from California and Australia. The gold in these regions is found in the debris of the quartz rocks in which it has been imbedded, and in the rocks themselves. In the former case it is found in the hollows to which it has been carried down by rains or streams, at different depths, sometimes in grains or *flakes*, and sometimes in lumps or *nuggets*, of varying but occasionally of very considerable magnitude. Gold may be sought or dug for (hence *diggings*) either by single or associated individuals; but when quartz rock is crushed to obtain gold, expensive machinery is usually employed, and the work is for the most part carried on by companies. The business of the diggings has very much of the character of a lottery, with many blanks and a few large prizes: but in the crushing of quartz the returns are less irregular, and the business partakes more of the character of an ordinary branch of industry.

The Californian deposits were discovered late in May or early in June 1848; and notwithstanding the remoteness of the country, and the fact of its being almost destitute of inhabitants, above 5,000 persons were attracted to the spot by the end of the season, who are said to have realised above 1,000,000*l.* sterling. The news of the discovery and of the unexampled richness of the gold fields having spread on all sides with electrical rapidity, occasioned an extraordinary influx of immigrants from most parts of the world into California. The supplies of gold attained to an unexampled magnitude; cities rose in the wilderness as if by enchantment; the great bay of San Francisco, which had hitherto been entirely deserted, was crowded with ships and steamers from the most distant countries; and California speedily became one of the states of the Union, and has now a large population.

But here, as elsewhere, we have to regret the want of accurate information in regard to the production of gold. It appears, however, from the Custom-house returns that during the years 1856 and 1857, gold of the value of 51,142,269 and 49,340,186 dolls. was shipped from San Francisco. And, in addition to these quantities, large amounts, of which no account is taken, are conveyed away by parties returning to Mexico, to the Eastern States, Europe and China. Of these various estimates have been made. But the prevalent opinion in the best informed quarters, seems to be that, when they are in-

* During the year 1857, 5,190 tons argentiferous ores were imported, mostly from Chili, which produced 846,569 oz. of silver, worth, at 5*s.* an oz., 211,642*l.* This, however, is to be reckoned in the produce of Chili rather than of England. (Hunt's *Mining Records for* 1858, p. 30.)

cluded, and allowance is also made for the quantity retained at home, the total yield of gold in California in 1856 and 1857 may be moderately reckoned at from 60,000,000 to 65,000,000 dols., or from 13,300,000*l.* to 14,400,000*l.*, or nearly 14,000,000*l.* at an average.

But vast as it certainly is, this production has been equalled and sometimes surpassed by that of Australia. The deposits in the latter were not discovered till 1851, and they were so very rich, and the influx of immigrants so extraordinary, that the gold fields of Victoria only are estimated to have produced in 1852 no fewer than 4,247,152 oz.; which, at the then price of 70*s.* an oz. gives a gross amount of 14,866,799*l.* This, however, has been the *maximum* amount of production hitherto attained. In 1858 the same gold fields furnished only 2,421,461 oz. According to the carefully compiled and valuable returns of Mr. Khull of Melbourne, the yield of gold in Victoria since 1852 has been as follows, viz: —

Years.	Ascertained Ounces.	Unrecorded Ounces.	Total Ounces.	Price per Ounce.	Value.
1852	3,159,329	1,088,395	4,247,152	70*s.*	£14,866,799
1853	2,274,152	816,199	3,090,342	75	11,588,782
1854	1,831,434	361,264	2,192,699	80	8,770,796
1855	2,234,296	729,864	2,964,073	80	11,856,292
1856	2,530,383	1,003,144	3,533,527	80	14,134,108
1857	2,341,147	264,893	2,606,040	80	10,424,160
1858	2,253,117	168,344	2,421,461	80	9,685,844

In addition to the gold obtained from Victoria, a supply which in 1852 amounted to nearly 3,000,000*l.* was obtained from the Sydney or New South Wales district. The produce from this source has, however, rapidly declined, and is now (1858) so inconsiderable as hardly to be worth notice.

It would therefore appear that the entire annual produce of the precious metals in different parts of the civilised world might, in 1857 and 1858, be estimated as follows, viz.: —

America, excluding California	£9,000,000
Asiatic Russia	3,500,000
Europe	1,550,000
California	14,000,000
Australia	10,000,000
Total	38,050,000

The question in regard to the probable continuation, increase, or diminution of this supply is of the greatest interest. Unfortunately, however, nothing but the vaguest conjectures can be offered with respect to it. Those who think that the supplies of the precious metals are likely to increase may allege that, being very widely diffused, fresh deposits will be successively brought to light; that the processes followed in the diggings, in the crushing of quartz rocks, and in the smelting and refining of the metals, will be further improved; and that the increase of population will make a still greater amount of labour be devoted to the search after these metals. But while we admit that there is a good deal of probability in these statements, still we question whether the result which they point at will be realised. Though gold be very generally distributed, it is extremely doubtful whether there be many places in which the deposits are so rich and so extensive as in California and Australia; and even in these the produce, as already seen, is either stationary or has begun to decline. The myriads of adventurers that are attracted to prolific diggings being all animated by the "*auri sacra fames*," and putting forth their entire energies, can hardly fail, in no very lengthened period, to rifle the richest beds. And when this is done, — when the excitement inspired by the original discovery is worn off, and the great prizes in the gigantic lottery recur only at distant intervals, — then, unless new and equally promising discoveries should be made, a serious check will be given to the gold-seeking mania. The process of quartz-crushing is believed to produce only moderate profits, and is not of a kind to collect crowds of competitors. The few fortunes that have been realised in California and Australia have not been made by the miners, but by the merchants and others who have supplied their real or imaginary wants, and bought their gold-dust and nuggets on advantageous terms. Of those engaged on their own account in the search for gold, very few have retired from the pursuit with anything like a competence. The great majority have hardly realised the wages current in the districts before the deposits were discovered; and the conviction seems to be everywhere gaining ground that more is to be made by cultivating the surface of the earth than by digging in its bowels or crushing its rocks.

Consumption of the Precious Metals. — In order to form a reasonable conjecture in regard to the probable influence of this vast supply of the precious metals, it is necessary to inquire into their uses and probable consumption. And this inquiry, we regret to say, is still more difficult, and more likely to be infected with errors, than the inquiry in regard to their production.

The precious metals are used as coin or currency to facilitate exchanges; as wealth which may be conveniently kept or hoarded; and they are used in the arts in the shape of plate, and in gilding, and so on.

The quantities employed in these functions are very large indeed. They vary, however, in different countries and periods with the circumstances peculiar to each; such, for example, as the greater or less abundance of paper money, and the degree in which the use of coins is lessened by the various devices resorted to for economising currency; the fashion as to plate and furniture; the feeling of security at the time; and a number of other circumstances all liable to great and sometimes sudden changes.

The gold and silver employed in this country as currency, and in the customary reserves in the hands of the bankers, is supposed to amount to from 70,000,000*l.* to 75,000,000*l.** In France the precious metals employed in the same way, probably amount to nearly double the sum now mentioned, or to 130,000,000*l.* or 140,000,000*l.*† And we believe that we may safely estimate the entire sum employed as currency in Europe, America (North and South), Australia, the Cape of Good Hope, and Algeria, at from 490,000,000*l.* to 510,000,000*l.*, or 500,000,000*l* at a medium.‡ Now, supposing this sum to be employed as above stated, as currency, we have first to inquire into its probable wear and tear and loss, and then into the probable rate of its increase. And taking into account the extraordinary extension of navigation and emigration, and the proportional risk of loss from shipwreck and other casualties, we are disposed to think that the annual wear and tear and loss of coin may be estimated at about 1½ per cent. of the entire mass of the currency; which, taking the latter at 500,000,000*l.*, would amount to 7,500,000*l.* a year.

It is difficult to form any probable estimate of the rate at which the bullion used as currency may be likely to increase, supposing its value not to fall off. The extremely rapid increase of refinement and population in most parts of the civilised world, and especially in America and Australia, is known to every one. And it seems pretty certain that some important countries which have hitherto made comparatively little progress, are about to enter on a new career of industry and enterprise. In Russia, for example, the measures that are in progress for the construction of railways and the emancipation of the peasantry can hardly fail to awaken the dormant energies of the latter, and give new vigour to their exertions. And the capacities of that country are so very great, that it is not easy to imagine, were its resources at all developed, to what an extent its wealth and population might be increased.

At present some of the finest, best situated, most extensive, and of old the most populous and flourishing countries in the world, groan under the deadly influence of the superannuated but destructive despotism of the Turks. It is difficult, however, to suppose, despite the efforts that may be made to bolster it up, that this miserable fabric of superstition and tyranny should hold together much longer. And were it overthrown, and anything like an efficient government established in its stead, a fruitful and all but boundless field would be laid open to industry and enterprise.

But without insisting on such prospective considerations, and looking only to the advances that are now being made, we do not think that we shall exaggerate if we estimate the increase of currency that is now going on at 2 per cent. on its gross amount (500,000,000*l.*), or at 10,000,000*l.* a year.

It is impossible, however, supposing this estimate not to be very wide of the mark at present, to conjecture how long the currency will go on increasing in this ratio. It may, as we have seen, be safely taken for granted that the sphere of civilisation and commerce is destined rapidly to extend. But its expansion will no doubt be accompanied with various contrivances for economising the use of metallic money; so that the quantity of it in circulation may not increase for any very lengthened period at the rate above stated. If it did, it would absorb an immense supply of gold. In barbarous countries, and in those which are entering on the career of civilisation, the coins afloat may increase at the rate of 3 or 5 per cent., or more. But in countries which are more advanced their increase may be nothing, or less perhaps than even 1 per cent.

* It has been estimated as high as 90,000,000*l.*; but the best authorities look upon this estimate as greatly beyond the mark.

† It has been estimated by Levasseur (p. 106) and others at no less than 160,000,000*l.* But this includes a portion of the coins that have been hoarded, and which can no longer be reckoned in the currency.

‡ It would be inconsistent with the objects of this article, and with the limits within which it must be confined, to engage in a discussion of the numerous and often conflicting statements and details on which this estimate has been founded. Some information with respect to it may be found in Chevalier's valuable treatise *De la Monnaie* (p. 326, &c.), Paris, 1850; in Stirling's *Gold Discoveries*, p. 182; in the learned and excellent tract of Tegoborski, *Essai de la Découverte des Gites Aurifères en Californie et en Australie, &c.*, p. 65; Levasseur, *De la Question de l'Or*, p. 106; in the work of Otreschkoff, *De l'Or et de l'Argent;* and a host of other publications. The precious metals in circulation in Russia in the early part of 1851 were estimated in the *Petersburg Gazette* (October 12, 1852), at 326,000,000 roubles, equal, at 40*d.* per rouble, to 53,800,000*l.* The greater part (190,000,000 roubles) of this currency consisted of gold.

It is equally difficult to acquire any satisfactory information in regard to the quantity of bullion consumed in the arts. Jacob estimated its amount in Europe and America in 1830 at about 5,900,000*l.* a year. But it has since been repeatedly shown by various intelligent writers that this estimate was in many respects wide of the mark, and that on the whole it was a good deal underrated. And supposing the consumption of the precious metals in the arts to have amounted to 6,500,000*l.* or 7,000,000*l.* in 1830, it must now be very much greater. Everywhere, indeed, but more especially in England, America, Germany, and Russia, there has been an extraordinary increase of population and wealth during the last eight-and-twenty years. Plate and plated articles for use and ornamental purposes are now in extensive demand among all but the very lowest orders. Vastly more persons are raising themselves from poverty to competence and affluence than at any former period; and these are universally large buyers of plate and other costly articles. A taste for gilded saloons, magnificent glasses, and the gorgeous furniture of the age of Louis XIV., is at present all but universally diffused, and must have added greatly to the consumption of gold, which has been still further augmented by its increased outlay on the gilding of earthenware and china, harness, books, &c.* At the first blush of the matter, some of these items may not appear to the careless observer to be of much importance; but those who reflect a little on the subject, and who consider the immense and rapidly increasing demand for the articles referred to in this country and Europe generally, and in America and Australia, will be satisfied that the total consumption of the precious metals, and especially of gold, in the way now mentioned, must be quite immense.

We incline to think that the value of the precious metals in Great Britain in 1858, in the shape of plate, watches, jewels, and trinkets of all descriptions, may be safely estimated at about 4*l.* to each individual of the entire population, making in the aggregate a sum of about 88,000,000*l.* to which, if we add 12,000,000*l.* for Ireland, the whole will amount to 100,000,000*l.* And vast as this sum may appear, we believe it is inside the mark. Silver spoons and forks, silver tea-services, with trays, &c. are now universally met with throughout the middle, as well as the upper classes; while most families, of any antiquity or consideration of any kind, possess large quantities of ornamental as well as useful plate. In the Continent and the United States the bullion invested in the way now stated is very great indeed. In Italy and some other countries the lower classes, especially the women, though not generally so well off as in England, spend more money upon massive rings, chains, brooches, and such like articles, which they regard much as girls in England do their deposits in the savings' bank, as a reserve fund or capital.

We are aware that Jacob says, that "In the present day in this country the quantity of gold and silver in actual existence, including utensils, ornaments, jewellery, trinkets, and watches, is three or four times as great as the value of those metals which exists in the form of money." (*Historical Inquiry*, i. 210.) And as the value of the precious metals in Great Britain, in the shape of coin, is certainly not less at present (1858) than 70,000,000*l.* or 75,000,000*l.*, the value of the bullion in plate, jewellery, &c. ought, on this hypothesis, to amount to at least 210,000,000*l.* or 280,000,000*l.*! But there can be no manner of doubt that the lowest of these sums would be far beyond the mark. Tegoborski, indeed (*Gites Aurifères*, &c., p. 66), who is supported by Humboldt (*Nouvelle Espagne*, iii. p. 465, ed. 1827), estimates the value of the bullion vested in plate, watches, jewellery, &c., at only half the amount vested in coin. But this estimate, though not perhaps very far wrong if applied to the poorer countries of Europe, would undoubtedly, if applied to Great Britain, be as much under as that of Jacob is above the mark.

But, without pretending to an accuracy which, on such subjects, is unattainable, we run little risk in concluding that the expenditure of bullion in the arts — that is, in plate, jewellery, gilding, &c., — in Europe, America, and Australia, cannot at present (1858) be under, if do not exceed, 15,000,000*l.* or 16,000,000*l.* a year. But of this a portion, estimated at about one-fifth, or 20 per cent., is supposed to be obtained from the fusion of old plate, the burning of lace, picture-frames, &c. And hence, if we deduct from the 15,000,000*l.* used in the arts 20 per cent. for the old bullion, we have 12,000,000*l.* for the total quantity of the supplies from the mines annually disposed of in this way; a considerable portion of which, including that used in the gilding of rooms, earthenware, books, harness, buttons, &c., cannot be again recovered or applied to any useful purpose.

And however great it may appear to be, this amount will be largely increased with the increase of population and the spread of refinement in the arts, and still more by anything like a considerable fall in the value of bullion.

* Estimates have been made of the expenditure upon some of these items, but the data on which they are founded are too vague to entitle them to much attention.

Hence it would appear, putting these items together, that the annual consumption of bullion as currency, and in the arts, amounts to about 29,500,000*l.* viz.: —

Wear and tear and loss of coin - - -	£7,500,000
Increase of currency - - - -	10,000,000
Used in the arts - - - -	12,000,000
Total -	29,500,000

It will be difficult to show that these estimates are beyond the mark; and supposing them to be nearly correct, it follows, deducting the above sum from the previously estimated produce of the mines (38,050,000*l.*—29,500,000*l.*), that we have a surplus of 8,550,000*l.* to defray the sums required for hoarding, for exportation to the East, &c. And there certainly seems to be little reason for thinking that a supply of this amount will do more than meet the demands upon it.

It may be said, perhaps, that we must have exaggerated the consumption of the precious metals, inasmuch as the sum which we suppose is annually consumed considerably exceeds the entire produce of the mines previously to the supplies from California and Australia. But, while we admit the fact to be as stated, we deny the inference which is attempted to be drawn from it. The truth is, that while the discovery of the Californian and Australian deposits has added in so great a degree to the supply of bullion, it has also added very largely to its consumption. It has given an unparalleled stimulus to emigration and commerce. The population of California and Victoria has increased in a ratio hitherto unheard of, or from next to nothing a dozen years ago, the former to 507,000 in 1856 (*American Almanac* for 1858), and the latter to 463,000 on the 31st December, 1857. But despite this increase, wages, owing to the general desire to speculate on one's own account, continue to be extravagantly high. In California in 1856 miners readily obtained from 10*s.* to 25*s.* a day, according to their skill and capacity for enduring fatigue; common labourers from 8*s.* to 12*s.* a day; and house servants from 5*l.* to 6*l.* a month. For a while most articles were proportionally high, so that these extravagant wages were not so advantageous to the parties receiving them as might have been supposed. But there has latterly been a great fall in the price of manufactured goods and colonial produce; while, owing to the progress of agriculture, provisions have also been greatly reduced. Lodgings are still very dear, but not so exorbitant as formerly. In Australia, the state of things for a while after the discovery of the gold fields was not very dissimilar; wages, however, though still very high, are now (1858) a good deal lower there than in California; while in other respects there is but little difference between the two. And if, in addition to these unprecedented circumstances, we take into account the unsettled character of the population, with the absorbing pursuit of wealth on the one hand, and the utter recklessness of expenditure on the other, we must be satisfied that the currency of these countries cannot be otherwise than excessive as compared with their population.

The powerful influence of the late gold discoveries is not, however, confined to California and Australia. The emigration to these countries, and the new and rapidly increasing markets which they afford, have told effectually here, and indeed in every commercial country. In England the rise of wages cannot be estimated at less than from 10 to 30 per cent., while in Ireland it has been a good deal more. And though the rise of wages in the latter be in part ascribable to the famine of 1846–47, and in a still greater degree to the emigration to the United States, yet, as this emigration has been powerfully promoted by the efflux of emigrants from the Atlantic States to California, it is clear that the gold of the latter has been at bottom a prominent cause of the improvement in the condition of the Irish peasantry. The same may be said of the emigration from Germany, which has latterly become of first-rate importance. At an average of the seven years ended with 1852, it amounted to 103,591 individuals a year; the numbers in 1851 and 1852 being respectively 120,708 and 155,730, of which by far the greater portion was destined for the United States.—(*Report of Emig. Com.* for 1853, p. 104.) In 1854 the emigrants to the latter from Germany only, amounted to no fewer than 223,862; and though not so great since, they are still very numerous, having amounted, in 1857, to 91,781.—(*Hunt's Com. Mag.*, June, 1858, p. 768.)

The rise of wages consequent on these extraordinary mutations, and the increased exports of produce which they have occasioned, have exercised a powerful influence in the United States as well as in Europe. And there, consequently, as well as here, a greater supply of bullion is required to serve as currency. And while this influence is operating on the one hand, on the other the swarms of *parvenus* who are every day rising to opulence, contribute to swell the demand for all sorts of things, but especially for plate and plated goods, jewellery, and such like articles. And what is probably of still greater importance, the metallic basis of the currency is everywhere being enlarged; and the conviction is rapidly gaining ground in the United States as well as in Europe,

that no paper currency can be safe unless effectual measures be taken to maintain such a supply of the precious metals in the countries in which it circulates as may be necessary to insure its immediate conversion into coin.

Burying of Gold and Silver.—It is singular that, in estimating the consumption of gold and silver, Jacob did not make any allusion to the practice which has uniformly prevailed in all countries harassed by intestine commotions or exposed to foreign invasion, of burying treasure in the earth. Of the sums so deposited a very considerable proportion has been altogether lost; and this has no doubt been one of the principal means by which the stock of the precious metals has been kept down to its present level. Every one is aware that during the middle ages treasure trove, or money dug from the ground, formed no inconsiderable part of the revenue of this and most other countries.* And though the burying of money has long ceased in Great Britain, such has not been the case among our neighbours. Wakefield tells us that down to 1812 the practice was common in Ireland†; and though much fallen off in the interval, it continues to this day to be occasionally resorted to in that part of the kingdom. It has always prevailed, sometimes to a less and sometimes to a greater extent, in almost every part of the Continent.‡ The anarchy and brigandage that accompanied the revolution of 1789 made the practice be carried to an extraordinary extent in France; and there, owing to various causes which are too obvious to require being pointed out, it still maintains a broad and firm footing. So much so is this the case that, to use the words of a distinguished authority, "*En France nous enfouissons notre argent dans nos coffres, ou nous le cachons dans les murs de nos maisons et lès sillons de nos champs, selon les vieilles coutumes de l' Orient. Il y a peut-être un milliard* (Forty millions sterling) *de notre numéraire rendu ainsi stérile.*"§ And yet we doubt whether the burying of treasure be at present as prevalent in France as in many parts of Germany and in Hungary, Russia, Italy, Spain, and European Turkey. The feeling of insecurity that has prevailed in all these countries, especially since 1848, has given a stimulus to this practice which nothing can countervail. Of the many millions that were distributed among the countries round the Black Sea during the recent campaigns in that quarter, the greater portion is believed to be as much withdrawn from circulation as if it had never been dug from the mine. But the burying of treasure in Europe is but trifling compared to what it is in the East. There the practice has prevailed from the remotest antiquity down to the present time, and has been and is carried to an enormous extent. Bernier, indeed, and all the most intelligent travellers and inquirers who have visited India, Persia, China, and the East, generally concur in thinking that this burying of the precious metals is a main cause of their continued drain to India, &c., where they never seem to become more abundant. But as we have already noticed this part of our subject at considerable length (*antè*, p. 560. &c.), it is needless to dwell further upon it.

It is impossible, of course, to form any estimate of the sums that are thus annually placed, as it were, in mortmain. They vary from year to year, and are always greatest when wars or revolutionary disturbances are in progress, or when their occurrence is anticipated, or but little confidence is placed in the permanence of existing institutions. There can, at all events, be no question that the sums which have been disposed of in the way now stated in the different continental and oriental countries of late years have been quite enormous, and have far exceeded those absorbed by any of the other channels of expenditure.

Exportation of Gold and Silver to the East.—Humboldt estimated that, of the entire produce of the American mines at the beginning of this century, amounting, as already seen, to 43,500,000 dollars, no less than 25,500,000 were sent to Asia, 17,500,000 by the Cape of Good Hope, 4,000,000 by the Levant, and 4,000,000 through the Russian frontier.‖ But some years ago this immense drain began to diminish, and in 1832 and 1833 it actually set in an opposite direction. Since then it has fluctuated, sometimes inclining to the one side and sometimes to the other. With the exception, however, of the bullion received in payment of the 21,000,000 dollars due to us by China, under the treaty of 1842, there was not for some years any very decided movement of bullion from Europe to the East, or from the East to Europe, though, on the whole, the imports into the latter appear to have exceeded the exports; at least, this was certainly

* Blackstone, Com., b. I., cap. 8., § 13.

† Account of Ireland, i. p. 593.

‡ Storch, *Economie Politique*, i. p. 222, 1823.

§ Dupuynode, *De la Monnaie, du Crédit, &c.*, i. 182. Paris, 1853; one of the best of the late French publications on the important subjects of which it treats.

‖ Probably, however, this estimate was a good deal beyond the mark. "Humboldt, cela n'est plus douteux, estimait trop haut la valeur de l'or et de l'argent, qui s'écoulaient au commencement de ce siècle d'Europe en Asie, et portaient trop bas la déperdition qu'ils éprouvaient, dans la même temps, par le frottement et leur conversion en objets d'orfevrerie et de bijouterie."—(*Dupuynode de la Monnaie*, &c. i. p. 35.) There is no longer, we believe, any doubt in regard to the accuracy of the latter part of this statement; and it is pretty generally supposed that the first part is, also, well founded.

the case during the five years from 1844-45 to 1848-49, both inclusive. But more recently, or since 1850, the drain for bullion for the East has set in with renewed force; and for some years it has been wider and deeper than ever. This is evident from the following statements:—

Total Exports of Bullion from Great Britain to the East for each of the 7 Years ending 1857 (from Tables compiled by James Lowe, Esq., of Austin Friars).

Years.	Gold.	Silver.
1851	£102,280	£1,716,100
1852	921,739	2,630,238
1853	880,202	4,710,665
1854	1,174,299	3,132,003
1855	948,272	6,109,889
1856	404,749	12,118,985
1857	269,275	16,795,232
Total for 7 years	4,700,816	47,513,112
Annual average	671,545	6,787,587

Total Exports of Bullion from the Mediterranean Ports to the East, for each of the 5 Years ending with 1857.

Years.	Gold.	Silver.
1853	£93,528	£848,362
1854	48,456	1,451,014
1855	243,239	1,524,240
1856	74,039	1,988,916
1857	259,986	2,350,689
Total for 5 years	719,248	9,164,221
Annual averages	143,849	1,832,844
Total annual averages	815,394	8,620,431

Total annual average of gold and silver, £9,435,825.

To which have to be added the exports by the Black Sea, the Russian and Turkish frontiers, &c.

It is to be borne in mind that although India did not, for several years prior to 1850, derive any considerable supply of bullion from Europe, she drew during that period large supplies from China. This was a consequence of the vast increase of the importations of opium into the latter. With the exception of tea and silk, China has few native products, other than the precious metals, fit for foreign markets. And the exports of the former being for some years not much more than sufficient to pay for the products sent to her from Europe and America, a very considerable part of the cotton and opium she imported from India was paid for in bullion, the increased exports of which were said to have latterly brought her into serious difficulties. But the circumstances are now (1858) entirely changed. The demand for the silks, teas, &c., of China, in this and other western countries, has latterly become so immense, and has so far exceeded the value of the produce exported by them to China, that the balance in bullion received by the latter on her trade with them, has enabled her to meet with little or no difficulty the drain for bullion occasioned by the increased imports of opium from India. The following statements set these results in a sufficiently clear point of view:—

Account of the Total Value of the Exports from India to China, and of those from China to India, in each of the 5 Years ending with 1857-58, showing the Excess of the Former over the Latter.

Years.	Exports from India to China.	Exports from China to India.	Excess of Exports from India to China.
1853-54	£6,704,734	£810,337	£5,894,397
1854-55	6,445,134	915,049	5,530,085
1855-56	6,592,953	787,717	5,805,236
1856-57	7,568,984	599,672	6,969,312
1857-58	9,366,837	915,858	8,450,979

Account of the Total Value of the Exports from the U. K. to China, and of those from China to the U. K., in each of the 5 Years ending with 1858, showing also the Excess of the Latter over the Former.

Years.	Exports from the U. K. to China.	Exports from China to U. K.	Value of Excess of Exports from China to U. K.
1854	£1,027,116	£9,125,040	£8,097,924
1855	1,303,996	8,746,590	7,442,594
1856	2,286,734	9,421,648	7,134,914
1857	2,505,174	11,448,639	8,943,465
1858	2,965,569	7,043,089	4,077,520

Account of the Total Value of the Exports from the U. K. to India, and of those from India to the U. K. in each of the 5 Years ending with 1858, showing the Excess of the Latter.

Years.	Total Value of Exports from U. K. to India.	Total Value of Exports from India to U. K.	Excess of Value of Exports from India to U. K.
1854	£10,574,632	£12 973,613	£2,398,981
1855	11,370,671	14,758,721	3,388,050
1856	12,337,195	1 [illegible] 73,524	7,046,329
1857	13,662,742	2 [illegible] 094,301	7,431,559
1858	18,91 [illegible] 675	17,107,185	*nil*—1,537,490

Comparison between the Balance due by China to India, and by the U. K. to China.

	Balance due by China to India.	Balance due by the U. K. to China.
1854	£5,894,397	£8,097,924
1855	5,530,085	7,442,594
1856	5,805,236	7,134,914
1857	6,969,312	8,943,465
1858	8,450,979	4,077,520
	32,650,009	35,696,417

Account of the Total Value of the Exports from the U. K. to India and China, and of the Total Value of Imports from India and China into the U. K. in each of the 5 Years ending with 1858, showing the Balance in favour of the Latter.

Years.	Exports.			Imports.			Excess of Imports.
	To India.	To China.	Total.	From India.	From China.	Total.	
1854	£10,574,632	£1,027,116	£11,601,748	£12,973,613	£ 9,125,040	£22,098,653	£10,496,910
1855	11,370,671	1,303,996	12,674,667	14,758,721	8,746,590	23,505,311	10,830,644
1856	12,327,195	2,286,734	14,613,929	19,373,524	9,421,648	28,795,172	14,181,243
1857	13,662,742	2,505,174	16,167,916	21,094,301	11,448,639	33,542,940	17,375,024
1858	18,944,675	2,965,569	21,910,244	17,107,185	7,043,089	24,150,274	2,240,030

N. B. These tables have been abstracted and made up from the Parliamentary Paper, No. 38., Sess. 2, 1859.

It is plain from these statements:

I. That, taking India and China together, the imports from them into this country have greatly exceeded the exports, leaving a heavy balance to be discharged by shipments of bullion. Last year (1858), indeed, this balance has been diminished by the great increase in the exports to India, and by the diminished imports from India and China. But we do not think that much stress should be laid on the present increase of the exports, for there can be no doubt that it is in great measure exceptional, and is mainly occasioned by circumstances connected with the late insurrection in India. Now that tranquillity has been restored, the probability is that the exports (except of iron for railways) will fall back to their old level; and that their increase, if it take place, will be but gradual.

II. In regard to China, the imports from which so greatly exceed the exports, it is difficult to form any anticipation of what may take place in future. There can, indeed, be little or no doubt that, great as the imports of silk and tea now are, they will become much greater in future. The real question is, Will the demand for British products in China extend in the same, in a less, or in a greater proportion? And though the question be by no means free from difficulty, we incline to think that the influence of the late treaty, and the greater facilities it affords for the importation of foreign products into China, will increase the amount of the imports. But we have no idea that they will, if ever, at least for many years to come, be equal to the exports; or that the balance between China and England will cease to be largely against the latter.

III. It is equally difficult to cast the horoscope of the future trade between India and China. The importation of opium into the latter is now legalised, and an increase of imports may, in consequence, be expected. But, on the other hand, opium is beginning to be extensively grown in China; and, if its home culture succeed, it is next to certain that the importation from India will be lessened. These, however, are matters which must be left to time and experience to clear up and decide.

IV. On the whole, however, it appears to be sufficiently plain, in whatever way bullion may be distributed among the eastern countries, that they will continue, as hitherto, to import large supplies from the western world. In truth it is much cheaper here than in the East; and, being so, it is advantageous to export it. There is therefore every prospect that the drain of bullion from the West to the East will go on, with occasional oscillations, for the time to come as it has done in times gone by; and that it will continue to absorb a very large proportion of the produce of the mines, perhaps as much as 5 or 6 millions a year.

It is seen from the previous statements that silver forms by far the larger portion of the bullion exported to the East. But this depends on peculiar circumstances; and it is by no means clear, nor indeed very likely, that silver will permanently continue, as heretofore, to be sent to India and China in preference to gold. On the contrary, it seems to be extremely probable, provided there be any material or indeed sensible decline in the value of gold, as compared with silver, that it will begin to be largely exported to these countries. It is extensively used in Hindostan for ornaments, and is preferred by many, both in India and China, to silver, as being more portable and better suited for hoarding. In the event, too, of these great countries becoming, as it is all but certain they will do, richer and more commercial, gold will no doubt be employed, whether legal tender or not, to a less or greater extent, in the settlement of pecuniary transactions. And, on the whole, we should be inclined to anticipate, that anything like a considerable fall in the value of gold would make it go far gradually to supersede

silver in shipments to the East, and open for it in that quarter an all but boundless market.

In all speculations in regard to the probable future supply of gold, it should be carefully borne in mind, that any considerable fall in its value would unavoidably check its production, and, consequently, tend to lessen or prevent its further fall. It is plain, for example, that a decline of 10 per cent. in the value of gold, would, *cæteris paribus*, occasion the abandonment of all those mines, diggings, washings, &c., which only yield a nett profit of that amount. We are aware, that owing to the production of gold, as at present carried on, having more of a gambling character than pertains to most branches of industry, the principle now stated would not operate so speedily as might, perhaps, be anticipated. But of its ultimate operation there can be no question. And it may, therefore, be laid down that any reduction in the value of gold, which is not accompanied by a corresponding improvement in the methods of its production, inevitably tends to correct itself, or to check or hinder its further reduction.

Substitution of Gold for Silver.—Hitherto both gold and silver coins have been legal tender in the U. States, France, and some other countries. Wherever such is the case, the value of the coins in respect of each other has to be fixed by authority; that is, it has to be enacted that debts may be discharged by payments either of gold or silver money, at the rate of so many dollars to the eagle, francs to the Napoleon d'or, shillings to the sovereign, and so on, as laid down in the mint regulations of the different countries. But however correct at the periods when they are made, these valuations speedily become incorrect; and whenever such is the case, it is for everybody's advantage to make all his payments in the metal which happens to be overvalued as compared with the other. And hence the use of gold as money in preference to silver in England, and of silver in preference to gold in France and the U. States.

In the improbable event of the mint valuations of gold and silver continuing for any considerable period to be nearly identical with their real values, the former would be sure to be preferred as money to the latter in all but petty transactions. Being much more valuable in proportion to its bulk and weight than silver, gold is more easily concealed and carried about. When notes circulate of a low value, the advantage now referred to on the side of gold is less obvious. But such low notes are in all respects most objectionable; and where, as in England, there are no notes in circulation for less than *5l.*, and in France for less than 50 francs, the use of gold as money is accompanied with so many advantages that we are disposed to think it would maintain its place even though it were somewhat underrated as compared with silver. Inasmuch, however, as gold has so many natural grounds of preference on its side, the true plan is to make it the only standard, and to use silver merely as a subsidiary currency. This plan has been followed since 1817 in this country with the most complete success; and there is no reason to doubt that it may be elsewhere adopted with equal advantage.

The late extraordinary demand for silver in India has been quite enough to make gold be substituted for it in those countries in which they are equally legal tender. In France, for example, where the metallic currency consisted, down to 1850, almost wholly of silver, it now consists principally of gold. This is evident from the following account of the gold and silver coinage in that empire from 1850 down to 1857, both inclusive:

Years.	Gold.	Silver.	Total.
	Fr.	*Fr.* *C.*	*Fr.* *C.*
1850 - -	85,192,390	86,458,485 20	171,650,875 20
1851 - -	269,709,570	59,327,508 90	329,036,878 90
1852 - -	27,028,270	71,918,445 50	98,946,715 50
1853 - -	312,964,020	20,099,488 20	333,063,508 20
1854 - -	526,528,200	2,123,887 20	528,652,087 20
1855 - -	447,427,820	25,500,305 50	472,928,125 50
1856 - -	508,281,996	54,422,214 —	562,704,209 —
1857 - -	572,561,225	3,809,611 —	576,370,836 —
Total -	2,749,693,491	323,659,745 50	3,073,353,235 50*
Equal in sterling to -	£109,987,740	£12,946,389	£122,934,129

In the U. States the coinage of gold has increased in a somewhat similar ratio, having risen from 9,007,761 dollars in 1849 to 62,614,492 dollars in 1851, and 59,343,465 dollars in 1856. Hence gold coin is now used in these two countries, as it is used in England, in all considerable payments which are not effected by notes or cheques; while large portions of the silver coin that has in consequence been disengaged have found their way to the East.

This substitution of gold for silver, while it materially enlarges the field for the employment of the former, proportionally narrows that for the employment of the latter. And hence a very considerable permanent addition may be made to the comparative supply of gold without its value, measured in silver, being materially affected. In the end, no doubt, the values of both metals will be proportioned, independently of varia-

* Levasseur, *Question de l'Or*, 8vo., p. 105, Paris, 1858.

tions of demand, to the respective costs of their production. But before this equalisation can take place, they must be distributed among the various countries of the world according to the circumstances peculiar to each, including therein their peculiar aptitudes for different purposes, and the novel conditions of their supply.

In India, where wages have always been very low, the great bulk of the coin in circulation has consisted of silver; and in 1835 it was made the only legal tender. But though not legal tender, gold coins continued to circulate in India; and a proclamation issued in 1841 directed them to be received at the public treasuries. Little attention was paid to this measure at the time; but after the discovery of the gold deposits in Australia, it became obvious, if gold coins continued to be received by the public departments, that eventually none else would be paid into them; that silver would cease to be employed except in petty payments; and that government, as well as individuals, would be injured by any fall that might take place in the value of gold. This contingency appears to have alarmed the government; and notice was accordingly given on the 22nd of December, 1852, that from and after the 1st of January next (1853) gold coins would not be received on account of taxes or other payments due to the public. Silver has, consequently, again become in fact as well as in law the sole legal tender of India.

But these appear to be most inadequate grounds for the course that was adopted. There are no sufficient reasons for supposing that any material, or indeed sensible injury, would have resulted either to the government or to individuals from the contingencies referred to; and there are at the same time various circumstances which make it much to be regretted that an attempt should have been made to exclude gold from the currency of India. Silver coins, being the only ones fitted to serve the purposes of the great bulk of the inhabitants, must always be in extensive demand in all parts of the peninsula. But had gold also been allowed to circulate as coin, it is most likely that it would have been extensively employed in making large payments, and it would also have been extensively hoarded. Even as it is, leaf and bar gold have been of late largely imported into India from China, to be used in the arts or buried. In 1855–6, for example, the imports in question amounted to no less than 1,508,541*l.*; the fair presumption being, that but for the suppression of gold as currency, they would have been very much greater. And if so, the increased demand for gold would, on the one hand, have in so far counteracted that fall in its value which has been so generally apprehended; while, on the other, it would, by lessening the demand for silver, have checked any tendency it may have had to rise. And for these, and other reasons that will readily suggest themselves to the reader, it would be good policy to re-introduce a gold currency. It is contrary to all principle, and indeed to the plainest dictates of common sense, to exclude it by forcible means from a field where it would otherwise be largely used, the more especially as by doing this we create an unnatural demand for silver at the very time when it is supposed to be rising in value as compared with gold.

A further substitution of gold for silver may probably be effected by using gold coins of less value than formerly. In the U. Kingdom, for example, gold might be advantageously coined into 5*s.* pieces. It would be inconvenient, perhaps, to have gold coins worth less than this; but of this value their employment would be beneficial, as well by economising the use of silver, as by their being more convenient and easily carried about.

Supposing that the substitution of gold for silver now referred to were fully effected, and that the production of gold as compared with silver were to go on as it has done since the discovery of the Californian and Australian gold-fields, the value of silver, measured in gold, could hardly fail to rise. This, however, will in great measure depend on the demand for silver for the East continuing at about its late average amount, or on its not falling off, which it would be sure to do, were gold again made legal tender. And there are, besides, but slender grounds for thinking that gold and silver will continue for any considerable period to be produced in the same proportions that they have been during the last ten years. The presumption, indeed, appears to be rather in favour of the future increase of silver than of gold.

We may perhaps, before proceeding further, notice in this place the following estimate which the Bank of England laid before the committee of the House of Commons on banks in 1857–58:—

Estimated Increase of the European Stock of Bullion in the 7 Years 1851–57, both inclusive.

Years.	Imports from Producing Countries.		Exports to the East from Great Britain and the Mediterranean.	
	Gold.	Silver.	Gold.	Silver.
1851	£8,654,000	£4,076,000	£102,000	£1,716,000
1852	15,194,000	4,712,000	922,000	2,630,000
1853	22,435,000	4,355,000	974,000	5,559,000
1854	22,077,000	4,199,000	1,222,000	4,583,000
1855	19,875,000	3,717,000	1,192,000	7,934,000
1856	21,275,000	4,761,000	479,000	14,108,000
1857	21,566,000	4,050,000	529,000	20,146,000
Total £	130,876,000	29,870,000	5,420,000	56,676,000

GOLD.

The total import of gold in seven years has been, say	£130,000,000
The exports of gold bullion and British gold coin to India, China, Australia, the Cape, Brazils, the West Indies, United States, &c., may be taken at	22,500,000
Which would leave as the increase to the European stock of gold	£107,500,000

SILVER.

The exports of silver to India and China have been	£56,676,000	
The imports from the producing countries	29,870,000	
Making the amount of silver abstracted from the European stock		26,800,000
And the estimated increase in the European stock of bullion		£80,700,000

In some respects this estimate might be advantageously modified. But supposing it to be, as it may be presumed it is, nearly accurate, still it is obvious that, to get the total addition made to the stock of European bullion during the 7 years ending with 1857, we must add to the addition from importations the bullion produced in Europe during the above period. And the latter being taken at 1,550,000*l.* a year, makes an aggregate sum of 10,850,000*l.*, which added to the above balance of 80,700,000*l.*, makes the total increase amount to 91,550,000*l.*

But, though immense, the demands which this fund has had to sustain have been equally immense. We have already seen that the coinage of gold in France during the 8 years ending with 1857, amounted to no less than 109,987,740*l.*; and during the 7 years ending with 1857, the period referred to in the Bank of England estimate, it amounted to 87,085,201*l.* A portion of this gigantic sum was derived from Dutch, English, and other European coin imported into France, and very considerable portions have been exported, partly to the Crimea, and thence to the adjacent Asiatic countries, for supplies for the French forces in that quarter, and partly to the East by way of Egypt, Smyrna, &c. Still, however, we feel satisfied that we shall be far within the mark if we assume that France has absorbed 35,000,000*l.* of new gold, during the period in question, in the shape of coin, which is partly employed as currency, and partly hoarded.* And if we be nearly right in this assumption, it follows that only 56,550,000*l.*, or 8,080,000*l.* a year, remains to supply all Europe,—1st, with new coins (ex France), and to make good the wear and loss of the old coins†; 2d, to supply the sums required for use in the arts; and 3rd, to supply those that are hoarded and carried away in the pockets of emigrants, &c. &c.

The last item now referred to is of much more importance than is generally supposed. Taking the entire number of emigrants from Europe to the U. States, Australia, and all other places at 400,000 a year, it is pretty certain that they do not take with them, at an average, less than from 2*l.* to 3*l.* in coin, besides plate, watches, rings, &c. Some estimates make the exports of bullion by emigrants much greater than this; but even on this very moderate hypothesis it will amount to 1,000,000*l.* a year in coin only.

Hence, as compared with the outgoings, the supply of bullion in Europe during the last seven or eight years, far from being in excess, has been scanty rather than otherwise. And without a diminution of the former, or an increase of the latter, most people amongst us will be but little sensible of the influence of Californian and Australian gold.

Past and probable future influence of the increased supply of bullion on prices and on its value.—The previous statements seem to be sufficient to show that the present supply of the precious metals is not more than adequate to meet the existing demand, and that, therefore there is no ground for anticipating a fall in their value unless the supply should be increased or the demand diminished.

It is now 10 years since the increased supplies of gold from California, and 7 since those from Australia, have been poured into the markets of Europe and America; and yet there has not, during that period, been anything like a general rise of prices. On the contrary, the prices of most articles are as low at this moment (December, 1858) as they were at the same time in 1850, while several are a good deal lower. And of the few that have risen in price since the latter epoch, there is not one of which the rise may not be satisfactorily explained by something peculiar to itself, and affecting either its demand or the conditions of its supply, or both. Thus, the rise that has taken place in the rate of wages in Great Britain and in Ireland is wholly ascribable, partly to the greater demand for labour, partly to the extent to which emigration has been carried, and partly to the potato rot and the consequent famine in Ireland. There is, in truth, nothing whatever, in comparing the prices of to-day with those of 10 years ago, to

* See in confirmation of the statement now made, Levasseur, *La Question de l'Or*, p. 106.

† A very considerable addition has been made to the metallic currency of the U. K. during the last ten years. Owing, however, to our gold coins being exempted from seignorage, they have no greater value than an equal weight of standard bullion, and are exported indifferently with the latter. Hence the accounts of the sums coined throw, if taken by themselves, little or no light on the increase or diminution of the currency.

entitle any one to affirm that the value of gold and silver has undergone the smallest change in the interval.

That there is but little probability that prices will be raised by a continuance of the present supplies of gold and silver, may be inferred from what took place after the discovery of America in 1492. It appears from the researches of Adam Smith* and other authorities, that the influx of the precious metals had exerted its full effect upon prices previously to or about 1640; and yet this influx was much greater then and subsequently than it had been at any previous period. According to the best information attainable, the average annual importation of the precious metals from America into Europe, from 1492 down to 1810, may be estimated as follows:

From 1492 to 1500	- - - - -	£54.300 a year	
„ 1500 „ 1545	- - - - -	651.600	„
„ 1545 „ 1600	- - - - -	2,389,200	„
„ 1600 „ 1700	- - - - -	3,475 200	„
„ 1700 „ 1750	- - - - -	4,887,030	„
„ 1750 „ 1803	- - - - -	7,667,160	„
„ 1803 „ 1810	- - - - -	9,016.920	„

Annual average of the entire period (1492–1810), 4,109,191*l.*

In 1640 or 1650, when the bullion of America had produced its full effect on prices in Europe, its annual influx amounted to about 3,000,000*l.* And yet, though its influx was nearly trebled between that epoch and 1803, it is admitted on all hands that, down to the last-mentioned year, there was no general rise of prices.† The increased demand of Europe was fully sufficient to take off this great increase of supply without any fall taking place in the value of silver. Indeed, it is contended by some high authorities that, instead of falling, it rose in value during the period referred to.

There can be no manner of doubt, not merely that the quantity of the precious metals employed in Europe and America is incomparably greater now than in the seventeenth and eighteenth centuries, but that the demand for additional quantities is also incomparably greater. And when it is seen that their value continued stationary from 1650 to 1800, despite the immense additional supplies that were thrown upon the market, there is, it is plain, little ground for wonder that their late increase, great as it has been, has not affected their value, or for anticipating that it will materially decline in the course of the next half century.

A fall in the value of the precious metals would, on the whole, be advantageous.—Should it, however, turn out that we are mistaken in these conclusions, and that a considerable fall in the value of the precious metals is about to commence, it is satisfactory to know that there are no really tenable grounds for supposing that such fall will be publicly injurious. It is indeed impossible for any change to take place in the measure of value without its exercising an injurious influence over a greater or less number of individuals. But if the loss it may inflict on A., B., and C. be countervailed by the advantages which it confers on X., Y., and Z., its effect in a public point of view may not be perceptible. It is easy, however, to see that, in the case now under consideration, the inconveniences resulting from a fall in the value of gold and silver would be a good deal more than compensated by the advantages of which it would be productive.

1. In the first place, we may observe that the mischievous influence resulting from a fall in the value of the precious metals depends in great measure on the rapidity with which it is brought about. If it were to take effect suddenly, and without giving any distinct warning of its approach, it would be much more injurious than if it took effect slowly and gradually; for, in the former case, it is difficult to take any measures by which to mitigate or avert the impending evil, whereas, in the latter, abundant opportunities are afforded for that being done; and though these were not availed of, a change that is brought about by a slow and all but insensible progress is but little felt, at least when compared with one that takes place suddenly or rapidly. Now it is sufficiently certain, supposing the value of the precious metals to be in the end reduced, that that reduction will be a very slow process; and that any one likely to be injuriously affected by its occurrence will have ample time to concert measures to secure himself, in as far as practicable, against its operation. That we are warranted in coming to this conclusion is obvious. When an unprecedented influx of bullion has been going on for ten years without having had any appreciable influence over its value, it would be contradictory to suppose that it is at all likely to be speedily and seriously affected by a continuance of the influx.

2. But supposing that these anticipations should not be realised, and that the supplies of the precious metals should be largely and rapidly increased, and their value reduced,

* *Wealth of Nations*, 1 vol. 8vo., p. 88

† Prices rose in this country subsequently to 1793; but this was entirely owing to the difficulties which the war that was then commenced threw in the way of importation, the waste of capital and the shock given to industrial undertakings which it occasioned, and the disorders of all sorts incident to national struggles.

the results are not of a kind that should be deprecated. "In every kingdom," says Hume, "into which money begins to pour in greater abundance than formerly, everything takes a new face: labour and industry gain life, the merchant becomes more enterprising, the manufacturer more diligent and skilful, and even the farmer follows his plough with greater alacrity and attention. But when gold and silver are diminishing, the workman has not the same employment from the manufacturer and merchant, though he pays the same price for everything in the market; the farmer cannot dispose of his corn and cattle, though he must pay the same rent to the landlord: the poverty, beggary, and sloth that must ensue are easily foreseen."—(*Essay on Money.*)

Hume appears to have supposed that the stimulus he has so well described, which is given by an influx of money to industry, is occasioned by the additional money coming first into the hands of capitalists, and enabling them to extend their businesses and employ more work-people. But though this would have some influence, the philosophical historian seems to have overlooked the mode in which an increase in the quantity, and a fall in the value of money, principally contributes to excite industry and enterprise. Such fall proportionally diminishes the many fixed money payments that are borne by the industrious classes. The prices of commodities vary with variations in the value of money; whereas taxes, rents, mortgages, and other pecuniary burdens, continue stationary for longer or shorter periods. The latter are rated or specified in certain amounts of money,—those to whom these are due being obliged to receive them in payment, though the value of money should have fallen 5, 10, or even 50 per cent. since the date of the contract or engagement in which the payments originate; while those by whom they are due are bound to pay them, however much the value of money may have risen. Hence the powerful influence of variations in its value over the different classes of society. When it declines, the debtor portion, or those who have fixed money payments to make, are benefited at the expense of the creditor portion, or those who have such payments to receive; and conversely when it rises. Fundholders, annuitants of all sorts, landholders during the currency of the leases of their estates, mortgagers, the army and navy, &c., suffer according to the diminution in the value of money; for, though their incomes and claims continue nominally the same, their value is really reduced, and they no longer have their former command over necessaries and conveniences. But while the farmer pays the same rent for his farm, and the same taxes to government, he sells his produce for a price increased proportionally to the reduced value of money. And while manufacturers, merchants, and tradesmen pay the same duties on their goods, the same port and market dues, the same tolls, the same rent for shops and warehouses, the same rate of interest for capital borrowed, and so on, they obtain increased prices for whatever they have to sell. In other words, the condition of these classes is improved at the expense of their landlords and creditors, and of annuitants, and other receivers of incomes which are either temporarily or permanently reduced through the fall in the value of money. The greater the fall, the more advantageous for them; and conversely.

Now, as fixed or stationary payments include the interest of the public debt, as well as the many outgoings of government which do not readily accommodate themselves to changes in the value of money, with the rents of farms and houses let on lease, or under equivalent agreements, feuduties, the interest of mortgages, and other stationary loans, the payments to private annuitants and clergymen, the fees of lawyers, physicians, &c., it is obvious that, in a country like this, they must amount in the aggregate to a vast sum. No doubt it sometimes, and indeed not unfrequently happens, that individuals belong to both classes, or that they have fixed payments to receive as well as to make, and that therefore neither the gain to the one party, nor the loss to the other, from fluctuations in the value of money, is so great as might be at first supposed. Still, however, there is no room for doubting that the greater proportion by far of fixed payments is made to the classes not engaged in business or in industrial undertakings by those who are; and hence the advantage which any considerable fall in the value of money confers on the latter,—that is, on those whose well-being, and that of the public, are commonly supposed to be identical. Such fall, by lightening the burden of taxation and of all fixed charges, increases universally the productiveness of industry and the rate of profit. And it is hardly necessary to add that this increased profit operates as a spur to production, that it quickens all the operations of trade, and occasions an increased demand for labour.

The opposite effects follow when, instead of falling, the currency becomes more valuable. Taxes and fixed charges being then augmented in an equal degree, the profits of those by whom they are principally borne are proportionally reduced, industry is depressed, and the situation of the productive classes changed for the worse. But though there cannot, as it appears to us, be a doubt that a fall in the value of money, however injurious to large classes, is on the whole advantageous, we hope it will not be thence inferred that we are disposed to approve in any degree of an intentional reduction of its value. Money being the standard or measure of value, to interfere with it, whether in the way of increase or diminution, would be an act of extreme injustice. Government is bound to protect, in as far as possible, the rights and interests of all classes of its subjects; and it cannot, without trampling on its most sacred duty, adopt, to benefit one part of them, any measure which might be injurious to another part. But a fall in the value of the precious metals caused by the greater facility of their production, or by the discovery of new sources of supply, is a wholly different matter. It depends in no degree on the theories of philosophers or the decisions of statesmen or legislators, but is the result of circumstances that are beyond human control. And though, like a fall of rain after a long course of dry weather, it may be prejudicial to certain classes, it is beneficial to an incomparably greater number, including all who are actively engaged in industrial pursuits; and is, speaking generally, of great public or national advantage.

On the whole, therefore, we are warranted in concluding—1. That there has been no fall in the value of the precious metals, and more especially in that of gold, during the ten years ending with 1858; 2. That there do not appear to be any good grounds for anticipating a speedy or considerable fall in the value either of gold or silver; and 3. That supposing a fall in the value of gold were to take place, its advantageous would much more than countervail its disadvantageous influence.

PREMIUM. See INSURANCE.

PRICES. By the price of a commodity is meant its value estimated in money, or, simply, the quantity of money for which it will exchange. The price of a commodity rises when it fetches more, and falls when it fetches less money.

1. *Price of freely produced Commodities.* — The exchangeable value of commodities — that is, their power of exchanging for or buying other commodities — depends, at any given period, partly on the comparative facility of their production, and partly on the relation of the supply and demand. If any two or more commodities respectively required the same outlay of capital and labour to bring them to market, and if the supply of each were adjusted exactly according to the effectual demand — that is, were they all in

sufficient abundance, and no more, to supply the wants of those able and willing to pay the outlay upon them, and the ordinary rate of profit at the time—they would each fetch the same price, or exchange for the same quantity of any other commodity. But if any single commodity should happen to require less or more capital and labour for its production, while the quantity required to produce the others continued stationary, its value, as compared with them, would, in the first case, fall, and in the second, rise; and, supposing the cost of its production not to vary, its value might be increased by a falling off in the supply, or by an increase of demand, and conversely.

But it is of importance to bear in mind that all variations of price arising from any disproportion in the supply and demand of such commodities as may be *freely produced in indefinite quantities*, are *temporary* only; while those that are occasioned by changes in the cost of their production are *permanent*, at least as much so as the cause in which they originate. A general mourning occasions a transient rise in the price of black cloth: but supposing that the fashion of wearing black were to continue, its price would not permanently vary; for those who previously manufactured blue and brown cloths, &c would henceforth manufacture only black cloth; and the supply being in this way increased to the same extent as the demand, the price would settle at its old level. Hence the importance of distinguishing between a variation of price originating in a change of fashion or other accidental circumstance — such, for example, as a deficient harvest — and a variation occasioned by some change in the cost of production. In the former case, prices will, at no distant period, revert to their old level; in the latter, the variation will be lasting.

When the *price* of a freely produced commodity rises or falls, such variation may evidently be occasioned either by something affecting its value, or by something affecting the value of money. But when the generality of commodities rise or fall, the fair presumption is that the change is not in them, but in the money with which they are compared. This conclusion does not, however, apply in all cases; and we believe that most part of that fall in the price of commodities, which has taken place since the peace, and which has been so generally ascribed to a rise in the value of money, occasioned by a decline in the productiveness of the mines, has been caused by the increased productiveness of industry, arising from the abolition of oppressive restraints on commerce, the opening of new and more abundant sources of supply, and the discovery of new means and improved methods of production. — (See PRECIOUS METALS.)

2. *Price of monopolised Commodities.* — Exclusive, however, of the commodities now alluded to, there is a considerable class, whose producers or holders enjoy either an *absolute* or a *partial* monopoly of the supply. When such is the case, prices depend entirely or principally on the proportion between the supply and demand, and are not liable to be influenced, or only in a secondary degree, by changes in the cost of production. Antique statues and gems; the pictures of the great masters; wines of a peculiar flavour, produced in small quantities, in particular situations; and a few other articles; exist under what may be called absolute monopolies; — their supply cannot be increased; and their price must, therefore, depend entirely on the competition of those who may wish to buy them, without being in the slightest degree influenced by the cost of their production.

Monopolies are sometimes established by law; as when the power to supply the market with a particular article is made over to one individual or society of individuals, without any limitation of the price at which it may be sold; which, of course, enables those possessed of the monopoly to exact the highest price for it that the competition of the buyers will afford, though such price may exceed the cost of production in any conceivable degree. Monopolies of this sort used to be common in England, particularly in the reign of Elizabeth: but they were finally abolished by the famous act of the 21 Jac. 1. c. 3. — an act which, by establishing the freedom of competition in all businesses carried on at home, has been productive of the greatest advantage. — (See MONOPOLY.)

The corn laws establish a partial monopoly of the supply of Great Britain with corn in favour of the agriculturists; but, as competition is carried to as great an extent in agriculture as in any other business, this monopoly does not enable them to obtain a higher price for their produce than is sufficient to pay the expenses of its production, though, owing to the peculiar circumstances under which this country is placed, this price is higher than the price in the surrounding countries. Hence it results that the monopoly is injurious to the public, without being of any advantage to those engaged in the business of agriculture. Neither, indeed, can it be truly said to be advantageous to the landlords. — (See *antè*, p. 422.)

The rights conveyed by patents sometimes establish a valuable monopoly; for they enable the inventors of improved methods of production to maintain, during the continuance of the patent, the price of the article at a level which may be much higher than is required to afford them the ordinary rate of profit. This advantage, however, by stimulating invention, and exciting to new discoveries, of which it is the natural and appropriate reward, instead of being injurious, is beneficial to the public. — (See PATENTS.)

There are also partial monopolies, depending upon situation, connection, fashion, &c. These, and other inappreciable circumstances, sometimes occasion a difference of 30 per cent. or more in the price of the same article in shops not very distant from each other.

Generally speaking, the supply of monopolised commodities is less liable to vary than the supply of those which are freely produced; and their prices are commonly more steady. But there are various exceptions to this rule, and of these the corn monopoly is one. The great variations in the harvests of particular countries, and their average equality throughout the world, exposes a nation which shuts foreign corn out of its ports to destructive vicissitudes of price, from which it would enjoy a comparative exemption were the ports open.—(See *antè*, p. 419.) Sometimes the expiration of a monopoly—a patent, for example—has occasioned a sudden and extraordinary increase of supply, and consequent fall of price; entailing, of course, a serious loss on the holders of large stocks of goods produced under the monopoly.

3. *New Sources of Supply.*—The effects on prices produced by the opening of new markets, or new sources of supply, are familiar to every one. The fall that has taken place in the price of pepper, and of most sorts of commodities brought from the East, since the opening of the trade in 1814, is a conspicuous proof of what is now stated.

4. *Influence of War on Prices.*—The effect of war in obstructing the ordinary channels of commercial intercourse, and occasioning extreme fluctuations in the supply and price of commodities, is well known. In this respect, however, the latter part of the late war is, perhaps, entitled to a pre-eminence. We had then to deal with an enemy who had extended his sway over most part of the Continent; and who endeavoured, by every means in his power, to shut us out of the Continental markets. Mr. Tooke has given, in his elaborate and valuable work on *High and Low Prices*, a variety of details which strikingly illustrate the effect that the regulations then adopted by the belligerent powers had on prices. "Among the means," says Mr. Tooke, "devised by the ingenuity and enterprise of adventurers to elude or overcome the obstacles presented by the decrees of the enemy, one in particular, which was resorted to on an extensive scale, deserves mention, as illustrating in a striking manner the degree in which those obstacles were calculated to increase the cost to the consumer. Several vessels laden with sugar, coffee, tobacco, cotton twist, and other valuable commodities, were despatched from England, at very high rates of freight and insurance, to Salonica, where the goods were landed, and thence conveyed on mules and horses through Servia and Hungary to Vienna, for the purpose of being distributed over Germany, and, possibly, into France. Thus it might happen that the inhabitants of that part of the Continent most contiguous to this country could not receive their supplies from us, without an expense of conveyance equivalent to what it would be, if they were removed to the distance of a sea voyage twice round the globe, but not subject to fiscal and political regulations." And in consequence of these, and other causes of the same sort, Mr. Tooke mentions that the price of sugar in France, and other parts of the Continent, during the latter years of the war, was as high as 5*s.* and 6*s.* a pound; that coffee rose to 7*s.*, indigo to 18*s.*, and so on.

But the sums charged for freight and insurance were the most extraordinary. Mr. Tooke states, that he has known instances in which the licence, freight, and other charges on account of a vessel of about 100 tons burden, making a voyage from Calais to London and back, have amounted to the almost incredible sum of 50,000*l.*! A ship, of which the whole cost and outfit did not amount to 4,000*l.*, earned during the latter period of the war, a gross freight of 80,000*l.* on a voyage from Bordeaux to London and back! The freight of indigo from London to the Continent does not at present exceed 1*d.* a pound; whereas it amounted, at the period referred to, to about 4*s.* 6*d.*—(*High and Low Prices*, 2d ed. p. 212.)

5. *Influence of Taxes on Prices.*—It is unnecessary to dilate on a topic so familiar to every one. When a tax is laid on a commodity, its price necessarily rises in a corresponding proportion; for otherwise the producers would not obtain the ordinary rate of profit, and would, of course, withdraw from the business. The rise in the price of several of the articles in the annexed table is principally to be ascribed to the increase of taxation.

These statements will probably suffice to give our readers a general idea of the principles which determine the value of commodities. To go deeper into the subject would involve us in discussions that belong to political economy, and are among the most intricate in that science. The influence of speculation on prices must not, however, be passed over in a work of this sort.

6. *Influence of Speculation on Prices.*—It very rarely happens that either the actual supply of any species of produce in extensive demand, or the intensity of that demand, can be exactly measured. Every transaction in which an individual buys produce in order to sell it again, is, in fact, a speculation. The buyer anticipates that the demand for the article he has purchased will be such, at some future period, either more or less

distant, that he will be able to dispose of it with a profit; and the success of the speculation depends, it is evident, on the skill with which he has estimated the circumstances that must determine the future price of the commodity. It follows, therefore, that in all highly commercial countries, where merchants are possessed of large capitals, and where they are left to be guided in the use of them by their own discretion and foresight, the prices of commodities will frequently be very much influenced, not merely by the actual occurrence of changes in the accustomed relation of the supply and demand, but by the anticipation of such changes. It is the business of the merchant to acquaint himself with every circumstance affecting the particular description of commodities in which he deals. He endeavours to obtain, by means of an extensive correspondence, the earliest and most authentic information with respect to every thing that may affect their supply or demand, or the cost of their production; and if he learned that the supply of an article had failed, or that, owing to changes of fashion, or to the opening of new channels of commerce, the demand for it had been increased, he would most likely be disposed to become a buyer, in anticipation of profiting by the rise of price, which, under the circumstances of the case, could hardly fail of taking place; or, if he were a holder of the article, he would refuse to part with it, unless for a higher price than he would previously have accepted. If the intelligence received by the merchant had been of a contrary description,—if, for example, he had learned that the article was now produced with greater facility, or that there was a falling off in the demand for it, caused by a change of fashion, or by the shutting up of some of the markets to which it had previously been admitted,—he would have acted differently: in this case he would have anticipated a fall of prices, and would either have declined purchasing the article, except at a reduced rate, or have endeavoured to get rid of it, supposing him to be a holder, by offering it at a lower price. In consequence of these operations, the prices of commodities, in different places and periods, are brought comparatively near to equality. All abrupt transitions, from scarcity to abundance, and from abundance to scarcity, are avoided; an excess in one case is made to balance a deficiency in another, and the supply is distributed with a degree of steadiness and regularity that could hardly have been deemed attainable.

It is obvious, from what has now been stated, that those who indiscriminately condemn all sorts of speculative engagements, have never reflected on the circumstances incident to the prosecution of every undertaking. In truth and reality, they are all speculations. Their undertakers must look forward to periods more or less distant; and their success depends entirely on the sagacity with which they have estimated the probability of certain events occurring, and the influence which they have ascribed to them. Speculation is, therefore, really only another name for foresight; and though fortunes have sometimes been made by a lucky hit, the character of a successful speculator is, in the vast majority of instances, due to him only who has skilfully devised the means of effecting the end he had in view, and who has outstripped his competitors in the judgment with which he has looked into futurity, and appreciated the operation of causes producing distant effects. Even in the securest businesses, such as agriculture and manufactures, there is, and must be, a great deal of speculation. An unlooked for change of season frequently disappoints the apparently reasonable expectations of those who undertake the former; while the equally capricious variations of fashion have to be encountered by those engaged in the latter; and each is, besides, liable to be affected by legislative enactments, by new discoveries in the arts, and by an endless variety of circumstances which it is always very difficult, and sometimes quite impossible, to foresee. On the whole, indeed, the gains of the undertakers are so adjusted, that those who carry them on obtain, at an average, the common and ordinary rate of profit. But the inequality in the gains of individuals is most commonly very great: and while the superior tact, industry, or good fortune of some enable them to realise large fortunes; the want of discernment, the less vigilant attention, or the bad fortune of others, frequently reduces them from the situation of capitalists to that of labourers.

The great cotton speculation of 1825 took its rise partly and chiefly from a supposed deficiency in the supply of cotton, partly from an idea that there was a greatly increased demand for raw cotton in this country and the Continent, and partly from a belief that the stocks on hand were unusually low. Now it is obvious that the success of those who embarked in this speculation depended entirely on two circumstances; viz. *first*, that they were right in the fundamental supposition on which the whole speculation rested, that the supply of cotton was no longer commensurate with the demand; and *second*, that their competition did not raise the price so high as to diminish the consumption by the manufacturers in too great a degree to enable them to take off the quantity to be actually brought to market. If the merchants had been well founded in their suppositions, and if their competition had not raised the price of cotton too high, the speculation would certainly have been successful. But, instead of being well founded, the hypothesis on which the whole thing rested was perfectly visionary. There was no deficiency in the supply of cotton, but, on the contrary, a great super-

An Account of the Contract Prices of the following Articles of Provision, &c. at the Royal Hospital, by the Authorities

Years.	Flesh, per Cwt.			Bread, per Lb.	Flour, per Sack.			Butter, per Lb.		Cheese, per Lb.		Peas, per Bushel.		Oatmeal, per Bushel.			Salt, per Bushel.		Malt, per Quarter.			Hops, per Cwt.			Beer, per Barrel.		
	£	s.	d.	Average.	£	s.	d.	s.	d.	s.	d.	s.	d.	£	s.	d.	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
1729	1	5	8	1d. for 10 6/16 oz.	-		-	0	4½	0	5½	4	0	0	4	6	5	0	1	9	0	2	5	0	-		-
1730	1	5	8	1d. for 14¼ oz.	-		-	0	5	0	5¼	4	0	0	4	6	5	0	1	0	6	2	5	10	0	3	9
1735	0	16	11	1d. for 12⅞ oz.	-		-	0	3⅝	0	2¼	3	6	0	4	0	4	0	1	0	3	3	9	6¾	0	4	1⅛
1740	1	8	0	1d. for 9 3/16 oz.	-		-	0	5	0	5¼	3	6	0	4	0	4	0	1	7	3½	2	10	7¾	0	5	2⅜
1745	1	2	2	1d. for 15 9/16 oz.	-		-	0	3⅝	0	2¼	3	6	0	4	0	4	0	1	3	1	3	11	1	0	5	1¾
1750	1	6	6	1d. for 13¼ oz.	-		-	0	5½	0	3¼	3	6	0	4	0	4	0	1	4	0	5	4	0	0	5	3⅜
1755	1	7	9½	1d. for 14 6/16 oz.	-		-	0	5½	0	3⅜	3	6	0	4	0	4	0	1	2	0	2	15	0	0	4	5¼
1760	1	11	6	1d. for 13½ oz.	-		-	0	5½	0	3½	3	6	0	4	0	4	0	1	4	9	4	13	4	0	5	7⅛
1765	1	7	3	1d. for 9½ oz.	-		-	0	5½	0	3¼	3	6	0	4	0	4	0	1	10	8	7	3	6	0	7	2⅛
1770	1	8	6	1d. for 11 3/16 oz.	-		-	0	6½	0	3⅜	4	3	0	4	9	4	8	1	8	3	5	16	4	0	5	10
1775	1	13	5	1d. for 9 5/16 oz.	-		-	0	6½	0	3¼	7	6	0	5	3	4	8	1	17	3	4	16	6	0	7	1⅛
1780	1	12	6	1d. for 11 6/16 oz.	-		-	0	6⅝	0	3⅜	7	6	0	5	3	4	8	1	11	1	2	14	8	0	7	3⅛
1785	1	17	6½	1d. for 10¼ oz.	-		-	0	6¾	0	3¾	7	6	0	5	3	4	8	2	0	3	5	6	4	0	8	2⅛
1790	1	16	10	-	-			2	3	4	0	6½	0	4	7	6	0	5	5	4	8	1	15	6	6	13	9	0	8	7
1795	2	2	10	-	-			3	5	8	0	8¼	0	5¼	9	6	0	6	4¾	6	1½	2	8	3	7	7	10	0	10	4½
1800	3	4	4	-	-			4	16	0	0	11⅜	0	6¼	13	5	0	14	0	14	0	4	4	0	16	15	9	1	0	4½
1805	3	0	4	-	-			4	2	3	0	11⅜	0	7⅓	7	9	0	12	0	16	10½	4	5	7	6	11	6	0	17	9½
1806	3	1	0	-	-			3	9	6½	0	11⅓	0	7⅝	8	4½	0	10	3	19	9	3	16	0	6	7	9	0	16	3¼
1807	3	3	0	-	-			3	3	8½	1	0⅝	0	7⅞	14	4½	0	9	4½	19	9	3	13	1½	5	19	0	0	15	5
1808	3	3	0	-	-			3	9	10½	1	0¼	0	7⅞	19	2½	0	10	10	19	9	3	16	1½	4	12	6	0	16	5½
1809	3	6	6	-	-			4	5	10½	1	1	0	8	14	10½	0	11	9	19	9	4	4	3½	7	6	8	0	17	0
1810	3	12	0	-	-			4	8	4	1	1⅜	0	8¼	9	5	0	11	7	19	9	4	4	5	7	6	8	0	17	10
1811	3	14	0	-	-			4	11	0	1	2½	0	8½	8	9	0	11	6	19	9	3	13	6	7	13	6	0	16	3⅜
1812	3	18	0	-	-			5	7	5	1	3¾	0	8¾	12	8½	0	13	3	19	9	4	18	6	9	17	0	1	0	9¼
1813	4	5	0	-	-			4	13	0	1	3	0	8¾	15	8½	0	13	3	19	9	4	16	6	11	11	8	1	1	10½
1814	3	14	6	-	-			3	10	6	1	2	0	8¾	9	4	0	10	4	19	9	3	17	8	9	10	0	0	17	3¼
1815	3	8	0	-	-			2	4	9	1	2	0	8	6	7½	0	10	3	19	9	3	9	7½	9	13	7	0	15	4½
1816	2	11	4	-	-			3	4	1	0	9½	0	6¼	7	0½	0	9	2	19	9	3	9	4½	14	0	0	0	15	8
1817	2	11	4	-	-			4	6	4	0	8¾	0	5¼	8	6¾	0	13	9	19	9	4	6	10½	22	4	0	1	0	7
				d.																					Pockets.		
1818	2	17	1	Per lb. 2 6/12	3	8	5½	0	11	0	6	9	3⅜	0	13	5½	19	9	4	1	8½	8	8	0	0	19	11½
1819	3	4	3	— 1¾11/12	2	17	5	0	11	0	8	7	8	0	12	9	19	9	3	12	11¼	4	12	0	0	15	3⅜
1820	3	10	4½	— 1¾5/12	2	15	1	0	9½	0	7	7	5⅜	0	13	4½	19	9	3	8	8½	4	0	0	0	13	10½
1821	2	18	10	— 1¾1/12	2	5	3½	0	8½	0	6	5	9	0	8	8½	19	4½	3	1	11	3	12	0	0	12	10½
1822	1	19	5½	— 1¾8/12	1	17	5⅜	0	7½	0	5	5	0½	0	8	6	18	0	2	12	8½	3	10	0	0	11	5⅜
1823	2	2	7½	— 1¾	2	2	5	0	7½	0	4	5	6	8s. 3d. ℔ bush. 15s. 6d. ℔ cwt.			4	10	2	19	11	9	19	0	0	12	5½
1824	2	2	8½	— 1¾5/12	2	6	2	0	8½	0	4¼	5	11	17s. ℔ cwt.			4	9	3	2	1	7	5	0	0	14	10½
1825	2	19	6½	— 1¾5/12	2	13	4	0	10½	0	5¼	split peas 11s.		0	17	6	2	10	3	11	10½	23	0	0	0	16	6½
1826	2	17	8	— 1½3/12	2	5	2½	0	9½	0	6½	11	0	0	19	0	1	10½	3	5	1	15	5	0	0	17	5½
1827	1	15	4½	— 1½3/12	2	3	6	0	8¼	0	5½	10	6	1	5	0	1	8	3	4	10	4	10	0	0	15	8½
1828	2	10	7¼	— 1¼288/360	2	6	0⅜	0	8½	0	5¾	9	6	0	18	6	1	10	3	1	7	-		-	0	13	1
1829	2	6	3½	— 2 18/360	2	15	10⅜	0	8	0	5	8	9	0	18	6	1	8	3	1	10¾	5	9	6	0	13	4
1830	2	3	6	— 1¾330/360	2	14	11	0	6¾	0	4	8	0	0	16	11	1	8	2	16	1¾	-		-	0	12	6¾
1831	2	4	3½	— 2 261/360	3	0	5¼	0	9¾	0	4¾	9	0	0	17	6	1	8	3	10	5¾	5	11	0	0	16	0¾
1832	2	6	2¼	— 1¾250/360	2	13	1	0	8¾	0	5¾	8	9	0	17	0	1	8	2	18	8	6	15	0	0	13	1¾
1833	2	6	6	— 1 161/360	2	4	1⅜	0	8¼	0	4½	9	0	0	16	0	1	6	2	14	6	-		-	0	12	2
1834	2	3	9	— 1¾207/360	1	17	6⅜	0	7¾	0	4¾	8	6	0	13	6	1	6	2	15	1¾	5	1	0	0	12	3¾
1835	2	0	7½	— 1 256/360	1	11	0⅜	0	7¼	0	4	8	0	0	14	6	1	3	3	1	4¼	5	11	0	0	13	9¼
1836	2	1	3½	— 1 340/360	1	13	1⅜	0	9¼	0	4¼	7	9	0	14	6	1	3	3	6	4	-		-	0	14	0
1837	2	10	11½	— 1¼ ⅜	2	1	11⅜	0	10¼	0	5	8	9	0	18	6	1	3	3	3	2	4	10	0	0	13	1¼
1838	2	2	5	— 1¾245/360	2	6	1	0	9¾	0	5	7	9	0	15	0	1	3	3	0	11¼	3	19	0	0	13	0¾
1839	2	7	7½	— 1¾185/360	2	12	2	0	10½	0	5	9	0	1	0	6	1	6	3	9	5¾	3	19	0	0	14	7
1840	2	14	0	— 1¾165/360	2	11	9¼	0	10	0	4¾	8	3	0	18	9	1	6	3	8	4¾	3	6	0	0	14	3
1841	2	16	0½	— 1¾198/360	2	12	2⅜	0	11¼	0	5¾	7	6	0	14	6	1	3	3	5	5¾	7	13	0	0	15	1¾
1842	2	12	8½	— 1¾232/360	2	5	8¼	0	8¼	—		8	9	0	18	0	1	6	3	1	7	—			0	14	7

It may be right to observe, that in the infancy of the Institution the clothes and bedding were contracted for in suits; and it is very inferior to the ancient pattern. In the case of carpenter's wages, from 1836 to 1842, the rates were subject to a de-

Greenwich, for the Years under-mentioned.—(Partly extracted from *Parl. Papers*, and partly furnished at the Hospital.)

Carpenters, per Day.	Bricklayers, per Day.	Masons, per Day.	Plumbers, per Day.	Candles, per Doz. Lb.	Shoes, per Pair.	Coals, per Chaldron.	Mops, each.	Stockings, per Pair.	Hats, each.	Complete Suits of Bedding.	Suits of Clothes.	Coats, each.
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	£ s. d.	£ s. d.	s. d.	s. d.	£ s. d.	£ s. d.	£ s. d.
- -	- -	- -	- -	6 5	4 0	1 8 5	0 0 10½ per dozen.	1 9	2 8	3 5 0	2 12 0	
Carps. 2 6 Joiners 2 6	2 6	2 6	3 0	6 4	4 0	1 4 6	0 10 0	1 6	2 8	2 13 0 Blankets each.	2 12 0	
- - 2 6 - - 2 8	2 6	2 6	3 0	4 2	4 0	1 5 0	0 10 6	1 6	2 3	0 4 0	2 2 6	
- - 2 6 - - 2 8	2 6	2 8	3 0	5 6	3 10	1 9 0	0 10 0	1 6	2 0	0 4 6	2 3 6	
- - 2 6 - - 2 8	2 6	2 8	2 6	6 0	3 6	1 10 0	0 11 0	1 6	2 0	0 4 6	- -	1 2 4
- - 2 6 - - 2 8	2 6	2 8	2 6	6 2	3 9	1 7 7½	0 10 9	1 6	2 0	0 4 6	- -	1 1 5
- - 2 6 - - 2 8	2 6	2 8	2 6	6 10	4 0	1 8 7½	0 11 0	1 8	2 0	0 4 4½	- -	1 1 6
- - 2 6 - - 2 8	2 6	2 8	2 6	6 6	4 0	1 12 8	0 12 0	1 8	2 0	0 4 4½	- -	1 1 0
- - 2 6 - - 2 8	2 4	2 8	3 0	6 2	4 0	1 12 4½	0 11 3	1 8	2 6	0 4 6	- -	1 1 6
- - 2 6 - - 2 8	2 4	2 8	3 0	6 10½	4 0	1 9 1½	0 11 0	1 6	2 6	0 4 6	- -	1 0 5
- - 2 6 - - 2 8	2 4	2 10	3 0	6 3	3 10	1 10 11½	0 10 6	1 4	2 2	0 5 4½	- -	0 19 11
- - 2 6 - - 2 8	2 4	2 10	3 0	6 9½	3 11½	1 17 5½	0 12 0	1 6	2 2	0 5 4½	- -	0 19 5
- - 2 6 - - 2 8	2 4	2 10	3 3	6 6	3 6	1 14 2½	0 11 0	1 6	2 4	0 5 4½	- -	1 0 3
- - 2 6 - - 2 10	2 4	2 10	3 3	7 9	3 11½	1 14 4½	0 14 0	1 6	2 6	0 5 4½	- -	1 0 8
- - 2 6 - - 2 10	3 0	2 10	3 3	9 2	4 0	1 19 9	0 15 0	1 6	2 3	0 6 6	- -	1 0 2
- - 2 10 - - 3 2	3 0	2 10	3 3	10 4	5 8	2 11 7	0 15 0	1 6	2 3	0 6 6	- -	1 0 0
4 6	4 10	5 0	4 6	10 7	5 9	2 11 8½	0 17 0	2 2	3 0	0 8 9	- -	1 1 10
4 6	4 8	5 0	4 6	10 5	5 9	2 13 4	0 17 0	2 2	3 0	0 8 9	- -	1 1 10
5 0	4 8	5 0	4 6	9 10	5 5	2 14 0	0 17 0	2 2	3 0	0 8 9	- -	1 1 6
5 0	5 0	5 0	4 6	13 2½	5 0	2 15 9½	0 17 0	2 2	3 0	0 8 9	- -	1 1 4
5 4	5 1	5 1	5 3	14 5½	5 6	3 0 3½	0 17 0	2 2	3 0	0 8 9	- -	1 1 4
5 2	5 2	5 3	5 9	12 0	5 6	3 0 8	0 17 0	2 2	3 0	0 8 9	- -	1 1 4
5 3	5 5	5 9	5 9	10 9½	4 11	3 1 6	0 17 0	2 2	3 0	0 8 9	- -	1 2 2
5 6	5 5	5 9	5 9	12 6	4 11	2 16 1	0 17 0	2 6	3 0	0 8 9	- -	1 2 2
5 6	5 5	5 9	5 9	14 2	4 8	2 16 7½	0 18 0	2 6	3 0	0 8 9	- -	1 2 2
5 6	5 5	5 9	5 9	14 6	4 8	3 2 2½	1 10 0	3 3	3 0	0 11 6	- -	1 4 6
5 6	5 1	5 9	5 9	11 7	4 7	2 15 6½	1 10 0	3 3	3 0	0 11 3	- -	1 4 9
5 2	5 3	5 3	5 9	9 3	4 7	2 9 0½	1 10 0	3 0	3 0	0 9 4½	- -	1 4 9
5 2	5 1	5 3	5 9	9 10	5 10	2 6 7	1 10 0 Each.	2 9	3 0	0 9 4½ Suits.	- -	1 0 7
5 3	5 1	5 3	5 9	11 5½	3 10	2 8 6	0 2 6	2 10	3 0	2 19 10½	2 1 0½	1 1 7
5 3	5 1	5 3	5 9	8 6¼	4 2½	2 6 8	0 2 6	2 11	3 0	2 19 10½	2 1 7½	1 1 10½
5 3	5 1	5 3	5 9	8 2½	4 4½	2 5 9	0 1 10½	2 9½	3 0	2 19 10½	2 3 5½	1 2 7
5 3	5 1	5 3	5 9	7 1½	4 3	2 6 6	0 1 4½	2 8	3 0	2 19 10½	2 1 9	1 1 11
5 1½	5 0	5 1½	5 7½	6 1½	4 2½	2 4 6¾	0 1 3½	2 5	3 0	2 19 10½	2 0 2½	1 1 3
5 0	4 10	5 0	5 6	5 6	4 7½	2 6 7	0 1 2	2 2	3 0	2 19 10½	1 19 11½	1 1 1½
5 0	4 10	5 0	5 6	5 6	4 9½	2 3 8	0 1 1¼	2 1½	3 0	2 19 10½	1 19 11¼	1 1 2
5 0	4 10	5 0	5 6	6 0	4 6	2 3 2	0 1 2¼	2 1½	3 0	2 19 10½	2 0 8¼	1 1 8
5 9	4 10	5 6	5 6	5 9½	4 5	2 0 4	0 1 1¼	2 0¼	3 0	2 19 10½	2 1 6¼	1 2 2
5 9	4 10	5 6	5 9	5 10	4 5½	2 1 5½	0 1 1½	1 10½	3 0	2 8 3	1 19 10¾	1 1 4
5 8½	4 10	5 6	5 9	5 10½	4 3	2 0 8½	0 1 2	1 9½	3 0	2 5 9	1 18 1	1 0 7
5 8	4 10	5 6	5 5	5 6½	3 9½	1 16 7	0 1 1½	1 9½	3 0	2 5 9	1 18 6¾	
5 6	4 9	5 5	5 6	5 5½	3 6	1 12 11	0 0 10½	1 6½	3 0	1 17 10½	1 18 6¾	
5 5	do.	5 3	5 6	6 0	3 6	1 7 0 Per Ton.	0 11¾ 8/12	1 6½ 5/12	3 0	1 17 10½	2 0 11½	
do.	do.	5 3	5 6	5 2½	3 6	1 4 3	0 1 1¼	1 7½ 5/12	3 0	1 19 5½	2 3 4	
do.	do.	do.	5 5	5 2½	3 4½	0 15 11	do.	1 7 5/12	do.	do.	2 3 8¼	
do.	do.	do.	do.	5 6	do.	0 14 11	do.	1 8½	do.	do.	2 7 2½	
do.	do.	do.	do.	5 2	3 3½	0 16 8	do.	1 9½	do.	do.	2 6 1	
do. { 4 10 / 4 8 }	do.	do.	5 2	3 3½	0 17 3	0 1 1½	1 9⅜ 11/12	do.	2 5 7	2 7 2½	None supplied since 1832.	
do. { 4 10 / 4 8 }	do.	do.	5 4	3 3½	1 1 3	0 1 2	1 9⅜ 11/12	do.	2 5 7	2 6 5½		
do. { 4 10 / 4 8 }	do.	do.	5 3	3 2½	1 0 11	0 1 1½	1 10 6/12	do.	3 0 9½	2 5 5½		
do { 4 10 / 4 8 }	do.	do.	6 5½	3 2½	1 0 2	0 1 1½	1 10 6/12	do.	3 0 9½	2 6 5½		
do. { 4 10 / 4 8 }	do.	do.	5 6	3 2½	0 19 8	0 1 1½	1 8½	do.	2 2 6½	2 5 1½		
5 8 { 5 5 / 5 0 }	5 5	5 9	5 8	3 2½	0 19 5	0 1 1½	1 8½	2 1	2 2 6½	2 5 5½		
5 8 { 5 5 / 5 0 }	5 5	5 9	5 8	3 1½	0 18 9	0 1 1½	1 7 8/12	2 1	2 2 11½	2 5 5½		

so stated in the account. It is also necessary to remark, that the blue cloth now used for the Pensioners' coats is of a quality duction of 10 per cent.; and in the case of bricklayers', masons', and plumbers' wages, to a deduction of 7½ per cent.

abundance; and though there had been such a deficiency, the excess to which the price was carried must have checked consumption so much as to occasion a serious decline. The falling off in the imports of cotton from America, in 1824, seems to have been the source of the delusion. It was supposed that this falling off was not accidental, but that it was a consequence of the price of cotton having been for a series of years so low as to be inadequate to defray the expenses of its cultivation. The result showed that this calculation was most erroneous. And besides, in entering on the speculation, no attention was paid to Egypt and Italy, — countries from which only about 1,400,000 lbs. of cotton were obtained in 1824, but from which no less than 23,800,000 lbs. were obtained in 1825! This unlooked-for importation was of itself almost enough to overturn the combination of the speculators; and, coupled with the increased importation from America and other countries, actually occasioned a heavy glut of the market.

The risk to which merchants are exposed, when they either sell off any commodity at a reduced price in anticipation of a fall, or buy at an advanced price in anticipation of a future rise, is a consequence principally of the extreme difficulty of ascertaining the true state of the fact with respect to the grounds on which an abundant or a deficient supply, or an increasing or decreasing demand, may be expected. Rules can here be of no service; every thing depends upon the talent, tact, and knowledge of the party. The questions to be solved are all practical ones, varying in every case from each other; the skill of the merchant being evinced by the mode in which he conducts his business under such circumstances, or by his sagacity in discovering coming events, and appreciating their character and the extent of their influence. Priority, but, above all, accuracy of intelligence, is, in such cases, of the utmost consequence. Without well authenticated data to go upon, every step taken may only lead to error. The instances, indeed, in which speculations, apparently contrived with the greatest judgment, have ended in bankruptcy and ruin, from a deficiency in this essential requisite, are so very numerous, that every one must be acquainted with them. Hence the importance of selecting acute and cautious correspondents; and hence, also, the necessity of maturely weighing their reports, and of endeavouring, by the aid of information gleaned from every authentic accessible source, to ascertain how far they may be depended upon.

When a few leading merchants purchase in anticipation of an advance, or sell in anticipation of a fall, the speculation is often pushed beyond all reasonable limits, by the operations of those who are influenced by imitation only, and who have never, perhaps, reflected for a moment on the grounds on which a variation of price is anticipated. In speculation, as in most other things, one individual derives confidence from another. Such a one purchases or sells, not because he has any really accurate information as to the state of the demand and supply, but because some one else has done so before him. The original impulse is thus rapidly extended; and even those who are satisfied that a speculation, in anticipation of a rise of prices, is unsafe, and that there will be a recoil, not unfrequently adventure, in the expectation that they will be able to withdraw before the recoil has begun.

It may, we believe, speaking generally, be laid down as a sound practical rule, to avoid having any thing to do with a speculation in which many have already engaged. The competition of the speculators seldom fails speedily to render an adventure that might have been originally safe, extremely hazardous. If a commodity happen to be at an unusually reduced price in any particular market, it will rise the moment that different buyers appear in the field; and supposing, on the other hand, that it is fetching an unusually high price, it will fall, perhaps far below the cost of production, as soon as supplies begin to be poured in by different merchants. Whatever, therefore, may be the success of those who originate a speculation, those who enter into it at an advanced period are almost sure to lose. To have been preceded by others ought not, in such matters, to inspire confidence; on the contrary, it ought, unless there be something special in the case, to induce every considerate person to decline interfering with it.

The maintenance of the freedom of intercourse between different countries, and the more general diffusion of sound instruction, seem to be the only means by which those miscalculations, that are often productive of great national as well as private loss, can be either obviated or mitigated. The effects consequent to such improvident speculations being always far more injurious to the parties engaged in them than to any other class, the presumption is that they will diminish, both in frequency and force, according as the true principles of commerce come to be better understood. But, whatever inconvenience may occasionally flow from them, it is abundantly plain, that instead of being lessened, it would be very much increased, were any restraints imposed on the freedom of adventure. When the attention of many individuals is directed to the same line of speculation; when they prosecute it as a business, and are responsible in their

own private fortunes for any errors they may commit; they acquire a knowledge of the various circumstances influencing prices, and give by their combinations a steadiness to them, which it is easy to see could not be attained by any other means. It is material, too, to bear in mind, as was previously stated, that many, perhaps it might be said *most*, of those who press so eagerly into the market, when any new channel of commerce is opened, or when any considerable rise of price is anticipated, are not merchants, but persons engaged in other businesses, or living, perhaps, on fixed incomes, who speculate in the hope of suddenly increasing their fortune. This tendency to gambling seldom fails to break out upon such occasions; but, fortunately, these are only of comparatively rare occurrence; and in the ordinary course of affairs, mercantile speculations are left to be conducted by those who are familiar with business, and who, in exerting themselves to equalise the variations of price caused by variations of climate and of seasons, and to distribute the supply of produce proportionally to the effective demand, and with so much providence that it may not at any time be wholly exhausted, perform functions that are in the highest degree important and beneficial. They are, it is true, actuated only by a desire to advance their own interests; but the results of their operations are not less advantageous than those of the agriculturist who gives greater fertility to the soil, or of the mechanist who invents new and more powerful machines.

7. *Tables of Prices.* — It is superfluous, perhaps, to observe, that the precious metals are liable to all the variations of value already alluded to. Not only, therefore, are prices, as was already remarked, affected by variations in the cost and supply of commodities, but they are also affected by changes in the cost and supply of gold and silver, whether arising from the exhaustion of old, or the discovery of new mines, improvements in the art of mining, changes of fashion, &c. Hence it is, that Tables of the prices of commodities extending for a considerable period, communicate far less solid information than is generally supposed, and, unless the necessary allowances be made, may lead to the most unfounded conclusions. The cost or real value of any commodity depends on the quantity of labour required for its production; but supposing that we were to set about inferring this cost, or the ultimate sacrifice required to obtain the commodity, from its price, it might happen (had the quantity of labour required for its production declined, but in a less degree than the quantity required to produce gold and silver) that its value would appear to rise, when it had really been diminished. When, however, the rate of wages, as well as the price of commodities, is given upon authentic data, a Table of prices is valuable, inasmuch as it shows the extent of the command over the necessaries and conveniences of life enjoyed by the bulk of the community during the period through which it extends. The foregoing Table (pp. 1060, 1061.) of the prices of various commodities, and of the wages paid to different descriptions of tradesmen, at Greenwich Hospital, for the last 100 years, is the most complete of the sort that has been published; and is one of the few that are founded upon data the accuracy of which cannot be questioned. Unfortunately, it applies only to a small part of the country. But many important conclusions may, notwithstanding, be deduced from it. The reader will find, under the more important articles described in this work, pretty ample accounts of their prices. Sometimes, as in the case of corn, these accounts go back to a very distant period.

Those desirous of detailed information as to the prices of commodities in Great Britain, in remoter ages, may consult the elaborate Tables in the 3d volume of Sir F. M. Eden's work on the *Poor*; and the 4th volume of *Macpherson's Annals of Commerce*. *Arbuthnot's Tables of Ancient Coins, Weights, Measures, Prices, &c.* are well known; but the statements are not much to be depended upon. The *Traité de Métrologie* of M. Paucton, 4to, Paris, 1780, is the best work on this curious and difficult subject.

PRICE CURRENT; a list or enumeration of the various articles of merchandise, with their prices, the duties (if any) payable thereon when imported or exported, with the drawbacks occasionally allowed upon their exportation, &c. Lists of this description are published periodically, generally once or twice a week, in most great commercial cities and towns. — (For examples, see the articles GENOA, HAVRE, TRIESTE, &c. in this work.)

PRIMAGE, is a certain allowance paid by the shipper or consignee of goods to the mariners and master of a vessel for loading the same. In some places it is 1*d.* in the pound; in others 6*d.* for every pack or bale; or otherwise, according to the custom of the place.

PRINTS, impressions on paper, or some other substance, of engravings on copper, steel, wood, stone, &c., representing some particular subject or composition.

Prints, like paintings, embrace every variety of subject; and differ very widely in the manner in which they are engraved. Their prices vary according to the style of the engraving, the fineness of its execution, the goodness of the impression, its rarity, &c. The art seems to have taken its rise in the 15th century. But, as a dissertation on one of the most beautiful of the fine arts would be singularly out of place in a work of this

sort, we have introduced it for the purpose merely of stating the law with respect to the copyright of prints.

This is laid down in the acts 8 Geo. 2. c. 13., 7 Geo. 3. c. 38., and 17 Geo. 3. c. 57. By these acts, the copyright of all sorts of prints, including maps and charts, is secured to the engraver, or author, for *twenty-eight* years. The last-mentioned act declares that every individual who shall, within the said 28 years, engrave, etch, or work, or in any other manner copy, in the whole or in part, by varying, adding to, or diminishing from the main design; or shall print, reprint, or import for sale, or shall publish, sell, or otherwise dispose of any copy of any print whatever, which has been or shall be engraved, etched, drawn, or designed in Great Britain, without the express consent of the proprietor thereof first obtained in writing, signed by him with his own hand, in the presence of, and attested by, two or more credible witnesses, then every such proprietor may, by a special action upon the case to be brought against the person so offending, recover such damages as a jury, on the trial of such action, or on the execution of a writ of inquiry thereon, shall give or assess, together with double costs of suit.

In questions as to the piracy of prints, the courts proceed upon the same principles that are followed in those with respect to the piracy of books.—(See Books; see also *Mr. Godson's* excellent work on the *Law of Patents and Copyright*, pp. 287—301.)

Regulations as to Importation.— Where prints or maps are contained in and form part of a book, and serve merely to explain or illustrate the subject of such book, they are to be deemed a part of the work, and be charged with duty, by weight, as books; but when prints or maps are bound or stitched together without letter-press, or when the letter-press is merely descriptive of the prints or maps, then they are to be charged with duty by tale, as prints or maps.—(*Min. Com. Cus.* 5th of Sept. 1829.) But if satisfactory proof be adduced, that prints or maps, although imported separately, do really form part of a work, they may be charged with the book duty by weight; but in other cases they are to be charged with duty by tale. — (*Treas. Order*, 2d of June, 1830.)

Pictures, sketches, and drawings, brought from the Continent, and accompanied by the proprietor, are to be admitted to enter free of duty, upon proof, by oath of the proprietor, that the same were wholly executed by him for his amusement, and not intended for sale in this country.—(*Treas. Order*, 5th of Aug. 1817.)

PRISAGE, or BUTLERAGE, was a right of taking 2 tons of wine from every ship importing into England 20 tons or more; which was changed by Edward I. into a duty of 2*s.* for every ton imported by merchant strangers, and called butlerage, because paid to the king's butler. The term is now fallen into disuse. — (*Blackstone.*)

PRIVATEERS, ships of war fitted out by private individuals, to annoy and plunder the public enemy. But before commencing their operations, it is indispensable that they obtain *letters of marque and reprisal* from the government whose subjects they are, authorising them to commit hostilities, and that they conform strictly to the rules laid down for the regulation of their conduct. All private individuals attacking others at sea, unless empowered by letters of marque, are to be considered pirates; and may be treated as such, either by those they attack, or by their own government.

1. *Policy of Privateering.*—The policy of this system is very questionable. It seems to be a remnant of that species of private war which is exercised by all individuals in early ages, but which gradually disappears as society advances. And though by injuring individuals, it aggravates the suffering inseparable from national struggles, it has little or no tendency to accelerate their termination. Privateers rarely attack ships of war. Their object is merely to plunder and destroy merchantmen. And experience has shown that it is not possible, whatever precautions may be adopted, to prevent them from attacking neutrals and perpetrating all sorts of abuses. The wish to amass plunder is the only principle by which they are actuated; and such being the case, it would be idle to suppose that they should be very scrupulous about abstaining from excesses. A system of this sort, if it be ever useful, can be so only to nations that have little trade, and that may expect to enrich themselves during war by fitting out privateers to plunder the merchant ships of their enemies. In all other cases it seems to be productive only of mischief; though it is, of course, most injurious to those states that have the greatest mercantile navy. Instead, therefore, of encouraging the practice of privateering, a due regard to the rights and interests of humanity has lately suggested to the great powers the expediency of abolishing it altogether. A few efforts had, indeed, been already made towards this desirable object. Thus it was stipulated in the treaty between Sweden and the U. Provinces, in 1675, that neither party should, in any future war, grant letters of marque against the other. In 1767, Russia abstained from licensing privateers: and in the treaty between the U. States and Prussia, in 1785, a stipulation was inserted as to privateers, similar to that in the treaty between Sweden and the U. Provinces in 1675.—(*Martens, Essai concernant les Armateurs*, 1794.) But it required some such convention and agreement among the great powers as that which was happily come to at Paris in 1856, to effect its general abolition.—(See Art. *Neutrality* in this work.) Inasmuch, however, as the U. States have not subscribed the declaration of 1856 against privateering, it is not possible to say what might be the effect were a quarrel to occur, if these continue the practice; and hence the following statements may be allowed to keep their place:—

2. *Appointment of Privateers.*—The captain of a privateer is nominated by the owners, who may dismiss him at pleasure. The commission or letters of marque given to the owners, authorises them to attack and seize the ships of the power or powers specified therein; but they are not to look upon them as their property, or to appropriate them, or any part of them, to their own use, *till they have been legally condemned.* Besides the stimulus afforded by the hope of booty, government has been in the habit of allowing them 5*l.* for every man on board such enemy's ships of war or privateers as they may capture. — (33. Geo. 3 c. 66.) A privateer cruising under letters of marque against one state may, on obtaining authentic information of hostilities being commenced by her government against another, capture its ships

with full advantage to herself. The king has in all cases the right to release any prize previously to its condemnation; this being an implied exception in the grant of prizes by the Crown.—(*Chitty on Commercial Law*, vol. i. c. 8.)

In some privateering adventures, the crew are engaged on the terms no prize no pay; and, in such cases, the produce of whatsoever prizes may be taken goes half to the ship (for the owners), and half to the men, divided among them according to the articles of agreement; but when the men sail for wages, the captures belong entirely to the owners, except a small share, which is commonly stipulated to be given to the crew, over and above their wages, in order to stimulate their enterprise. Both ways of arming are regulated by the articles entered into between the owners and crews.

Privateers are forbidden from doing any thing contrary to the law of nations, as to assault an enemy in a port or haven, under the protection of any prince or republic, be he friend, ally, or neutral; for the peace of such place must be preserved inviolable.—(*Molloy, de Jure Maritimo*, book i. c. 3.)

When letters of marque are granted, it is usual, in most countries, to exact security that the regulations with respect to the conduct of privateers shall be observed. In Great Britain, a bond for 1,500*l.* must be given by responsible persons, not concerned in the ship, for all ships carrying less than 150 men, and 3,000*l.* for every ship carrying more, that they will give full satisfaction for any damage or injury they may commit at sea, contrary to the regulations under which they are to act, and to their duty as privateers.

If privateers wilfully commit any spoil, depredation, or other injury, on friendly or neutral ships, or on the ships or goods of their fellow subjects, they are to be punished, according to the crime, either with death, or otherwise; and the vessels are subject to forfeiture.

Whether a ship taken be lawful prize, or not, shall be tried in the admiralty; and no ship or cargo, or part of a ship or part of a cargo, is to be sold, or disposed of in any way, till after judgment has been obtained.

If 2 ships with letters of marque accidentally meet with a prize at sea, though only one attack and take her, yet the other, being in sight, shall have an equal share of the prize, though he afforded no assistance in the capture; because his presence may be presumed to have struck terror into the enemy, and made him yield; which perhaps he would not have done, had his conqueror been single: so that all ships that are in sight, though they cannot come up to assist in the engagement, are entitled by the *common law* to a distribution of the spoil.—(*Beawes, Lex Mercatoria*, art. *Privateers*.)

If those to whom letters of marque are granted, should, instead of taking the ship and goods appertaining to that nation against which the said letters are awarded, *wilfully* take or spoil the goods of another nation in amity with us, this would amount to *piracy*; and the person so offending would, for such fault, forfeit their vessel, and the penalties in which their securities are, according to custom, bound on taking out such letters. But such penalties would not follow, unless the capture were made in a piratical manner. For if the circumstances incident to the captured vessel were such as to afford a strong presumption that she really belonged to the country against which the letters were granted, the captors would not be liable to punishment, though they might be to damages. "It being impossible," says Beawes, "always to determine an affair of this sort at sea, it is allowable to bring a dubious capture into port, in order to more nice and just scrutiny and inspection; otherwise the goods of an enemy would often escape. However, to guard against unlawful seizures, the government have wisely directed sufficient caution to be given (as before mentioned) for the due observance of the letters according to law, before they permit their issuing; and when there is a breach committed, the penalties are inflicted."—(*Lex Mercatoria*, art. *Privateers*.)

3. *Regulations for the Government of Privateers, &c.*—The following instructions to privateers were issued under an order in council, at the commencement of the last war with France, 16th of May, 1803:—

Art. I. *Against what, and where, Letters of Marque may act hostilely.*—It shall be lawful for the commanders of ships authorised by letters of marque and reprisals for private men-of-war, to set upon by force of arms, and subdue and take the men-of-war, ships and vessels, goods, wares, and merchandises, belonging to the French republic, or to any persons being subjects to the French republic, or inhabitants within any of the territories of the French republic; but so that no hostility be committed, nor prize attacked, seized, or taken within the harbours of princes or states in amity with us, or in their rivers or roads, within the shot of their cannon, unless by permission of such princes or states, or their commanders or governors in chief of such places.

Art. II. *Captures to be brought into Port.*—The commanders of the ships and vessels so authorised as aforesaid, shall bring all ships, vessels, and goods, which they shall seize and take, into such port of *England*, or some other port of our dominions, as shall be most convenient for them, in order to have the same legally adjudged by our High Court of Admiralty of *England*, or before the judge of any other admiralty court, lawfully authorised, within our dominions.

Art. III. *Conduct of the Captors after the Capture is brought into Port.*—After such ships, vessels, and goods shall be taken and brought into any port, the taker, or one of his chief officers, or some other person present at the capture, shall be obliged to bring or send, as soon as possibly may be, 3 or 4 of the principal of the company (whereof the master, supercargo, mate, or boatswain, to be always 2) of every ship or vessel so brought into port, before the judge of our High Court of Admiralty of *England*, or his surrogate, or before the judge of such other admiralty court as within our dominions, lawfully authorised aforesaid, or such as shall be lawfully commissioned in that behalf, to be sworn and examined upon such interrogatories as shall tend to the discovery of the truth, concerning the interest or property of such ship or ships, vessel or vessels, and of the goods, merchandises, and other effects found therein; and the taker shall be further obliged, at the time he produceth the company to be examined, and before any monition shall be issued, to bring in and deliver into the hands of the judge of the High Court of Admiralty of *England*, his surrogate, or the judge of such other admiralty court within our dominions, lawfully authorised, or others commissioned as aforesaid, all such papers, passes, sea-briefs, charterparties, bills of lading, cockets, letters, and other documents and writings, as shall be delivered up or found on board any ship: the taker, or one of his chief officers, or some other person who shall be present at the capture, and saw the said papers and writings delivered up, or otherwise found on board at the time of the capture, making oath that the said papers and writings are brought and delivered in as they were received and taken, without any fraud, addition, abduction, or embezzlement whatever, or otherwise to account for the same upon oath to the satisfaction of the court.

Art. IV. *Not to break Bulk before Judgment.*—The ships, vessels, goods, wares, merchandises, and effects taken by virtue of letters of marque and reprisals as aforesaid, shall be kept and preserved, and no part of them shall be sold, spoiled, wasted, or diminished, and the bulk thereof shall not be broken, before judgment be given in the High Court of Admiralty of *England*, or some other court of admiralty lawfully authorised in that behalf, that the ships, goods, or merchandises are lawful prize.

Art. V. *Privateers to assist Ships in Distress.*—If any ship or vessel belonging to us, or our subjects, shall be found in distress by being in fight set upon or taken by the enemy, or by reason of any other accident, the commanders, officers, and company of such merchant ships or vessels as shall have letters of marque and reprisals as aforesaid, shall use their best endeavours to give aid and succour to all such ship and ships, and shall, to the utmost of their power, labour to free the same from the enemy, or any other distress.

Art. VI. *Application to the Admiralty for Letters of Marque.*—The commanders or owners of such

ships and vessels, before the taking out letters of marque and reprisals, shall make application in writing, subscribed with their hands, to our high admiral of *Great Britain*, or our commissioners for executing that office for the time being, or the lieutenant or judge of the said High Court of Admiralty, or his surrogate, and shall therein set forth a particular, true, and exact description of the ship or vessel for which such letter of marque and reprisals is requested, specifying the burden of such ship or vessel, and the number and nature of the guns, and what other warlike furniture and ammunition are on board the same, to what place the ship belongs, and the name or names of the principal owner or owners of such ship or vessel, and the number of men intended to be put on board the same, and for what time they are victualled; also the names of the commanders and officers.

Art. VII. *Correspondence with the Admiralty.*—The commanders of ships and vessels having letters of marque and reprisals as aforesaid shall hold and keep, and are hereby enjoined to hold and keep, a correspondence, by all conveniences, and upon all occasions, with our high admiral of *Great Britain*, or our commissioners for executing that office for the time being, or their secretary, so as from time to time to render or give him or them, not only an account or intelligence of their captures and proceedings by virtue of such commission, but also of whatever else shall seem unto them, or be discovered and declared to them, or found out by them, or by examination of, or conference with, any marines or passengers of or in the ships or vessels taken, or by any other ways or means whatsoever, touching or concerning the designs of the enemy, or any of their fleets, ships, vessels, or parties, and of the stations, sea-ports, and places, and of their intents therein; and what ships or vessels of the enemy bound out or home, or where cruising, as they shall hear of; and of what else material in these cases may arrive at their knowledge; to the end such course may be thereon taken, and such orders given, as may be requisite.

Art. VIII. *What Colours a Privateer is to wear.*—No commander of any ship or vessel having a letter of marque and reprisals as aforesaid shall presume, as they will answer it at their peril, to wear any jack, pendant, or other ensign or colours usually borne by our ships; but, besides the colours usually borne by merchants' ships, they shall wear a red jack, with the union jack described in the canton, at the upper corner thereof, near the staff.

Art. IX. *Not to ransom any Capture.*—No commander of any ship or vessel, having a letter of marque and reprisal as aforesaid, shall ransom, or agree to ransom, or quit or set at liberty, any ship or vessel, or their cargoes, which shall be seized and taken.

Art. X. *To deliver their Prisoners to the proper Commissioners.*—All captains or commanding officers of ships having letters of marque and reprisals shall send an account of, and deliver over, what prisoners shall be taken on board any prizes, to the commissioners appointed, or to be appointed, for the exchange of prisoners of war, or the persons appointed in the sea-port towns to take charge of prisoners; and such prisoners shall be subject only to the orders, regulations, and directions of the said commissioners; and no commander or other officer of any ship, having a letter of marque or reprisal as aforesaid, shall presume, upon any pretence whatsoever, to ransom any prisoner.

Art. XI. *Commission forfeited for acting contrary hereto.*—In case the commander of any ship, having a letter of marque and reprisals as aforesaid, shall act contrary to these instructions, or any such further instructions of which he shall have due notice, he shall forfeit his commission to all intents and purposes, and shall, together with his bail, be proceeded against according to law, and be condemned to costs and damages.

Art. XII. *Copies of Journals.*—All commanders of ships and vessels having letters of marque and reprisals shall, by every opportunity, send exact copies of their journals to the secretary of the Admiralty, and proceed to the condemnation of the prizes as soon as may be, and without delay.

Art. XIII. *To observe all Orders.*—Commanders of ships and vessels having letters of marque and reprisals shall, upon due notice being given to them, observe all such other instructions and orders as we shall think fit to direct from time to time, for the better carrying on this service.

Art. XIV. *Violating these Instructions.*—All persons who shall violate these or any other of our instructions, shall be severely punished, and also required to make full reparation to persons injured contrary to our instructions, for all damages they shall sustain by any capture, embezzlement, demurrage, or otherwise.

Art. XV. *Bail to be given.*—Before any letter of marque or reprisal for the purposes aforesaid shall issue under seal, bail shall be given with sureties, before the lieutenant and judge of our High Court of Admiralty of *England*, or his surrogate, in the sum of 3,000*l.* sterling, if the ship carries above 150 men; and if a less number, in the sum of 1,500*l.* sterling; which bail shall be to the effect and in the form following:—

Which day, time, and place, personally appeared and who submitting themselves to the jurisdiction of the High Court of Admiralty of *England*, obliged themselves, their heirs, executors, and administrators, unto our Sovereign Lord the King, in the sum of pounds of lawful money of *Great Britain*, to this effect; that is to say, that whereas is duly authorised by letters of marque and reprisals, with the ship called the of the burthen of about tons, whereof he the said goeth master by force of arms to attack, surprise, seize, and take all ships and vessels, goods, wares, and merchandises, chattels and effects, belonging to the French republic, or to any persons being subjects of the French republic, or inhabiting within any of the territories of the French republic; excepting only within the harbours or roads within shot of the cannon of princes and states in amity with his Majesty. And whereas he the said hath a copy of certain instructions, approved of and passed by his Majesty in council, as by the tenour of the said letters of marque and reprisals, and instructions thereto relating, more at large appeareth: if therefore nothing be done by the said or any of his officers, mariners, or company, contrary to the true meaning of the said instructions, and of all other instructions which may be issued in like manner hereafter, and whereof due notice shall be given him; but that such letters of marque and reprisals aforesaid, and the said instructions, shall in all particulars be well and duly observed and performed, as far as they shall the said ship, master, and company any way concern; and if they shall give full satisfaction for any damage or injury which shall be done by them or any of them to any of his Majesty's subjects, or of foreign states in amity with his Majesty, and also shall duly and truly pay, or cause to be paid, to his Majesty, or the customers or officers appointed to receive the same for his Majesty, the usual customs due to his Majesty, of and for all ships and goods so as aforesaid taken and adjudged as prize; and moreover if the said shall not take any ship or vessel, or any goods or merchandise, belonging to the enemy, or otherwise liable to confiscation, through consent or clandestinely, or by collusion, by virtue, colour, or pretence of his said letters of marque and reprisals, that then this bail shall be void and of none effect; and unless they shall so do, they do all hereby severally consent that execution issue forth against them, their heirs, executors, and administrators, goods and chattels, wheresoever the same may be found, to the value of the sum of pounds before mentioned; and in testimony of the truth thereof they have hereunto subscribed their names.

By his Majesty's command.

(Signed) PELHAM.

PROMISSORY NOTES. See BANKS AND BANKING.

PROTECTION, in commercial legislation, means the protecting or bolstering up of certain branches of domestic industry by prohibiting the importation of the produce of such branches from abroad, or loading it when imported with heavy duties. This policy was at one time universally prevalent. But its extremely injurious influence having been demonstrated over and over again, it has been abandoned by all intelligent statesmen. And notwithstanding the powerful interests by which it was supported, it has nearly disappeared from our legislation; and it will, no doubt, eventually disappear from the legislation of all countries.

In mercantile navigation, protection is a privilege granted to certain descriptions of seamen, by which they are secured against impressment.—(See IMPRESSMENT.)

PROVISIONS. Under this term, taken in its most extensive sense, in reference to man, may be comprised all those articles used as food by the inhabitants of this and other countries; but among British merchants and in parliamentary language, it is understood to comprise only fresh and salted butchers' meat, hams, and bacon, butter and cheese, eggs, and a few other articles. We shall, however, include with these, in the following statement, an account of the imports of cattle.

Our readers are aware that previously to the 9th of July, 1842, the importation of cattle, sheep, and hogs, and of all sorts of fresh butchers' meat, was prohibited; and that a duty of 12*s.* a cwt. was imposed on all foreign salt meat when entered for consumption, and of 28*s.* a cwt. on bacon and hams. But in the tariff act of 1842, which came into operation at the above date, the prohibition of importing foreign cattle, sheep, hogs, and fresh meat was repealed, and their entry for home consumption admitted under reasonable duties; the duty on salted meat being, at the same time, reduced from 12*s.* to 8*s.*, and that on bacon and hams from 28*s.* to 14*s.* a cwt. We published at the time a short tract (*Memorandums on the proposed Introduction of Foreign Beef and Cattle*), in which we endeavoured to show by comparing the prices of cattle in the adjoining countries and in England, that this wise and liberal measure would not have the effects that were anticipated in reducing the price of stock in this country. Experience showed that we were right in this anticipation; the imports of cattle and sheep being comparatively inconsiderable. Sir Robert Peel, profiting by this experience, repealed, in 1846, the duties imposed in 1842 on the importation of cattle, sheep, &c. And the result has more than justified the soundness of the principles on which that great minister proceeded in taking this step. The imports of stock have been considerably, but not greatly increased in the interval. And, far from being injured by his liberal proceedings, the grazing farmers have gained immensely; and it is admitted, on all hands, that cattle and sheep have paid better of late years than they ever did at any antecedent period. It is, in truth, much easier to import supplies of corn than of beef or mutton; and the probability seems to be that our farmers will in time to come apply themselves rather to the production of the latter than of the former.

Account of the Numbers and Values of the Cattle, Sheep, Hogs, &c., and of the Quantities and Values of the Provisions, imported and entered for Consumption in the U. Kingdom, with the Rates of Duty on the same, in 1857.

Articles.	Imported.	Rates of Duty.	Entered for Consumption.	Value of Imports.
				£
Oxen and bulls - - No.	55,277	Free	- -	998,944
Cows - - - ,,	12,371	—	- -	182,472
Calves - - - ,,	27,315	—	- -	109,260
Sheep and lambs - - ,,	177,207	—	- -	415,960
Swine and hogs - - ,,	10,678	—	- -	16,017
Bacon - - - cwt.	316,083	—	- -	982,054
Hams - - - ,,	20,851	—	- -	71,675
Beef, salt - - - ,,	150,940	—	- -	374,294
Pork, salt - - - ,,	88,752	—	- -	235,509
Butter - - - ,,	441,606	5*s.*	443,042	2,061,280
Cheese - - - ,,	395,323	2*s.* 6*d.*	385,585	975,862
Eggs - - - oubic feet	634,093	8*d.* per cubic foot (about 200 to a ft.)	635,055	317,046
Lard - - - cwt.	182,860	Free	- -	599,857
Poultry and game - - -	- -	—	- -	59,164
Total - -	- -	- -	-	7,397,404

It is impossible to say in how great a degree these importations may be increased in time to come; but it is most probable that they will be gradually augmented according as foreigners become better acquainted with the qualities suitable for our markets. But we have no idea that they will ever amount to any considerable proportion of our supply. The cheapness of cattle and provisions in foreign markets, of which we used to hear so much, was in great part imaginary; and where it did occur, it depended more on the difficulty of conveying them to other markets, or on their inferiority, than on anything else. The imports of fat cattle, though they were trebled, would not do our graziers the smallest injury; and

the importation of lean cattle, far from being injurious, would be highly for their interest. The great existing desideratum in our agriculture at this moment is, in truth, the want of markets whence we might import lean or half-fed stock. The demand in this country for all sorts of butcher's meat is quite immense; and the land suitable to the rearing of cattle is too circumscribed to afford a sufficient supply. Hence the high price of beef and mutton as compared with corn.

PRUNES AND PRUNELLOES, a species of dried plums, of which there are many varieties. The finest are imported from France, in the south of which this fruit is very abundant. The best prunes are packed in hampers or baskets made of white osiers, weighing from 6 to 10 lbs. each; the second quality in quarters, and the third in puncheons. The duty on prunes, which was previously fixed at the extravagant rate of 27*s.* 6*d.* a cwt., was most properly reduced in 1834, to 7*s.* a cwt., and is now 7*s.* + 5 per cent. or 7*s.* 4⅓*d.* This reduced duty produced, in 1852, 6,510*l.*, showing that 17,781½ cwts. had been entered for consumption. Previously to the reduction of the duty, the entries seldom exceeded 6,000 cwt.

PRUSSIAN BLUE. OR PRUSSIATE OF IRON (Ger. *Berlinerblau;* Fr. *Bleu de Prusse;* It. *Azurro Prussiano;* Sp. *Azul de Prussia;* Rus. *Lasor Bexlinskaja*), a beautiful deep blue powder, accidentally discovered at Berlin in 1710. It is of considerable importance in the arts, being extensively used by painters: it is manufactured in this country. Many attempts have been made to render Prussian blue available for the dyeing of broad cloths, but without much success. The difficulty is to diffuse the colour equally over the surface; for, from its extraordinary vivacity and lustre, the slightest inequalities strike and offend the eye. Prussian blue resists the air and sun extremely well; but it cannot be used in the dyeing of cottons, or any sort of stuff that is to be washed with soap, as the alkali contained in the soap readily dissolves and separates the colouring matter. — (*Bancroft on Colours*, vol. ii. pp. 60—94.)

Blue is a favourite colour with the Chinese, and in 1810-11 the imports of Prussian blue into Canton from England amounted to 1,899 piculs, or 253,200 lbs. But, for some years past, the Chinese have not imported a single pound weight. The cause of the cessation of the trade deserves to be mentioned. A common Chinese sailor, who came to England in an East Indiaman, having frequented a manufactory where the drug was prepared, learned the art of making it; and on his return to China, he established a similar work there, with such success that the whole empire is now amply supplied with native Prussian blue! The West has derived many important arts from the East; but we incline to think that this is the first well authenticated instance of any art having ever been carried from the West to the East, by a native of the latter. But, in all that respects industry, ingenuity, and invention, the Chinese are incomparably superior to every other people to the east of the Indus.

PRUSSIAN OR GERMAN COMMERCIAL UNION. Next to the efforts of the Prussian government to diffuse the blessings of education, their efforts to introduce a free commercial system into Germany constitute their best claim to the gratitude and esteem of their own subjects, and of the world. Germany, as every one knows, is divided into a vast number of independent, and mostly petty, states. Until a very recent period, every one of these states had its own custom-houses, and its own tariff and revenue laws; which frequently differed very widely indeed from those of its neighbours. The internal trade of the country was, in consequence, subjected to all those vexatious and ruinous restrictions that are usually laid on the intercourse between distant and independent states. Each petty state endeavoured either to procure a revenue for itself, or to advance its own industry, by taxing or prohibiting the productions of those by which it was surrounded; and customs officers and lines of custom-houses were spread all over the country! Instead of being reciprocal and dependent, every thing was separate, independent, and hostile: the commodities admitted into Hesse were prohibited in Baden, and those prohibited in Wirtemberg were admitted into Bavaria. It is admitted on all hands that nothing has contributed so much to the growth of industry and wealth in Great Britain, as the perfect freedom of internal industry we have so long enjoyed, and that intimate correspondence among the various parts of the empire, which has rendered each the best market for the products of the other. How different would have been our present condition had each county been an independent state, jealous of those around it, and anxious to exalt itself at their expense! But, until within these few years, this was the exact condition of Germany; and, considering the extraordinary obstacles such a state of things opposes to the progress of manufactures, commerce, and civilisation, the wonder is, not that they are comparatively backward in that country, but that they should be so far advanced as they really are.

But, thanks to the intelligence and perseverance of Prussia, this anti-social system has been well nigh suppressed; and the most perfect freedom of commerce established among the great bulk of the Germanic nations. The disadvantages of the old system had long been seen and deplored by well-informed men; but so many interests had grown up under its protection, and so many deep-rooted prejudices were enlisted in its favour, that its overthrow seemed to be hopeless, or, at all events, exceedingly distant. The address and resolution of the Prussian government, however, triumphed over every

obstacle. Being fully impressed with a strong sense of the many advantages that would result to Prussia and Germany from the introduction of a free system of internal intercourse, they pursued the measures necessary to bring it about with an earnestness that produced conviction, and with a determination, *coute qui coute*, to carry their point.

The first treaties in furtherance of this object were negotiated by Prussia with the principalities of Schwarzburg-Sondershausen and Schwarzburg-Rudolstadt, in 1818 and 1819, on the principle that there should be a perfect freedom of commerce between these countries and Prussia; that the duties on importation, exportation, and transit, in Prussia and the principalities, should be identical; that these should be charged along the frontier of the dominions of the contracting parties; and that each should participate in the produce of such duties, in proportion to its population. All the treaties subsequently entered into have been founded on this fair and equitable principle; the only exceptions to the perfect freedom of trade in all the countries comprised within the league or tariff alliance being confined, 1st, to articles constituting state monopolies, as salt and cards, in Prussia; 2d, to articles of native produce, burdened with a different rate of duty on consumption in one state from what they pay in another; and, 3d, to articles produced under patents conferring on the patentees certain privileges in the dominions of the states granting the patents. With these exceptions, which are not very important, the most perfect freedom of commerce exists among the allied states.

Since 1818, when the foundations of the alliance were laid, it has progressively extended, till it now comprises more than three fourths of the Germanic states, exclusive of Austria. Ducal Hesse joined the alliance in 1828, and Electoral Hesse in 1831; the kingdoms of Bavaria, Saxony, and Wirtemberg joined it afterwards, as have Baden, Nassau, and almost all the smaller states by which it had not been previously joined, with the exception of Mecklenburg-Schwerin and Mecklenburg-Strelitz. But these, with Hanover, will be very shortly included in the league.

In 1852, the tariff alliance comprised —

	German Sq. Miles.	Population in 1849.
Prussia	5,188	16,669,153
Luxemburg	47	189,783
Bavaria and her detached territories	1,396	4,526,650
Saxony (Kingdom of)	272	1,894,431
Wirtemberg and the two Hohenzollerns	384	1,805,558
Hesse (Electoral)	203	7,731,584
Hesse (Duchy) and Homburgh	154	862,917
The Thuringian States	237	1,014,954
Baden (Duchy of)	276	1,360,599
Brunswick (Duchy of)	63	247,070
Nassau	85	425,686
Frankfort	2	71,678
Totals	8,507	29,800,063

Throughout the whole extent of this immense country, from Aix-la-Chapelle, on the confines of the Netherlands, eastward to Tilsit, on the confines of Russia, and from Stettin and Dantzic southwards to Switzerland and Bohemia, there is nothing to interrupt the freedom of commerce. A commodity, whether for consumption or transit, that has once passed the frontier of the league, may be subsequently conveyed, without let or hindrance, throughout its whole extent. Instead of being confined within the narrow precincts of their own territories, the products of each separate country of the alliance may be sent to every one else; so that each may apply itself, in preference, to those departments in which it has some natural or acquired advantage; and each has to depend for its success, not on the miserable resource of customs regulations, but on its skill and industry. The competition thence arising is most salutary; and, should the peace of Europe be preserved, we run little risk in saying, that all sorts of industry will make more progress among the states comprised within the tariff alliance, during the next ten years, than they did during the half century previous to its being organised.

An assembly of representatives from the allied states meets annually, to hear complaints, adjust difficulties, and make such new enactments as may seem to be required. The Prussian tariff has been adopted, with certain modifications. The duties are received into a common treasury, and are apportioned according to the population of each of the allied states. In addition to its other advantages, the new system has reduced the cost of collecting the duties to a mere trifle, compared with its former amount; and has enabled hundreds of custom-houses, and thousands of customs officers, to be employed in the different departments of industry.

The existing discrepancy in the weights and measures used in different parts of Germany occasions considerable inconvenience; and we are glad to observe that the equalisation of weights and measures, and their reduction to a common standard in all the allied states, is declared to be one of the objects of the league.

It is also expressly provided that the tolls, or other charges in lieu thereof, shall, in all cases, whether they belong to the public or to private individuals, be limited to the sums *required to keep the roads in a proper state of repair*; and that the tolls existing in Prussia shall be considered as the highest that are to be levied, and shall not in any case be exceeded.

It was at first supposed by many persons in this country, and the opinion is not yet entirely abandoned, that the Prussian league was in some degree directed against us, and that, at all events, it threatened to be very injurious to our trade with Germany; we do not, however, believe that there is any foundation whatever for either of these opinions. The alliance was planned, and brought to its present advanced state, in the view, and with the intention, of putting down the galling and innumerable restraints by which the intercourse of the German states with each other was formerly interrupted; and not with the intention of throwing any obstacles in the way of the trade of the alliance with foreign countries; it is, indeed, quite absurd to suppose that it should have this effect. The freedom of internal commerce will do ten times more to promote the industry and prosperity of the allied states than any other measure, or system of measures, that their governments could have adopted; and, as population increases, and the inhabitants become more industrious and wealthy, there will, no doubt, be an augmented demand for foreign products. The league is now no new thing. It was formed several years since, and has been progressively augmented: but, hitherto, it has not had the slightest influence in diminishing our intercourse with Germany; our exports to it, including Holland and Belgium, being greater at present than at any former period!— (See *antè*, p. 713.) Generally speaking, the duties on imports are reasonable: at least, on all the finer descriptions of goods. It never, in fact, can be the policy of the alliance to make them oppressive; for, though certain states may erroneously suppose that their interests would be promoted by such means, others would undoubtedly be of a different opinion, and would resist any attempt to carry them beyond a reasonable amount. It is a mistake to suppose that Prussia has an overwhelming influence in the assembly. She must conciliate the other states, and carry them along with her; and this can only be done by acting on fair principles, and with a view to the common interests of the alliance.

Besides, if any of the existing duties be exorbitant, or if any of them, that are at present moderate, should be subsequently raised to an exorbitant pitch; does any one suppose that the over-taxed articles would not be immediately smuggled into all parts of the league? We, who occupy an island, and have revenue cruisers and coast guards on all the seas and shores most accessible to the smuggler, know from experience that it is not possible to hinder over-taxed commodities from making their way into our markets. But the facilities for smuggling into the territories of the league are incomparably greater. It has a land frontier of several thousand miles; and though the whole Prussian army were employed for that purpose, it would be found that it was utterly impotent to prevent the territories of the league from being deluged with such over-taxed commodities as were in demand by the inhabitants.

We are glad to be able to strengthen our view of the influence and objects of the Prussian commercial league, by laying before the reader the following extract from a work printed by order of the House of Representatives of the American States. "Prussia," it is there said, "has evidently taken the lead in this wise and important measure, to which the smaller states have gradually acceded. The whole commercial policy of this enlightened power has been distinguished for its liberality, being founded on the desire of placing her intercourse with all nations on the basis of reciprocity. The commercial league of Germany is intended to carry out this principle, and not to be directed, as has been supposed, against any particuler nation; as it is well known that Prussia, in her treaties with maritime powers, has invariably adopted the system of reciprocity, to whatever extent those with whom she negotiates are willing to carry it. The establishment of this community of commercial interests forms a part of the fundamental compact, by which the new Germanic confederation was created, after the dissolution of the Confederation of the Rhine; to be subsequently adopted, however, at the option of such of the co-states as should choose to accede to it. Its effects cannot fail to promote commerce, and every other branch of industry, as it removes all those vexatious and endless difficulties which previously obstructed the freedom of intercourse. Navigable rivers and highways are now opened to the unfettered use of the German people; the custom and toll-houses, with their officers and barriers, have been withdrawn from the interior, and the whole intercommunication resembles that of the subjects of any one of the states within its own territories. To these benefits may be added the assured prospect of improvement in the finances of the great and smaller sovereignties composing

the league. This advantage will grow out of the simplicity or unity of the new system, a saving in the cost of collection, and from the increased consumption which renovated industry and progressive prosperity so invariably cause." — (*Digest of Customs Laws*, vol. iii. p. 227.)

Prussian Duty on Cottons. — The duty on cotton goods being that in which we are most interested, we have taken some pains to ascertain its real influence. This duty amounts to 50 rix-dollars per Prussian quintal on all cotton goods, without respect to quality or price; and, taking the quintal at 113 lbs. avoirdupois, and the rix-dollar at 3*s.*, it is equal to 7*l.* 10*s.* per 113 lbs. Now, we have learned from statements obligingly furnished to us by a large wholesale house in the city,—

1st. That a quintal (113 lbs.) of *coarse shirting*, worth 4*d.* per yard, contains 497 yards; it consequently costs 8*l.* 6*s.*, and the Prussian or tariff alliance duty of 7*l.* 10*s.* on it is, therefore, equivalent to an *ad valorem* duty of 90 per cent.

2d. That a quintal of *superior shirting*, worth 1*s.* a yard, contains 437·65 yards; it consequently costs 22*l.* 17*s.* 7*d.*, making the Prussian duty on such goods 32½ per cent.

3d. That a quintal of *printed cottons*, worth 1*s.* 6*d.* a yard, contains 633 yards; it consequently costs 47*l.* 9*s.*, making the Prussian duty on such goods 15⅝ per cent.

4th. That a quintal of *fine printed cottons*, worth 2*s.* 6*d.* a yard, contains 678 yards; it consequently costs 84*l.* 15*s.*, making the Prussian duty on such goods 8⅜ per cent.

It is plain, therefore, that, except on the coarsest and cheapest species of goods, the Prussian or tariff alliance duty is very far from being oppressive; and, as the value of coarse goods is principally dependent on the cost of the raw cotton and the wages of labour, being but little influenced by superiority of machinery, it is not very probable that we should export them largely to Prussia, even were the duty materially reduced. No doubt, however, it would conduce greatly to the interests of the people comprised within the league, though we do not know that it would sensibly affect us, were the duty assessed on an *ad valorem* principle, and made 20 or 30 per cent. on all goods; and we should think that this might be done without any material difficulty.

The subjoined translation of the more important clauses of the customs treaty of the 22d of March, 1833, sets the principles on which the alliance is founded in a clear point of view.

Customs Treaty, concluded the 22d March, 1833, between the Kings of Bavaria and Wirtemberg, on the one part; and the King of Prussia, the Prince Electoral Co-regent of Hesse, and the Grand Duke of Hesse on the other part.

I. The existing customs unions between the states above named shall henceforth constitute a general Union, united by a common system of customs and commerce, embracing all the countries comprised therein.

II. In this general re-union are also comprised the states which have already adhered, either for the whole of their territory, or for a part, to the system of customs and commerce of one or other of the contracting states, having regard to their special relations, founded upon the conventions of adhesion concluded with the states which have intervened.

III. But there will remain excluded from the general re-union the parts separated from the countries of the contracting states which, because of their situation, are not yet included either in the re-union of the Bavarian or Wirtemberg customs, nor in those of Prussia and Hesse. Nevertheless, the regulations now in force to facilitate the commerce of these territories with the principal country will be maintained. Other favours of this kind cannot be accorded without the unanimous consent of the contracting states.

IV. In the contracting states there shall be established uniform laws for the duties of import, of export, and of transit, except such modifications as, without injury to the common object, result necessarily from the particular legislation of each contracting state, or from local interests.

Thus, exceptions and modifications to the common tariff may take place, as to rates of duties of entry, of export, and of transit, (according as the direction of the routes of commerce may require,) established upon articles recognised as of minor consequence in extensive commerce; provided always, that these modifications be preferred by separate states, and that they shall not be disadvantageous to the general interests of the Association.

The administration of the duties of import, export, and transmit, as well as the organisation of the authorities which are engaged therein, in all the states of the Association, shall be established upon a uniform footing, having regard, however, to the particular relations existing in those countries. The laws and ordinances which, according to those principles, ought to be uniform in the contracting states, and which are to constitute the law of the tariff and the regulations of the customs, shall be considered as an integral part of the present treaty, and shall be published at the same time.

V. There can neither be alterations, nor additions, nor exceptions, to the acts above

mentioned (Art. IV.), but by the unanimous consent of all the contracting parties, and in the form required for the making (*confection*) of the laws.

The preceding applies equally to all the ordinances which would establish, for the administration of the customs, dispositions entirely different.

VI. Liberty of commerce, and community of the receipts of customs, as regulated by the following article, will commence simultaneously with the operation of the present treaty.

VII. Dating from this epoch, all duties of import, of export, and of transit shall cease on the common frontier of the Bavaro-Wirtemberg and Prusso-Hessian customs re-unions. All articles of free commerce in one of those territories may be imported freely and without duty into all the others, except only as follows:—

A. Articles monopolised by the states (playing cards and salt) conformable to Articles IX. and X.

B. Indigenous articles, now subject in the interior of the contracting states to different duties, or excepted from all duty in one state, and imported into another, and which according to article II. ought consequently to be subject to a duty of compensation.

Finally, C. Articles which, without prejudice to patent rights or conceded privileges in one of the contracting states, cannot be imitated or imported, and ought consequently to be excluded during the existence of the patents and privileges from importation into the state which has granted them.

VIII. Notwithstanding the freedom of commerce, and the exemption from duties, established by Article VII., the transport of articles of commerce, subject by the common tariff to duties of import or export on the frontiers of the Association, cannot take place between the states of Bavaria and Wirtemberg, and the states of Prussia, of Electoral Hesse, or of Grand Ducal Hesse, and reciprocally, except by the public roads, military routes, and navigable rivers. For this purpose there shall be established, on the interior frontiers, common *bureaus* of verification, to which the conductors of merchandise must, on exhibiting their licences, declare what are the articles which they are employed to transport from one territory to another.

This disposition will not be applicable to retail commerce in raw materials, nor to the petty commerce of the frontiers or the fairs, nor to the effects of travellers. Process for the verification of merchandise will go no farther than is required for security of the duties of compensation.—(See Art. VII. B.)

XIII. The contracting parties reciprocally renew their adhesion to the principle, that the tolls, or other charges in lieu thereof, shall only be sufficient to defray the expense of maintenance and repairs of the roads; whether the tax be for the state or for private rights. It was thus that has been approved the supplement to the duty of customs, created in Bavaria and Wirtemberg, to replace the duty of tolls, paving, causeways, bridges, and generally of all analogous taxes.

The tolls, &c. now existing in Prussia, according to the general tariff of 1828, shall be considered as the *highest rates*, and shall not be exceeded in any of the contracting states.

In accordance with the principle thus announced, the individual duty for closing the gates of cities shall be abolished; as also the duty of paving of causeways, where it still exists; and all paved roads will be considered as causeways of a description liable only to the duty on causeways established by the general tariff.

XIV. The contracting governments agree to unite their efforts to introduce into the states a uniform system of coins, weights, and measures; to commence immediately the requisite negotiations for this purpose; and, subsequently, to direct their efforts towards the adoption of uniform custom-house weights.

The contracting states, in the impossibility of establishing this uniformity before this treaty goes into operation, agree, for facilitating the forwarding of merchandise where it has not already been done, to revise their tariff as to weights and measures, assuming for a basis the tariffs of the other contracting states. They will cause such modifications to be published, for the government of the public and of their custom-house *bureaus*.

The common tariff (Art. IV.) shall be divided into two principal divisions, according to the system of weights, measures, and monies of Bavaria, and that of Prussia.

The declaration of the weights and measures of articles subject to duty shall, in Prussia, be according to Prussian weights and measures; in Bavaria and Wirtemberg, according to those of Bavaria; and in the two Hesses, according to the weights and measures there legally established.

In expediting custom-house acts, the quantity of merchandise must be expressed according to the two principal divisions of the common tariff.

Until the contracting states agree upon a system of common money, the payment of duties in each state shall be made in the same currency as in use for payment of its other taxes.

But from the present time, the gold and silver coins of all the contracting states, with the exception of small money (*sheidemunze*), shall be received in all the *bureaus* of receipt of the Association; and for this purpose, tables of value shall be published.

XV. The duties of navigation upon the rivers, comprising therein those which apply to vessels, shall always be mutually acquitted according to the acts of the Congress of Vienna, or of special conventions, upon all the rivers to which these regulations apply, unless other determinations be adopted in this respect.

The contracting states agree to enter, without delay, into negotiations for that which particularly regards the navigation upon the Rhine and the neighbouring streams, in order to effect an arrangement by which the import, export, and transit of the productions of all the states of the Union upon said streams shall be, if not absolutely free, at least relieved as far as possible from duties of navigation, under the reserve of charges of reconnoissance.

All the advantages granted by one state of the Union to its subjects, in the exercise of the navigation upon said streams, shall extend equally to the navigation of the other associated states.

Upon the other streams to which neither the acts of the Congress of Vienna, nor any other treaties apply, the duties of navigation shall be according to the special regulations of the governments interested. Nevertheless the subjects of the contracting states, their merchandise and vessels, shall throughout be treated on those streams with perfect equality.

XVI. Dating from the day on which the general custom-house regulations of the Union shall come into operation, the duties of public stores (*étapes*), and of transshipments (*umschlagnechte*), which still exist in the territories belonging to the Association, shall cease, and no one shall be liable to forced delay, nor to the discharging and storage of his merchandise, except in cases authorised by the common regulations of the customs or navigation.

XVII. No duties shall be claimed for canals, locks, bridges, ferries, cranes, weighing and storage; and the establishments destined to facilitate commerce shall not be allowed rent, except when actually used. Charges cannot be increased; and the subjects of the other contracting states shall be on a perfect equality with the subjects of the countries having those establishments.

If the establishments for weighing and cranes are only used by the custom-houses, no charge shall be made, if the articles have been previously weighed at a custom-house.

XVIII. The contracting states engage to continue their common efforts for the encouragement of industry by the adoption of uniform regulations, so that the subjects of each state may enjoy, as extensively as possible, the privilege of seeking work and occupation in every other state.

From the coming into operation of the present treaty, the subjects of any one of the contracting states, trading or seeking employ in the territory of any other of those states, shall not be subject to any impost which does not equally affect the native similarly employed. Manufacturers and merchants who are only making purchases for their trade, or travellers who have not goods with them, but simply patterns for the purpose of soliciting commissions, shall not, when thus employed, have any duty to pay in another state, if authorised to carry on such commerce in the state where they have their domicile; or if employed in the service of native manufacturers or merchants.

When trading in the markets and fairs, or when they are selling the produce of the soil and fabrics, in any one of the states of the Association, the subjects of the other contracting states shall be treated in all respects as subjects of the same states.

XIX. The seaports of Prussia shall be open for commerce to all the subjects of the states of the Union, on payment of the same duties as are paid by Prussian subjects, and the consuls of the several states in the seaports or places of foreign commerce, shall be bound, in cases of need, to assist with their advice and support the subjects of the other contracting states.

XX. To protect against contraband their common custom-house system, and to insure the regular payment of the duty of consumption in the interior, the contracting states have concluded a reciprocal cartel, which shall be enforced as soon as possible, but, at the farthest, at the same time with the present treaty.

XXI. The community of receipts of the contracting states, stipulated by the present treaty, shall comprehend the product of duties of entry, of export, and of transit, in the Prussian states, the kingdoms of Bavaria and Wirtemberg, the Electorate, and the Grand Duchy of Hesse, comprising therein those countries which have down to the present time acceded to the custom-house system of the contracting states.

The following are excluded from the community of receipts, and remain reserved for the particular benefit of the respective governments:—

1. The imposts collected in the interior of each state on indigenous products, comprising therein the compensatory duties reserved in Article XI.

2. The toll on rivers, to which are applicable the regulations of the acts of the Congress of Vienna, or special conventions. (Article XV.)

3. Duties of paving, of causeways, of bridges, of ferries, of canals, of locks and ports, charges of weighing and storage, as well as similar receipts, whatever may be their name.

4. The fines and confiscations which, beyond the part allowed to informers, remain the property of each government throughout its territory.

XXII. The produce of the duties received into the common treasury shall be divided among the states of the Association, in proportion to the population which may be found in the Union, subject to deduction, 1st, of the expenses specified in Article XXX.; 2d, of the restitution of erroneous receipts; 3d, of the restoration of duties and diminutions made in consequence of special common conventions.

The population of every state which has entered or may enter into the Association, by treaty with one or other of the contracting states, under the engagement made by the latter, to make an annual contribution, for the participation of the former to the common revenue of the customs, shall be added to the population of the states which make this contribution.

There shall be made every three years, dating from a period to be hereafter fixed, an exact enumeration of the population of the associated states: the states shall reciprocally communicate the results thereof.

XXIII. All restitutions of duties not authorised by the legislation of the customs shall remain charged to the treasury of the government which shall have granted it.

Conventions, hereafter to be concluded, will regulate in what cases similar restitution may be accorded.

XXIV. In conformity with the object of this association of customs tending to facilitate a freer and more natural commercial intercourse, the favours accorded for the payment of custom-house duties at certain places in which fairs are held, especially the privileges of abatement (*rabat privilegien*) cannot be extended to those states of the association where they do not exist; on the contrary, they shall be restricted and abolished as far as possible, regard being had to the means of subsistence of the places heretofore favoured, and to the commercial relations which they have with foreigners; but others can on no account be granted without the general consent of the contracting parties.

XXXIII. There shall every year, on the 1st day of June, be an assembly of plenipotentiaries of the governments of the Union empowered generally to deliberate; and each state may send thither a duly authorised representative.

The plenipotentiaries will choose from among themselves a president, who, however, shall have no pre-eminence over the other members.

The first assembly shall be held at Munich.

At the close of each annual assembly, the place of next meeting will be determined, having reference to the nature of those subjects which will then come under discussion.

XXXIV. The assembly of plenipotentiaries will have under its consideration the following subjects:—

A. To consider the complaints which may have arisen in any of the states of the association, concerning the execution of the general treaty, of special conventions, of the law, and of custom-house regulations; also of the tariff, when these shall not have been adjusted during the year by correspondence between the different ministers.

B. The definitive reparation among the states of the Union of the total common receipts, based upon the observations made by the superior authorities, and verified by the central *bureau*, as may be rendered necessary by the common interest.

C. To deliberate upon propositions and suggestions made by the governments for the perfection of the administration.

D. Discussions upon alterations, demanded by any of the contracting states, in the laws, tariffs, and custom-house regulations, as well as in the organisation of the administration, and in general upon the development and perfection of the general system of customs and commerce.

XXXV. If, in the course of the year, when the plenipotentiaries are not in session, extraordinary incidents should occur, which require prompt decision on the part of the states of the Union, the contracting parties will consult upon these through their diplomatic agents, or they will order an extra sitting of their plenipotentiaries.

Recent Changes in the German Customs Union.—The discussions in the assemblies of the League have, especially of late years, been a good deal influenced by political considerations. A league, denominated the *Steurverein*, had been formed in opposition to, or in rivalry with, the Prussian league, by Hanover, Oldenburg, and Brunswick. It was evident, however, inasmuch as the interests of these and the other German states were identical, that it would be a great public advantage were these associations merged into one. But owing to political, commercial, and financial jealousies, this desirable object was of very difficult attainment. Happily, however, these difficulties have been surmounted; and a treaty negociated between Hanover and Prussia, on the 7th of September, 1851, provided for the incorporation, from the 1st of January, 1854, of the former kingdom, and the other states included in the Steurverein, with the Prussian Union. Some modifications have been introduced by the treaty into the basis of the League, but they are of little importance, except to the parties immediately interested.

Treaty with Austria.—More recently a great deal of discussion has taken place between Prussia and the subordinate German states on the one hand, and Austria on the other, in regard to the formation of a Customs Association which should include the latter; and in order to pave the way for this desirable consummation, Austria issued a new tariff on the 25th of November, 1851, in which she made many important modifications in the prohibitive system on which she had previously acted, at the same time that she established a free commercial intercourse between Hungary (which had previously a separate customs establishment) and the other states of the empire. And though this wise and liberal measure has not yet led to the incorporation of Austria into the Customs' Union, it has led to the conclusion of an extremely important commercial treaty between Austria and Prussia, dated the 19th of February of the current year (1853).

The contracting parties engage to suppress, with a few specified exceptions, *all* prohibitions against importing the products of the one into the territories of the other; they next establish a complete freedom of trade between the two countries in all articles of raw produce; and they further stipulate that the duties to be imposed on manufactured products shall be moderate and reasonable. It has a variety of other clauses, all of which have a liberal character. The duration of the treaty is limited to 12 years; but we have little doubt, should peace be preserved, that the advantages of which it will be productive will be so many and so great, that long before the expiration of 12 years its provisions will be still farther liberalised, and that it will lay the foundations of a lasting intercourse, of which we can neither foresee the extent nor the beneficial influence.

In consequence of these and other changes the duties in the tariff of the German Customs Union have undergone many modifications. But except on coarse and heavy goods, they continue, speaking generally, to be moderate. We subjoin

An Account showing the Proportion of the Revenues of the German Customs Union raised in the different States in 1851, and the Distribution thereof, according to their Population, from the official Returns, published at Berlin in 1852.

States.	Import Duties. Population.	Amount of gross Receipts.	Amount of nett Receipts for Distribution.	Amount payable to each State according to its Population.	Export and Transit Duties payable to each State.	Import, Export, and Transit Duties payable to each State.
Prussia (thalers)*	16,669,153	15,572,929	14,347,476	11,211,383	244,203	11,455,586
Luxemburg	189,735	77,174	‡ 10,445	127,645	2,241	129,886
Bavaria	4,526,650	1,210,539	904,991	3,044,546	53,463	3,098,009
Saxony	1,894,431	2,119,847	1,995,287	1,274,161	29,736	1,303,897
Wirtemberg	1,805,558	348,527	330,237	1,214,387	21,325	1,235,712
Baden	1,360,599	652,625	353,482	915,115	16,070	931,185
Hesse Cassel	731,584	453,046	342,256	492,051	8,611	500,692
Hesse Darmstadt	862,917	412,803	402,501	580,383	10,192	590,575
Thuringian States	1,014,854	391,793	391,793	682,640	†12,931	695,571
Brunswick	247,070	390,143	229,523	166,175	3,554	169,709
Nassau	425,686	74,829	71,310	286,309	5,028	291,339
Frankfort †	-	861,192	656,384	-	-	-
Total	29,728,385	22,515,687 ‡ Less	20,005,240 10,445 ‡	19,994,795	410,364	20,405,159
			19,994,795			

* The thaler, 69 cents American currency. † Frankfort is regulated by a specific arrangement, and not by population.
‡ A special payment by Prussia, on account of the Union.

Account exhibiting the Customs Revenue of the German Union in 1846 and 1847, the Quantities of the Principal Articles imported in these Years, and the Rates of Duty charged thereon.

Years.	Import Duties.	Export Duties.	Transit Duties.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*
1847	26,292,729	810,554	452,996	27,555,979
1846	25,746,831	491,570	353,110	26,571,511

Imports.	Rates of Duty.	1847.	1846.	Imports.	Rates of Duty.	1847.	1846
	Dolls.	*Dollars.*	*Dollars.*		*Dolls.*	*Dollars.*	*Dollars.*
Cotton, raw—cwt. (50 kilog.)	-	391,136	352,740	Fruits, dried	4	126,889	122,518
— yarn, unbleached	3	303,472	582,54	Spices	6⅔	48,597	55,232
— warps	3	30,268	47,837	Herrings tons	1	282,083	290,953
— thread	8	3,987	4,029	Coffee	6⅔	915,574	818,602
Cottons	50	9,353	9,853	Cocoa cwt.	6⅔	11,706	11,090
Soda	1	102,077	91,397	Rice	2	664,811	195,326
Iron and steel				Syrup	4	445	904
pig iron	1⅓	2,299,064	1,577,716	Tobacco in leaves	5⅓	319,703	292,650
bar, half-inch square, rails	1⅓	1,044,198	1,025,039	— rolls	11	13,070	14,899
— less than ½ inch square	2⅔	10,461	12,149	— cigars	15	26,499	24,405
manufactured	3	116,484	74,731	— snuff	15	130	103
sheets, wire	4	12,216	12,458	Sugar, refined	10	1,749	1,526
Iron and steel wares :—				— farin	8	194	161
A—Lowest quality	1	41,597	43,777	— raw	5	1,410,506	1,358,648
B—Middle do.	6	44,027	41,963	Oil	1⅔	49,490	53,570
C—Fine do.	10	3,816	3,639	— for manufactures	6⅔	69,573	66,744
Flax and hemp	0 1-6	184,706	200,881	Silks	110	2,852	2,899
Linen yarn and linens				— mixed	55	3,681	3,145
yarn, raw	2	36,347	62,100	Tallow	3	37,592	34,751
— bleached	3	3,739	8,711	Stearine	3	2,198	1,290
— thread	4	6,918	9,714	Wool		155,149	119,677
Sailcloth	5-6	11,374	7,681	Woollen yarn, raw	0⅔	43,207	33,857
Linen, raw	4	7,495	7,504	— thread	8	7,882	8,847
— bleached	20	1,584	1,553	Woollens	30	12,744	17,134
Brandy and rum	8	29,917	24,900	— printed	50	4,370	7,421
Cognac	16	2,277	1,630	Silk, raw	0⅔	14,077	13,549
Wine	8	202,281	208,140	Fish oil	0⅔	303,017	261,185
— from Switzerland	0⅔	37,861	70,912				

PUBLICANS, are persons authorised by licence to retail beer, spirits, or wines. Under the term publicans are comprised innkeepers, hotel keepers, alehouse keepers, keepers of wine vaults, &c. An inn differs from an alehouse in this, — that the former is a place intended for the lodging as well as the entertainment of guests, whereas the latter is intended for their entertainment only. If, however, ale or beer be commonly sold in an inn, as is almost invariably the case, it also is an alehouse; and if travellers be furnished with beds, lodged, and entertained in an alehouse, it also is an inn. It is not material to the character of an innkeeper that he should have any sign over his door;

it is sufficient that he makes it his business to entertain passengers and travellers, providing them with lodgings and other accommodations.

1. *Licensing of Publicans.* — The provisions with respect to the licensing of public houses are embodied in the 9 Geo. 4. c. 61., of which we subjoin an abstract.

General Meetings. — There shall be annually holden in county divisions, cities, and towns, a special session of justices, to be called the "*General Annual Licensing Meeting*," for the purpose of granting licences to persons keeping or about to keep inns, alehouses, &c.; such meetings to be held, in Middlesex and Surrey, within the first 10 days of the month of March; and in every other place between the 20th of August and the 14th of September, both inclusive.

Notice of General Meeting. — Within every division, 21 days before the annual licensing meeting, a petty session of justices to be held, a majority of whom shall fix the day and hour for holding the general annual meeting; and shall direct a precept to the high constable, requiring him, within 5 days after the receipt thereof, to order the petty constables to affix on the door of the church, chapel, or other public place, a notice of such annual meeting, and give or leave at the dwelling-house of each justice acting for the division, and of each person keeping an inn, or who shall have given notice of his intention to apply for a licence to keep an inn, a copy of such notice. — § 2.

The annual meeting may be adjourned, but the adjourned meeting is not to be held on any of the 5 days immediately following the adjournment; and every adjournment to be held in the month of March in Middlesex and Surrey, and in August or September in every other county. — § 3.

Sessions for Transfer of Licences. — At the annual meeting, justices to appoint not less than 4 nor more than 8 special sessions, to be held as near as possible at equidistant periods, for the purpose of transferring licences. — § 4.

Notice of holding any adjourned meetings, or of any special session for the transfer of licences, to be given in the same manner and to the same parties as mentioned above. — § 5.

Justices disqualified. — No justice who is a common brewer, distiller, maker of malt for sale, or retailer of malt or any exciseable liquor, shall act or be present at any annual licensing meeting, or adjournment, or special session for transferring licences, or take part in the adjudication upon any application for a licence, or upon an appeal; nor in the case of licensing any house, of which he is owner, or agent of the owner, or of any house belonging to any common brewer, maker of malt, &c. to whom he shall be, either by blood or marriage, the father, son, or brother, or with whom he shall be partner in *any other trade*; in any of these cases knowingly or wilfully to act, subjects to a penalty of 100*l*. But disqualification does not arise, where a justice, having no *beneficial interest* in a house licensed or about to be licensed, holds only the legal estate therein as trustee or for a charitable or public use. — § 6.

When in any liberty, city, or town, 2 qualified justices do not attend, the county justices may act. — § 7.

The power given to county justices not to extend to the Cinque Ports. — § 8.

Questions respecting licences to be determined, and licences to be signed, by a majority of the justices present. — § 9.

Application for a Licence. — Persons intending to apply for a licence to a house *not before licensed*, to affix a notice on the door of such house, and on the door of the church or chapel of the parish, and, where there shall be no church or chapel, on some other conspicuous place within the parish, on *three several Sundays*, between the 1st of January and the last day of February in the counties of Middlesex and Surrey, and elsewhere between the 1st of June and the last day of July, at some time between the hours of 10 in the forenoon and 4 in the afternoon, and shall serve a copy of such notice upon one of the overseers of the poor, and upon one of the constables or peace-officers of the parish, within the month of February in the counties of Middlesex and Surrey, and elsewhere within the month of July, prior to the annual meeting; such notice to be in a legible hand, or printed and signed by the applicant. The application must state the Christian and surname of the party, with the place of his residence, and his trade or calling during the 6 months previous to the serving of the notice. — § 10.

Notice to transfer Licence. — Persons desirous of transferring a licence, and intending to apply to the next special sessions, must, 5 days previously, serve a notice upon one of the overseers and one of the constables of the parish. Persons hindered, by sickness or other reasonable cause, from attending any licensing meeting, and proof thereof adduced *on oath*, may authorise another person to attend for them. — § 12.

Licences to be in force, in Middlesex and Surrey, from the 5th of April; elsewhere from the 10th of October, for one whole year. — § 13.

Provision for Death or other Contingency. — If any person licensed shall die, or become incapable, or a bankrupt or insolvent, or if he or his heirs, executors, or assigns, shall remove or neglect to apply for a continuation of his licence, the justices at special session may grant a licence to the heirs, executors, or assigns of such party, or to any new tenant; or if any man's house should be, or be about to be, pulled down for a public purpose, or rendered, by fire, tempest, or other unforeseen calamity, unfit for the purposes of an inn, licence may be granted to the occupier, if he intend to open another house as an inn. Such transferred licences shall continue only in force to the end of the year; and in case of removal to another house, notice must be given on some Sunday, within 6 weeks before the special session, in the manner and form before described. — § 14.

Fees for Licences. — The clerk of the justices may lawfully receive from every person to whom a licence is granted, for trouble and *all expenses*, the following sums —

	s.	*d.*
For constable or officer serving notices	1	0
For clerk of justices for licence	5	0
For precept to the high constable, and notices to be delivered by the petty constable	1	6

Clerks demanding or receiving more than these fees, to forfeit 5*l*. — § 15.

No sheriff's officer, or officer executing the process of any court of justice, qualified to hold or use any licence under this act. — § 16.

Excise Licences. — No licence for the sale of any exciseable liquors, to be consumed on the premises, shall be granted by the excise to any person, unless such person be previously licensed under this act. — § 17.

Penalties. — Any person *without a licence* selling or exchanging, or for valuable consideration disposing of, any exciseable liquor by retail, to be consumed in his premises; or *with a licence*, and so selling in premises other than those specified in his licence, shall for every offence, on conviction before 1 justice, forfeit not exceeding 20*l*. nor less than 5*l*. with costs; but the penalty not to attach in case of death or insolvency, and sale by the heir or assigns, prior to the next special sessions. — § 18.

Every licensed person shall, if required, sell all liquors by retail (except in quantities less than a ½ pint) by the gallon, quart, pint, or ½ pint, sized according to the standard; in default thereof to forfeit the illegal measure, and pay not exceeding 40*s*. with costs, to be recovered within 30 days before 1 justice. — § 19.

In cases of riot, or probability of riot, houses licensed in the neighbourhood may be closed by the order of 2 justices. — § 20.

Any person convicted of a *first offence*, before 2 justices, against the tenour of his licence, to forfeit not exceeding 5*l*. with costs; guilty of a *second offence* within three years of the first, to forfeit not exceeding 10*l*. with costs; and guilty of a *third offence* within 3 years, to forfeit not exceeding 50*l*. with costs: or

the case in the last instance may be adjourned to the petty sessions, for the annual meeting, or the general quarter sessions; and if the offender is found guilty by a *jury*, he may be fined 100*l.*, or adjudged to forfeit his licence or both, and rendered incapable of selling any exciseable liquor in any inn kept by him for 3 *years*. — § 21.

Proceedings at the session in certain cases may be directed by the justices to be carried on by the constable, and the expenses defrayed out of the county rates. — § 22.

Witnesses refusing to attend without lawful excuse may be fined not more than 10*l.* — § 23.

Penalties against justices may be sued for in any court of Westminster; a moiety to the king and a moiety to the party suing. — § 24.

Penalties adjudged by justices may be recovered by distress or the party imprisoned 1, 3, or 6 calender months. — § 25.

The next sections relate to the mode of prosecuting actions.

The last section of the act bears that the word "*inn*" shall include any inn, alehouse, or victualling house, in which is sold by retail any exciseable liquor, to be drunk or consumed on the premises; and the words exciseable liquor are to include all such fermented or spirituous liquors as may now or hereafter be charged with any custom or excise duty. — § 37.

The act does not affect the Universities, nor the privileges of the Vintners' Company, except those freemen who have obtained their freedom by redemption; and it does not alter the time of granting licences in the city of London.

Innkeepers are bound, by the tenour of their licence, to keep order in their houses, to prevent drunkenness and disorderly conduct, and gambling. If they fail in these respects, they forfeit their licence, and subject themselves to the penalties mentioned before. Allowing seditious or immoral books to be read in an inn, also forfeits the licence, and subjects to penalties. — (39 *Geo.* 3. c. 79. § 31.)

2. *Duties of Innkeepers.* — Innkeepers are bound by law to receive guests coming to their inns, and they are also bound *to protect their property when there.* Thy have no option to reject or refuse a guest, unless their house be already full, or they are able to assign some other reasonable and sufficient cause. Neither can they impose unreasonable terms on such as frequent their houses: if they do, they may be fined, and their inns indicted and suppressed. An innkeeper who has stables attached to his premises, may be compelled to receive a horse, although the owner does not reside in his house; but he cannot, under such circumstances, be compelled to receive a trunk or other dead thing. By the annual Mutiny Act, constables, or, in their default, justices of the peace, may quarter soldiers in inns, livery-stables, alehouses, &c., under the conditions and regulations set forth in the statute.

3. *Responsibility of Innkeepers.* — An innkeeper is bound to keep safely whatever things his guests deposit in his inn, or in his custody as innkeeper; and he is civilly liable for all losses, except those arising from *irresistible force*, or what is usually termed the act of God and the king's enemies. "It has long been holden," says Sir William Jones, "that an innkeeper is bound to restitution, if the trunks or parcels of his guests, committed to him either personally or through one of his agents, be damaged at his inn, or stolen out of it by any person whatever (except the servant or companion of the guest); nor shall he discharge himself of this responsibility by a refusal to take care of the goods, because there are suspected persons in the house, for whose conduct he cannot be answerable; it is otherwise, indeed, if he refuse admission to a traveller because he really has no room for him, and the traveller, nevertheless, insist upon entering, and place his baggage in a chamber without the keeper's consent. Add to this, that if he fail to provide honest servants and honest inmates, according to the confidence reposed in him by the public, his negligence in that respect is highly culpable, and he ought to answer civilly for their acts, even if they should rob the guests that sleep in their chambers. Rigorous as this law may seem, and hard as it may actually be in one or two particular instances, it is founded on the great principle of public utility, to which all private considerations ought to yield; for travellers, who must be numerous in a rich and commercial country, are obliged to rely almost implicitly on the good faith of innholders, whose education and morals are usually none of the best, and who might have frequent opportunities of associating with ruffians or pilferers, while the injured guest could never obtain legal proof of such combinations, or even of their negligence, if no actual fraud had been committed by them. Hence the prætor declared, according to Pomponius, his desire of securing the public from the dishonesty of such men; and by his edict gave an action against them, if the goods of travellers or passengers were lost or hurt by any means except by inevitable accident (*damno fatali*): and Ulpian intimates, that even this severity could not restrain them from knavish practices or suspicious neglect."— (*Essay on the Law of Bailments*, 2d ed. pp. 95, 96.)

Even if an innkeeper bid the guest take the key of his chamber and lock the door, telling him that he cannot undertake the charge of the goods, still, if they be stolen, he is held to be responsible. In all such cases it is not competent to the innkeeper to plead that he took *ordinary* care, or that the *force* which occasioned the loss was truly irresistible. A guest is not bound to deliver the goods in special custody to the innkeeper, nor, indeed, to acquaint him that he has any. If he have property with him, or about his person, the innkeeper must be responsible for it without communication. But the innkeeper may require that the property of his guest be delivered into his hands, in order that it may be put into a secure place; and if the guest refuse, the innkeeper is not liable for its safety. The guest exonerates the innkeeper from liability when he takes upon himself the exclusive custody of the goods, so as to deprive the innkeeper of having

any care over them: thus, if a guest demand and have exclusive possession of a room, for the purpose of a shop or warehouse, he exonerates the landlord from any loss he may sustain in the property which he keeps in that apartment: but it is otherwise if he have not *the exclusive possession of the room.* The innkeeper cannot oblige the guest to take charge of his own goods; for this, in effect, would be a refusal to admit them into the inn. And it is no excuse for an innkeeper to say that he delivered the key of the chamber whence the property was stolen to the guest, who left the door open. A case of this sort occurred a few years ago, at Brighton. A lady having left the door of her bed-room, of which she had the key, open for a few minutes, 50*l.* were abstracted from her reticule. The innkeeper contended that the plaintiff, by selecting particular apartments, and taking the key, had exonerated him from his liability. The jury found for the plaintiff; and upon a motion for a new trial, Lord Tenterden said,—"By the common law of this country, and also by the civil law, the principle of the liability of innkeepers was founded on two reasons: first, to compel the landlord to take care that no improper company was admitted into his house; and, secondly, to prevent collusion. — The principle, as stated in the civil law, was this — '*Ne, quisquam putet graviter hoc in eos constitum esse; nam est in ipsorum arbitrio nequem recipient; et nisi hoc esset statutum, materia daretur cum furibus, adversus eos quos recipiunt, coeundi: cum ne nunc quidem abstinent hujusmodi fraudibus.*' It was true that, in the present state of society, it was very difficult to prevent the intrusion of improper company into inns. But still the principle was such as he had stated it to be, and it would be dangerous to relax it; and he did not think that the taking rooms in this way was sufficient to discharge the landlord. Then, as to the objection that the cases did not extend to money, it was clear that money was as much within the principle as goods, and that no substantial distinction could be made. He was therefore of opinion that the verdict was right."— Rule refused.

A landlord may exempt himself from liability, if he can show that the loss was occasioned by the misconduct of the guest; as, if his goods are stolen by his own servant or companion.

It has been decided that a man is a guest at an inn, if he leave his horse at it, though he has not gone into it himself. If a man come to an inn, and make a contract for lodging for a set time, and do not eat or drink there, he is no guest, but a lodger, and, as such, not under the innkeeper's protection; but if he eat and drink, or pay for his diet there, it is otherwise. Any innkeeper or alehouse keeper, knowingly receiving and harbouring any person convicted of an offence against the revenue laws, for which he has been in prison, or for which he has fled, shall forfeit 100*l.*, and have no licence for the future.

4. *Remedy of an Innkeeper against his Guest.* — An innkeeper may, without any agreement to that effect, detain the person of a guest who has eaten in his house, until payment; and he may do the same by the horses in his stable.

An innkeeper is not entitled to recover for spirits supplied to his guests, of the value of 20*s.* and upwards, unless supplied or contracted for at one time. — (23 *Geo.* 2. c. 40.)

By the custom of London and Exeter, if a man commit a horse to an hostler, and the expense of his keep become equivalent to his price, the hostler may appropriate the horse to himself upon the appraisement of four of his neighbours, or may have him sold. But innkeepers in other parts of the country have no power to sell horses detained by them.

A horse committed to an innkeeper cannot be detained as a security for the board of his master.

It is enacted by 11 & 12 Will. 3. c. 15. that innkeepers, alehouse keepers, &c., refusing to specify in an account the number of pints or quarts for which demand is made, or selling in unmarked measures, shall have no power to detain any goods or other things belonging to the person from whom demand is made, but shall be left to their action for recovery of the same.

PUMICE-STONE (Ger. *Bimstein*; Fr. *Pierre pouce*; It. *Pietra pomice*; Sp. *Piedra pomez*; Lat. *Pumex*), a light, spongy, vitreous stone, found usually in the neighbourhood of volcanoes. It is used for polishing metals and marble, and smoothing the surface of wood and pasteboard. It is said to form a good glaze for pottery. The lighter pumice stones swim on water, their specific gravity not exceeding ·914. The island of Lipari, in the Mediterranean, is chiefly formed of pumice stone, and may be said to be the magazine whence all Europe is supplied with this useful article. There are several species of pumice stones; but those only that are light and spongy are exported. The price varies in the London market from 8*l.* to 10*l.* a ton.

PUTCHOCK. An article of this name is imported in considerable quantities from the north-west coast of India into China, and is regularly quoted in the Canton price currents. It is the root of a plant that grows abundantly in Sinde. When burned, it yields a fine smoke, and a grateful and diffusive smell. The Chinese beat it into a fine powder, which they burn as incense in the temples of their gods. — (*Hamilton's New Account of the East Indies*, vol. i. p. 126.)

Q.

QUARANTINE, a regulation by which all communication with individuals, ships, or goods, arriving from places infected with the plague, or other contagious disease, or

supposed to be peculiarly liable to such infection, is interdicted for a certain definite period. The term is derived from the Italian *quaranta*, forty; it being generally supposed, that if no infectious disease break out within 40 days, or 6 weeks, no danger need be apprehended from the free admission of the individuals under quarantine. During this period, too, all the goods, clothes, &c. that might be supposed capable of retaining the infection, are subjected to a process of purification. This last operation, which is a most important part of the quarantine system, is performed either on board ship, or in establishments denominated *lazarettos*. — (See *post.*)

Policy of Quarantine. — The regulations as to quarantine are entirely precautionary; they have their origin in the belief that various diseases, but especially the plague, are contagious; and supposing such to be the case, the propriety of subjecting those coming from an infected or suspected place to a probation is obvious. Indeed, no government could, until the belief in question be proved to be ill founded, abstain from enforcing precautionary measures, without rendering itself liable to the charge of having culpably neglected one of its most important duties, — that of providing, by every means in its power, for the safety of its subjects. Latterly, however, it has been contended that the plague is never imported; that it is always indigenous; originating in some peculiar state of the atmosphere, or in something peculiar in the condition of the people; and that, consequently, quarantine regulations merely impose a heavy burden on commerce, without being of any real utility. But though there does not seem to be any reason for doubting that infectious diseases have originated in the way described, the fact that they have, in innumerable instances, been carried from one place to another, seems to be established beyond all question. Even if the evidence as to the importation of infectious diseases were less decisive than it is, or the opinions of medical men more divided, it would not warrant the repeal of the restraints on the intercourse with suspected ports. This is not a matter in which innovations should be rashly introduced; wherever there is doubt, it is proper to incline to the side of security. In some cases, perhaps, quarantine regulations have been carried to a needless extent; but they have more frequently, we believe, been improperly relaxed.

Institution of Quarantine. — The notion that the plague was imported from the East into Europe, seems to have prevailed in all ages. But it would appear that the Venetians were the first who endeavoured to guard against its introduction from abroad, by obliging ships and individuals from suspected places to perform quarantine. The regulations upon this subject were, it is most probable, issued for the first time in 1484. — (*Beckmann, Hist. of Invent.* vol. ii. art. *Quarantine.*) They have since been gradually adopted in every other country. Their introduction into England was comparatively late. Various preventive regulations had been previously enacted; but quarantine was not systematically enforced till after the alarm occasioned by the dreadful plague at Marseilles in 1720. The regulations then adopted were made conformably to the suggestions of the celebrated Dr. Mead, in his famous "Discourse concerning Pestilential Contagion."

Lazarettos or Pest-houses are establishments constructed to facilitate the performance of quarantine, and particularly the purification of goods. They have usually a port in which ships from a suspected place may anchor; and, when perfect, are provided with lodgings for the crews and passengers, where the sick may be separated from the healthy; and with warehouses, where the goods may be deposited; all intercourse between the lazaretto and the surrounding country being, of course, interdicted, except by permission of the authorities. The lazarettos at Leghorn, Genoa, and Marseilles are the most complete of any in Europe. The facilities they afford to navigation are very great; for, as ships from suspected places may discharge their cargoes in the lazaretto, they are not detained longer than they would be were there no quarantine regulations. The goods deposited in the lazaretto, being inspected by the proper officers, and purified, are then admitted into the market.

Compared with these, the quarantine establishments in this country are exceedingly defective. There is not, even in the Thames, a lazaretto where a ship from a suspected place may discharge her cargo and refit: so that she is detained, frequently at an enormous expense, during the whole period of quarantine; while, if she have perishable goods on board, they may be very materially injured. It is singular that nothing should hitherto have been done to obviate such grievances. The complaints as to the oppressiveness of quarantine regulations are almost wholly occasioned by the want of proper facilities for its performance. Were these afforded, the burdens it imposes would be rendered comparatively light; and we do not know that many more important services could be rendered to the commerce of the country, than by constructing a proper quarantine establishment on the Thames.

Bills of Health. — The period of quarantine varies, as respects ships coming from the same place, according to the nature of their bills of health. These are documents, or certificates, signed by the consul or other competent authority in the place which the

ship has left, describing its state of health at the time of her clearing out. A *clean* bill imports that at the time of her sailing, no infectious disorder was known to exist. A *suspected*, or, as it is more commonly called, a *touched* bill, imports that rumours were afloat of an infectious disorder, but that it had not actually appeared. A *foul* bill, or the *absence of clean bills*, imports that the place was infected when the vessel sailed. — (See BILLS OF HEALTH.) The duration of the quarantine is regulated by the nature of these instruments. They seem to have been first issued in the Mediterranean ports in 1665, and are obviously of great importance.

Quarantine Regulations. — The existing quarantine regulations are embodied in the act 6 Geo. 4. c. 78., and the different orders in council issued under its authority. These orders specify what vessels are liable to perform quarantine; the places at which it is to be performed; and the various formalities and regulations to be complied with. The publication in the *Gazette* of any order in council with respect to quarantine is deemed sufficient notice to all concerned; and no excuse of ignorance is admitted for any infringement of the regulations. To obviate, as far as possible, any foundation for such plea, it is ordered that vessels clearing out for any port or place with respect to which there shall be at the time any order in council subjecting vessels from it to quarantine, are *to be furnished* with an abstract of the quarantine regulations; and are *to furnish themselves* with quarantine signal flags and lanterns, and with materials and instruments for fumigating and immersing goods. The following are the clauses in the act as to signals: —

Every commander, master, or other person having the charge of any vessel liable to quarantine, shall, at all times, when such vessel shall meet with any other vessel at sea, or shall be within 2 leagues of the coast of the U. Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, hoist a signal to denote that his vessel is liable to quarantine; which signal shall in the day time, if the vessel shall have a clean bill of health, be a large yellow flag, of 6 breadths of bunting, at the main-topmast-head; and if such vessel shall not have a clean bill of health, then a like yellow flag, with a circular mark or ball, entirely black, in the middle thereof, whose diameter shall be equal to 2 breadths of bunting; and in the night time, the signal shall in both cases be a large signal lantern with a light therein (such as is used on board his Majesty's ships of war), at the same mast-head: and such commander, master, or other person, shall keep such signals hoisted during such time as the said vessel shall continue within sight of such other vessel, or within 2 leagues of the said coast or islands, and while so in sight, or within such distance, until such vessel so liable to quarantine shall have arrived at the port where it is to perform quarantine, and until it shall have been legally discharged from the performance thereof; on failure whereof, such commander, master, or other person shall forfeit 100*l.* — § 8.

Every commander, master, or other person having the charge of any vessel on board whereof the plague or other infectious disease highly dangerous to the health of his Majesty's subjects shall actually be, shall at all times, when such vessel shall meet with any other vessel at sea, or shall be within 2 leagues of the coast of the U. Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, hoist a signal, to denote that a vessel has the plague or other infectious disease; which signal shall be in the day time a flag of yellow and black, borne quarterly, of 8 breadths of bunting, at the main-topmast-head; and in the night time, the signal shall be 2 large signal lanterns, commonly used on board ships of war, one over the other, at the same mast-head: and such commander, master, or other person shall keep such signal hoisted during such time as the said vessel shall continue within sight of such other vessel, or within 2 leagues of the coast or islands aforesaid, while so in sight, or within such distance, until such vessel shall have arrived at the port where it is to perform quarantine, and until it shall have been legally discharged from the performance thereof; on failure whereof, such commander, master, or other person shall forfeit 100*l.* — § 9.

If any commander, master, or other person, knowing that the same is not liable to the performance of quarantine, shall hoist such signal, by day or night, such commander or other person shall forfeit 50*l.* — § 10.

But, instead of printing the act, and the various orders in council that have grown out of it, it will be sufficient to lay the following abstract of them before the reader. This abstract has been prepared by the Custom-house; and contains a distinct summary of the various rules and regulations to be complied with.

ABSTRACT OF QUARANTINE REGULATIONS.

It is in the first place to be observed, that all persons are presumed to know and are bound to take notice, not only of the quarantine regulations established by act of parliament (as they are of any other public act), but likewise of every order in council made for the performance of quarantine, and published in the *London Gazette*; and as it is easily in their power to inform themselves of such regulations, and particular care is taken by this and other means to promulgate such of them as apply to their respective situations, *previously to their being actually put under quarantine*, when they will receive directions for their guidance from the quarantine officers, no plea of ignorance will be admitted as an excuse for any neglect, breach, or violation thereof; but, for the sake of example, and for the security of the public health, the pains, penalties, and punishments of the law will be enforced with the utmost severity.

Duty of Commanders and Masters of Vessels.

Upon arrival off the coast of the U. Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man,

To deliver to the pilot who shall go on board, a written paper, containing a true account of the name of the place at which his ship loaded, and of all the places at which he touched on the homeward voyage. Neglecting or refusing to deliver such papers, or making any false representation or wilful omission therein, subjects him to a penalty of 100*l.*

Upon entering or attempting to enter any port, and being spoke by any quarantine officers,

To give a true answer in writing or otherwise, and upon oath or not upon oath (according as he shall be required), to the preliminary questions put to him by such quarantine officer, for the purpose of ascertaining whether his vessel is or is not liable to quarantine. Neglecting or refusing to bring his vessel to as soon as it can be done with safety, in obedience to the requisition of the quarantine officer, subjects him to a penalty of 100*l.*

Refusing to answer such questions, or giving any false answer thereto (if not upon oath), subjects him to a penalty of 200*l.*

If upon oath, to the punishment for wilful and corrupt perjury.

If any infectious disease shall appear on board, the master is to repair to such place as his Majesty shall direct, and make known his case to the officer of customs, and he is to remain at that place until directions are given by the Lords of the Privy Council. He is not to permit any of the crew or passengers on board to go on shore, and he, his crew and passengers, are to obey such directions as are received from the Lords of the Privy Council.

Not acting in conformity to the regulations herein directed, or acting in disobedience to such directions as shall be received from the privy council, he incurs the penalty of 100*l*.

If informed by the pilot that his vessel has become liable to quarantine, by reason of any proclamation made subsequent to his departure, to hoist and keep hoisted a like signal, under the same penalty of 100*l*.

To give to the pilot coming on board a written paper containing a true account of the different articles composing his cargo. Neglecting or refusing to do so, or making a false representation or wilful omission, subjects him to a penalty of 50*l*.

Masters of vessels liable to quarantine, and other persons on board them or having communication with them, are to repair to the appointed quarantine stations, and may be compelled to do so by force.

The master of any vessel having disease on board, on meeting with any other vessel at sea, or within 2 leagues of the coast of the U. Kingdom, or the islands of Guernsey, Jersey, Alderney, Sark, or Man, is to hoist a signal to denote that his vessel has such disease on board, and is to keep such signal hoisted during such time as he shall continue within sight of such vessel, or within 2 leagues of the coast or islands aforesaid, while so in sight or within such distance, until the vessel shall arrive at the port where she is to perform quarantine, and until she shall be legally discharged from the performance thereof. Failing herein, the master incurs the penalty of 100*l*.

If he shall refuse or omit to disclose the circumstances of such infection prevailing either at any place at which he has been, or on board his vessel, in his answers to the preliminary questions put to him by the quarantine officer, or if he shall wilfully omit to hoist, and to keep hoisted, the proper quarantine signal to denote that his ship is liable to quarantine, he incurs the penalty of 300*l*.

Upon attempting to enter any port, which is not the port at which he ought to perform quarantine, he may be compelled to desist therefrom, in order that he may proceed to the proper quarantine ports, by guns being fired upon the ship, or any other kind of force being used that may be necessary for the attainment of that object.

Quitting or knowingly suffering any seamen or passenger to quit his ship, by going on shore, or by going on board any other vessel or boat, before discharged from quarantine, or,

Not repairing to the proper quarantine station within a convenient time after due notice given, incurs a penalty of 100*l*.

To repair in all cases to the proper quarantine port, as herein-after stated in the Appendix, according as he shall or shall not be furnished with a clean bill of health, and according to the port or place to which he shall be bound, as herein stated.

But if through ignorance, or by stress of weather, damage, loss, or accidents of the seas, he shall have passed the proper quarantine port, he may (having a clean bill of health on board, and upon giving satisfactory proof thereof upon oath, and by the oath of the pilot, if any on board, and that the same was not wilfully or intentionally done or occasioned) be permitted to proceed to some other quarantine port, in the discretion of the quarantine officer, keeping the proper quarantine signal hoisted during the whole time.

Upon his arrival at the proper quarantine port, to give true answers upon oath to all the quarantine questions, and to make oath to the truth of his log-book, and the times at which the entries were therein made: failing herein, he incurs the penalty of wilful and corrupt perjury.

He is also to repair to the particular station which shall be appointed by the quarantine officer for the said ship or vessel

To deliver up to the quarantine officer his bill of health, manifest, log-book, and journal.

Wilfully refusing or neglecting so to do, subjects him to a penalty of 100*l*.

If not bound to any port of the U. Kingdom, or the islands aforesaid, and attempting to enter any port thereof (except to wait for orders, or in consequence of stress of weather or accidents of the seas), he shall give satisfactory proof thereof to the quarantine officer, and give true answers upon oath to the preliminary questions, and strictly conform to all such directions as he shall receive from the quarantine officer, touching his continuance at such port, or departure from thence, or repairing to any other; and also with respect to all other quarantine regulations; in default of which, he may be compelled to proceed to sea by any means or by any kind of force that shall be necessary for that purpose.

Having performed quarantine in any foreign lazaret, the vessel is to be put under quarantine at some of the ports herein-after appointed, until the master shall produce to the quarantine officer the proper documents in proof thereof; upon production whereof the said vessel shall not be obliged to perform quarantine, but shall remain at such station until released by order in council.

Unshipping, or moving in order to unship, any goods from on board any vessel liable to quarantine, subjects to a penalty of 500*l*.

Clandestinely conveying, or secreting or concealing for the purpose of conveying, any letter, goods, or other articles, from any vessel actually performing quarantine, subjects to a penalty of 100*l*.

Note. — Every commander or master of any vessel clearing out or about to sail for any port or place in the Mediterranean, or in the West Barbary on the Atlantic Ocean, or for any port or place respecting which there shall at the time be any order of his Majesty in council in force, subjecting vessels coming from thence to quarantine, is to receive from the principal officer of the customs at such port or place, this printed Abstract of the Quarantine Regulations, which such commander or master is to cause to be affixed on some convenient and conspicuous part of his said vessel, and to remain so affixed until his return with his said vessel to some port or place in the U. Kingdom or the islands aforesaid.

And every such commander and master is likewise to provide and take on board 1 at least of each of the proper quarantine signal flags and lanterns, and likewise materials and instruments for fumigation and immersion, and to keep the same on board, to be used upon his return to the U. Kingdom or the islands aforesaid.

Duty of Pilots.

Pilots are strictly to observe the following directions: —

To receive an account in writing from every commander or master of any vessel coming from foreign parts, of the places at which his vessel loaded, and at which he touched on his said homeward voyage.

To give notice to such commander or master of any proclamation, or order in council, made after the departure of such vessel from the U. Kingdom or the islands aforesaid, and then in force, by which vessels coming from any place mentioned in such account shall be liable to quarantine. Neglecting or omitting to give such notice subjects them to a penalty of 100*l*.

To give a like notice of any proclamation then in force, by which vessels having on board any of the articles mentioned in the master's account shall be liable to quarantine. Neglecting or omitting to give such notice subjects them to a penalty of 100*l*.

To remain on board in the same manner as any of the officers, crew, or passengers, and not to quit the said vessel before or after the arrival, either by going on shore, or by going on board any other vessel or boat with intent to go on shore, until she is regularly discharged from quarantine; and they may be compelled by any persons whatsoever, and by any kind of necessary force, to return on board the same. If they offend herein, they incur a penalty of 300*l*. and 6 months' imprisonment.

Not to bring any such vessel into any port or place other than the port or place appointed for the reception of vessels so liable to quarantine as stated in the Appendix, unless compelled by stress of weather, adverse winds, or accidents of the seas, of which the pilot, as well as the commander or master of the vessel, is to give satisfactory proof upon oath. If they offend herein, they incur a penalty of 200*l.*

To bring the ship to, as soon as it can be done with safety, in obedience to the requisition of the quarantine officer. Failing herein subjects them to a penalty of 100*l.*

Duty of other Persons.

When any infectious disease actually appears on board any vessel, all persons on board are to obey the direction of the privy council, under a penalty of 100*l.*

Not to quit such vessel, either by going on shore, or by going on board any other vessel or boat with intent to go on shore, until regularly discharged from quarantine; and if they quit the ship, they may be compelled by any persons whatsoever, and by any kind of necessary force, to return on board the same; and are also liable to a penalty of 300*l.* and 6 months' imprisonment.

Whether liable to quarantine, or actually performing quarantine, or having had any intercourse or communication with any such persons so liable to or under quarantine, all persons are to obey all such orders as they shall receive from the quarantine officer, and to repair to the lazaret, vessel, or place appointed for the performance of quarantine. Wilfully refusing or neglecting to repair forthwith, when required so to do by such officers, or escaping from or out of such lazaret, vessel, or place may be compelled to repair or return thereto by any kind of necessary force, and are subject to a penalty of 200*l.*

Landing or unshipping, or moving in order to the landing or unshipping, of any goods, packets, packages, baggage, wearing apparel, books, letters, or any other articles whatever, from vessels liable to quarantine, are liable to a penalty of 500*l.*

Clandestinely conveying, or secreting or concealing for the purpose of conveying, any goods, letters, or other articles as aforesaid, from any vessel actually performing quarantine, or from the lazaret or other place where such goods or other articles shall be performing quarantine, are liable to a penalty of 100*l.*

Having quitted or come on shore from any vessel liable to or under quarantine, or having escaped from any lazaret or other place appointed in that behalf, may be seized and apprehended by any constable or other peace officer, or by any other person whatever, and carried before a justice of the peace, who may grant his warrant for conveying such person to the vessel, lazaret, or other place from which he shall have escaped, or for confining him in any place of safe custody (not being a public gaol) until directions can be obtained from the privy council.

Knowingly and wilfully forging or counterfeiting, interlining, erasing, or altering, or procuring to be forged, &c., any certificate directed by any order in council touching quarantine, or publishing the same as true, or uttering any such certificate with intent to obtain the effect of a true certificate, knowing its contents to be false, are guilty of felony.

What Vessels are liable to Quarantine.

All vessels (as well ships of war as all others) with or without clean bills of health, coming —

From or having touched at any place in the Mediterranean, or the West Barbary on the Atlantic Ocean.

From any other place from which his Majesty shall from time to time adjudge it probable (and shall so declare by proclamation or order in council) that the plague, or any other infectious disease or distemper highly dangerous to the health of his Majesty's subjects, may be brought.

Note. — They are considered as liable to quarantine from the time of their leaving any of the said places.

All vessels having communication with any of the before-mentioned ships or vessels, or receiving —

Any person whatever from or out of such vessel, whether such person shall have come from any of the said places, or shall have gone on board of such vessel, either in the course of her voyage, or upon her arrival off the coast of the U. Kingdom, &c. — Or,

Any goods, wares, or merchandise, packets, packages, baggage, wearing apparel, goods, letters, or any other articles whatever, from or out of such ship or vessel.

Note. — They are liable to quarantine from the time of their receiving any such persons or goods.

All vessels coming from any port or place in Europe without the Straits of Gibraltar, or on the continent of America, and having on board —

Any of the articles enumerated (a list of which articles see in the Appendix);

And not producing a declaration upon oath, made by the owner, proprietor, shipper, or consignee, stating either that such articles are not the growth, produce, or manufacture of Turkey, or of any place in Africa within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or stating of what place they are the growth, produce, or manufacture.

All vessels and boats receiving —

Any of the said goods, wares, and merchandise, or other articles enumerated.

Signals.

For vessels with the plague or other highly infectious disease actually on board —

In the day time — A flag of yellow and black, borne quarterly, of 8 breadths of bunting, at the main topmast-head.

In the night time — Two large signal lanterns, with a light therein, such as are commonly used on board his Majesty's ships of war, one over the other, at the same mast-head.

For vessels with clean bills of health —

In the day time — A large yellow flag, of 6 breadths of bunting, at the main-topmast-head.

In the night time — A large signal lantern, with a light therein, such as is commonly used on board his Majesty's ships of war, at the same mast-head.

For vessels without clean bills of health —

In the day time — A large yellow flag, with a circular mark or ball, entirely black, in the middle thereof, whose diameter shall be equal to 2 breadths of bunting, at the main-topmast-head.

In the night time — Same as for vessels with clean bills of health.

Note. — Every commander or master of a vessel about to sail for the Mediterranean, or for any place respecting which an order in council shall be in force, subjecting vessels coming from thence to quarantine, to be provided with the quarantine signals above mentioned, and to keep the same on board, to be used on his return to the U. Kingdom.

Any commander or master hoisting either of the said quarantine signals, by day or night, knowing that his vessel is not liable to quarantine, incurs a penalty of 50*l.*

APPENDIX. — *A List of Articles enumerated considered as most liable to Infection.*

Apparel of all kinds
Artificial flowers
Bast or any articles made thereof
Beads, bracelets, or necklaces in strings
Beds and bed ticks
Books
Brooms of all kinds
Brushes of all sorts
Burdets
Camlets
Canvass
Carmenia wood
Carpets
Cordage not tarred
Cotton wool
Cotton yarn
Cotton thread
All articles wholly made of or mixed with cotton, silk, wool, thread, or yarn
Down
Feathers
Flax
Furriers' waste
Goats' hair
Gold or silver on thread, cotton, hair, wool, or silk, or any other substance herein-before mentioned
Grogram
Hats, caps, or bonnets of straw, chip cane, or any other material

Hemp
Hoofs
Horn and horn tips
Hair of all sorts
Leather
Linen
Lute strings, bathings or harp strings
Maps
Mattresses
Mats and matting
Mohair yarn
Nets new or old
Paper
Packthread
Parchment
Pelts
Platting of bast, chip, cane, straw, or horse hair
Quills
Rags
Sails and sail cloths
Silk, viz. — crapes, and tiffanies, husks and knubs, raw silk, thrown and organzine silk, waste silk, wrought silk
Skins, hides, and furs, and parts or pieces of skins, hides, and furs, whether undressed, or in part or wholly tanned, tawed, or dressed
Sponges
Straw, or any article made or mixed with straw
Stockings of all sorts
Thread, tow, vellum, whisks, wool whether raw or anywise wrought
Yarn of all sorts
And all other goods whatsoever, if they shall have arrived in or with packages consisting wholly or in part of any of the said articles.

QUARANTINE PORTS. — *For Vessels liable to Quarantine not coming from any Place actually infected, nor having any Infection actually on Board.*

Without clean Bills of Health.

All vessels, ships of war, &c. as herein-after specified, to perform quarantine at *Standgate Creek* or *Milford Haven*.

Ships of war, transports, or other ships in the actual service of government, under the command of a commissioned officer in the service of his Majesty's navy, whithersoever bound, to perform quarantine at the *Motherbank*, near *Portsmouth*, at a place marked out by yellow buoys.

With clean Bills of Health.

All ships and vessels bound to the following places, to perform quarantine at *Standgate Creek* : —

London, Rochester, Faversham, or any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Whiteboath Road*, between *Hull* and *Grimsby* : —

Leith	Wi-beach
Maldon	Boston
Colchester	Grimsby
Harwich	Hull
Ipswich	Bridlington
Woodbridge	Scarborough
Aldborough	Whitby
Southwold	Stockton
Yarmouth	Sunderland
Blackney and Clay	Newcastle
Wells	Berwick
Lynn	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Bamboro' Pool* near *Liverpool*, or *Milford Haven* : —

Carlisle	Liverpool
Whitehaven	Chester
Lancaster	Beaumaris
Preston	Isle of Man

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at the *Motherbank*, near *Portsmouth* : —

Sandwich	Arundel
Deal	Chichester
Dover	Portsmouth
Rye	Southampton
Newhaven	Cowes
Shoreham	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *St. Just's Pool*, within the mouth of the harbour of *Falmouth* : —

Poole	Fowey
Weymouth	Falmouth
Lyme	Gweek
Exeter	Penryn
Dartmouth	Truro
Plymouth	Penzance
Looe	Scilly

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *King Road* and *Portshute Pill* : —

Bridgewater	Chepstow
Minehead	Cardiff
Bristol	Swansea
Gloucester	

And any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Milford Haven* : —

St. Ives	Llanelly
Padstow	Pembroke
Bideford	Milford
Barnstaple	Cardigan
Ilfracombe	Aberystwith

Or any creeks or places belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at the *Motherbank*, near *Portsmouth*, or *St. Just's Pool*, within the mouth of the harbour of *Falmouth* : —

Jersey	Sark
Guernsey	Alderney

Or either of them, or any part of them, or either of them.

All ships and vessels bound to the following places, to perform quarantine at *Inverkeithing Bay* : —

The eastern coasts of Scotland, comprehending the ports of Leith	Anstruther
	Prestonpans
	Dundee
Burrowstoness	Perth
Alloa	Montrose
Dunbar	Aberdeen
Kirkaldy	

Or any member, creek, or other place belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Holy Loch*, in the *Frith of Clyde* ; —

The western coast of Scotland, comprehending the ports of Glasgow	Rothsay
	Fort William
	Ayr
Greenock	Port Patrick
Irvine	Stranraer
Campbell Town	Wigtown
Oban	

Or any member, creek, or other place belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Inverkeithing Bay* : —

The northern ports of Scotland, comprehending the ports of Inverness	Orkney
	Caithness
	Stornaway
Zetland	

Or any member, creek, or other place belonging to or within any or either of the above ports.

All ships and vessels bound to the following places, to perform quarantine at *Holy Loch*, in the *Frith of Clyde* : —

The south-west ports of Scotland, comprehending the ports of Dumfries and Kircudbright, or any member, creek, or other place belonging to or within any or either of the above ports.

Preliminary Questions.

1. What is the name of the vessel, and the name of the commander or master ?
2. Are you the commander or master ? Where does she belong ?
3. From whence do you come ?
4. To what place are you bound ?
5. At what ports have you touched since you left the port of your lading on your homeward voyage ?
6. What vessels have you had intercourse or communication with on your passage, and from whence did they come ?
7. Did the plague or any other infectious disease or distemper prevail in any degree at the place from whence you sailed on your homeward voyage or at any of the places at which you have touched ? If at any, say at which, and when. Are any persons on board your ship suffering under any infectious disease ? or have any persons died or been ill of a disease of that nature on the homeward passage ? and if any, what number ? And if any have died or been ill of such disease, were their bedding and clothes destroyed.

[If the vessel shall have sailed from any port in Europe without the Straits, or on the continent of America.]

8. Have you on board any goods enumerated in this list [Handing up a list of articles enumerated.]

If you have, specify the same, and whether they are of the growth, produce, or manufacture of Turkey, or of any place in Africa within the Straits of Gibraltar, or in the West Harbary on the Atlantic Ocean, or of what other place ? Have you any declaration to prove of what place they are the growth, produce, or manufacture ?

[If the vessel comes from the Mediterranean, or from any other place respecting which there is any order in council in force concerning quarantine.]

9. Have you any, and what bill of health ?
10. What number of officers, mariners, and passengers have you on board ?

[And in cases of vessels coming from or having touched at any port or place on the continent of America, or the islands adjacent thereto, or coming from or having touched at any ports in the West Indies, the following questions are to be put, in addition to the aforesaid questions :]

11. In the course of your voyage have any persons on board suffered from sickness of any kind ? What was the nature of such sickness ? and when did it prevail ? How many persons were affected by it ? and have any of them died in the course of the voyage ?
12. How long after sailing from your port of lading, or having touched at any port on the continent of America or the islands adjacent thereto, or any of the ports in the West Indies, was the first appearance of disease observed ?
13. How had the persons attacked been employed before they came on board ?
14. Had they been employed in loading or unloading the vessel before they left the port ?
15. Had the place which they inhabited, before they sailed, the reputation of being healthy ? or was it subject particularly to the fever incident to the country ?
16. Had the fever been frequent in the place before the vessel sailed ?
17. Did the persons who were ill on board your vessel fall sick nearly about the same time, or within a few days of each other ? Or, did the disorder spread successively from one to another, and increase considerably ? Or, did it abate gradually, and cease to multiply as the distance from the ports you sailed from or touched at as aforesaid increased ?
18. What was the greatest number of persons ill at the most sickly period of your voyage ?
19. What was the whole number of persons on board your vessel when you sailed ?
20. What is the whole number of persons now ill on board your vessel ?

21 Can you state what were the symptoms of illness with which your crew were first attacked; and what was the daily succession and change in them till their death?
22 Whether any and what medicines have been used? and what methods have been adopted to prevent its spreading among the crew?
23. Whether attention has been paid to cleanliness and ventilation on board your vessel?
24. When did you sail from the port or place from whence you took on board your outward cargo? and at what place did you touch before you arrived at the port or place where you took in your present cargo?
25. Did you carry any bill of health with you to the port or place where you took in the cargo you have now on board? From what place? Were the said bills of health clean unclean, or suspected?

Quarantine Questions.

1. What is the name of the vessel, and the name of her commander or master?
2. Are you the commander or master?
3. To what port or place does she belong?
4. When did you sail from the port or place from whence you took on board your outward cargo? and at what places did you touch before you arrived at the port or place where you took in your present cargo?
5. Did you carry any bill or bills of health with you to the port or place where you took in the cargo you have now on board? From what places? Were the said bills of health clean, unclean, or suspected?
6. From what port or place does she now come? When did you sail from such port or place? and at what place or places have you touched in the course of the voyage?
7. Have you any bill or bills of health on board? From what place or places? Are the same clean, unclean, or suspected? Produce them.
[If the vessel shall have sailed from any port or place in Europe without the Straits, or on the continent of America.]
8. Of what articles does your cargo consist? Have you on board any goods enumerated in this list?
[Handing up a list of articles enumerated.]
If you have, specify the same, and whether they are of the growth, produce, or manufacture of Turkey, or of any place in Africa, within the Straits of Gibraltar, or in the West Barbary on the Atlantic Ocean, or of what other place. Have you any declaration to prove of what place they are the growth, produce, or manufacture?
9. At what place or places was the cargo or any part thereof taken on board? On what day did you arrive at the place or places where you took in the whole, or any and what part of the cargo? And on what day did you sail from such place or places? And what part of your cargo was taken in at each place, and when?
10. Did the plague or any other infectious disease or distemper prevail in any degree at the places from whence you sailed, or at any of the places at which your cargo was taken on board, or at which you touched? If at any, say at which, and when.
11. Did you hear of any report, or are you aware of any suspicion having existed, at the time of your sailing, that the plague or any other infectious disease prevailed at the place from whence you sailed, or at any other place in the Mediterranean (or in America or the West Indies, as the case may be)?
12. What number of officers, mariners, passengers, or other persons have you on board? Describe the number of each.
13. At what port did you take on board your passengers?
14. Were they residents at that place, or had they been embarked as passengers on board any other vessel from any other places? and from what places and at what time?
15. Do the said officers, mariners, passengers, and other persons consist of the same individuals as were on board at the port from which you sailed upon your homeward voyage? If any other persons have been taken on board, or if any of your officers, crew, or passengers have quitted your vessel since you sailed from such port, or before your arrival at this place, or if any other alterations in that respect have taken place, specify the same, the causes and the time or times of such alterations.
16. What number of persons (if any) have died on board during the voyage outwards and homewards, or at any port at which you have touched? When, and in what part of the voyage did such person or persons die? Of what disease or distemper?
17. Have any of your officers, mariners, or other persons of your crew, who sailed with you on your outward voyage, died or left the vessel?
18. In the course of your voyage outwards or homewards, or at any port at which you have touched, have any persons on board suffered from sickness of any kind? What was the nature of such sickness? When did it prevail? How many persons were affected by it? Are there any convalescents on board? Or, are all persons on board at present in good health?
19. Were any of those who died, or who have been sick in the course of the voyage, or any port at which you have touched, affected, or suspected to have been affected, by any infectious disease or distemper? Were the bedding and clothes of such diseased and sick persons destroyed? If so, when and in what manner were any of the persons immediately employed about the sick afterwards taken ill? If so, of what disease? and in how many days after having been so employed?
20. At what precise time did such deaths happen? In how many days after being indisposed did the sick die? What were the most obvious appearances of the disease?
21. Have you spoken to or otherwise had any communication with any vessels at sea, during the voyage? What were the names of such vessels? and to what country, port, or place did they belong? From what ports or places were they coming, or at what ports or places had they touched on their voyage? and to what country, ports, or places were they bound? What was the nature of the communication held? What do you know respecting the state of health on board such vessels?
22. Have there been any letters, parcels, or other articles delivered out of or received into your vessel, from any vessel or boat met with on the voyage, or before or since your arrival at this place? And what were such letters, parcels, or articles? And where were the same delivered or received? and into or out of what vessel or boat?
23. Have you any packages or parcels which you have taken charge of? If so, what are their contents? and when and where did you take them on board?
24. What pilots or other persons from the shores of the U. Kingdom, or from the Islands of Scilly, Guernsey, Jersey, Alderney, Sark, or Man, have been or are now on board your vessel, or have had any communication whatever with the ship's company, or any of the passengers, during the voyage homewards, or before or since your arrival at this place? If any such pilots or other persons have come on board, and have afterwards quitted your vessel, specify the names of such persons, and the time, manner, and circumstances of their so quitting your vessel.
25. Did you leave any British vessels at any of the ports you sailed from? If you did, mention their names and the names of their commanders.
26. Were such vessels loading? were they near their departure? and whither were they bound?
27. Did you meet with any British vessels at any of the places you touched at? If you did, say when, where, and what were the names and destinations of such vessels; and to what ports or places did they belong?
28. Do you know whether any foreign vessels loading at the port from which you sailed, were bound beyond the Straits of Gibraltar? And if so, what were they? and whither were they bound?
29. Do you know whether any person whatever employed in loading your vessel, or in bringing any articles into it, or having any communication on board thereof, was taken ill during such employment or communication? or whether, in the absence of such person or persons in the course of such employment, any suspicion was entertained of their having been ill? If so, of what disease?
30. Do you know whether or not your cargo, or any part thereof, had been long in warehouse before its being taken on board? If you do, say how long. Have you any knowledge of its being packed or handled on shore, or conveyed from shore, or stowed on board, by persons affected with the plague or any other infectious disease or distemper?

QUASSIA (Ger. *Quassienholz*; Fr. *Bois de quassie*; Sp. *Leno de quassia*), a beautiful tall tree (*Quassia amara*), growing in North and South America, and the West Indies. The wood is of a pale yellow colour, and inodorous. Taste intensely bitter.

It is pretty extensively employed in the materia medica; and it is said by Dr. Cullen that "it will do all that any pure and simple bitter can do."—(*Rees' Cyclopædia*, art. QUASSIA.) It has been alleged that it is sometimes used by the brewers of pale and other ales, instead of or along with hops; but the use of it for this purpose is prohibited under severe penalties.—(See ALE and BEER, p. 8.) When imported it is in billets, which, previously to their being infused, are reduced to chips, or rasped by the druggists. Its price in bond varies from 20*s.* to 30*s.* a cwt. A prohibitory duty of 8*l.* 17*s.* 6*d.* a cwt. was imposed on quassia down to 1842, when it was reduced by Sir Robert Peel to 10*s.* 6*d.* (10*s.*+ 5 per cent.); and it has been farther reduced in 1853 to 1*s.* a cwt. In 1852 the imports and exports of the article amounted respectively to 675 and 516 cwt.

QUEBEC, the capital of L. Canada, on the north-west bank of the river St. Lawrence, about 340 miles from its mouth, in lat. 46° 48′ 49″ N., lon. 71° 10′ 45″ W. Population, in 1850, 40,233.

Quebec is situated on a ridge, or promontory, formed by the St. Lawrence on the S. and W., and the river St. Charles on the E. The extremity of this headland, called Cape Diamond, is about 345 feet above the level of the water, and on it the citadel is built. The town extends from the citadel, principally in a north-east direction, down to the water; and is, from the difference of elevation, divided into the upper and lower towns. The fortifications, which are very strong, extend across the peninsula; the circuit within them being about 2¾ miles. From their situation many of

the streets are uneven; they are also, for the most part, narrow; but they are either well paved or Macadamised. The greater number of the houses are built of stone, with shingle roofs. Some of the public buildings are elegant, and well adapted for their purposes. The harbour, or basin, lies between the town and the island of Orleans. It is safe and commodious: the water is about 28 fathoms deep, with a tide rising from 17 to 18 feet; and at springs from 23 to 25 ditto. Quebec was founded by the French in 1608. In 1629, it was taken by the English; but was restored in 1632. It was again taken by the English under General Wolfe, who fell in the engagement, in 1759; and was finally ceded to us by the treaty of Paris in 1763.

The rapid increase of population in, and of emigration to, Upper Canada has occasioned a proportional increase of intercourse between Quebec and Montreal, and the Canadian ports on Lakes Ontario, Erie, &c. The first steam-boat that plied on the St. Lawrence was launched in 1812; but there are now a great many steamers, some of them of large burden, employed in the conveyance of goods and passengers between Quebec and Montreal; and in the trade between Quebec and Halifax in Nova Scotia. And by means of the Rideau and Welland canals, an uninterrupted line of steam communication is formed between the Atlantic and Amherstburgh, one of the remote settlements of Upper Canada, a distance of more than 1,500 miles; which is now extended through lake Huron to the western extremity of lake Superior, about 700 miles beyond Amherstburgh; giving to Quebec a command of internal navigation inferior only to that of New Orleans. The navigation at Quebec closes at the end of November or beginning of December, and opens in April. Below Quebec the river is seldom frozen over; but the masses of floating ice, kept in constant agitation by the flux and reflux of the tide, render navigation impracticable. The waters of the St. Lawrence are very pure; and in point of depth and magnitude it is one of the noblest rivers in the world. — (*Bouchette's British Dominions in America*, vol. i. p. 272.) Quebec is a free warehousing port.

The trade of Quebec is very extensive. It engrosses, with Montreal, almost the entire trade of the province with the mother country, the W. Indies, &c. Great numbers of emigrants leave this country for Canada; but the larger number subsequently re-emigrate to the U. States. It has a regular intercourse, by means of steamers, with Montreal, and other ports higher up the St. Lawrence, and with Halifax, and other ports on the Atlantic. Still, however, it must not be forgotten that in so far as the United Kingdom is concerned, the trade with Canada and Quebec is, in some degree, forced and factitious, and has not been a source of profit, but the reverse. In former years it was, in fact, mainly a consequence of the discriminating duties laid in our ports on timber from the N. of Europe; and but for this preposterous arrangement, the trade between Great Britain and Quebec would have been extremely unimportant. Now, however, some branches of the trade appear to have acquired a solid footing; and notwithstanding the reduction of the discriminating duties in favour of Baltic timber, the imports from Canada and other parts of British America of red-pine, and of pine and spruce planks, especially the latter, have of late very largely increased. Excepting timber, furs and ashes are the most important articles sent from Canada. A considerable part of the corn and flour exported from Quebec is the growth of the U. States. The principal articles of import into Canada consist of corn, cottons, woollens, silk, and other manufactured goods; glass ware, spirits and wines, iron and hardware, sugar and tea, &c. The total value of the imports from Canada into the U. Kingdom in 1857 amounted to 3,397,827*l.*, and that of the exports from the U. Kingdom to Canada in the same year to 2,467,810*l.*

The excess of the imports over the exports is principally paid for by the Treasury at home, and should be regarded as the means sent out by England to pay the troops and meet the other heavy expenses she has to incur in the preservation of this great but unprofitable colony.

Reciprocity Treaty with U. States.—It must be obvious to any one who takes up a map of N. America, and observes the long continuous frontier of Canada and the U. States, and the magnificent lakes, or great inland seas, by which they are in part divided, that the trade between them can hardly fail to be most extensive. And such is the case. Down, indeed, to a comparatively late period, the intercourse between the two countries was subjected to various regulations and duties, contrived for the most part in a petty and jealous spirit, by which its development was cramped and impeded. But in 1854, the Reciprocity Treaty, which is printed in another part of this work (art. TREATIES, COMMERCIAL) introduced a better and more liberal system. It admitted the free transit of several most important articles from the U. States into Canada and the other provinces of British N. America, and conversely, and the reciprocal use of their seas, rivers, and canals. This judicious and well considered measure has led to a vast extension of the trade between the U. States and Canada and British N. America, and

has been of signal advantage to both. We subjoin a list of the articles which pass freely across the frontier.

"Grain, flour, and bread stuffs of all kinds; animals of all kinds; fresh, smoked, and salted meats; cotton wool, seeds, and vegetables; undried fruits, dried fruits; fish of all kinds; products of fish and of all other creatures living in the water; poultry; eggs; hides, furs, skins or tails undressed; stone or marble in its crude or unwrought state; slate; butter, cheese, tallow; lard, horns, manures; ores of metals of all kinds; coal; pitch, tar, turpentine; ashes; timber and lumber of all kinds, round, hewed, or sawed, unmanufactured in whole or in part; firewood; plants, shrubs, and trees; pelts, wool; fish-oil; rice, broom corn, and bark; gypsum, ground or unground; hewn or wrought or unwrought burr or grindstones; dye stuffs; flax, hemp, and tow unmanufactured; unmanufactured tobacco; rags."

The following table, compiled by the N. York Chamber of Commerce, shows the rapid increase of the trade between Canada and the U. States resulting from the Reciprocity Act.

Exports from U. States to Canada.		Imports from Canada into U. States.	
Years.	Total.	Years.	Total.
1851	$ 7,929,140	1851	$ 4,926,471
1852	6,717,064	1852	4,589,969
1853	7,829,099	1853	5,272,116
1854	17,300,706	1854	6,721,539
1855	18,730,334	1855	12,182,314
1856	20,883,241	1856	17,488,197
1857	16,574,895	1857	18,291,834

Quebec is a principal port for the importation of immigrants, 20,863 having been landed there in 1856, and 31,281 in 1857. Every adult pays on arrival a tax of 5s., and persons between 1 and 14 years pay 3s. 9d.

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported from the U. Kingdom to Canada in 1855, 1856, and 1857.

Principal Articles.		Quantities.			Declared Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Apothecary wares, &c.	cwts.	2,472	(*See under Value.*)		10,040	9,901	10,494
Apparel, slops, and haberdashery	value	-	-	-	151,915	300,688	298,701
Beer and ale	barrels	2,324	5,125	5,385	11,026	25,263	25,053
Books, printed	cwts.	1,306	846	988	10,533	11,844	11,409
Coal, cinders, and culm	tons	34,199	55,612	97,765	15,447	24,126	42,035
Copper, wrought and unwrought	cwts.	551	1,550	2,255	3,351	8,469	14,840
Cordage and cables	,,	1,595	11,072	8,352	3,921	22,444	14,898
Cottons, entered by the yard	yards	11,144,308	23,592,730	21,801,840	185,214	381,161	352,542
,, ,, at value	value	-	-	-	21,468	20,950	22,402
Earthenware and porcelain	,,	-	-	-	50,065	55,385	61,188
Glass manufactures	,,	-	-	-	18,942	26,190	24,634
Hardwares and cutlery	cwts.	21,118	26,406	22,394	92,591	125,642	124,509
Iron, wrought and unwrought	tons	31,592	46,981	65,503	301,572	417,765	566,455
Lead and shot	,,	506	527	560	12,859	15,106	14,557
Leather, wrought and unwrought	lbs.	54,099	117,124	152,223	7,942	15,257	19,061
Linens, entered by the yard	yards	1,572,406	1,728,761	1,745,854	37,175	48,455	49,512
,, ,, at value	value	-	-	-	3,850	8,017	7,665
Machinery and mill work (inc. steam engines)	,,	-	-	-	119,541	62,663	59,539
Oil, linseed	gallons	138,008	201,581	156,156	21,971	28,517	26,270
Painters' colours	value	-	-	-	18,344	27,841	27,677
Pickles and sauces	,,	-	-	-	10,569	10,338	11,345
Plate, plated ware, jewellery, and watches	,,	-	-	-	4,541	8,345	9,993
Salt	tons	19,004	20,468	20,289	9,513	8,454	10,164
Silk manufactures	value	-	-	-	15,261	44,966	35,488
Soap	cwts.	21,586	24,948	23,612	24,925	27,342	25,828
Stationery	value	-	-	-	26,582	37,884	49,004
Sugar, refined	cwts.	934	12,140	5,029	1,706	52,099	12,122
Tin plates	value	-	-	-	14,941	36,785	35,299
Woollens, entered by the piece	pieces	64,610	105,906	109,981	101,025	230,598	220,992
,, ,, by the yard	yards	1,518,391	2,371,604	2,393,822	78,807	126,251	127,457
,, ,, at value	value	-	-	-	39,876	55,410	39,420
Total value of the above and of all other articles		-	-	-	1,515,823	2,418,250	2,467,810

Account of the Quantities and Computed Values of the Principal Articles imported into the U. Kingdom from Canada in 1855, 1856, and 1857.

Principal Articles.		Quantities.			Computed Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Ashes, pearl and pot	cwts.	71,344	87,246	104,093	151,986	193,052	209,921
Butter	,,	736	1,094	1,416	2,655	5,867	5,542
Caoutchouc, manufactures of	lbs.	255	180,274	205,866	45	27,041	23,160
Copper, ore	tons	1,078	227	276	17,788	3,654	9,384
Corn: wheat	qrs.	14,570	111,818	114,795	57,917	389,001	327,675
peas	,,	7,320	35,921	20,547	18,482	72,085	39,705
maize	,,	5,825	25,517	6,678	12,451	57,308	11,885
wheatmeal and flour	cwts.	10,873	304,039	178,117	13,320	304,059	148,957
Oil-seed cake	tons	362	800	479	3,656	6,880	4,050
Skins and furs: beaver	no.	9,100	1,870	10,641	5,557	888	5,055
fox	,,	1,749	4,265	234	547	2,525	117
marten	,,	11,245	7,531	4,722	6,014	4,519	2,558
otter	,,	908	1,097	1,127	2,121	2,221	2,198
Wood and timber: not sawn or split	loads	344,844	448,124	504,916	1,448,505	1,904,520	1,596,829
deals, battens, &c., sawn or split	,,	146,577	175,611	240,408	520,857	575,125	665,795
staves	,,	30,179	31,995	45,599	224,080	191,969	290,715
lathwood	fathoms	1,656	2,562	2,887	10,962	20,495	19,556
Total value of the above and of all other articles		-	-	-	2,286,277	3,779,741	3,597,827

Account of the Quantities and Values (*in currency*) of the Principal Articles exported from Canada to all Countries in 1855, 1856, and 1857.

Articles.		Quantities.			Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Copper ore	tons	1,525	988	2,562	22,802	20,709	60,078
Fish: dried	cwts.	115,337	117,527	95,762	68,651	68,210	70,478
„ pickled	barls.	28,229	36,398	74,443	31,151	35,515	52,360
Ashes: pot	„	15,762	17,113	21,880	130,566	168,912	214,965
„ pearl	„	6,656	7,359	7,576	45,822	60,385	71,098
Timber: elm	tons	26,191	36,455	37,984	60,606	127,108	108,995
„ oak	„	29,538	35,814	48,539	82,011	91,298	144,157
„ white pine	„	287,137	361,046	500,781	567,654	515,500	705,330
„ red pine	„	57,884	61,945	61,323	106,685	117,923	131,614
„ standard staves	per M.	1,520	1,690	3,253	77,372	92,165	137,096
„ other staves	„	2,737	2,978	4,117	32,563	41,689	43,692
„ deals, standard	l.unds.	26,766	36,729	51,250	294,258	420,289	488,844
„ plank and boards	M. ft.	221,109	229,793	222,611	581,989	625,797	643,567
„ masts	pieces	2,503	2,214	1,495	55,466	35,423	35,971
„ furs and skins	value	.	.	.	28,815	51,938	38,720
Animals: horses	no.	3,561	6,385	5,482	66,111	123,046	104,288
„ cows and calves	„	8,003	14,382	12,143	36,769	69,351	72,402
„ oxen and bulls	„	11,210	9,701	10,871	74,033	76,927	77,355
„ swine	„	14,111	28,744	10,276	16,653	45,443	19,354
Produce of animals:							
Butter	cwts.	10,756	21,597	14,626	56,308	108,342	71,955
Hides and pelts	value	.	.	.	24,035	55,172	52,382
Wool	lbs.	1,082,475	1,164,554	1,275,041	68,856	78,215	67,689
Agricultural products:							
Barley and rye	bushls.	566,534	989,447	831,412	145,808	226,820	171,016
Flour	barls.	643,936	878,775	743,949	1,450,480	1,502,452	1,134,411
Oats	bushls.	370,275	1,296,677	866,860	42,386	114,356	90,203
Peas	„	964,034	374,479	220,726	64,864	76,935	47,671
Wheat	„	3,195,748	4,997,656	2,762,454	1,482,217	1,744,161	697,493

Statistical View of the Commerce of Canada, exhibiting the Value of Exports to, and Imports from, Great Britain, her Colonies, and Foreign Countries, together with the Tonnage of Vessels arriving and departing during 1856, including in such Tonnage the Vessels engaged in the inland Trade and Ferries.

Countries.	Value of Exports.	Value of Imports.	Tonnage of British Vessels.		Tonnage of Foreign Vessels.		Total.	
			Entered Inwards.	Cleared Outwards.	Entered Inwards.	Cleared Outwards.	Entered Inwards.	Cleared Outwards.
	£ s. d.	£ s. d.						
Great Britain	2,616,936 0 2	4,553,235 9 11	2,751,296	3,017,471	2,619,166	2,602,776	5,370,762	5,620,247
North American colonies	271,510 6 3	258,118 13 5						
British West Indies	2,709 14 3	4,403 8 0						
United States of America	5,054,663 8 8	5,676,127 5 3						
Other foreign countries	65,943 15 1	404,183 19 7						
Total	8,011,754 4 5	10,896,096 16 2	2,751,296	3,017,471	2,619,4 6	2,602,776	5,370,762	5,620,247

Money.—Previously to the present year (1859) accounts were kept in what was usually called currency, the 1*l.* sterling being reckoned at 1*l.* 4*s.* 4*d.* But in the course of the present year a new description of currency has been issued on the decimal plan. The 1*l.* currency, on which it is raised, contains 101·321 grs. standard gold, or 92·877 grs. pure gold.* The pound is divided into 100 centimes; and the new gold coins are for 100 and 50 centimes, with silver coins for 20, 10, and 5 ditto. The value of these coins agrees pretty closely, but not quite, with the values of the corresponding American coins. And it is supposed by some that it would have been better, seeing the intimate connection between the two countries, that the value of the Canadian coins should have been made to coincide exactly with that of the coins of the U. States.

State of Chartered Banks in Canada in July, 1857.

Name of Bank.	Capital paid up.	Promissory Notes in circulation.	Coin and Bullion.	Total Liabilities.	Total Assets.
	$ cts.	$ cts.	$ cts.	$ cts.	$ cts.
Quebec Bank *	988,090 00	681,885 00	95,759 18	1,820,914 60	2,289,256 18
City Bank of Montreal *	1,158,976 00	695,761 60	195,913 37	1,442,687 88	2,805,918 75
Bank of Montreal *	5,666,920 00	3,170,942 50	797,916 05	5,939,440 92	12,391,042 90
Commercial Bank of Canada *	3,516,460 00	1,243,998 00	409,501 52	2,825,331 17	7,004,073 65
Bank of Upper Canada *	3,075,285 00	2,842,568 00	452,117 48	5,641,276 77	9,047,556 10
Banque du Peuple	894,715 00	467,286 00	131,317 97	1,259,594 37	2,352,269 30
Molson's Bank *	677,118 23	314,061 00	77,715 00	617,894 77	1,336,358 90
Zimmerman Bank *	453,500 00	45,569 00	10,615 97	191,167 97	657,983 55
Niagara District Bank	224,928 00	270,276 00	28,200 28	345,811 90	615,211 65
Bank of Toronto *	356,475 55	414,278 50	64,798 78	688,558 97	1,070,717 05

The liability of the shareholders in the banks marked * is limited to *twice* the amount of their shares.

Weights same as in England.

Measures.—Standard wine gallon, liquid measure of the province. The Canada minot for all grain, &c. except where specially agreed upon to the contrary; and this measure is about 1-8th larger than the Winchester bushel. The English Winchester bushel, when specially agreed for. The Paris foot, for all measures of lands granted previous to the conquest, and all measures of length, except an agreement is made to the contrary. The English foot, for measure of lands granted since the conquest, and wherever specially agreed upon. The standard English yard for measuring all cloths or stuffs, sold by the yard or measure of length. The English ell, when specially agreed upon.

* The 1*l.* sterling contains 193·274 gr. standard gold, and 113·001 gr. pure gold. Hence, 1*l.* 4*s.* 4*d.* : 1*l.* :: 123·274 to 101·321, and 1*l.* 4*s.* 4*d.* : 1 :: 113·001 to 92·877.

Rates of Pilotage for and below the Harbour of Quebec.

From	To	For each foot of draught of water. From the 1st May to the 10th Nov.	From the 10th Nov. to the 19th Nov.	From the 19th Nov. to the 1st March.	From the 1st March to the 1st May.
Bic Island, or any other place below the anchorage of the Brandy Pots, off Hare Island - - -	- - - - - -	18*s.* 0*d.*	23*s.* 0*d.*	28*s.* 0*d.*	20*s.* 6*d.*
The anchorage ground at the Brandy Pots, off Hare Island, or any place above the said anchorage ground and below St. Roch's Point - -	- - - - - -	⅔ of this sum	⅔ of this sum	⅔ of this sum	⅔ of this sum
St. Roch's Point, or any place above this point and below the "Pointe-aux-Pins" on Crane Island - -	Anchorage or mooring ground in the basin or harbour of Quebec - - -	½ do. do.	½ do. do.	½ do. do.	½ do. do.
"Point-aux-Pins" on Crane Island, or any place below St. Patrick's Hole -	- - - - - -	¼ do. do.	¼ do. do.	¼ do. do.	¼ do. do.
The anchorage or mooring ground in the basin or harbour of Quebec -	Bic Island, or the place where the pilot shall be discharged in the river below Quebec -	15*s.* 9*d.*	20*s.* 9*d.*	25*s.* 9*d.*	18*s.* 3*d.*

Pilots taking charge of vessels at St. Patrick's Hole, or above it, shall be entitled to no more than the sum allowed in Table II. for piloting vessels from one part of the harbour to another.

Vessels coming to Quebec pay no light or port dues.

Account of the Number, Tonnage, and Crews of the sea-going Vessels that arrived at, and cleared out from, Quebec in 1855, 1856, and 1857, specifying the Countries from which they came, and those for which they sailed, with the Number, &c., from and to each.

Countries.	1855. Vessels.	1855. Tons.	1855. Crews.	1856. Vessels.	1856. Tons.	1856. Crews.	1857. Vessels.	1857. Tons.	1857. Crews.
From United Kingdom	442	245,701	. .	552	309,877	. .	770	422,560	
„ British Colonies	165	31,784	. .	161	20,158	. .	196	41,089	
„ United States	46	35,069	. .	34	27,574	. .	46	38,261	
„ Other Foreign Countries	97	41,648	. .	243	104,474	. .	271	107,534	
Total	750	354,202	11,212	990	462,083	14,783	1,283	609,444	19,938
To United Kingdom	717	393,765	. .	907	483,742	. .	1,205	630,353	
„ British Colonies	146	11,312	. .	141	10,127	. .	139	10,881	
„ United States	3	824	. .	10	820	. .	4	983	
„ Other Foreign Countries	11	3,093	. .	10	1,178	. .	7	2,604	
Total	877	408,994	12,959	1,068	495,867	15,651	1,355	644,262	19,081

Tariff of Canada, assented to 7th August, 1858.

Table of Duties of Customs inwards—Goods paying Specific Duties.

Ale, beer, and porter, in casks	per gal.	$0 08
„ „ in quart bottles	per doz. bts.	0 25
„ „ in pint bottles	—	0 12½
And a duty of 15 per cent. ad valorem on the bottles containing the same.		
Almonds, walnuts and filberts	per lb.	0 03
Corn brooms	per doz.	0 50
Corn whisks	—	0 15
Cigars	per lb.	0 80
Chicory, raw and kiln dried	—	0 01
„ roasted and ground	—	0 04
Coffee, green	—	0 01
„ roasted	—	0 04
„ ground	—	0 01
Cordials	per gal.	1 00
Currants	per lb.	0 03
Figs	per lb.	0 03
Dried fruits	—	0 03
Ginger, pimento, and pepper, unground	—	0 04
„ „ „ ground	—	0 06
Macaroni and vermicelli	—	0 03
Mustard	—	0 05
Molasses	per gal.	0 01
Mace	per lb.	0 25
Nutmegs	—	0 25
Nuts not specially named, except cocoa-nuts	—	0 01
Spirits and strong waters of all sorts, for every gallon of any strength not exceeding the strength of proof by Sykes' Hydrometer, and so in proportion for any greater strength or less quantity than a gallon viz:—		
Brandy	per gal.	1 00
Gin	—	0 80
Rum	—	0 50
Whisky	per gal.	0 18
Spirits and strong waters, including spirits of wine and alcohol, and not being brandy, gin, or whisky	—	0 70
Spices, unground, not otherwise named	per lb.	0 07
„ ground	—	0 10
Starch, and all preparations of starch	—	0 05
Soap, not otherwise specified	per 100 lbs.	1 25
Sugar, refined, whether in loaves or lumps, candied crushed, powdered, or granulated, or in any other form; white bastard sugar, or other sugar equal to refined in quality	—	2 50
Sugar, white clayed sugar or yellow bastard sugar, or any kind equal in quality to white clayed sugar, but not equal to refined sugar	—	1 75
Sugar, brown clayed sugar, Muscovado, or raw sugar of any kind, not equal in quality to the sugars last named	—	1 50
Sugar, raw, for refining purposes only, and not within 25 per cent. of the value of the last named sugar	—	0 90
Tea, not exceeding in value 18 cents per lb.	per lb.	$0 03
„ exceeding in value 18 cents per lb.	—	0 04
Tobacco, manufactured, not exceeding in value 20 cents per lb.	—	0 05
„ „ exceeding 20 and not exceeding 40 cents per lb.	—	0 07½
„ over 40 cents. per lb.	—	0 10
Snuff	—	0 10
Vinegar	per gal.	0 06
Wine, in wood, not exceeding in value $10 per pipe of 126 gallons	—	0 20
Wine in wood over $10 but not exceeding $60 per pipe of 126 gallons	—	0 30
Wine in wood, over $60 but not exceeding $100 per pipe of 126 gallons	—	0 40
Wine, in wood, over $100 in value per pipe of 126 gallons	—	0 50
Wine, in quart bottles, not exceeding $1 per dozen	per doz. bot.	1 50
Wine, in pint bottles, in proportion	—	0 75
Wine, in quart bottles, exceeding $4 but not exceeding $8 per dozen	—	2 00
Wine, in pint bottles, in proportion	—	1 00
Wine, in quart bottles, exceeding $8 and not exceeding $12 per dozen	—	2 50
Wine, in pint bottles, in proportion	—	1 25
Wine, in quart bottles, exceeding $12 per dozen	—	3 00
Wine, in pint bottles in proportion	—	1 50
And a duty of 15 per cent. ad valorem on the bottles containing such wine.		
Printed, lithographed, or copper plate bills, bill heads, checks, receipts, drafts, posters, cards, labels of every description, advertising pictures, or pictorial show bills or cards,	per 100 cards or sheets	1 00
Advertising pamphlets	per hundred	1 00

Table of Free Goods.

Acids of every description; agricultural societies—seeds of all kinds; farming utensils and implements of husbandry, when specially imported by, for the encouragement of agriculture; alum; anatomical preparations; anchors, over 6 cwt. in weight; animals of all kinds; antiquities, collections of; apparel, wearing, and other personal effects, and implements of husbandry, (not merchandise,) in actual use of persons coming to settle in the provinces, and accompanying the owner; apparel, wearing, of British subjects dying abroad; argol, arms for army or navy and Indian nations, provided the duty otherwise payable thereon would be defrayed or borne by the treasury of the United Kingdom, or of this province; ashes, pot, pearl, and soda; bark, tanners'; bark, used solely in dyeing; barley, except pot and pearl; barley meal; beans; bean meal; bere and bigg; bere and bigg meal; berries, used solely in dyeing; bleaching powder; books, printed; —periodicals and pamphlets — not being British copyrights, nor blank, account, or copy books to be written or drawn upon; borax; bottles containing wine, spirituous or fermenting liquors of officers' mess; brandy imported for officers' mess; bran and shorts; brimstone; bristles; broom corn; buck-

wheat; buckwheat meal; bulbs and roots; bullion; burr-stones, wrought and unwrought, but not bound up into mill-stones; butter; coin and bullion; cabinets of coins; cables; iron chain; cables, tarred hemp; cables, untarred hemp; cables, grass; carriages of travellers, and carriages employed in carrying merchandise, (hawkers and circus troops excepted) casks, ships' water, in use; caoutchouc, or india rubber, and gutta percha, unmanufactured; cement, marine, or hydraulic; charitable societies—donations of clothing for gratuitous *distribution* by; cheese; clothing for army or navy or Indian nations, or for gratuitous distribution by any charitable society; coal; cochineal; coke; commissariat stores; copperas; cork-wood, or the bark of the corkwood tree; corn, Indian; cotton and flax waste; cotton wool; cream of tartar in crystals; diamonds and precious stones; drugs used solely in dyeing; dye-stuffs, viz., bark, berries, drugs, nuts, vegetables, woods, and extract of logwood; earths, clays, and ochres, dry; eggs; felt hat bodies, and hat felts; fire brick; firewood; fish; fish oil, in its crude or natural state; fish, products of, unmanufactured; flax, hemp, and tow, undressed; flower; fruits, green; fruits, dried, from the United States only, while the Reciprocity Treaty is in force; furs, skins, pelts, or tails, undressed, when imported directly from the United Kingdom or British North American Provinces, or from the United States; gems and medals; gravel; grains—barley and rye, beans and peas, bere and bigg, bran and shorts, buckwheat, Indian corn, oats, wheat, meal of above grains; grindstones, wrought and unwrought; gums and rosins, in a crude state; gypsum or plaster of Paris, ground or unground; grease and scraps; hams; hemp; *hides*; horns; household effects, personal, not merchandise, of subjects of Her Majesty domiciled in Canada but dying abroad; indigo; inventions and improvements in the arts, models of—provided that no article shall be deemed a model which can be fitted up for use; junk and oakum; lard; lime, the produce of British North American Provinces only; machinery, models of—provided the same cannot be put to *actual* use; Manilla grass; manures of all kinds; maps and charts in sheets, not mounted nor on cloth; maple in blocks or slabs, unpolished; meats, fresh, smoked, and salt; *menageries, horses, cattle, carriages*, and harnesses of, subject to regulations by the governor in council; military clothing for Her Majesty's troops *or militia*; *military stores* and materials for military clothing imported for the use of the provincial *militia*, under such restrictions and regulations as may be passed by governor in council; mosses and sea grass for upholstery purposes; musical instruments for military bands; nitre of saltpetre; oakum; oil cake or linseed cake; oils, cocoa-nut, pine, and palm—in their natural state; old nets; ordnance stores; ores of all kinds of metals; osier or willow, for basket-maker's use; packages of all kinds in which goods are usually imported, except the following, viz., spirit, wine, oil, beer, cider, and other casks for the containing of liquids, baskets of every description, trunks, snuff jars, earthenware jars, glass jars, bags and barrels containing seeds and peas; pig iron, pig lead; pitch and tar; philosophical instruments and apparatus, books, globes, maps, and charts—provided the same be specially imported by, and for the use of philosophical societies, universities, colleges, public schools, or institutes; plants, shrubs, and trees; provisions for army and navy, or Indian nations; rags; resin and rosin; rice; sail-cloth; sal-soda; sal-ammonia; salt; seeds of all kinds; ships' blocks; binnacle lamps; canvas, duck; bunting; compasses; dead eyes; dead lights; deck plugs; shackles; sheaves; signal lamps; travelling trucks; ship's water-casks in use, expressly imported for ship-building purposes and by ship-builders or sail-makers; silk hat felts; soda ash; specimens of natural history, mineralogy, or botany; stone, unwrought; slate; statues, busts, and casts of marble, bronze, alabaster, or plaster of Paris; paintings and drawings as works of art; specimens of sculpture; cabinets of coins, medals, gems, and all collections of antiquities; sulphur and brimstone; tin and zinc, or spelter, in block or pig; tallow; teasels; timber and lumber of all kinds, round, hewed, sawed, unmanufactured in whole or in part; trees, unmanufactured; tools and implements of trade of persons arriving in Canada, when accompanied into the province by the actual settler, and brought in by such settler for his own use, and not for sale; treenails; turpentine; type metal, in blocks or pigs; vegetables—not elsewhere specified; vehicles of travellers, except those of hawkers and pedlers; water lime, wine, spirits, and fermented liquors of all kinds, imported by travellers; mess, and the packages containing the same; woods for hoops, when not notched; woods of all kinds; wool; all importations for the use of her Majesty's army and navy serving in Canada.

Table of Prohibitions.—The following articles are prohibited to be imported under a penalty of fifty pounds, together with the forfeiture of the parcel or package of goods in which the same may be found: books and drawings of an immoral or indecent character; coin, base or counterfeit.

Goods paying 5 per cent.—The following goods shall be charged with a duty of 5 per cent. on the value thereof: Bolting cloth; brass in bars, rods and sheets; brass and copper wire, and wire cloth; chain, iron, and other cables, and not being horse chain, dog chain, jack chain, or other small chain not exceeding three-quarters of an inch; Canada plates, tinned plates, galvanized iron and sheet iron; copper in bars, rods, bolts, or sheets; cotton candle wick, yarn, and warp; emery; emery, glass, and sand paper; fishing nets and seines; fish hooks, lines, and fish twines; gold beaters' brim moulds and skins; silk-twist for hats, boots, and shoes; *hat plush*; hair, Angora, goat, Thibet, horse, or mohair, unmanufactured; iron, bar, rod, or hoop; iron, nail and spike rod; iron, hoop or tire, for driving wheels of locomotives, bent or welded; iron, boiler plates; iron, plate and angle, and other iron, shaped or unshaped, when forming part of an iron ship imported in pieces; iron rivets for iron ships; iron wire; lead in sheets; sails, ready made; steel, wrought or cast; tin, granulated or bar; tubes and piping, of copper, brass, or iron, when drawn; varnish, *bright* and black, for ship-builders, other than copal, carriage, shellac, mastic, or Japan; zinc or spelter in sheet; locomotive and engine frames, cranks, crank axles, railway car and locomotive axles, *piston rods*, guide and slide bars, crank pins, connecting rods, steamboat and mill shafts, and cranks forged in the rough.

Goods paying 20 per cent.—The following goods shall be chargeable with a duty of 20 per cent. on the value thereof:—Anchovies, sardines, and all other fish preserved in oil; Argentine, Alabetta, or Albetta, and German silver manufactures; articles embroidered with gold, silver, or other metals; baskets, and all other *articles* made of grass, osier, palm leaf, straw, whalebone, or willow, not elsewhere specified; beads of every description; billiard tables and furnishings; bagatelle boards and furnishings; blacking; bracelets, braids, chains, curls, ringlets, or head-dresses of anything composed of hair or of which hair is a component part; brooms and brushes, not elsewhere specified; cameos or mosaics, real or imitation, when set in gold, silver, or other metals; capers, pickles, olives, and sauces of all kinds not specified; candles and tapers of wax, sperm, belmont, stearine, adamantine and composition; chandeliers, girondoles, gas fittings; carriages or parts of carriages not otherwise specified; cabinet ware or furniture; cashmere, cocks, taps, and coupling joints; *carpets* and hearth rugs, velvet, Brussels, tapestry, Turkish, Persian, and other kinds; confectionery not elsewhere specified; China ware of all kinds; cutlery, polished, of all sorts; coach and harness furniture of all kinds; composition tops for tables or for other articles of furniture; essences, balsams, cosmetics, extracts, pastes, perfumes, tinctures, and perfumery of all kinds; feathers and flowers, artificial or ornamental, or parts thereof, of whatever material composed; fans and fire screens; fireworks; glass, plate; glass, silvered; glassware, cut, ground, or coloured; glass, stained, painted, or coloured; glass bottles and vials, not being wine or beer bottles; gold and silver *leaf*; *gilt frames*; guns, rifles, and fire-arms of all kinds; hats, *caps*, and bonnets; inks of all kinds, except printing ink; jewellery, real or imitation; japanned, planished tin, and britannia metal ware of all kinds; leather, sole, harness, dressed, kip, calf, and upper leather, and all imitations of leather; marble or imitation of marble mantel-pieces, or parts thereof; mattresses of hair, moss, or other material; millinery of all kinds; musical instruments of all kinds, including musical boxes and clocks; mowing, reaping, and thrashing machines; manufactures of fur, of which fur is the principal part; manufactures of cashmere; manufactures *of silk, satin*, and velvet, and of all other fabrics of which silk *forms the* principal part; manufactures of bone, shell, horn, pearl, ivory, or vegetable ivory; manufactures of gold, silver, or electro-plate; manufactures of brass or copper; manufactures of leather or imitation of leather, or of which leather or imitation of leather is the principal part, not otherwise specified; manufactures of marble, or marble more advanced in manufacture than slabs or blocks in the rough; manufacture of papier maché; manufactures of caoutchouc or India rubber, or of gutta percha, or of which any of these articles form the principal part; manufactures of straw; patent medicines and medical preparations not elsewhere specified; oil cloths of whatever material composed; salad oils, table oils, and linseed oils; opium; ornaments of bronze, alabaster, terracotta, or composition; plated and gilded wares of all kinds; playing cards; preserved meats, poultry, fish, and game; railing or fencing of iron; riddles and sieves; scales and *weights*; shawls, Thibet, wool, or *filled*; silks, satins, or velvets, and all fabrics of which silk forms the principal part; spades, shovels, axes, hoes, rakes, forks, and edge-tools, scythes and snaiths, bolts, nuts, and washers; spikes, nails, tacks, brads, and sprigs; silk, woollen, worsted, and cotton embroideries, and tambour-work; silk twist and twist composed of silk and mohair; silver and gold cloth, thread, and other articles embroidered with gold or for embroidering; skins, sheep, calf, goat, and chamois, dressed; soap, perfumed or fancy; stoves and all other iron castings; toys; thread lace and *insertions*; writing desks, fancy and ornamental cases and boxes of whatsoever material; woollen goods.

Goods paying 25 per cent.—The following goods shall be chargeable with a duty of 25 per cent. on the value thereof:—Manufactures of leather, viz., manufacture of boots and shoes; manufacture of harness and saddlery; clothing or wearing apparel, made by hand or sewing machine.

Goods paying 15 per cent.—All articles not hereinbefore enumerated as charged with a specific or *ad valorem* duty, and not exempted from the payment of duty, shall be chargeable with a duty of 15 per cent. as the duty thereof.

MONTREAL, the second town of Canada, is situated on the south side of an island of the same name, in the St. Lawrence, about 180 miles above Quebec, in lat. 45° 31′ N., lon. 73° 35′ W. Population, in 1852, 57,715, being very considerably greater than that of Quebec, or of any other town in British America. The harbour is not large, but it is safe and commodious; the facilities for navigation afforded by the noble river on which it is situated being such, that vessels of 600 tons burden may ascend thus far without difficulty. The North American fur trade principally centres in Montreal; which also enjoys the principal share of the commerce between Canada and the U. States. It is increasing faster than Quebec, or than any city in British America. Imports and exports included in those of Quebec.

QUERCITRON BARK, the bark of a species of oak growing in many parts of North America. It is used in dyeing yellow colours.—(See BARK.)

QUILLS (Fr. *Plumes à écrire*; Ger. *Posen, Feder kiel*; It. *Penne de scrivere*; Rus. *Stivoli*; Sp. *Canones para escribir*), the hard and strong feather of the wings of geese,

ostriches, swans, turkeys, crows, &c. used in writing. They are classified according to the order in which they are fixed in the wing; the second and third quills being the best. Crow quills are chiefly used for drawing. The goodness of quills is judged partly by the size of the barrels, but more by the weight; hence the denomination of quills of 14, 15, &c. loths per *mille*, each mille consisting of 1,200 quills. The old duty on goose quills of 2*s.* 6*d.* per 1000, after being reduced to 6*d.* in 1842, was wholly repealed in 1848. In 1852, 10,285,811 goose quills, and 61,200 swan do. were imported. Of the former only 20,700 were re-exported. Quills are principally imported from Riga and other ports on the Baltic; but those imported by the Hudson's Bay Company and sold at their sales are superior to all others. We subjoin an

Account of the Prices of the various Descriptions of Quills in the London Markets in January, 1844.

	£	s.	d.	£	s.	d.	
Undressed goose quills, imported from the Baltic and assorted into loths	0	6	0	to 3	10	0	per mille.
Swan quills, imported from the Baltic and assorted in loths	0	5	0	— 1	0	0	per 100.
Goose quills, mixed, imported by the Hudson's Bay Company and sold at their annual sale	0	10	0	to 5	0	0	per mille.
Mixed swan quills, by the same	3	0	0	— 8	0	0	—
Irish goose quills, mixed	0	0	6	— 0	1	0	per lb.
English, ditto	0	5	0	— 0	12	0	per mille.
Turkey quills, ditto	0	4	0	— 0	7	0	—
English crow, ditto	0	4	0	— 0	7	0	—
English duck, ditto	0	2	6	— 0	4	0	—

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RAGS (Du. *Lompen, Vodden;* Fr. *Chiffes, Chiffons, Drapeaux, Drilles;* Ger. *Lumpen;* It. *Strasci, Strazze;* Rus. *Trepje;* Sp. *Tropos, Harapos*), shreds or fragments of worn linen, woollen, or cotton cloth. Though commonly held in little estimation, rags are of great importance in the arts, being used for various purposes, but especially in the manufacture of paper, most of which is entirely prepared from them. As the mode in which British rags are collected must be well known to every one, the following statements apply only to the trade in foreign rags.

Woollen Rags. — Woollen and linen rags are imported in considerable quantities from the continent of Europe, and from Sicily. The woollen rags are chiefly used for manure, especially in the culture of hops; but rags of loose texture, and not too much worn or decayed, are unravelled and mixed up with fresh wool in the making of yarn; a practice more favourable to the cheapness than to the strength and durability of the fabrics into which this old wool is introduced. Woollen rags are also used for making flocks or stuffing for beds, &c.: this process is performed chiefly by the aid of the same kind of engines that prepare pulp for paper; these wash the rags thoroughly, at the same time that they grind and tear them out into separate threads and fibres. The chief importation of woollen rags is from Hamburg and Bremen; and there are some got from Rostock, but the quantity is trifling. The imports in 1852 amounted to 1,395 tons, of which none were re-exported. The price ranges from 5*l.* to 6*l.* per ton, on such as are used for manure; and from 10*l.* to 13*l.* for coloured woollens of loose texture, and 15*l.* to 20*l.* for white of the same description.

Linen Rags are principally imported from Rostock, Bremen, Hamburg, Leghorn, Ancona, Messina, Palermo, and Trieste. Their export from Holland, Belgium, France, Spain, and Portugal, is strictly prohibited. The imports amounted in 1852 to 7,711 tons (including 15 tons pulp), of which 155 tons were re-exported, being worth, at an average, from 20*l.* to 30*l.* per ton, freight included. Exclusive of the very large quantity collected at home, all the rags imported were, until very recently, employed in the manufacture of paper; but the Americans, who have for some years been large importers from the Mediterranean and Hamburg, occasionally come into the London market, and purchase large quantities. The duty on rags was suppressed in 1845.

The imported rags are coarser and inferior in appearance to the English; but, being almost exclusively linen, they are stronger, and bear a price disproportioned to the apparent difference in quality: this disproportion has been materially augmented since the introduction of the process of boiling the rags in ley, and afterwards bleaching them with chlorine, has rendered foreign rags fit for making fine paper, and indeed, in some respects, preferable for that purpose, by their affording greater strength of texture combined with equal whiteness of colour.

There is considerable variety in the appearance of rags from different ports; but, in general, those from the north of Europe are darker and stronger than those from the Mediterranean ports. The latter are chiefly the remains of outer garments, and have become whitened by exposure to the sun and air; but since the improvements in bleaching, this does not enhance their value in the British market. The rags shipped from Trieste are chiefly collected in Hungary. It is only within these few years that we have brought rags from this port, which now furnishes us with considerable supplies. Most part of the rags collected in the Tuscan states, to the extent of 10,000 or 12,000 bags a year, goes to America.

Freights are, at an average, about — Hamburg and Bremen, linen 15*s.* per ton, woollen, 20*s.*; Rostock, 30*s.*; Ancona and Leghorn, 25*s.* to 35*s.*; Trieste and Sicily, 25*s.* to 35*s.* Linen rags are almost all selected and assorted previously to their shipment from the foreign port. Their distinguishing marks and prices per cwt. in the London market, January, 1844, were as follows: viz.

Rostock.	Bremen.	Hamburg.	Trieste.	Leghorn.
S P F F - 33*s.*	S P F F - 26*s.*	S P F F, 24*s.* to 25*s.*	S P F F, 25*s.*	Fines, 25*s.* to 24*s.*
S P F - 25*s.*	S P F - 25*s.* 6*d.*	S P F 21*s.* to 21*s.* 6*d.*	S P F - 20*s.* to 23*s.* 6*d.*	Seconds, 18*s.* to 19*s.*
F F - 22*s.*	F F - 20*s.*	F F 18*s.* to 19*s.*	S F F - 17*s.* to 21*s.*	Thirds, 15*s.* to 14*s.* 6*d.*
F X 15*s.* to 16*s.* 6*d.*	F X - 15*s.*	F X 12*s.* 6*d.* to 13*s.*	S F X 13*s.* to 17*s.* 6*d.*	Sicily, 16*s.* to 17*s.*

RAIL-ROAD, TRAM OR WAGGON ROAD, a species of road having tracks or ways formed of iron, stone, or other solid material, on which the wheels of the carriages passing along it run. The object in constructing such roads is, by diminishing the friction, to make a less amount of power adequate either to impel a carriage with a greater velocity, or to urge forward a greater load.

Construction of Rail-roads.—The friction on a perfectly level rail-road, properly constructed, is estimated to amount to from $\frac{1}{10}$th to $\frac{1}{7}$th only of the friction on an ordinary level road; so that, supposing the same force to be applied in both cases, it would move a weight from 10 to 7 times as great on the former as on the latter. But if there be a very moderate ascent, such as 1 foot in 50, which in an ordinary road would hardly be perceived, a great increase of power on the rail-road is required to overcome the resistance that is thus occasioned. The reason is, that the ordinary load on a *level* rail-road is about *seven times as great* as on a common turnpike road; so that when the force of gravity is brought into operation by an ascending plane, its opposing power, being *proportioned to the load*, is 7 times as great as on a common road. Hence the vast importance of having rail-roads either level or as nearly so as possible.

It is also of great importance that rail-roads should be straight, or, at least, free from any abrupt curves. Carriages being kept on the road by *flanges* on the wheels, it is obvious, that where the curves are quick, the friction on the sides of the rails, and consequent retardation, must be very great. In the Manchester and Liverpool rail-road, the curves form segments of a circle which, if extended, would embrace a circumference of 15 miles.

Iron rail-roads, the kind now generally used, are of 2 descriptions. The *flat rail*, or *tram road*, consists of cast-iron plates about 3 feet long, 4 inches broad, and $\frac{1}{2}$ inch or 1 inch thick, with a flaunch, or turned up edge, on the inside, to guide the wheels of the carriage. The plates rest at each end on *sleepers* of stone or wood, sunk into the earth, and they are joined to each other so as to form a continuous horizontal pathway. They are, of course, double; and the distance between the opposite rails is from 3 to $4\frac{1}{2}$ feet, according to the breadth of the carriage or waggon to be employed. The *edge rail*, which is found to be superior to the tram rail, is made either of wrought or cast iron; if the latter be used, the rails are about 3 feet long, 3 or 4 inches broad, and from 1 to 2 inches thick, being joined at the ends by cast metal sockets attached to the sleepers. The upper edge of the rail is generally made with a convex surface, to which the wheel of the carriage is attached by a groove made somewhat wider. When wrought iron is used, which is in many respects preferable, the bars are made of a smaller size, of a wedge shape, and from 12 to 18 feet long; but they are supported by sleepers, at the distance of every 3 feet. In the Liverpool railroad the bars are 15 feet long, and weigh 35 lbs. per lineal yard. The waggons in common use run upon 4 wheels of from 2 to 3 feet in diameter. Rail-roads are either made double, 1 for going and 1 for returning; or they are made with *slidings*, where the carriages may pass each other.—(See the able and original *Essays on Rail-roads, by Charles Maclaren, Esq*, in the *Scotsman* for 1824; see also *Mr. Booth's Pamphlet on the Liverpool and Manchester Rail-road*; the articles on *Railways*, in the *Encyc. Britannica*, the *Penny Cyclopædia, &c.*)

Speed of Carriages on Rail-roads, &c.—The effect of rail-roads in diminishing friction is familiar to every one; and they have long been used in various places of this and other countries, particularly in the vicinity of mines, for facilitating the transport of heavy loads. But it is only since the application of locomotive engines as a moving power, that they began powerfully to attract the public attention, and that their value has been fully appreciated. These engines were first brought into use on the Darlington and Stockton rail-road, opened on the 27th of December, 1825; but it was not till the opening of the rail-way between Manchester and Liverpool that the vast importance of this novel means of intercourse was fully perceived. This splendid work, though now far surpassed in magnitude by other rail-roads, cost nearly a million sterling. It has the advantage of being nearly level; for, with the exception of a short distance at Rainhill, where it is inclined at the rate of 1 foot in 96, there is no greater inclination than in the ratio of 1 foot in 880. The length of the railway is about 31 miles; and it was usual

from its opening to perform this journey in handsome carriages attached to the locomotive engines, in 1½ hours, or less! So far, indeed, as respects the facility of passing from the one to the other, this railway has brought Manchester and Liverpool as near to each other as the western part of London is to the eastern part!

The opening of this railway having more than verified the most sanguine anticipations as to the success of such undertakings, and gone far, in fact, to strike time and space out of the calculations of the traveller, gave an unprecedented stimulus to similar undertakings in all parts of the country; and, in no long period, there were hardly any two considerable places in Great Britain, how distant soever, which it was not proposed to connect by railways. An immense number of companies were formed, and a very large amount of capital subscribed, for carrying on these undertakings; and though, as was to be anticipated, not a few of them appear to have been commenced without due consideration, and hold out very indifferent prospects to the subscribers, there can be no doubt that the country has profited very greatly by the extraordinary facilities of intercourse which has been afforded by the railway system.

Among the greater lines of railway now (1853) existing, may be specified that from London to Manchester, Liverpool, and Glasgow; which, taking it as it at present stands, is one of the greatest public works ever executed in any country, and is a striking result of the wealth, science, and civilisation of modern times. The railway from London to Bath, Bristol, and Exeter, is also a magnificent work; and is, in some respects superior to any other in the kingdom. Among the other leading railways may be specified the Direct Northern line from London to Edinburgh; the lines from London to Southampton, Brighton, and Dover; the line from Chester to Holyhead, with the tubular bridge over the Menai Straits; the Eastern Counties, and Oxford railways; and those from Edinburgh to Glasgow and Ayr, from Edinburgh to Aberdeen, and a host of others.

Railway Legislation. — But, notwithstanding the vast advantages which the opening of so many new and improved lines of communication have conferred on the country, we cannot help thinking that these advantages might have been much greater, and that, in the instance of railway legislation, the public interests have been overlooked to a degree that is not very excusable. It is, we admit, no easy matter to decide how far the interference of government should be carried in matters of this sort. But, at all events, this much is obvious, that when parliament is called upon to pass an act authorising private parties to execute a railway or other public work, it is bound to provide, in as far as practicable, that the public interests shall not be prejudiced by such act, and that it should be framed so that it should not, either when passed, or at any future period, stand in the way of the public advantage. We believe, however, that a little consideration will serve to satisfy most persons that this important principle has, in the case of railways, and indeed of most descriptions of public works, been, in this country, all but wholly neglected.

The practice is for a railway act to authorise the company in whose favour it is granted, to appropriate a certain line of road, and to charge certain specified rates of toll on the passengers and goods to be conveyed by such road, not for 15, 20, or even 50 years, but *in all time to come!* Now, as it appears to us, this is a singularly injudicious arrangement on the part of the public. There is, between any two or more places that may be named, a certain railway line that is preferable to any other which can be pointed out. The probability is that this line will in all cases be the first to be selected; and the act that gives it up to a company confers on the latter a virtual and substantial monopoly. The rates of charge imposed by the act are calculated to remunerate the projectors, supposing every thing to remain on its present footing. But the probability is that manufactures and population, in the places communicating by most lines of railway, will continue to increase in time to come, as they have done in time past; and it is all but certain that great improvements will be effected in the construction of roads and engines. Whatever, therefore, may be the chances of success at the outset, the fair presumption is, that most great lines of road will in the end be exceedingly productive. But, if we continue to abide by the present system, the public will be effectually excluded from all participation in these prospective advantages; and a few private associations will be able to make enormous profits, by monopolising improvements, and keeping up the expense of transit at an exorbitantly high level. It is idle to trust to competition to remedy a grievance of this sort. There may only be one practicable line of railway between two places; and if so, no other can, of course, come into competition with it. But though this were not the case, a company in possession of the best line might, if an opposition were threatened, reduce its rates till the opposition was defeated, and then raise them to the old level. Supposing, however, that a second road is made, its managers would most likely come to an understanding with the first, so that the tolls, instead of being reduced by the instrumentality of the new road, may

be raised; and were it otherwise, the question is, was the second road really necessary? Could not the first road have sufficed for the whole traffic to be carried on by both lines? If this be the case, it is clear the second road has been merely resorted to as a device for reducing the tolls charged on the first; as a means, in fact, for doing that, by an outlay of some hundreds of thousands, or, it may be, millions of pounds, which might have been quite as effectually done by limiting the duration of the act authorising the first road, or by inserting a clause in it providing for the periodical revision of the tolls.

We are clear, indeed, that no act, authorising a private association to construct a railway or canal, to lay down gas pipes, to convey water into a town, or for any such purpose, should ever be passed without reserving to parliament power periodically to revise the tolls granted under it. Such revision would secure to the public a participation in future improvements, not in the contemplation of the parties when the project was entered upon; and it would do this without in any degree clogging the spirit of enterprise. Undertakings of this sort are not engaged in because there is a vague expectation, or even a considerable probability, of their yielding 20 or 30 per cent. profit some 30 or 40 years hence; but because it is believed that they will immediately, or in the course of a few years, yield a reasonable profit; that is, a return of 8, 10, or 12 per cent. The chances of realising more than this at the distance of 20 or 25 years are rarely taken into account, and are worth very little indeed. This, however, is *all* that would be taken away by the revision in question; and while a reservation of this sort would not stand in the way of any legitimate enterprise, the history of several of our existing companies shows that it may come to be of essential service to the public. Had this principle been formerly acted upon in the formation of companies for the execution of public works, the charges on some of the principal lines of canal might, long since, have been reduced to less than half their present amount; and the water brought into the city of London by the New River Company might have been sold for less than one fourth part what it now costs; and so in a vast number of cases.

It has been objected to the proposal now made, that the reserving to the public of power to revise the charges on railways, and other public works, would be of no use, inasmuch as the parties would contrive so to swell their charges as to make their revenue appear not more than a fair return on their outlay. And such, most probably, would be the case, were the statements of the parties to be taken without examination. But who ever proposed that this should be done? If charges are to be revised, government must be authorised to appoint parties to inquire carefully into the management of all concerns with which it is proposed to interfere: and it would be the duty of such parties to proscribe every useless expense; and to ascertain how the railway could be carried on, supposing it were wrought under a system of open competition, and at the least expense, and to frame their report accordingly.

And this principle, we are glad to say, was sanctioned in 1844, by the 7 & 8 Vict. c. 85., which gives to government the option of purchasing, on certain conditions, at the expiration of 21 years from their construction, all railways formed subsequently to the passing of the act. This statute, also, provides for the publication of railway accounts, for the running of cheap trains, &c.

Regulations for the Prevention of Accidents. — Considering the immense extent of railways in this country, and the vast number of passengers conveyed by them, the fewness of accidents is most remarkable. Indeed their greater security appears to be nowise inferior to their greater speed. Still, however, this is a matter in which as little as possible should be left to accident or individual discretion; and considering the number of persons frequently conveyed by a single train, and the tremendous consequences that might ensue from a collision or other accident, all that it is possible to do should be done with a view to secure the safety of travellers by railways. And, should an accident occur, either through the neglect of regulations for their guidance, or from not complying with their provisions, the offending parties should be subjected to penalties of a severe and stringent description. A government which neglects enforcing precautions of this sort, neglects one of its most important functions; and allows the lives of those whom it is bound to protect to be endangered or sacrificed by the cupidity, ignorance, or carelessness of the managers and servants (how incompetent soever they may be) of every railway association in the kingdom.

Railway Mania of 1845. — The summer and autumn of 1845 and the earlier portion of 1846 witnessed the rise and development of a most gigantic railway speculation or mania. Various circumstances conspired to bring this about. The advantages which railways conferred on the country generally, and especially on the districts through which they passed, recommended them to the public patronage and support. Most branches of industry were also, in 1845, in a more than ordinarily prosperous condition; and large dividends (whether really derived from profits is questionable) being paid by some of the principal lines, their stock rapidly rose to a high price. These circumstances inflamed the cupidity of the public, who began to imagine that speculation in railway shares afforded the shortest and easiest means of acquiring wealth. Hence an extraordinary stimulus was given to all sorts of projects, which were multiplied with an almost inconceivable rapidity. Of these a few were well devised and judicious; and were patronised by gentlemen of wealth, respectability, and experience. But the great majority were of a totally opposite description, being got up by parties anxious only to profit by the credulity of the public, and founded on plans which could not be executed, or which, if executed, would be ruinous. And yet such was the disposition of the public to take *omne ignotum pro magnifico*, that shares in these swindling devices, for such was their real character, were greedily bought up at high premiums, which, of course, went into the pockets of the members of parliament, attorneys, and engineers, by whom the traps had been set and the hooks baited. It is difficult, indeed, to imagine

any more disgraceful exhibition of fraud and quackery on the one part, and of folly and voracity on the other, than was displayed during the autumn of 1845 and the spring of 1846, by the manufacturers and buyers of railway shares. Some 700 or 800 new projects, requiring, it was stated, a capital of about as many hundred millions, were spawned during this gambling saturnalia; and of these it would be a high estimate to say there were 100 which held out any legitimate prospect of remunerating their projectors. The great majority of the others were never, indeed, intended to do more than to transfer the money of the unwary dupes who bought shares into the pockets of the crafty directors by whom they were issued; and thus far, some of them answered the views of their projectors. Luckily, however, this was not the case with others; not a few of those who dug the pit-falls having themselves fallen into them.

But despite the number of schemes that were abandoned, it is nevertheless true that in 1845 and 1846, no fewer than 347 acts were carried through parliament, authorising the construction of 7,654 miles of railway, at an estimated cost of 190,344,087*l.* sterling.

Under any circumstances, such gigantic, and generally ill-advised, undertakings must have involved the parties in vast loss. In this case the depressing influence of the heavy railway calls on the money market, having been increased by the failure of the potato crop of 1846, occasioned the greatest difficulty in obtaining pecuniary accommodations, and led to the crisis of 1847. In consequence many of the projects for which acts had been obtained sunk into oblivion, while others have been very imperfectly carried out. An extraordinary fall has, also, taken place in the value of the stock even of the best lines. And this is not to be wondered at. The vast expenses which many companies have incurred in overcoming the opposition to their undertakings, and in the construction of their lines, occasioned an outlay which, if it were to be met at all, could only be met by enforcing the severest economy in the management of the lines. This, however, even when there is a desire to enforce it, is carried out with difficulty. And in the case of railways, the interests of the engineers and others concerned in their management are usually opposed to those of the companies; so that it would be idle to expect that the affairs of the latter should generally exhibit any considerable portion of the care, vigilance, and economy manifested in private undertakings.

The recklessness, too, with which the directors of the great or leading railways have engaged in subsidiary undertakings, or in the construction or purchase of branch lines many of which have been attended with heavy losses, has had a powerful influence in depressing the value of their property. For a while, too, all railway companies suffered more or less from the discredit and suspicion which, however undeservedly, have attached to railway boards. It was found that some leading directors, in whose sagacity and honesty the public reposed all but unlimited confidence, had been, in fact, nothing but gigantic swindlers; their sole object (in which it is to be hoped they have been disappointed) having been to enrich themselves by defrauding and robbing their constituents and the public. And these disclosures also showed that, if the boards of directors associated with the parties now referred to did not actively assist them in their fraudulent schemes, they, at all events, opposed no effectual obstacle to their development. Hence the just discredit that has attached to most railway companies. Some of them put forward detailed statements of their affairs; but these, how accurate soever, obtained but little confidence. This ignorance was, however, alike prejudicial to the public interests, and to those of all really well managed companies, and was at once an incentive to and a cloak for all sorts of nefarious practices. This state of things is now, however, considerably improved. But a vast deal still remains to be done before the constitution of railway companies and the management of railways be placed on a satisfactory footing.

At present (August, 1859) the shares of by far the greater number of railways are at a heavy discount; and at an average the dividends derived from them are not supposed to amount to 3 per cent.

Traffic on Railways. — Comparative Statement of the Traffic on all the Railways in the U. Kingdom for the 8 Years ending with 1857.

Years	Length of Railway.	Number of Passengers.	Receipts from Passengers.	Receipts from Goods.	Total Receipts.	Years	Length of Railway.	Number of Passengers.	Receipts from Passengers.	Receipts from Goods.	Total Receipts.
	Miles.		£	£	£		*Miles.*		£	£	£
1850	6326·5	72,854,122	6,827,761	6,776,907	13,204,668	1854	7346·5	111,206,707	9,174,945	11,040,779	20,215,724
1851	6755·5	85,391,093	7,940,761	7,056,695	14,997,159	1855	8177	118,595,135	9,525,205	11,982,394	21,507,599
1852	7115	89,135,729	7,763,993	7,946,561	15,710,554	1856	8502	129,347,592	10,153,745	13,011,748	23,165,493
1853	7488·5	102,286,660	8,561,077	9,174,802	18,035,879	1857	8901	139,008,888	10,592,798	13,581,812	24,174,616

Account showing the Number and Description of Persons Killed and Injured on all the Railways open for Public Traffic in the U. K. during the Years 1856 and 1857.

Description of Persons.	1856.		1857.	
	Killed.	Injured.	Killed.	Injured.
Passengers killed or injured from causes beyond their own control	8	282	25	631
Passengers killed or injured owing to their own misconduct or want of caution	19	16	23	15
Total number of passengers killed or injured	27	298	48	646
Servants of companies or of contractors killed or injured from causes beyond their own control	30	46	18	39
Servants of companies or of contractors killed or injured owing to their own misconduct or want of caution	112	34	75	34
Other persons crossing at level crossings	28	2	25	5
Trespassers	67	7	54	14
Suicide	4		6	
Miscellaneous	13	7	10	
Total	281	394	256	738
Total number of passengers conveyed	129,547,592		139,008,888	

Number of miles of railway open on the 31st December, 1851, amounted to - - 6,889
Number open on the 31st December, 1857 - - - - - - - - 9,116

The total length of railway authorised by parliament up to the 31st December, 1857, amounted to 13,827 miles, of which there were open at that period 9,116 miles.

The total capital (in shares and loans) raised and paid up to the 31st December, 1857, amounted to 314,986,826*l.*

The number of persons employed on all the railways open for traffic on the 30th June, 1857, amounted to 109,660; and the number employed on those in course of construction to 44,037; making a total of 153,697.

Account of the Length, Number of Shares, Sums paid up, Selling Price of the Shares, &c. of the Principal Railways of the U. Kingdom in 1858.

Railways.	Length in Miles.	Number of Shares.	Amount per Share.	Amount per Share paid up.	Selling Price per Share.	Dividend per Annum.
			£	£	£	£
Birkenhead, Lancashire and Cheshire	33	stock	100	100	73	2 per cent.
Bristol and Exeter	117	,,	100	100	97	5
Caledonian	198¾	,,	100	100	83	3½
Dublin and Drogheda	63					4½
Dundee and Arbroath	17					5
Dundee, Perth, and Aberdeen	31					
East Anglian	68	stock	100	100	15½	
Edinburgh, Perth, and Dundee	78	,,	100	100	98	
Eastern Counties	489	,,	100	100	59½	2 16 3
Do. Eastern Union					43	1 13 3
Do. Norfolk					62	3 4 0
East Lancashire	111	,,	100	100	95	3 17 6
Edinburgh and Glasgow	142	,,	100	100	75	3 2 6
Great Northern and East Lincolnshire	283	,,	100	100		4 15 0
Great North of Scotland	53¾					2 6 0
Great Southern and Western (Irish)	226	stock	100	100	107	5
Great Western	466	,,	100	100	60	1½
Lancashire and Yorkshire	289	,,	100	100	95⅝	3 17 6
London and North-Western	756	,,	100	100	95⅝	4
London and Blackwall	5½	,,	100	100	68	2 15 9
London, Brighton, and South Coast	192	,,	100	100	114	6
London and South-Western	284½	,,	100	100	96	5
Manchester, Sheffield, and Lincolnshire	173½	,,	100	100	37	
Midland, Bristol, and Birmingham	614¼	,,	100	100	81	4 17 6
Midland Great Western (Irish)	177	20,000	50	50	5	
Monklands	52					7½
North British	149	stock	100	100	57⅞	3½
North-Eastern: Berwick	814	,,	100	100	93½	4½
York					76½	5½
Leeds					47½	2
North London	9	,,	100	100	103	5
Oxford, Worcester, and Wolverhampton	94	,,	100	100	34	
Scottish Central	50	,,	100	100	112	5 7 6
Scottish North-Eastern	115	,,	100	100	26	
Shrewsbury and Chester	49					3½
South-Eastern	302	stock	100	100	75	4
South Devon	58	,,	100	100	44	1½
South Wales	171¾	,,	100	100	64	4½
South Yorkshire, Don, and Goole	108	,,	100	100	67	2½
Taff Vale	40					7½

A duty is paid to government, by railway companies, of 5 per cent. on all sums received by them for the conveyance of passengers at fares above 1*d.* per mile; the receipts derived from passengers by cheap trains, or from fares not exceeding 1*d.* per mile, being exempted from the duty. In 1858–59 the railway tax produced 339,569*l.* This, however, is insufficient to indemnify the companies for the expense of conveying the mails; the charge for this service having amounted, in 1857, to no less than 422,943*l.* When the post-office and a railway company differ as to the sum to be paid to the latter for conveying the mail, the matter is referred to arbitration.

Continental Railways. — The railway system has made great progress on the Continent and in the U. States. Paris, Rouen, and Havre, have been united by railway. Lines have also been constructed from Paris to Orleans, Tours, and Bordeaux, and from Paris to Lyons, and thence to Marseilles. This last is of peculiar importance to this country, from its influence in facilitating the correspondence with the

East. A large amount of English capital has been invested in the French railways; and some of them have been constructed by English engineers.

Belgium, as everybody knows, has numerous railways; and they have been extended in Germany, Italy, and even Spain, to a degree that one could hardly have anticipated. At present some very extensive railways are being constructed in Russia.

The railways of the U. States are exceedingly numerous, and some of them are of great length. But, speaking generally, they are not so substantially executed, and have not been nearly so expensive, as those of this country. Many of them consist only of a single pair of rails, with double pairs at certain intervals to admit of the trains passing. — (See *Supplement.*)

RAISINS (Fr. *Raisins secs, ou passés;* Ger. *Rosinen;* It. *Uve passe;* Por. *Passas;* Rus. *Issum;* Sp. *Pasas*), the dried fruit of the vine. They are produced from various species of vines; deriving their names partly from the place where they grow, as Smyrnas, Valencias, &c.; and partly from the species of grape of which they are made, as muscatels, blooms, sultanas, &c. Their quality appears, however, to depend more on the method of their cure than on anything else. The finest raisins are cured in two methods; — either by cutting the stalk of the bunches half through, when the grapes are nearly ripe, and leaving them suspended on the vine till the watery part be evaporated, and the sun dries and candies them; or by gathering the grapes when they are fully ripe, and dipping them in a ley made of the ashes of the burnt tendrils; after which they are exposed to the sun to dry. Those cured in the first way are most esteemed, and are denominated raisins of the sun. The inferior sorts are very often dried in ovens. — (*Thomson's Dispensatory.*)

Raisins are imported in casks, barrels, boxes, and jars. The finest come in jars and ½ boxes weighing about 25 lbs. Some of the inferior sorts are brought to us in mats.

Malaga raisins are in the highest estimation. The muscatels from Malaga fetch fully a third more than any other description of raisins. The Smyrna black is the cheapest variety, and may average from 30*s.* to 40*s.* a cwt., duty included; muscatels vary from 70*s.* to 75*s.*, duty included. But the price depends much on the season, and the period of the year. — (See MALAGA.)

The duty on raisins, which formerly amounted to 20*s.* a cwt. on the inferior sorts, and to 42*s.* 6*d.* on the finest, was reduced in 1834 to 15*s.* a cwt. on all classes. We took occasion in a former edition of this work to remark on this measure as follows: "This reduction has occasioned a very considerable increase of consumption; but the truth is, that the duty is still quite exorbitant, being no less than 100 per cent. *ad valorem* (and sometimes more) on the price of most descriptions. Raisins are a luxury that can at present be enjoyed only by the richer classes. But were the duty reduced, as it should be, to 10*s.* a cwt., we are well assured that they would be very largely consumed by the middle and even lower classes. Nothing but the magnitude of the duties prevents them from becoming of very considerable importance as an article of food: and it is really quite monstrous, that the public should be debarred from the use of a desirable article, on the pretence of its being necessary, in order to keep up the revenue, that it should be loaded with an oppressive duty. We admit the importance of keeping up the revenue; but so far from exorbitant duties having such an effect, they contribute more than anything else to its reduction. They invariably limit the consumption of the articles on which they are laid to the richest classes, or cause them to be clandestinely supplied, or force recourse to other articles; reducing the revenue as well as the consumption far below the level to which it would attain were the duties moderate. But it is needless to reason speculatively on such a point. Have we not seen the revenue derived from spirits increased, by reducing the duty from 5*s.* 6*d.* a gallon to 2*s.* 6*d.*? and the revenue derived from coffee quadrupled by reducing the duty from 1*s.* 7*d.* per lb. to 6*d.*? And, as most qualities of raisins are but little less overtaxed, have we not every reason to expect that a like effect would be produced by an adequate reduction of the duties by which they are burdened?"

We are glad to be able to state that this view of the matter was taken by Mr. Gladstone, who, in 1853, reduced the duty on raisins from 15*s.* 9*d.* (15*s.* + 5 per cent.) to 10*s.* a cwt.

Exclusive of raisins, a considerable quantity of undried grapes is annually imported from Spain and Portugal, in jars packed in sawdust. The duty on these grapes, which produced in 1857, 78*l.* is 2*d.* per bushel.

Since 1853 the imports of raisins have been as follows, viz:—

	1853.	1854.	1855.	1856.	1857.	1858.
Imports	446,997	286,857	301,284	266,593	326,852	357,485 cwts.

Of the imports in 1857, no fewer than 231,854 cwt. were brought from Spain, 66,305 cwt. from Turkey, and 10,883 from Austrian Italy. Computed value of the imports 739,607*l.*, varying from 2*l.* to 2*l.* 9*s.* per cwt. Entries for consumption 185,136 cwt.

RANGOON, a commercial port and town of the Burmese dominions, about 26 miles from the sea, on the left bank of the eastern branch of the river Irawaddy, in lat. 16° 42′ N., lon. 96° 20′ E. The town and suburbs extend lengthwise about 1 mile along the bank of the river, being about ¾ of a mile in depth: but the houses are very unequally scattered over this area. The fort, or rather wooden stockade, which contains the town, properly so called, is a regular square about 14 feet high, composed of heavy beams of teak timber. It appears from a census, taken a short time previously to the commencement of the war in 1824, that the population was 18,000, which, probably, is not far from its present amount, though it has been stated considerably higher.

Rangoon is the chief, and, indeed, almost the only port of foreign trade in the Burmese dominions, which extend from between the 15th and 16th, up to the 26th and 27th degrees of N. lat., and from the 93rd to the 98th degree of E. lon., containing an area of about 184,000 square miles, with a population of about 4,000,000. Its situation is extremely convenient for commercial purposes, being situated so near the sea, and commanding the navigation of the Irawaddy, which extends to Ava, the capital, a distance of nearly 500 miles. Rangoon is accessible to ships of even 1,200 tons burden; the navigation, although somewhat intricate, being safe and practicable with the assistance of the ordinary native pilots.

The town has many advantages for ship building. At neaps the tide rises and falls about 18 feet; and at springs from 25 to 30 feet. The principal teak forests are, at the same time, at a comparatively short distance, and there is a water conveyance for the timber nearly the whole way. Ship building has, in fact, been carried on at Rangoon since 1786, and in the 38 years which preceded our capture of it, there had been built 111 square rigged vessels of European construction, the total burden of which amounted to above 35,000 tons. Several of these were of from 800 to 1,000 tons. Under the direction of European masters, the Burmese were found to make dexterous and laborious artisans; in this respect, greatly surpassing the natives of our Indian provinces.

There are 2 considerable markets, where the ordinary necessaries of life, according to Burmese usage, are cheap and abundant: these are rice, excellent fish, and poultry.

Money.—The Burmese currency consists, for small payments, of lead; for larger ones, of gold and silver, but chiefly of the latter. There are no coins. At every payment, the metal must be weighed, and very generally assayed,—a rude and very inconvenient state of things. The weights used in the weighing of money are the same as those used on ordinary occasions; the kyat or tical, and the paiktha or vis, being by far the most frequent. Silver may be considered as the standard. Gold is generally held to be about 17 times more valuable than silver. The weighing and assaying of the metals used as currency, gives employment to a class of persons as brokers, money changers, and assayers. Every new assay costs the owner, if the metal be silver, 2½ per cent.; 1½ per cent. being the established commission of the assayers, while 1 per cent. is lost, or supposed to be lost, in the operation. If it be repeated 40 times, it follows that the original amount is wholly absorbed,—a fact which shows the enormous waste of metal arising out of this rude substitute for coin.

Weights. — The weights in use at Rangoon, and throughout the Burman dominions, are as follow: —

2 Small Rwés (red beans) = 1 Large Rwé.	2 Mus = 1 Mat'h.
4 Large do. = 1 Bai.	4 Mat'hs = 1 Kyat, *vulgo* Tical
2 Bais = 1 Mu.	100 Kyats = 1 Paiktha, *vulgo* Vis, = 3·65 lbs., avoir.

Measures of capacity are as follow. —

2 Lamyets	= 1 Lamé.	4 Salés	= 1 Pyi.	2 Sarots	= 1 Sait.
2 Lamés	= 1 Salé.	2 Pyis	= 1 Sarot.	4 Saits	= 1 Ten.

This last measure is what is usually called by us "a basket," and ought to weigh 16 vis of clean rice or 58·4 lbs. avoirdupois: it has commonly been reckoned at ¼ a cwt. All grains, pulses, certain fruits, natron, salt, and lime are bought and sold by measure: other commodities by weight.

Commercial Regulations. — The following commercial treaty, entered into between the government of England and the Court of Ava, in 1826, regulates the intercourse between the two countries: —

Art. 1.—Peace being made, &c. &c. — when merchants with an English certified pass from the country of the English ruler, and merchants from the kingdom of Burma pass from one country to the other, selling and buying merchandise, the sentinels at the passes and entrances, the established gate-keepers of the country, shall make inquiry as usual, but without demanding any money; and all merchants coming truly for the purpose of trade, with merchandise, shall be suffered to pass without hindrance or molestation. The governments of both countries, also, shall permit ships with cargoes to enter ports and carry on trade, giving them the utmost protection and security. And in regard to duties, there shall none be taken beside the customary duties at the landing places of trade.

Art. 2.—Ships whose breadth of beam on the inside (opening of the hold) is 8 royal Burman cubits, of 19·1 English inches each, and all ships of smaller size, whether merchants from the Burmese country entering an English port under the Burmese flag, or merchants from the English country, with an English stamped pass, entering a Burmese port under the English flag, shall be subject to no other demands beside the payment of duties and 10 ticals, 25 per cent. (10 sicca rupees), for a passport on leaving. Nor shall pilotage be demanded, unless the captain voluntarily requires a pilot. However, when ships arrive, information shall be given to the officer stationed at the entrance of the sea. In regard to vessels whose breadth of beam exceeds 8 royal cubits, they shall remain, according to the 9th article of the treaty of Yandabo, without unshipping their rudders or landing their guns, and be free from trouble and molestation as Burmese vessels in British ports. Besides the royal duties, no more duties shall be given or taken than such as are customary.

Art. 3. — Merchants belonging to one country, who go to the other country and remain there, shall, when they desire to return, go to whatever country and by whatever vessel they may desire, without hindrance. Property owned by merchants they shall be allowed to sell. And property not sold, and household furniture, they shall be allowed to take away, without hindrance, or incurring any expense.

Art. 4. — English and Burmese vessels meeting with contrary winds, or sustaining damage in masts, rigging, &c., or suffering shipwrecks on the shore, shall, according to the laws of charity, receive assistance from the inhabitants of the towns and villages that may be near, the master of the wrecked ship paying to those that assist suitable salvage, according to the circumstances of the case; and whatever property may remain, in case of shipwreck, shall be restored to the owner.

Commerce. — A considerable intercourse is carried on between the Burmese and Chinese dominions by an annual caravan, of which the merchants are all Chinese. The imports from China consist of manufactured articles, the chief export from Burma being cotton wool. The trade with foreign countries seaward is carried on with the ports of Chittagong, Dacca, and Calcutta, in Bengal; Madras and Masulipatam, on the Coromandel coast; the Nicobar Islands, in the Bay of Bengal; Penang, in the Straits of Malacca; and occasionally with the Persian and Arabian Gulphs. The largest trade is with Calcutta, owing to the great consumption of teak timber in the latter, and the facility with which she supplies the demand of the Burmese for Indian and British cotton goods. The articles exported to foreign countries from Rangoon are the following: — Teak wood, terra Japonica, or catechu, stick lac, bees' wax, elephants' teeth, raw cotton, orpiment, commonly called in India hurtal, gold, silver, rubies, sapphires, and horses, or rather the small, hardy pony of the country, which is much esteemed, particularly at Madras. By far the most important of these commodities is teak timber; the quantity of this wood annually exported is said to be equal to 7,500 full-sized trees, which, for the most part, consist of what Indian ship builders call *shinbin*, which are planks hewn out of the log with the adze at an immense waste. The teak forests of Pegu are by far the most abundant in India. The teak is nowhere to be found in the low alluvial lands to which the tide reaches, but abounds in the high lands beyond its influence. It seems to be very generally disseminated throughout the Burmese dominions. In the territory ceded to the British in Martaban, there are some fine forests, the timber of which is cut down for exportation, and where it is believed that saw-mills have very recently been established by some European settlers. The most accessible and extensive forests of teak in the Burmese dominions are in the province of Sarawadi, about 150 miles to the north of Rangoon, with which there is a water communication. The principal imports into Burma are cotton piece goods from India and Britain, British woollens, iron, steel, quicksilver, copper, cordage, borax, sulphur, gunpowder, saltpetre, fire-arms, coarse porcelain, English glass ware, opium, tobacco, cocoa and areca nuts, sugar, and spirits. Of these, by far the most important is cotton piece goods. The Burmese have few cotton manufactures of their own, and appear, from very early times, to have been furnished with the principal part of their supply from the Coromandel coast. To these were afterwards added the cheaper fabrics of Bengal; and both are now, in a great measure, superseded by British manufactures, the use of which has spread very rapidly since the opening of the trade in 1814. In 1826-27, the exports and imports of the port of Rangoon were estimated each at the rate of 300,000*l.*

It is a curious fact that our friend Mr. John Crawfurd, who supplied us with materials for the foregoing account of Rangoon, which he gathered on the spot, does not even allude to rice as an article of export. But, such has been the change in the interval, that it is now the principal article shipped from the town. And while about a dozen years ago the exports of rice were little or nothing, they amounted to 58,563 tons in 1856, and to 112,561 in 1858. See art. RICE in this work.

RAPE, a biennial plant of the turnip kind (*Brassica napus* Lin.), but with a woody fusiform root scarcely fit to be eaten. It is indigenous, flowers in May, and ripens its seeds in July. It is cultivated in many parts of England, particularly in Lincoln and Cambridge; partly on account of its seed, which is crushed for oil, and partly for its leaves as food for sheep. The culture of rape for seed has been much objected to by some, on account of its supposed great exhaustion of the land; but Mr. Loudon says that, where the soil and preparation are suitable, the after-culture properly attended to, and the straw and offal, instead of being burnt, as is the common practice, converted to the purposes of feeding and littering cattle, it may, in many instances, be the most proper and advantageous crop that can be employed by the farmer. The produce, when the plant succeeds well, and the season is favourable for securing the seed, amounts to from 40 to 50 bushels an acre. The seed is sold by the last of 10 quarters; and is crushed in mills constructed for that purpose. — (*Loudon's Ency. of Agriculture.*)

In 1857 we imported 220,495 qrs. rapeseed, of the estimated value of 653,305*l.* The imports from India were 144,894 qrs., being more than half the whole. The residue was principally supplied by Denmark, Russia, and Wallachia. The exports during the same year amounted to 48,392 qrs.

The duties on rapeseed and rapeseed oil were repealed in 1845.

RAPE CAKE is the adhering masses of the husks of rapeseed, after the oil has been expressed. They are reduced to powder by a malt-mill or other machine; and are used either as a top-dressing for crops of different kinds, or are drilled along with turnip seed.

RATTANS, OR CANES, the long slender shoots of a prickly bush (*Calamus rotang* Lin.), one of the most useful plants of the Malay peninsula and the Eastern islands. They are exported to Bengal, to Europe, and above all to China, where they are consumed in immense quantities. For cane work they should be chosen long, of a bright pale yellow colour, well glazed, and of a small size, not brittle, or subject to break. They are purchased by the bundle, which ought to contain 100 rattans, having their ends bent together, and tied in the middle. In China they are sold by the picul, which contains from 9 to 12 bundles. Such as are black or dark coloured, snap short, or from which the glazing flies off on their being bent, should be rejected. When stowed as dunnage, they are generally allowed to pass free of freight. — (*Milburn's Orient. Com. &c.*)

In 1857, we imported 10,363,758 canes, whereof 4,082,019 were from British India, and 4,246,425 from Holland, that is, from her possessions in the East. The exports are inconsiderable.

"The rattan," says Mr. Crawfurd, "is the spontaneous product of all the forests of the Archipelago; but exists in great perfection in those of the islands of Borneo, Sumatra and of the Malayan peninsula. The finest are produced in the country of the *Bataks* of Sumatra. The wood-cutter, who is inclined to deal in this article, proceeds into the forest without any other instrument than his *parang* or cleaver, and cuts as much as he is able to carry away. The mode of performing the operation is this:—he makes a notch in the tree at the root of which the rattan is growing, and cutting the latter, strips off a small portion of the outer bark, and inserts the part that is peeled into the notch. The rattan now being pulled through, as long as it continues of an equal size, is by this operation neatly and readily freed from its *epidermis*. When the wood-cutter has obtained by this means from 300 to 400 rattans,—being as many as an individual can conveniently carry in their moist and undried state,—he sits down, and ties them up in bundles of 100, each rattan being doubled before being thus tied up. After drying, they are fit for the market without further preparation. From this account of the small labour expended in bringing them to market, they can be sold at a very cheap rate. The Chinese junks obtain them in Borneo at the low rate of 5 Spanish dollars per 100 bundles, or 5 cents for each 100 rattans, or 27 for 1*d.* The natives always vend them by tale; but the European residents and the Chinese sell them by weight, counting by piculs. According to their quantity, and the relative state of supply and demand, the European merchants dispose of them at from 1½ to 2½ dollars the picul. In China, the price is usually about 3½ dollars per picul, or 75 per cent. above the average prime cost. In Bengal they are sold by tale, each bundle of about 100 rattans bringing about 20½*d.*" — (*Indian Archipelago*, vol. iii. p. 423.)

REAL, in the Spanish monetary system, is of two sorts; viz. a *real of plate*, and a *real vellon*. The former is a silver coin, varying in value from about 6½*d.* to 5*d.*—(See COINS.) A real vellon is a money of account, worth about 2½*d.*

REAM, a quantity of paper. The ream of writing paper consists of 20 quires, each of 24 sheets: but the ream of printing paper, or, as it is sometimes called, the *printer's ream*, extends to 21½ quires, or 516 sheets. Two reams of paper make a *bundle*.

RECEIPT, is an acknowledgment in writing of having received a sum of money, or other valuable consideration. It is a voucher either of an obligation or debt discharged, or of one incurred.

In 1795 duties were imposed on all notes, memorandums, or writings, given in acknowledgment of the receipt of money in payment of debt. And parties writing receipts on unstamped paper, or giving receipts for smaller sums than those actually received, were subjected to penalties. These duties have undergone various mutations. They usually varied according to the amounts received; but they were not fair *ad valorem* duties, the sums charged on receipts for small amounts being proportionally much greater than those charged on receipts for larger amounts. Thus, while a receipt for 10*l.* was charged with a duty of 3*d.*, a receipt for 1000*l.* was charged with a duty of 10*s.*, whereas had the fair *ad valorem* principle been properly carried out, it should have been charged with a duty of 25*s.*

In 1852, the receipt duty produced 180,491*l.*, inc. 143,457*l.* for England, 16,103*l.* for Scotland, and 20,921*l.* for Ireland.

A good deal of dissatisfaction having been long prevalent with the receipt duty, and being also very extensively evaded, it was changed in 1853 to a duty of 1*d.* on all receipts for sums of 2*l.* and upwards. A new duty of 1*d.* was at the same time, and by the same act, the 16 & 17 Vict. c. 59. imposed on all drafts or orders payable to order on demand. Such duty does not, however, apply to drafts or orders payable *at sight;* nor does it apply to checks or drafts payable to bearer, drawn within the legal distance (15 miles) of the bank at which they are to be paid. In the year ending the 31st March, 1859, these duties produced 418,619*l.* nett, being 390,615*l.* for G. Britain, and 28,004*l.* for Ireland.

The act lays down that "the following instruments shall be deemed and taken to be drafts or orders for the payment of money within the intent and meaning of this act, and of any act or acts relating to the stamp duties on bills of exchange, drafts, or orders, and shall be chargeable accordingly with the stamp duties imposed by this act or any such act or acts; viz:—

"All documents or writings usually termed letters of credit, or whereby any person to whom any such document or writing is or is intended to be delivered or sent shall be entitled, or be intended to be entitled to have credit with, or in account with, or to draw upon any other person for, or to receive from such other person any sum of money therein mentioned."

The act also grants the following exemptions from the duty on receipts, viz:—"Receipts given for money deposited in any bank, or in the hands of any banker, to be accounted for, whether with interest or not; provided the same be not expressed to be received of or by the hands of any other than the person to whom the same is to be accounted for: Provided always, that this exemption shall not extend to receipts or acknowledgments for sums paid or deposited for or upon letters of allotment of shares, or in respect of calls upon any scrip or shares of or in any Joint Stock or other Company or proposed or intended Company, which said last-mentioned receipts or acknowledgments, by whomsoever given, shall be liable to the duty by this act charged on receipts."

Stamps denoting the Duty of 1*d. on Receipts and Drafts may be impressed or affixed.*—The duties of 1*d.* by this act granted on receipts and on drafts or orders for the payment of money respectively may be denoted either by a stamp impressed upon the paper whereon any such instrument is written, or by an adhesive stamp affixed thereto, and the Commissioners of Inland Revenue shall provide stamps of both descriptions for the purpose of denoting the said duties.—16 & 17 Vict. c. 59. § 3.

Where adhesive Stamps are used to denote the Duties on Receipts, &c.—In any case where an adhesive stamp shall be used for the purpose aforesaid on any receipt or upon any draft or order respectively chargeable with the duty of 1*d.* by this act, the person by whom such receipt shall be given or such draft or order signed or made shall, before the instrument shall be delivered out of his hands, custody, or power, cancel or obliterate the stamp so used, by writing thereon his name or the initial letters of his name so and in such a manner as to show clearly and distinctly that such stamp has been made use of, and so that the same may not be again used; and if any person who shall write or give any such receipt or discharge or make or sign any such draft or order with any adhesive stamp thereon, shall not *bonâ fide* in manner aforesaid effectually cancel or obliterate such stamp, he shall forfeit the sum of 10*l.*—§ 4.

Penalty for committing Frauds in the Use of Stamps.—If any person shall fraudulently get off or remove, or cause or procure to be gotten off or removed, from any paper whereon any receipt or any draft or order shall be written, any adhesive stamp, or if any person shall affix or use any such stamp which shall have been gotten off or removed from any paper whereon any receipt or any draft or order shall have been written, to or for any receipt, draft, or order, or any paper whereon any such receipt, draft, or order shall be or be intended to be written; or if any person shall do or practise or be concerned in any fraudulent act, contrivance, or device whatever, not specially provided for by this or some other act of parliament, with intent or design to defraud H. Majesty of any duty by this act granted upon receipts or upon drafts or orders, every person so offending in any of the said several cases shall forfeit the sum of 20*l.*—§ 5.

REGISTRY, in commercial navigation, the registration or enrolment of ships at the Custom-house, so as to entitle them to be classed among, and to enjoy the privileges of, British-built ships.

The registry of ships appears to have been first introduced into this country by the Navigation Act (12 Car. 2. c. 18. anno 1660). Several provisions were made with respect to it by the 7 & 8 Will. 3. c. 22.; and the whole was reduced into a system by the 27 Geo. 3. c. 19., but this has since been materially altered. To be admitted to registry, and consequently to enjoy the privileges and advantages that exclusively belong to a British ship, all that is now required is, that such ship be *bonâ fide* the property of one or more of her Majesty's subjects in the U. Kingdom or some of its dependencies.

The great, and, perhaps, the only original object of the registration of ships was to facilitate the exclusion of foreign ships from those departments in which they were prohibited from engaging by the navigation laws, by affording a ready means of distinguishing such as were really British. It has also been considered advantageous to individuals by preventing the fraudulent assignment of property in ships. Lord Tenterden, however, has observed, in reference to this supposed advantage, that "the instances in which fair and honest transactions are rendered unavailable through a negligent want of compliance with the forms directed by these and other statutes requiring a public register of conveyances, make the expediency of all such regulations, considered with reference to private benefit only, a matter of question and controversy."—(*Law of*

Shipping, part i. c. 2.) But these results are ascribable rather to the mode of registration than to the registry itself. The latter appears to be necessary to give certainty of title; a national and distinctive character to shipping; and for the establishment of a uniform system of admeasurement, the charges on shipping being almost always dependent on the registered tonnage.

The existing regulations as to the registry of ships are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104., as follows, viz.: —

Registrars of British Ships.—The following persons are required to register British ships, and shall be deemed registrars for the purposes of this act, viz.—

(1.) At any port or other place in the U. K. or Isle of Man approved by the commissioners of customs for the registry of ships, the collector, comptroller, or other principal officer of customs for the time being.
(2.) In the islands of Guernsey and Jersey, the principal officers of H. M.'s customs, together with the governor, lieutenant-governor, or other person administering the government of such islands respectively.
(3.) In Malta, Gibraltar, and Heligoland, the governor, lieutenant-governor, or other person administering the government of such places respectively.
(4.) At any port or place so approved, as aforesaid, within the limits of the charter but not under the government of the E. I. Company, and at which no custom house is established, the collector of duties, together with the governor, lieutenant-governor, or other person administering the government.
(5.) At the ports of Calcutta, Madras, and Bombay, the master attendants, and at any other port or place so approved as aforesaid within the limits of the charter and under the government of the E. I. Company, the collector of duties, or any other person of six years' standing in the civil service of the said company who is appointed by any of the governments of the said company to act for this purpose.
(6.) At every other port or place so approved as aforesaid within H. M.'s dominions abroad, the collector, comptroller, or other principal officer of customs or of navigation laws, or if there is no such officer resident at such port or place, the governor, lieutenant-governor, or other person administering the government of the possession in which such port or place is situate.—§ 30.

Substitution of Governor abroad for Commissioners of Customs, &c.—The governor, lieutenant-governor, or other person administering the government in any British possession where any ship is registered under the authority of this act shall, with regard to the performance of any act or thing relating to the registry of a ship or of any interest therein, be considered in all respects as occupying the place of the commissioners of customs; and any British consular officer shall, in any place where there is no justice of the peace, be authorised to take any declaration hereby required or permitted to be made in the presence of a justice of the peace.—§ 31.

Registrar to keep Register Books.—Every registrar shall keep a book, to be called "the register book," and enter therein the particulars herein-after required to be registered.—§ 32.

Port of Registry of Ship.—The port or place at which any British ship is registered for the time being shall be considered her port of registry or the port to which she belongs.—§ 33.

Name of Ship.—The following rules shall be observed with respect to the names of British registered ships; (that is to say,)

(1.) Before registry, the name of each ship, and of the port to which she belongs, shall be painted on a conspicuous part of her stern, on a dark ground, in white or yellow letters of a length not less than 4 inches.
(2.) No change shall be made in the name of any registered ship.
(3.) No concealment, absence, or avoidable obliteration of the above names shall be permitted, except for the purpose of escaping capture by an enemy.
(4.) The ship shall not be described, by or with the knowledge of the owner or master, by any name other than the one by which she is registered.

And for every breach of the above rules or any of them the owner and master shall each incur a penalty not exceeding 100*l.*—§ 34.

Application for Registry, by whom to be made.—Every application for the registry of a ship shall in the case of individuals be made by the person requiring to be registered as owner, or by some one or more of such persons if more than one, or by his or their duly authorised agent, and in the case of bodies corporate by their duly authorised agent; the authority of such agent, if appointed by individuals, to be testified by some writing under the hands of the appointors, and if appointed by a body corporate, by some instrument under the common seal of such body corporate.—§ 35.

Survey of Ship.—Before registry, the ship shall be surveyed by a person duly appointed under this act; and such surveyor shall grant a certificate specifying her tonnage, build, and such other particulars descriptive of the identity of the ship as may from time to time be required by the Board of Trade; and such certificate shall be delivered to the registrar before registry.—§ 36.

Rules as to Entries in Register Book.—The following rules shall be observed with respect to entries in the register book; (that is to say,)

(1.) The property in a ship shall be divided into 64 shares.
(2.) Subject to the provisions with respect to joint owners or owners by transmission herein-after contained, not more than 32 individuals shall be entitled to be registered at the same time as owners of any one ship; but this rule shall not affect the beneficial title of any number of persons or of any company represented by or claiming under or through any registered owner or joint owner.
(3.) No person shall be entitled to be registered as owner of any fractional part of a share in a ship; but any number of persons not exceeding 5 may be registered as joint owners of a ship, or of a share or shares therein.
(4.) Joint owners shall be considered as constituting one person only as regards the foregoing rule relating to the number of persons entitled to be registered as owners, and shall not be entitled to dispose in severalty of any interest in any ship or in any share or shares therein in respect of which they are registered.
(5.) A body corporate may be registered as owner by its corporate name.—§ 37.

Declaration of Ownership by individual Owner.—No person shall be entitled to be registered as owner of a ship or any share therein until he has made and subscribed a declaration in the form marked B. in the schedule annexed to this act, referring to the ship as described in the certificate of the surveyor, and containing the following particulars; (that is to say,)

(1.) A statement of his qualification to be an owner of a share in a British ship.
(2.) A statement of the time when and the place where such ship was built, or (if the ship is foreign-built, and the time and place of building not known,) a statement that she is foreign-built, and that he does not know the time or place of her building; and in addition thereto, in the case of a foreign ship, a statement of her foreign name, or (in the case of a ship condemned) a statement of the time, place, and court at and by which she was condemned.
(3.) A statement of the name of the master.
(4.) A statement of the number of shares in such ship of which he is entitled to be registered as owner.
(5.) A denial that, to the best of his knowledge and belief, any unqualified person or body of persons is entitled as owner to any legal or beneficial interest in such ship or any share therein.

The above declaration of ownership shall be made and subscribed in the presence of the registrar if the declarant reside within 5 miles of the custom house of the port of registry, but if beyond that distance in the presence of any registrar or of any justice of the peace.—§ 38.

Declaration of Ownership by Body Corporate.— No body corporate shall be entitled to be registered as owner of a ship or of any share therein until the secretary or other duly appointed public officer of such body corporate has made and subscribed in the presence of the registrar of the port of registry a declaration in the form marked C. in the schedule annexed to this act, referring to the ship as described in the certificate of the surveyor, and containing the following particulars; viz.: —

(1.) A statement of such circumstances of the constitution and business of such body corporate as prove it to be qualified to own a British ship.
(2.) A statement of the time when and the place where such ship was built, or (if the ship is foreign-built and the time and place of building unknown,) a statement that she is foreign-built, and that he does not know the time or place of her building; and in addition thereto in the case of a foreign

ship, a statement of her foreign name, or (in the case of a ship condemned) a statement of the time, place, and court at and by which she was condemned.
(3.) A statement of the name of the master.
(4.) A statement of the number of shares in such ship of which such body corporate is owner.
(5.) A denial that, to the best of his knowledge and belief, any unqualified person or body of persons is entitled as owner to any legal or beneficial interest in such ship or any share therein.—§ 39.

Evidence to be produced on Registry.—Upon the first registry of a ship there shall, in addition to the declaration of ownership, be produced the following evidence; viz.:—

(1.) In the case of a British-built ship, a certificate (which the builder is hereby required to grant under his hand) containing a true account of the proper denomination and of the tonnage of such ship, as estimated by him, and of the time when and of the place where such ship was built, together with the name of the party (if any) on whose account he has built the same, and, if any sale or sales have taken place, the bill or bills of sale under which the ship or share therein has become vested in the party requiring to be registered as owner.
(2.) In the case of a foreign-built ship, the same evidence as in the case of a British-built ship, unless the person requiring to be registered as owner, or, in the case of a body corporate, the duly-appointed officer, declares that the time or place of her building is unknown, or that the builder's certificate cannot be procured, in which case there shall be required only the bill or bills of sale under which the ship or share therein became vested in the party requiring to be registered as owner thereof.
(3.) In the case of a ship condemned by any competent court, an official copy of the condemnation of such ship.—§ 40.

Penalty on Builder for false Certificate.—If any builder wilfully makes a false statement in any certificate hereby required to be granted by him he shall for every such offence incur a penalty not exceeding 100*l.*—§ 41.

Particulars of Entry in Register Book.—As soon as the foregoing requisites to the due registry of a ship have been complied with, the registrar shall enter in the register book the following particulars relating to such ship; viz.

(1.) The name of the ship, and of the port to which she belongs.
(2.) The details as to her tonnage, build, and description comprised in the certificate herein-before directed to be given by the surveyor.
(3.) The several particulars as to her origin stated in the declaration or declarations of ownership.
(4.) The names and descriptions of her registered owner or owners, and if there is more than one such owner, the proportions in which they are interested in such ship.—§ 42.

No Notice taken of Trusts.—No notice of any trust, express, implied, or constructive, shall be entered in the register book, or receivable by the registrar; and, subject to any rights and powers appearing by the register book to be vested in any other party, the registered owner of any ship or share therein shall have power absolutely to dispose in manner herein-after mentioned of such ship or share, and to give effectual receipts for any money paid or advanced by way of consideration.—§ 43.

Certificate of Registry to be granted.—Upon the completion of the registry of any ship the registrar shall grant a certificate of registry in the form marked D. in the schedule to the act (annexed to this article), comprising the following particulars, viz.

(1.) The name of the ship and of the port to which she belongs.
(2.) The details as to her tonnage, build, and description comprised in the certificate herein-before directed to be given by the surveyor.
(3.) The name of her master.
(4.) The several particulars as to her origin stated in the declaration or declarations of ownership.
(5.) The names and descriptions of her registered owner or owners, and if there is more than one such owner, the proportions in which they are respectively interested, indorsed upon such certificate.—§ 44.

Change of Owners to be indorsed on Certificate of Registry.—Whenever any change takes place in the registered ownership of any ship, then, if such change occurs at a time when the ship is at her port of registry, the master shall forthwith deliver the certificate of registry to the registrar, and he shall indorse thereon a memorandum of such change; but if such change occurs during the absence of the ship from her port of registry, then upon her first return to such port the master shall deliver the certificate of registry to the registrar, and he shall indorse thereon a like memorandum of the change; or if she previously arrives at any port where there is a British registrar, such registrar shall, upon being advised by the registrar of her port of registry of the change having taken place, indorse a like memorandum thereof on the certificate of registry, and may for that purpose require the certificate to be delivered to him, so that the ship be not thereby detained; and any master who fails to deliver to the registrar the certificate of registry as herein before required shall incur a penalty not exceeding 100*l.*—§ 45.

Change of Master to be indorsed on Certificate of Registry.—Whenever the master of any British registered ship is changed, the following persons, viz., if such change is made in consequence of the sentence of any naval court, the presiding officer of such court, but if the change takes place from any other cause, the registrar, or if there is no registrar the British consular officer resident at the port where such change takes place, shall indorse on the certificate of registry a memorandum of such change, and subscribe his name to such indorsement, and forthwith report the change of master to the com. of customs in London; and the officers of customs at any port situate within H. M.'s dominions may refuse to admit any person to do any act at such port as master of any British ship, unless his name is inserted in or indorsed upon the certificate of registry of such ship as the last appointed master thereof.—§ 46.

Power to grant new Certificate.—The registrar may, with the sanction of the com. of customs, upon the delivery up to him of the former certificate of registry, grant a new certificate in the place of the one so delivered up.—§ 47.

Provision in case of Loss of Certificate.—In the event of the certificate of registry of any ship being mislaid, lost, or destroyed, if such event occurs at any port in the U. K., the ship being registered in the U. K. or at any port in any British possession, the ship being registered in the same British possession, then the registrar of he rport of registry shall grant a new certificate of registry in lieu of and as a substitute for her original certificate of registry; but if such event occurs elsewhere, the master or some other person having knowledge of the circumstances shall make a declaration before the registrar of any port having a British registrar at which such ship is at the time or first arrives after such mislaying, loss, or destruction; and such declaration shall state the facts of the case, and the names and descriptions of the registered owners of such ship, to the best of the declarant's knowledge and belief; and the registrar shall thereupon grant a provisional certificate as near to the form appointed by this act as circumstances permit, and shall insert therein a statement of the circumstances under which such provisional certificate is granted.—§ 48.

Provisional Certificate to be delivered up.—Every such provisional certificate shall, within 10 days after the first subsequent arrival of the ship at her port of discharge in the U. K., if registered therein, or if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate, be delivered up to the registrar thereof, who shall thereupon grant a new one, as near to the form appointed by this act as circumstances permit; and if the master neglects to deliver up such certificate within such time he shall incur a penalty not exceeding 50*l.*—§ 49.

Custody of Certificate.—The certificate of registry shall be used only for the lawful navigation of the ship, and shall not be subject to detention by reason of any title, lien, charge, or interest whatsoever which any owner, mortgagee, or other person may have or claim to have on or in the ship described in such certificate; and if any person whatever, whether interested or not in the ship, refuses on request to deliver up such certificate when in his possession or under his control to the person for the time being entitled to the custody thereof for the purposes of such lawful navigation as aforesaid, or to any registrar, officer of the customs, or other person legally entitled to require such delivery, it shall be lawful for any justice, by warrant under his hand and seal, or for any court capable of taking cognizance of such matter, to cause the person so refusing to appear before him and to be examined touching such

refusal; and unless it is proved to the satisfaction of such justice or court that there was reasonable cause for such refusal the offender shall incur a penalty not exceeding 100*l.*; but if it is made to appear to such justice or court that the certificate is lost, the party complained of shall be discharged, and such justice or court shall thereupon certify that the certificate of registry is lost.—§ 50.

Mode of proceeding if detaining Party abscond.—If the person charged with such detainer or refusal is proved to have absconded, so that the warrant of the justice or process of the court cannot be served upon him, or if he persists in his refusal to deliver the certificate, such justice or court shall certify the fact, and the same proceedings may then be taken as in the case of a certificate of registry mislaid, lost, or destroyed, or as near thereto as circumstances permit.—§ 51.

Penalty for using improper Certificate.—If the master or owner of any ship uses or attempts to use for the navigation of such ship a certificate of registry not legally granted in respect of such ship, he shall be guilty of a misdemeanor, and it shall be lawful for any commissioned officer on full pay in the military or naval service of H. M., or any British officer of customs, or any British consular officer, to seize and detain such ship, and to bring her for adjudication before the high court of admiralty in England or Ireland or any court having admiralty jurisdiction in H. M.'s dominions; and if such court is of opinion that such use or attempt at use has taken place, it shall pronounce such ship, with her tackle, apparel, and furniture, to be forfeited to H. M., and may award such portion of the proceeds arising from the sale of such ship as it may think just to the officer so bringing in the same for adjudication.—§ 52.

Certificate of Ship lost or ceasing to be British to be delivered up.—If any registered ship is either actually or constructively lost, taken by the enemy, burnt, or broken up, or if by reason of a transfer to any persons not qualified to be owners of British ships, or of any other matter or thing, any such ship as aforesaid ceases to be a British ship, every person who at the time of the occurrence of any of the aforesaid events owns such ship or any share therein shall, immediately upon obtaining knowledge of any such occurrence, if no notice thereof has already been given to the registrar at the port of registry of such ship, give such notice to him, and he shall make an entry thereof in his register book; and, except in cases where the certificate of registry is lost or destroyed, the master of every ship so circumstanced as aforesaid shall immediately, if such event occurs in port, but if the same occurs elsewhere, then within 10 days after his arrival in port, deliver the certificate of registry of such ship to the registrar, or, if there be no registrar, to the British consular officer at such port, and such registrar, if he is not himself the registrar of her port of registry, or such British consular officer, shall forthwith forward the certificate so delivered to him to the registrar of the port of registry of the ship; and every owner and master who, without reasonable cause, makes default in obeying the provisions of this section shall for each offence incur a penalty not exceeding 100*l.*—§ 53.

Provisional Certificate for Ship becoming vested in British Owners at Foreign Port.—If any ship becomes the property of persons qualified to be owners of British ships at any foreign port, the British consular officer resident at such port may grant the master of such ship, upon his application, a provisional certificate, stating—

The name of the ship;	The name of her master;
The time and place of her purchase, and the names of her purchasers;	The best particulars as to her tonnage, build, and description that he is able to obtain;

And he shall forward a copy of such certificate, at the first convenient opportunity, to the commissioners of customs in London: the certificate so granted shall possess the same force as a certificate of registry until the expiration of 6 months, or until such earlier time as the ship arrives at some port where there is a British registrar; but upon the expiration of such period, or upon arrival at such port, shall be void to all intents.—§ 54.

Transfers and Transmissions.

Transfer of Ships or Shares therein.—A registered ship or any share therein, when disposed of to persons qualified to be owners of British ships, shall be transferred by bill of sale; and such bill of sale shall contain such description of the ship as is contained in the certificate of the surveyor, or such other description as may be sufficient to identify the ship to the satisfaction of the registrar, and shall be according to the form marked E., subjoined to this act, or as near thereto as circumstances permit, and shall be executed by the transferree in the presence of and be attested by one or more witnesses.—§ 55.

Declaration to be made by Transferree.—No individual shall be entitled to be registered as transferree of a ship or any share therein until he has made a declaration stating his qualification to be registered as owner of a share in a British ship, and containing a denial similar to the denial before required to be contained in a declaration of ownership by an original owner; and no body corporate shall be entitled to be registered as transferree of a ship or any share therein until the secretary or other duly appointed public officer of such body corporate has made a declaration, stating the name of such body corporate, and such circumstances of its constitution and business as may prove it to be qualified to own a British ship, and containing a denial similar to the denial herein-before required to be contained in a declaration of ownership made on behalf of a body corporate: in the case of an individual, the above declaration shall be made, if he reside within 5 miles of the custom house of the port of registry in the presence of the registrar, but if beyond that distance in the presence of any registrar or of any justice of the peace; in the case of a body corporate the declaration shall be made in the presence of the registrar of the port of registry.—§ 56.

Registration of Transfer.—Every bill of sale for the transfer of any registered ship, or of any share therein, when duly executed, shall be produced to the registrar of the port at which the ship is registered, together with the declaration before required to be made by a transferree; and the registrar shall thereupon enter in the register book the name of the transferree as owner of the ship or share comprised in such bill of sale, and shall indorse on the bill of sale the fact of such entry having been made, with the date and hour thereof; and all bills of sale of any ship or shares in a ship shall be entered in the register book in the order of their production to the registrar.—§ 57.

Transmission of Shares by Death, Bankruptcy, or Marriage.—If the property in any ship or in any share therein becomes transmitted in consequence of the death or bankruptcy or insolvency of any registered owner, or in consequence of the marriage of any female registered owner, or by any lawful means other than by a transfer according to the provisions of this act, such transmission shall be authenticated by a declaration of the person to whom such property has been transmitted, and containing the several statements before required to be contained in the declaration of a transferree, or as near thereto as circumstances permit, and, in addition, a statement describing the manner in which and the party to whom such property has been transmitted; and such declaration shall be made and subscribed if the declarant resides at or within 5 miles of the custom house of the port of registry in the presence of the registrar, but if beyond that distance in the presence of any registrar or of any justice of the peace.—§ 58.

Mortgages.

Mortgage of Ships and Shares therein.—A registered ship or any share therein may be made a security for a loan or other valuable consideration; and the instrument creating such security, herein-after termed a "mortgage," shall be in the form marked I., subjoined to this act, or as near thereto as circumstances permit; and on the production of such instrument the registrar of the port at which the ship is registered shall record the same in the register book.—§ 66.

Mortgages to be registered.—Every such mortgage shall be recorded by the registrar in the order of

time in which the same is produced to him for that purpose; and the registrar shall, by memorandum under his hand, notify on the instrument of mortgage that the same has been recorded by him, stating the date and hour of such record.—§ 67.

Entry of Discharge of Mortgage.—Whenever any registered mortgage has been discharged, the registrar shall, on the production of the mortgage deed, with a receipt for the mortgage money indorsed thereon, duly signed and attested, make an entry in the register book to the effect that such mortgage has been discharged; and upon such entry being made the estate, if any, which passed to the mortgagee shall vest in the same person or persons in whom the same would, having regard to intervening acts and circumstances, if any, have vested if no such mortgage had ever been made.—§ 68.

Priority of Mortgages.—If there is more than one mortgage registered of the same ship or share therein, the mortgagees shall, notwithstanding any express, implied, or constructive notice, be entitled in priority one over the other according to the date at which each instrument is recorded in the register books, and not according to the date of each instrument itself.—§ 69.

Mortgagee not to be deemed Owner.—A mortgagee shall not by reason of his mortgage be deemed to be the owner of a ship or any share therein, nor shall the mortgagor be deemed to have ceased to be owner of such mortgaged ship or share, except in so far as may be necessary for making such ship or share available as a security for the mortgage debt.—§ 70.

Mortgagee to have Power of Sale.—Every registered mortgagee shall have power absolutely to dispose of the ship or share in respect of which he is registered, and to give effectual receipts for the purchase money; but if there are more persons than one registered as mortgagees of the same ship or share, no subsequent mortgagee shall, except under the order of some court capable of taking cognizance of such matters, sell such ship or share without the concurrence of every prior mortgagee.—§ 71.

Rights of Mortgagee not affected by Bankruptcy of Mortgagor.—No registered mortgagee of any ship or of any share therein shall be affected by any act of bankruptcy committed by the mortgagor after the date of the record of such mortgage, notwithstanding such mortgagor at the time of his becoming bankrupt may have in his possession and disposition and be reputed owner of such ship or share thereof; and such mortgage shall be preferred to any right, claim, or interest in such ship or any share thereof which may belong to the assignees of such bankrupt.—§ 72.

Transfer of Mortgages.—A registered mortgage of any ship or share in a ship may be transferred to any person, and the instrument creating such transfer shall be in the form marked K., subjoined to the act, and on the production of such instrument the registrar shall enter in the register book the name of the transferree as mortgagee of the ship or shares therein mentioned, and shall by memorandum under his hand record on the instrument of transfer that the same has been recorded by him, stating the date and hour of such record.—§ 73.

Transmission of Interest of Mortgagee by Death, Bankruptcy, or Marriage.—If the interest of any mortgagee in any ship or in any share therein becomes transmitted in consequence of death, bankruptcy, or insolvency, or in consequence of the marriage of any female mortgagee, or by any lawful means other than by a transfer according to the provisions of this act, such transmission shall be authenticated by a declaration of the person to whom such interest has been transmitted, and containing a statement describing the manner in which and the party to whom such property has been transmitted; and such declaration shall be made and subscribed, if the declarant resides at or within 5 miles of the custom house of the port of registry, in the presence of the registrar, but if beyond that distance in the presence of any registrar or of any justice of the peace, and shall be accompanied by such evidence as is herein-before required to authenticate a corresponding transmission of property from one registered owner to another.—§ 74.

Entry of transmitted Mortgage.—The registrar, upon the receipt of such declaration and the production of such evidence as aforesaid, shall enter the name of the person or persons entitled under such transmission in the register book as mortgagee or mortgagees of the ship or share in respect of which such transmission has taken place.—§ 75.

Certificates of Mortgage and Sale.

Powers of Mortgage and Sale conferred by Certificate.—Any registered owner, if desirous of disposing by way of mortgage or sale of the ship or share in respect of which he is registered at any place out of the country or possession in which the port of registry of such ship is situate, may apply to the registrar, who shall thereupon enable him to do so by granting such certificates as are after mentioned, to be called respectively certificates of mortgage or certificates of sale, according as they purport to give a power to mortgage or a power to sell.—§ 76.

Requisites for Certificates of Mortgage and Sale.—Previously to any certificate of mortgage or sale being granted, the applicant shall state to the registrar, to be by him entered in the register book, the following particulars; viz.

(1.) The names of the persons by whom the power mentioned in such certificate is to be exercised, and in the case of a mortgage the maximum amount of charge to be created, if it is intended to fix any such maximum, and in the case of a sale the minimum price at which a sale is to be made, if it is intended to fix any such minimum.

(2.) The specific place or places where such power is to be exercised, or if no place be specified, then that it may be exercised anywhere, subject to the provisions herein-after contained.

(3.) The limit of time within which such power may be exercised.—§ 77.

Restrictions on Certificates of Mortgage and Sale.—No certificate of mortgage or sale shall be granted so as to authorise any mortgage or sale to be made—

At any place within the U.K., if the port of registry of the ship be situate in the U.K.; or at any place within the same British possession if the port of registry is situate within a British possession; or

By any person not named in the certificate.—§ 78.

Forms of Certificates of Mortgage and Sale.—Certificates of mortgage and sale shall contain a statement of the several particulars herein-before directed to be entered in the register book, and in addition thereto an enumeration of any registered mortgages or certificates of mortgage or sale affecting the ships or shares in respect of which such certificates are given.—§ 79.

Rules as to Certificates of Mortgage.—The following rules shall be observed as to certificates of mortgage; viz.

(1.) The power shall be exercised in conformity with the directions contained in the certificate.

(2.) A record of every mortgage made thereunder shall be indorsed thereon by a registrar or British consular officer.

(3.) No mortgage *bonâ fide* made thereunder shall be impeached by reason of the person by whom the power was given dying before the making of such mortgage.

(4.) Whenever the certificate contains a specification of the place or places at which, and a limit of time not exceeding twelve months within which, the power is to be exercised, no mortgage *bonâ fide* made to a mortgagee without notice shall be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given.

(5.) Every mortgage which is so registered as aforesaid on the certificate shall have priority over all mortgages of the same ship or share created subsequently to the date of the entry of the certificate in the register book; and if there be more mortgages than one so indorsed the respective mortgagees claiming thereunder shall, notwithstanding any express, implied, or constructive notice, be entitled one before the other according to the date at which a record of each instrument is indorsed on the certificate, and not according to the date of the instrument creating the mortgage.

(6.) Subject to the foregoing rules every mortgagee whose mortgage is registered on the certificate shall have the same rights and powers and be subject to the same liabilities as he would have had and been subject to if his mortgage had been registered in the register book instead of on the certificate.

(7.) The discharge of any mortgage so registered on the certificate may be indorsed thereon by any registrar or British consular officer, upon the production of such evidence as is hereby required to be produced to the registrar on the entry of the discharge of a mortgage in the register book; and upon such indorsement being made, the estate, if any, which passed to the mortgagee shall vest in the same person or persons in whom the same would, having regard to intervening acts and circumstances, if any, have vested if no such mortgage had been made.

(8.) Upon the delivery of any certificate of mortgage to the registrar by whom it was granted he shall, after recording in the register book in such manner as to preserve its priority any unsatisfied mortgage registered thereon, cancel such certificate, and enter the fact of such cancellation in the register book; and every certificate so cancelled shall be void to all intents.—§ 80.

Rules as to Certificates of Sale.—The following rules shall be observed as to certificates of sale, viz.—

(1.) No such certificate shall be granted except for the sale of an entire ship.

(2.) The power shall be exercised in conformity with the directions contained in the certificate.

(3.) No sale *bonâ fide* made to a purchaser for valuable consideration shall be impeached by reason of the person by whom the power was given dying before the making of such sale.

(4.) Whenever the certificate contains a specification of the place or places at which, and a limit of time not exceeding twelve months within which, the power is to be exercised, no sale *bonâ fide* made to a purchaser for valuable consideration without notice shall be impeached by reason of the bankruptcy or insolvency of the person by whom the power was given.

(5.) Any transfer made to a person qualified to be the owner of British ships shall be by bill of sale in the form herein-before mentioned, or as near thereto as circumstances permit.

(6.) If the ship is sold to a party qualified to hold British ships, the ship shall be registered anew; but notice of all mortgages enumerated on the certificate of sale shall be entered in the register book.

(7.) Previously to such registry anew there shall be produced to the registrar required to make the same the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry of such ship.

(8.) Such last-mentioned registrar shall retain the certificates of sale and registry, and after having indorsed on both of such instruments an entry of the fact of a sale having taken place, shall forward the said certificates to the registrar of the port appearing on such certificates to be the former port of registry of the ship, and such last-mentioned registrar shall thereupon make a memorandum of the sale in his register book, and the registry of the ship in such book shall be considered as closed, except as far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein.

(9.) On such registry anew the description of the ship contained in her original certificate of registry may be transferred to the new register book, without her being re-surveyed, and the declaration to be made by the purchaser shall be the same as would be required to be made by an ordinary transferree.

(10.) If the ship is sold to a party not qualified to be the owner of a British ship, the bill of sale by which the ship is transferred, the certificate of sale, and the certificate of registry shall be produced to some registrar or consular officer, who shall retain the certificates of sale and registry, and, having indorsed thereon the fact of such ship having been sold to persons not qualified to be owners of British ships, shall forward such certificates to the registrar of the port appearing on the certificate of registry to be the port of registry of such ship; and such last-mentioned registrar shall thereupon make a memorandum of the sale in his register book, and the registry of the ship in such book shall be considered as closed, except so far as relates to any unsatisfied mortgages or existing certificates of mortgage entered therein.

(11.) If upon a sale being made to an unqualified person default is made in the production of such certificates as are mentioned in the last rule, such unqualified person shall be considered by British law as having acquired no title to or interest in the ship; and further, the party upon whose application such certificate was granted, and the persons exercising the power, shall each incur a penalty not exceeding 100*l.*

(12.) If no sale is made in conformity with the certificate of sale, such certificate shall be delivered to the registrar by whom the same was granted; and such registrar shall thereupon cancel it, and enter the fact of such cancellation in the register book; and every certificate so cancelled shall be void to all intents.—§ 81.

Power of Commissioners of Customs in case of Loss of Certificate of Mortgage or Sale.—Upon proof at any time to the satisfaction of the commissioners of customs that any certificate of mortgage or sale is lost or so obliterated as to be useless, and that the powers thereby given have never been exercised, or if they have been exercised then upon proof of the several matters and things that have been done thereunder, it shall be lawful for the registrar, with the sanction of the said commissioners, as circumstances may require, either to issue a new certificate, or to direct such entries to be made in the register book, or such other matter or thing to be done as might have been made or done if no such loss or obliteration had taken place.—§ 82.

Revocation of Certificates of Mortgage and Sale.—The registered owner for the time being of any ship or share therein in respect of which a certificate of mortgage or sale has been granted, specifying the place or places where the power thereby given is to be exercised, may, by an instrument under his hand authorize the registrar by whom such certificate was granted to give notice to the registrar or consular officer, registrars or consular officers, at such place or places, that such certificate is revoked; and notice shall be given accordingly; and all registrars or consular officers receiving such notice shall record the same, and shall exhibit the same to all persons who may apply to them for the purpose of effecting or obtaining a mortgage or transfer under the said certificate of mortgage or sale; and after such notice has been so recorded the said certificate shall, so far as concerns any mortgage or sale to be thereafter made at such place, be deemed to be revoked and of no effect; and every registrar or consular officer recording any such notice shall thereupon state to the registrar by whom the certificate was granted, whether any previous exercise of the power to which such certificate refers has taken place.—§ 83.

Registry anew, and Transfer or Registry.

Alteration in Ship to be registered.—Whenever any registered ship is so altered as not to correspond with the particulars relating to her tonnage or description contained in the register book, then, if such alteration is made at a port where there is a registrar, the registrar of such port, but if made elsewhere, the registrar of the first port having a registrar at which the ship arrives after her alteration, shall, on application made to him, and on the receipt of a certificate from the proper surveyor specifying the nature of such alteration, either retain the old certificate of registry and grant a new certificate of registry containing a description of the ship as altered, or indorse on the existing certificate a memorandum of such alteration, and subscribe his name to such indorsement; and the registrar to whom such application as aforesaid is made, if he is the registrar of the port of registry of the ship, shall himself enter in his register book the particulars of the alteration so made, and the fact of such new certificate having been granted or indorsement having been made on the existing certificate; but if he is not such last-mentioned registrar, he shall forthwith report such particulars and facts as aforesaid, accompanied by the old certificate of registry in cases where a new one has been granted, to the registrar of the port of registry of the ship, who shall retain such old certificate (if any), and enter such particulars and facts in his register book accordingly.—§ 84.

On Alteration Registry anew may be required.—When the registrar to whom application is made in respect of any such alteration as aforesaid is the registrar of the port of registry, he may, if he think fit, instead of registering such alteration, require such ship to be registered anew in manner herein-before directed on the first registry of a ship, and if he is not such registrar as lastly herein-before mentioned he may nevertheless require such ship to be registered anew, but he shall in such last-mentioned case grant a provisional certificate or make a provisional indorsement of the alteration made in manner herein-before directed in cases where no registry anew is required, taking care to add to such certificate or indorsement a statement that the same is made provisionally, and to insert in his report to the registrar of the port of registry of the ship a like statement.—§ 85.

Grant of Provisional Certificate in respect of Alteration.—Every such provisional certificate, or certificate provisionally indorsed, shall, within 10 days after the first subsequent arrival of the ship at her port of discharge in the U. K., if registered in the U. K., or, if registered elsewhere, at her port of discharge in the British possession within which her port of registry is situate, be delivered up to the registrar thereof, who shall thereupon cause such ship to be registered anew in the same manner in all respects as herein-before required on the first registry of any ship.—§ 86.

Consequence of Omission to register anew.—On failure of such registry anew of any ship or registry of alteration of any ship so altered as aforesaid, such ship shall be deemed not duly registered, and shall no longer be recognized as a British ship.—§ 87.

On Change of Owners, Registry anew may be granted.—If upon any change of ownership in any ship the owner or owners desire to have such ship registered anew, although such registry anew is not required by this act, it shall be lawful for the registrar of the port at which such ship is already registered, on the delivery up to him of the existing certificate of registry, and on the other requisites to registry, or such of them as the registrar thinks material, being duly complied with, to make such registry anew, and grant a certificate thereof.—§ 88.

Registry may be transferred from Port to Port.—The registry of any ship may be transferred from one port to another upon the application of all parties appearing on the register to be interested in such

ship, whether as owners or mortgagees, such application to be expressed by a declaration in writing made and subscribed, if the party so required to make and subscribe the same resides at or within 5 miles of the custom house of the port from which such ship is to be transferred, in the presence of the registrar of such port, but if beyond that distance in the presence of any registrar or of any justice of the peace.—§ 89.

Manner of Transfer of Registry.—Upon such application being made as is herein-before mentioned, and upon the delivery to him of the certificate of registry, the registrar of the port at which such ship is already registered shall transmit to the registrar of the port at which such ship is intended to be registered notice of such application having been made to him, together with a true copy of all particulars relating to such ship, and the names of all the parties appearing by his book to be interested as owners or mortgagees in such ship; and such last-mentioned registrar shall, upon the receipt of such notice, enter all such particulars and names in his book of registry, and grant a fresh certificate of registry, and thenceforth such ship shall be considered as registered at and belonging to such last-mentioned port, and the name of such last-mentioned port shall be substituted on the stern of such ship in lieu of the name of the port previously appearing thereon.—§ 90.

Transfer of Registry not to affect Rights of Owners.—The transfer of the registry of any ship in manner aforesaid shall not in any way affect the rights of the several persons interested either as owners or mortgagees in such ship, but such rights shall in all respects be maintained and continue in the same manner as if no such transfer had been effected.—§ 91.

Registry, Miscellaneous.

Inspection of Register Books.—Every person may, upon payment of a fee to be fixed by the commissioners of customs not exceeding 1s., have access to the register book for the purpose of inspection at any reasonable time during the hours of official attendance of the registrar.—§ 92.

Indemnity to Registrar.—No registrar shall be liable to damages or otherwise for any loss accruing to any person by reason of any act done or default made by him in his character of registrar, unless the same has happened through his neglect or wilful act.—§ 93.

Return to be made by Registrars to Commissioners of Customs.—Every registrar in the U. K. shall at the expiration of every month, and every other registrar shall without delay, or at such stated times as may be fixed by the commissioners of customs, transmit to the custom house in London a full return in such form as they may direct of all registries, transfers, transmissions, mortgages, and other dealings with ships which have been registered by or communicated to them in their character of registrars, and the names of the persons who have been concerned in the same, and such other particulars as may be directed by the said commissioners.—§ 94.

Clause 95. directs the mode in which registration fees are to be applied; and clauses 96. to 99. inclusive, give power to commissioners of customs, registrars, &c., to act in certain specified circumstances.

Liabilities of Owners.—Whenever any person is beneficially interested, otherwise than by way of mortgage, in any ship or share therein registered in the name of some other person as owner, the person so interested shall, as well as the registered owner, be subject to all pecuniary penalties imposed by this or by any other act on owners of ships or shares therein, so nevertheless that proceedings may be taken for the enforcement of any such pecuniary penalties against both or either of the aforesaid parties, with or without joining the other of them.—§ 100.

Forgery.

Punishment for Forgery.—Any person who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any register book, certificate of surveyor, certificate of registry, declaration of ownership, bill of sale, instrument of mortgage, certificate of mortgage or sale, or any entry or indorsement required by this act to be made in or on any of the above documents, shall for every such offence be deemed to be guilty of felony.—§ 101.

National Character.

National Character of Ship to be declared before Clearance.—No officer of customs shall grant a clearance or transire for any ship until the master of such ship has declared to such officer the name of the nation to which he claims that she belongs, and such officer shall thereupon inscribe such name on the clearance or transire; and if any ship attempts to proceed to sea without such clearance or transire, any such officer may detain her until such declaration is made.—§ 102.

Penalties.—The offences herein-after mentioned shall be punishable as follows; (that is to say,)

(1.) If any person uses the British flag and assumes the British national character on board any ship owned in whole or in part by any persons not entitled by law to own British ships, for the purpose of making such ship appear to be a British ship, such ship shall be forfeited to Her Majesty, unless such assumption has been made for the purpose of escaping capture by an enemy or by a foreign ship of war in exercise of some belligerent right; and in any proceeding for enforcing any such forfeiture the burden of proving a title to use the British flag and assume the British national character shall lie upon the person using and assuming the same.

(2.) If the master or owner of any British ship does or permits to be done any matter or thing, or carries or permits to be carried any papers or documents, with intent to conceal the British character of such ship from any person entitled by British law to inquire into the same, or to assume a foreign character, or with intent to deceive any such person as lastly herein before mentioned, such ship shall be forfeited to H. Majesty; and the master, if he commits or is privy to the commission of the offence, shall be guilty of a misdemeanor.

(3.) If any unqualified person, except in the case of such transmitted interests as are herein-before mentioned, acquires as owner any interest, either legal or beneficial, in a ship using a British flag and assuming the British character, such interest shall be forfeited to H. Majesty.

(4.) If any person, on behalf of himself or any other person or body of persons, wilfully makes a false declaration touching the qualification of himself or such other person or body of persons to own British ships or any shares therein, the declarant shall be guilty of a misdemeanor; and the ship or share in respect of which such declaration is made, if the same has not been forfeited under the foregoing provision, shall, to the extent of the interest therein of the person making the declaration, and, unless it is shown that he had no authority to make the same, of the parties on behalf of whom such declaration is made, be forfeited to H. Majesty.

And in order that the above provisions as to forfeitures may be carried into effect it shall be lawful for any commissioned officer on full pay in the military or naval service of H. Majesty, or any British officer of customs, or any British consular officer, to seize and detain any ship which has, either wholly or as to any share therein, become subject to forfeiture as aforesaid, and to bring her for adjudication before the H. C. of Admiralty in England or Ireland, or any court having admiralty jurisdiction in H. M.'s dominions; and such court may thereupon make such order in the case as it may think fit, and may award to the officer bringing in the same for adjudication such portion of the proceeds of the sale of any forfeited ship or share as it may think right.—§ 103.

Officer not liable for any Seizure made on reasonable Grounds.—No such officer as aforesaid shall be responsible, either civilly or criminally, to any person whomsoever, in respect of the seizure or detention of any ship that has been seized or detained by him in pursuance of the provisions herein contained, notwithstanding that such ship is not brought in for adjudication, or, if so brought in, is declared not to be liable to forfeiture, if it be shown to the satisfaction of the judge or court before whom any trial relating to such ship or such seizure or detention is held that there were reasonable grounds for such seizure or detention; but if no such grounds are shown, such judge or court may award payment of costs and damages to any party aggrieved, and make such other order in the premises as it thinks just.—§ 104.

Penalty for carrying improper Colours.—If any colours usually worn by H. M's. ships, or any colours resembling those of H. Majesty, or any distinctive national colours, except the red ensign usually worn by merchant ships, or except the union jack with a white border, or if the pendant usually carried by H. M.'s ships or any pendant in anywise resembling such pendant, are or is hoisted on board any ship or boat belonging to any subject of H. Majesty without warrant for so doing from H. Majesty or from the

admiralty, the master of such ship or boat, or the owner thereof, if on board the same, and every other person hoisting or joining or assisting in hoisting the same, shall for every such offence incur a penalty not exceeding 500*l.*; and it shall be lawful for any officer on full pay in the military or naval service of H. Majesty, or any British officer of the customs, or any British consular officer, to board any such ship or boat, and to take away any such jack, colours, or pendant; and such jack, colours, or pendant shall be forfeited to H. Majesty.—§ 105.

Effect of Declaration that a Ship shall not be recognised as a British Ship.—Whenever it is declared by this act that a ship belonging to any person or body corporate qualified according to this act to be owners of British ships shall not be recognised as a British ship, such ship shall not be entitled to any benefits, privileges, advantages, or protection usually enjoyed by British ships, and shall not be entitled to use the British flag or assume the British national character; but, so far as regards the payment of dues, the liability to pains and penalties, and the punishment of offences committed on board such ship or by any persons belonging to her, such ship shall be dealt with in the same manner in all respects as if she were a recognized British ship.—§ 106.

CERTIFICATE OF REGISTRY, *ante*, § 44.

No. _____ *Date of Registry.*

Name of Ship.	British or Foreign-built.	Port of Registry.	How propelled.
			By Steam or Sails, and if by Steam, whether by Paddle or Screw.

Number of Decks		Build	*Carvel or Clincher.*
Number of Masts		Gallery	*Description of.*
Rigging	*Nature of, and whether standing or running bowsprit.*	Head	*Kind of.*
Stern	*Round, square, or other Description.*	Framework	*Wood or other Material.*

Measurements.	Feet.	Tenths.
Length from the Forepart of Stem under the Bowsprit to the Aftside of the Head of the Sternpost		
Main Breadth to Outside of Plank		
Depth in Hold from Tonnage Deck to Ceiling at Midships		

Tonnage.	No. of Tons.
Tonnage under Tonnage Deck	
Close-in Spaces above the Tonnage Deck, if any, viz.:—	
Space or Spaces between Decks	
Poop	
Roundhouse	
Other inclosed Spaces, if any, naming them	
Total	

* *Additional Particulars for Steamers.*	Tons.	Feet.	Tenths.	Number of Engines.	No. of Horses-power.
Deduction for Space required for Propelling Power (say whether 37-100ths or 32-100ths, or as measured)					
Length of Engine Room (if measured)					
Engines					
Combined Power (estimated Horse-power)					

* *Omit this part, if she has no Steam Power.*

Register Tonnage (after making deduction for space for propelling power in steamers).*

I, the undersigned *A. B.*, registrar of the port of , hereby certify that,

(1.) The ship, the description of which is prefixed to this my certificate, has been duly surveyed, and that the above description is true.

(2.) *C. D.* of is the master of the said ship.

(3.) The said ship was built at [*naming the country and place*] on the day of and her foreign name is [*these words to be added if the ship is foreign.*] *or* [is foreign-built, and the time when and the place where she was built is not known, and her foreign name is] *or* [was condemned by the court of [*naming court*], on the day of at]

(4.) The several persons and bodies corporate whose names are hereunder written [*or endorsed*] are owners of the above ship, in the proportions set opposite their respective names.

(Signed) _____ Registrar.

Names of the several Owners above [*or* within] mentioned.	Number of sixty-fourth Shares held by each Owner.
[*Name.*]	*Thirty two.*
	Sixteen.
	Eight.
	Eight.

(Signed) _____ Registrar.

Dated at _____

the day of 18

Notice.—A certificate of registry granted under the Merchant Shipping Act, 1854, is not a document of title. It does not necessarily contain notice of *all* changes of ownership; and in no case does it contain an official record of any mortgages affecting the ship.

REPORT. In commercial navigation, a paper delivered by the masters of all ships arriving from parts beyond seas to the Custom-house, containing an account of the cargo on board, &c. (16 & 17 Vict. c. 107. §§ 50—54, *antè*, p. 696.)

REPRISALS. Where the people of one nation have unlawfully seized and detained property belonging to another state, the subjects of the latter are authorised, by the law of nations, to indemnify themselves, by seizing the property of the subjects of the state aggressing. This is termed making reprisals; and commissions to this effect are issued from the Admiralty.—(See PRIVATEERS.)

RESPONDENTIA. See BOTTOMRY AND RESPONDENTIA.

REVENUE AND EXPENDITURE. Though not properly belonging to a work of this sort, we believe we shall do an acceptable service to our readers by laying before them the following comprehensive Table of the revenue and expenditure of the United Kingdom in 1856 and 1857.—(See pp. 1106, 1107.) It contains more information in a brief space than most parliamentary papers. It was originally framed according to the suggestion, and printed upon the motion, of Mr. Pusey; and there are not very many members who can refer to so useful a memorial of their parliamentary career.

RHUBARB (Du. *Rhubarber*; Fr. *Rhubarbe, Rubarbe*; It. *Rabarbaro, Reo-barbaro*; Sp. *Ruibarbo*; Rus. *Rewen*; Arab. *Rawend*; Chin. *Ta-hwang*), the root of a plant, a native of China and Tartary. Three varieties of rhubarb are known in the shops; viz. Russian, Turkey, and East Indian or Chinese rhubarb. The first two resemble each other in every respect. They are, in fact, the same article, being both derived from Tartary. The portion destined for the Petersburg market being selected and sorted at Kiachta, acquires the name of Russian rhubarb; while the portion that is sent from Tartary to Smyrna and other places in Turkey is called Turkey rhubarb. The best pieces only are sent to Petersburg; and according to the contract with the government, on whose account it is bought, all that is rejected must be burnt; and that which is approved undergoes a second cleaning before being finally packed up for Petersburg. The best pieces of Russian and Turkey rhubarb are roundish, and perforated with a large hole, of a reddish or yellow colour on the outside, and when cut or broken exhibit a mottled texture, and alternate streaks of red and gray. Its odour is peculiar, and its taste nauseous, bitter, and astringent. It should not be porous, but rather compact and heavy. East Indian or Chinese rhubarb is in oblong flat pieces, seldom perforated; has a stronger odour, and is more nauseous to the taste than the other; it is heavier, more compact, breaks smoother, and affords a powder of a redder shade.—(*Thomson's Dispensatory*; *Ainslie's Mat. Indica*, *&c.*)

In 1857 the imports of rhubarb amounted to 255,510 lbs. The consumption is but trifling, not probably exceeding 40,000 or 50,000 lbs. It was formerly charged with a duty, which, after being reduced in 1842, was repealed in 1845.

RICE (Fr. *Riz*; It. *Riso*; Arab. *Aruz*; Hind. *Chawl*), one of the most valuable of the cereal grasses, the *Oryza sativa* of botanists. It is raised in immense quantities in India, China, and most Eastern countries; in the West Indies, Central America, and the U. States; and in some of the southern countries of Europe. It, in fact, occupies the same place in most intertropical regions as wheat in the warmer parts of Europe, and oats and rye in those more to the north. Forming, as it does, the principal part of the food of the most civilised and populous Eastern nations, it is more extensively consumed than any other species of grain. It is light and wholesome, but is said to contain less of the nutritive principle than wheat. When rough, or in its natural state in the husk, it is called *paddy*. There is an immense variety in the qualities of rice. That which is principally exported from Bengal has received the name of *cargo* rice. It is of a coarse reddish cast, but is sweet and large grained, and is preferred by the natives to every other sort. It is not kiln-dried, but is parboiled in earthen pots or caldrons, partly to destroy the vegetative principle, so that it may keep better, and partly to facilitate the process of husking. Patna rice is more esteemed in Europe than any other sort of rice imported from the East. It is small grained, rather long and wiry, and remarkably white. But the rice raised on the low marshy grounds of South Carolina is unquestionably very superior to any brought from any part of India. It may, perhaps, be worth mentioning, that rice, like wheat, oats, and barley, is not indigenous to America. It was first raised in South Carolina from seeds brought from Madagascar, near the end of the 17th century. Its culture increased so rapidly that in 1724 no fewer than 18,000 tierces, or barrels, were exported.—(*Pitkin's American Statistics*, 1835, p. 100.) According to the returns under the census of 1840, the total annual produce of rice in the U. States was estimated at 80,841,422 lbs., whereas under the census of 1850 it was estimated at 215,312,710 lbs., or above 96,000 tons, of which 159,930,613 lbs. were raised in S. Carolina. The value of the exports of rice from the U. States amounted, in 1858, to 1,870,578 dollars.

An Account of the Public Income and Expenditure of the U. Kingdom, in the Years ended 31st of March, 1855-56 and 1856-57, exhibiting the various Items embraced in the one and the other.

INCOME.	1856.		1857.	
	£	£	£	£
Customs and Excis.				
Spirits { Foreign	1,174,922		1,205,148	
Spirits { Rum	1,297,727		1,425,278	
Spirits { British	7,877,830		8,807,155	
Malt	6,676,349		5,690,950	
Hops	129,116		731,342	
Wine	1,856,120		2,016,548	
Sugar and molasses	5,227,066		5,501,698	
Tea	5,802,086		4,902,669	
Coffee	587,637		529,192	
Tobacco and snuff	5,006,699		5,210,116	
		35,635,552		36,017,796
Butter	113,206		130,256	
Cheese	48,808		49,820	
Currants and raisins	243,726		315,630	
Corn	353,066		483,802	
Silks	284,405		308,028	
Paper	1,047,430		1,138,880	
Candles and tallow	57,177		68,581	
Glass	7,218		6,393	
Timber	448,756		594,766	
Excise licenses	1,399,673		1,408,722	
Post-horse duties				
Hackney carriages	69,636		74,406	
Stage carriages	133,016		114,788	
Railways	323,791		334,064	
Miscellaneous of customs and excise	680,476		736,370	
		5,210,384		5,764,506
Total customs and excise		40,845,936		41,782,302
Stamps.				
Deeds and other instruments	1,218,737		1,333,397	
Probates and legacies	2,850,875		3,005,390	
Insurance { Marine	324,383		325,677	
Insurance { Fire	1,280,441		1,323,200	
Bills of exchange, bankers' notes	450,752		591,002	
Newspapers and advertisements	255,542		158,441	
Receipts	257,631		277,535	
Other stamp duties	425,251		382,043	
		7,063,610		7,396,685
Assessed and Land Taxes.				
Land taxes	1,157,525		1,149,082	
Houses	728,689		728,257	
Servants	185,826		187,895	
Horses	340,898		345,376	
Carriages	283,853		289,972	
Dogs	208,912		200,725	
Additional 10 per cent.	11,912		5,839	
Other assessed taxes	218,462		207,349	
		3,136,077		3,114,445
Property and income tax		15,159,458		16,050,670
Post-office		2,767,201		2,909,181
Crown lands		421,715		413,478
Other ordinary revenue and other resources		1,158,148		1,098,174
Total Income		70,552,145		72,794,885
Excess of expenditure over income		22,597,165		3,247,865*
		93,149,310		76,042,750

* The excess of expenditure in this account will not agree with that shown in the finance accounts, because the expenditure in this return incurred in the collection and management of the revenue is founded on actual payments, while that included in the returns embodied in the finance accounts is founded on exchequer credits, in accordance with the provisions of the act 4 & 5 Will. 4., c. 15. s. 21.

EXPENDITURE.	1856.		1857.	
	£	£	£	£
REVENUE.				
Charges of Collection.				
Civil Departments { Customs	658,162		661,859	
Excise	657,871		639,837	
		1,316,033		1,301,696
Preventive service, land guard, revenue police cruisers, and harbour vessels		512,574		359,594
		1,828,607		1,661,290
Stamps		181,717		167,724
Assessed taxes		422,618		477,493
Other ordinary revenues		27,206		26,819
Superannuation and other allowances		403,205		404,593
Total charges of collection of the revenue		2,863,353		2,737,919
PUBLIC DEBT.				
Interest on permanent debt	23,138,061		23,532,243	
Terminable annuities	3,865,907		3,985,932	
Management	67,332		65,310	
Unclaimed dividends repaid	173,241		89,022	
	27,242,541		27,672,507	
Interest on exchequer bills	660,284		763,670	
Interest on exchequer bonds (1854)	210,000		245,000	
Total debt		28,112,825		28,681,177
CIVIL GOVERNMENT.				
Civil List — Privy Purse.				
Salaries of the household and tradesmen's bills	371,800		371,800	
The allowances to the several branches of the royal family, and to his Royal Highness Leopold Prince of Coburg (now King of the Belgians)*	151,788		151,788	
The Lord Lieutenant of Ireland's establishment	26,540		26,401	
The salaries and expenses of the Houses of Parliament (including printing)	162,230		153,705	
Civil departments, including superannuation allowances	763,548		695,118	
Other annuities, pensions, and superannuation allowances on the consolidated fund, and on the gross revenue	207,688		194,401	
Pensions, Civil List	11,458		16,533	
Total civil government		1,695,052		1,609,746
JUSTICE.				
Courts of justice	754,931		802,937	
Police and criminal prosecutions	1,012,582		957,579	
Correction	1,424,907		984,874	
Total justice		3,192,420		2,745,390
DIPLOMATIC.				
Foreign ministers' salaries and pensions	147,659		153,237	
Consuls' salaries and superannuation allowances	189,742		189,709	
Disbursements, outfit	29,042		33,170	
Total diplomatic		366,445		376,116
FORCES.				
Army, including ordnance — Effective — No. of Men	(160,731)			
Charge	24,672,085		18,634,318	
Non-effective — No. of Men	(65,748)			
Charge	3,134,520		2,176,424	
Total army	27,806,603		20,811,242	
Navy — Effective — No. of Men	(67,791)			
Charge	18,405,549		12,295,183	
Non-effective — No. of Men	(15,732)			
Charge	1,249,036		1,163,830	
Total navy	19,654,585		13,459,013	
Total forces		47,461,188		34,270,255
Vote of credit (war with Russia)		4,200,000		
Bounties, &c. for promoting fisheries		14,575		18,555
Public works		950,576		951,254
Payments out of the revenue of crown lands, for improvements and other public services		107,042		148,419
Post-office: charges of collection and other payments		1,578,299		1,637,587
Quarantine and warehousing establishments		137,307		144,337
Miscellaneous, not classed under the foregoing heads		2,470,230		2,741,495
Total expenditure		93,149,310		76,042,750
Memorandum:				
The amount of terminable annuities at the end of each year, was		3,996,066		4,001,425
In corresponding perpetuities, as estimated by Mr. Finlaison		898,313		827,026
Difference		3,097,753		3,174,399

* No part of this income is at present paid for the use of King Leopold. The trustees, after discharging certain annuities and pensions to the establishment of the late Princess Charlotte, repay the balance of the annuity to the exchequer; the sum so repaid in the last year was 34,000*l.*

The produce of lands naturally or artificially irrigated is, as far as rice is concerned, from 5 to 10 times greater than that of dry land having no command of water: and hence the vast importance of irrigation in all countries where this grain is cultivated. But it is worthy of remark, that, owing to the not unfrequent occurrence of severe droughts, there is a greater variation in the crops of rice than in those of any other species of grain. Those who, like the Hindoos, depend almost entirely on it for subsistence, are, consequently, placed in a very precarious situation. There can be no doubt that famines are at once more frequent and severe in Hindostan than in any other country, Ireland excepted.

There has been of late years a very great increase in the exports of rice from the East, or rather from the ports of Akyab, Rangoon, Bassein, Moulmein, &c., on the east side of the Bay of Bengal. We borrow from the valuable and instructive circular of Messrs. Gladstone, Wyllie and Co., Calcutta, 23. December 1858, the following statements in regard to the shipment of rice from the ports referred to, and Calcutta.

Akyab. Account of the Shipments, and their Destination of Rice and Paddy from Akyab, in each of the last 5 Years, terminating 30th November (no shipments of rice in December):—

Years.	Europe.		Eastward.		Other Quarters.		To all Quarters.	
	Rice.	Paddy.	Rice.	Paddy.	Rice.	Paddy.	Rice.	Paddy.
	tons.	*tons.*	*tons.*	*tons.*	*tons.*	*tons.*	*tons.*	*tons.*
1854 - -	67,225	1,615	24,163	89	5,470	5,179	96,858	7,183
1855 - -	156,068	2,178	10,463	94	860	1,007	167,391	3,274
1856 - -	141,575	4,917	5,421	- -	- -	- -	146,996	4,917
1857 - -	91,356	1,432	14,197	126	- -	- -	105,553	1,558
1858 - -	103,404	2,720	23,224	- -	4,464	3,742	131,092	6.462

It is roughly estimated that of the exports of the past season at least 20,000 tons were from the crop of the previous season, which had been held over; and, assuming such to be correct, we may reckon the crop of 1856-57 to have been about 125,000 tons, and that of 1857-58, 117,000 tons available for export.

Rangoon. Account of the Shipments, &c., of Rice from this Port in each of the last 3 Years: —

Years.	Europe.	China Straits.	Elsewhere.	Total.
	tons.	*tons.*	*tons.*	*tons.*
1856 - -	43,225	14,606	6,732	58,563
1857 - -	63,094	27,158	1,536	91,788
1858 - -	44,599	64,133	3,829	112,561

Bassein. Account of the Shipments,&c., of Rice from this Port in each of the last 3 Years: —

Years.	Europe.	China Straits.	Elsewhere.	Total.
	tons.	*tons.*	*tons.*	*tons.*
1856 - -	12,507	2,493	1,218	16,218
1857 - -	17,499	7,711	1,613	26,823
1858 - -	16,126	25,736	2,014	43,876

The very remarkable and sudden rise of the rice trade from Rangoon and Bassein, springing up as it has done from nil in 1853 to the enormous extent of 154,148 tons from the two ports in the short space of five years, cannot fail to attract marked attention, especially as it does no more than afford a partial indication of the almost boundless resources of the rich province of Pegu, of which they are outlets. The grain known as *Natsang* stands well in Europe and compares favourably with the best Akyab *Necrausee*, and we doubt not that, as the Burmese become sensible of the advantage of bestowing more care in its preparation, it will, in point of quality, be second to none.

Moulmein. Our statement of 7th July showed an export up to 30th June of 13,191 tons, which has since been increased to 17,059 tons, of which about 1-8th has gone to China and the remainder to Europe. Hence the

Total export from	Akyab	in 1858 (ex. paddy amounted to)	131,092 tons.
,,	Rangoon	,,	,,	112,561 ,,
,,	Bassein	,,	,,	43,876 ,,
,,	Moulmein	,,	,,	17,057 ,,
				304,586 tons.

And this in respect of tonnage, and the employment which the trade gives to shipping, is equivalent to about 1-3rd of the entire export trade of Calcutta.

Calcutta. The exports of rice to Europe have been very limited during the present year. Only 618.693 mds , equal to about 22,910 tons, have been exported from 1st January to this date, whilst during the preceding year the export was 2,190,096 mds. or 81,000 tons, and during 1856 it was 2,550,047 mds. or 94,500 tons.

Account stated in Mds. of the exports of Rice from Calcutta in each of the 7 Years ending with 1858.

Years.	Great Britain.	Continent, Europe.	West Indies.	China Straits.	Mauritius, Bourbon.	Cape of Good Hope.	Australia.	Total.
1852 - -	757,350	155,592	99,053	78,121	1,100,733	71,236	45,014	3,008,159
1853 - -	1,194,839	217,018	188,672	127,823	1,310,421	40,808	58,757	4,277,833
1854 - -	1,156,216	170,981	292,970	108,391	1,665,291	64,800	61,547	4,791,480
1855 - -	2,365,776	567,060	251,569	683,583	1,989,050	55,806	106,502	6,986,845
1856 - -	2,479,066	268,584	484,209	1,353,349	2,460,260	90,220	301,950	7,427,638
1857 - -	2,152,017	229,014	278,617	2,690,025	2,024,050	187,514	279,022	7,840,289
1858 - -	549,352	69,341	129,540	1,360,210	1,765,784	50,434	262,912	4,185,603

For a considerable number of years our supplies of cleaned rice were principally derived from Bengal; but it is plain from the preceding statements that this is no longer the case; and while in 1858 our imports of rice from the East amounted to about 184,000 tons, the entire exports from Calcutta

to Europe in the course of that year amounted, as already seen, to only 22,910 tons. Besides our imports from Hindostan and the Burmese provinces we import considerable quantities from Java, the U. States, &c. We subjoin

An Account of the Imports of Rice in 1857, specifying the Quantities brought from each Country, and the Quantities entered for Consumption.

Countries.	Imports.	Consumption.	Countries.	Imports.	Consumption.
	cwt.	*cwt.*		*cwt.*	*cwt.*
Holland - - -	19,973	15,093	St. Helena - - -	3,701	4,485
France - - -	32,112	12,567	India, &c. - - -	3,159,420	1,356,450
Madagascar - - -	4,625	4,562	Guiana - - -	31,108	11,788
Java - - -	85,007	27,538	Other parts - - -	18,847	12,564
United States - -	56,764	55,920	Totals - -	3,116,557	1,495,725

During the same year 20,900 qrs. of rough rice were imported, of which 2-3rds came from India. We make these imports from being in possession of a method of detaching the husk, which throws out the grain clean and unbroken. The cwt. of Carolina rice sells in London at from 16*s.* to 30*s.* per cwt. when Bengal rice sells at from 6*s.* to 13*s.* per do.

The duty on foreign rice was formerly quite excessive, having amounted previously to 1842 to 15*s.* a cwt. while that charged on rice from a British possession was only 1*s.* In 1842 Sir Robert Peel reduced the former to 6*s.* 3*d.* and the latter to 6$\frac{3}{10}$*d.*; and in 1846, he further reduced the duty on foreign rice to 1*s.*, and that on colonial do. to 6*d.* a cwt. In 1853, Mr. Gladstone equalised the duties, which are now only 4$\frac{1}{2}$*d.* a cwt. A like course has been followed with the duty on rough rice, which, in 1842, amounted to 20*s.* a qr. on that from a foreign country, and to only 1*d.* per do. on that from a colony! Sir Robert Peel reduced the former in 1842 to 7*s.* 4$\frac{1}{2}$*d.*, and in 1846 to 1*s.*: and it is now fixed at 9*d.* per qr. without reference to its origin. No abatement is made from the duty on account of damage.

In consequence of the reduction of the duties, the consumption of rice has been greatly increased of late years; formerly it rarely exceeded (except in 1847 when it was largely imported into Ireland) 550,000 cwts., whereas it amounted at an average of 1856 and 1857 to 1,465,925 cwts. a year, notwithstanding the low prices of wheat.

RIGA, a city of European Russia, the capital of Livonia, on the Duna, about 9 miles from the sea, lat. 56° 56′ 5″ N., lon. 24° 0′ 4″ E. Population in 1851, excluding garrison, 57,906.

Harbour. — A lighthouse has been erected on Fort Comet, on the western side of the mouth of the river. It has 2 lights: the first, elevated about 104 feet (English) above the level of the sea, may be seen, under favourable circumstances, at the distance of 4 leagues; and the second, elevated about 24$\frac{1}{2}$ feet, may be seen at the distance of 2$\frac{1}{2}$ leagues. The bar at the mouth of the river has usually from 12 to 13 feet water; and vessels drawing more than this frequently load and unload part of their cargoes by means of lighters at Bolderaa, a small town on the west side of the river, near its mouth. There is a fairway beacon without the bar, in 5 fathoms water; and within, the channel is buoyed with black and white buoys; the black being left on the right or starboard side when entering, and the white on the larboard. Vessels bound for Riga take pilots at Bolderaa, who carry them to their anchorage. No ballast is allowed to be discharged, except at Poderague. Regulations as to clearing, &c., similar to those at Petersburg. — (*Coulier sur les Phares*, 2d ed.; and *Regulations published by the Russian Authorities.*)

Trade. — Owing to its advantageous situation near the mouth of a great navigable river, the trade of Riga is very extensive; being, of the Russian towns on the Baltic, in this respect second only to Petersburg. The trade is chiefly carried on by foreign merchants, particularly by the English. The principal exports are flax and hemp, linseed and hemp seed, timber, corn, tobacco, hides, wool, tallow, &c.; the imports are salt, sugar, coffee, and groceries of all sorts, herrings, indigo, dye woods, cotton and cotton twist, silks, hardware, iron, coal, wines, &c.

The mast trade is extensive. The burghers of Riga send persons who are called mast brokers into the provinces to mark the trees, which are purchased standing. They grow mostly in the districts which border on the Dnieper, are sent up that river to a landing place, transported 30 versts to the Duna, when, being formed into rafts of from 50 to 200 pieces, they descend the stream to Riga. The tree which produces the largest masts is the Scotch fir. Those pieces which are from 18 to 25 inches in diameter are called masts; under those dimensions, spars, or, in England, Norway masts, because Norway exports no trees more than 18 inches in diameter. Great skill is required in distinguishing those masts that are sound from those which are in the least internally decayed. They are usually from 70 to 80 feet in length.

The best kind of flax shipped from Riga is grown in White Russia, and is called Druana rakitzer; its colour is very white, and the threads long, fine, and loose, but it has sometimes black spots; the next quality, coming from the province of Trockic in Lithuania, is called Lithuanian rakitzer, and is very little inferior to Druana, but its colour is a little brown; of this kind the best sort is Thiesenhausen. The best kind of Courland flax shipped from Riga is Marienburg; that grown in Livonia is inferior. There are two kinds of linseed; that of the last crop, which is used for sowing; and that of former years, for crushing. To prevent deception, the year of its growth is stamped on the barrel by sworn inspectors (*brackers*). Hemp-seed is mostly shipped for Holland. Riga wheat is inferior to that of Dantzic. Two descriptions are shipped — one the growth of Russia, the other of Courland; the last is the best, being larger bodied and of a brighter colour than the Russian; still, however, it makes but indifferent flour. Oats are of a good quality, and are largely exported; peas are also occasionally exported.

In shipping masts, the rest of the cargo generally consists of deals and wainscot logs; the latter are much exported to England, and are very superior.

Money. — For the monies of Riga, see PETERSBURG.

Weights and Measures. — The commercial pound is divided into 2 marcs, or 32 loths; and also into halves, quarters, &c. It contains 6,452 English grains. Hence 100 lbs. of Riga = 92·17 lbs. avoirdupois = 41·8 kilog. = 86·32 lbs. of Hamburg = 84·64 lbs. of Amsterdam. The lispound = 20 lbs.; the shippound = 20 lispounds.

The loof is the measure for grain: 48 loofs = 1 last of wheat, barley, or linseed; 45 loofs = 1 last of rye; and 60 loofs = 1 last of oats, malt, and beans. According to Kelly, the loof = 1·9375 Winchester.

bushels; and, consequently, the last of wheat = 11·625 quarters. Nelkenbrecher does not value the loof quite so high as Kelly.

The fuder, the measure for liquids, is divided into 6 ahms, 24 ankers, 120 quarts, or 720 stoofs. The anker = 10 English wine gallons.

The foot of Riga = 10·79 English inches. The ell = 2 feet; the clafter = 6 feet.

Account of the Quantities of the Principal Articles exported from Riga in 1858, distinguishing those sent to different Countries.

To	Flax.	Flax, Codilla.	Hemp.	Hemp, Codilla.	Tallow.	Leaf Tobacco.	Rye.	Barley.
	Poods.	*Poods.*	*Poods.*	*Poods.*	*Poods.*	*Poods.*	*Chetwerts.*	*Chetwerts.*
England	1,215,745	25,401	767,458	23,884	19,254	- - -	- -	1,877
Hanover	- - -	- - -	- - -	- - -	- - -	- - -	1,080	- - -
Holland	5,524	5	91,692	520	- - -	- - -	43,095	64,970
Belgium	342,919	220	16,986	- - -	- - -	27,393	- -	3,280
France	349,037	9,541	82,403	9,085	- - -	- - -	- -	- -
Spain	6,923	- - -	6,540	450	- - -	- - -	- -	- -
Portugal	36,468	107	19,260	200	- - -	- - -	- -	- -
Denmark	17,021	45	47,163	8,440	94	10,580	153	- -
Sweden and Norway	11,185	1,763	119,952	1,709	103	70	1,642	- -
Prussia	2,694	252	67,507	3,802	1,528	1,781	- -	- -
Mecklenburg	21	- - -	3,946	60	- - -	747	- -	- -
Lubeck	1,207	67	43,741	679	- - -	3,491	- -	- -
Hamburg	- - -	- - -	4,980	- - -	- - -	4,208	- -	- -
Bremen	116	- - -	13,232	20	- - -	- - -	3,865	- -
America	- - -	- - -	13,128	- - -	- - -	- - -	- -	- -
Genoa	- - -	- - -	- - -	- - -	- - -	- - -	- -	- -
Total	1,988,863	37,401	1,297,988	48,859	20,979	48,270	49,835	70,127

To	Oats.	Sowing seed.	Crushing seed.	Hemp seed.	Staves.	Deals.	Timber.	Total Value of all Exports.
	Chetwerts.	*Barrels.*	*Chetwerts.*	*Chetwerts.*	*Pieces.*	*Pieces.*	*Pieces.*	*S. Ro.*
England	300,630	64,941	101,997	4,298	7,087	192,779	18,793	12,587,876
Hanover	- - -	- - -	- - -	- - -	- - -	631	63	5,640
Holland	28,000	4,635	24,657	14,798	2,580	172,105	18,835	2,158,805
Belgium	20,245	29,692	4,943	81,253	19,779	33,007	39,743	3,101,171
France	1	22,415	1,816	3,140	86,874	77,264	9,444	2,899,539
Spain	- - -	- - -	- - -	- - -	6,849	17,950	882	95,502
Portugal	- - -	- - -	- - -	- - -	25,256	4,210	288	218,044
Denmark	- - -	98	734	307	900	299	3	266,809
Sweden and Norway	- - -	1,057	2,502	20	1,580	- -	- -	582,410
Prussia	- - -	15,421	- -	402	- - -	- -	- -	375,571
Mecklenburg	- - -	126	- -	24	- - -	230	787	21,825
Lubeck	- - -	13,753	230	- -	3,030	- -	- -	593,870
Hamburg	- - -	- - -	- - -	- - -	- - -	- -	- -	27,294
Bremen	- - -	573	- -	- -	- -	195,504	83	127,972
America	- - -	- - -	- -	- -	- -	- -	- -	159,843
Genoa	- - -	- - -	- -	- -	- -	1,250	- -	4,765
Total	358,876	152,641	136,919	104,242	153,715	695,259	88,891	23,030,036

The quality of timber denominated "crown fir timber" has latterly become very scarce, so that the greater part of the Riga exports consist of the second quality, or what is called "Verschiffungs brack timber." There is no essential difference in the quality of crown timber, and timber of the second quality, except that the latter is knottier than the former.

RIO DE JANEIRO, the capital of Brazil, on the Atlantic, in lat. 22° 54′ 15″ S., lon. 43° 15′ 50″ W. Population, in 1855, 296,136. The harbour of Rio is one of the finest in the world, both as respects capaciousness and security for all sorts of vessels. In coming from the N.E. it is usual to make Cape Frio, in lat. 23° 1′ 18″ S., lon. 42° 3′ 19″ W., being about 4 leagues nearly E. of Rio. The entrance to the harbour is marked by a remarkable hill in the form of a sugarloaf, 900 feet high, close to its west side; while on the east, or opposite side of the bay, at the distance of about 1½ mile, is the fort of Santa Cruz. But the woodcut in the next page, taken from a chart published by order of the Brazilian authorities, gives a much better idea of this noble harbour than could be obtained from any description.

Entrance to the Harbour.— Vessels bound for Rio, coming from the N., should, after rounding Cape Frio, steer due W., keeping about 3 leagues from the coast, until they come within 5 or 6 miles of the *Ilha Raza*, or Flat island, lying almost due S. from the mouth of the harbour, at the distance of about 3 leagues. A lighthouse, the lantern of which is said to be elevated nearly 300 feet above the level of the sea, was erected on this island in 1829. The light is a revolving one, finishing its revolution in 3 minutes, and exhibiting alternately a white and a red light. There is also a lighthouse in the fort of Santa Cruz, the light of which is fixed, and elevated about 50 feet above the level of the sea.—(*Coulier sur les Phares*, 3d ed.) Having got within 5 or 6 miles of the Ilha Raza, ships may enter by day or by night, the dotted line in the cut marking the fair-way into the harbour. There are no pilots to be met with; and as there are no hidden dangers of any kind, their services are not wanted. On entering, vessels must pass within hail of Fort Santa Cruz, to be ready to answer any questions that may be put to them. They then proceed to Fort Vilganhon, below or opposite to which they must bring to, or come to anchor, allowing no boats to come alongside, but those of the government, until they have received *pratique*, when they will be permitted to proceed to the usual place of anchorage for the merchant shipping.

The sea breeze generally sets in about 11 A.M., and lasts till about sunset. It is strong enough to enable ships to overcome the ebb. High water at full and change at 2 in the afternoon.

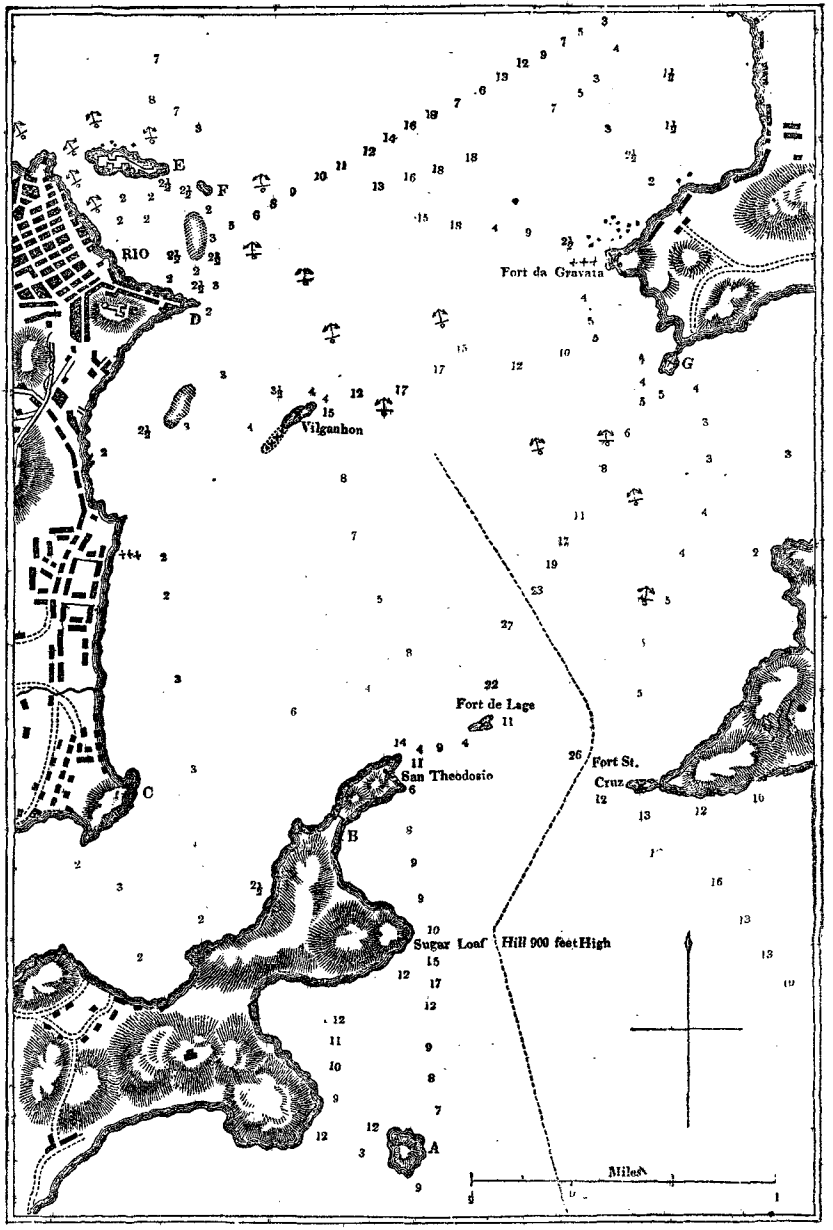
Anchorage Dues.—1. From and after 1st July, 1852, the anchorage duty upon vessels trading between foreign ports and the ports of Brazil will be reduced to 300 reis the ton; and the same class of duty now levied upon coasting vessels shall be abolished.

2. That part of the provisions of April 26, July 20, and November 15, 1844, which has not been altered by this decree will continue in force.

Money, Weights, and Measures.—All payments are made in paper money, which has been over-issued, and is excessively depreciated. But in ordinary cases the par of exchange may now be assumed at about 31*d.* sterling per patriotic dollar, of 1620 reis paper. Weights and long measures are the same as those

of Lisbon, the arroba being 32½ lbs. avoirdupois; but measures of capacity are different, a medida being equal to ·5954 Imperial galls., and an alquiére to 1·11 ditto.

Trade.—The trade of Rio is extensive, and has increased rapidly of late years. It is now by far the greatest mart for the export of coffee. The shipments of this important article, which in 1830 amounted to 396,785 bags, have increased with such unexampled rapidity, that at an average of 1856 and 1857, they amounted to 2,098,238 bags a-year;



References to Plan.—A, Ilha do Catunduba. B, Fort de St. Joao. C, Morro do Flamengo. D, Ponta do Calhabouco. E, Fort da Ilha das Cobras. F, Ilha dos Rattos. G, Fort da Boa Viagem.

and though the export in 1858 was only 1,830,438, it may be estimated, speaking generally, at 2,000,000 bags a-year, that is (taking the bag at 160 lbs.), at 320,000,000 lbs., or 133,000 tons; being but little below all the exports of coffee from all the other ports in the world. Sugar was formerly an important article of export from Rio, but latterly it has rapidly decreased, having amounted to only 7,677 cases (13 cwt. each) in 1857, whereas in 1852 it amounted to 13,960 cases. The other great articles of export from Rio are hides, rice, tobacco, rum, tapioca, ipecacuanha, manioc or manihot, flour and other inferior articles. The export of cotton has entirely ceased; and that of gold, diamonds, &c., though very considerable, is mostly clandestine. Diamonds are principally exported from Bahia. We subjoin

An Account of the Vessels cleared out, and of the Quantities of the Principal Articles of Native Produce exported from Rio during each of the following Years.

Years.	Cleared outwards.		Coffee.	Sugar.	Hides.	Horns.	Tanned half hides.	Rice.	Rum.	Rosewood.	Ipecacuanha.	Tobacco.	Tapioca.
	Ves.	*Tons.*	*Bags. (154 lbs.)*	*Cases. (15 cwt.)*	*No.*	*No.*	*No.*	*Bags.*	*Pipes.*	*Dos.*	*Lbs.*	*Rolls, &c.*	*Brls.*
1845	584	174,320	1,208,062	14,559	215,689	308,608	18,399	27,274	4,725	2,182	17,681	15,003	7,454
1846	668	199,858	1,511,096	8,115	594,586	345,199	17,291	13,913	3,664	1,856	49,788	18,483	4,701
1847	658	198,508	1,644,560	8,311	268,492	447,607	6,162	20,021	3,985	809	23,901	21,707	1,970
1848	716	215,365	1,710,707	5,848	315,848	285,627	11,657	9,808	2,934	1,321	16,508	22,290	1,733
1849	656	212,576	1,433,980	5,979	309,220	385,685	11,139	20,717	4,380	1,905	11,676	26,909	9,543
1850	618	196,188	1,349,851	13,239	186,616	282,324	17,672	25,554	3,010	2,240	11,676	26,909	16,953
1851	773	258,640	2,037,305	12,832	171,973	260,149	12,884	8,734	3,982	3,067	12,722	29,666	18,074
1852	711	239,865	1,906,336	13,960	120,603	214,739	4,089	8,992	1,988	2,125	61,087	29,514	11,003
1853	614	205,545	1,659,215	8,326	87,684	220,964	5,451	10,198	1,510	2,894	37,382	35,100	7,408
1854	636	219,470	1,986,059	6,128	83,088	196,268	16,242	6,624	1,628	2,712	54,835	25,861	3,798
1855	759	269,089	2,409,545	8,200	105,271	128,691	7,858	16,870	2,610	1,616	67,174	20,922	6,880
1856	-	-	2,155,136	-	62,222								
1857	-	-	2,097,340	-	40,318								

Exports of Coffee.—Account of the Exports of Coffee from Rio in 1857 and 1858, showing the Quantities exported to different Countries, and the total Exports.

Countries.	1857.	1858.	Countries.	1857.	1858.
	Bags.	*Bags.*		*Bags.*	*Bags.*
United States	880,297	1,133,060	Sweden and Norway	48,256	12,872
California and Valparaiso	23,353	20,490	Denmark	34,621	25,610
English Channel	441,113	282,270	Holland	34,222	
England	25,705	1,926	Portugal and its dominions	11,817	29,223
Hamburg and Altona	145,906	42,247	Cape of Good Hope	36,733	21,337
Antwerp	80,180	3,838	River Plate	7,493	5,069
Mediterranean	226,842	161,343			
North of France	81,515	88,570	Total	2,099,780	1,830,438
Bremen	23,947	10,577			

Exports of Sugar.—Though the exports of sugar from Rio have decreased, that is not the case with the exports from Bahia and other ports of the empire. In proof of this we beg to subjoin the following

Account of the Sugar exported from Brazil in the undermentioned years, ending 30th June.

1840–41	lbs.	214,348,532	1848–49	lbs.	272,180,768
1841–42		144,162,491	1849–50		255,794,752
1842–43		166,711,089	1850–51		317,051,720
1843–44		181,855,385	1851–52		238,759,728
1844–45		239,241,174	1852–53		341,803,008
1845–46		227,500,928	1853–54		256,510,048
1846–47		227,162,452	1854–55		254,765,504
1847–48		246,241,984	1855–56		236,520,928
Total		1,647,224,035	Total		2,173,386,456
Average of the 8 years		205,903,004	Average of the 8 years		271,673,307

The Brazilians are great eaters of sugar, and a great deal is wasted in the interior. And hence the magnitude of the exports is not influenced merely by the state of the crops, but, also, by the prices in Europe and the U. States. When they are high a larger proportion of the produce is exported.

The Bank of Brazil, which has its head quarters in Rio, is in a flourishing condition. It has power to issue notes; and all disputed property belonging to dead or absent parties is entrusted to its keeping. It charges 2 per cent. for its trouble. We subjoin one of the latest statements that we have seen of the affairs of the bank.

Condition of the Bank of Brazil, January, 1856.

Assets.			*Liabilities.*		
Shareholders: unpaid capital		14,100,200$000	Capital: amount as per charter		30,000,000$000
Bills discounted:			Reserve fund: 6 p. c. profits		149,475$927
with 2 resident firms	22,037,747$059		Issue: amount of notes in circulation		21,062,870$000
with 1 resident firm	237,125$000				
		22,274,872$059	Bills payable: amount received upon interest		1,506$160
Bills discounted upon deposits:			Accounts current: balance of deposits		3,603,040$496
of specie, bullion, and commercial securities	3,323,456$797		Profit and loss: profits on sundry operations		825,817$957
of other securities and merchandise	944,421$000				
		4,267,880$797			
Sundries: amount of divers accounts forming a part of the assets of the bank		5,120,854$730			
Profit and loss: interest and sundry expenses.					
Cash account: balance on hand, viz.: in gold and silver, and in notes	5,280,934$974				
in bar gold	4,597,967$980	9,878,902$954			
	Rs.	55,642,710$540		*Rs.*	55,642,710$540

The principal article of import consists of cotton goods, the value of which amounts to about a third part of the total value of the imports. Next to cottons are woollen, linen, and silk manufactures, wines, jewellery, and ironmongery; flour, meat, fish, butter, and other articles of provision; spirits, salt, earthenware, paper, and a host of other articles.

Account of the Value of the Exports from the different Ports of Brazil in the under-mentioned Years, in Milreis.

Countries.	1852-53.	1853-54.	1854-55.	1855-56.	1856-57.
Rio de Janeiro	37,773,571	37,711,432	51,171,341	49,176,486	55,121,675
Bahia	10,656,745	10,431,105	11,782,854	12,860,282	17,863,374
Pernambuco	9,755,767	8,606,147	9,372,251	11,504,167	15,263,866
Maranhão	1,717,273	2,596,609	2,017,328	2,135,935	2,234,183
Para	2,605,257	3,294,831	3,854,347	3,567,059	4,156,533
Rio Grande do Sul	3,564,847	4,096,516	3,335,882	3,748,115	6,870,024
S. José do Norte	709,427	610,825	555,420	552,673	
Port Alegre	5,860	2,584	393	36,125	
Uruguayana	68,468	75,168	130,597	149,786	
Santos	2,026,373	2,632,848	3,367,077	3,299,681	3,152,612
Paranaguá	551,140	867,453	811,722	1,660,428	2,213,518
Parahiba	1,728,235	1,204,136	1,610,543	2,294,045	3,621,495
Fortaleza	486,340	472,855	564,815	636,022	
Santa Catharina	192,341	158,083	266,183	219,920	
Alagoas	1,471,307	1,818,768	1,189,582	1,577,300	1,924,756
Sergipe and Espirito Santo	420,131	374,499	421,750	609,019	
Rio Grande do Norte	95,985	143,292	185,106	243,745	
Parnahiba	12,169	35,339	37,944	62,524	Other ports 3,379,266
Total — Milreis	73,644,724	76,842,490	90,698,615	94,431,315	114,503,411
Total — or £	8,182,747	8,538,054	10,077,624	10,492,368	12,722,601

The exports have increased materially within the last few years; notwithstanding labour has become scarcer and dearer, in consequence of the greatly increased difficulties thrown in the way of the importation of slaves. The exports of cotton have, for a lengthened period, been nearly stationary. They are still, however, pretty extensive, and supplied us in 1858 with 166,231 cwt. Hides are an important article of export.

Account of the Value of the Imports, for Home Consumption, into Brazil, specifying those from each Country, in the Years (ended 30th June) 1853-54 to 1856-57, in Milreis.

Countries.	1853-54.	1854-55.	1855-56.	1856-57.
Great Britain and possessions	45,521,963	45,450,341	49,822,401	73,711,048
Russia	141,884	14,580	469	31,125
Sweden and Norway	218,420	379,549	342,961	439,870
Denmark	250,516	92,832	95,681	50,736
Prussia				2,400
Hanse Towns	5,179,153	4,884,466	4,813,764	7,498,456
Holland and possessions	60,226	117,500	108,376	124,799
Belgium	1,833,237	1,671,505	2,279,545	2,073,748
France and possessions	9,844,045	9,978,274	10,982,180	16,476,063
Spain ,,	692,690	1,230,937	1,138,839	1,415,399
Portugal ,,	5,745,033	6,468,792	5,861,586	6,640,118
Austria	714,009	260,555	265,343	481,045
Sardinia	664,209	755,169	695,542	998,682
Two Sicilies		29,498	24,571	24,620
Coast of Africa				251,276
China			86	
United States	7,688,736	6,991,757	5,677,321	7,777,400
Chili	416,951	1,128,247	241,025	
Peru	1,212	7,439	24,606	
Rio de la Plata	4,497,551	4,217,091	4,491,136	4,030,646
Ports of the empire	677,516	606,920	604,958	
The fisheries		490	569	
Ports not specified	707,547	549,317	3,763,711	1,828,529
Total — Milreis	84,854,899	84,829,741	91,233,813	123,855,958
Total — or £	9,428,322	9,425,526	10,137,091	13,761,775

Port Regulations.—The captain of every ship entering Rio, or any other port of Brazil, is ordered by a law enacted in 1856 —

1. To go directly with his vessel from the entrance of the harbour to the anchorage ground in *Franquia;* and if, on account of the tide, contrary wind, or any other just cause, he should be compelled to come to anchor, and shall remain anchored for twelve hours after said hindrances are removed (except in case of being quarantined), he shall pay a fine of 100,000 reis, and shall be compelled, by the fort, or by a government vessel of war, whichever may be nearest, to proceed immediately to the Franquia anchoring ground.

2. He shall not suffer any kind of vessel to board him, nor any person to come on board or to leave his vessel, before he has been visited from the custom-house, excepting only the pilot, health officer, the head officer at the entrance, when there is one, and in the case of shipwreck, or for the saving of lives.

3. Even after the custom-house visit on arrival, and until the vessel is discharged, he shall allow no person to come on board without a written permission from the inspector of the customs; and this permission shall be given in the following cases, viz. —

A. To allow the buyers of goods to go on board to examine the cargo they wish to purchase, when sufficient specimens cannot be seen on shore.

B. To workmen or labourers necessary to put the cargo in order, taking care to have them examined when they go on board and return. In case of the infraction of the above regulations, a fine shall be imposed on him from 100,000 to 200,000 reis for every vessel he allows to board him, and of 500,000 for each person who shall enter or leave his vessel without licence, unless he be a passenger or belonging to the crew; and every other person who goes on board or leaves the vessel shall pay 100,000 reis fine, and be kept in custody until payment is made. The one-third part of these fines shall be divided amongst the watchmen or military who shall have taken up the offender.

4. He shall deliver to the *guarda-mor* (chief customs officer), when he makes his visit on arrival, his passport and cargo-book.

5. He shall deliver to the commander of the guard boat without the port, if he be there, or at the Franquia, if he be there, the manifest as described below.

6. He shall enter at the custom-house within 24 hours after the *guarda-mor* has been on board, not counting the days on which the custom-house is shut, and present himself to the inspector, and swear, or affirm, that he has not on board of his vessel any merchandise other than what is described in the manifest he has delivered, and that he has no further declaration to make; and if he do not enter within the 24 hours, he shall pay 100,000 reis for each day's delay additional.

7. If he shall detain his vessel at either of the anchorages more than 24 hours, when he shall be directed by the *guarda-mor*, or his representative, to remove thence, he shall pay 100,000 reis for every day he delays.

8. He shall discharge no part of his cargo but by an order in writing from the inspector; and if he land any without such order, he shall pay 100,000 reis for each package so landed.

9. He shall give notice to the officer attending the discharge of the vessel, as soon as his cargo is discharged, that he has

nothing remaining on board. If he omit to do this on the same day, so that the vessel may be immediately examined, he shall be fined 100,000 reis.

10. The master of every vessel going with a cargo to any part of the empire, must have two manifests of the cargo, exact copies of each other, exhibiting the name, class, and tonnage of the vessel; the name of the captain, whose signature must follow the date; the name of the port where the articles stated in the manifest were taken on board; the name of the port or ports for which the vessel is destined; the marks or counter marks and numbers of the packages, and their description, as bales, cases, pipes, half-pipes, barrels, &c.; a declaration of the quantity and quality of the merchandise of each package, or several similar ones of the same mark, and also of what is on board in bulk; the names of the consignees, or to order; all to be written in length, except the numbers of the packages.

11. When the vessel has taken in her cargo at more than one port, there must be two manifests from each port.

12. At the end of the manifest, the captain shall declare the number of passengers, whether cabin or steerage, and the baggage for the use of each, and in addition any declaration necessary for his security; and in good faith he shall declare whether he has any package to add to the manifest, or whether any are deficient, with the cause of it, as no after declaration will relieve him from responsibility, for he will not be exempted upon the vague declarations frequently made, which do not account for deficiencies or differences.

13. The captain of any vessel bound to Brazil, when he has completed his cargo in the port or ports from which he is to sail, and made the manifests, as required in the 9th article, shall present his documents to the Brazilian consul residing in the port, who shall examine them, and if agreeable to these regulations, certify them.

14. In those ports where there is no Brazilian consul or substitute, the manifest shall be certified by two Brazilian resident merchants; or, if there be none, by two merchants of the place: in either case, the signatures to be authenticated by legal authority.

15. Should any greater quantity of goods be found on board than are stated in the manifest or the declaration of the captain, the overplus shall be seized and divided amongst those who seize them, after paying the duties, and the captain shall pay a fine of half the value of the goods.

16. If there are any goods missing of those stated in the manifest or declaration of the captain, they shall be reputed to be concealed or smuggled, and he shall pay the value thereof to those who have discovered the deficiency, and half the value to the national treasury. These condemnations shall take place on the simple fact of there being an overplus or deficiency of goods, without further proof being required.

17. For each difference in the quality or mark of the package, the captain shall pay 2,000 reis, although in every other respect the goods discharged may agree with the manifest.

18. The captain whose manifests are not conformable to these regulations, shall be fined from 100,000 reis to one *conto de reis*, at the will of the collector, according to the degree of culpability that shall appear, and he cannot discharge until the fine is paid.

19. In case the captain brings no manifest, he may still be allowed to discharge, by paying 5 per cent. on the value of the cargo, in addition to the usual duties.

Franquia.—Vessels proceeding to Brazil, and when it is wished to dispose of their cargoes at different ports, must clear out for "Brazil and other ports," or for "Pernambuco, Bahia, Rio de Janeiro, and other ports." They are then entitled to the privilege of Franquia, and may land a part of their cargoes at one port, paying duties only on the goods so landed, and proceed with the remainder to other ports. But if they clear out for one port only, they are compelled to make a complete entry, and discharge the whole of the cargo.

In proceeding from one Brazilian port to another, it is necessary that a bill of health should be taken from the local authorities of each port; and where any part of the cargo is landed, the same must be noted on the original manifest by the customs officer of the port.

Anchorage.—Foreign vessels pay, in all parts of the empire, 10 reis per ton per day, from the 5th day after their entry.

Lighthouse.—The lighthouse duty, 100 reis per ton, for all vessels over 40 tons departing from ports where there is a lighthouse. Vessels under 40 tons are exempted from this duty.

Port-duty.—On all vessels not crossing the bar of the harbour of Rio de Janeiro, the following charges are levied, viz., of three masts, 12,800 reis; of two masts, 9,600 reis; and of one mast, 6,400 reis.

Seal.—The duty is 40 reis for every written half-sheet.

Health.—Visit of the physician is fixed at 8,200 reis; but in case the vessels is made to perform quarantine, then another sum of 8,200 reis is payable on the admission of the vessel to free pratique.

Hospitals.—A vessel of three masts pays 6,000 reis; brigs, corvettes, and yachts, 4,000; pinnaces, 2,560; barks, 1,280.

Each one of the ship's company of vessels sailing for a foreign port pays 400 reis.

Usages of Merchants.—It is customary that the expense of landing and shipping a cargo on freight shall be paid by the vessel, unless the contrary be stipulated in the bills of lading.

When hard Spanish dollars are bargained for, in contracts of freight, they should be so expressed in the instrument of contract, to prevent dispute.

Purchases of produce are paid for in cash, and sales are made on stipulated credits, but nominally for cash.

If bills on London are sent out for the purchase of produce in Brazil, the credit must have the confirmation of the London house.

Anchorage Dues in Brazil Ports.—The anchorage dues fixed by law of 22d October, 1836, are now superseded by a tax of 3 rix-dollars per ton, payable, one-half on entering, and one half on sailing, by all merchant vessels on foreign trading, with the following restrictions:—

Ships arriving in ballast, and going away the same, will pay the old anchorage; if taking cargoes, they will pay half the present dues.

Ships entering to get fresh provisions, or in "*Franquia*," to try the market, but do not discharge, pay only the old anchorage. If they merely discharge part of cargo, pay only half of present dues.

Ships entering under average or in distress, pay nothing if they do not discharge, or only discharge the necessary for repairing.

Ships carrying colonists subject to some modifications.

Ships entering three times in one year, only pay anchorage dues the first two voyages.

The government is authorised to modify the impost, as soon as the treaty with Great Britain expires, as may seem most suitable for the encouragement of the national shipping trade to foreign ports, or to the whale fisheries. The anchorage dues on foreign shipping may not be increased.

Rio, June 26, 1843.

Rates of Commission charged at Rio.

5 per cent. on sales of merchandise.
2½ per cent. on purchase of merchandise, with funds in hand, on amount of cost and charges.
2½ per cent. guaranty on amount of sales on credit.
2½ per cent. for drawing or endorsing, and negotiating bills.
2½ per cent. on purchase or sale of vessels by private contract.
5 per cent on amount of vessels condemned by surveyors.
2½ per cent. on procuring or collecting freights.
2½ per cent. on disbursements of vessels in common cases, with funds in hand.
5 per cent. on disbursements of vessels when funds are advanced, or in case of condemnation, or in vessels entering for repairs only.
1 per. cent. on receiving and forwarding goods; and
2½ per cent. on amount of responsibilities incurred thereon.
1 per cent. on receiving and paying money on which no other commission is derived.
½ per cent. on purchase or sale of specie.
2½ per cent. for effecting marine insurance on the amount insured; and when the premium exceeds 10 per cent., 5 per cent. on the amount of premium.
½ per cent. on remittances on bills not endorsed.
On consignments of merchandise withdrawn or reshipped, full commission to be charged to the extent of advances or responsibilities incurred, and half commission on the residue of the value.
1 per cent. per month on all cash advanced.
No interest allowed on money on deposit.
1 per cent. storage on all dry goods.
In the case of discharging and reshipping the cargoes of vessels in distress, on the invoice amount, 2½ per cent.
2½ per cent., or half the commission charged on sales of merchandise, will be returned to supercargoes, but nothing on investments or other business.

Account of the Quantities and Values of the Principal Articles imported from Brazil into the U. Kingdom in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Annatto, roll and flag . cwts.	805	981	1,506	518	3,381	4,464	5,180	1,076
Balsam, capivi . „	1,078	918	827	720	8,552	6,085	6,660	7,308
Bones of animals and fish (except whalefins) . tons	4,290	10,715	7,812	8,686	22,522	67,505	40,056	33,853
Caoutchouc . . . cwts.	14,830	21,387	18,268	15,048	173,017	165,927	127,876	94,803
Cocoa . . . lbs.	1,567,051	656,273	349,808	925,689	16,376	11,280	6,559	31,717
Coffee . . „	10,426,000	12,543,243	9,126,656	6,747,630	211,778	257,584	190,478	146,586
Cotton, raw . . cwts.	175,925	219,446	194,917	267,061	552,698	652,852	609,116	1,001,871
Guano . . . tons	606	650	689	914	2,576	2,925	2,412	4,570
Hair, horse . . cwts.	3,208	1,603	1,072	2,071	16,468	10,099	6,660	11,598
Hides, not tanned . . „	109,237	112,299	92,710	130,510	281,327	344,317	379,154	545,009
Horns, horn tips, and pieces of horns . . . tons	216	176	259	243	6,984	5,579	9,769	10,327
Ipecacuanha root . . lbs.	37,025	38,539	36,294	22,395	14,810	15,737	8,469	4,359
Isinglass . . cwts.	515	398	440	565	7,186	5,855	6,511	5,840
Nuts and kernels, not particularly enumerated . value	. .	. .	. .	. .	2,217	13,741	6,970	5,753
Sugar, unrefined . . cwts.	579,505	468,678	551,176	850,907	566,569	570,777	686,296	1,385,410
Tapioca . . . „	2,740	4,255	4,057	5,513	4,475	10,581	13,540	17,501
Tobacco, unmanufactured . lbs.	254,519	810,510	96,017	346,547	5,568	18,574	2,200	11,810
Wood: Brazil . . tons	670	113	618	997	25,457	5,668	35,990	59,820
Rosewood . . „	5,060	1,349	1,380	1,652	75,370	16,726	17,253	22,766
Total value of the above and of all other articles . .	. .	. .	. .	. .	2,083,589	2,273,819	2,229,048	3,502,324

Account of the Quantities and Values of the Principal Articles of British Produce exported from the U. Kingdom to Brazil during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Apparel, slops, and haberdashery	value	-	-	-	-	£ 58,208	£ 41,250	£ 49,425	£ 89,607
Gunpowder	lbs.	594,125	450,975	1,178,916	1,726,220	20,659	14,522	41,856	62,068
Beer and ale	barrels	7,971	6,264	7,424	13,935	31,997	25,758	31,145	59,784
Butter	cwts.	22,411	25,487	26,697	26,979	102,418	120,598	136,448	136,310
Coals, cinders, and culm	tons	114,476	76,105	88,583	104,905	65,601	40,405	48,592	58,785
Copper, wrought and unwrought	cwts.	9,405	11,434	12,586	12,602	64,582	71,465	79,476	84,624
Cottons: entered by the yard	yards	103,597,758	124,984,680	154,560,760	181,782,207	1,591,065	1,664,605	2,087,788	2,765,269
at value	value	-	-	-	-	56,647	51,070	57,650	87,279
Earthenware and porcelain	„	-	-	-	-	59,476	87,881	71,450	102,618
Glass manufactures	„	-	-	-	-	17,275	15,953	18,292	29,016
Hardwares and cutlery	cwts.	35,779	54,680	50,814	48,253	144,561	157,669	125,348	196,450
Iron	tons	9,503	12,550	23,716	19,595	135,572	146,011	283,098	244,147
Lead and shot	„	1,072	1,017	911	985	26,958	25,952	24,887	26,807
Leather, wrought and unwrought	lbs.	125,046	158,991	215,875	272,344	13,426	15,874	23,253	41,447
Linens, entered by the yard	yards	5,863,206	8,515,503	9,045,355	12,111,319	174,629	211,511	216,312	326,047
Machinery:									
steam engines	value	-	-	-	-	13,404	9,360	25,261	81,260
all other sorts	„	-	-	-	-	15,055	33,055	21,171	28,603
Musical instruments	„	-	-	-	-	10,261	10,852	11,651	11,898
Oil, linseed	gallons	107,058	77,529	92,297	160,285	14,824	11,845	13,951	26,022
Painters' colours	value	-	-	-	-	10,395	11,018	10,545	14,308
Plate, plated ware, &c.,	„	-	-	-	-	7,419	11,259	14,315	38,686
Silk manufactures	„	-	-	-	-	25,246	33,457	41,565	61,516
Soda	cwts.	20,155	23,805	26,149	57,710	9,768	11,892	12,754	20,801
Tin plates	value	-	-	-	-	10,104	28,287	13,917	37,655
Woollens:									
entered by the piece	pieces	93,873	98,661	125,225	182,093	231,358	242,596	312,767	474,205
by the yard	yards	1,098,621	1,427,803	2,187,293	3,473,654	54,468	58,023	110,964	170,146
at value	value	-	-	-	-	5,818	18,753	25,186	22,629
Total value of the above and of all other articles		-	-	-	-	2,891,840	3,312,728	4,084,537	5,541,701

Remarks on the Trade, Finances, &c., of Brazil.—The imports into Brazil, which, excepting flour from the U. States, are chiefly from Great Britain, consist principally of our cottons, woollens, linens, iron and steel, hardware, machinery, butter, gunpowder, coal, and other articles, amounting in all, in 1857, as seen above, to 5,541,710*l.*, but in 1858 to only 3,986,264*l.* There can, however, be little doubt that they will continue progressively to increase with the increase of population and the diffusion of civilisation.

The commercial policy of Brazil is, on the whole, decidedly liberal. The duties on imports and exports have been mostly moderate, and have been imposed more for the sake of revenue than of protection. Within the last few years she has made a large reduction in the tonnage duties on the foreign shipping frequenting her ports, has repealed a duty of 15 per cent. imposed in some provinces on the exportation of hides, and has evinced a desire to adopt generally a free commercial system. The repeal of the discriminating duty formerly imposed in this country on slave-grown sugar, and the equalisation of the duties on foreign and colonial sugar and coffee, while it was advantageous to ourselves, has been a great boon to Brazil, and has considerably extended her trade with the U. Kingdom.

The trade of Brazil was formerly much injured by the wretched state of her currency and her finances; and though the former be still in a very unsatisfactory condition, it has latterly been a good deal improved, while her finances have become comparatively flourishing.

Financial Condition of Brazil.—The finances as well as the trade of the empire have been for some years past in an improving condition, and contrast most favourably with those of the other S. American states. Thus it appears from the speech of the Finance minister to the Chambers in the course of last year (1858) that there has been for several years an almost continuous increase in the revenue, which has risen from 1,495,282*l.* in 1837, to 5,486,211*l.* in 1856–57. And this is the more encouraging as it has resulted, not from any increase of taxation, but from the growing civilisation of the country, and the progressive development of its resources under a free commercial system. In 1856–57 there was an excess of revenue over expenditure of more than 1,000,000*l.*

It is, also, highly creditable to the Brazilian government that they have regularly paid the interest due on the public debt of the empire, and made, besides, effectual provision for its redemption. It appears from the speech already referred to that the entire debt of the empire amounts to about 12,000,000*l.* sterling, divided into two portions, one being denominated the Home and the other the Foreign debt. The former portion amounted in December, 1857, to 6,496,560*l.*, of which sum 5,647,837*l.* was held by natives (inc. 1,213,312*l.* held by corporations and companies), 868,612*l.* by Englishmen, and 160,110*l.* by other foreigners. The 6 per cent. stock of the Home debt was worth nearly 105*l.* The Foreign debt is a little under 5,500,000*l.*

ROADS, pathways formed through the country with more or less art and care, for facilitating the transit of individuals, carriages, &c. between different places. They are

of every variety of form — from rude, narrow, rugged, and unformed paths, carried over mountains, interrupted by every petty rivulet, and almost impracticable to any but foot passengers, to smooth, broad, and level ways, formed of solid materials, winding round or cut through mountains, and carried over swamps and rivers at an immense expense, and admitting of the easy passage of carriages and of all sorts of goods.

The laying out of improved roads, and their construction, forms an important part of what is denominated the science of civil engineering. But as it would be quite foreign to our purpose to enter into any details as to the formation of roads, we shall satisfy ourselves with laying before the reader the following statements as to their importance in a commercial point of view.

Importance and Utility of improved Roads. — Next to the introduction of money, and weights and measures, the formation of good roads and bridges gives the greatest facility to commerce, and contributes more powerfully, perhaps, than any thing else to the progress of improvement. They have been denominated national veins and arteries; and the latter are not more indispensable to the existence of individuals, than improved communications are to a healthy state of the public economy. It were vain to attempt to point out in detail the various advantages derived from the easy means of communication that exist in Great Britain. There is not a single district that is not indebted to others for a large part of its supplies, even of some of the bulkiest commodities. Besides the coals, metals, minerals, timber, corn, &c. conveyed from one part of the empire to another by sea, immense quantities are conveyed from place to place in the interior, by roads and canals; and every improvement effected in the means of conveyance has obviously the same effect upon the cost of commodities that have to be conveyed, as an improvement in the methods by which they are raised or manufactured.

Wherever the means of internal communication are deficient in a country, the inhabitants must unavoidably disperse themselves over the surface. Cities were originally founded by individuals congregating more, perhaps, for the sake of mutual defence and protection, than for any other cause. But in countries where good government is established, and property is secure, men resort to cities only from a sense of the advantages they afford. The scale on which business is conducted in them presents facilities that cannot be elsewhere afforded for making a fortune; and the extent to which the subdivision of employments is carried opens a field for the exercise of all sorts of talent: at the same time that it improves and perfects all sorts of arts, whether subservient to industrious or scientific pursuits, or to those of pleasure and dissipation. It is this that attracts the aspiring, the industrious, the gay, and the profligate, to cities, — that fills them with the best and the worst part of the species. The competition that takes place in a great town, the excitement that is constantly kept up, the collision of so many minds brought into immediate contact, and all endeavouring to outstrip each other in their respective departments, develops all the resources of the human mind, and renders a great city a perpetually radiating focus of intelligence and invention. There are, however, considerable clogs upon the continued increase of cities. The food and fuel made use of by the inhabitants, and the raw products on which their industry is to be exerted, must all come from the country; and according as the size of a city increases, the distances from which its supplies have to be brought become so much the greater, that ultimately the cost of their conveyance may be so great as to balance or exceed the peculiar advantages resulting from a residence in town. Hence the impossibility of a large or even a considerable city existing any where without possessing extensive means of communication either with the surrounding country, or with other countries; and hence, too, the explanation of the apparently singular fact, of almost all large cities having been founded on or near the sea, or a navigable river. Had London been an inland town, 50 miles from the shore, it is abundantly certain that she could not have attained to one third part her present size; but the facilities afforded, by her admirable situation on the Thames, for the importation of all sorts of produce from abroad, as well as from other parts of England, will enable her, should her commerce continue to prosper, to add to her colossal magnitude for centuries to come.

But all towns cannot be founded on the sea coast, or the banks of navigable rivers: and the growth of those in inland situations must, in all cases, depend on their means of communicating with the surrounding country. Without our improved roads, the great inland manufacturing towns with which England is studded, such as Manchester, Leeds, Birmingham, Sheffield, Bolton, Preston, &c., could not exist. They enable the inhabitants to obtain the rude products of the soil and the mines almost as cheap as if they lived in country villages. There is thus nothing, or next to nothing, to detract from the advantages which the inventive and enterprising artisan may expect to realise from resorting to those great hives of industry. And, owing to the gigantic scale on which all sorts of industry are conducted in them, the scope afforded for the employment of the most powerful machines, and the appropriation of particular sets of workmen to

every separate process, however minute, manufacturing industry is carried to a degree of perfection that almost exceeds belief.

The influence that the growth of a large town has upon agriculture is great and striking. "In the neighbourhood," says Paley, "of trading towns, and in those districts which carry on a communication with the markets of trading towns, the husbandmen are busy and skilful, the peasantry laborious; the land is managed to the best advantage, and double the quantity of corn or herbage (articles which are ultimately converted into human provision) raised from it, of what the same soil yields in remoter and more neglected parts of the country. Wherever a thriving manufactory finds means to establish itself, a new vegetation springs up around it. I believe it is true, that agriculture never arrives at any considerable, much less at its highest, degree of perfection, when it is not connected with trade; that is, when the demand for the produce is not increased by the consumption of trading cities."—(*Moral Philosophy*, book vi. c. 11.)

But the fact of their being mainly conducive to the growth of cities, is not the only advantage which improved roads confer upon agriculture. Without their aid it would be impossible to carry to distant places sufficient supplies of such bulky and heavy articles as lime, marl, shells, and other manures necessary to give luxuriance to the crops of rich soils, and to render those that are poor productive. Not only, too, would inferior roads lessen the market for farm produce, and consequently the quantity raised, but a larger proportional number of horses or other cattle would be required to convey the diminished produce to market. It is plain, therefore, that good roads are both directly and indirectly a prime source of agricultural improvement; directly, by increasing the quantity and reducing the cost of manure, and by increasing the quantity and reducing the cost of conveying farm produce to market; and indirectly, by providing for the growth and indefinite extension of cities and towns, that is, of the markets for agricultural produce.

Increased speed of conveyance is one of the principal advantages that have resulted from the formation of good roads, the invention of steam packets, &c. Suppose that it takes 2 days to travel by an uneven, ill-made road between any 2 places; and that, by improving the road, the journey may be accomplished in 1 day; the effect is the same as if the distance were reduced $\frac{1}{2}$; and there is not only a great saving of time to travellers, but also a great saving of cost from the more speedy conveyance of commodities. This latter is a point of much more importance than is commonly supposed. It is not possible to form any correct estimate of the value of the products that are constantly in the act of being carried from place to place in Great Britain and Ireland. It is certain, however, that it is very great; and every additional facility of conveyance, by bringing such products more rapidly to their destination, and enabling them to be sooner applied to the purposes for which they are intended, renders large quantities of capital available for industrious purposes, that would otherwise be locked up.

Mode of defraying Costs of Roads.— Roads of one sort or other must, of course, exist in every country emerged from barbarism,—but in England, the statute of the 28th of Philip and Mary, which is still in force, is the first legislative enactment in which a regular provision was made for the repair of the roads. The preamble to this statute declares, that the roads were tedious and noisome to travel on, and dangerous to passengers and carriages: and therefore it enacts, that in every parish 2 surveyors of the high ways shall be annually chosen, and the inhabitants of all parishes obliged, according to their respective ability, to provide labourers, carriages, tools, &c. for *four* days each year, to work upon the roads, under the direction of the surveyors. This system, though in many respects exceedingly defective, was at the time justly considered a great improvement, and answered pretty well till the reign of Charles II., when, owing to the increase of carriages, particularly about London, it became necessary to adopt more efficient measures for the formation and repair of roads; and the plan of imposing tolls upon those who made use of them began then to be adopted. But this system was not carried into full effect, and placed upon a solid footing, till about 1767, when it was extended to the great roads to all parts of the country; the contributions of labour under the act of Philip and Mary being then appropriated entirely to the cross or country roads. A money payment is now, however, very frequently made, in the case of the latter, instead of a contribution in labour.

When the plan for extending turnpike roads from the metropolis to distant parts of the country was in agitation, the counties in the neighbourhood of London petitioned parliament against it, alleging that the remoter counties would be able, from the comparative cheapness of labour in them, to sell their produce in London at a lower rate than they could do; and that their rents would be reduced, and cultivation ruined, by the measure! Luckily this interested opposition proved ineffectual; and instead of being injurious to the counties adjoining the metropolis, the improvement of the roads has been quite as beneficial to them as to those at a distance, inasmuch as, by providing for the indefinite extension of the city, it has rendered it a far better market for their pecu-

liar productions, than it would have been had its growth been checked; which must have been the case long ago, had the improvements in question not been made.

The plan of making and repairing roads by contributions of labour is not peculiar to England, but was at one period general all over Europe. By an act of the Scotch parliament, passed in 1669, all persons engaged in husbandry were obliged to labour 6 days each year, before or after harvest, upon the public roads: the farmers and landlords being, at the same time, obliged to furnish horses, carts, &c. according to the extent of land occupied by them. The inconveniences of such a system are many and obvious. Those who get no pay for their work, and who perform it against their will, waste their time and industry; and there is, besides, a great loss incurred by the interruption of the regular pursuits of the labourer. A sense of these disadvantages led, in the early part of the reign of George III., to a commutation of the labour contribution for a money tax on land, rated according to its valuation in the cess books. This measure has been productive of the best effects. Previously to its taking place, the roads, even in the best cultivated districts of Scotland, were in the worst possible state, whereas they are now about the very best in Europe.

A similar system has been followed on the Continent. When Turgot entered on his administration, he sent a circular letter to the road surveyors and engineers of the different provinces of France, desiring them to transmit estimates, framed on the most liberal scale, of the sums of money for which the usual repairs might be made on the old roads, and the ordinary extent of new ones constructed. The average of the estimates showed that a money contribution of about 10,000,000 livres a year would suffice for these objects; whereas Turgot showed, that the execution of these repairs and constructions, by contributions of forced labour, or *corvées*, cost not less than 40,000,000 livres! — (Art. *Taxation, Ency. Brit.*)

There is still, however, a great deal of labour performed on the cross and country roads of England under the system established by the act of Philip and Mary. Its continuance is most probably to be ascribed to the want of any ready means for its commutation.

It is the duty of government to furnish assistance towards the formation of roads and bridges in parts of the country where they are necessary, and where the funds required for their formation cannot otherwise be obtained. But it is in such cases extremely desirable, in order to prevent government from being deceived by interested representations, that those more immediately concerned in the undertaking should be bound to contribute a considerable portion of its expense. This has been done in the case of the Highland roads. Down to a very recent period, large tracts in the Highlands were quite inaccessible, and were, consequently, in a great measure shut out from all improvement; while the rugged nature of the country and the poverty of the inhabitants rendered any attempt to construct improved roads an undertaking beyond their means. Under these circumstances, government came forward and engaged to advance $\frac{1}{3}$ the expense of making roads and bridges in certain districts, on condition that the landlords and others interested should advance the other $\frac{2}{3}$, and that the work should be executed under the direction of parliamentary commissioners and engineers. This arrangement has been highly beneficial. Through its means above 600 miles of excellent roads have been constructed; and, in consequence of the easy means of communication they afford, a spirit of improvement has been excited even in the wildest and least frequented districts.

Dr. Smith seems to have inclined to the opinion, that the roads of a country would be better attended to, and more economically managed, were they placed under the control of government, than when they are left to be planned and superintended by private individuals. But this opinion does not seem to rest on any good foundation. It is, perhaps, true that a few of the great roads between the principal towns of a country might be better laid out by government surveyors, than by surveyors appointed by the gentlemen of the different counties through which they pass. But these great roads bear but a very small proportion to the total extent of cross and other roads with which every country either is, or should be, intersected; and, besides, it is abundantly certain, that when the formation of the great roads is left, as in Great Britain, to the care of those who, either by themselves or their tenants, have to defray the greater part of the expense of their construction and repair, they will be managed, if not with greater skill, at least with far more economy, than if they were intrusted to the agents of government. M. Dupin has set this matter in the clearest point of view, in his remarks on the administration of the roads in France and England. In the former they are entirely under the control of government; and the consequence is, that while there is a useless expenditure upon a few great roads, the cross roads are almost entirely neglected, and the facilities of internal intercourse are incomparably inferior to ours.

Sir Henry Parnell, who published the best treatise on road-making in the English language, while he approves of the system of local trusts, proposes that measures should

be taken for increasing the responsibility of the trustees, and that every trust should be obliged to submit its accounts to the inspection of some public board. We have no doubt that this plan would be in several respects advantageous. Perhaps, however, the object in view, in making accounts be submitted to a public board, might be attained by the erection of local tribunals for their inspection. We should be extremely jealous of any plan, how advantageous soever in other respects, that might lead to the employment of government surveyors generally in the laying out of roads, or to any material abridgment of the powers of the private trusts.

Length of Roads, Cost, &c. — The total length of the different paved streets and turnpike roads in England and Wales amounts to about 20,000 miles. The expenditure by the trustees, on account of these roads, in 1841, amounted to 1,551,336*l.*; the revenue for the same year being 1,574,518*l.*: of the total expenditure, 302,182*l.* went to defray interest of debt. — (*Parl. Paper* No. 580. Sess. 1843.) The length of the various cross roads and other highways, exclusive of turnpikes, is estimated at about 95,000 miles.

Tolls. — In fixing the rate of tolls, great care should be taken to keep them as low as possible. When they are either too much multiplied, or too high, they have a very pernicious influence. They then operate as a most oppressive and unequal tax on commerce; and obstruct that intercourse they are intended to promote. The same remark is applicable to all sorts of dock and harbour dues, light-house dues, &c. When confined within due bounds, they cannot justly be objected to; for nothing can be fairer than that those who benefit by such increased facilities and security in the prosecution of their business should pay for them. But whenever they exceed the proper limits, they tempt the navigator to resort to ports where the charges are lower, and to direct his course through more insecure but less costly channels.

Improvement of Roads. — It is not easy for those accustomed to travel along the smooth and level roads by which every part of this country is now intersected, to form any accurate idea of the difficulties the traveller had to encounter a century ago. Roads were then hardly formed; and, in summer, not unfrequently consisted of the bottoms of rivulets. Down to the middle of last century, most part of the goods conveyed from place to place in Scotland, at least where the distances were not very great, were carried, not by carts or wagons, but on horseback. Oatmeal, coals, turf, and even straw and hay, were conveyed in this way! At that period, and for long previously, single-horse traffickers (cadgers) regularly plied between different places, supplying the inhabitants with such articles as were then most in demand, as salt, fish, poultry, eggs, earthenware, &c.: these were usually conveyed in sacks or baskets, suspended one on each side the horse. But in carrying goods between distant places, it was necessary to employ a cart, as all that a horse could carry on his back was not sufficient to defray the cost of a long journey. The time that the *carriers* (for such was the name given to those that used carts) usually required to perform their journeys seems now almost incredible. The common carrier from Selkirk to Edinburgh, *thirty-eight* miles distant, required a *fortnight* for his journey between the two places, going and returning! The road originally was among the most perilous in the whole country; a considerable extent of it lay in the bottom of that district called Gala-water, from the name of the principal stream, the channel of the water being, when not flooded, the track chosen as the most level, and easiest to travel in!

Even between the largest cities, the means of travelling were but little superior. In 1678, an agreement was made to run a coach between Edinburgh and Glasgow, a distance of 44 miles, which was to be drawn by *six* horses, and to perform the journey from Glasgow to Edinburgh and back again in *six* days. Even so late as the middle of last century, it took 1½ day for the stage coach to travel from Edinburgh to Glasgow, — a journey which is now accomplished in 4½ or 5 hours.

So late as 1763, there was but one stage coach from Edinburgh to London, and it set out only once a month, taking from 12 to 14 days to perform the journey. Previously to the late opening of the railway, by which they have been in a great measure superseded, there were, exclusive of steam packets, smacks, &c., 3 or 4 coaches which set out each day from Edinburgh for London, and conversely, performing the journey in from 45 to 48 hours. — (*Robertson's Rural Recol.* pp. 39—44.)

The effects of this extraordinary improvement in the means of travelling, especially since the introduction of railways, have been as striking on the manners as on the industry of all classes. The remark of Smith, that "man is the least transportable species of luggage," is no longer true as applied to Great Britain. During spring, the metropolis is crowded with visiters of all ranks and orders from the remotest provinces; and during summer and autumn vast numbers of the citizens are spread over the country. Hence it is, that manners, as well as prices, are reduced nearly to the same standard. A respectable family in Penzance or Inverness live very much in the same way as a respectable family in London. Peculiarities of all sorts have disappeared; every thing

is, as it were, brought to a level; the fashions and opinions of the metropolis are immediately diffused over every part of the country, while those that originate in the latter powerfully influence the former.

ROPE consists of hemp, hair, &c., spun into thick yarn, of which several strings are twisted together by means of a wheel. When made very small, it is called a cord; and when very thick, a cable. All the different kinds of this manufacture, from a fishing-line, or whip-cord, to the cable of a first-rate ship of war, go by the general name of cordage.—(See CABLE.)

ROSEWOOD (Ger. *Rosenholz*; Fr. *Bois du rose, de Rhode*; It. *Legno rodie*; Sp. *Leño de rosa*; Port. *Páo de Rosado*) is produced in Brazil, the Canary Islands; in Siam, whence it is pretty largely exported by the Chinese; and in other places. It is in the highest esteem as a fancy wood. The width of the log imported into this country averages about 22 inches, so that it must be the produce of a large tree. Rosewood has a slightly bitterish, somewhat pungent, balsamic taste, and fragrant smell, whence its name. It should be chosen sound, heavy, of the deepest colour, in the largest pieces that can be procured, and of the most irregular knotty grain. The small, light-coloured and large shivered pieces should be rejected. The more distinct the darker parts are from the purple red, which forms the ground, the more is the wood esteemed. It is usually cut into veneers of nine to an inch.—(*Milburn's Orient. Com., &c.*)

Rosewood, which is one of the dearest as well as most beautiful of the fancy woods, is principally used in veneering. Its consumption has increased from about 277 tons a year in 1822, to about 2,000 tons in 1857; the imports and exports in the latter year being respectively 2,171 and 261 tons. This increase is principally owing to the decrease of the duties. These, after being reduced in 1826 from 10*l.* to 6*l.* a ton, and in 1842 to 1*l.*, were finally repealed in 1846. The price varies from 9*l.* to 14*l.* a ton.

ROSIN. "This substance is obtained from different species of fur; as the *Pinus abies, sylvestris, larix, balsamea.* It is well known that a resinous juice exudes from the *Pinus sylvestris*, or common Scotch fir, which hardens into tears. The same exudation appears in the *Pinus abies*, or spruce fir. These tears constitute the substance called *thus*, or frankincense. When a portion of the bark is stripped off these trees, a liquid juice flows out, which gradually hardens. The juice has obtained different names, according to the plant from which it comes. The *Pinus sylvestris* yields common turpentine; the *larix*, Venice turpentine—(see TURPENTINE); the *balsamea*, balsam of Canada—(see BALSAM), &c. All these juices, which are commonly distinguished by the name of turpentine, are considered as composed of two ingredients; namely, oil of turpentine, and rosin. When the turpentine is distilled, the oil comes over, and the rosin remains behind. When the distillation is continued to dryness, the residuum is known by the name of common rosin, or *colophonium*; but when water is mixed with it while yet fluid, and incorporated by violent agitation, the mass is called *yellow rosin.* During winter, the wounds made in the fir trees become incrusted with a white brittle substance, called *barras* or *galipot*, consisting of rosin united to a small portion of oil. The yellow rosin, made by melting and agitating this substance in water, is preferred for most purposes, because it is more ductile, owing, probably, to its still containing some oil. The uses of rosin are numerous and well known"—(*Thomson's Chemistry.*)

ROSTOCK, the principal city of the Grand Duchy of Mecklenburg Schwerin, on the Warnow, about 9 miles above where it falls into the Baltic, lat. 54° N., long. 12° 12′ E. Population, in 1845, 20,266. A large fair for merchandise is annually held at Whitsuntide; and there are wool fairs at other seasons of the year.

The outport of Rostock is at Warnemunde, at the mouth of the Warnow. The depth of water at the latter varies from 10½ to 12 feet; but at the end of the west pier the depth of water varies from 12 to 14 feet. In the river from Warnemunde up to Rostock there is usually from 8 to 9 feet; so that vessels drawing more than this must be lightened to get up the latter. Rostock has a good harbour and commodious quays.

Money.—Rostock and all Mecklenburg reckon by rix-dollars new, two thirds of 48 schillings. The rix dollar contains 199·1 grains pure silver, and is worth nearly 2*s.* 4*d.* (2*s.* 3·8*d.*) sterling.

Weights.—The commercial weights are the same as those of Hamburg, which see. There are, however, other weights, introduced in 1757, which are 5 per cent. heavier than the above. They are principally used in the trade with Russia.

Measures.—The Rostock foot=11·38 Eng. inches. The ell =2 feet. The last contains 96 scheffels: the last used in the measuring of oats=14½ imp. quarters=42 hectolitres: the last used in the measuring of other grain=14 imp. quarters or 37·3 hectolitres.—(*Kelly's Cambist.*)

We subjoin an Account of the Quantities and Values of the Principal Articles imported from Mecklenburg Schwerin into the U. K. during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Bones of animals and fish (except whalefins) - - tons	771	377	215	317	£4,048	£2,375	£1,102	£1,965
Corn: wheat - - qrs.	132,485	179,573	62,625	132,462	507,859	709,314	237,974	382,852
barley - - »	1,162	355	4,840	17,756	1,888	499	7,986	32,632
oats - - - »	1,999	779	1,181	32	2,476	993	1,417	40
other kinds - - »	971	4,853	30	780	2,266	11,607	64	1,477
Oil seed cake - - tons	482	341	514	719	4,410	3,444	4,420	5,829
All other articles - - value	- -	- -	- -	- -	12,472	1,949	285	12,975
Total - -	- -	- -	- -	- -	535,419	730,281	253,248	437,780

The direct exports from this country to Mecklenburg are much less considerable, not generally exceeding 60,000*l.* or 70,000*l.*

Imports.—The principal articles of import are sugar, coffee, and other colonial products; cottons, woollens; with iron and hardware, coal, earthenware, salt, horses, &c., from England; hemp, flax, tallow, oil, sail-cloth, &c., from Russia; alum, deals, timber, lime, tar, &c., from Sweden; herrings and fish oil from Norway; wine, brandy, molasses, drugs, &c., from France; with rice, rum, groceries, &c., from Copenhagen and Hamburg. The total value of the imports by sea may be estimated at about 300,000*l.*

Exports.—These consist chiefly of very good red wheat, with smaller quantities of barley, peas, rape-seed, and oats; wool, rags of a superior quality, oil cake, rape oil, bones, &c. At an average the value of the exports may be estimated at 600,000*l.*

Shipping.—The port of Rostock had, in 1856, 367 ships of the burden of 34,772 lasts of 6,000 lbs. each, which trade with most European nations, the U. States, and Brazil.

During the same year Wismar had 50 ships of the agg. burden of 4,367 lasts.

Port Charges.—These on a vessel of 100 tons burden are as follows, viz.:—

	Privileged.		Not privileged.	
	Rix-d. 10	*Sch.* 2	*Rix-d.* 10	*Sch.* 2
Inward with cargo	23	44	32	6
Outward ditto	12	6	12	6
Inward in ballast	19	36	31	10
Outward ditto	17	32	25	42
Ditto without either				

Duties.—These are extremely moderate. On most imported articles they amount to only 3 per cent. *ad valorem*. An export duty of about 5*d.* per quarter is charged on corn, and of about 4*s.* 8*d.* per hhd. on wine. Wool is not subject to any duty on export. Goods imported in vessels not privileged pay 50 per cent. additional on the above duties; that is, they pay 4½ instead of 3 per cent. *ad valorem*.

Wismar, the second sea-port town of Mecklenburg, at the confluence of the river Stor with the sea, in lat. 53° 49′ 25″ N. long. 11° 36′ 15″ E. Population 12,000. The harbour of Wismar is commodious and safe, being nearly land-locked by the islands of Poel and Walfisch. Close to the town there is from 8 to 8½ feet water; in the inner roads there is from 12 to 13 feet; and in the outer from 16 to 20 feet water. The port charges on a native or privileged vessel of 100 tons amounts to about 30 rix-dollars. The articles of import and export are the same at Wismar as at Rostock; but owing to the proximity of Lubeck, from which Wismar is not more than 27 miles distant, her foreign trade is comparatively limited.

General Remarks on the Trade of the Duchies.—Mecklenburg is essentially an agricultural, wool-growing, grazing, and breeding country. In some places it is sandy and barren; but it is for the most part fertile, and the crops and pastures are both luxuriant. Having few manufactures, her imports necessarily consist principally, as already stated, of manufactured goods, and her exports of raw produce. Owing, however, to the circumstance of the south-western part of the province being bounded by the Elbe, and approaching to within about 30 miles of Hamburg, most part of the manufactured goods, as well as a large proportion of the colonial products used by the population (540,000), are imported by way of Hamburg. Hence, in Mecklenburg, as in Prussia, the direct foreign trade carried on by the sea frontier forms but a limited part of the entire trade of the country. It is impossible, however, to form any precise estimate of what the latter may amount to. Probably there is no European country so little fettered by customs regulations as Mecklenburg. The duties on articles imported by sea amount only, as already stated, to about 3 per cent. *ad valorem*; and those entering by the land frontier are subject merely to a trifling charge, on account of toll, of which we have not seen any account. It is impossible, indeed, that any commercial system can be bottomed on more liberal principles; and this enlightened policy, and her situation near the mouth of the Elbe, and on the western frontier of the Prussian league, give to Mecklenburg far greater importance, as a commercial state, than is indicated by the amount of her population, or her internal consumption.

ROTTERDAM, on the north bank of the Maese, in lat. 51° 55′ 19″ N., lon. 4° 29′ 14″ E. Population, 1856, 102,322. Rotterdam is the second commercial city of Holland. It is more advantageously situated than Amsterdam; being nearer the sea, and the canals which intersect it are so deep as to admit of the largest vessels coming up to the quays and warehouses of the merchants. Its commerce, during the last 15 years, has increased more rapidly than that of any town in Holland. The exports and imports are similar to those of Amsterdam. The white Zealand wheat shipped here is of a peculiarly fine quality; and it is the best market for madder and geneva. Our imports of madder from Holland in 1857 amounted to 29,955 cwt., most part of which came from Rotterdam.—(See MADDER.) Geneva is sold by the aam; but it used, for the convenience of smuggling to England, to be divided into ankers and ½ ankers. The legitimate imports of geneva from Holland in 1857 amounted to 174,108 gallons. Rotterdam has a regular and frequent intercourse by means of steamers with London, Liverpool, Hull, Leith, Havre, Hamburg, &c.

N.B.—The channel from the sea to Rotterdam is exhibited in the chart of the Dutch coast in the map of Europe in this work.

Monies, Weights, and Measures.—See the article AMSTERDAM, for an account of the current monies, weights, and measures of Holland.

Two different commercial lbs. were formerly used at Rotterdam: one was the Amsterdam weight, 100 lbs. of which = 108·93 lbs. avoirdupois; the other, used by retailers, was 5 per cent. lighter, 100 lbs. of it being=103·48 lbs. avoirdupois.

The Rotterdam last of corn=10·642 Winchester bushels.

The aam=40 English wine gallons very nearly.

A hogshead of flax-seed contains from 7½ to 8 Winchester bushels. Rock salt is sold per great hundred of 404 maaten, containing from 21 to 22 tons. Coals per hoed=¼ a chaldron of Newcastle.

The liquid measures were divided in the same manner as at Amsterdam, but were larger; thus, 100 stoops of Rotterdam were = 67½ English wine gallons. Brandies were sold per 50 viertels; whale oil, per 90 stoops; vegetable oils per 300 stoops.

The ell is the same as at Amsterdam. 100 feet of Rotterdam=109½ feet of Amsterdam, or 102 English feet.

Statement of Imports of some of the most important Articles of Produce at Rotterdam and Amsterdam, in each of the 8 Years ending with 1858.

	1851.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Coffee, East India, Rotterdam - tons	20,814	24,012	18,972	21,168	28,134	27,324	17,424	23,844
West India, do - —	2,328	996	3,056	1,830	4,164	1,920	3,810	432
East India, Amsterdam - —	22,692	30,618	26,616	30,810	31,032	33,306	30,780	35,430
West India do. - —	1,818	1,656	522	750	2,976	1,452	6,996	594
East India, other ports - —	1,418	2,435	2,979	1,623	9,738	16,104	5,568	9,456
	49,070	59,717	52,125	56,181	76,044	80,106	64,578	69,796
Cotton, all sorts, Rotterdam - bales	48,618	50,876	52,895	55,300	54,266	73,342	73,342	80,124
Do. Amsterdam - —	10,583	12,972	8,400	10,228	12,481	20,117	36,519	21,785
	59,201	63,848	61,295	65,528	66,747	93,459	109,861	101,909
Hides, East India, Rotterdam - hides	103,831	68,632	63,197	48,767	34,842	78,917	99,082	129,518
West India do. - —	35,936	14,278	14,909	11,074	- -	4,000	39,555	14,200
East India, Amsterdam - —	59,378	61,118	43,178	87,510	77,700	93,828	120,083	111,420
West India do. - —	2,348	4,561	6,058	15,025	17,855	26,996	41,509	34,260
	201,493	148,589	127,342	162,376	130,397	208,741	300,229	289,398
Pepper, Rotterdam - - bags	8,800	6,000	4,900	7,000	5,100	10,900	6,200	2,300
Amsterdam - - —	8,700	4,300	800	6,000	7,100	8,400	11,000	6,200
	17,500	10,300	5,700	13,000	12,200	19,300	17,200	8,500
Rice, East India, Rotterdam - tons	8,280	19,500	11,448	14,028	17,730	51,752	19,680	13,500
Carolina do. - —	594	840	15	100	184	292	250	240
East India, Amsterdam - —	8,298	14,214	9,600	16,182	27,864	39,780	27,900	17,460
Carolina do. - —	126	436	40	80	16	46	70	260
	17,298	34,990	21,103	30,390	45,794	71,870	47,900	31,460
Sugar, East India, Rotterdam - tons	35,275	31,500	28,880	38,140	23,800	31,310	22,926	31,740
West India do. - —	3,725	3,000	2,520	1,500	2,500	490	1,874	2,860
East India, Amsterdam - —	37,958	45,610	38,750	45,860	45,410	55,970	41,258	47,720
West India do. - —	30,842	16,290	24,470	18,940	19,890	15,750	16,342	13,180
E. & W. India, other ports —	3,000	3,980	5,040	2,950	7,100	10,640	7,750	11,500
	100,800	98,380	97,640	105,390	96,700	114,140	90,150	107,000
Tea, Rotterdam - - chests	20,800	29,208	17,572	18,071	41,200	31,425	32,894	22,769
Amsterdam - - —	5,000	7,500	9,500	17,900	14,259	23,190	23,926	17,400
	25,800	36,908	27,072	35,971	55,450	54,615	56,820	40,169
Tin, Banca, Rotterdam - slabs	61,404	59,780	57,260	71,027	78,041	101,660	74,670	81,686
Amsterdam - —	59,963	79,873	61,569	72,674	65,592	105,395	112,279	76,881
	121,367	139,653	118,829	143,701	143,633	207,955	186,949	158,567
Tobacco, all sorts, Rotterdam - hhds.	5,831	11,815	8,297	7,411	13,301	18,287	14,892	9,952
Do. Amsterdam - —	5,556	15,861	8,555	10,199	8,372	9,430	7,810	9,536
	11,387	27,676	16,852	17,610	21,673	27,717	22,702	19,488

Imports by the Netherlands Trading Company of the following leading Articles during 1858.

Coffee (Java) - - -	1,128,900 bags	Cochineal - - -	463 boxes
do. (Ceylon) - -	5,372 casks	Banca tin - - -	190,842 slabs
	8,088 bags	Cinnamon - - -	1,595 packages
Sugar (Java) - - -	308,771 baskets	Tea (Java) - - -	22,328 packages
Spices (nutmegs) - - -	1,702 casks	Hides - - -	30,827 hides
do. (mace) - - -	652 do.	Rattans - - -	474,328 bundles
do. (cloves) - - -	1,018 do.	Cotton (American) - -	15,252 bales
do. (pepper) - - -	1,742 bags	do. (East India) - -	12,620 bales
Indigo - - -	5,436 peculs	Wool (Australian) - -	1,465 bales.

The Ships of all Denominations cleared inwards and outwards, with and without Cargoes, at the Ports of Helveotsluys, Brille, and Maasfluis, in 1857 and 1858, were—

Inwards.		Outwards.	
1857 - - -	3,428 vessels	1857 - - -	3,719 vessels
1858 - - -	3,389 do.	1858 - - -	3,767 do.

Tares and Allowances.

	Tares.	Drafts.	Allowances.
Coffee, Surinam } St. Domingo }	6 per cent.	1 per ct.	1 per ct.
Bourbon -	10 lbs. per bale	1 —	1 —
Mocha -	24 lbs. -	1 —	1 —
Java -	14 lbs. per bale of 270 lbs.	1 —	3 —
Sugar, Jamaica -	18 per cent.		
Surinam -	20 —	1 —	1 —
East India, in bags	10 —		
Havre chests below 454 lbs. -	80 lbs. per chest	1 —	1 —
above -	13 per cent.	1 —	1 —

	Tares.	Drafts.	Allowances.
Sugar — *continued.*			
Martinique } St. Domingo }	18 per cent.	1 per ct.	1 per ct.
Cotton -	6 —	1 —	1 —
Hides, Buenos Ayres	2 lbs. per hide	2 —	1 —
Tobacco, Virginia -	3 per cent	2 —	3 —
Logwood -	3 — -	1	1 —
Pimento -	real tare -	1 —	1 —
Indigo -	3 per cent.	0 —	2 —
Pepper -	5 lbs. per bale	1 —	0 —
Whale oil -	1 per cent.	0 —	1 —
Madders -	real tare -	0 —	1 —

With the exception of the shipping interest, the trade of Rotterdam, and of Holland generally, is now in a comparatively flourishing state. The judicious management of the Netherland's bank, the only establishment in the country authorised to issue notes, and the prudent conduct of the merchants, made her be but little affected by the crisis of 1857. The depressed state of the shipping interest is a consequence partly of the extremely injudicious encouragement given by government to the trading company, but far more to that mania for ship-building that prevailed for some years in Holland, as it did here, and in the U. States. Hence, there is everywhere a glut of shipping; and it is idle to seek in the want of reciprocity, or anything else than this, for the low rate of freight, and the inadequate demand for shipping so universal during the last two or three years. Here, however, as in other places, the evil is beginning to work its own cure; the number of vessels launched at Rotterdam having declined from 227 in 1856, to 135 in 1858. It may be worth while to mention that the iron steamers built here and at Amsterdam are said to be quite equal to the best of those built on the Clyde and the Thames.—(*Consular Report on Rotterdam for* 1858.) For an account of the trade of the U. K. with Holland, see AMSTERDAM.

RUBY, a precious stone, very highly esteemed; but under this name a variety of minerals have not unfrequently been sold, which differ essentially in their characters.

The *Oriental Ruby* is, in fact, a red variety of the sapphire. When perfect, its colour is a cochineal red, presenting a richness of hue the most exquisite and unrivalled: it is, however, in general, more or less pale, and often mixed with blue; hence it occurs rose red, peach blossom red, and lilac blue, passing into the amethyst. It is harder than any other mineral, except the diamond. Easily frangible. Specific gravity from 3·916 to 4·283. Infusible before the blowpipe. Oriental rubies of 10 carats are extremely rare and valuable. One of 22 grains was sold for 160*l*. Rubies in lots, Indian cut, or small sizes, and of different qualities, are at all times to be had, and sell at from 15*s*. to 65*s*. a carat: but a perfect stone of a carat, or 6 grains, may be deemed rare, and falls little short of the value of the diamond: nay, in some cases, rubies of 2, 3, or 4 carats, if *very fine*, are much scarcer, and even more valuable than diamonds of equal weight. The finest ruby in England, or perhaps, in Europe, is in the collection of the late Mr. Hope, the author of "Anastasius."

There are two other species of ruby, the *Spinelle* and *Balais*. When perfect, the Spinelle is a gem of great value and scarcity. Its colour is a fine full carmine or rose red, but it never presents that rich mellow tinge that attends the Oriental ruby. It is also inferior to the latter in hardness and specific gravity. Stones of 3 carats and upwards are very rare and valuable.

The *Balais Ruby* is a pale variety of the spinelle. It varies in colour from light red to yellowish red. Though not so rare as the spinelle, it is by no means common. It is much admired for its agreeable tinge of colour; and, when pure and perfect, fetches a very high price; though considerably less than the other varieties.

Rubies are not found in any considerable quantity except in Ava. — (See SAPPHIRE.) — (*Mawe on Diamonds*, 2d ed. pp. 90. 101.; *Thomson's Chemistry.*)

RUM, a well known and highly esteemed spirituous liquor imported from the West Indies, of which it forms one of the staple products. It is obtained by means of fermentation and distillation, from molasses, the refuse of the cane juice, and portions of the cane, after the sugar has been extracted. The flavour and taste peculiar to rum are derived from the essential oils carried over in distillation. When the distillation has been carelessly performed, the spirit contains so large a quantity of the grosser and less volatile part of the oil as to be unfit for use till it has attained a considerable age. When it is well rectified, it mellows much sooner. Rum of a brownish transparent colour, smooth oily taste, strong body and consistence, good age, and well kept, is the best. That which is clear and limpid, and has a hot pungent taste, is either too new, or mixed with other spirits. Jamaica rum is the first in point of quality; the Leeward Island rum, as it is called, being always inferior to it, both in flavour, strength, and value. The price of the latter is usually 20 per cent. below that of the former. We import all our rum in puncheons, containing from 84 to 90 gallons each. It is customary, in some of the West India islands, to put sliced pine-apples in puncheons of rum: this gives the spirit the flavour of the fruit; and hence the designation, *pine-apple rum.*

Rum is also produced in and imported from the Mauritius and the E. Indies. But that of the latter is more nearly allied to arrack than to genuine rum.

Rum is said to be much adulterated by the retail dealers in England, sometimes with corn spirit; but if done with molasses spirit, the tastes of both are so nearly allied, that the cheat is not easily discovered.

Consumption of, and Duties upon, Rum, &c.—The following tables show the quantities of rum consumed in the U. Kingdom since 1824, the rates of duty charged upon it, and the produce of the duties.

Account stated in *Imperial Proof Gallons*, of the Rum annually entered for Home Consumption in the U. Kingdom, from 1824 to 1842, both inclusive, with the Rates of Duty payable thereon, and the Produce of the Duties.

Years.	Retained for Consumption. U. Kingdom.	Rate of Duty p. Gall. U. Kingdom.	Nett Produce of the Duties.	Years.	Retained for Consumption. U. Kingdom.	Rate of Duty p. Gall. U. Kingdom.	Nett Produce of the Duties.
	Gallons.	*s.* *d.*	£ *s.* *d.*		*Gallons.*	*s.* *d.*	£ *s.* *d.*
1824	2,551,646	12 7¼	1,606,924 13 7	1835	3,416,966	9 0	1,537,693 18 9
1825	2,095,687	- -	1,284,627 18 5	1836	3,324,749	9 0	1,496,155 14 1
1826	4,305,316	8 6	1,828,878 8 9	1837	3,184,255	9 0	1,432,929 0 0
1827	3,288,506	- -	1,596,576 8 11	1838	3,135,651	9 0	1,411,066 0 0
1828	3,277,653	- -	1,393,153 17 2	1839	2,830,263	9 0	1,273,627 0 0
1829	3,375,866	- -	1,434,782 13 1				
1830	3,658,958	9 0	1,600,351 9 11	1840	2,512,960	To 5 May 9 0 From do. 9 0	1,155,613 0 0
1831	3,624,597	- -	1,629,881 9 5				
1832	3,513,965	- -	1,580,380 3 9				
1833	3,492,193	9 0	1,570,797 0 0	1841	2,277,970	9 0	1,063,087 0 0
1834	3,345,177	9 0	1,505,139 16 7	1842	2,097,747	9 0	978,959 0 0

Though rum has not been so much over-taxed as brandy, geneva, and wine, still it is pretty obvious that, even in its case, taxation was carried beyond its proper limits. During the 3 years ending with 1802, when the duty in Great Britain was about 9*s*. a gallon, and in Ireland 6*s*. 8¾*d*., the consumption of the U. Kingdom amounted to 3,150,000 gallons a year; while, notwithstanding the great increase of population, during the 3 years ending with 1823, when the duty in Great Britain was 13*s*. 11½*d*. a gallon, and in Ireland 12*s*. 8¾*d*., the annual consumption amounted to only 2,307,000 gallons. The reduction of the duty in 1826 to 8*s*. 6*d*. increased the consumption from about 2,500,000 to about 3,500,000 gallons.

The falling off in the consumption in 1839 and the immediately subsequent years,

was not owing to the trifling addition of 4*d.* per gall. then made to the duty, but to the scarcity and high price of rum itself.

From 1800 down to 1813, the duties on rum in Ireland were much lower than in Britain, and the consumption in the former appears then to have been much greater than afterwards, when the duties were raised in Ireland to the same level as here. But though there can be no manner of doubt that the increase of duty in Ireland tended to reduce its consumption, we have no idea that it did that to anything like the extent which appears on the face of the account. The truth is, that while the duty was lower in Ireland than in Britain, rum was extensively smuggled from the former into the latter; and this smuggling having ceased when the duties were equalised, the apparent, though not the real, consumption of rum in Ireland, was proportionally diminished.

In 1847 government was induced, in compliance with the representations of the West Indians, to assimilate the duties on colonial rum to the duties on home-made spirits, which varied in the different divisions of the U. K. But the facility with which clandestine distillation may be carried on in Scotland and Ireland, was the only excuse (and its validity was very doubtful) for the duty on spirits having been less in them than in England. No such pretence could be put forward for varying the duties on rum; and it would be in all respects quite as reasonable to reduce the duties on the brandy, tea, and sugar used in Scotland and Ireland below the English level as the duty on rum. The scheme, in fact, was neither more nor less than a clumsy underhand device to compensate the West Indians, without appearing to do so, for some small portion of the injustice of which they have been the victims. We are glad, therefore, to have to add that from the 21st April, 1855, the duty on rum in Scotland was raised to the level of that in England, or to 8*s.* 2*d.* a gallon; and in 1858 (from the 19th April) the duty on rum in Ireland was, also, raised to the same level; so that, both in respect of home and of colonial and foreign spirits, the duties are now the same in all parts of the U. K. We subjoin

An Account of the Quantities of Rum imported into the U. Kingdom, exported as Merchandise, delivered from Ships' Stores, and for the use of the Navy, with the Quantities retained for Home Consumption, the Rates of Duty chargeable thereon, and Nett Amount of Duty received, in each Year from 1843 to 1858, both inclusive.

Years.	Quantities imported into the United Kingdom.	Quantities exported as Merchandise.	Quantities Shipped as Stores.	Quantities delivered for the Use of the Navy.	Quantities retained for Consumption in the United Kingdom.	Rates of Duty, per Gallon, on the Quantities entered for Consumption. Of B.W. Indies, Mauritius, or those B. Possessions in the E. Indies, into which the imp. of Foreign Sugar is prohibited.				Foreign Produce.			Nett Amount of Duty received.
							£	s.	d.	£	s.	d.	£
	Proof Galls.	*Proof Galls.*	*Proof Galls.*	*Proof Galls.*	*Proof Galls.*								
1843	3,729,754	1,079,250	244,699	399,941	2,103,715	- - -	- 0	9	4	1	2	10	981,905
1844	3,429,010	741,911	265,777	359,924	2,198,592	- - -	-		-	-		-	1,026,067
1845	4,808,798	778,954	255,707	436,947	2,469,135	- - -	-		-	-		-	1,159,510
1846	3,835,464	795,904	228,076	407,562	2,683,701	- - -	- 0	8	10	0	15	0	1,219,552
1847	6,642,907	974,614	216,232	366,796	3,328,985	In England - - -	- 0	8	7	-		-	1,516,140
						Scotland - - -	- 0	4	5				
						Ireland - - -	- 0	4	5				
1848	6,858,981	1,263,290	207,267	287,547	2,986,979	In England - - -	- 0	8	2	-		-	1,154,281
						Scotland - - -	- 0	4	0				
						Ireland - - -	- 0	3	0				
1849	5,306,827	1,618,485	205,629	341,666	3,039,862	- - -	-		-	-		-	1,140,931
1850	4,191,685	1,187,085	187,571	361,823	2,909,961	- - -	-		-	-		-	1,099,950
1851	4,745,244	1,310,737	184,377	70,704	2,880,425	- - -	-		-	-		-	1,097,930
1852	5,490,224	2,199,997	205,246	191,631	2,899,684	- - -	-		-	-		-	1,105,584
1853	4,206,248	2,022,786	215,079	183,650	3,232,457	From 21st April In Engl. -	0	8	2	-		-	1,253,003
						Scot. -	0	5	0				
						Ire. -	0	3	8				
1854	8,625,907	3,103,333	208,609	936,607	3,226,594	In England - -	- 0	8	2	-		-	1,276,533
						Scot.—from 8 to 26 May -	0	6	0				
						from 26 May -	0	6	4				
						Ire. — from 8 May -	0	4	4				
1855	8,714,337	3,209,004	246,156	1,104,523	3,223,575	From 21st April In Engl. -	0	8	2	-		-	1,300,451
						Scot. -	0	8	2				
						Ire. -	0	6	4				
1856	7,169,005	3,916,443	215,884	235,502	3,425,407	- - -	-		-	-		-	1,388,642
1857	6,515,683	2,454,230	205,464	21,902	3,396,537	- - -	-		-	-		-	1,378,079
1858	7,511,219	2,257,504	175,178	21,506	3,427,059	From 19th April. U. K.	- 0	8	2	-		-	1,396,093

Account showing the Quantities of Rum imported into the U. Kingdom in 1857, the Countries whence they came, the Entries for Consumption, with the assumed Prices at which their Values were estimated, and their Values.

Countries whence imported.	Imports.	Entries for Consumption.	Rates of Valuation of Imports.	Total Value of Imports.
	Proof gallons.	*Proof gallons.*	*Per gallon.* £ s. d.	£
Cuba	51,976	80	0 2 4½	6,199
Porto Rico	25,231		}	
Dutch Guiana	57,961		0 2 4	2,945
United States	30,071	67	0 2 1	6,775
Mauritius	183,606	1,310	0 2 6	3,129
British East Indies	385,336	4,761	0 2 5	22,708
			0 2 5	47,273
British West India Islands	2,394,765	1,353,882	Jamaica 0 3 8	
			Other islands 2 7	392,508
British Guiana	3,337,749	1,717,310	0 2 7⅛	429,580
Other ports	48,988	1,483	2s. to 2 8	6,105
Mixed in bond		318,192.		
Total	6,515,683	3,397,115		927,422

Prices of Rum in Bond, in London, in April, 1859.

Rum in bond (duty 8s. 2d. gal.).	s.	d.	s.	d.	Rum in bond (duty 8s. 2d. gal.).	s.	d.	s.	d.
Jamaica, very fine	5	0 to 5	6		Leeward Island, proof	1	8 to 1	9	
50 to 56 per ct. o.pf.	3	7 — 4	10		East India, proof	1	6 — 1	8	
24 to 28 do.	—	none.			Foreign, 5 to 10 per ct. o.pf.	—	0 — 2	1	
Demerara, proof	2	1 — 2	2		,, proof and under	1	6 — 1	0	

Rum may not be imported unless in ships of 50 tons burden at least, and in casks or other vessels capable of containing liquids, each of such casks or other vessels being of the size or content of 20 gallons at the least, and duly reported, or in glass bottles or stone bottles not exceeding the size of three-pint bottles, and being really part of the cargo of the importing ship, and duly reported.—(16 & 17 Vict. c. 107. § 44.)

No spirits imported from parts beyond the sea into the U. K. upon which a higher duty is payable on their importation into England than on their importation into Scotland or Ireland, shall be brought from Scotland or Ireland into England; nor shall any such spirits upon which a higher duty is payable in Scotland than in Ireland be brought from Ireland into Scotland, except such as shall have been duly warehoused upon the first importation thereof, according to the laws in force for the warehousing of goods, and which shall be in the warehouse at the time of such intended removal, and which shall be removed from one warehousing port to another warehousing port, according to the regulations required by law; and all such spirits, when so removed, shall be liable to the duty payable thereon in that part of the U. K. into which they shall be so removed, if they be entered for home consumption therein; and all spirits removed contrary hereto shall be forfeited, and all persons concerned in such removal, or knowingly receiving or harbouring any spirits so removed, shall forfeit the penalty of 100*l.*, or treble the value of such spirits at the election of the Commissioners of Customs or Inland Revenue.—(16 & 17 Vict. c. 107. § 102.)

Before any rum shall be entered as being the produce of any British possession abroad, the master of the ship importing the same must deliver a certificate of origin to the collector or comptroller, that the goods are the produce of such place.—(16 & 17 Vict. c. 107. § 77, &c.)

RUSSIA COMPANY, a regulated company for conducting the trade with Russia. It was first incorporated by charter of Philip and Mary, sanctioned by act of parliament in 1566. The statute 10 & 11 Will. 3. c. 6. enacts, that every British subject desiring admission into the Russia Company shall be admitted on paying 5*l.*; and every individual admitted into the Company conducts his business entirely as a private adventurer, or as he would do were the Company abolished.

Table of Duties payable to the Russia Company.

		s.	d.			s.	d.
Aniseed	the cwt.	0	3	Skins and furs, viz.—			
Ashes, pearl and pot	the ton	0	9	Fox	the hundred	0	4½
Books, bound	the cwt.	0	3	Hare	the 100 dozen	0	2
unbound	the cwt.	0	2	Sables	the zimmer	1	6
Bristles	the dozen lbs.	0	0½	Swan	each	0	1
Castoreum	the lb.	0	1	Wolf	each	0	1½
Caviare	the cwt.	0	2	Tallow	the ton	0	9
Cordage	the cwt.	0	2	Tongues	the hundred	0	2
Down	the 100 lbs.	0	4	Tow	the ton	0	6
Feathers, bed	the cwt.	0	4	Wax, bees'	the cwt.	0	2
Flax	the ton	0	9	Wheat	the quarter	0	1
Hair, cow or ox	the cwt.	0	2	Wood, viz.—			
Hemp	the ton	0	7	Balks above 5 inches sq.	the 120	0	4
Hides of cows or horses, undressed	each	0	0½	under do.	the 120	0	3
red or Muscovy	each	0	1	Barrel boards	the 120	0	1
Iron	the ton	0	5	Battens	the 120	0	1½
Isinglass	the cwt.	0	4	Capravens	the 120	0	3
Linen drillings	the 120 ells	0	1½	Clap boards	the 120	0	1
narrow or diaper	the 120 ells	0	2	Deals under 20 feet long,	the 120	0	4
22½ to 31½	the 120 ells	0	3	above ditto	the 120	0	2
31½ to 45	the 120 ells	0	4	Fire wood	the fathom	0	1
45 and upwards	the 120 ells	0	6	Fir timber	the load	0	1
sail cloth	the 120 ells	3	5	Handspikes	the 120	0	1½
Linseed	the quarter	0	2	Lathwood	the fathom	0	1½
Mats	the hundred	0	2	Masts, great	each	0	2
Oats	the quarter	0	1	small others	each	0	1
Pitch	the last	0	2	Oak boards	the 120	0	5
Rhubarb	the lb.	0	1½	plank	the load	0	3
Rosin	the cwt.	0	1½	Timber	the load	0	2
Saltpetre	the cwt.	0	1½	Oars	the 120	0	4½
Seed, garden	the 100 lbs.	0	3	Paling boards	the 120	0	1
Skins and furs, viz.—				Spars	the 120	0	2
Armins or ermins	the zimmer of 40 skins	0	2	Staves	the 120	0	1
Bear	each	0	2	Tar	the last	0	2
Calabar	the zimmer	0	2	Wainscot logs	the load	0	2
Calf	the hundred	0	3	All goods not enumerated pay 1·8th per cent. *ad valorem* on the declaration of the importer.			

RUSSIA LEATHER (Fr. *Cuir de Russie*; Ger. *Juften*; It. *Cuojo di Russia*; Pol. *Jachta*; Rus. *Juft, Youft*; Sp. *Moscovia*) the tanned hides of oxen and other kine, denominated by the Russians *youfts*, or *juffs*,—a designation said to be derived from their being generally manufactured in pairs. The business of tanning is carried on in most towns of the empire, but principally at Moscow and Petersburg. Russia leather is soft, has a strongly prominent grain, a great deal of lustre, and a powerful and peculiar odour. It is principally either red or black: *the former* is the best, and is largely used in this and other countries in bookbinding; for which purpose it is superior to every other material. The black is, however, in very extensive demand in Russia; large quantities being made up into boots and shoes. The process followed by the Russians in the preparation of this valuable commodity has been frequently described; but notwithstanding this circumstance, and the fact that foreigners have repeatedly engaged in the business in Russia, with the intention of making themselves masters of its details, and undertaking it at home, the efforts made to introduce the manufacture into other countries have hitherto entirely failed. One of the best tests of

genuine Russia leather is its throwing out a strong odour of burnt hide upon being rubbed a little. — (*Ricard, Traité Général du Commerce*, tome i. p. 275. ed. 1781.)

We borrow from Mr. Borrisow's work on the *Commerce of Petersburg* the following details with respect to this article: — Russia leather forms one of the principal export commodities of Petersburg. But since the ports of the Black Sea have been opened, the exports of leather from this port have considerably decreased; Italy, the principal consumer, supplying its wants from Odessa and Taganrog, more easily, cheaply, and expeditiously than from Petersburg. The chief exportation from the latter is to Prussia, Germany, and England. Frankfort on the Maine and Leipzic are of great importance as respects the trade in Russia leather, on account of the fairs held in them.

Juffs are never bought on contract, but always on the spot at cash prices. It nevertheless often happens that agents, in order to secure a lot of juffs, pay a certain sum in advance, and settle for the amount at the first market prices; no prices being fixed in the months of January, February, March, and sometimes even April.

Juffs are assorted or *bracked* when received, according to their different qualities, into *Gave, Rosval, Malja*, and *Domashna*. The three first sorts are again divided into *heavy* and *light Gave, heavy* and *light Rosval*, &c. Domashna is the worst, and consequently the cheapest sort. It often happens that juffs are bought unassorted, and then the prices are regulated according as the quantity of Domashna contained in the lot is greater or less. Persons well acquainted with the nature of Russia leather prefer purchasing it in this state.

Juffs are sold by the pood, which consists, as it is commonly expressed, of 4, 4¼, 4½, 5, 5¼, and 5½ hides. By this is understood, that so many hides make a pood, calculated upon the whole lot; and it is to be observed that the lightest juffs are esteemed the best in quality. Heavy juffs, or those of 4 and 4¼ hides, are shipped for Italy: the Germans, on the contrary, prefer the lighter sort.

Juffs are packed in rolls, each containing 10 hides; and from 10 to 15 of these rolls are packed together in a bundle, which is well secured by thick matting. There are red, white, and black juffs; but the red are most in demand. Their goodness is determined by their being of a high red colour, of equal size, and unmixed with small hides: they must also be free from holes, well stretched, and equally thin. In a well finished lot, no thick head or feet parts should be found. If spots resembling flowers are seen on the red hides, it is an additional sign of their good quality; and they are then called *bloomed juffs*. The inside should be clean, soft, and white, and, when taken in the hand, should feel elastic. The best connoisseurs of Russia leather can nearly determine the quality by the smell alone.

Great attention must be paid, in shipping juffs, to secure them from being wetted, as damp air alone is sufficient to injure them.

Sixty rolls of juffs make a last; 88 poods nett weight, when shipped for Italy, make a last; and 44 poods a ton in England.

The exports of juffs from Russia, in 1841, amounted to 177,838 poods, and 150,951 pieces, worth together 1,538,191 silver roubles. — (*Official Returns*, p. 13.)

RYE (Ger. *Roghen, Rocken*; Du. *Rog, Rogge*; Fr. *Seigle*; It. *Segale, Segala*; Sp. *Centeno*; Rus. *Rosch, Sel, Jar*; Lat. *Secale*), according to some, is a native of Crete; but it is very doubtful if it be found wild in any country. It has been cultivated from time immemorial, and is considered as coming nearer in its properties to wheat than any other grain. It is more common than wheat in many parts of the Continent; being a more certain crop, and requiring less culture and manure. It is the bread corn of Germany and Russia. In Britain it is now very little grown; being no longer a bread corn; and, therefore, of less value to the farmer than barley, oats, or peas. — (*Loudon's Ency. of Agriculture.*)

For the regulations as to the importation and exportation of rye, see CORN LAWS AND CORN TRADE.

S.

SABLE (Ger. *Zobel*; Fr. *Zibelline*; It. *Zibellino*; Rus. *Sohol*), an animal of the weasel tribe, found in the northern parts of Asiatic Russia and America, hunted for the sake of its fur. Its colour is generally of a deep glossy brown, and sometimes of a fine glossy black, which is mostesteemed. Sable skins have sometimes, though very rarely, been found yellow, and white. The finer sorts of the fur of sables are very scarce and dear. — (See FUR TRADE.)

SADDLES (Fr. *Selles*; Ger. *Sattel*; It. *Selle*; Rus. *Sädla*; Sp. *Selles*), seats adapted to the horse's back, for the convenience of the rider. Those made in England are reckoned the best. Sherborne and Lynn used to be remarkable for this manufacture; but it is now principally carried on in London.

SAFFLOWER, OR BASTARD SAFFRON (Ger. *Safflor*; Du. *Saffloer, Basterd Saffran*; Fr. *Cartame, Saffran batard*; It. *Zaffrone*; Sp. *Alazor, Azafran bastardo*; Rus. *Polerroi, Prostoi schafran*), the flower of an annual plant (*Curthamus tinctorius* Lin.) growing in India, Egypt, America, and some of the warmer parts of Europe. It is not easily distinguished from saffron by the eye, but it has nothing of its smell or taste.

The flowers, which are sometimes sold under the name of *saffranon*, are the only parts employed in dyeing. They yield two sorts of colouring matter: one soluble in water, and producing a yellow of but little beauty; the other is *resinous*, and best dissolved by the fixed alkalies: it is this last which alone renders safflower valuable in dyeing; as it affords a red colour exceeding in delicacy and beauty, as it does in costliness, and which can be obtained even from cochineal, though much inferior to the latter in durability. The colour of safflower will not bear the action of soap, nor even that of the sun and air for a long time; and being very costly, it is principally employed for imitating upon silk the fine scarlet (*ponceau* of the French) and rose colours dyed with cochineal upon woollen cloth.

The fine rose colour of safflower, extracted by crystallised soda, precipitated by citric acid, then slowly dried, and ground with the purest talc, produces the beautiful *rouge* known by the name of *rouge végétale*.

Safflower should be chosen in flakes of a bright pink colour, and of a smell somewhat resembling tobacco. That which is in powder, dark coloured, or oily, ought to be rejected.—(*Hasselquist's Voyages*, Eng. ed. p. 352.; *Bancroft's Permanent Colours*, vol. i. pp. 286—289.; *Milburn's Orient. Com.*)

The consumption of safflower may be estimated, deducting the exports from the imports, at an average of the last 4 years, at about 7,500 cwts. a year. The duty of 1*s.* a cwt. formerly charged on its importation was repealed in 1845.

SAFFRON (Ger. *Saffran*; Du. *Safran*; It. *Zafferano*; Sp. *Saffron*; Fr. *Azafran*; Rus. *Schafran*), a sort of cake prepared from the stigmas, with a proportion of the style, of a perennial bulbous plant (*Crocus sativus* Lin.) cultivated to a small extent in Cambridgeshire.

It is also imported from Sicily, France, and Spain; but the English, as being fresher, more genuine, and better cured, is always preferred. When good, saffron has a sweetish, penetrating, diffusive odour; a warm, pungent, bitterish taste; and a rich, deep orange red colour. It should be chosen fresh, in close, tough, compact cakes, moderately moist, and possessing in an obvious degree all the above mentioned qualities. The not staining the fingers, the making them oily, and its being of a whitish yellow or blackish colour, indicate that it is bad, or too old. Saffron is used in medicine, and in the arts; but in this country the consumption seems to be diminishing. It is employed to colour butter and cheese, and also by painters and dyers. — (*Thomson's Dispensatory*; *Loudon's Ency. of Agriculture.*)

SAGAPENUM (Arab. *Sugbenuj*), a concrete gum-resin, the produce of an unknown Persian plant. It is imported from Alexandria, Smyrna, &c. It has an odour of garlic; and a hot, acrid, bitterish taste. It is in agglutinated drops or masses, of an olive or brownish yellow colour, slightly translucent, and breaking with a horny fracture. It softens and is tenacious between the fingers, melts at a low heat, and burns with a crackling noise and white flame, giving out abundance of smoke, and leaving behind a light spongy charcoal. It is used only in medicine. — (*Thomson's Dispensatory.*)

SAGO (Malay, *Sagu*; Jav. *Sagu*), a species of meal, the produce of a palm (*Metroxylon Sagu*) indigenous to and abundant in such of the Eastern islands as produce spices, where it supplies a principal part of the farinaceous food of the inhabitants.

The tree, when at maturity, is about 30 feet high, and from 18 to 22 inches in diameter. Before the formation of the fruit, the stem consists of an external wall about 2 inches thick, the whole interior being filled up with a sort of spongy medullary matter. When the tree attains to maturity, and the fruit is formed, the stem is quite hollow. Being cut down at a proper period, the medullary part is extracted from the trunk, and reduced to a powder like sawdust. The filaments are next separated by washing. The meal is then laid to dry; and being made into cakes and baked, is eaten by the islanders. For exportation, the finest sago meal is mixed with water, and the paste rubbed into small grains of the size and form of coriander seeds. This is the species principally brought to England, for which market it should be chosen of a reddish hue and readily dissolving in hot water into a fine jelly. Within these few years, however, a process has been invented by the Chinese for refining sago, so as to give it a fine pearly lustre; and the sago so cured is in the highest estimation in all the European markets. It is a light, wholesome, nutritious food. It is sent from the islands where it is grown to Singapore, where it is granulated and bleached by the Chinese. The export trade to Europe and India is now principally confined to that settlement.—(*Ainslie's Mat. Indica*; *Crawfurd's East. Archip.* vol. ii. pp. 383—393., vol. iii. p. 348.; *Bell's Review of the Commerce of Bengal, &c.*)

Account of the Quantities of Sago imported into and re-exported from the U. Kingdom, during each of the 8 Years ending with 1852; specifying the Imports from Places within the Limits of the E. I. Company's Charter. — (*Parl. Paper*, No. 928. Sess. 1853.)

Years.	Imports from within E. I. Company's Charter.	Total Imports.	Re-exports from U. Kingdom.	Quantities retained for Consumption.
	Cwts.	*Cwts.*	*Cwts.*	*Cwts.*
1845	43,189	43,213	1,238	43,208
1846	38,343	38,595	651	45,988
1847	55,158	55,165	2,703	41,429
1848	65,501	65,504	2,442	67,226
1849	83,705	85,711	5,317	72,979
1850	88,556	89,884	3,862	84,624
1851	93,351	95,253	6,056	80,918
1852	85,115	85,258	5,468	93,140

Previously to 19th March, 1845, the duty was 1*s.* a cwt., plus 5 per cent.; since that date to the present year (1853) it was 6*d.* a cwt.; repealed, 1845.

It is seen from this table that the consumption of sago has increased rapidly of late years; and the increase will appear still greater if we go a little farther back; for, at an average of 1820 and 1821, the consumption amounted to only about 1,300 cwts. a year. This extraordinary increase is in part to be ascribed to the effectual reduction of the heavy duties with which sago was formerly burdened; but more, perhaps, to its being found to be a desirable article of food. It is said to be employed to some extent in the adulteration of sugar. The price of common sago varies from 8*s.* to 15*s.*, while pearl sago fetches from 20*s.* to 25*s.* a cwt.; but the price is liable to great fluctuation.

SAILS, coarse linen or canvass sheets attached to the masts and yards of ships, the blades of windmills, &c., to intercept the wind and occasion their movement.

Sails, when formerly imported, were charged with an *ad valorem* duty of 10 per cent. But this duty was repealed in 1853, and their importation is now free. The duty on cordage was then, also, repealed

SALEP, a species of powder prepared from the dried roots of a plant of the orchis kind (*Orchis mascula* Lin.) That which is imported from India is in white oval pieces, hard, clear, and pellucid, without smell, and tasting like tragacanth. As an article of diet, it is said to be light, bland, and nutritious. The plant thrives in England, but it is not cultivated to any extent; and very little is imported. —(*Ainslie's Mat. Indica*; *Milburn's Orient. Com.*)

SALMON (Ger. *Lachs, Salm*; Fr. *Saumon*; It. *Sermone, Salamone*; Sp. *Salmon*; Rus. *Lemga*). This excellent fish is too well known to require any description. It is found only in northern seas, being unknown in the Mediterranean and other warm regions. In this country it is an article of much value and importance. It is said to be exceedingly abundant in Japan and Kamtschatka.

"Salmon fisheries," Marshall observes, "are copious and constant sources of human food; they rank next to agriculture. They have, indeed, one advantage over every other internal produce,—their increase does not lessen other articles of human subsistence. The salmon does not prey on the produce of the soil, nor does it owe its size and nutritive qualities to the destruction of its compatriot tribes. It leaves its native river at an early state of growth; and going, even naturalists know not where, returns of ample size, and rich in human nourishment; exposing itself in the narrowest streams, as if nature intended it as a special boon to man. In every stage of savageness and civilisation, the salmon must have been considered as a valuable benefaction to this country."

Such salmon as are taken in æstuaries or rivers are, of course, the property of those to whom the æstuaries or rivers belong, the fisheries in them frequently letting for very large sums; but of late very considerable quantities of salmon have been taken in bays and in the open sea, where the fishing is free to any one who chooses to engage in it. The London market, where the consumption is immense, has been, since 1790, principally supplied from the Scotch rivers. The Tweed fishery is the first in point of magnitude of any in the kingdom; the take is sometimes quite astonishing, several hundreds having been frequently taken by a single sweep of the net! Salmon are despatched in steamers or fast sailing vessels from the Spey, the Tay, the Tweed, and other Scotch rivers, for London, packed in ice, by which means they are preserved quite fresh. When the season is at its height, and the catch greater than can be taken off fresh, it is salted, pickled, or dried for winter consumption at home, and for foreign markets. Formerly, such part of the Scotch salmon as was not consumed at home, was pickled and kitted after being boiled, and was in this state sent up to London under the name of Newcastle salmon; but the present method of disposing of the fish has so raised its value, as to have nearly deprived all but the richer inhabitants in the environs of the fishery of the use of salmon. Within the memory of many, now living, salted salmon formed a material article of household economy in all the farm-houses in the vale of the Tweed; insomuch, that in-door servants used to stipulate that they should not be obliged to take more than two weekly meals of salmon. Its ordinary price was then 2*s*. a stone of 19 lbs.; but it is now never below 12*s*., often 36*s*., and sometimes 42*s*. a stone. This rise in the price of the fish has produced a corresponding rise in the value of the salmon fisheries, some of which are very valuable. There are considerable fisheries in some of the Irish and English rivers; but inferior to those of Scotland.—(*General Report of Scotland*, vol. iii. p. 327.) The Scotch salmon fisheries seem to have attained their maximum value towards the end of the last war, when the fisheries in the Tweed were let for from 15,000*l*. to 18,000*l*. a year! and those of the Tay, Dee, Spey, &c. were proportionally valuable. But the value of the Scotch salmon fisheries has, speaking generally, declined greatly of late years; in consequence, partly and principally, of a diminished supply of fish in the rivers, but in some degree, also, from the greater facility of the communication between London and Liverpool, and the consequent importation of Irish salmon into the London markets. We were fortunate enough to obtain from a source on which every reliance may be placed, the following

Account of the Quantity of Salmon packed in Ice imported into London, from Scotland, during each of the 8 Years ending with the 14th of October, 1841, and of the Wholesale Price of the same.

Years ending Oct. 14.	Weight of Fish.	Average Price, about	Total Value.	Years ending Oct. 14.	Weight of Fish.	Average Price, about	Total Value.
	Lbs.	*d.*	£		*Lbs.*	*d.*	£
1834	3,432,800	9½ per lb.	135,900	1838	2,596,800	10½ per lb.	104,160
1835	4,740,960	9	177,800	1839	1,850,080	11	85,880
1836	2,751,810	10½	120,400	1840	1,697,920	11	77,850
1837	3,612,660	10	150,750	1841	3,192,672	8¾	116,400

This, it will be observed, is independent of the pickled salmon brought from Scotland, the quantity and value of which varies as much as that of the fresh salmon. But we are well assured that, at an average of the last eight years, its value has not exceeded 12,000*l*. a year. At an average, the retail price of salmon in London may be taken at from 50 to 75 per cent. above the wholesale price.

We may remark, by the way, that as by far the largest portion of the salmon made use of in London comes from Scotland, the above statement shows that its consumption in the metropolis is not nearly so great as is generally supposed. In fact, it is little used, except by the more opulent classes; and nothing that is not generally used by the middle classes, or by them and the lower, is ever of much importance. The little influence over prices caused by a large increase of supply is also a striking feature in this return.

Decrease of the Supply of Salmon, Poaching, &c.—The decrease of salmon in the English and Scotch rivers, particularly of late years, is a fact as to which there can be no manner of doubt.—(*Report of Committee of House of Commons on Scotch Salmon Fishery, in* 1843.) Much unsatisfactory discussion has taken place as to its causes, which are, probably, of a very diversified character. A good deal has been ascribed to the increase of water machinery on the banks of the different rivers; but we hardly think that this could have much influence, except, perhaps, in the case of the smaller class of rivers. *Weirs*, or salmon traps, have also been much objected to; though, as we have been assured, with still less reason. On the whole, we are inclined to think that the falling off in the supply of this valuable fish is principally to be ascribed to the temptation to over-fish the rivers, caused by the high price of salmon; to the prevalence of poaching; and more than all, to the too limited duration of the *close time*. In 1828, after a great deal of discussion and inquiry, an act was passed (9 Geo. 4. c. 39.), which has done a good deal to remedy these defects—in so far, at least, as respects the Scotch fisheries. The rivers are shut up from the 14th September to the 1st of February; and every person catching or attempting to catch fish during that period forfeits not less than 1*l*. and not more than 10*l*. for every offence, besides the fish, if he have caught any, and such boats, nets, or other implements, as he may have made use of. Pecuniary penalties are also inflicted upon poachers and trespassers; and provision is made for the watching of the rivers. We understand that this act had a very good effect; though it is believed that it would be better were the *close time* extended from the 1st of September to the middle of February.

Previously to 1842 the importation of foreign salmon was prohibited; but among the important and beneficial changes effected by the tariff act of that year, the repeal of this prohibition, and the admission of foreign salmon to our markets on payment of a duty of 10*s*. 6*d* (inc. the 5 per cent.) a cwt., was one of the foremost. The importation has not, however, been nearly so great as was anticipated.

In 1852 the imports of salmon of foreign taking amounted to only 326 cwt. The imports during the same year of salmon of British taking were 2,298 cwt. In 1853 the duty on the former was repealed; and salmon, however taken, may now, like any other fish, be imported duty free. Foreign salmon is principally brought from Holland and Denmark; the anticipated supplies from Norway and Sweden have proved to be quite trifling.

SALONICA, a large city and sea-port of European Turkey, at the north-east extremity of the gulph of the same name, lat. 40° 38′ 47″ N., lon. 22° 57′ 13″ E. Population estimated at 60,000.

This city, originally called Therma and afterwards Thessalonica, is celebrated both in sacred and profane history. It was visited by St. Paul, who has addressed two of his epistles to the Thessalonians. In the days of its prosperity it had an amphitheatre, an extensive hippodrome, numerous temples and triumphal arches, the ruins of which sufficiently attest its ancient splendour.—(*Clarke's Travels*, vii. 441—478. 8vo. ed.)

Being the principal emporium of Macedonia Salonica has always had a considerable trade; and to this circumstance may be ascribed its continued and comparatively prosperous existence notwithstanding the many vicissitudes it has undergone.

There is no port at Salonica, but there is excellent anchorage in the roads opposite to the town. The access to them is by no means difficult, and pilots are seldom employed. The exports principally consist of wheat, of which large quantities are sometimes shipped, barley, and Indian corn, timber, raw cotton, wool, raw silk, wax, tobacco, sesamum, olives and olive oil, &c. The imports are sugar, coffee, dyewoods, indigo, muslins, calicoes, cotton twist, iron, lead, tin, watches, &c.

Account of the Number, Tonnage, Crews, and Values of the Cargoes of the Vessels of different Nations entered and cleared at Salonica in 1851.

Countries.	Entered.				Cleared.			
	Vessels.	Tons.	Crews.	Value of Cargoes.	Vessels.	Tons.	Crews.	Value of Cargoes.
British - - -	30	4,441	226	£78,444	32	5,113	248	£15,700
Turkish - - -	103	9,220	1,060	72,417	101	9,074	979	20,994
— Steamers -	50	11,454	1,564	58,583	50	11,454	1,564	30,600
Austrian - - -	6	1,611	71	4,300	5	1,332	62	2,789
— Steamers -	51	12,019	1,327	158,853	51	12,049	1,327	61,712
French - - -	14	1,591	109	10,004	15	1,684	115	16,594
Greek - - -	225	15,132	1,467	39,995	234	15,852	1,629	11,695
Russian - - -	9	1,056	74	1,251	11	1,166	94	4,813
Sardinian - - -	6	820	54	14,088	8	1,144	75	3,339
Other places - -	15	2,412	132	6,004	15	2,356	134	10,834
Total - -	509	59,756	9,084	433,919	522	61,174	6,227	179,070

According to this statement, which is that of the English Consul, the aggregate value of the imports and exports by sea amounts to 612,989*l.*, or 15,324,725 fr. But according to the statement of Ubicini, in his valuable work on Turkey, (*Lettres sur la Turquie*, i. 425.), the imports and exports amounted jointly to 18,950,000 fr. The trade of the subordinate ports of La Cavale and Volo amounted during the same year to 7,509,768 fr. (*Ubicini*, p. 420.)

Money, Weights, and Measures. — Accounts are kept in piastres of 40 paras, or 120 aspers. The coins are those of Constantinople; which see.

The weights and measures are the same as those of Smyrna, except that the kisloz, killow, or corn measure of Salonica = 3·78 kisloz of Smyrna.

Quarantine Regulations. — On the arrival of a vessel at the port she is visited by the boat of the health office, with the Turkish flag in the stern and the yellow flag in the bow. The captain of the entering ship may, however, put a yellow flag in the bow of his boat, and go with his papers to the quarantine station (if he is much pressed for time), where he will obtain *pratique*, if with a clean bill, after he has answered the usual interrogations. The masters of vessels, on their arrival, must deliver up their bills of health to the quarantine officer, and it will be returned to them, upon application, before sailing. It is required that masters of vessels going from one Turkish port to another furnish themselves with Turkish bills of health, otherwise they will subject themselves to the same quarantine as vessels with foul bills.

Turkish bills of health cost,	*Piast.*	*s.*	*d.*
Vessels of 25 tons	2 = 0	4½	ex. 100s.
25 *to* 75 -	6 = 1	0½	
75 - 125 -	10 = 1	9½	
125 - 175 -	12 = 2	5½	
175 - 250 -	16 = 3	2½	
250 - 300 -	20 = 3	10½	
300 & upwards	24 = 4	7	

Harbour, Depth of Water, Tides. — Vessels anchor very near the walls of the town, though it is prudent not to come too close in, owing to the number of small craft at anchor. The depth of water a cable's length from the shore varies from 3½ to 4, and at two cables' length from 7 to 8 fathoms, whence to Cape Carabourum it varies from 12 to 17 fathoms. There is very little rise. Owing to the rivers which empty themselves into the Gulph, the currents setting out are at times strong, and in light winds sufficient to impede the way of the vessel.

Ballast, consisting of wet sand, may be had at 15 piastres (2*s.* 8½*d.*) per boat of from 2½ to 3 tons; engagements may be made for a lump sum, to put the vessel down to a certain mark. If a master require much ballast the latter plan is the best, for the ballast-men are all Jews, and it is the only means of having any check upon them.

Ship Bread. — Masters wanting ship bread must apply for a permit, which is obtained through the consul, for which the Turkish authorities charge 10 piastres.

Freights are payable either at the last rate of exchange received from Constantinople prior to the arrival of the vessel, or if the post come in after the ship's arrival, at the latter rate.

Bills. — Bills on London are at 3 months' date.

Commission. — Commission on freights 3 per cent.

The gates of the town are opened at sunrise and closed at sunset.

Water is excellent; there is a fountain at or near the wharf, and two others a short distance from it.

SALT (Ger. *Salz*; Du. *Zout*; Fr. *Sel*; It. *Sale*; Sp. *Sal*; Rus. *Sol*; Lat. *Sal*; Arab. *Melh*; Chin. *Yen*; Hind. *Nimmuck*; Per. *Nun*), the *chloride of sodium* of modern chemists, has been known and in common use as a seasoner and preserver of food from the earliest ages. Immense masses of it are found in this and many other countries, which require only to be dug out and reduced to powder. In that state it is called rock salt. The water of the ocean also contains a great deal of salt; to which, indeed, it owes its taste, and the power which it possesses of resisting freezing till cooled down to 28·5°. When this water is sufficiently evaporated, the salt precipitates in crystals. This is the common process by which it is obtained in many countries. There are various processes by which it may be obtained quite pure. Common salt usually crystallises in cubes. Its taste is universally known, and is what is

strictly denominated *salt*. Its specific gravity is 2·125. It is soluble in 8·82 times its weight of cold water, and in 2·76 times its weight of boiling water. — (*Thomson's Chemistry.*)

Besides its vast utility in seasoning food, and preserving meat both for domestic consumption and during the longest voyages, and in furnishing muriatic acid and soda, salt forms a glaze for coarse pottery, by being thrown into the oven where it is baked; it improves the whiteness and clearness of glass; it gives hardness to soap; in melting metals, it preserves their surface from calcination, by defending them from the air, and is employed with advantage in some assays; it is used as a mordant, and for improving certain colours; and enters more or less into many other processes of the arts. Many contradictory statements have been made as to the use of salt as a manure. Probably it may be advantageous in some situations, and not in others.

Salt Mines, Springs, &c. — The principal salt mines are at Wielitska in Poland, Catalonia in Spain, Altemonte in Calabria, Loowur in Hungary, in many places in Asia and Africa, and in Cheshire in this country. The mines at Wielitska are upon a very large scale; but the statements that have frequently been published, of their containing villages inhabited by colonies of miners who never saw the light, are altogether without foundation. These mines have been wrought for more than 600 years. — (*Coxe's Travels in the North of Europe*, vol. i. 149. 8vo. ed.)

The salt mines in the neighbourhood of Northwich in Cheshire are very extensive. They have been wrought since 1670; and the quantity of salt obtained from them is greater, probably, than is obtained from any other salt mines in the world. In its solid form, when dug from the mine, Cheshire salt is not sufficiently pure for use. To purify it, it is dissolved in sea water, from which it is afterwards separated by evaporation and crystallisation. The greater part of this salt is exported.

Salt springs are met with in several countries. Those in Cheshire and Worcestershire furnish a large proportion of the salt made use of in Great Britain. The brine, being pumped up from very deep wells, is evaporated in wrought iron pans from 20 to 30 feet square and 10 or 12 inches deep, placed over a furnace.

Most of the salt used in Scotland, previous to the repeal of the duty, was obtained by the evaporation of sea water nearly in the way now mentioned; but most part of the Scotch salt works have since been relinquished.

In warm countries, salt is obtained by the evaporation of sea water by the heat of the sun; and the crystals of salt made in this way are more perfect, and purer, from the greater slowness of the process. French salt is manufactured in this mode, and it has always been in considerable demand in this and other countries; but the principal imports of foreign salt into Great Britain at present are from Portugal. They amount, at an average, to from 250,000 to 350,000 bushels a year.

Consumption of Salt. — The consumption of salt in this country is immense. Necker estimated the consumption in those provinces of France which had purchased an exemption from the *gabelle* (*Pays francs rédimées*) at about 19½ lbs. (Eng.) for each individual. — (*Administration des Finances*, tome ii. p. 42.) From all that we have been able to learn on the subject, we believe that the consumption of the people of this country may be estimated a little higher, or at 22 lbs.; the difference in our food and habits, as compared with the French, fully accounting for this increased allowance. On this supposition, and taking the population at 28,000,000, the entire consumption will amount to 616,000,000 lbs., or 275,000 tons.

Exclusive of this immense home consumption, we annually export very large quantities.

Account of the Quantities and Value of the Salt exported from the U. K., during each of the 4 Years ending with 1851, specifying the Countries to which it was exported, and the Quantity and Value of that sent to each.

Countries to which Exported.	1848.		1849.		1850.		1851.	
	Quantity.	Declared Value.	Quantity.	Declared Value.	Quantity.	Declared Value.	Quantity.	Declared Value.
	Bushels.	£	*Bushels.*	£	*Bushels.*	£	*Bushels.*	£
Russia	1,880,743	28,028	2,250,108	31,468	2,015,613	28,409	2,010,585	28,003
Sweden	77,250	1,208	17,840	295	24,750	344	72,480	1,029
Norway	184,689	2,489	305,518	3,925	310,855	4,280	327,065	4,482
Denmark	522,400	8,077	545,265	7,913	567,836	8,214	565,825	8,198
Prussia	2,812,700	43,430	1,231,860	17,784	728,770	10,034	1,229,715	17,394
Mecklenburg	109,441	1,061	154,669	1,921	121,600	1,776	112,840	1,480
Oldenburg	32,000	566	-	-	3,200	50	4,400	66
Hanseatic Towns	128,163	1,788	96,180	1,607	192,277	3,250	130,717	1,955
Holland	1,183,648	15,107	941,180	12,010	1,050,816	14,755	530,130	8,153
Belgium	1,347,714	15,751	695,537	9,525	612,148	8,105	639,411	9,068
Channel Islands	46,944	714	71,580	937	85,534	1,088	107,190	1,544
France	3	1	265,772	5,698	111,829	1,562	42,927	552
Western Coast of Africa	497,598	7,479	411,473	6,337	469,207	7,738	510,803	7,774
British possessions in S. Africa	34,045	566	71,872	1,058	63,459	971	44,226	719
Mauritius	32,338	677	32,499	684	11,563	186	24,666	377
British territories in the E. Indies	662,809	9,317	1,195,935	17,741	1,468,798	22,071	2,534,616	33,160
British settlements in Australia	210,969	5,458	143,317	4,005	322,043	7,444	331,878	7,934
British N. American colonies	2,015,162	25,633	2,388,768	29,302	1,610,161	18,676	2,086,181	21,123
British West Indies	75,282	2,248	110,710	3,038	81,092	2,576	84,992	2,523
Foreign West Indies	25,444	555	29,240	690	46,460	908	65,054	1,059
United States of America	7,055,424	99,182	7,506,524	94,901	5,853,845	80,523	6,747,218	78,158
Brazil	10,028	287	6,207	102	5,530	121	12,037	340
Buenos Ayres	1,996	149	4,720	308	425	21	560	45
Greenland and Davis' Straits	1,600	43	25,880	696	23,200	565	7,400	278
All other countries	10,952	666	65,167	1,116	37,823	876	12,489	525
Total	18,959,322	266,480	18,539,865	252,991	15,819,664	224,501	18,235,405	235,849

The cheapness of this important necessary of life is not less remarkable than its diffusion. Its present cost may be estimated, at a medium, at from 14*s.* to 16*s.* a ton.

Duties on Salt. — In ancient Rome, salt was subjected to a duty (*vectigal salinarum*; see *Burman, Dissertatio de Vectigalibus Pop. Rom.* c. 6.); and it has been heavily taxed in most modern states. The *gabelle*, or code of salt laws, formerly established in France, was most oppressive. From 4,000 to 5,000 persons are calculated to have been sent annually to prison and the galleys for offences connected with these laws, the severity of which had no inconsiderable share in bringing about the Revolution

—(*Young's Travels in France*, vol. i. p. 598.) In this country, duties upon salt were imposed in the reign of William III. In 1798 they amounted to 5*s.* a bushel; but were subsequently increased to 15*s.* a bushel, or about *thirty times* the cost of the salt! So exorbitant a duty was productive of the worst effects; and occasioned, by its magnitude, and the regulations for allowing salt duty free, to the fisheries, a vast deal of smuggling. The opinion of the public and of the House of Commons having been strongly pronounced against the tax, it was finally repealed in 1823.

That the repeal of so exorbitant a duty has been productive of great advantage, no one can doubt; but seeing that a large revenue must be raised, we question whether government acted wisely in totally relinquishing the tax. Had the duty been reduced to 2*s.* or 2*s.* 6*d.* a bushel, and no duty-free salt allowed for the fisheries, but a drawback given on the fish exported, a revenue of 1,000,000*l.* a year might have been derived from this source with but little injury. It was not the nature of the salt tax, but the absurd extent to which it had been carried, that rendered it justly odious. When at the highest, it produced about 1,500,000*l.* a year.

SALTPETRE, OR NITRATE OF POTASH (Ger. *Salpeter*; Fr. *Nitre, Salpetre*; It. *Nitro, Salnitro*; Sp. *Nitro, Salitre*; Rus. *Senitra*; Lat. *Nitrum*; Arab. *Ubkir*; Hind. *Shorah*), a salt well known in commerce, and of very great importance. It may be regarded both as a natural and an artificial production; being found on the surface of the soil in many parts of India, Egypt, Italy, &c.; but in these and other places all that is known in commerce is obtained by an artificial process, or by lixiviating earth that has been formed into *nitre* beds. The saltpetre consumed in England is brought from Bengal in an impure state, but crystallised, in bags, each containing 164 lbs. Saltpetre forms the principal ingredient in the manufacture of gunpowder; and is used in various arts. It is also of great utility in the commerce of India, from its furnishing a large amount of dead weight for the shipping engaged in it. Saltpetre possesses considerable antiseptic power. That which is of the best quality and well refined, is in long transparent crystals; its taste is sharp, bitterish, and cooling; it flames much when thrown upon burning coals; is very brittle; specific gravity 1·933. It is not altered by exposure to the air.

Beckmann contends, in a long and elaborate dissertation (*Hist. of Invent.* vol. iv. pp. 525–586. Eng. ed.), that the ancients were unacquainted with saltpetre, and that their *nitrum* was really an alkaline salt. But, as saltpetre is produced naturally in considerable quantities in Egypt, it is difficult to suppose that they could be entirely ignorant of it; though it would appear that they had confounded it with other things. It has been known in the East from a very early period. Beckmann concurs in opinion with those who believe that gunpowder was invented in India, and brought by the Saracens from Africa to the Europeans; who improved its manufacture, and made it available for warlike purposes. — (Vol. iv. p. 571.)

The consumption of saltpetre during periods of war is very great. Its price is consequently liable to extreme fluctuation. In remarking on the varieties in the price of saltpetre, Mr. Tooke observes, "It reached its greatest height in 1795, viz. 170*s.* a cwt.; in 1796, it fell at one time to 45*s.* and rose again to 96*s.* It seems to have been affected considerably by the scale of hostilities on the Continent. But in consequence of the discoveries in chemistry, by which the French were enabled to dispense with a foreign supply, and by the increased importation from India to this country, by which we were enabled to supply the rest of the Continent at a reduced cost, the price declined permanently after 1798-9, when it had reached 145*s.*; and never after was so high as 100*s.*, except during the short interval of speculation in export, during the peace of 1814, and again upon the breaking out of the war terminated by the battle of Waterloo." The price of rough saltpetre in the London market varies at this moment (September, 1853) from 25*s.* to 29*s.* a cwt.

During 1852 we imported 297,505 cwts. saltpetre, of which 250,334 were from India. The exports from the U. K. during the same year amounted to 45,711 cwts. At an average the consumption amounts of late years to about 250,000 cwts. a year.

Exclusive of saltpetre we import considerable quantities of nitre, or nitrate of soda, consisting of nitric acid and soda, whereas saltpetre consists of nitric acid and potash. Like saltpetre, it is found native in various countries, but especially in the deserts of Tarapaca and Atacama, along the coast of Southern Peru. The deserts in question consist of a vast sandy plain extending between the shore and the foot of the Andes for between 400 and 500 miles. This plain is more than 3,000 feet above the level of the sea; no rain ever falls upon it; and except along the banks of a few streams by which it is intersected, it is quite sterile. In most parts, however, it abounds with nitrate of soda, which sometimes appears on the surface, but is more commonly covered with a stratum of clay and sand, with which the salt is frequently mixed. The principal mines are within about 24 miles of the Peruvian port of Iquique, in 21° 50′ S. lat. and 71° 42′ W. long. After being dug up, the salt is pulverised, dissolved in boiling water, and allowed to crystallise in shallow wooden troughs. Its price, free on board, including an export duty of about 4 per cent., varies from 2 to 2½ or 3 doll. the quintal of 100 lbs. Having a tendency to attract moisture, it is not so suitable as saltpetre for the manufacture of gunpowder; but it is extremely serviceable in various departments of the arts, and is particularly valuable in a commercial point of view, from its affording a return cargo for ships which might otherwise have had to come home in ballast.

During 1852, the imports and exports of nitre (nitrate of soda) amounted respectively to 268,084 cwts. and 13,639 ditto. The price during the same year was about 17*s.* a cwt. The duty formerly charged on saltpetre and nitre was suppressed in 1845.

SALVAGE, as the term is now understood, is an allowance or compensation made to those by whose exertions ships or goods have been saved from the dangers of the seas, fire, pirates, or enemies.

The propriety and justice of making such an allowance must be obvious to every one. It was allowed by the laws of Rhodes, Oleron, and Wisby; and in this respect they have been followed by all modern maritime states. At common law, the party who has saved the goods of another from loss or any imminent peril has a *lien* upon them, and may retain them in his possession till payment of a reasonable salvage.

1. *Salvage upon Losses by Perils of the Sea.*—In fixing the rate of salvage, regard is usually had, not only to the labour and peril incurred by the salvors, but also to the situation in which they may happen to stand in respect of the property saved, to the promptitude and alacrity manifested by them, and to the value of the ship and cargo, as well as the degree of danger from which they were rescued. In some cases as much as *a half* of the property saved has been allowed as salvage; and in others not more than *a tenth* part.

The crew of a ship are not entitled to salvage, or any unusual remuneration for the extraordinary efforts they may have made in saving her; it being their duty as well as interest to contribute their utmost upon such occasion, the whole of their possible services being pledged to the master and owners. Neither are passengers entitled to claim any thing for the *ordinary assistance* they may be able to afford to a vessel in distress. But a passenger is not bound to remain on board a ship in the hour of danger, provided he can leave her; and if he perform any *extraordinary services*, he is entitled to a proportional recompence.

All cases with respect to proceedings for salvage may be brought either in the first instance, or by appeal, before the Court of Admiralty, provided, in the last case, the sum in dispute exceeds 50*l*. But the delays and expenses attending the proceedings of this court are such, that they have occasioned much dissatisfaction among commercial men. To obviate them, efforts which had been previously made were renewed and extended in 1846 by the 9 & 10 Vict. c. 99. This statute authorised salvage claims, for sums under 200*l*., to be decided by the award of 2 justices or their nominee, on the spot; and it also gave power to the Admiralty to appoint salvage commissioners in different ports to decide upon such claims. These attempts to expedite and cheapen salvage proceedings have not, however, had all the success that was anticipated. And a strong conviction seems to be growing up of the desirableness either of shortening and reducing the cost of Admiralty proceedings, or of bringing salvage cases before some less dilatory and less expensive tribunal. The existing rules and regulations as to salvage are embodied in the Mercantile Shipping Act, the 17 & 18 Vict. c. 104, part VIII., and are given below.

It appears from the preamble of the earliest act in regard to salvage, the 12 Ann. stat. 2. c. 18., that the infamous practices, once so common, of plundering ships driven on shore, and seizing whatever could be laid hold of as lawful property — (see WRECK), had not been then wholly abandoned; or that, if the property was restored to the owner, the demand for salvage was so exorbitant, that the inevitable ruin of the trader was the immediate consequence. To remedy those mischiefs in future it was enacted, that if a ship was in danger of being stranded, or being run ashore, the sheriffs, justices, mayors, constables, or officers of the customs, nearest the place of danger, should, upon application made to them, summon and call together as many men as should be thought neeessary to the assistance and for the preservation of such ship in distress, and cargo; and that if any ship, man-of-war, or merchantman, should be riding at anchor near the place of danger, the constables and officers of the customs might demand of the superior officers of such ship the assistance of her boats, and such hands as could be spared; and that, if the superior officer should refuse to grant such assistance, he should forfeit 100*l*.

And a clause to the same effect has been embodied in the Mercantile Shipping Act. We subjoin the clauses in this latter statute which have reference to salvage.

Salvage for Services rendered in U. K.—In the following cases, viz.,

Whenever any ship or boat is stranded or otherwise in distress on the shore of any sea or tidal water situate within the limits of the U. K., and services are rendered by any person,

(1.) In assisting such ship or boat:
(2.) In saving the lives of the persons belonging to such ship or boat:
(3.) In saving the cargo or apparel of such ship or boat, or any portion thereof:

And whenever any wreck is saved by any person other than a receiver within the U. K.:

There shall be payable by the owners of such ship or boat, cargo, apparel, or wreck, to the person by whom such services or any of them are rendered or by whom such wreck is saved, a reasonable amount of salvage, together with all expenses properly incurred by him in the performance of such services or the saving of such wreck, the amount of such salvage and expenses to be determined in case of dispute in manner herein mentioned. — § 458.

Salvage for Life may be paid by Board of Trade.—Salvage for the preservation of the life or lives of any person or persons belonging to any ship or boat, shall be payable by the owners of the ship or boat in priority to all other claims for salvage; and in cases where such ship or boat is destroyed, or where the value thereof is insufficient, after payment of the actual expenses incurred, to pay the amount of salvage due in respect of any life or lives, the B. of Trade may in its discretion award to the salvors of such life or lives out of the Mercantile Marine Fund such sum or sums as it deems fit, in whole or part satisfaction of any amount of salvage so left unpaid in respect of such life or lives. — § 459.

Disputes as to Salvage how to be settled.—Disputes with respect to salvage arising within the boundaries of the Cinque Ports shall be determined in the manner in which the same have hitherto been determined; but whenever any dispute arises elsewhere in the U. K. between the owners of any such ship, boat, cargo, apparel, or wreck as aforesaid, and the salvors, as to the amount of salvage, and the parties to the dispute cannot agree as to the settlement thereof by arbitration or otherwise,

Then, if the sum claimed does not exceed 200*l*., such dispute shall be referred to the arbitration of any 2 justices of the peace resident as follows; viz.

In case of wreck, resident at or near the place where such wreck is found.
In case of services rendered to any ship or boat, or to the persons, cargo, or apparel belonging thereto, resident at or near the place where such ship or boat is lying, or at or near the first port or place in the U. K. into which such ship or boat is brought after the occurrence of the accident by reason whereof the claim to salvage arises.
But if the sum claimed exceeds £200.,
Such dispute may, with the consent of the parties, be referred to the arbitration of such justices as aforesaid, but if they do not consent, shall in England be decided by the H. C. of Admiralty of England, in Ireland by the H. C. of Admiralty of Ireland, and in Scotland by the Court of Session; subject to this proviso, that if the claimants in such dispute do not recover in such Court of Admiralty or Court of Session a greater sum than 200*l.*, they shall not, unless the court certifies that the case is a fit one to be tried in a superior court, recover any costs, charges, or expenses incurred by them in the prosecution of their claim.

And every dispute with respect to salvage may be heard and adjudicated upon on the application either of the salvor or of the owner of the property salved, or of their respective agents. — § 460.

Manner in which Justices may decide Disputes.—Whenever in pursuance of this act any dispute as to salvage is referred to the arbitration of 2 justices, they may either themselves determine the same, with the power to call to their assistance any person conversant with maritime affairs as assessor, or they may, if a difference of opinion arise between them, or without such difference, if they think fit, appoint some person conversant with maritime affairs as umpire to decide the point in dispute; and such justices or their umpire shall make an award as to the amount of salvage payable, within the following times, that is to say, the said justices within 48 hours after such dispute has been referred to them, and the said umpire within 48 hours after his appointment, with power nevertheless for such justices or umpire by writing under their or his hands or hand to extend the time within which they and he are hereby respectively directed to make their or his award. — § 461.

Costs of Arbitration.—There shall be paid to every assessor and umpire who may be so appointed as aforesaid in respect of his services such sum not exceeding 5*l.* as the B. of Trade may from time to time direct; and all the costs of such arbitration, including any such payments as aforesaid, shall be paid by the parties to the dispute, in such manner and in such proportions as the said justices or umpire may direct by their or his award. — § 462.

Clause 463 authorises justices or their umpire to call for documents, and administer oaths.

Appeal to Courts of Admiralty.—If any person is aggrieved by the award made by such justices or umpire, he may in England appeal to the H. C. of Admiralty of England, in Ireland to the H. C. of Admiralty of Ireland, and in Scotland to the Court of Session; but no such appeal shall be allowed unless the sum in dispute exceed 50*l.*, nor unless within 10 days after the date of the award the appellant gives notice to the justices of his intention to appeal, nor unless the appellant proceeds to take out a monition, or to take such other proceeding as according to the practice of the court of appeal is necessary for the institution of an appeal, within 20 days from the date of the award. — § 464.

Clause 465 directs the justices to transmit copy of proceedings and certificate of value to court of appeal.

Payment of Salvage, to whom made in case of Dispute.—Whenever the aggregate amount of salvage payable for salvage services rendered in the U. K. has been finally ascertained either by agreement or by the award of such justices or their umpire, but a dispute arises as to the apportionment thereof amongst several claimants, then, if the amount does not exceed 200*l.*, it shall be lawful for the party liable to pay the amount to apply to the receiver of the district for liberty to pay the amount to him; and he shall, if he think fit, receive the same accordingly, and grant a certificate under his hand, stating the fact of such payment and the services for which it is made; and such certificate shall be a full discharge and indemnity to the person or persons to whom it is given, and to their ship, boats, cargo, apparel, and effects, against the claims of all persons whomsoever in respect of the services therein mentioned; but if the amount exceeds 200*l.*, it shall be apportioned in manner after mentioned. — § 466.

Apportionment of Salvage.—Upon the receipt of any such amount as aforesaid, the receiver shall with all convenient speed proceed to distribute the same among the several persons entitled thereto, upon such evidence and in such shares and proportions as he thinks fit, with power to retain any monies that may appear to him to be payable to any absent parties; but any distribution made in pursuance of this section shall be final and conclusive against the rights of all persons claiming to be entitled to any portion of the monies so distributed. — § 467.

Manner of enforcing Payment of Salvage.—Whenever any salvage is due to any person under this act, the receiver shall act as follows, viz.,

(1.) If the same is due in respect of services rendered in assisting any ship or boat, or in saving the lives of persons belonging to the same, or the cargo or apparel thereof,
He shall detain such ship or boat and the cargo and apparel belonging thereto until payment is made, or process has been issued by some competent court for the detention of such ship, boat, cargo, or apparel.

(2.) If the same is due in respect of the saving of any wreck and such wreck is not sold as unclaimed in pursuance of the provisions herein-after contained,
He shall detain such wreck until payment is made, or process has been issued in manner aforesaid.

But it shall be lawful for the receiver, if at any time previously to the issue of such process security is given to his satisfaction for the amount of salvage due, to release from his custody any ship, boat, cargo, apparel, or wreck detained by him; and in cases where the claim for salvage exceeds 200*l.* it shall be lawful in England for the H. C. of Admiralty of England, in Ireland for the H. C. of Admiralty of Ireland, and in Scotland for the Court of Session, to determine any question that may arise concerning the amount of the security to be given or the sufficiency of the sureties; and in all cases where bond or other security is given to the receiver for an amount exceeding 200*l.* it shall be lawful for the salvor or for the owner of the property salved, or their respective agents, to institute proceedings in such last-mentioned courts for the purpose of having the questions arising between them adjudicated upon, and the said courts may enforce payment of the said bond or other security, in the same manner as if bail had been given in the said courts. — § 468.

Power of Receiver to sell Property salved.— Whenever any ship, boat, cargo, apparel, or wreck is detained by any receiver for nonpayment of any sums so due as aforesaid, and the parties liable to pay the same are aware of such detention, then, in the following cases, viz.,

(1.) In cases where the amount is not disputed, and payment thereof is not made within 20 days after the same has become due:
(2.) In cases where the amount is disputed, but no appeal lies from the first tribunal to which the dispute is referred, and payment thereof is not made within 20 days after the decision of such first tribunal:
(3.) In cases where the amount is disputed, and an appeal lies from the decision of the first tribunal to some other tribunal, and payment thereof is not made within such 20 days as last aforesaid, or such monition as herein-before mentioned is not taken out within such 20 days, or such other proceedings as are according to the practice of such other tribunal necessary for the prosecution of an appeal are not instituted within such 20 days,

The receiver may forthwith sell such ship, boat, cargo, apparel, or wreck, or a sufficient part thereof, and out of the proceeds of the sale, after payment of all expenses thereof, defray all sums of money due in respect of expenses, fees, and salvage, paying the surplus, if any, to the owners of the property sold, or other the parties entitled to receive the same. — § 469.

Subject of Payment of Expenses, &c., Owner entitled to Wreck. — Subject to the payment of such expenses, fees, and salvage as aforesaid, the owner of any wreck who establishes his claim thereto to the satisfaction of the receiver within 1 year from the date at which such wreck has come into the possession of the receiver, shall be entitled to have the same delivered up to him. — § 470.

None of the previously mentioned clauses have any force within the Cinque Ports; but the Lord Warden is directed by stat. 1 & 2 Geo. 4. c. 76. to appoint 3 or more substantial persons in each of these towns, who are authorised to decide upon all claims for services of any sort or description rendered to any vessel, or for saving or preserving, within the jurisdiction, any goods or merchandise wrecked,

stranded, or cast away, or bringing anchors or cables ashore, &c. No commissioner can act for any other place than that in which, or within a mile of which, he is resident. Either party may, within 8 days of the award, declare his intention of bringing the matter before some competent Court of Admiralty; selecting, as he may judge best, the Admiralty of England, or that of the Cinque Ports. The provisions in this statute have been eulogised by Lord Tenterden for the cheap and easy means they afford for settling such questions.

Salvage by Ships of War.—A good deal of discussion has taken place in regard to the claims preferred by ships of war for salvage. In periods of war, when British merchantmen that have been captured by enemy's ships are recaptured by British ships of war, the latter are allowed a salvage of $\frac{1}{8}$th part of the recaptured ships and cargoes—(Stat. 43 Geo. 3. c. 160.) The same statute allows a salvage of one-sixth part of their value on ships recaptured by privateers. We subjoin the clause of the act:—

"If any ship or vessel taken as prize, or any goods therein, shall appear, in the Court of Admiralty, to have belonged to any of his Majesty's subjects, which were before taken by any of his Majesty's enemies, and at any time afterwards retaken by any of his Majesty's ships, or any privateer, or other ship or vessel under his Majesty's protection, such ships, vessels, and goods shall, in all cases (save as hereafter excepted), be adjudged to be restored, and shall be accordingly restored, to such former owner or owners, he or they paying for salvage, if retaken by any of *his Majesty's ships*, *one eighth* part of the true value thereof, to the flag officers, captains, &c., to be divided as the same act directs; and if retaken by any *privateer*, or other ship or vessel, *one sixth* part of the true value of such ships and goods, to be paid to the owners, officers, and seamen of such privateer or other vessel, without any deduction; and if retaken by the joint operation of one or more of his Majesty's ships, and one or more private ships of war, the judge of the Court of Admiralty, or other court having cognisance thereof, shall order such salvage, and in such proportions, to be paid to the captors by the owners, as he shall, under the circumstances of the case, deem fit and reasonable; but if such recaptured ship or vessel shall appear to have been set forth by the enemy as a ship or vessel of war, the said ship or vessel shall not be restored to the former owners, but shall in all cases, whether retaken by any of his Majesty's ships or any privateer, be adjudged lawful prize for the benefit of the captors."

Now, it is contended that if salvage from perils of the sea be allowed to Queen's ships it should not in any case exceed this amount. But it is argued by others that salvage to Queen's ships, even to this extent, is objectionable; that they are employed by the public for their security and protection; and that when they are assisting in saving lives or property from shipwreck or other casualty, they are merely doing their duty and are not entitled to any peculiar gratuity or reward. And on general principles we are inclined to think that this is the correct view of the matter; and that it is the bounden duty of Queen's ships to render gratuitously every assistance in their power to merchantmen in distress.

This, however, is a practical rather than a theoretical question. And the zeal of sailors in the discharge of a perilous duty may, perhaps, be sharpened by their being aware that by its successful performance they will entitle themselves, not merely to the public thanks, but to a considerable pecuniary reward. But it could not surely be meant that officers and men belonging to the royal navy were to be allowed equal claims for salvage as private parties, or that they were to be enriched at the expense of those whose property they had done their duty in helping to save. And yet cases have occurred which it is very difficult to explain on any other principle than this. It is not, therefore, surprising that the claims for salvage put forward by Queen's ships should, of late years, have been much canvassed and objected to. We subjoin the regulations which the Merchant Shipping Act of 1854 has laid down in regard to the making up and prosecution of such claims. But though it has amended some of the abuses complained of, it will not suffice for their eradication. Nothing would be so effectual for this purpose as to limit the *maximum* claim for salvage put forward by Queen's ships to $\frac{1}{8}$th part of the value of the property saved, as in cases of recapture. It is difficult to see what greater merit can attach to saving property from shipwreck than to recovering it from an enemy.

Salvage by H. M.'s Ships.—In cases where salvage services are rendered by any ship belonging to H. M. or by the commander or crew thereof, no claim shall be made or allowed for any loss, damage, or risk thereby caused to such ship, or to the stores, tackle, or furniture thereof, or for the use of any stores or other articles belonging to H. M. supplied in order to effect such services, or for any other expense or loss sustained by H. M. by reason of such services.—§ 484.

Claims for Salvage by H. M.'s Officers not to be determined without Consent of Admiralty.—No claim on account of any salvage services rendered to any ship or cargo or to any appurtenances of any ship by the commander or crew or part of the crew of any of H. M.'s ships shall be finally adjudicated upon unless the consent of the Admiralty has first been obtained, such consent to be signified by writing under the hand of the secretary to the Admiralty; and if any person who has originated proceedings in respect of any such claim fails to prove such consent to the satisfaction of the court, his suit shall stand dismissed, and he shall pay all the costs of such proceedings; provided that any document purporting to give such consent and to be signed by the secretary to the Admiralty shall be *primâ facie* evidence of such consent having been given.—§ 485.

Steps to be taken when Salvage Services have been rendered, &c.—Whenever services for which salvage is claimed are rendered to any ship or cargo, or to any part of them, or to any appurtenances of any ship, at any place out of the U. K. and the four seas adjoining thereto, by the commander or crew or part of the crew of any of H. M.'s ships, the property alleged to be salved shall, if the salvor is justified by the circumstances of the case in detaining it at all, be taken to some port where there is either a consular officer or a vice-admiralty court; and within 24 hours after arriving at such port the said salvor and the master or other person in charge of the property alleged to be salved shall each deliver to the consular officer or vice-admiralty judge there a statement verified on oath, specifying, so far as they respectively can, and so far as the particulars required apply to the case,

(1.) The place, condition, and circumstances in which the said ship, cargo, or property was at the time when the services were rendered for which salvage is claimed.
(2.) The nature and duration of the services rendered. And the salvor shall add to his statement.
(3.) The proportion of the value of the said ship, cargo, and property, and of the freight which he claims for salvage, of the values at which he estimates the said ship, freight, cargo, and property respectively, and the several amounts that he claims for salvage in respect of the same.
(4.) Any other circumstances he thinks relevant to the said claim.

And the said master or other person in charge of the said ship, cargo, or property shall add to his statement,

(3.) A copy of the certificate of registry of the said ship, and of the indorsements thereon, stating any change which (to his knowledge or belief) has occurred in the particulars contained in such certificate; and stating also, to the best of his knowledge and belief, the state of the title to the ship for the time being, and of the incumbrances and certificates of mortgage or sale, if any, affecting the same, and the names and places of business of the owners and incumbrancers.

(4.) The name and place of business or residence of the freighter (if any) of the said ship, and the freight to be paid for the voyage she is then on.

(5.) A general account of the quantity and nature of the cargo at the time the salvage services were rendered.

(6.) The name and place of business or residence of the owner of such cargo and of the consignee thereof.

(7.) The values at which the said master estimates the said ship, cargo, and property, and the freight respectively, or, if he thinks fit, in lieu of such estimated value of the cargo, a copy of the ship's manifest.

(8.) The amounts which the master thinks should be paid as salvage for the services rendered.

(9.) An accurate list of the property saved, in cases where the ship is not saved.

(10.) An account of the proceeds of the sale of the said ship, cargo, or property, in cases where the same or any of them are sold at such port as aforesaid.

(11.) The number, capacities, and condition of the crew of the said ship at the time the said services were rendered.

(12.) Any other circumstances he thinks relevant to the matters in question.

(13.) A statement of his willingness to execute a bond, in the form in the table marked W. in the schedule to this act, in such amount as the said consular officer or vice-admiralty judge may fix.—§ 486.

Consular Officer or Judge to fix Amount for which a Bond is to be given.—The said consular officer or judge, as the case may be, shall within 4 days after receiving the aforesaid statements fix the amount to be inserted in the said bond at such sum as he thinks sufficient to answer the demand for the salvage, services rendered; but such sum shall not exceed 1 half of the value which in his estimation the said ship freight, and cargo, or any parts thereof in respect of which salvage is claimed, are worth; and the said officer or judge may, if either of the aforesaid statements is not delivered to him within the time hereby required, proceed *ex parte*, but he shall in no case under this act require the cargo to be unladen; and the said consular officer may in any proceeding under this act relating to salvage take affidavits and receive affirmations. — § 487.

On Master executing Bond, the Right of Detention to cease.—The said consular officer or judge shall send notice of the sum which he has fixed as aforesaid to the said salvor and the said master; and upon such master executing a bond in form as aforesaid, with the said sum inserted therein, in the presence of the said officer or judge (who shall attest the same), and delivering the same to the said salvor, the right of the said salvor to detain or retain possession of the said ship, cargo, or property, or any of them, in respect of the said salvage claim, shall cease. — § 488.

Provision for additional Security in Case of Ships owned by Persons out of H. M.'s Dominions.—If the ship, cargo, or property in respect of which the claim for salvage is made is not owned by persons domiciled in H. M.'s dominions, the right of the salvor to detain or retain possession thereof shall not cease unless the master procures, in addition to the said bond, such security for the due performance of its conditions as the said officer or judge considers sufficient for the purpose, and places the same in the possession or custody of the said officer or judge, or, if the salvor so desires, in the possession or custody of the said officer or judge jointly with any other person whom he appoints for the purpose. — § 489.

Documents to be sent to England.—The said consular officer or judge shall at the earliest opportunity transmit the said statements and documents so sent to him, and a notice of the sum he has fixed as aforesaid, to the H. C. of Admiralty of England, or if the said salvor and the said master or other person in charge as aforesaid agree that the said bond shall be adjudicated upon by any vice-admiralty court, to such court. — § 490.

Whom the Bond shall bind.—The said bond shall bind the respective owners of the said ship, freight and cargo, and their respective heirs, executors, and administrators, for the salvage adjudged to be pay able in respect of the said ship, freight and cargo. — § 491.

Clause 492 specifies the court in which such bonds are to be adjudicated on.

Clause 493 gives power to the H. C. of Admiralty to enforce bonds.

Saving Clause.—Any salvor of any ship, cargo, or property who elects not to proceed under this act shall have no power to detain the said ship, cargo, or property, but may proceed otherwise for the enforcement of his salvage claim as if this act had not been passed; and nothing in this act contained shall abridge or affect the rights of salvors, except in the cases by it provided for. — § 494.

Documents free from Duty.—All bonds, statements, agreements, and other documents made or executed in pursuance of the eighth part of this act (WRECK AND SALVAGE), shall, if so made or executed out of the U. K., be exempt from stamp duty. — § 495.

Punishment for Forgery and false Representations.—Every person who, in any proceeding under the provisions contained in this act relating to salvage by H. M.'s ships, forges, assists in forging, or procures to be forged, or fraudulently altered, any document, and every person who in any such proceeding puts off or makes use of any such forged or altered document, knowing the same to be so forged or altered, or who gives or makes, or assists in giving or making, or procures to be given or made, any false evidence or representation, knowing the same to be false, shall be punishable with imprisonment, with or without hard labour, for any period not exceeding 2 years, or, if summarily prosecuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding 6 months. — § 496.

Voluntary Agreement may be made which shall have the same Effect as the Bond above mentioned.—Whenever services for which salvage is claimed are rendered either by the commander or crew or part of the crew of any of H. M.'s ships, or of any other ship, and the salvor voluntarily agrees to abandon his lien upon the ship, cargo, and property alleged to be salved, upon the master of other person in charge thereof entering into a written agreement attested by two witnesses to abide the decision of the said H. C. of Admiralty or of any vice-admiralty court, and thereby giving security in that behalf to such amount as may be agreed on by the parties to the said agreement, such agreement shall bind the said ship and the said cargo and the freight payable therefor respectively, and the respective owners of the said ship, freight, and cargo for the time being, and their respective heirs, executors, and administrators, for the salvage which may be adjudged to be payable in respect of the said ship, cargo, and freight respectively to the extent of the security so given as aforesaid, and may be adjudicated upon and enforced in the same manner as the bonds previously provided for in the case of detention for salvage services rendered by H. M.'s ships; and upon such agreement being made the salvor and the master or other person in charge as aforesaid, shall respectively make such statements as before required to be made by them in case of a bond being given, except that such statements need not be made upon oath; and the salvor shall, as soon as practicable, transmit the said agreement and the said statements to the court in which the said agreement is to be adjudicated upon. — § 497.

Powers for Courts to apportion Salvage.—Whenever the aggregate amount of salvage payable in respect of salvage services rendered in the U. K. has been finally ascertained, and exceeds 200*l.*, and whenever the aggregate amount of salvage payable in respect of salvage services rendered elsewhere has been finally ascertained, whatever such amount may be, then if any delay or dispute arises as to the apportionment thereof, any court having admiralty jurisdiction may cause the same to be apportioned amongst the persons entitled thereto in such manner as it thinks just; and may for that purpose, if it think fit, appoint any person to carry such apportionment into effect, and may compel any person in whose hands or under whose control such amount may be to distribute the same, or to bring the same into court, to be there dealt with as the court may direct, and may for the purposes aforesaid issue such monitions or other processes as it thinks fit. — § 498.

In the case of neutral ships captured by an enemy, and retaken by British men-of-war

or privateers, the Courts of Admiralty have a discretionary power of allowing such salvage, and in such proportions, as, under the circumstances of each particular case, may appear just; but there is no positive law or binding regulation to which parties may appeal, for ascertaining the rate of such salvage. "The maritime law of England," says Lord Stowell, "having adopted a most liberal rule of restitution on salvage, with respect to the recaptured property of its own subjects, gives the benefit of that rule to its allies, till it appears that they act towards British property on a less liberal principle; *in such case it adopts their rule*, and treats them according to their own measure of justice."—(*Rob. Adm. Rep.* 54.)

Salvage is one of those charges which is usually provided against by insurance. When, however, the salvage is very high, and the object of the voyage so far defeated, the insured is, by the laws of this and all other maritime nations, allowed to abandon, and to call upon the insurer as for a total loss.—(See ABANDONMENT.)

For further information with respect to salvage, see *Abbot on the Law of Shipping*, part iii. c. 10., and *Maude and Pollock on do.*, c. 10.

SAMPLE, a small quantity of a commodity exhibited at public or private sales, as a specimen. Sugars, wool, spirits, wine, coffee, and, indeed, most species of merchandise, are sold by sample. If an article be not, at an average, equal to the sample by which it is sold, the buyer may cancel the contract, and return the article to the seller.

Subjoined is a list of most articles that may be warehoused, and of the quantities that may be taken out as samples.—(*Customs Min.* Oct. 11. 1825.)

Alkali or barilla,	5 lbs. per pile 5 tons.
Aloes	2 oz. per package.
Argol	½ lb. do.
Arrow root	2 lb. do.
Balsam capivi	2 oz. do.
Bark, Jesuits'	½ lb. do.
in general, except Jesuits'	½ lb. do.
Brimstone, rough,	2 lbs. per pile.
in rolls,	1 lb. per package.
Cassia	½ lb. do.
Cantharides	2 oz. do.
Capers	½ lb. do.
Cochineal	2 oz. do.
dust	2 oz. do.
Cocoa nut oil	½ pint each cask.
Coffee	2 oz. per bag.
Coloquintida	2 oz. per package.
Cocculus Indicus,	1 oz. do.
Cotton	4 oz. do.
Cream of tartar,	1 lb. do.
Currants	½ lb. do.
Essence of bergamot or lemon	1 oz. do.
Euphorbium	1 oz. do.
Feathers, bed	½ lb. per lot 6 bags.
Galls	1 lb. do.
Gentian	½ lb. do.
Ginger	8 oz. do.
Granilla, *see* Cochineal	
Gum Arabic	1 lb. per package.
Senegal	½ lb. do.
tragacanth	2 oz. do.
other gum	4 oz. do.
Honey	½ oz. do.
Jalap	1 oz. do.
Indigo	¼ lb. do.
Any further quantity (not exceeding 1½ lb.) to be charged with duty on delivery of the packages	
Isinglass	½ lb. per package.
Juice of lemons,	½ pint do.
Lac dye	1 oz. do.
Lead, black	1 lb. do.
Lemon peel	½ lb. each entry.
Liquorice juice	½ lb. per package.
root	½ lb. do.
Madder, manufactured	½ lb. do.
root	½ lb. do.
Oil of almonds	1 oz. do.
aniseed	1 oz. do.
bay	1 oz. do.
juniper	1 oz. do.
olive	½ pint per cask.
palm	½ pint do.
rosemary	1 oz. per package.
spike	1 oz. do
thyme	1 oz. do.
Orange peel	½ lb. do.
Orchella	2 oz. do.
Orrice root	½ lb. do.
Pepper	1 oz. per bag.
Pimento	2 oz. do.
Radix contrayervæ	1 oz. per package.
galanga	2 lb. per pile.
ipecacuanhæ	1 oz. per package.
senekæ	1 oz. do.
Raisins	½ lb. each mark.
Rhubarb	1 oz per package.
Rice	½ lb.
Saffron	½ oz. do.
Sago	2 lbs per pile.
Salep	1 oz. per package.
Sarsaparilla	1 oz. do.
Saltpetre	½ lb. do.
Seed, aniseed	1 oz. per package.
clover	2 oz. do.
caraway	2 oz. do.
lac	1 oz. do.
mustard	1 oz. do.
Senna	1 oz. do.
Shumac	1 lb. per lot 10 bags.
Silk, raw	2 oz. per package.
thrown	1 oz. do.
waste	2 oz. do.
Smalts	1 oz. do.
Spirits	½ pint per cask.
Sugar, foreign	2 oz. per bag.
	4 oz. per box not exceeding 5 cwt.
	8 oz. per box or chest exceeding 5 cwt.
	1½ lb. per hogshead.
	1½ lb. per tierce.
British plantation	½ lb. per chest.
	12 oz. per barrel.
	½ lb. molasses per hhd. or cask.
Tallow	4 lbs. per lot 10 pcks.
Tapioca	1 oz. per package.
Tea	3 oz. of each description and quality.
Turmeric	2 lbs. per pile.
Valonia	2 lbs. per lot.
Wax, bees'	½ lb. per package.
Wine	½ pint.
Wool, cotton	4 oz. per package.
sheep or lambs'	1 lb. do.
Spanish	1 lb. do.
Yarn, mohair	½ lb. do.
cotton	½ lb. do.
Mother of pearl shells	7 lbs. per lot of 10 packages.
Vermicelli	1 oz. per package.

SANDAL WOOD, the wood of a tree (*Santulum album* Lin.) having somewhat of the appearance of a large myrtle. It is of a deep yellow colour, and yields an agreeable perfume. The tree, when cut down, is usually about 9 inches in diameter at the root, but sometimes considerably more. After being felled, it is barked, cut into billets, and buried in a dry place for about a couple of months, during which time the white ants eat off the outer wood, without touching the heart, which is the sandal. It is then taken up and sorted, according to the size of the billets. The deeper the colour, and the nearer the root, the higher is the perfume. Reject such pieces as are of a pale colour, small, decayed, or have white wood about them; and take especial care that it be not mixed with wood resembling sandal, but without its perfume.—(*Milburn's Orient. Com.*)

Sandal wood is extensively employed by the Hindoos as a perfume, in their funeral ceremonies. But the Chinese are its principal consumers. They manufacture it into fans, and small articles of furniture, and use it, when ground into powder, as a cosmetic. During the year ended the 31st of Dec. 1818, there were imported by British vessels into Canton, 20,732 piculs of sandal wood, valued at 207,400 dollars (see *ante*, p. 251.); and the imports in some years are more than twice this amount. The average importation into Calcutta is about 200 tons a year. It grows principally in Malabar, in the mountainous country at a little distance from the low sea coast; in Timor; and in the Fejee Islands in the South Sea. Calcutta is principally supplied from Malabar, while China derives the larger portion of her supplies from Timor and the other islands. It is seldom brought to Europe, except by individuals for their own use, or as presents for their friends.—(*Bell's External Com. of Bengal*, pp. 49. and 85.; *Crawfurd's Indian Archipelago*, vol. iii. p. 421. &c.)

SANDARACH, a resinous substance, commonly met with in loose granules a little larger than a pea, of a whitish yellow colour, brittle, inflammable, of a resinous smell,

and acrid aromatic taste. It exudes, it is said, in warm climates, from cracks and incisions in the common juniper bush. It is used as a varnish, dissolved in spirits of wine.—(*Ainslie's Mat. Indica.*)

SANDWICH ISLANDS. This remote, but interesting group, is situated in the midst of the Pacific Ocean, in about the 21st degree of N. lat., and the 157th of W. long. It comprises 8 inhabited and 4 uninhabited islands, Owhyhee, where Captain Cook was killed, being the most considerable. They are of volcanic formation, and mountainous, some of the peaks rising in Owhyhee to between 13,000 and 14,000 feet in height! The population in 1847 is said to have amounted to above 112,000, of which nearly 40,000 belonged to Owhyhee. But it is a curious fact that the native population has been rapidly decreasing for some years past, and does not now probably exceed a third part of its amount at the epoch of their discovery. The islanders are honourably distinguished among the Polynesian nations, by the advances they have made in civilisation; and particularly by their progress in manufactures, navigation, and commerce. Christianity was introduced by the American missionaries in 1820, and is now the religion of the state; schools have been established, churches have been built, and the forms of religion are pretty well observed. European usages have become fashionable; and the costume of the better classes, women as well as men, closely resembles that of the Americans.

The principal port is Honolulu or Honororu, on the S. side of the island of Woahoo, in lat. 21° 18′ 3″ N., long. 157° 55′ W. Population about 8,500, of whom about 1,200 are Englishmen, Americans, and other foreigners. The harbour, to which the place owes all its importance, has a narrow entrance, but it is easy of access at all times of the tide to vessels not drawing more than 18 ft. water. The bar at its mouth being narrow and composed of soft coral, it might easily be made accessible even for line-of-battle ships.

The Sandwich Islands have been visited for a considerable number of years past by the whaling ships and traders in the Pacific. Latterly, however, or since the settlement of Oregon and California, and the discovery of the gold fields in the latter, they have acquired great additional importance from their peculiar aptitude to serve as a station for the ships and steamers engaged in the trade between these countries, Australia and China. In consequence, the town of Honolulu has increased so that the ground round the harbour is entirely occupied with houses and warehouses. The produce of the islands has also risen rapidly in value from its being in great demand for the provisioning of ships. And in the view of increasing its supply and of making up for the deficiency of the native population, it has been proposed to introduce Chinese labourers into the islands. The frequency of desertion among their crews has recently been the principal obstacle in the way of ships touching at Honolulu. But this, no doubt, will only be a temporary evil, and will cease with the cessation of the peculiar circumstances to which it owes its origin. A considerable number of ships belong to the port, belonging partly to natives, but principally to foreigners.

A newspaper in the English language is published in the town, in which we have noticed advertisements of ladies' shoes from Paris, *Eau-de-Cologne*, ices, &c.! The sovereignty of these islands was ceded, in February, 1843, to the British; but the cession was declined by the admiral commanding in chief in the Pacific.—(*Geog. Dict.* art. *Polynesia; Simpson's Sandwich Islands.*)

SAN FRANCISCO, the emporium of California, see SUPPLEMENT.

SAPAN WOOD is obtained from a species of the same tree that yields the Brazil wood (*Cæsalpinia Sapan* Lin.). It is a middle-sized forest tree, indigenous to Siam, Pegu, the Philippine Islands, &c. It has been employed for dyeing in the greater part of Asia for many centuries. It found its way into Europe some time before the discovery of America; and the imports are now very considerable. Its colouring matter differs but little from that of Brazil wood, but the best sapan wood does not yield more than half the quantity that may be obtained from an equal weight of Brazil wood, and the colour is not quite so bright.—(*Bancroft on Colours*, vol. ii. p. 329.) In 1852 the imports and exports of sapan wood amounted respectively to 979 and 395 tons.

SAPPHIRE (Ger. *Sapphir*; Du. *Saffiersteen*; Fr. *Saphir*; It. *Zaffiro*; Sp. *Safiro*, *Safir*; Rus. *Jachant*; Lat. *Sapphirus*), a precious stone in very high estimation. Colours blue and red; also gray, white, green, and yellow. It occurs in blunt-edged pieces, in roundish pebbles, and crystallised. Varies from transparent to translucent. Refracts double. After diamond, it is the hardest substance in nature. The blue variety, or sapphire, is harder than the ruby, or red variety. Brittle, specific gravity 4 to 4·2.

It is found in Bohemia, Saxony, France, &c.; but the red sapphire, or Oriental ruby, is not found in any considerable quantity anywhere except in Ava. Next to diamond, sapphire is the most valuable of the gems. The white and pale blue varieties, by exposure to heat, become snow white, and, when cut, exhibit so high a degree of lustre, that they are used in place of diamonds. The most highly prized varieties are the crimson and carmine red; these are the Oriental *ruby* of the jeweller; the next is *sapphire*; and last, the yellow or Oriental *topaz*. The *asterias*, or star-stone, is a very beautiful variety, in which the colour is generally of a reddish violet, and the form a rhomboid, with truncated apices, which exhibit an opalescent lustre.*—(See RUBY.)

Mr. Crawford gives the following details with respect to the sapphire and ruby mines of Ava:—"The precious stones ascertained to exist in the Burmese territory are chiefly those of the sapphire family,

* Professor Jameson says, in his *Mineralogy*, that some peculiarly beautiful sapphires are found in the Capelan mountains, in Pegu. But we are not aware that there are any such mountains in any part of the world; and, in point of fact, there are no mountains in Pegu, nor have any precious stones been ever found in it.

and the spinelle ruby. They are found at 2 places, not very distant from each other, called Mogaut and Kyatpëan, about 5 days' journey from the capital, in an E. S.E. direction. From what I could learn, the gems are not obtained by any regular mining operations, but by digging and washing the gravel in the beds of rivulets or small brooks. All the varieties of the sapphire, as well as the spinelle, are found together, and along with them large quantities of corundum. The varieties ascertained to exist, are the Oriental sapphire; the Oriental ruby, or red stone; the opalescent ruby, or cat's eye ruby; the star ruby; the green; the yellow and the white sapphires; and the Oriental amethyst. The common sapphire is by far the most frequent, but, in comparison with the ruby, is very little prized by the Burmese, in which they agree with other nations. I brought home with me several of great size, the largest weighing no less than 3,630 grains, or above 907 carats. The spinelle ruby (zebu-gaong) is not unfrequent in Ava, but is not much valued by the natives. I brought with me to England a perfect specimen, both as to colour and freedom from flaws, weighing 22 carats. The sapphire and ruby mines are considered the property of the king; at least he lays claim to all stones that exceed in value a viss of silver, or 100 ticals. The miners, it appears, endeavour to evade this law by breaking the large stones into fragments. In the royal treasury there are, notwithstanding, many fine stones of both descriptions. The year before our visit, the king received from the mines a ruby weighing 124 grains; and the year preceding that, 8 good ones, but of smaller size. No stranger is permitted to visit the mines; even the Chinese and Mohammedans residing at Ava are carefully excluded."—(*Journal of an Embassy to the Court of Ava*, p. 442.)

SARCOCOLLA, a subviscid, sweetish, and somewhat nauseous gum resin. It is brought from Arabia and Persia in small grains of a pale yellow colour; the whitest, as being the freshest, is preferred. It is but seldom imported. — (*Milburn's Orient. Com.*)

SARDINES, OR SARDINIAS (Ger. *Sardellen;* Fr. *Sardines;* It. *Sardine;* Sp. *Sardinas*), a species of fish of the herring tribe, but smaller. They are taken in considerable quantities on our coasts, and are exceedingly plentiful on the coasts of Algarve in Portugal, Andalusia and Granada in Spain, and along the shores of Italy. The small sardines, caught on the coast of Provence, in France, are esteemed the best. From 1,000 to 1,200 fishing smacks are engaged in catching these fish on the coast of Britany, from June to the middle of October. The French frequently cure them in red brine; and when thus prepared, designate them *anchoisées*, or *anchovied sardines*. These are packed in vessels previously employed for holding wine, and exported to the Levant. When perfectly fresh, sardines are accounted excellent fish; but if kept for any time, they entirely lose their flavour, and become quite insipid.

SARDONYX, a precious stone, a variety of chalcedony.

The ancients selected this substance to engrave upon, no doubt, from its possessing two peculiar and necessary qualities, viz. hardness and tenacity, by which it is capable of receiving the finest touch or stroke of the tool without chipping, and showing the art of the engraver to the highest perfection.—(*Mawe on Diamonds*, 2d ed. p. 121.)

SARSAPARILLA (Ger. *Sarsaparille;* Fr. *Salsepareille;* It. *Salsapariglia;* Sp. *Zarzaparilla*), the root of the *Smilax Sarsaparilla*, a plant growing in South America and the West Indies. It is imported in bales. It is known in the London market by the names of Lisbon, Honduras, and Vera Cruz, but it is also brought from Jamaica. The Lisbon root, which is the produce of Brazil, has a reddish or dark brown cuticle, is internally farinaceous, and more free from fibre than the other kinds: the Honduras has a dirty brown, and sometimes whitish, cuticle; it is more fibrous, and has more ligneous matter, than the Lisbon and Vera Cruz. It is in long slender twigs, covered with a wrinkled brown cuticle, and has a small woody heart. The Jamaica differs from the others, in having a deep red cuticle of a close texture; and the red colour partially diffused through the ligneous part. The root is inodorous, and has a mucilaginous, very slightly bitter taste: the bark is the only useful part of the plant; the ligneous part being tasteless, inert, woody fibre.—(*Thomson's Dispensatory.*) A duty of 6*d.* per lb. on its importation, after being reduced in 1842 to 1*d.*, was repealed in 1845. The imports and exports in 1852 were respectively 280,945 and 72,774 lbs.

SASSAFRAS (Ger. and Fr. *Sassafras;* It. *Sassafrasso;* Sp. *Sassafras,*) a species of laurel (*Laurus Sassafras* Lin.), a native of the southern parts of North America, Cochin-China, and several of the Indian Islands. Sassafras wood, root, and bark have a fragrant odour, and a sweetish aromatic taste. The wood is of a brownish white colour; and the bark ferruginous within, spongy, and divisible into layers. Their sensible qualities and virtues depend on an essential oil, which may be obtained separate by distilling the chips or the bark with water. It is very fragrant, hot, and penetrating to the taste, of a pale yellow colour, and heavier than water. It is used only in the materia medica.—(*Thomson's Dispensatory.*) Imports and exports in 1852 respectively 720 and 254 cwt.

SAUNDERS (RED) (Arab. *Sundal-ahmer;* Hind. *Ruckut-chundum*), the wood of a lofty tree (*Pterocarpus santalinus*) indigenous to various parts of India, Ceylon, Timor, &c. The wood is brought to Europe in billets, which are very heavy, and sink in water. It is extremely hard, of a fine grain, and a bright garnet red colour, which brightens on exposure to the air. It is employed to dye lasting reddish brown colours on wool. It yields its colouring matter to ether and alcohol, but not to water.—(*Thomson's Dispensatory; Bancroft on Colours*, vol. ii. p. 236.) The quantity imported, which used to be inconsiderable, am unted in 1852 to 849 tons, of which 552 were re-exported.

SCAMMONY (Ger. *Skammonien*; Fr. *Scammonée*; It. *Scammonea*; Sp. *Escamonea*), a gum-resin, the produce of a species of convolvulus, or creeper plant, which grows abundantly in Syria. When an incision is made into the roots, they yield a milky juice, which being kept, grows hard, and is the scammony of the shops. It is imported from Aleppo in what are called drums, weighing from 75 to 125 lbs. each; and from Smyrna in cakes like wax, packed in chests. The former is light and friable, and is considered the best; that from Smyrna is more compact and ponderous, less friable, and fuller of impurities. It has a peculiar heavy odour, not unlike that of old cheese; and a bitterish, slightly acrid taste. The colour is blackish or bluish grey, changing to dirty white, or lathering when the surface is rubbed with a wet finger. Its specific gravity is 1·235. It is very liable to be adulterated; and when of a dark colour, heavy, and splintery, it ought to be rejected. It is used only in medicine.— (*Thomson's Dispensatory.*) The duty on scammony, after being reduced in 1832 and 1842, was abolished in 1845. Imports, in 1852, 11,638 lbs.

SCULPTURES, figures cut in stone, metal, or other solid substance, representing or describing some real or imaginary object. The art of the sculptor, or statuary, was carried to the highest pitch of excellence in ancient Greece. Fortunately, several of the works of the Grecian sculptors have been preserved; and serve at once to stimulate and direct the genius of modern artists.

Models, are casts or representations of sculptures.

The act 54 Geo. 3. c. 56. vests the property of sculptures, models, copies, and casts in the proprietor for 14 years; provided he cause his name, with the date, to be put on them before they are published; with the same term in addition, if he should be living at the end of the first period. In actions for piracy, double costs to be given. The act 6 Geo. 4. c. 107. prohibits the importation, on pain of forfeiture, of any sculptures, models, casts, &c. first made in the U. Kingdom.

SEAL (Lat. *Sigillum*), a stone, piece of metal, or other solid substance, generally round or elliptical, on which is engraved the arms, crest, name, device, &c. of some state, prince, public body, or private individual. It is employed as a stamp to make an impression on sealing wax, thereby authenticating public acts, deeds, &c., or to close letters or packets. Seals were very early invented, and much learning has been employed in tracing their history, and explaining the figures upon them. — See particularly the work of *Hopkinck, De Sigillorum Prisco et Novo Jure*, 4to, 1642.) They are now very generally used.

The best are usually formed of precious stones, on which the crest or the initials of the person's name are engraved, set in gold. But immense numbers are formed of stained glass, and set in gilt copper. They are manufactured at London, Birmingham, &c., and are extensively exported.

SEAL FISHERY. The seal, an amphibious animal, of which there are many varieties, is found in vast numbers in the seas round Spitzbergen, and on the coasts of Labrador and Newfoundland. As it frequents the British shores, it is well known, and has been repeatedly described. Seals are principally hunted for their oil and skins. When taken in the spring of the year, when they are fattest, a full grown seal will yield from 8 to 12 gallons of oil, and a small one from 4 to 5 gallons. The oil, when extracted before putrefaction has commenced, is beautifully transparent, free from smell, and not unpleasant in its taste. The skin, when tanned, is extensively employed in the making of shoes; and when dressed with the hair on, serves for the covering of trunks, &c. For an account of the imports of seal-skins, see art. SKINS.

"To the Esquimaux the seal is of as much importance as bread to a European. Its flesh forms their most usual food; the fat is partly dressed for eating, and partly consumed in their lamps; the liver, when fried, is esteemed, even among sailors, as an agreeable dish. The skin, which the Esquimaux dress by processes peculiar to themselves, is made waterproof. With the hair off, it is used as coverings, instead of planks, for their boats, and as outer garments for themselves; shielded with which, they can invert themselves and canoes in the water, without getting their bodies wet. It serves also for coverings for their tents, and for various other purposes. The jackets and trowsers made of seal-skin by the Esquimaux are in great request among the whale fishers for preserving them from oil and wet."— (*Scoresby's Arctic Regions*, vol. i. p. 510.)

Seals in fine weather prefer the ice to the water, and vast herds of them are frequently found lying on the field ice; the places where they are met with being thence called "seal meadows." The seal hunters endeavour to surprise them while sleeping, and to intercept their retreat to the water. They attack them with muskets and bludgeons, but principally the latter, they being easily despatched by a blow on the nose.

The seal fishery has long been prosecuted to a considerable extent in the northern seas by ships from the Elbe and the Weser; but very few ships have been sent out for *sealing* only from England, though occasionally some of the whale ships have taken large quantities of seals. Latterly, however, the seal fishery has been prosecuted on a large scale, and with extraordinary success, by vessels of from 60 to 120 tons each, having crews of from 16 to 30 men, fitted out from the ports of Newfoundland, Nova Scotia, &c. The business is attended with a good deal of risk, and instances frequently occur of the vessels being crushed to pieces by the collision of the fields of ice. We borrow the following details from Mr. Bliss's tract on the *Trade, Statistics, &c. of Canada and our North American Possessions.*

"There is another department of the colonial fishery which has originated within no distant period, and is now of great extent and importance. The large fields of ice which, in the months of March and April, drift southward from the Polar seas, are accompanied by many herds of seals; these are found sleeping in what are called the seal meadows of the ice, and are there attacked and slaughtered in vast numbers. For this purpose the fishers of Newfoundland, from which island these voyages are principally made, without waiting till the return of spring shall have opened their harbours, saw channels through the ice for their vessels, and set sail in quest of those drifting fields, through the openings of which they work a passage, attended with great difficulties and dangers, till they encounter their prey on the seal

meadows. This bold and hazardous enterprise seems well compensated by its success. The number of seals thus taken is almost incredible, and is greatly on the increase."—(p. 70.) There were captured by the Newfoundland fishermen, in 1838, 275,361 seals; in 1839, 437,501. Large quantities are also taken by the Nova Scotia and Labrador fishermen.

See also *M'Gregor's British America*, 2d. edit. vol. i. p. 197. &c. There is a good account of the seal in *Laing's Voyage to Spitzbergen*. For the price of seal oil, see OIL.

SEALING WAX (Ger. *Siegellack*; Fr. *Cire d'Espagne, Cire à cacheter*; It. *Cera Lacca, Cera di Spagna*; Sp. *Lacre*; Rus. *Surgutsch*), the wax used for sealing letters, legal instruments, &c. It is a composition of gum lac, melted and incorporated with resin, and afterwards coloured with some pigment, as vermilion, verditer, ivory black, &c.

SEAMEN, the individuals engaged in navigating ships, barges, &c., upon the high seas. Those employed for this purpose upon rivers, lakes, or canals, are denominated watermen.

Formerly a *British Seaman* was a natural born subject of her Majesty; or was naturalised by act of parliament; or made a denizen by letters of denization; or had become a British subject by the conquest or cession of some newly acquired territory; or (being a foreigner) had served on board Her Majesty's ships of war, in time of war, for the space of 2 or 3 years. But these distinctions are now (1855) entirely done away. It is no longer necessary that British ships should be either wholly or in part manned by British subjects. In this respect the greatest possible licence has been given to our ship-owners, who are at full liberty to employ all descriptions of hands, whether native or foreign, in navigating their ships. Hence the term "seamen," now includes all persons (except masters, pilots, and apprentices duly indentured and registered), without regard to their origin, "employed or engaged in any capacity on board of any ship."—17 & 18 Vict. c. 104. Introd.

Various regulations have been enacted with respect to the hiring of seamen, their conduct while on board, and the payment of their wages. These regulations differ in different countries; but, in all, they have been intended to obviate the disputes that might otherwise arise between masters and seamen in regard to the terms of the contract between them, to secure due obedience to the orders of the former, and to interest the latter in the completion of the voyage.

The more important particulars in the law of England in regard to seamen are embodied in the 17 & 18 Vict. c. 104, and will be found, with some occasional remarks, in the following article. In the first place it is necessary to inquire by whom they may be hired.

1. *Who may hire Seamen.* — Seamen have long been subjected to imposition from the fraudulent practices of persons offering to find them employment, by falsely representing themselves as agents for, or as having an interest in certain ships, and engaging or pretending to engage seamen to serve therein. In the view of obviating such practices in future, it is laid down in the Merchant Shipping Act, the 17 & 18 Vict. c. 104., that the B. of Trade may grant licences to such individuals as it thinks fit, empowering them to engage or supply seamen or apprentices to merchant ships. But, with the exception, — 1st, of the parties so licensed; 2nd, of the owner, master, or mate, or persons in the *bonâ fide* and constant employment of the owner of a ship requiring men or apprentices; and 3rd, of a regularly appointed shipping master, all other parties are prohibited under a penalty of 20*l.* from engaging or supplying seamen. The following are the clauses having reference to this subject.

Board of Trade may license Persons to procure Seamen. — The B. of Trade may grant to such persons as it thinks fit licences to engage or supply seamen or apprentices for merchant ships in the U. K., to continue for such periods, to be upon such terms, and to be revocable upon such conditions, as such Board thinks proper. — 17 & 18 Vict. c. 104. s. 146.

Penalties for supplying Seamen without Licence, &c. — The following offences shall be punishable as herein mentioned; viz.

(1.) If any person not licensed as aforesaid, other than the owner or master or a mate of the ship, or some person who is *bonâ fide* the servant and in the constant employ of the owner, or a shipping master duly appointed as aforesaid, engages or supplies any seaman or apprentice to be entered on board any ship in the U. K., he shall for each seaman or apprentice so engaged or supplied incur a penalty not exceeding £20:

(2.) If any person employ any unlicensed person, other than persons excepted as above, for the purpose of engaging or supplying any seaman or apprentice to be entered on board any ship in the United Kingdom, he shall for each seaman or apprentice so engaged or supplied incur a penalty not exceeding £20, and if licensed shall in addition forfeit his licence:

(3.) If any person knowingly receives or accepts to be entered on board any ship any seaman or apprentice who has been engaged or supplied contrary to the provisions of this act, he shall for every seaman or apprentice so engaged or supplied incur a penalty not exceeding £20.—§147.

Penalty for receiving Remuneration from Seamen. — If any person demands or receives, either directly or indirectly, from any seaman or apprentice, or from any person seeking employment as a seaman or apprentice, or from any person on his behalf, any remuneration whatever, other than the fees hereby authorized, for providing him with employment, he shall for every such offence incur a penalty not exceeding 5*l.*—§ 148.

2. *Conditions under which Seamen are to be engaged.* — In 1835 an act was passed (5 & 6 W. 4. c. 19.) of much importance to seamen, and to persons connected with navigation. It laid down the various forms and regulations to be observed in hiring, paying, and discharging seamen; established an office for their registry; and prescribed

the mode in which lists of crews were to be transmitted to the registrar. It also regulated the conditions under which seamen might, in certain cases, be left in foreign parts, with a variety of other particulars; at the same time that it repealed sundry statutes, the provisions of which had become obsolete.

Further modifications were made in this system in 1844, by the 7 & 8 Vict. c. 112., and again by the Mercantile Marine Act of 1850, the 13 & 14 Vict. c. 93. The existing law regulating the conditions in the agreements to be made with seamen, is embodied in the Mercantile Shipping Act, as follows, viz.

Agreements to be made with Seamen.—The master of every ship, except ships of less than 80 tons registered tonnage, exclusively employed in trading between different ports on the coasts of the U. K., shall enter into an agreement with every seaman whom he carries to sea from any port in the U. K. as one of his crew in the manner after mentioned; and every such agreement shall be in a form sanctioned by the B. of Trade, and shall be dated at the time of the first signature thereof, and shall be signed by the master before any seaman signs the same, and shall contain the following particulars as terms thereof, viz.:—

(1.) The nature, and, as far as practicable, the duration of the intended voyage or engagement:
(2.) The number and description of the crew, specifying how many are engaged as sailors:
(3.) The time at which each seaman is to be on board or to begin work:
(4.) The capacity in which each seaman is to serve:
(5.) The amount of wages which each seaman is to receive:
(6.) A scale of the provisions which are to be furnished to each seaman:
(7.) Any regulations as to conduct on board, and as to fines, short allowance of provisions, or other lawful punishments for misconduct, which have been sanctioned by the Board of Trade as regulations proper to be adopted, and which the parties agree to adopt:

And every such agreement shall be so framed as to admit of stipulations, to be adopted at the will of the master and seaman in each case, as to advance and allotment of wages, and may contain any other stipulations which are not contrary to law; provided that if the master of any ship belonging to any British possession has an agreement with his crew made in due form according to the law of the possession to which such ship belongs or in which her crew were engaged, and engages single seamen in the U. K., such seamen may sign the agreement so made, and it shall not be necessary for them to sign an agreement in the form sanctioned by the B. of Trade.—§ 149.

Agreements for Foreign-going Ships to be made before and attested by a Shipping Master.—In the case of all foreign-going ships, in whatever part of H. Majesty's dominions the same are registered, the following rules shall be observed with respect to agreements, viz.:—

(1.) Every agreement made in the U. K. (except in the cases of agreements with substitutes herein-after provided for) shall be signed by each seaman in the presence of a shipping master:
(2.) Such shipping master shall cause the agreement to be read over and explained to each seaman, or otherwise ascertain that each seaman understands the same before he signs it, and shall attest each signature:
(3.) When the crew is first engaged the agreement shall be signed in duplicate, and one part shall be retained by the shipping master, and the other part shall contain a special place or form for the descriptions and signatures of substitutes or persons engaged subsequently to the first departure of the ship, and shall be delivered to the master:
(4.) In the case of substitutes engaged in the place of seamen who have duly signed the agreement, and whose services are lost within 24 hours of the ship's putting to sea by death, desertion, or other unforeseen cause, the engagement shall, when practicable, be made before some shipping master duly appointed in the manner herein-before specified; and whenever such last-mentioned engagement cannot be so made, the master shall, before the ship puts to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to the seamen; and the seamen shall thereupon sign the same in the presence of a witness, who shall attest their signatures.—§ 150.

Foreign-going Ships making short Voyages may have running Agreements.—In the case of foreign-going ships making voyages averaging less than 6 months duration, running agreements with the crew may be made to extend over two or more voyages, so that no such agreement shall extend beyond the next following 30th of June or 31st day of December or the first arrival of the ship at her port of destination in the U. K. after such date, or the discharge of cargo consequent upon such arrival; and every person entering into such agreement, whether engaged upon the first commencement thereof or otherwise, shall enter into and sign the same in the manner hereby required for other foreign-going ships; and every person engaged thereunder, if discharged in the U. K., shall be discharged in the manner hereby required for the discharge of seamen belonging to other foreign-going ships.—§ 151.

Engagement and Discharge of Seamen in the meantime.—The master of every foreign-going ship for which such a running agreement as aforesaid is made shall, upon every return to any port in the U. K. before the final termination of the agreement, discharge or engage before the shipping master at such port any seaman whom he is required by law so to discharge or engage, and shall upon every such return indorse on the agreement a statement (as the case may be) either that no such discharges or engagements have been made, or are intended to be made, before the ship again leaves port, or that all such discharges or engagements have been duly made as herein-before required, and shall deliver the agreement so indorsed to the shipping master; and any master who wilfully makes a false statement in such indorsement shall incur a penalty not exceeding 20*l.*; and the shipping master shall also sign an indorsement on the agreement to the effect that the provisions of this act relating to such agreement have been complied with, and shall re-deliver the agreement so indorsed to the master.—§ 152.

Duplicates of running Agreements.—In cases in which such running agreements are made, the duplicate agreement retained by the shipping master upon the first engagement of the crew shall either be transmitted to the Registrar-General of Seamen immediately, or be kept by the shipping master until the expiration of the agreement, as the B. of Trade directs.—§ 153.

Fees to be paid on such running Agreements.—For the purpose of determining the fees to be paid upon the engagement and discharge of seamen belonging to foreign-going ships which have running agreements as aforesaid, the crew shall be considered to be engaged when the agreement is first signed, and to be discharged when the agreement finally terminates, and all intermediate engagements and discharges shall be considered to be engagements and discharges of single seamen.—§ 154.

In Home Trade Ships Agreement to be entered into before a Shipping Master, &c.—In the case of home trade ships, crews or single seamen may, if the master thinks fit, be engaged before a shipping master in the manner herein-before directed with respect to foreign-going ships; and in every case in which the engagement is not so made, the master shall, before the ships put to sea, if practicable, and if not, as soon afterwards as possible, cause the agreement to be read over and explained to each seaman, and the seaman shall thereupon sign the same in the presence of a witness, who shall attest his signature.—§ 155.

Special Agreements for Home Trade Ships belonging to same Owners.—In cases where several home trade ships belong to the same owner, the agreement with the seamen may, notwithstanding anything herein contained, be made by the owner instead of by the master, and the seamen may be engaged to serve in any two or more of such ships, provided that the names of the ships and the nature of the service are specified in the agreement; but with the foregoing exception all provisions herein contained which relate to ordinary agreements for home trade ships shall be applicable to agreements made in pursuance of this section.—§ 156.

Penalty for shipping Seamen without Agreement duly executed.—If in any case a master carries any seaman to sea without entering into an agreement with him in the form and manner, and at the place and time hereby in such case required, the master in the case of a foreign-going ship, and the master or owner in the case of a home trade ship, shall for each such offence incur a penalty not exceeding 5*l.*—§ 157.

Changes in Crew to be reported.—The master of every foreign-going ship of which the crew has been engaged before a shipping master shall before finally leaving the U. K. sign and send to the nearest shipping master a full and accurate statement in a form sanctioned by the Board of Trade of every change which takes place in his crew before finally leaving the U. K., and in default shall for each offence incur a penalty not exceeding 5*l.*; and such statement shall be admissible in evidence, subject to all just exceptions.—§ 158.

Seamen engaged in the Colonies to be shipped before some Shipping Master, &c.—Every master of a ship who, if such ship is registered in the U. K. engages any seaman in any British possession, or if such ship belongs to any British possession engages any seaman in any British possession other than that to which the ship belongs, shall, if there is at the place where such seaman is engaged any official shipping master or other officer duly appointed for the purpose of shipping seamen, engage such seaman before such shipping master, and if there is no such shipping master or officer, then before some officer of customs; and the same rules, qualifications, and penalties as are herein-before specified with respect to the engagement of seamen before shipping masters in the U. K. shall apply to such engagements in a British possession; and upon every such engagement such shipping master or officer as aforesaid shall indorse upon the agreement an attestation to the effect that the same has been signed in his presence, and otherwise made as hereby required; and if in any case such attestation is not made, the burden of proving that the seaman was duly engaged as hereby required shall lie upon the master.—§ 159.

Seamen engaged in Foreign Ports to be shipped with the Sanction and in the Presence of the Consul.—Every master of a British ship who engages any seaman at any place out of H. M.'s dominions in which there is a British consular officer shall, before carrying such seaman to sea, procure the sanction of such officer, and shall engage such seaman before such officer; and the same rules as are herein-before contained with respect to the engagement of seamen before shipping masters in the U. K. shall apply to such engagements made before consular officers; and upon every such engagement the consular officer shall indorse upon the agreement his sanction thereof, and an attestation to the effect that the same has been signed in his presence, and otherwise made as hereby required; and every master who engages any seaman in any place in which there is a consular officer, otherwise than as herein-before required, shall incur a penalty not exceeding 20*l.*; and if in any case the indorsement and attestation hereby required is not made upon the agreement, the burden of proving the engagement to have been made as herein-before required shall lie upon the master.—§ 160.

Rules as to Production of Agreements and Certificates.—The following rules shall be observed with respect to the production of agreements and certificates of competency or service for foreign-going ships; viz.

(1.) The master of every foreign-going ship shall, on signing the agreement with his crew, produce to the shipping master before whom the same is signed the certificates of competency or service which the said master and his first and second mate or only mate, as the case may be, are required to possess; and upon such production being duly made, and the agreement being duly executed as hereby required, the shipping master shall sign and give to the master a certificate to that effect.

(2.) In the case of running agreements for foreign-going ships, the shipping master shall, before the second and every subsequent voyage made after the first commencement of the agreement, sign and give to the master, on his complying with the provisions herein contained with respect to such agreements, and producing to the shipping master the certificate of competency or service of any first, second, or only mate then first engaged by him, a certificate to that effect.

(3.) The master of every foreign-going ship shall, before proceeding to sea, produce the certificate so to be given to him by the shipping master as aforesaid, to the Collector or Comptroller of Customs; and no officer of customs shall clear any such ship outwards without such production; and if any such ship attempts to go to sea without a clearance, any such officer may detain her until such certificate as aforesaid is produced.

(4.) The master of every foreign-going ship shall, within 48 hours after the ship's arrival at her final port of destination in the U. K., or upon the discharge of the crew, whichever first happens, deliver such agreement to a shipping master at the place; and such shipping master shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear any foreign-going ship inwards without the production of such certificate.

And if the master of any foreign-going ship fails to deliver the agreement to a shipping master at the time and in the manner hereby directed, he shall for every default incur a penalty not exceeding 5*l.*—§ 161.

Rules as to Production of Agreements and Certificates for Home Trade Ships.—The following rules shall be observed with respect to the production of agreements and certificates of competency or service for home trade ships, viz.

(1.) In the case of home trade ships of more than 80 tons burden, no agreement shall extend beyond the next following 30th of June or 31st of December, or the first arrival of the ship at her final port of destination in the U. K. after such date, or the discharge of cargo consequent upon such arrival.

(2.) The master or owner of every such ship shall, within 21 days after the 30th of June and the 31st of December in every year, transmit or deliver to some shipping master in the U. K. every agreement made within 6 calendar months next preceding such days respectively, and shall also, in the case of home-trade passenger ships, produce to the shipping master the certificates of competency or service which the said master and his first or only mate, as the case may be, are hereby required to possess.

(3.) The shipping master shall thereupon give to the master or owner a certificate of such delivery and production; and no officer of customs shall grant a clearance or transire for any ship as last aforesaid without the production of such certificate; and if any such ship attempts to ply or go to sea without such clearance or transire, any such officer may detain her until the said certificate is produced.

And if the agreement for any home trade ship is not delivered or transmitted by the master or owner to a shipping master at the time and in the manner hereby directed, such master or owner shall for every default incur a penalty not exceeding 5*l.*—§ 162.

Alterations to be void unless attested to have been made with the Consent of all Parties.—Every erasure, interlineation, or alteration in any such agreement with seamen as is required by the third part of this act (except additions so made as herein-before directed for shipping substitutes or persons engaged subsequently to the first departure of the ship) shall be wholly inoperative, unless proved to have been made with the consent of all the persons interested in such erasure, interlineation, or alteration by the written attestation (if made in H. M.'s dominions) of some shipping master, justice, officer of customs, or other public functionary, or (if made out of H. M.'s dominions) of a British consular officer, or, where there is no such officer, of two respectable British merchants.—§ 163.

Penalty for falsifying Agreement.—Every person who fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, or makes, or assists in making, or procures to be made, any false entry in, or delivers, assists in delivering, or procures to be delivered, a false copy of any agreement, shall for each such offence be deemed guilty of a misdemeanor.—§ 164.

Seamen not to be bound to produce Agreement.—Any seaman may bring forward evidence to prove the contents of any agreement or otherwise to support his case, without producing or giving notice to produce the agreement or any copy thereof.—§ 165.

Copy of Agreement to be made accessible to Crew.—The master shall at the commencement of every voyage or engagement cause a legible copy of the agreement (omitting the signatures) to be placed or posted up in such part of the ship as to be accessible to the crew, and in default shall for each offence incur a penalty not exceeding 5*l.*—§ 166.

Seamen discharged before Voyage to have Compensation.—Any seaman who has signed an agreement, and is afterwards discharged before the commencement of the voyage, or before one month's wages are earned, without fault on his part justifying such discharge and without his consent shall be entitled to receive from the master or owner, in addition to any wages he may have earned, due compensation for the damage thereby caused to him, not exceeding one month's wages, and may, on adducing such

evidence as the court hearing the case deems satisfactory of his having been so improperly discharged as aforesaid, recover such compensation as if it were wages duly earned.—§ 167.

The statute does not render a verbal agreement for wages absolutely void; but it imposes a penalty on the master if a written agreement be not made. And no written agreement contrary to the act, by which a seaman should renounce any just right, such as his claim to wages in the case of the loss of the ship, to salvage, &c. would be valid. When a written agreement is made conformably to the act, it becomes the only evidence of the contract between the parties; and a seaman cannot recover any thing agreed to be given in reward for his services, which is not specified in the articles.

A seaman who has engaged to serve on board a ship, is bound to exert himself to the utmost in the service of such ship; and, therefore, a promise made by the master of a ship in distress, to pay an extra sum to a seaman, as an inducement to extraordinary exertion on his part, is wholly void.

3. *Conduct of Seamen.* — It is essential to the business of navigation that the most prompt and ready obedience should be paid to the lawful commands of the master. To this effect it is covenanted in the articles of agreement previously referred to, that "the crew engage to conduct themselves in an orderly, faithful, honest, careful, and sober manner; and to be at all times diligent in their respective duties and stations, and to be obedient to the lawful commands of the master in every thing relating to the said ship, and the materials, stores, and cargo thereof, whether on board such ship, in boats, or on shore."

In case of disobedience or disorderly conduct, on the part of the seamen, the master may correct them in a reasonable manner. Such authority is absolutely necessary for the safety of the ship and of those on board. It, however, behoves the master to employ it with great deliberation, and not to pervert the powers with which he is intrusted for the good of the whole, to cruel or vindictive purposes. Masters abusing their authority must answer at law for the consequences; and, except under very grave and urgent circumstances, the infliction of chastisement without previous inquiry should be carefully avoided. But in cases of actual or open mutiny, or of gross misconduct by the crew or any part of them, it may be incumbent on the master to act at once with all the energy and decision of which he is capable. In such unfortunate cases his resistance becomes an act of self-defence, and is to be considered in all its consequences in that point of view. The Ordinances of Oleron and Wisby declare that a mariner who strikes the master shall either pay a fine or lose his right hand; a singular as well as barbarous alternative, unknown in modern jurisprudence.

But although the master may by force restrain the commission of crimes, he has no judicial authority over or right to punish the criminal, but is bound to secure his person and bring him before a proper tribunal. And all justices of the peace are empowered to receive informations touching any murder, piracy, felony, or robbery upon the sea, and to commit the offenders for trial.

Offences of Seamen and Apprentices and their Punishment. — Whenever any seaman who has been lawfully engaged or any apprentice to the sea service commits any of the following offences he shall be liable to be punished summarily as follows; viz.

(1.) For desertion he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour, and also to forfeit all or any part of the clothes and effects he leaves on board, and all or any part of the wages or emoluments which he has then earned, and also, if such desertion takes place abroad, at the discretion of the court, to forfeit all or any part of the wages or emoluments he may earn in any other ship in which he may be employed until his next return to the U. K., and to satisfy any excess of wages paid by the master or owner of the ship from which he deserts to any substitute engaged in his place at a higher rate of wages than the rate stipulated to be paid to him.

(2.) For neglecting or refusing, without reasonable cause, to join his ship or to proceed to sea in his ship, or for absence without leave at any time within 24 hours of the ship's sailing from any port either at the commencement or during the progress of any voyage, or for absence at any time without leave and without sufficient reason from his ship or from his duty not amounting to desertion or not treated as such by the master, he shall be liable to imprisonment for any period not exceeding 10 weeks, with or without hard labour, and also, at the discretion of the court, to forfeit out of his wages a sum not exceeding the amount of 2 days' pay, and in addition, for every 24 hours of absence, either a sum not exceeding 6 days' pay, or any expenses which have been properly incurred in hiring a substitute.

(3.) For quitting the ship without leave after her arrival at her port of delivery and before she is placed in security, he shall be liable to forfeit out of his wages a sum not exceeding 1 month's pay.

(4.) For wilful disobedience to any lawful command he shall be liable to imprisonment for any period not exceeding 4 weeks, with or without hard labour, and also, at the discretion of the court, to forfeit out of his wages a sum not exceeding 2 days' pay.

(5.) For continued wilful disobedience to lawful commands, or continued wilful neglect of duty, he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour, and also, at the discretion of the court, to forfeit for every 24 hours' continuance of such disobedience or neglect either a sum not exceeding 6 days' pay or any expenses which have been properly incurred in hiring a substitute.

(6.) For assaulting any master or mate he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour.

(7.) For combining with any other or others of the crew to disobey lawful commands, or to neglect duty, or to impede the navigation of the ship or the progress of the voyage, he shall be liable to imprisonment for any period not exceeding 12 weeks, with or without hard labour.

(8.) For wilfully damaging the ship, or embezzling or wilfully damaging any of her stores or cargo, he shall be liable to forfeit out of his wages a sum equal in amount to the loss thereby sustained, and also, at the discretion of the court, to imprisonment for any period not exceeding 12 weeks, with or without hard labour.

(9.) For any act of smuggling of which he is convicted, and whereby loss or damage is occasioned to the master or owner, he shall be liable to pay to such master or owner such a sum as is sufficient to reimburse the master or owner for such loss or damage; and the whole or a proportionate part of his wages may be retained in satisfaction or on account of such liability without prejudice to any further remedy.—§ 243.

Entry of Offences to be made in official Log. — Upon the commission of any of the offences enumerated in the last preceding section an entry thereof shall be made in the official log book, (see art. LOG, OFFICIAL), and shall be signed by the master and also by the mate or one of the crew; and the offender, if still in the ship, shall before the next arrival of the ship at any port, or if she is at the time in port, before her departure, either be furnished with a copy of such entry or have the same read over

distinctly and audibly to him, and may thereupon make such reply thereto as he thinks fit; and a statement that a copy of the said entry has been so furnished, or that the same has been so read over as aforesaid, and the reply (if any) made by the offender, shall likewise be entered and signed in manner aforesaid; and in any subsequent legal proceeding the entries herein-before required shall, if practicable, be produced or proved, and in default of such production or proof the Court hearing the case may, at its discretion, refuse to receive evidence of the offence.—§ 244.

Seamen, &c. whom Masters of Ships are compelled to convey, to be subject to Penalties for Breach of Discipline.— Every seafaring person whom the master of any ship is, under the authority of this act or of any other act of parliament, compelled to take on board and convey, and every person who goes to sea in any ship without the consent of the master or owner or other person entitled to give such consent, shall, so long as he remains in such ship, be subject to the same laws and regulations for preserving discipline, and to the same penalties and punishments for offences constituting or tending to a breach of discipline, to which he would be subject if he were a member of the crew and had signed the agreement.— § 245.

Master or Owner may apprehend Deserters, without Warrant.— Whenever, either at the commencement or during the progress of any voyage, any seaman or apprentice neglects or refuses to join or deserts from or refuses to proceed to sea in any ship in which he is duly engaged to serve, or is found otherwise absenting himself therefrom without leave, the master or any mate, or the owner, ship's husband, or consignee, may, in any place in H. Majesty's dominions, with or without the assistance of the local police officers or constables, who are hereby directed to give the same, if required, and also at any place out of H. Majesty's dominions, if and so far as the laws in force at such place will permit, apprehend him without first procuring a warrant; and may thereupon in any case, and shall in case he so requires and it is practicable, convey him before some court capable of taking cognizance of the matter, to be dealt with according to law; and may, for the purpose of conveying him before such court, detain him in custody for a period not exceeding 24 hours or such shorter time as may be necessary, or may, if he does not so require, or if there is no such court at or near the place, at once convey him on board; and if any such apprehension appears to the court before which the case is brought to have been made on improper or on insufficient grounds, the master, mate, owner, ship's husband, or consignee who makes the same or causes the same to be made shall incur a penalty not exceeding 20*l.*; but such penalty, if inflicted, shall be a bar to any action for false imprisonment in respect of such apprehension. —§ 246.

Deserters may be sent on board in lieu of being imprisoned.— Whenever any seaman or apprentice is brought before any court on the ground of his having neglected or refused to join or to proceed to sea in any ship in which he is engaged to serve, or of having deserted or otherwise absented himself therefrom without leave, such court may, if the master or the owner or his agent so requires, instead of committing the offender to prison, cause him to be conveyed on board for the purpose of proceeding on the voyage, or deliver him to the master or any mate of the ship, or the owner or his agent, to be by them so conveyed, and may in such case order any costs and expenses properly incurred by or on behalf of the master or owner by reason of the offence to be paid by the offender, and, if necessary to be deducted from any wages which he has then earned, or which by virtue of his then existing engagement he may afterwards earn.— § 247.

Seamen imprisoned for Desertion or Breach of Discipline may be sent on board before Termination of Sentence.—If any seaman or apprentice is imprisoned on the ground of his having neglected or refused to join or to proceed to sea in any ship in which he is engaged to serve, or of having deserted or otherwise absented himself therefrom without leave, or of his having committed any other breach of discipline, and if during such imprisonment and before his engagement is at an end his services are required on board his ship, any justice may, at the request of the master or of the owner or his agent, cause such seaman or apprentice to be conveyed on board his said ship for the purpose of proceeding on the voyage, or to be delivered to the master or any mate of the ship or to the owner or his agent, to be by them so conveyed, notwithstanding that the termination of the period for which he was sentenced to imprisonment has not arrived.—§ 248.

Entries and Certificates of Desertion abroad to be copied, sent home, and admitted in Evidence.— In all cases of desertion from any ship in any place abroad the master shall produce the entry of such desertion in the official log book to the person or persons hereby required to indorse on the agreement a certificate of such desertion; and such person or persons shall thereupon make and certify a copy of such entry and also a copy of the said certificate of desertion; and if such person is a public functionary he shall, and in other cases the said master shall forthwith transmit such copies to the registrar general of seamen in England; and the said registrar shall, if required, cause the same to be produced in any legal proceeding; and such copies, if purporting to be so made and certified as aforesaid, and certified to have come from the custody of the said registrar, shall in any legal proceeding relating to such desertion be received as evidence of the entries therein appearing.— § 249.

Facilities for proving Desertion, so far as concerns Forfeiture of Wages.— Whenever a question arises whether the wages of any seaman or apprentice are forfeited for desertion, it shall be sufficient for the party insisting on the forfeiture to show that such seaman or apprentice was duly engaged in or that he belonged to the ship from which he is alleged to have deserted, and that he quitted such ship before the completion of the voyage or engagement, or if such voyage was to terminate in the U. K. and the ship has not returned, that he is absent from her, and that an entry of the desertion has been duly made in the official log book; and thereupon the desertion shall, so far as relates to any forfeiture of wages or emoluments under the provisions herein-before contained, be deemed to be proved, unless the seaman or apprentice can produce a proper certificate of discharge, or can otherwise show to the satisfaction of the court that he had sufficienf reason for leaving his ship.—§ 250.

Costs of procuring Imprisonment may to the Extent of 3l. be deducted from Wages.—Whenever in any proceeding relating to seamen's wages it is shown that any seaman or apprentice has in the course of the voyage been convicted of any offence by any competent tribunal and rightfully punished therefor by imprisonment or otherwise, the court hearing the case may direct a part of the wages due to such seaman, not exceeding 3*l.*, to be applied in reimbursing any costs properly incurred by the master in procuring such conviction and punishment.—§ 251.

Amount of Forfeiture how to be ascertained when Seamen contract for the Voyage.— Whenever any seaman contracts for wages by the voyage or by the run or by the share, and not by the month or other stated period of time, the amount of forfeiture to be incurred under this act shall be taken to be an amount bearing the same proportion to the whole wages or share as a calendar month or other period (as the case may be) bears to the whole time spent in the voyage; and if the whole time spent in the voyage does not exceed the period for which the pay is to be forfeited, the forfeiture shall extend to the whole wages or share.—§ 252.

Application of Forfeitures.— All clothes, effects, wages, and emoluments which under the provisions herein-before contained are forfeited for desertion shall be applied in the first instance in or towards the reimbursement of the expenses occasioned by such desertion to the master or owner of the ship from which the desertion has taken place; and may, if earned subsequently to the desertion, be recovered by such master, or by the owner or his agent, in the same manner as the deserter might have recovered the same if they had not been forfeited; and in any legal proceeding relating to such wages the court may order the same to be paid accordingly; and subject to such reimbursement the same shall be paid into the receipt of H. Majesty's exchequer in such manner as the Treasury may direct, and shall be carried to and form part of the consolidated fund of the U. K.; and in all other cases of forfeiture of wages under the provisions herein-before contained the forfeiture shall, in the absence of any specific

directions to the contrary, be for the benefit of the master or owner by whom the wages are payable.—§ 253.

Questions of Forfeitures may be decided in Suits for Wages.—Any question concerning the forfeiture of or deductions from the wages of any seaman or apprentice may be determined in any proceeding lawfully instituted with respect to such wages, notwithstanding that the offence in respect of which such question arises, though hereby made punishable by imprisonment as well as forfeiture, has not been made the subject of any criminal proceeding.—§ 254.

Penalty for false Statement as to last Ship or Name.— If any seaman on or before being engaged wilfully and fraudulently makes a false statement of the name of his last ship or last alleged ship, or wilfully and fraudulently makes a false statement of his own name, he shall incur a penalty not exceeding 5*l.*: and such penalty may be deducted from any wages he may earn by virtue of such engagement as aforesaid, and shall, subject to reimbursement of the loss and expenses (if any) occasioned by any previous desertion, be paid and applied in the same manner as other penalties payable under this act.—§ 255.

Fines to be deducted from Wages, and paid to Shipping Master.—Whenever any seaman commits an act of misconduct for which his agreement imposes a fine, and which it is intended to punish by enforcing such fine, an entry thereof shall be made in the official log book, and a copy of such entry shall be furnished or the same shall be read over to the offender, and an entry of such reading over, and of the reply (if any) made by the offender, shall be made, in the manner and subject to the conditions hereinbefore specified with respect to the offences against discipline specified in and punishable under this act; and such fine shall be deducted and paid over as follows; viz., if the offender is discharged in the U. K. and the offence and such entries in respect thereof as aforesaid are proved, in the case of a foreign-going ship to the satisfaction of the shipping master before whom the offender is discharged, and in the case of a home trade ship to the satisfaction of the shipping master at or nearest to the place at which the crew is discharged, the master or owner shall deduct such fine from the wages of the offender, and pay the same over to such shipping master; and if before the final discharge of the crew in the U. K. any such offender as aforesaid enters into any of H. M.'s ships, or is discharged abroad, and the offence and such entries as aforesaid are proved to the satisfaction of the officer in command of the ship into which he so enters, or of the consular officer, officer of customs, or other person by whose sanction he is so discharged, the fine shall thereupon be deducted, and the entry of such deduction shall then be made in the official log book (if any) and signed by such officer or other person; and on the return of the ship to the U. K. the master or owner shall pay over such fine, in the case of foreign-going ships, to the shipping master before whom the crew is discharged, and in the case of home trade ships to the shipping master at or nearest to the place at which the crew is discharged; and if any master or owner neglects or refuses to pay over any such fine in manner aforesaid, he shall for each such offence incur a penalty not exceeding 6 times the amount of the fine retained by him: provided that no act of misconduct for which any such fine as aforesaid has been inflicted and paid shall be otherwise punished under the provisions of this act.—§ 256.

Penalty for enticing to desert, and harbouring Deserters.—Every person who by any means whatever persuades or attempts to persuade any seaman or apprentice to neglect or refuse to join or to proceed to sea in or to desert from his ship, or otherwise to absent himself from his duty, shall for each such offence in respect of each such seaman or apprentice incur a penalty not exceeding 10*l.*; and every person who wilfully harbours or secretes any seaman or apprentice who has deserted from his ship, or who has wilfully neglected or refused to join or has deserted from his ship, knowing or having reason to believe such seaman or apprentice to have so done, shall for every such seaman or apprentice so harboured or secreted incur a penalty not exceeding 20*l.*— § 257.

Penalty for obtaining Passage surreptitiously.—Any person who secretes himself and goes to sea in any ship without the consent of either the owner, consignee, or master, or of a mate, or of any person in charge of such ship, or of any other person entitled to give such consent, shall incur a penalty not exceeding 20*l.*, or be liable to imprisonment with or without hard labour for any period not exceeding 4 weeks.—§ 258.

On Change of Masters, Documents hereby required to be handed over to Successor.—If during the progress of a voyage the master is superseded or for any other reason quits the ship and is succeeded in the command by some other person, he shall deliver to his successor the various documents relating to the navigation of the ship and to the crew thereof which are in his custody, and shall in default incur a penalty not exceeding 100*l.*; and such successor shall immediately on assuming the command of the ship enter in the official log a list of the documents so delivered to him.—§ 259.

Desertion has long been, and continues to be, very prevalent, and is, in truth, by far the greatest drawback on the shipping interest. Mr. Lindsay, whose knowledge of the subject is alike extensive and minute, remarks upon it as follows:—"Desertion is now so great an evil, and so detrimental to the best interests of our maritime commerce, that vigorous measures should be adopted to suppress it. It is a crime which is rarely committed alone, but is only the first step towards others of a much worse nature. Even the seamen almost invariably repent of it when too late. They feel that they have broken faith, lost that self-respect which is essential to the maintenance of order, drown their feelings in intoxication, and thus become demoralised and worthless. The country loses in various ways. In our trade with Australia particularly, by paying materially enhanced rates of freight and passage, for the desertion of the crew is the only fear which the shipowners have of sending their vessels to that colony. The moral standard of a class of men, alike valuable during periods of peace and war, is materially lowered, and we have to maintain, from our parish resources, the pauperised wives and children of deserters.

"This subject was much considered by government when framing the Mercantile Marine Act, and various clauses were introduced into that statute having reference to it. The one which comes most to the point is the 71st clause (see *antè*, § 246), which enacts, 'that whenever a seaman or apprentice neglects or refuses to join, or absents himself without leave, or deserts from any ship in which he is engaged to serve, the master or mate, or the owner, ship's husband, or consignee, may, for the purpose of carrying him before a justice, apprehend or require any police officer or constable to apprehend him without first procuring a warrant.' Masters may, also, without warrant, seize deserters and carry them either before a magistrate or on board their ships. But when seamen desert, they generally get out of the way of seizure till the vessels which they have deserted have left the port. They know full well that the extent of their

punishment, even if they be taken, cannot exceed 3 months in what to them are comfortable quarters, and that very likely, judging by precedent, it may not exceed 1 month — a trifling penalty for so serious an offence. Besides imprisonment, the deserter is also liable to forfeit such clothes or effects as he may have on board, and such wages or emoluments as he may have earned. If the desertion take place abroad, he forfeits whatever wages and emoluments he may earn in any other ship in which he may return to the U. Kingdom, and he farther becomes liable to satisfy any excess of wages paid by the master or owners of the ship from which he deserts to any substitute engaged in his place. Such is the full extent of the punishment. We should, however, have less to say against its insufficiency, were the means of convicting offenders less complex. While they remain in their present state, seamen will continue, as hitherto, to desert when it suits their purposes. No more convincing proof needs be given of the inefficacy of the laws bearing upon desertion, than the fact that one firm only, Messrs. Pollock, Gilmour, and Co., of Glasgow, engaged in the North American timber trade, have had, during 1 year, upwards of 400 seamen deserters abroad from their ships; that the consequent loss entailed on the firm exceeded 3000*l.*, merely in the higher wages they were compelled to pay to seamen to supply the place of the deserters; and that they only succeeded in arresting 11 out of the 400 deserters."—(*On Our Navigation Laws and Mercantile Marine*, 2d. ed. p. 85, &c.)

This is a very striking state. But in truth and reality, desertion is an evil with which it is very difficult, if not impossible, to deal. It may be palliated; but more needs hardly be expected; and we incline to think that the clauses previously quoted go quite as far as it is advisable to go in attempting its suppression by penal enactments. When seamen arrive in a port where their services are in great request, and wages double, perhaps, what they are serving for, how can it be supposed that they should be generally proof against such overpowering temptations? But as commerce becomes more extended, the difference of wages in different sea-ports will decline; and the more they approach to equality, the less temptation will there be to desert. Mr. Lindsay suggests as one mode of dealing with this difficult subject, that all seamen returning to this country previously to the arrival of the ships in which they had sailed, who cannot produce certificates of their discharge, or otherwise account satisfactorily for their return, should be held to be guilty of desertion, and punished accordingly.

A regulation of this sort would, probably, be some check on desertion, though we doubt whether it would amount to much. But we believe that nothing short of that equalisation of wages to which we have referred would do so much to lessen its frequency and to make it more an object of public reprobation, as an improvement in the character of the masters. The drunkenness and brutality that have been so often manifested by the latter, create a presumption that seamen guilty of desertion have been driven to it by ill-usage, and indisposes the public to increase the penalties on the offence. And hence it may, perhaps, be questioned whether anything will be more likely to render it, as it ought to be, a serious matter in the public estimation, than the measures that have been lately taken to raise the qualifications of the masters, and to make their conduct more in accordance with their position.

It is admitted, indeed, by all legislators and jurists that gross misconduct, or systematic and extreme ill-treatment on the part of the master, will justify the seamen in resisting his authority or deserting the ship. The duties and obligations of master and men are reciprocal; the latter are bound to give due obedience and respect to all the reasonable commands of the master, and even to those that may appear to be unreasonable; but they are not bound to obey orders that would obviously compromise their own security or that of the ship. "Desertion," said Lord Kenyon, "is a forfeiture of wages; but if the captain conduct himself in such a way as puts the sailor into that situation that he cannot without damage to his personal safety continue in his service, (human nature speaks the language,) a servant is justified in providing for that safety." The necessity of securing on all ordinary occasions the most prompt compliance with the orders of the master is, however, so very urgent, that no proceeding on the part of the latter, unless it be of the most unwarrantable description, will justify the seamen in deserting or resisting his commands. Disobedience to the latter is uniformly presumed to be an offence of the gravest kind: and nothing but the most overwhelming necessity will vindicate the seamen by whom it may be committed. "The court," to use the words of Lord Stowell, "will be particularly attentive to preserve that subordination and discipline on board ship which is so indispensably necessary for the preservation of the whole service, and of every person concerned in it. A peremptory or harsh tone or an overcharged manner, in the exercise of authority, will never be held by this court to justify resistance. It will not be sufficient that there has been a want of that personal attention and civility which usually takes place on other occasions, and might be wished generally to attend the exercise of authority. The nature of the service requires that those persons that engage in it should accommodate themselves to the cir-

cumstances attending it, and those circumstances are not unfrequently urgent, and create strong sensations which naturally find their way in strong expressions and violent demeanour. The persons subject to this species of authority are not to be captious, or to take exception to a neglect of formal or ceremonious observances."—(*Dodson's Admiralty Reports*, ii. 261.)

If the cargo be embezzled or injured by the fraud or negligence of the seamen, so that the merchant has a right to claim satisfaction from the master and owners, they may, by the custom of merchants, deduct the value thereof from the wages of the seamen by whose misconduct the injury has taken place. And a clause to this effect is inserted in the form of agreement issued by the B. of Trade, as follows: "It is hereby agreed that any embezzlement, or wilful or negligent destruction of any part of the ship's cargo or stores, shall be made good to the owner out of the wages of the person guilty of the same." Seamen are, therefore, responsible for themselves only. Nor can any innocent party be called upon to contribute a portion of his wages to make good the loss occasioned by the misconduct of others.

The offences of running away with the ship, or voluntarily yielding her up to an enemy, or making a revolt, have in all cases been visited with the severest punishment. The statute, 11 & 12 Will. 3. c. 7. enacted —

"That if any commander or master of any ship, or any seaman or mariner, shall in any place where the admiral hath jurisdiction, betray his trust and turn pirate, enemy, or rebel, and piratically and feloniously run away with his or their ship or ships, or any barge, boat, ordnance, ammunition, goods, or merchandizes, or yield them up voluntarily to any pirate, or shall bring any seducing messages from any pirate, enemy, or rebel, or consult, combine, or confederate with, or attempt or endeavour to corrupt any commander, master, officer, or mariner, to yield up or run away with any ship, goods, or merchandizes, or turn pirate, or go over to pirates: or if any person shall lay violent hands on his commander, whereby to hinder him from fighting in defence of his ship and goods committed to his trust, or that shall confine his master, or make or endeavour to make a revolt in the ship; shall be adjudged and deemed and taken to be a *pirate*, *felon*, and *robber*, and being convicted thereof according to the directions of this act, shall have and suffer pain of *death*, loss of lands, goods, and chattels, as *pirates*, *felons*, and *robbers* upon the seas ought to have and suffer."

But by the 7 W. 4. & 1 Vict. 3. 88., the penalty for this offence has been changed to transportation beyond seas for life, or for not less than 15 years, or to imprisonment for any term not exceeding 3 years.

The wilful destruction or loss of the ship has, in all countries, been punished by death. But doubts having been entertained whether the destruction of a ship that had been insured came within the scope of the previously existing statutes, they were repealed by the 43 Geo. 3. c. 113., and the following provision substituted in their stead: —

"That if any person or persons shall, from and after the 16th day of July, 1803, wilfully cast away, burn or otherwise destroy any ship or vessel, or in anywise counsel, direct, or procure the same to be done, and the same be accordingly done, with intent or design thereby wilfully and maliciously to prejudice any owner or owners of such ship or vessel, or any owner or owners of any goods laden on board the same, or any person or persons, body politic or corporate, that hath or have underwritten or shall underwrite any policy or policies of insurance upon such ship or vessel, or on the freight thereof, or upon any goods laden on board the same, the person or persons offending therein, being thereof lawfully convicted, shall be deemed and adjudged a principal felon or felons, and shall suffer death, as in cases of felony, without benefit of clergy."

The penalty for this offence is now, however, also changed to transportation for life, or not less than 15 years, or to imprisonment for not less than 3 years.—(1 *Vict.* c. 89.)

4. *Payment of Seamen's Wages, &c.*—In order to stimulate the zeal and enterprise of seamen, most maritime states have made the payment of their wages depend on the successful termination of the voyage; and for this reason, the insurance of their wages has been uniformly prohibited (*Arnould on Insurance*, i. 208). Hence the maxim that *freight is the only mother of wages.* "If freight go," said Lord Stowell, "everything goes. The mariner has no step father, if I may say so, in the character of insurer, to supply the loss." (2 *Dodson's Admiralty Reports*, 510.) And, therefore, it used to be laid down in general terms that when by any disaster happening in the course of a voyage, such as the loss or capture of the ship, the owners lost their freight, the seamen also lost their wages.

But this general rule was subject to numerous qualifications. Thus, if a voyage miscarried, and the freight were lost, through the incompetency or fault of the master; or if, after being entered upon, and in part completed, the voyage were abandoned by the owners; or if a vessel were sent from one port to another, to be freighted, where no freight was to be found; in these and other cases of the same sort the claim of seamen to payment of their wages was too obviously reasonable not to be generally admitted. Inasmuch, too, as owners may protect themselves, by insurance, against loss by shipwreck and other casualties, it would appear to be hardly fair or equitable that the wages of seamen, who cannot avail themselves of this resource, should be wholly sacrificed in the event of such catastrophes occurring. And this hardship appears the greater from the circumstance of the lives of the seamen being most commonly involved in the safety of the ship. It is, no doubt, contended by Valin, who has argued in favour of the old rule, that if seamen ceased *d'avoir intérêt à la conservation du navire et de ses*

marchandises, au moindre peril dont ils seroient menacés, ils ne songeroient qu'à sauver leur vie, sans se mettre en peine du reste; il étoit donc juste, et du bien public, d'attacher leur fortune à celle du vaisseau. (*Commentaire sur l' Ordonnance de* 1681, liv. iii. tit. iv.) But it may be safely affirmed that the desertion contemplated by Valin is not practicable in one case out of twenty. In storms and collisions at sea escape is very rarely possible; and it is not often possible even in cases of wreck by vessels being driven on shore. Hence, in the vast majority of cases, it may be fairly presumed that a regard to their own personal security, independent altogether of any consideration in relation to wages, will make seamen exert themselves to the utmost.

And none, it must be borne in mind, has ever proposed, as Valin would seem to assume, that the payment of wages in cases of loss should be irrespective of the conduct of the seamen. They are bound in all cases, and especially in cases of danger, to make every possible effort for the safety of the ship and cargo. If they fail in this most essential part of their duty, they plainly forfeit all claim to wages, whether freight be earned or not. But, in the event of their doing their duty, and making every possible exertion to save the ship and cargo, it does not appear that the loss of the latter should exempt the owners from the claim of the seamen for wages. On the contrary, it would seem that in such cases the payment of wages is consistent alike with the interests of navigation and of the public.

But, however brought about, the old doctrine of the absolute dependence of wages on freight has been gradually losing its authority. After various modifications it was enacted by the 7 & 8 Vict. c. 112., that in cases of shipwreck or loss of the ship, whether freight had or had not been previously earned, seamen should be entitled to their wages down to the occurrence of the casualty, on their producing a certificate from the principal surviving officer of the ship, that they had exerted themselves to the best of their ability to save the ship and cargo. But a condition of this sort having led to much difficulty and abuse, it has been laid down in the 17 & 18 Vict. c. 104. § 183. that the right of seamen to their wages shall not depend on the fact of freight being earned; and that in cases of wreck, and loss of the ship, they shall be entitled to their wages, unless proof be brought to show that they did not exert themselves to the utmost to save the ship and cargo. At present, therefore, it may be concluded, that nothing save their own misconduct can defeat the claim of seamen to the full payment of the wages stipulated in their agreements.

A seaman impressed from a merchant ship into the royal service, is entitled to receive the portion of his wages due to him at the time of impressment, provided the merchant ship *arrive in safety* at the port of her discharge.

The following clauses in the Mercantile Shipping Act relate to the allotment, payment, remittance, &c. of seamen's wages.

Regulations as to Allotment Notes.—All stipulations for the allotment of any part of the wages of a seaman during his absence which are made at the commencement of the voyage shall be inserted in the agreement, and shall state the amounts and times of the payments to be made; and all *Allotment Notes* shall be in forms sanctioned by the Board of Trade.—§ 168.

Allotment Notes may be sued on summarily.—The wife, or the father or mother, or the grandfather or grandmother, or any child or grandchild, or any brother or sister of any seaman in whose favour an allotment note of part of the wages of such seaman is made, may, unless the seaman is shown in manner after mentioned to have forfeited or ceased to be entitled to the wages out of which the allotment is to be paid, and subject, as to the wife, to the provision after contained, sue for and recover the sums allotted by the note when and as the same are made payable, with costs, from the owner or any agent who has authorized the drawing of the note, either in the County Court or in the summary manner in which seamen are enabled to sue for and recover wages not exceeding 50*l.*; and in any such proceeding it shall be sufficient for the claimant to prove that he or she is the person mentioned in the note, and that the note was given by the owner or by the master or some other authorized agent; and the seaman shall be presumed to be duly earning his wages, unless the contrary is shown to the satisfaction of the Court, either by the official statement of the change in the crew caused by his absence made and signed by the master, as by this act is required, or by a duly certified copy of some entry in the official log book to the effect that he has left the ship, or by a credible letter from the master of the ship to the same effect, or by such other evidence, of whatever description, as the Court in its absolute discretion considers sufficient to show satisfactorily that the seaman has ceased to be entitled to the wages out of which the allotment is to be paid: provided that the wife of any seaman who deserts her children, or so misconducts herself as to be undeserving of support from her husband, shall thereupon forfeit all right to further payments of any allotment of his wages which has been made in her favour.—§ 169.

Discharge from Foreign going Ships to be made before Shipping Master.—In the case of all British foreign-going ships, in whatever part of H. M.'s dominions the same are registered, all seamen discharged in the U. K. shall be discharged and receive their wages in the presence of a shipping master duly appointed under this act, except in cases where some competent court otherwise directs; and any master or owner of any such ship who discharges any seaman belonging thereto, or, except as aforesaid, pays his wages within the U. K. in any other manner, shall incur a penalty not exceeding 10*l.*; and in the case of home trade ships seamen may, if the owner or master so desires, be discharged and receive their wages in like manner.—§ 170.

Master to deliver Account of Wages.—Every master shall, not less than 24 hours before paying off or discharging any seaman, deliver to him, or, if he is to be discharged before a shipping master, to such shipping master, a full and true account in a form sanctioned by the B. of Trade of his wages and of all deductions to be made therefrom, on any account whatever, and in default shall for each offence incur a penalty not exceeding 5*l.*; and no deduction from the wages of any seaman (except in respect of any matter happening after such delivery) shall be allowed unless it is included in the account so delivered; and the master shall during the voyage enter the various matters in respect of which such deductions are made, with the amounts of the respective deductions, as they occur, in a book to be kept for that

purpose, and shall, if required, produce such book at the time of the payment of wages, and also upon the hearing before any competent authority of any complaint or question relating to such payments.—§ 171.

On Discharge, Masters to give Seamen Certificates of Discharge, &c.—Upon the discharge of any seaman, or upon payment of his wages, the master shall sign and give him a certificate of his discharge, in a form sanctioned by the B. of Trade, specifying the period of his service and the time and place of his discharge; and if any master fail to sign and give to any such seaman such certificate of discharge he shall for each such offence incur a penalty not exceeding 10*l.*; and the master shall also, upon the discharge of every certificated mate whose certificate of competency or service has been delivered to and retained by him, return such certificate, and shall in default incur a penalty not exceeding 20*l.*—§ 172.

Shipping Master may decide Questions which Parties refer to him.—Every shipping master shall hear and decide any question whatever between a master or owner and any of his crew which both parties agree in writing to submit to him; and every award so made by him shall be binding on both parties, and shall in any legal proceeding which may be taken in the matter before any court of justice be deemed to be conclusive as to the rights of the parties; and no such submission or award shall require a stamp; and any document purporting to be such submission or award shall be *primâ facie* evidence thereof.—§ 173.

Master and others to produce Ship's Papers to Shipping Masters, and give Evidence.—In any proceeding relating to the wages, claims, or discharge of any seaman carried on before any shipping master under the provisions of this act, such shipping master may call upon the owner or his agent, or upon the master or any mate or other member of the crew, to produce any log books, papers, or other documents in their respective possession or power relating to any matter in question in such proceeding, and may call before him and examine any of such persons being then at or near the place on any such matter; and every owner, agent, master, mate, or other member of the crew, who when called upon by the shipping master does not produce any such paper or document as aforesaid, if in his possession or power, or does not appear and give evidence, shall, unless he shows some reasonable excuse for such default, for each such offence incur a penalty not exceeding 5*l.*—§ 174.

Settlement of Wages.—The following rules shall be observed with respect to the settlement of wages; (that is to say,)

(1.) Upon the completion before a shipping master of any discharge and settlement, the master or owner and each seaman shall respectively in the presence of the shipping master, sign in a form sanctioned by the B. of Trade a mutual release of all claims in respect of the past voyage or engagement, and the shipping master shall also sign and attest it, and shall retain and transmit it as herein directed:

(2.) Such release so signed and attested shall operate as a mutual discharge and settlement of all demands between the parties thereto in respect of the past voyage or engagement:

(3.) A copy of such release certified under the hand of such shipping master to be a true copy shall be given by him to any party thereto requiring the same; and such copy shall be receivable in evidence upon any future question touching such claims as aforesaid, and shall have all the effect of the original of which it purports to be a copy:

(4.) In cases in which discharge and settlement before a shipping master are hereby required, no payment, receipt, settlement, or discharge otherwise made shall operate or be admitted as evidence of the release or satisfaction of any claim:

(5.) Upon any payment being made by a master before a shipping master, the shipping master shall, if required, sign and give to such master a statement of the whole amount so paid; and such statement shall as between the master and his employer be received as evidence that he has made the payments therein mentioned.—§ 175.

Master to make Reports of Character.—Upon every discharge effected before a shipping master the master shall make and sign, in a form sanctioned by the B. of Trade, a report of the conduct, character, and qualifications of the persons discharged, or may state in a column to be left for that purpose in the said form that he declines to give any opinion upon such particulars, or upon any of them; and the shipping master shall transmit the same to the Registrar General of Seamen, or to such other person as the B. of Trade directs, to be recorded, and shall, if desired so to do by any seaman, give to him or indorse on his certificate of discharge a copy of so much of such report as concerns him; and every person who makes, assists in making, or procures to be made any false certificate or report of the service, qualifications, conduct, or character of any seaman, knowing the same to be false, or who forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any such certificate or report, or who fraudulently makes use of any certificate or report, or of any copy of any certificate or report, which is forged or altered or does not belong to him, shall for each such offence be deemed guilty of a misdemeanor.—§ 176.

Remittance of Wages and Savings Banks for Seamen.

Facilities may be given for remitting Seamen's Wages.—Facilities shall, if the B. of Trade so directs, be given for remitting the wages and other monies of seamen and apprentices to their relatives or other persons by means of money orders issued by shipping masters; and the B. of Trade may make regulations concerning such orders, and the persons by or to whom, and the mode and time in and at which the same are to be paid, and may from time to time repeal or alter any such regulations; and all such regulations, so long as they are in force, shall be binding upon all persons interested or claiming to be interested in such orders, as well as upon the officers employed in issuing or paying the same; and no legal proceeding shall be instituted against the B. of Trade, or against any shipping master or other public officer employed about such orders, on account of any such regulations, or on account of any act done or left undone in pursuance thereof, or on account of any refusal, neglect, or omission to pay any such money order, unless such refusal, neglect, or omission arise from fraud or wilful misbehaviour on the part of the person against whom proceedings are instituted.—§ 177.

Power to pay when Order is lost.—The B. of Trade may, in any case in which it thinks fit so to do, cause the amount of any such money order as aforesaid to be paid to the person to whom or in whose favour the same may have been granted, or to his personal representatives, legatees, or next of kin, notwithstanding that such order may not be in his or their possession; and in all such cases from and after such payment the B. of Trade and every shipping master or other officer of the B. of Trade shall be freed from all liability in respect of such order.—§ 178.

Penalty for issuing Money.—Every shipping master or other public officer who grants or issues any money order with a fraudulent intent shall in England or Ireland be deemed guilty of felony, and in Scotland of a high crime and offence, and shall be liable to be kept in penal servitude for a term not exceeding 4 years.—§ 179.

Savings Banks for Seamen may be established.—The Commissioners for the Reduction of the National Debt, or the Comptroller General acting under them, may on the application and recommendation of the B. of Trade, establish savings banks at such ports and places within the U. K., either in the shipping offices established in such ports or elsewhere, as may appear to be expedient, and may appoint treasurers to receive from or on account of seamen, or the wives and families of seamen, desirous to become depositors in such savings banks, deposits to an amount not exceeding 150*l* in the whole in respect of any one account, under such regulations as may be prescribed by the said commissioners or Comptroller General; and such regulations shall be binding on all such treasurers and depositors; and the said commissioners may remove such treasurers, and appoint others in their place; and all the provisions of the acts now in force relating to savings banks, except so far as relates to the annual amount of deposit, shall apply to all savings banks which may be established under the authority of this act, and to such treasurers and depositors as aforesaid.—§ 180.

Legal Right to Wages.

Right to Wages and Provisions, when to begin.—A seaman's right to wages and provisions shall be

taken to commence either at the time at which he commences work or at the time specified in the agreement for his commencement of work or presence on board, whichever first happens.—§ 181.

Seamen not to give up certain Rights.—No seaman shall by any agreement forfeit his lien upon the ship, or be deprived of any remedy for the recovery of his wages to which he would otherwise have been entitled; and every stipulation in any agreement inconsistent with any provision of this act, and every stipulation by which any seaman consents to abandon his right to wages in the case of the loss of the ship, or to abandon any right which he may have or obtain in the nature of salvage, shall be wholly inoperative.—§ 182.

Wages not to be dependent on the earning of Freight.—No right to wages shall be dependent on the earning of freight; and every seaman and apprentice who would be entitled to demand and recover any wages if the ship in which he has served had earned freight, shall, subject to all other rules of law and conditions applicable to the case, be entitled to claim and recover the same, notwithstanding that freight has not been earned; but in all cases of wreck or loss of the ship, proof that he has not exerted himself to the utmost to save the ship, cargo, and stores shall bar his claim.—§ 183.

In case of Death, Wages to be paid.—If any seaman or apprentice to whom wages are due under the last preceding enactment dies before the same are paid, they shall be paid and applied in the manner after specified with regard to the wages of seamen who die during a voyage.—§ 184.

Rights to Wages in case of Termination of Service by Wreck or Illness.—In cases where the service of any seaman terminates before the period contemplated in the agreement by reason of the wreck or loss of the ship, and also in cases where such service terminates before such period as aforesaid by reason of his being left on shore at any place abroad under a certificate of his unfitness or inability to proceed on the voyage granted as after mentioned, such seaman shall be entitled to wages for the time of service prior to such termination as aforesaid, but not for any further period.—§ 185.

Wages not to accrue during Refusal to work or Imprisonment.—No seaman or apprentice shall be entitled to wages for any period during which he unlawfully refuses or neglects to work when required, whether before or after the time fixed by the agreement for his beginning work, nor unless the court hearing the case otherwise directs, for any period during which he is lawfully imprisoned for any offence committed by him.—§ 186.

Period within which Wages are to be paid.—The master or owner of every ship shall pay to every seaman his wages within the respective periods following; (that is to say,) in the case of a home trade ship within 2 days after the termination of the agreement or at the time when such seaman is discharged, whichever first happens; and in the case of all other ships (except ships employed in the southern whale fishery or on other voyages for which seamen by the terms of their agreement are wholly compensated by shares in the profits of the adventure) within 3 days after the cargo has been delivered, or within 5 days after the seaman's discharge, whichever first happens; and in all cases the seaman shall at the time of his discharge be entitled to be paid on account a sum equal to ½th part of the balance due to him; and every master or owner who neglects or refuses to make payment in manner aforesaid, without sufficient cause, shall pay to the seaman a sum not exceeding the amount of 2 days' pay for each of the days, not exceeding 10 days, during which payment is delayed beyond the respective periods aforesaid, and such sum shall be recoverable as wages.—§ 187.

Mode of recovering Wages.

Seamen may sue for Wages in a summary Manner.—Any seaman or apprentice, or any person duly authorised on his behalf, may sue in a summary manner before any two justices of the peace acting in or near to the place at which the service has terminated, or at which the seaman or apprentice has been discharged, or at which any person upon whom the claim is made is or resides, or in Scotland either before any such justices or before the sheriff of the county within which any such place is situated, for any amount of wages due to such seaman or apprentice not exceeding 50*l.* over and above the costs of any proceeding for the recovery thereof, so soon as the same becomes payable; and every order made by such justices or sheriff in the matter shall be final.—§ 188.

Restrictions on Suits for Wages in Superior Courts.—No suit or proceeding for the recovery of wages under the sum of 50*l.* shall be instituted by or on behalf of any seaman or apprentice in any Court of Admiralty or Vice-Admiralty, or in the Court of Session in Scotland, or in any Superior Court of Record in H. M.'s dominions, unless the owner of the ship is adjudged bankrupt or declared insolvent, or unless the ship is under arrest or is sold by the authority of any such court as aforesaid, or unless any justices acting under the authority of this act refer the case to be adjudged by such court, or unless neither the owner nor master is or resides within 20 miles of the place where the seaman or apprentice is discharged or put a shore.—§ 189.

No Seaman to sue for Wages abroad, except in Cases of Discharge or of Danger to Life.—No seaman who is engaged for a voyage or engagement which is to terminate in the U. K. shall be entitled to sue in any court abroad for wages, unless he is discharged with such sanction as herein required and with the written consent of the master, or proves such ill-usage on the part of the master or by his authority as to warrant reasonable apprehension of danger to the life of such seaman if he were to remain on board; but if any seaman on his return to the U. K. proves that the master or owner has been guilty of any conduct or default which but for this enactment would have entitled the seaman to sue for wages before the termination of the voyage or engagement, he shall be entitled to recover in addition to his wages such compensation not exceeding 20*l.* as the court hearing the case thinks reasonable.—§ 190.

Master to have same Remedies for Wages as Seamen.—Every master of a ship shall, so far as the case permits, have the same rights, liens, and remedies for the recovery of his wages which by this act or by any law or custom any seaman, not being a master, has for the recovery of his wages; and if in any proceeding in any Court of Admiralty or Vice-Admiralty touching the claim of a master to wages any right of set-off or counter-claim is set up, it shall be lawful for such court to enter into and adjudicate upon all questions and to settle all accounts then arising or outstanding and unsettled between the parties to the proceeding, and to direct payment of any balance which is found to be due.—§ 191.

Relief to Seamen's Families out of Poor Rates.

Relief to Seamen's Families to be chargeable on Proportion of their Wages.—Whenever during the absence of any seaman on a voyage his wife, children, and step-children, or any of them, become or becomes chargeable to any union or parish in the U. K., such union or parish shall be entitled to be reimbursed out of the wages of such seaman earned during such voyage any sums properly expended during his absence in the maintenance of his said relations, or any of them, so that such sums do not exceed the following proportions of his said wages:

(1.) If only one of such relations is chargeable, ½ of such wages.

(2.) If two or more of such relations are chargeable ⅔rds of such wages:

But if during the absence of the seaman any sums have been paid by the owner to or on behalf of any such relation as aforesaid, under an allotment note given by the seaman in his, her, or their favour, any such claim for reimbursement as aforesaid shall be limited to the excess (if any) of the proportion of the wages herein-before mentioned over the sums so paid.—§ 192.

Clause 193 directs the mode to be pursued by the guardians of the poor, &c., to obtain reimbursement of advances to relations of seamen.

WAGES AND EFFECTS OF DECEASED SEAMEN.

Masters to take charge of or sell Effects of deceased Seamen which are on board.—Whenever any seaman or apprentice belonging to or sent home in any British ship, whether a foreign-going ship or a home trade ship, employed on a voyage which is to terminate in the U. K., dies during such voyage, the master shall take charge of all money, clothes, and effects which he leaves on board, and shall, if he think fit, cause all or any of the said clothes and effects to be sold by auction at the mast or other public auction, and shall thereupon sign an entry in the official log book containing the following particulars, viz.:

(1.) A statement of the amount of the money and a description of the effects so left by the deceased:
(2.) In case of a sale, a description of each article sold, and the sum received for each:
(3.) A statement of the sum due to the deceased as wages and the total amount of the deductions (if any) to be made therefrom:

And shall cause such entry to be attested by a mate and by one of the crew.—§ 194.

Such Effects and Wages to be paid either to Consul or to Shipping Master, with full Accounts.—In the cases provided for by the last preceding section, the following rules shall be observed; (that is to say,)

(1.) If the ship proceeds at once to any port in the U. K., without touching on the way at any foreign port, the master shall within 48 hours after his arrival deliver any such effects as aforesaid remaining unsold, and pay any money which he has taken charge of or received from such sale as aforesaid, and also the balance of wages due to the deceased, to the shipping master at the port of destination in the U. K.
(2.) If the ship touches and remains for 48 hours at some foreign port or at some port in H. Majesty's dominions abroad before coming to any port in the U. K., the master shall report the case to the British consular officer or officer of customs there, as the case may be, and shall give to such officer any information he requires as to the destination of the ship and probable length of the voyage; and such officer may thereupon, if he considers it expedient so to do, require the said effects, money, and wages to be delivered and paid to him, and shall upon such delivery and payment give to the master a receipt, and the master shall within 48 hours after his arrival at his port of destination in the U. K. produce the same to the shipping master there; and such consular officer or officer of customs shall in such case indorse and certify upon the agreement with the crew such particulars with respect to such delivery and payment as the B. of Trade requires:
(3.) If such officer as aforesaid does not require such payment and delivery to be made to him, the master shall take charge of the said effects, money, and wages, and shall within 48 hours after his arrival at his port of destination in the U. K. deliver and pay the same to the shipping master there:
(4.) The master shall in all cases in which any seaman or apprentice dies during the progress of a voyage or engagement give to the B. of Trade, or to such officer or shipping master as aforesaid, an account in such form as they respectively require of the effects, money and wages so to be delivered and paid; and no deductions claimed in such account shall be allowed unless verified, if there is any official log book, by such entry therein as herein-before required, and also by such other vouchers (if any) as may be reasonably required by the B. of Trade, or by the officer or shipping master to whom the account is rendered:
(5.) Upon due compliance with such of the provisions of this section as relate to acts to be done at the port of destination in the U. K., the shipping master shall grant to the master a certificate to that effect, and no officer of customs shall clear inwards any foreign-going ship without the production of such certificate.—§ 195.

Penalties for not taking charge of, remitting, or accounting for such Monies and Effects.—If any master fail to take such charge of the money or other effects of a seaman or apprentice dying during a voyage, or to make such entries in respect thereof, or to procure such attestation to such entries, or to make such payment or delivery of any money, wages, or effects of any seaman or apprentice dying during a voyage, or to give such account in respect thereof as herein-before respectively directed, he shall be accountable for the money, wages, and effects of the seaman or apprentice to the B. of Trade, and shall pay and deliver the same accordingly; and such master shall in addition for every such offence incur a penalty not exceeding treble the value of the money or effects not accounted for, or if such value is not ascertained, not exceeding 50*l.*; and if any such money, wages, or effects are not duly paid, delivered, or accounted for by the master, the owner of the ship shall pay, deliver, and account for the same, and such money and wages and the value of such effects shall be recoverable from him accordingly; and if he fail to account for and pay the same, he shall, in addition to his liability for the said money and value, incur the same penalty which is herein-before mentioned as incurred by the master for the like offence; and all money, wages, and effects of any seaman or apprentice dying during a voyage shall be recoverable in the same courts, and by the same modes of proceeding by which seamen are hereby enabled to recover wages due to them.—§ 196.

Officers of Customs and Consuls to take charge of Effects left by Seamen abroad.—If any such seaman or apprentice as last aforesaid die abroad, at any place either in or out of H. Majesty's dominions, leaving any money or effects not on board his ship, the chief officer of customs or the British consular officer at or nearest to the place, as the case may be, shall claim and take charge of such money and effects; and such officer shall, if he think fit, sell all or any of such effects, or any effects of any deceased seaman or apprentice delivered to him under the provisions before contained; and every such officer shall, quarterly, or at such other times as the B. of Trade directs, remit to H. M.'s Paymaster General all monies belonging to or arising from the sale of the effects of, or paid as the wages of, any deceased seamen or apprentices, which have come to his hands under the provisions herein-before contained, and shall render such accounts in respect thereof as the B. of Trade requires.—§ 197.

Wages and Effects of Seamen dying at home to be paid in certain Cases to Board of Trade.—Whenever any seaman or apprentice dies in the U. K., and is at the time of his death entitled to claim from the master or owner of any ship in which he has served any unpaid wages or effects, such master or owner shall pay and deliver or account for the same to the shipping master at the port where the seaman or apprentice was discharged or was to have been discharged, or to the B. of Trade, or as it directs.—§ 198.

If less than 50l. Wages and Property of deceased Seamen may be paid over without Probate or Administration to Persons entitled.—If the money and effects of any deceased seaman or apprentice paid, delivered, or remitted to the B. of Trade or its agents, including the monies received for any part of the said effects which have been sold either before delivery to the B. of Trade or by its direction, do not exceed in value the sum of 50*l.*, then, subject to the provisions after contained, and to all such deductions for expenses incurred in respect of the seaman or apprentice or of his said money and effects as the said board thinks proper to allow, the said board may, if it think fit, pay and deliver the said money and effects either to any claimants who can prove themselves to the satisfaction of the said board either to be his widow or children, or to be entitled to the effects of the deceased under his will (if any) or under the statutes for the distribution of the effects of intestates, or under any other statute, or at common law, or to be entitled to procure probate or take out letters of administration or confirmation, although no probate or letters of administration or confirmation have been taken out, and shall be thereby discharged from all further liability in respect of the money and effects so paid and delivered, or may, if it thinks fit, require probate or letters of administration or confirmation to be taken out, and thereupon pay and deliver the said money and effects to the legal personal representatives of the deceased; and all claimants to whom such money or effects are so paid or delivered shall apply the same in due course of administration, and if such money and effects exceed in value the sum of 50*l.*, then, subject to the provisions herein-after contained and to deduction for expenses, the B. of Trade shall pay and deliver the same to the legal personal representatives of the deceased.—§ 199.

Mode of Payment under Wills made by Seamen.—In cases where the deceased seaman or apprentice has left a will, the B. of Trade shall have the following powers; viz.:—

(1.) It may in its discretion refuse to pay or deliver any such wages or effects as aforesaid to any person claiming to be entitled thereto under a will made on board ship unless such will is in writing, and is signed or acknowledged by the testator in the presence of the master or first or only mate of the ship, and is attested by such master or mate.
(2.) It may in its discretion refuse to pay or deliver any such wages or effects as aforesaid to any person not being related to the testator by blood or marriage who claims to be entitled thereto under a will made elsewhere than on board ship, unless such will is in writing, and is signed or acknowledged by the testator in the presence of two witnesses, one of whom is

some shipping master appointed under this act, or some minister or officiating minister or curate of the place in which the same is made, or, in a place where there are no such persons, some justice of the peace, or some British consular officer, or some officer of customs, and is attested by such witnesses.

Whenever any claim made under a will is rejected by the B. of Trade on account of the said will not being made and attested as herein-before required, the wages and effects of the deceased shall be dealt with as if no will had been made.—§ 200.

Clause 201 directs the procedure to be followed in dealing with the claims of the creditors of deceased seamen.

Clause 202 lays down the mode of dealing with unclaimed wages of deceased seamen.

Punishment for Forgery and false Representations to obtain Wages and Property of deceased Seamen.—Every person who, for the purpose of obtaining, either for himself or for another, any money or effects of any deceased seaman or apprentice, forges, assists in forging, or procures to be forged, or fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any document purporting to show or assist in showing a right to such wages or effects, and every person who for the purpose aforesaid makes use of any such forged or altered document as aforesaid, or who for the purpose aforesaid gives or makes or procures to be given or made, or assists in giving or making or procuring to be given or made, any false evidence or representation, knowing the same to be false, shall be punishable with penal servitude for a term not exceeding 4 years, or with imprisonment with or without hard labour for any period not exceeding 2 years, or if summarily prosecuted and convicted, by imprisonment, with or without hard labour, for any period not exceeding 6 months.—§ 203.

Clause 204 enacts that the effects of seamen discharged from navy are to be disposed of by Accountant General of Navy.

*5. Leaving Seamen abroad.**—The desertion of their ships by seamen, when abroad, is an offence which, as we have seen, has been much and justly complained of. But the seamen may themselves be deserted; that is, they may be left when on shore with leave or for some necessary purpose, or they may be forced on shore by the master, and then left by him. These being offences of a very grave character, there can be no doubt that they should be visited with some suitable punishment. It is, also, highly expedient that such seamen as have the misfortune to be shipwrecked or left abroad, should be conveyed back to their mother country by the first opportunity. And hence all maritime codes concur in imposing penalties on masters, when abroad, forcing seamen ashore, or leaving them, without just cause; and they, also, make provision for the return home of such shipwrecked or deserted seamen. The following clauses of the Merchant Shipping Act have these objects in view:—

On Discharge of Seamen abroad, by Sale of Ship or otherwise, Seamen to be sent home at Expense of Owner.—Whenever any British ship is transferred or disposed of at any place out of H. M.'s dominions, and any seaman or apprentice belonging thereto does not in the presence of some British consular officer, or, if there is no such consular officer there, in the presence of one or more respectable British merchants residing at the place, and not interested in the said ship, signify his consent in writing to complete the voyage if continued, and whenever the service of any seaman or apprentice belonging to any British ship terminates at any place out of H. M.'s dominions, the master shall give to each such seaman or apprentice a certificate of discharge in the form sanctioned by the B. of Trade, and in the case of any certificated mate whose certificate he has retained shall return such certificate to him, and shall also, besides paying the wages to which such seaman or apprentice is entitled, either provide him with adequate employment on board some other British ship bound to the port in H. M.'s dominions at which he was originally shipped, or to such other port in the U. K. as is agreed upon by him, or furnish the means of sending him back to such port, or provide him with a passage home, or deposit with such consular officer or such merchant or merchants as aforesaid such a sum of money as is by such officer or merchants deemed sufficient to defray the expenses of his subsistence and passage home; and such consular officer or merchants shall indorse upon the agreement of the ship which the seaman or apprentice is leaving the particulars of such payment, provision, or deposit; and if the master refuses or neglects to comply with the requirements of this section, such expenses as last aforesaid, if defrayed by such consular officer or by any other person, shall, unless such seaman or apprentice has been guilty of barratry, be a charge upon the ship to which such seaman or apprentice belonged and upon the owner for the time being thereof, and may be recovered against such owners, with costs, at the suit of the consular officer or other person defraying such expenses, or, in case the same has been allowed to the consular officer out of the public monies, as a debt due to H. Majesty either by ordinary process of law, or in the manner in which seamen are hereby enabled to recover wages; and such expenses, if defrayed by the seaman or apprentice, shall be recoverable as wages due to him.—§ 205.

Forcing Seamen on Shore a Misdemeanor.—If the master or any other person belonging to any British ship wrongfully forces on shore and leaves behind, or otherwise wilfully and wrongfully leaves behind, in any place, on shore or at sea, in or out of H. M.'s dominions, any seaman or apprentice belonging to such ship before the completion of the voyage for which such person was engaged or the return of the ship to the U. K., he shall for each such offence be deemed guilty of a misdemeanor.—§ 206.

No Seamen to be discharged or left abroad without Certificate of some Functionary.—If the master of any British ship does any of the following things, viz.:

(1.) Discharges any seaman or apprentice in any place situate in any British possession abroad (except the possession in which he was shipped), without previously obtaining the sanction in writing indorsed on the agreement of some public shipping master or other officer duly appointed by the local government in that behalf, or (in the absence of any such functionary) of the chief officer of customs resident at or near the place where the discharge takes place.

(2.) Discharges any seaman or apprentice at any place out of H. M.'s dominions without previously obtaining the sanction so indorsed as aforesaid of the British consular officer there, or (in his absence) of two respectable merchants resident there.

(3.) Leaves behind any seaman or apprentice at any place situate in any British possession abroad on any ground whatever, without previously obtaining a certificate in writing so indorsed as aforesaid from such officer or person as aforesaid, stating the fact and the cause thereof, whether such cause be unfitness or inability to proceed to sea, or desertion or disappearance.

(4.) Leaves behind any seaman or apprentice at any place out of H. M.'s dominions, on shore or at sea, on any ground whatever, without previously obtaining the certificate indorsed in manner and to the effect last aforesaid of the British consular officer there, or (in his absence) of two respectable merchants, if there is any such at or near the place where the ship then is.

he shall for each such default be deemed guilty of a misdemeanor; and the said functionaries shall and the said merchants may examine into the grounds of such proposed discharge or into the allegation of such unfitness, inability, desertion, or disappearance as aforesaid, in a summary way, and may for that purpose, if they think fit, administer oaths, and may either grant or refuse such sanction or certificate as appears to them to be just.—§ 207.

* See art. MASTER.

Proof of such Certificate to be upon the Master.—Upon the trial of any information, indictment, or other proceeding against any person for discharging or leaving behind any seaman or apprentice, contrary to the provisions of this act, it shall be upon such person either to produce the sanction or certificate hereby required, or to prove that he had obtained the same previously to having discharged or left behind such seaman or apprentice, or that it was impracticable for him to obtain such sanction or certificate.—§ 208.

Wages to be paid when Seamen are left behind on Ground of Inability.—Every master of any British ship who leaves any seaman or apprentice on shore at any place abroad in or out of H. M.'s dominions, under a certificate of his unfitness or inability to proceed on the voyage, shall deliver to one of the functionaries aforesaid or (in the absence of such functionaries) to the merchants by whom such certificate is signed, or, if there be but one respectable merchant resident at such place, to him, a full and true account of the wages due to such seaman or apprentice, such account when delivered to a consular officer to be in duplicate, and shall pay the same either in money or by a bill drawn upon the owner; and in the case of every bill so drawn, such functionary, merchants or merchant as aforesaid, shall by indorsement certify thereon that the same is drawn for money due on account of a seaman's wages, and shall also indorse the amount for which such bill is drawn with such further particulars in respect of the case as the B. of Trade requires, upon the agreement of the ship; and every such master as aforesaid who refuses or neglects to deliver a full account of such wages, and pay the amount thereof in money or by bill, as herein-before required, shall for every such offence or default be liable, in addition to the payment of the wages, to a penalty not exceeding 10*l.*; and every such master who delivers a false account of such wages shall for every such offence, in addition to the payment of the wages, incur a penalty not exceeding 20*l.*—§ 209.

Clause 210 directs that such wages are to be treated as money due to the seamen, subject to payment of expense of their subsistence and passage home.

Distressed Seamen found Abroad may be relieved and sent Home at the Public Expense.—The governors, consular officers, and other officers of H. M. in foreign countries shall, and in places where there are no such governors or officers any two resident British merchants may provide for the subsistence of all seamen or apprentices, being subjects of H. M., who have been shipwrecked, discharged, or left behind at any place abroad, whether from any ship employed in the merchant service or from any of H. M.'s ships, or who have been engaged by any person acting either as principal or agent to serve in any ship belonging to any foreign power or to the subject of any foreign state, and who are in distress in any place abroad, until such time as they are able to provide them with a passage home, and for that purpose shall cause such seamen or apprentices to be put on board some ship belonging to any subject of H. M. bound to any port of the U. K., or to the British possession to which they belong, (as the case requires,) which is in want of men to make up its complement, and in default of any such ship shall provide them with a passage home as soon as possible in some ship belonging to a subject of H. M. bound as aforesaid, and shall indorse on the agreement of any ship on board of which any seaman or apprentice is so taken or sent the name of every person so sent on board thereof, with such particulars concerning the case as the B. of Trade requires, and shall be allowed for the subsistence of any such seaman or apprentice such sum *per diem* as the B. of Trade from time to time appoints; and the amount due in respect of such allowance shall be paid out of any monies applicable to the relief of distressed British seamen, and granted by parliament for the purpose, on the production of the bill of the disbursements, with the proper vouchers.—§ 211.

Masters of British Ships compelled to take them.—The master of every British ship so bound as aforesaid shall receive and afford a passage and subsistence to all seamen or apprentices whom he is required to take on board his ship under the provisions before contained, not exceeding one for every 50 tons burden, and shall during the passage provide every such seaman or apprentice with a proper berth or sleeping-place effectually protected against sea and weather; and on the production of a certificate signed by any governor, consular officer, or merchants by whose directions any such seaman or apprentice was received on board, specifying the number and names of such seamen or apprentices, and the time when each of them respectively was received on board, and on a declaration made by such person before a justice, and verified by the registrar-general of seamen, stating the number of days during which each seaman or apprentice received subsistence and was provided for as aforesaid on board his ship, and stating also the number of men and boys forming the complement of his crew, and the number of seamen and apprentices employed on board his ship during such time, and every variation (if any) of such number, such person shall be entitled to be paid out of the said monies applicable to the relief of distressed British seamen, in respect of the subsistence and passage of every seaman or apprentice so conveyed, subsisted, and provided for by him exceeding the number (if any) wanted to make up the complement of his crew, such sum *per diem* as the B. of Trade from time to time appoints; and if any person having charge of any such ship fails or refuses to receive on board his ship, or to give a passage home, or subsistence to, or to provide for any such seaman or apprentice as aforesaid, contrary to the provisions of this act, he shall incur a penalty not exceeding £100 for each seaman or apprentice with respect to whom he makes such default or refusal.—§ 212.

VOLUNTEERING INTO THE NAVY.

Seamen allowed to leave their Ships to enter the Navy.—Any seaman may leave his ship for the purpose of forthwith entering into the naval service of H. Majesty, and such leaving his ship shall not be deemed a desertion therefrom, and shall not render him liable to any punishment or forfeiture whatever; and all stipulations introduced into any agreement whereby any seaman is declared to incur any forfeiture or be exposed to any loss in case he enters into H. M. Naval Service shall be void, and every master or owner who causes any such stipulation to be so introduced shall incur a penalty not exceeding 20*l.*—§ 214.

Clause 215 directs that the clothes of seamen entering the navy, are to be delivered at once; and that wages are to be given to the Queen's officer on account of the seamen.

Clauses 217, 218, 219 and 220. relate to the proceedings to be taken by owners who claim extra expenses for having substitutes to replace the seamen who have entered the navy.

6. *Provisions, Health, and Accommodation on Board.*—These important objects are now provided for as follows; viz.

Survey of Provisions and Water on Complaint made.—Any three or more of the crew of any British ship may complain to any officer in command of any of H. M.'s ships, or any British consular officer, or any shipping master, or any chief officer of customs, that the provisions or water for the use of the crew are at any time of bad quality, unfit for use, or deficient in quantity; and such officer may thereupon examine the said provisions or water, or cause them to be examined; and if on examination such provisions or water are found to be of bad quality and unfit for use, or to be deficient in quantity, the person making such examination shall signify the same in writing to the master of the ship; and if such master does not thereupon provide other proper provisions or water in lieu of any so signified to be of a bad quality and unfit for use, or does not procure the requisite quantity of any so signified to be insufficient in quantity, or uses any provisions or water which have been so signified as aforesaid to be of a bad quality and unfit for use, he shall in every such case incur a penalty not exceeding 20*l.*; and upon every such examination as aforesaid the officers making or directing the same shall enter a statement of the result of the examination in the official log, and shall send a report thereof to the B. of Trade, and such report, if produced out of the custody of such Board or its officers, shall be received in evidence in any legal proceeding.—§ 221.

Forfeiture for frivolous Complaint. — If the officer to whom any such complaint as last aforesaid is made certifies in such statement as aforesaid that there was no reasonable ground for such complaint, each of the parties so complaining shall be liable to forfeit to the owner out of his wages a sum not exceeding one week's wages.—§ 222.

Allowance for short or bad Provisions. — In the following cases, viz.

(1.) If during a voyage the allowance of any of the provisions which any seaman has by his agreement stipulated for is reduced (except in accordance with any regulations for reduction by way of punishment contained in the agreement, and also except for any time during which such seaman wilfully and without sufficient cause refuses or neglects to perform his duty, or is lawfully under confinement for misconduct, either on board or on shore).

(2.) If it is shown that any of such provisions are or have during the voyage been bad in quality and unfit for use.

The seaman shall receive by way of compensation for such reduction or bad quality, according to the time of its continuance, the following sums, to be paid to him in addition to and to be recoverable as wages; (that is to say,)

(1.) If his allowance is reduced by any quantity not exceeding ⅓ of the quantity specified in the agreement, a sum not exceeding 4*d.* a day.

(2.) If his allowance is reduced by more than ⅓ of such quantity, 8*d.* a day.

(3.) In respect of such bad quality as aforesaid, a sum not exceeding 1*s.* a day.

But if it is shown to the satisfaction of the court before which the case is tried that any provisions the allowance of which has been reduced could not be procured or supplied in proper quantities, and that proper and equivalent substitutes were supplied in lieu thereof, the court shall take such circumstances into consideration, and shall modify or refuse compensation as the justice of the case may require.—§ 223.

Medicines, Lime, or Lemon Juice, Sugar and Vinegar, to be provided and kept on board certain Ships. —The following rules shall be observed with respect to medicines, medical stores, and anti-scorbutics; (that is to say,)

(1.) The B. of Trade shall from time to time issue and cause to be published a scale of medicines and medical stores suitable to accidents and diseases arising on sea voyages. (See Table below.)

(2.) The owner of every ship navigating between the U. K. and any place out of the same shall provide and cause to be constantly kept on board such ship a supply of such medicines and medical stores in accordance with the said scale.

(3.) The master or owner of every foreign-going ship (except those bound to European ports, or to ports in the Mediterranean Sea, and also except such ships or classes of ships bound to ports on the eastern coast of America, north of the 35th deg. of N. Lat., and to any islands or places in the Atlantic Ocean N. of the same limit, as the B. of Trade may from time to time exempt from this enactment), shall also provide and cause to be kept on board such ship a sufficient quantity of lime or lemon juice, or of such articles as the B. of Trade sanctions as substitutes for lime or lemon juice, and also of sugar and vinegar.

(4.) The master of every such ship as last aforesaid shall serve out the lime or lemon juice or other such articles as aforesaid, and sugar and vinegar to the crew, whenever they

Scale of Medicines and Medical Stores, issued by the Board of Trade under the 7 & 8 Vict. c. 112. and 13 & 14 Vict. c. 93.

	Quantities required, varying according to the Number of Persons on board, viz. for Vessels carrying		
	15 Men, and under.	Above 15, but under 40.	Above 40.
Castor oil	1 lb.	2 lb.	3 lb.
Epsom salts	4	8	12
Calomel	½ oz.	1 oz.	2 oz.
Powder of jalap	1	2	3
of rhubarb	1	2	3
Senna leaves	1	2	3
Cream of tartar	6 oz.	9	6
Sulphur	8	12	6
Alum	1	2	3
Powdered ginger	1	2	4
Sulphate of quinine	½	1	2
for vessels trading to the east or west coasts of Africa, to the coast of China and Borneo	3	4	4
Balsam of Copaiba	6	12	16
Calcined magnesia	4	6	12
Liquid ammonia	4	8	12
Olive oil	8	12	16
Spirit of turpentine	8	12	16
Laudanum	2	4	6
Bicarbonate of soda	8	16	24
Tartaric acid	6	12	16
Citric acid	4	6	8
Nitrate of silver	½	½	1
Opium pills, each to contain of opium 1 gr., Castile soap 4 grs.	2 doz.	3 doz.	3 doz.
Emetic powders, each to contain ipecacuanha 1 scruple, emetic tartar 2 grs.	2	3	3

	Quantities required, varying according to the Number of Persons on board, viz. for Vessels carrying		
	15 Men, and under.	Above 15, but under 40.	Above 40.
Purging pills, each to contain of the compound extract of colocynth 4 grs., calomel 1 gr.	4 doz.	6 doz.	8 doz.
Purging powders, each to contain of calomel 2 grs., compound powder of jalap 1 dr.	3	3	4
Compound chalk powder	2 oz.	3 oz.	4 oz.
Dover's powder	1	2	3
Essence of peppermint (each ounce to contain 1 drachm of the oil)	1	2	3
Simple ointment	8	16	24
Mercurial ointment	4	8	12
Basilicon ointment	4	8	12
Blistering plaister	4	8	12
Concentrated chloride of zinc (Burnett's solution) (Double the above quantities of chloride of zinc to be taken in steamers.)	14 pts.	28 pts.	56 pts.
Arrowroot in tin cases	2 lb.	4 lb.	6 lb.
Pearl barley do.	4	8	12
Rice do.	4	8	12
Mustard do.	1	2	3

In addition to the above, the following Medicines are to be supplied to Vessels carrying a Surgeon, and having upwards of 40 Persons on board.

Nitric ether			2 oz.	Hydriodate of potass			2 oz.
Acetate of lead			2	Ergot of rye			2
Croton oil			2 drs.	Tincture of digitalis			1
Camphor			1 oz.	Powder of ipecacuanha			1
Tartar emetic			1 dr.	Sulphate of zinc			1

Articles to accompany the Medicines.

Set of scales and weights	1 No.	1 No.	1 No.	Adhesive plaister	1 yd.	2 yds.	3 yds.
Graduated drop measure	1	1	1	Lint	½ lb.	1 lb.	1 lb.
Wineglass, graduated	1	1	1	Sponge	1 oz.	2 oz.	2 oz.
Pair of scissors	1	1	1	Cotton wool	2 lb.	3 lb.	4 lb.
Syringes	2	2	2	Set of common splints	1	1	1
Lancets	2	2	2	Charges of vaccine lymph	2	2	2
Bandages of different sizes	12	12	12	Trusses (single) 36 inches in girth	1	1	1
Yards of calico	6	6	6	(double), ditto	1	1	1
flannel	6	6	6	Enema syringe, with printed directions for its use	1	1	1
Papers of needles, pins, and threads	2	2	2	Elastic catheter, No. 8.	1	1	1
Tourniquet	1	1	1				
Oiled silk	1 yd.	1 yd.	1 yd.				

have consumed salt provisions for 10 days, and so long afterwards as such consumption continues, the lime or lemon juice and sugar daily at the rate of ½ oz. each per day, and the vinegar weekly at the rate of ½ pint per week, to each member of the crew.

And if in any such ship as aforesaid such medicines, medical stores, lime or lemon juice or other articles, sugar and vinegar, as are herein-before required, are not provided and kept on board as hereinbefore required the master or owner shall incur a penalty not exceeding 20*l.*; and if the master of any such ship as aforesaid neglects to serve out the lime or lemon juice or other articles, sugar or vinegar, in the case and manner herein-before directed, he shall for each such offence incur a penalty not exceeding 5*l.*; and if any master is convicted in either of the last-mentioned penalties, and it appears that the offence is owing to the act or default of the owner, such master may recover the amount of such penalty and the costs incurred by him from the owner.—§ 224.

Masters to keep Weights and Measures on board.—Every master shall keep on board proper weights and measures for the purpose of determining the quantities of the several provisions and articles served out, and shall allow the same to be used at the time of serving out such provisions and articles in the presence of a witness whenever any dispute arises about such quantities, and in default shall for every offence incur a penalty not exceeding 10*l.*—§ 225.

Board of Trade and Local Boards may appoint Inspectors of Medicines.—Any local marine board may upon being required by the B. of Trade, appoint and remove a medical inspector of ships for the port, and may fix his remuneration, such remuneration to be subject to the control of the B. of Trade; and at ports where there are no Local Marine Boards the B. of Trade may appoint and remove such inspectors, and fix their remuneration; and it shall be the duty of such inspectors to inspect the medicines, medical stores, lime or lemon juice, or other articles, sugar and vinegar, required to be kept on board any such ships as aforesaid; and such inspection, if made at places where there are local marine Boards, shall be made under the direction, and also in any special cases under the direction of the B. of Trade, and if made at places where there are no Local Marine Boards, shall be made under the direction of the B. of Trade; and such medical inspectors shall for the purposes of such inspection have the same powers as the inspectors appointed by the B. of Trade under the first part of this act; but every such inspector, if required by timely notice in writing from the master, owner, or consignee, shall make his inspection three days at least before the ship proceeds to sea, and if the result of the inspection is satisfactory shall not again make inspection before the commencement of the voyage, unless he has reason to suspect that some of the articles inspected have been subsequently removed, injured, or destroyed; and whenever any such medical inspector is of opinion that in any ship hereby required to carry such articles as aforesaid the same or any of them are deficient in quantity or quality, or are placed in improper vessels, he shall signify the same in writing to the chief officer of customs of the port where such ship is lying, and also to the master, owner, or consignee thereof, and thereupon the master of such ship, before proceeding to sea, shall produce to such chief officer of customs a certificate under the hand of such medical inspector or of some other medical inspector, to the effect that such deficiency has been supplied or remedied, or that such improper vessels have been replaced by proper vessels, as the case may require; and such chief officer of customs shall not grant a clearance for such ship without the production of such certificate, and if such ship attempts to go to sea without a clearance, may detain her until such certificate is produced; and if such ship proceeds to sea without the production of such certificate, the owner, master, or consignee thereof shall incur a penalty not exceeding 20*l.*—§ 226.

Penalty for selling bad Drugs for Ships.—Any person who sells or supplies any medicines, medical stores, lime or lemon juice, of bad quality, for the use of any ship, shall for each such offence incur a penalty not exceeding 20*l.*—§ 227.

Expense of medical attendance, &c., how to be defrayed.—The following rules shall be observed with respect to expenses attendant on illness and death; viz.:—

(1.) If the master or any seaman or apprentice receives any hurt or injury in the service of the ship to which he belongs, the expense of providing the necessary surgical and medical advice, with attendance and medicines, and of his subsistence until he is cured, or dies, or is brought back to some port in the U. K., if shipped in the U. K., or if shipped in some British possession to some port in such possession, and of his conveyance to such port, and the expense (if any) of his burial shall be defrayed by the owner of such ship, without any deduction on that account from the wages of such master, seaman, or apprentice.

(2.) If the master or any seaman or apprentice is on account of any illness temporarily removed from his ship for the purpose of preventing infection, or otherwise for the convenience of the ship, and subsequently returns to his duty, the expense of such removal, and of providing the necessary advice with attendance and medicines and of his subsistence whilst away from the ship, shall be defrayed in like manner.

(3.) The expense of all medicines and surgical or medical advice and attendance given to any master, seaman, or apprentice whilst on board his ship shall be defrayed in like manner.

(4.) In all other cases any reasonable expenses duly incurred by the owner for any seaman in respect of illness, and also any reasonable expenses duly incurred by the owner in respect of the burial of any seaman or apprentice who dies whilst on service, shall, if duly proved, be deducted from the wages of such seaman or apprentice.—§ 228.

Expenses, if paid by Consul, to be recoverable from Owner.—If any such expenses in respect of the illness, injury, or hurt of any seaman or apprentice, as are to be borne by the owner, are paid by any consular officer or other person on behalf of H. Majesty, or if any other expenses in respect of the illness, injury, or hurt of any seaman or apprentice whose wages are not accounted for to such officer under the provisions before contained are so paid, such expenses shall be repaid to such officer or other person by the master of the ship, and if not so repaid, the amount thereof, with costs, shall be a charge upon the ship, and be recoverable from the said master or from the owner of the ship for the time being as a debt due to H. Majesty, and shall be recoverable either by ordinary process of law or in the manner in which seamen are hereby enabled to recover wages; and in any proceeding for the recovery thereof the production of a certificate of the facts, signed by such officer or other person, together with such vouchers (if any) as the case requires, shall be sufficient proof that the said expenses were duly paid by such consular officer or other person as aforesaid.—§ 229.

Certain Ships to carry medical Practitioners.—Every foreign-going ship having 100 persons or upwards on board shall carry on board as part of her complement some person duly authorised by law to practise as physician, surgeon, or apothecary; and in default the owner shall for every voyage of any such ship made without such medical practitioner incur a penalty not exceeding 100*l.*: provided that nothing herein contained shall in anywise affect any provision contained in the "Passengers Act, 1852," concerning the carriage of medical practitioners by the class of ships therein named passenger ships, nor shall any such passenger ship, if not thereby required to carry a medical practitioner, be hereby required to do so.—§ 230.

Place appropriated to Seamen to have a certain Space for each Man, &c.—The following rules shall be observed with respect to accommodation on board; viz.:—

(1.) Every place in any ship occupied by seamen or apprentices, and appropriated to their use, shall have for every such seaman or apprentice; if they sleep in hammocks, a space of not less than 9 superficial feet, and if they do not sleep in hammocks, a space of not less than 12 superficial feet, measured on the deck or floor of such place.

(2.) Every such place shall either be 6 feet in height from deck to deck, or shall have for every seaman and apprentice, if they sleep in hammocks, a space of not less than 54 cubic feet, and if they do not sleep in hammocks, a space of not less than 72 cubic feet.

(3.) Every such place shall be kept free from stores or goods of any kind, not being the personal property of the crew in use during the voyage.

(4.) Every such place shall be properly caulked, and in all other respects securely and properly constructed and well ventilated

And if any such place in any ship is not in the whole sufficiently large to give such space for each seaman and apprentice as hereinbefore required, or is not properly caulked and in all other respects securely and properly constructed and well ventilated, the owner shall for every such failure to comply with the provisions of this section incur a penalty not exceeding 20*l.*; and if any such space as aforesaid is not kept free from goods and stores as aforesaid, the master shall for every such failure to comply with the provision of this section incur a penalty not exceeding 10*l.*—§ 231.

POWER OF MAKING COMPLAINT.

Seamen to be allowed to go ashore to make Complaint to a Justice.—If any seaman or apprentice whilst on board any ship states to the master that he desires to make complaint to a justice of the peace, or consular officer, or naval officer in command of any of H. M.'s ships, against the master or any of the crew, the said master shall, if the ship is then at a place where there is a justice or any such officer as aforesaid, so soon as the service of the ship will permit, and if the ship is not then at such a place, so soon after her first arrival at such a place as the service of the ship will permit, allow such seaman or apprentice to go ashore or send him ashore in proper custody so that he may be enabled to make such complaint, and shall, in default, incur a penalty not exceeding 10*l.*—§ 232.

PROTECTION OF SEAMEN FROM IMPOSITION.

Sale of and Charge upon Wages to be invalid.—No wages due or accruing to any seaman or apprentice shall be subject to attachment or arrestment from any court; and every payment of wages to a seaman or apprentice shall be valid in law, notwithstanding any previous sale or assignment of such wages, or of any attachment, incumbrance, or arrestment thereon; and no assignment or sale of such wages or of salvage made prior to the accruing thereof shall bind the party making the same; and no power of attorney or authority for the receipt of any such wages or salvage shall be irrevocable.—§ 233.

No Debt exceeding 5s. recoverable till End of Voyage.—No debt exceeding in amount five shillings, incurred by any seaman after he has engaged to serve, shall be recoverable until the service agreed for is concluded.—§ 234.

Penalty for Overcharges by Lodging-house Keepers.—If any person demands or receives from any seaman or apprentice to the sea service payment in respect of his board or lodging in the house of such person for a longer period than such seaman or apprentice has actually resided or boarded therein, he shall incur a penalty not exceeding 10*l.*—§ 235.

Penalty for detaining Seamen's Effects.—If any person receives or takes into his possession or under his control any monies, documents, or effects of any seaman or apprentice to the sea service, and does not return the same or pay the value thereof, when required by such seaman or apprentice, subject to such deduction as may be justly due to him from such seaman or apprentice in respect of board or lodging or otherwise, or absconds therewith, he shall incur a penalty not exceeding 10*l.*, and any two justices may, besides inflicting such penalty, by summary order direct the amount of value of such monies, documents, or effects, subject to such deduction as aforesaid, to be forthwith paid to such seaman or apprentice.—§ 236.

Persons not to go on board before the final Arrival of Ships without Permission.—Every person who, not being in H. M.'s service, and not being duly authorised by law for the purpose, goes on board any ship about to arrive at the place of her destination, before her actual arrival in dock or at the place of her discharge, without the permission of the master, shall for every such offence incur a penalty not exceeding 20*l.*; and the master or person in charge of such ship may take any such person so going on board as aforesaid into custody, and deliver him up forthwith to any constable or peace officer, to be by him taken before a justice or justices or the sheriff of the county in Scotland, and to be dealt with according to the provisions of this act.—§ 237.

Penalty for Solicitations by Lodging-House Keepers.—If, within 24 hours after the arrival of any ship at any port in the U. K., any person then being on board such ship solicits any seaman to become a lodger at the house of any person letting lodgings for hire, or takes out of such ship any effects of any seaman, except under his personal direction and with the permission of the master, he shall for every such offence incur a penalty not exceeding 5*l.*—§ 238.

For the next four clauses, see art. MASTER.

7. *Crimes Committed on the High Seas and Abroad.*—Clause 267. directs that all offences committed by seamen at sea or in foreign ports shall be within Admiralty jurisdiction.

Conveyance of Offenders and Witnesses to U. K., &c.—The following rules shall be observed with respect to offences committed on the high seas or abroad, viz.—

(1.) Whenever any complaint is made to any British consular officer of any offence on the high seas having been committed by any master, seaman, or apprentice belonging to any British ship, such consular officer may inquire into the case upon oath, and may if the case so requires, take any steps in his power for the purpose of placing the offender under necessary restraint, and of sending him as soon as practicable in safe custody to the U. K., or to any British possession in which there is a court capable of taking cognizance of the offence, in any ship belonging to H. M., or to any of her subjects, to be there proceeded against according to law:

(2.) For the purpose aforesaid such consular officer may order the master of any ship belonging to any subject of H. M., bound to the U. K., or to such British possession as aforesaid, to receive and afford a passage and subsistence during the voyage to any such offender as aforesaid, and to the witnesses, so that such master be not required to receive more than one offender for every one hundred tons of his ship's registered tonnage, or more than one witness for every 50 tons of such tonnage; and such consular officer shall indorse upon the agreement of the ship such particulars with respect to any offenders or witnesses sent in her as the B. of Trade requires.

(3.) Every such master shall on his ship's arrival in the U. K., or in such British possession as aforesaid, give every offender so committed to his charge into the custody of some police officer or constable, who shall take the offender before a justice of the peace or other magistrate by law empowered to deal with the matter, and such justice or magistrate shall deal with the matter as in cases of offences committed upon the high seas.

And any such master as aforesaid who, when required by any British consular officer to receive and afford a passage and subsistence to any offender or witness, does not receive him and afford such passage and subsistence to him, or who does not deliver any offender committed to his charge into the custody of some police officer or constable as herein-before directed, shall for each such offence incur a penalty not exceeding 50*l.*; and the expense of imprisoning any such offender and of conveying him and the witnesses to the U. K. or to such British possession as aforesaid in any manner other than in the ship to which they respectively belong, shall be part of the costs of the prosecution, or be paid as costs incurred on account of seafaring subjects of Her Majesty left in distress in foreign parts.—§ 268.

Inquiry into Cause of Death on board.—Whenever any case of death happens on board any foreign-going ship, the shipping master shall on the arrival of such ship at the port where the crew is discharged inquire into the cause of such death, and shall make on the list of the crew delivered to him as herein required an indorsement to the effect either that the statement of the cause of death therein contained is in his opinion true or otherwise, as the result of the inquiry requires; and every such shipping master shall for the purpose of such inquiry have the powers hereby given to inspectors appointed by the B. of Trade under the first part of this act; and if in the course of such inquiry it appears to him that any such death as aforesaid has been caused by violence or other improper means, he shall either report the matter to the B. of Trade, or, if the emergency of the case so requires, shall take immediate steps for bringing the offender or offenders to justice.—§ 269.

Depositions to be received in Evidence when Witness cannot be produced.—Whenever in the course of any legal proceedings instituted in any part of H. M.'s dominions before any judge or magistrate, or before any person authorised by law or by consent of parties to receive evidence, the testimony of any witness is required in relation to the subject matter of such proceeding, then upon due proof, if such proceeding is instituted in the U. K., that such witness cannot be found in that kingdom, or if in any British possession, that he cannot be found in the same possession, any deposition that such witness may have previously made on oath in relation to the same subject matter before any justice or magistrate in H. M.'s dominions, or any British consular officer elsewhere, shall be admissible in evidence subject to the following restrictions, viz.:

(1.) If such deposition was made in the U.K., it shall not be admissible in any proceeding instituted in the U.K.
(2.) If such a deposition was made in any British possession, it shall not be admissible in any proceeding instituted in the same British possession.
(3.) If the proceeding is criminal, it shall not be admissible unless it was made in the presence of the person accused.

Every deposition so made as aforesaid shall be authenticated by the signature of the judge, magistrate, or consular officer, before whom the same is made; and such judge, magistrate, or consular officer shall, when the same is taken in a criminal matter, certify, if the fact is so, and that the accused was present at the taking thereof, but it shall not be necessary in any case to prove the signature or official character of the person appearing to have signed any such deposition; and in any criminal proceeding such certificate as aforesaid shall, unless the contrary is proved, be sufficient evidence of the accused having been present in manner thereby certified; but nothing herein contained shall affect any case in which depositions taken in any proceeding are rendered admissible in evidence by any act of parliament, or by any act or ordinance of the legislature of any colony, so far as regards such colony, or to interfere with the power of any colonial legislature to make such depositions admissible in evidence, or to interfere with the practice of any court in which depositions not authenticated as herein-before mentioned are admissible.—§ 270.

8. *Registration of and Returns respecting Seamen.** — *Establishment of Register Office.*—There shall be in the port of London an office, to be called the "General Register and Record Office of Seamen," and the B. of Trade shall have control over the same, and may appoint and from time to time remove a registrar general, and such assistants, clerks, and servants as may be necessary, and may from time to time, with the consent of the Treasury, regulate their salaries and allowances; and such salaries and allowances, and all other necessary expenses, shall be paid by the Treasury out of any monies to be granted by Parliament for that purpose; and the B. of Trade may direct the business of the register office at any of the outports to be transacted at the shipping office, or, with the consent of the commissioners of customs, at the custom-house of the port, and may appoint the shipping master, or, with such consent as aforesaid, some officer of customs, to conduct the same; and such business shall thereupon be conducted accordingly, but shall in all cases be subject to the immediate control of the B. of Trade.—§ 271.

Register of Seamen to be kept. — The said registrar-general of seamen shall by means of the agreements, lists, and other papers to be transmitted to him as herein directed, or by such other means as are in his power, keep a register of all persons who serve in ships subject to the provisions of this act.—§ 272.

Lists to be made for all Ships, containing certain Particulars. — Every master of every foreign-going ship of which the crew is discharged in the U. K., in whatever part of H. M.'s dominions the same is registered, and of every home trade ship, shall make out and sign a list in a form sanctioned by the B. of Trade, containing the following particulars, viz.

(1.) The number and date of the ship's register and her registered tonnage.
(2.) The length and general nature of the voyage or employment.
(3.) The christian names, surnames, ages, and places of birth of all the crew, including the master and apprentices; their qualities on board, their last ships or other employments, and the dates and places of their joining the ship.
(4.) The names of any members of the crew who have died or otherwise ceased to belong to the ship, with the times, places, causes, and circumstances thereof.
(5.) The names of any members of the crew who have been maimed or hurt, with the times, places, causes, and circumstances thereof.
(6.) The wages due to any of the crew who have died, at the times of their respective deaths.
(7.) The clothes and other effects belonging to any of the crew who have died, with a statement of the manner in which they have been dealt with, and the money for which any of them have been sold.
(8.) The name, age, and sex of every person, not being one of the crew, who dies on board, with the date and the cause thereof.
(9.) Every birth which happens on board, with the date thereof, with the sex of the infant, and the names of the parents.
(10.) Every marriage which takes place on board, with the date thereof, and the names and ages of the parties.

Lists for foreign-going Ships to be delivered to Shipping Master. — In the case of foreign-going ships, the master shall, within 48 hours after the ship's arrival at her final port of destination in the U. K., or upon the discharge of the crew, whichever first happens, deliver to the shipping master before whom the crew is discharged such list as is herein required, and if he fail so to do shall for every default incur a penalty not exceeding 5*l.*; and such shipping master shall thereupon give to the master a certificate of such delivery; and no officer of customs shall clear inwards any foreign-going ship without the production of such certificate, and any such officer may detain any such ship until the same is produced.—§ 274.

Lists to be delivered by home trade Ships half-yearly. — The master or owner of every home trade ship shall, within 21 days after the 30th of June and the 31st of December in every year, transmit or deliver to some shipping master in the U. K. such list as herein-before required for the preceding half year, and shall in default incur a penalty not exceeding 5*l.*; and such shipping master shall give to the master or owner a certificate of such transmission or delivery; and no officer of customs shall grant a clearance or transire for any home trade ship without the production of such certificate, and any such officer may detain any such ship until the same is produced.—§ 275.

Lists to be sent Home in case of Transfer of Ship and in case of Loss.—If any ship cease by reason of transfer of ownership or change of employment to fall within the definition of a foreign-going or of a home trade ship, the master or owner thereof shall, if such ship is then in the U. K., within 1 month, and if she is elsewhere, within 6 months, deliver or transmit to the shipping master at the port to which the ship has belonged such list as before mentioned, duly made out to the time at which she ceased to be a foreign-going or home trade ship, and in default shall for each offence incur a penalty not exceeding 10*l.*; and if any ship is lost or abandoned, the master or owner thereof shall, if practicable, and as soon as possible, deliver or transmit to the shipping master at the port to which the ship belonged such list as herein-before mentioned duly made out to the time of such loss or abandonment, and in default shall for each offence incur a penalty not exceeding 10*l.*—§ 276.

Shipping Masters and other Officers to transmit Documents to Registrar.—All shipping masters and officers of customs shall take charge of all documents which are delivered or transmitted to or retained by them in pursuance of this act, and shall keep them for such time (if any) as may be necessary for the purpose of settling any business arising at the place where such documents come into their hands, or for any other proper purpose, and shall, if required, produce them for any of such purposes, and shall then transmit them to the registrar general of seamen, to be by him recorded and preserved; and the said registrar shall, on payment of a moderate fee to be fixed by the B. of Trade, or without payment of any fee if the B. of Trade so direct, allow any person to inspect the same; and in cases in which the production of the original of any such document in any court of justice or elsewhere is essential, shall produce the same, and in other cases shall make and deliver to any person requiring it a certified copy of any such document or of any part thereof; and every copy purporting to be so made and certified shall be received in evidence, and shall have all the effect of the original of which it purports to be a copy.—§ 277.

Officers of Customs to make Returns.—The collector or comptroller of customs at every port in the U. K. shall on or before the 1st of February and the 1st of August in every year transmit to the registrar general of seamen a list of all ships registered in such port, and also of all ships whose registers have been transferred or cancelled in such port since the last preceding return.—§ 278.

Agreements, Indentures, and Assignments, on Arrival at a foreign Port to be deposited with the Consul, at a Colony with the Officers of Customs.—The following rules shall be observed with respect to the delivery of documents to British consular officers; (that is to say,)

* See art. Log (Official).

(1.) Whenever any ship, in whatever part of H. M.'s dominions the same is registered, (except ships whose business for the time being is to carry passengers,) arrives at any foreign port where there is a British consular officer, or at any port in any British possession abroad, and remains thereat for 48 hours, the master shall, within 48 hours of the ship's arrival, deliver to such consular officer, or to the chief officer of customs, (as the case may be,) the agreement with the crew, and also all indentures and assignments of apprenticeships, or, in the case of a ship belonging to a British possession, such of the said documents as such ship is provided with.

(2.) Such officer shall keep such documents during the ship's stay in such port, and, in cases where any indorsements upon the agreement are hereby required, shall duly make the same, and shall return the said documents to the master a reasonable time before his departure, with a certificate indorsed on the agreement, stating when the same were respectively delivered and returned.

(3.) If it appears that the required forms have been neglected, or that the existing laws have been transgressed, such officer shall make an indorsement to that effect on the agreement, and forthwith transmit a copy of such indorsement, with the fullest information he can collect regarding such neglect or transgression, to the registrar-general of seamen.

And if any master fails to deliver any such document as aforesaid he shall for every such default incur a penalty not exceeding 20*l.*; and in any prosecution for such penalty it shall lie upon the master either to produce the certificate of the consular officer or officer of customs herein-before required, or to prove that he duly obtained the same, or that it was impracticable for him so to do.—§ 279.

9. *Regulations in regard to taking Apprentices on Board Ship.*—We have already noticed, under the article APPRENTICE, the important fact that it is no longer necessary that any ship, whether she be above or below 80 tons burden, should take on board any apprentice or apprentices. But though no longer compulsory, they may be, and continue to be, taken. The following clauses of the Merchant Shipping Act relate to the binding of such apprentices, more especially of those which are apprenticed by guardians or overseers of the poor.

Shipping Masters to assist in binding Apprentices. — All shipping masters appointed under this act, shall, if applied to for the purpose, give to any board of guardians, overseers, or other persons desirous of apprenticing boys to the sea service, and to masters and owners of ships requiring apprentices, such assistance as is in their power for facilitating the making of such apprenticeships, and may receive from persons availing themselves of such assistance such fees as may be determined by the B. of Trade, with the concurrence, so far as relates to pauper apprentices in England, of the poor law board in England, and so far as relates to pauper apprentices in Ireland, of the poor law commissioners in Ireland.—§ 141.

Indenture of Apprentices to Sea Service by Guardians, &c., to be witnessed by 2 Justices.— In the case of every boy bound apprentice to the sea service by any guardians or overseers of the poor, or other persons having the authority of guardians of the poor, the indentures shall be executed by the boy and the person to whom he is bound in the presence of and shall be attested by 2 justices of the peace, who shall ascertain that the boy has consented to be bound, and has attained the age of 12 years, and is of sufficient health and strength, and that the master to whom the boy is to be bound is a proper person for the purpose.—§ 142.

Indentures of Apprenticeship to be exempt from Stamp Duty.— All indentures of apprenticeship to the sea service shall be exempt from stamp duty; and all such indentures shall be in duplicate; and every person to whom any boy whatever is bound as an apprentice to the sea service in the U. K. shall within 7 days after the execution of the indentures take or transmit the same to the registrar general of seamen or to some shipping master; and the said registrar or shipping master shall retain and record one copy, and shall indorse on the other that the same has been recorded, and shall re-deliver the same to the master of the apprentice; and whenever any such indenture is assigned or cancelled, and whenever any such apprentice dies or deserts, the master of the apprentice shall, within 7 days after such assignment, cancellation, death or desertion, if the same happens within the U. K., or if the same happens elsewhere, so soon afterwards as circumstances permit, notify the same either to the said registrar of seamen, or to some shipping master, to be recorded; and every person who fails to comply with the provisions of this section shall incur a penalty not exceeding 10*l.*—§ 143.

Rules to govern Apprenticeship of Paupers in Britain and Ireland.—Subject to the provisions before contained, all apprenticeships to the sea service made by any guardians or overseers of the poor, or persons having the authority of guardians of the poor, shall, if made in G. Britain, be made in the same manner and be subject to the same laws and regulations as other apprenticeships made by the same persons, and if made in Ireland shall be subject to the following rules; viz.

(1.) In every union the guardians of the poor, or other persons duly appointed to carry into execution the acts for the relief of the destitute poor and having the authority of guardians of the poor, may put out and bind as an apprentice to the sea service any boy who or whose parent or parents is or are receiving relief in such union, and who has attained the age of 12 years, and is of sufficient health and strength, and who consents to be so bound:

(2.) If the cost of relieving any such boy is chargeable to an electoral division of a union, then (except in cases in which paid officers act in place of guardians) he shall not be bound unless the consent in writing of the guardians of such electoral division or of a majority of the guardians (if more than one) be first obtained, such consent to be, when possible, indorsed upon the indentures:

(3.) The expense incurred in the binding and outfit of an apprentice shall be charged to the union or electoral division (as the case may be) to which the boy or his parent or parents is or are chargeable at the time of his being apprenticed:

(4.) All indentures made in any union may be sued upon by the guardians of the union or persons having the authority of guardians therein for the time being, by their name of office, and actions brought by them upon such indentures shall not abate by reason of death or change in the persons holding the office; but no such action shall be commenced without the consent of the Irish poor law commissioners:

(5.) The amount of the costs incurred in any such action and not recovered from the defendant therein, may be charged upon the union or electoral division (as the case may be) to which the boy or his parent or parents was or were chargeable at the time of his being apprenticed.—§ 144.

Apprentices and their Indentures to be brought before Shipping Master before Voyage.—The master of every foreign-going ship shall, before carrying any apprentice to sea from any place in the U. K., cause such apprentice to appear before the shipping master before whom the crew is engaged, and shall produce to him the indenture by which such apprentice is bound and the assignment or assignments thereof (if any); and the name of such apprentice, with the date of the indenture and of the assignment or assignments thereof (if any), and the name of the port or ports at which the same have been registered, shall be entered on the agreement; and for any default in obeying the provisions of this section the master shall for each offence incur a penalty not exceeding 5*l.*—§ 145.

SEAMEN (CORPORATION FOR RELIEF OF). During the reign of George II. an establishment attached to Greenwich Hospital was erected by the 20 Geo. 2. c. 38, "*for the relief and support of disabled seamen, and the widows and children of such as shall be killed, slain, or drowned in the merchant service.*" To provide a fund for this charitable institution, every person serving in any merchant ship, or other private ship or vessel, belonging to any of his Majesty's subjects in England, (except apprentices under the age of 18, persons employed in boats upon the coasts in taking fish which are brought fresh on shore, or in boats within rivers, or upon boats on the coasts, and pilots (except persons employed in the service of the East India Company, and who were not entitled to the benefit of this institution, being provided for by a fund established by

the Company),) paid sixpence per month, which was deducted out of his wages by the master, and paid over to the persons appointed under the authority of the act at the port to which the ship belonged, before she was allowed to clear inwards. For the management and distribution of this fund, a corporation was created, composed chiefly of eminent merchants, with power to purchase lands and erect an hospital, and to provide for seamen rendered incapable of service by sickness, wounds, or other accidental misfortunes, and decrepit and worn out by age, either by receiving them into the hospital, or by pensions: and also to relieve the widows and children of seamen killed or drowned in the merchant service, provided the children are not of the age of 14 years; or if of that age and upwards are incapable of getting a livelihood by reason of lameness, blindness, or other infirmity, and are proper objects of charity; and to make reasonable allowances to those who shall lose an eye or a limb, or be otherwise hurt or maimed in fighting, defending, or working their ships, or doing any other dutyin their service, in proportion to their hurt; so far forth as the income and revenues of the charity will extend for these purposes. But no person is to be provided for as a worn-out seaman, who has not been employed in the merchant service five years and paid the contribution. And in providing for this class, a preference is given to such as have served longest and contributed most.

In order to ascertain the times of service and payment of the contribution, the master was obliged to keep a muster-roll of the persons employed in the ship, and had before her departure to deliver a duplicate to the collector or receiver of duties for the seamen's hospital at the port; and, during the voyage, to enter the time and place of discharge, quitting, and desertion, and of receiving other persons on board, and of any hurt, damage, death, or drowning; of which he had also to deliver a duplicate at his return, under the penalty of 20*l.*, to the truth whereof he might be examined upon oath by the collector. And in case any person employed on board any ship or vessel should, in doing his duty on shore or on board, break an arm or a leg, or be otherwise hurt or maimed, he was to be properly relieved until sufficiently recovered to be sent to the place to which the ship belonged.

But, notwithstanding the praiseworthy principle on which this establishment was founded, it was not found to be productive of the benefits, in a practical point of view, that had been anticipated. Perhaps this was to be in part explained by the circumstance of its being attached to Greenwich Hospital, which is peculiarly intended as a retreat for the worn-out and disabled seamen belonging to the Royal Navy. But, however this may be, it appears from accounts laid before parliament, that in 1829, when the merchant seamen paid an annual contribution of 26,137*l.* to the hospital, there was not one of them within its walls, except such as had also served on board line-of-battle ships! The system was, in consequence, much complained of by the seamen and others interested in the merchant service; and it is obvious that these complaints were not unfounded, and that the seamen reaped no advantage from the institution at all equivolent to the sacrifice they made for its support.

To obviate this state of things, a new system was introduced in 1835, when it was ordered, by the act 4 & 5 Will. 4. c. 34., that the contribution of 6*d.* per month by seamen in the merchant service to Greenwich Hospital should cease from the 1st January, 1835; and that 20,000*l.* a year should be advanced from the consolidated fund to the Hospital to make good the deficiency caused by the cessation of such contribution.

New Establishment for Support of Merchant Seamen, &c.—And to provide still more effectually for the relief and support of maimed and disabled merchant seamen, and of the widows, &c. of those killed or drowned in the merchant service, the act 4 & 5 Will. 4. c. 52. was passed. This act repealed the 20 Geo. 2. c. 38., except in so far as it related to the establishment of the corporation of the president and governors for the relief of maimed, &c. merchant seamen, and of the widows and children of seamen killed or drowned in the merchant service; and it also repealed as much of the act 37 Geo. 3. c. 73. as related to the wages of seamen dying while employed in ships trading to the West Indies. And having thus cleared the way it proceeded to introduce a new system, which was further extended and perfected by the 6 & 7 Will. 4. c. 15., and the 7 & 8 Vict. c. 112. Under this system, all masters of British ships, whether owners or not, and all British seamen employed in navigating the same, were obliged to contribute certain sums out of their wages, to the support of the Merchant Seamen's Fund. In the case of seamen this contribution, which, in the first instance, was only 6*d.* a month, was subsequently raised to 2*s.* per do. And in addition to these contributions, the wages and other effects of deceased seamen were, in the event of their not being claimed by their relations, paid over to the fund.

In a former edition of this work we stated,

" The contribution to this fund amounted, in 1842, in London and the ports immediately under the management of the president and governors of the society, to 16,936*l.* (of which, however, 2013*l.* were

interest of capital); and a large additional sum was also collected at the out-ports It may, therefore, be concluded, that, provided these sums be economically and discreetly managed, they will afford the means of suitably providing for the wants of a large number of disabled merchant seamen, as well as for the wives and children of those who have lost their lives in the service, and will consequently render it less hazardous and more respectable. But in this country, and, we presume, in most others, charitable institutions are usually quite as advantageous to others, as to those for whose behoof they are said to be established; and the institution for the relief of merchant seamen does not appear to form any exception to the ordinary rule. Speaking generally, the seamen are very much dissatisfied with the conduct of the establishment; and really this is not much to be wondered at. The expenses of collecting seem to be quite enormous, amounting to from 8 to 10, and sometimes even 15 per cent. and upwards, of the sums received! Probably, however, the reader may be disposed to think that there is no very good reason why this heavy expense, amounting to several thousand pounds a-year, should be incurred; and why the collectors and other customs officers should not be made to collect and remit the seamen's contributions in the same way that they collect and remit any portion of the public revenue. But if it be necessary to make an allowance to the officers in question for such duty, it would be better that it should be made by adding to the salaries paid them by government, than that they should be allowed to eke them out by encroaching deeply on a pittance saved from the hard-earned wages of sailors as a resource against old age and infirmity."

The abuses in question were not, however, rectified; and in consequence partly of their operation, and partly of too large a proportion of the available funds of the society having been distributed among the widows and children of the seamen, the system became very unpopular among the latter. And government being aware of the reasonableness of this feeling, an act was passed in 1851, the 14 & 15 Vict. c. 102., which provides for the winding-up of the fund, and its collection and distribution in the meantime.

Another institution for the benefit of merchant seamen is the *Seamen's Hospital Society*, established in 1821, and incorporated by the 3 & 4 Will. 4. c. 9. It is supported by voluntary contributions, and by a payment from the Treasury equal to the sums annually paid into the exchequer on account of fines or penalties inflicted under the Mercantile Shipping Act of 1854.

SEAWORTHY, a term applied to a ship, indicating that she is in every respect fit for her voyage.

It is provided in all charterparties, that the vessel chartered shall be "tight, staunch, and strong, well apparelled, furnished with an adequate number of men and mariners, tackle, provisions, &c." If the ship be insufficient in any of these particulars, the owners, though ignorant of the circumstance, will be liable for whatever damage may, in consequence, be done to the goods of the merchant; and if an insurance have been effected upon her, it will be void.

But whether the condition of seaworthiness be expressed in the charterparty or not, it is always implied. "In every contract," said Lord Ellenborough, "between a person holding himself forth as the owner of a lighter or vessel ready to carry goods for hire, and the person putting goods on board, or employing his vessel or lighter for that purpose, it is a term of the contract on the part of the lighterman or carrier *implied by law*, that his vessel is tight, and fit for the purpose for which he offers and holds it forth to the public; it is the immediate foundation and substratum of the contract that it is so: *the law presumes a promise to that effect on the part of the carrier, without any actual proof*; and every reason of sound policy and public convenience requires that it should be so."

Not only must the ship and furniture be sufficient for the voyage, but she must also be furnished with a sufficient number of persons of competent skill and ability to navigate her. And for sailing down rivers, out of harbours, or through roads, &c., where either by usage or the laws of the country a pilot is required, a pilot must be taken on board. But no owner or master of a ship shall be answerable for any loss or damage by reason of no pilot being on board, unless it shall be proved that the want of a pilot shall have arisen from any refusal to take a pilot on board; or from the negligence of the master in not heaving to, for the purpose of taking on board any pilot who shall be ready and offer to take charge of the ship.—(48 Geo. 3. c. 164.)

A ship is not seaworthy unless she be provided with all the documents or papers necessary for the manifestation of the ship and cargo. Neither is she seaworthy, if, during war, she be not supplied with the sails required to facilitate her escape from an enemy.

"It is not sufficient to defeat the liability of the owner, that he did not know that the ship was *not* seaworthy, for he ought to have known that she was so at the time he chartered her. The sufficiency of the ship is the foundation of the contract between the parties, and a ship not capable of conveying the goods in a proper state is a failure of the condition precedent to the whole contract. The seaworthiness of the ship is not a question of fraud or good intention, but it is a positive stipulation that the ship shall be so; and therefore, although the owner may himself have been deceived by the shipbuilder, repairer, &c., if the vessel be, in fact, un-seaworthy, have an insufficient bottom or unsound timbers, it is a breach of a preliminary condition, and is fatal, as such, to the contract."—(*Holt's Law of Shipping*, 2nd ed. p. 383.)

It is only necessary, to guarantee the owners from loss, that the ship should be sea-

worthy at the time of her departure. She may cease to be so in a few hours, and yet they may not be liable. The question to be decided in such cases always is, whether the ship's disability arose from any defect existing in her *before* her departure, or from a cause which occasioned it *afterwards*. But if a ship, within a day or two of her departure, become leaky or founder at sea, or be obliged to put back, without any visible or adequate cause to produce such an effect—such as the starting of a plank or other accident to which the best ships are liable, and which no human prudence can prevent—the fair presumption is that she was not seaworthy when she sailed; and it will be incumbent on the owners to show that she was seaworthy at that time. They are liable for damage occasioned by every injury arising from any *original defect* in the ship, or from bad stowage; but they are not liable for any injury arising from the act of God, the king's enemies, or the perils of the sea.

It is further to be observed, that how perfect soever a ship may be, yet if, from the nature of her construction, or any other cause, she be incapable of performing the proposed voyage, with the proposed cargo on board, she is not seaworthy. *She must be, in all respects, fit for the trade in which she is meant to be employed.* And it is a wholesome rule, that the owners should be held to a pretty strict proof of this.

It has been already observed, that any defect in point of seaworthiness invalidates an insurance upon a ship. There is not only an express but an implied warranty in every policy, that the ship shall be "tight, staunch, and strong, &c.;" and the reason of this is plain. The insurer undertakes to indemnify the insured against the *extraordinary and unforeseen perils of the sea;* and it would be absurd to suppose that any man would insure against those perils, but in confidence that the ship is in a condition to encounter the *ordinary perils* to which every ship must be exposed in the usual course of the proposed voyage.

By the old law of France it was directed that every merchant ship, before her departure from the place of her outfit, should be surveyed by certain sea officers appointed for that purpose, and reported to be seaworthy, "*en bon état de navigation*;" and that previous to her return, before she took her homeward cargo on board, she should be again surveyed. Valin has shown—(Tit. *Fret.* art. 12.), that very little confidence could be placed in these surveys, which, he tells us, were only made upon the external parts, for the ship was not unsheathed; and, therefore, her internal and hidden defects could not be disclosed. This practice seems now to be abandoned by the French; at least, there is no allusion to it in the *Code de Commerce*. It is, one should think, much better to leave the question as to the seaworthiness of the ship to be ascertained, as in England, after a loss has happened, by an investigation of the true cause of such loss, than to permit so important a question to be decided upon the report of officers without any motive to inquire carefully into her actual condition. A ship may, to all appearance, be perfectly capable of performing a voyage; and it is only after a loss has happened, that her latent defects can be discovered, and her true state at the time of her departure rendered manifest. Indeed, the survey made by the French was not deemed a conclusive proof that the ship was, at her departure, really seaworthy: it merely raised a *presumption* that such was the case; but it was still open to the freighter or the insurer to show the contrary.

For further information upon this point, the reader is referred to the able and excellent work of Chief Justice Abbot (Lord Tenterden) on the *Law of Shipping*, part. iii. c. 3.; *Holt on Shipping*, part. iii. c. 3.; and of Mr. Serjeant Marshall on *Insurance*, book i. c. 5. § 1.

SEEDS, in commerce, the grains of several species of gramina. Those of most importance are clover seed, flax or linseed, hemp seed, rape seed, tares, mustard seed, &c.; for which, see the respective articles. But it may be useful to subjoin the following

Account of the Imports and Exports of the Principal Seeds in 1852.

		Imports.	Exports.			Imports.	Exports.
Aniseed	cwt.	1,707 2 1	759 2 0	Onion	cwt.	1,201 2 7	10 3 0
Canary	,,	167 2 16	450 0 4	Poppy	qrs.	6,973 7	2,615 0
Clover	,,	124,628 2 21	1,222 0 26	Rape	,,	146,250 3	38,455 6
Cummin	,,	1,985 2 4	1,351 2 5	Sesamum	,,	211 6	185 0
Fenugreek	,,	280 1 21	107 1 16	Shrub or tree	cwt.	552 2 9	
Garden, unenumerated	lbs.	109,993	278	Tares	qrs.	15,758 5	21 0
Grass	cwt.	18,552 2 16	139 3 5	Trefoil	cwt.	20,120 1 11	122 1 0
Hempseed	qrs.	8,899 5	6 4	Not particularly described; commonly used for expressing oil therefrom	qrs	17,429 3	167 0
Lentils	bushels	232,130	131				
Linseed and flaxseed	grs.	799,401 7	34,780 6				
Millet	cwt.	51,045 2 18					
Mustard	,,	7,987 1 18	56 0 0				

SEGARS, OR CIGARS. See TOBACCO.

SENNA (Fr. *Séné*; Ger. *Sennablater*; It. *Senna*; Sp. *Sen*; *Lat Cassia Senna*; Arab. *Suna*). The plant (*Cassia Senna*) which yields the leaves known in commerce

and the *materia medica* by the name of senna, is an annual, a native of Upper Egypt, and Bernou in Central Africa. The senna, after being collected in Upper Egypt, is packed up in bales, and sent to Boullac, where it is mixed with other leaves, some of which are nearly equally good, while others are very inferior. After being mixed, it is repacked in bales at Alexandria, and sent to Europe. A great deal of senna is imported from Calcutta and Bombay, under the name of East India senna; but it is originally brought to them from Arabia.—(*Thomson's Dispensatory.*) Senna is very extensively used in medicine. In 1857, the imports and exports of senna amounted respectively to 219,191 and 222,584 lbs., a portion of the latter being derived from the surplus imports of previous years. A duty of 1*s.* 3*d.* per lb. on its being imported, after being reduced in 1832 to 6*d*, and in 1842 to 1*d.* per lb., was wholly repealed in 1845.

SHAGREEN (Ger. *Schagrin*; It. *Chagrin*; Rus. *Schagrim Schagren*), a kind of grained leather, used for various purposes in the arts. It is extensively manufactured at Astrakhan in Russia.—(See *Tooke's Russia*, vol. iii. p. 403.)

SHAMMY OR CHAMOIS LEATHER (Ger. *Sämischleder*; Fr. *Chamois*; It. *Camoscio*; Rus. *Smschanüi, Koshi*), a kind of leather dressed in oil, or tanned, and much esteemed for its softness, pliancy, and capability of bearing soap without hurt. The real shammy is prepared of the skin of the chamois goat. But leather prepared from the skins of the common goat, kid, and sheep, is frequently substituted in its stead.

SHANG-HAE OR HAI, a city and river port of China, prov. Kiang-su, on the Woosung river, 40 m. by water from the sea, and 169 m. E. S. E. Nankin; lat 31° 12′ N., long. 120° 53′ E. Pop. estimated at from 115,000 to 135,000. It stands in a level and well-cultivated plain, producing good crops of cotton, rice, and wheat. Immediately outside the wall by which it is enclosed are several populous suburbs. Streets narrow and filthy. Foundling hospitals, tea-gardens, and vast ice-houses, are the objects most worthy of notice in the city. It has a mint, with manufactures of silk, vegetable oils and oil-cake (of which vast quantities are annually sent into the interior), iron ware, glass, paper, ivory ware, &c.

This is the most northerly of the five Chinese ports which were opened to foreigners by the treaty of 1842, and it is also the most important. The river, which may be navigated by ships of 450 or 500 tons for a considerable distance above the town, crosses the Grand Canal, so that Shanghae is an *entrepôt* for all the vast and fertile countries traversed by the canal, and by the great rivers, inc. the Yang-tse-Kiang, and the Hoang-Ho, with which it is connected. Hence the present importance of the emporium, and hence, also, the indefinite extension to which its foreign trade may probably attain. Its inland and coasting trades are both very extensive. It is said to be annually visited by from 5,000 to 6,000 canal and river boats, some from very great distances, and by 1,500 or 1,600 coasting junks. The prov. of Kiang-su, in which Shanghae is situated, produces great quantities of silk; and besides supplying most part of the N. provs. of the empire, the shipments of silk to the foreigner are much greater from this than from any other port. It is, also, well situated for the trade in green and black teas; and in their export, as well as in that of silk, it has shot far ahead of Canton and the other emporiums. Among the other exports are oil and oil-cake, cotton, drugs, porcelain, copper, and copper-ware, nankeens, gold thread, alum, fans, hams, dried fish, &c. Of the imports opium is by far the greatest. In 1855 and 1856, 28,860 and 34,550 chests were imported. In the latter year the deliveries for consumption amounted to 33,700 chests, worth 4,176,550*l.*! The value of the cottons imported during 1856 amounted to 1,226,328*l.*, and that of the woollens to 239,482*l.* But despite these and other articles, the excess of the value of the exports was so very great, that immense quantities of silver were imported. The following tables, which show the progress of the British trade with China during the 10 years ending 1858, show, also, the great comparative importance of Shanghae.

The inhabs. of Shanghae are much more hospitable and better disposed towards foreigners than those of Canton; and strangers may travel for miles into the interior all round the city, with perfect security. Within the last 4 or 5 years, some very fine brick houses have been built by the British and other foreign merchants in the suburbs.

British Trade with China.

Imports, Values.

Years.	Canton.	Amoy.	Foochow.	Ningpo.	Shanghae.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1849	7,902,244	1,136,427	- -	23,940	4,411,933	13,474,544
1850	6,198,900	1,049,181	37,805	52,945	3,715,176	11,754,007
1851	10,094,261	1,598,513	- -	31,272	4,299,192	16,025,238
1852	9,974,022	1,800,069	- -	37,914	4,652,310	16,464,315
1853	4,058,253	533,226	- -	86,574	5,670,207	10,348,240
1854	3,548,444	664,107	139,584	225,817	1,179,756	5,457,708
1855	5,605,590	995,930	- -	251,618	3,497,895	8,529,033
1856	9,142,061	901,019	395,530	376,364	6,162,869	16,974,943
1857	- -	1,252,138	589,040	539,718	18,108,169	20,089,065
1858	6,799,752	4,010,481	1,519,584	722,557	19,017,019	72,099,226

Exports, Values.

Years.	Canton.	Amoy.	Foochow.	Ningpo.	Shanghae.	Total.
	Dollars.	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*	*Dollars.*
1849	11,485,935	209,065	- -	3,845	6,513,871	18,212,716
1850	9,918,811	220,169	12,380	- -	8,020,606	18,171,966
1851	13,210,312	261,040	- -	3,185	10,402,760	23,877,297
1852	6,596,272	250,050	- -	12,998	9,018,294	15,877,614
1853	6,531,989	250,213	119,330	3,926	16,518,212	23,503,670
1854	6,698,477	295,155	1,838,592	159,909	11,702,147	20,094,280
1855	2,956,920	802,440	- -	398,528	19,963,763	24,121,451
1856	8,217,259	859,491	3,256,152	2,025,272	25,805,632	40,161,789
1857	- -	1,379,071	5,529,768	1,455,293	33,550,263	41,894,395
1858	10,656,589	3,051,741	4,736,416	495,647	30,623,759	49,564,182

Pounds of Tea exported.

Years.	Canton.	Amoy.	Foochow.	Ningpo.	Shanghae.	Total.
1849	66,041,990	9,851	- -	- -	15,535,572	81,587,413
1850	31,169,466	245,333	101,733	- -	15,643,146	47,159,676
1851	49,632,650	65,334	155,185	- -	31,809,032	81,682,201
1852	52,784,448	114,666	- -	- -	42,960,933	95,860,047
1853	56,124,704	113,666	685,174	- -	36,907,546	93,836,090
1854	49,193,081	305,200	10,632,953	- -	28,229,200	88,360,414
1855	20,245,370	1,040,133	36,500,000	- -	51,152,646	108,936,149
1856	33,894,820	630,000	21,385,400	150,523	42,871,433	98,932,176
1857	- -	2,798,000	18,332,800	62,152	45,757,711	66,990,663
1858	28,627,556	32,000,666	22,363,500	33,333	45,465,702	128,490,557

Bales of Silk exported.

Years.	Canton.	Amoy.	Ningpo.	Shanghae.
1849	11,913	52	- -	7,222
1850	10,254	31	- -	201
1851	7,165	cases 3	- -	15,297
1852	71	2	- -	16,915
1853	4,566	3	- -	41,869
1854	35,916	- -	32	38,650
1855	30	- -	- -	54,817
1856	3,767	- -	- -	91,657
1857	-	pieces 460	2 bales and 655 pieces	73,997
1858	1,000	„ 94	271 pkgs. and 4 cases	72,731

Estimate of the Value of the British Trade in British and other Vessels at the Port of Shanghae, during each of the Years 7 under given.

Descriptions of Goods.		1850.	1851.	1852.	1853.	1854.	1855.	1856.
Imports.								
Manufactures of cotton	dollars	2,617,891	3,685,912	3,669,147	3,136,200	499,448	1,747,152	3,159,850
wool	„	500,555	421,608	589,280	443,122	89,878	275,490	672,850
Sugar	„	147,421	74,948	64,184	100,194	234,905	650,255	574,515
Miscellaneous	„	642,989	384,956	362,960	240,332	362,535	844,998	1,754,974
Total imports	„	3,908,156	4,564,424	4,685,571	3,939,848	1,179,756	3,497,895	6,162,369
Exports.								
Tea	„	2,426,711	5,593,958	4,523,460	5,243,123	4,446,096	7,939,763	2,749,777
Silk	„	5,529,267	5,963,764	6,926,200	8,071,765	7,205,129	11,395,500	22,287,389
Miscellaneous	„	64,628	40,444	34,540	30,006	50,922	628,500	766,466
Total exports	„	8,020,606	11,598,166	11,484,200	13,344,892	11,702,147	19,963,763	25,805,632
Excess of exports over imports	„	4,112,450	7,033,742	6,798,629	9,405,044	10,522,391	16,465,868	19,641,263

Synoptical Table of the Export Trade from Shanghae to Foreign Countries, during 1856, specifying the Descriptions and Quantities of the Commodities exported, and their estimated Value, and distinguishing the National Character of the Ships engaged.

Commodities.		Quantities, and in what Ships exported.			Aggregate Quantities exported.	Estimated Value in Shanghae Dols.
		181 British. 58,605 Tons.	84 American. 20,142 Tons.	95 Others. 22,409 Tons.		
Alum		5,452	- -	2,415	7,867	7,867
China Root		235	- -	268	493	1,962
Chinaware		18,137	4,000	10,000	32,137	32,137
Copper, Japan		4,710		185	4,895	78,320
Copperware		709	16	181	897	10,764
Cotton, raw		8,710	50	4,913	13,673	116,112
Medicines		3,445	318	2,172	5,935	47,480
Rhubarb		921	190	24	1,135	56,750
Oil-cake		282,866	- -	119,850	402,716	201,358
Sea-weed		1,676	472	520	2,668	8,004
Fans		511,500	12,000	408,200	931,700	55,000
Hams		1,246	169	886	2,301	23,000
Dried fish		876	150	246	1,272	4,000
Earthenware		171,477	12,906	77,902	262,285	15,000
Wool		3,287	169	549	5,905	27,535
Gold thread		246	- -	- -	246	8,900
Nankeens		753,440	10,900	262,860	1,027,160	308,130
Silk, raw	bales	62,573	828	- -	63,401	19,020,300
coarse	lbs.	1,295	- -	- -	1,295	207,307
refuse		834	9	- -	843	29,505
thrown		8,812	- -	- -	8,812	3,048,952
piece-goods		1,045	953	162	2,100	420,000
cocoons		279	- -	- -	279	15,950
worms' eggs		79	- -	- -	79	7,097
Tea, black	lbs.	15,786,006	277,847	842,217	16,905,710	1,394,712
green		10,150,433	15,709,739	105,531	25,965,723	3,311,039
Miscellaneous		100,000	30,000	30,000	240,000	180,000
Estimated value		£9,031,271	870,999	121,022	10,023,293	28,637,981
At 7s Exchange						£10,023,295 0 7½

Summary of the Returns, showing the estimated Value of the Trade in British and Foreign Bottoms, the Duties paid the Chinese Government, and the Denomination of the Shipping employed in the Port of Shanghae in 1856.

Imports.		*Exports.*	
British, as per return	£2,156,829	British, return	£9,031,271
American	273,725	American, ,,	870,999
Sundry flags	579,957	Other flags	121,022
Total	£3,010,511	Total	£10,023,292

Duties paid on the above to the Chinese Government.

	Imports.				Exports.				Tonnage Dues.		Total.			
	T.	m.	c.	c.	T.	m.	c.	c.	T.	m.	T	m.	c.	c.
British	299,503	3	3	1	1,170,097	5	3	2	37,908	0	1,467,508	8	6	5
American	21,828	5	4	6	352,864	6	4	1	12,561	8	387,074	9	8	7
Other Nations	51,589	7	2	4	57,890	4	5	9	9,576	0	109,056	1	8	3
Total	318,821	6	0	1	1,570,851	6	3	2	60,045	8	959,640	0	3	5

Total Imports and Exports as above	£13,033,803
Treasure imported in the P. & O. Company's Steamers	3,430,392
do. in other Vessels	357,698
Opium imported during the Year	4,272,555
Duties paid the Chinese Government	689,339
Total transactions of 1856	£22,233,687

Denomination of Shipping employed.

Flag.	No. of Vessels.	No. of Men.	Tonnage, 1856.
British	216	4,388	87,763
American	17	1,293	25,868
Sundries	126	1,360	27,202
	119	7,041	140,831

We are indebted to the elaborate and excellent Reports of Mr. Consul Robertson for the preceding statements in regard to the trade of Shanghae in 1856.

SHARKS' FINS, form a regular article of trade to China; and are collected for this purpose in every country from the eastern shore of Africa to New Guinea. In the Canton Price Currents they are as regularly quoted as tea or opium; and the price of late years has been, according to quality, from 15 to 18 dollars per picul, equal to from 50*s.* to 60*s.* per cwt.

SHAWLS (Ger. *Schalen;* Fr, *Chals, Chales;* It. *Shavali;* Sp. *Schavalos*), articles of fine wool, silk, or wool and silk, manufactured after the fashion of a large handkerchief, used in female dress. The finest shawls are imported from India, where they are highly esteemed, and cost from 50 to 300 guineas. But the British shawls manufactured at Norwich, Paisley, and particularly Edinburgh, have recently been very much improved; and though still inferior in point of quality to the finest specimens brought from the East, they look well, and are much cheaper. The native shawl manufacture is of very considerable value and importance.

Cashmere Shawls.—The shawl manufacture is believed to have originated in the valley of Cashmere, the ancient Caspira, in the north-west of India, between the 34th and 35th degrees of N. latitude, and the 73d and 76th degrees of E. longitude. Though not so flourishing as it once was, the manufacture is still prosecuted in this province to a very considerable extent. The shawls are the very best that are made, possessing unequalled fineness, delicacy, and warmth. They are formed of the inner hair of a variety of the common goat (*Capra hircus*), reared on the cold dry table land of Thibet, elevated from 14,000 to 16,000 feet above the level of the sea. The goat thrives sufficiently well in many other countries; but in the sultry plains of Hindostan it has hardly more hair than a greyhound; and though in higher latitudes the hair is more abundant, it is for the most part shaggy and coarse. It is only in the intensely cold and dry climate of Thibet that it yields the peculiarly soft woolly hair that constitutes the material of the Indian shawl. We do not, therefore, suppose that the efforts to naturalise the shawl-goat in France will turn out well. On the contrary, we believe the chances of success would be about equal were an attempt made to breed beavers in a hot country, without water, or camels in a moist country, free from heat and drought.

The inner or fine wool is covered over and protected by a quantity of long shaggy hair, which is, of course, carefully separated from it before it is manufactured.

The genuine shawl wool has been imported into this country; and the finest Edinburgh and Paisley shawls have been produced from it. But it must be admitted that shawls have nowhere been made that can come, as respects quality, into successful competition with those of Cashmere. The manufacture has been established at Delhi and Lahore for some years; but notwithstanding it is carried on by native Cashmerians, and though the material employed be quite the same, the fabrics are said to want the

fineness of those made in Cashmere, and to have a degenerated, coarse appearance. It is difficult to account for this superiority. It has been ascribed to some peculiar quality of the water in the valley of Cashmere; but it is most probably owing to a variety of circumstances, which, though each may appear of little importance, collectively give a character to the manufacture.

The following details as to the manufacture of Cashmere shawls have been extracted from an English paper published at Delhi: —

"The great mart for the wool of which shawls are made, is at Kilghet, which is said to be a dependency of Ladak, and situated 20 days' journey from the northern boundaries of Cashmere. There are 2 kinds of it: that which can be readily dyed is white: the other sort is of an asby colour, which being with difficulty changed, or, at least, improved by art, is generally woven of its natural hue. About 2 lbs. of either are obtained from a single goat once a year. After the down has been carefully separated from the hairs, it is repeatedly washed with rice starch. This process is reckoned important; and it is to the quality of the water of their valley that the Cashmerians attribute the peculiar and inimitable fineness of the fabrics produced there. At Kilghet the best raw wool is sold for about 1 rupee a pound. By the preparation and washing referred to, it loses $\frac{1}{2}$, and the remainder being spun, 3 rupees weight of the thread is considered worth 1 rupee.

"Shawls are made of various forms, size, and borders, which are wrought separately, with the view of adapting them to the different markets. Those sent to Turkey used to be of the softest and most delicate texture. Carpets and counterpanes are fabricated of the hair or coarser part of the wool. From a variety of causes, among others the destruction of the Janissaries, who dressed much in shawls, the loss of royalty in Cabul, and the ruined finances of Lucknow, it is certain that the demand for this elegant commodity has greatly declined of late years. Under the Mogul emperors, Cashmere found work for 30,000 shawl looms. In the time of the Afghan kings, the number decreased to 18,000. There are now not more than 6,000 employed. I should attribute little of this diminution to the sale of English imitations among the Asiatic nations. When these counterfeits first appeared, the pretty patterns and brilliancy of the colours took the fancy of some, but their great inferiority in the softness and warmth which marks the genuine shawl, soon caused the new article to be neglected.

"The average value of shawls exported from Cashmere amounts annually to 1,800,000 rupees. Runjeet Singh took $\frac{3}{4}$ in kind as part of the gross revenue of the province, which was about 25 lacs a year. He is said to have sold $\frac{3}{4}$ of what he thus received, and to have kept the remainder for his own court. Of those disposed of by him and left for sale in the valley, 7 lacs' worth went to Bombay and Western India; 3 to Hindostan, chiefly Oude; $\frac{1}{4}$ a lac each to Calcutta, Cabul, Herat, and Balk, whence some were carried to neighbouring countries.

"A curious calculation of the successive exactions, from Cashmere to Bombay inclusive, which magnify the price of shawls, is herewith subjoined.

"Actual cost for materials and labour in making a pair of reel shawls: —

	Fd.	rs.
Four Furrukabad seers of wool	14	8
Cleaning, washing, and spinning	50	0
Dyeing	11	0
Wages to weavers	264	6
Total	357	14
Duties on the same. — On sale and importation to Cashmere	3	14
On the thread	8	4
While the fabric is in the loom	125	0
Fees to chowdries, brokers, assessors, &c.	35	0
Total amount of duties in Cashmere	171	18
Duties from Cashmere to Amritsir	14	6
From Amritsir to Bombay	5	6½
At Bombay	70	0
Total from Amritsir to Bombay	85	12½

	Fd.	rs.
Total from Kilghet to Bombay, 171 18 and 85 12½ = 252	30½	
Prime cost	357	14
Proportion of carriage	0	12
Insurance	21	0
Total cost	610	56½

"A pair of such shawls might sell for 500 rupees at Amritsir, and in Bombay for 900. The amount of the imports, and the sums levied by each government, will appear more in relief if stated as they affect a camel load in its progress. It consists of 14½ catcha maunds, and contains, at an average, 2,000 shawls of different kinds, valued, on reaching Bombay, at 28,500 Furrukabad rupees.

"The government of Lahore exacts Fd. rs. 1,564 6; Patialah, 61 0; Bikeneer, 43 0; Joudpore, 121 4; Bhownuggur, 20 0; — total levied by native princes, 1,809 0; Bombay, 10 per cent. *ad valorem*, 2,550 0 *

SHEA BUTTER, or VEGETABLE TALLOW, the produce of the nut of the *Bassia Parkii*, belonging to the natural order *Sapotaceæ* of botanists; a scrubby growing tree, indigenous to the interior of W. Africa as the oil palm is to the sea coast. It is found in great abundance, covering immense tracts, both of hill and plain.

The *Bassia Parkii* is covered in the season with dense heads of whitish flowers, which have a fragrance similar to that of the hawthorn. The fruit, which ripens in May or June, is said to resemble an over-ripe pear, is exceedingly sweet, and is eaten by the natives. The nuts or kernels have the shape, and the exact colour, of the horse-chestnut, but are a little larger. After being freed from their shells, which is effected by thrashing or bruising after they have been for some time exposed to the action of a slow heat, the kernels are coarsely crushed, then boiled; a fatty matter is thereupon thrown to the surface, which is skimmed off, and put into earthen pots. It soon hardens into a solid mass, when it has the colour and consistence of animal tallow. It is then fit for use, and possesses the valuable quality of not getting rancid by keeping.

The small quantities of Shea butter at first imported into this country commanded a price of 5*l.* per ton above that of palm oil; but the larger parcels which have since been received have not brought so much. It is, however, quite as valuable as palm oil, and possesses this superiority that, for the purposes to which it is applied, it does not, like the oil, require to undergo the expensive process of bleaching.

* It may be used for any of the purposes to which palm oil is applied, and might be

procured to any extent, were there cheap means of transport from the interior of Western Africa to the coast.—(*Private Information.*)

SHEEP (Ger. *Schafe;* Fr. *Brebis, Bêtes à laine, Moutons;* It. *Pecore;* Sp. *Pecora, Ovejas;* Rus. *Owzü;* Lat. *Oves*).

Of the domestic animals belonging to Great Britain, sheep, with the exception of horses, and, perhaps, cattle, are by far the most important. They can be reared in situations and upon soils where other animals would not live. They afford a large supply of food, and one of the principal materials of clothing. Wool has long been a staple commodity of this country, and its manufacture employs an immense number of people. "The dressed skin," says Mr. Pennant, "forms different parts of our apparel; and is used for covers of books. The entrails, properly prepared and twisted, serve for strings for various musical instruments. The bones, calcined (like other bones in general), form materials for tests for the refiner. The milk is thicker than that of cows, and consequently yields a greater quantity of butter and cheese; and in some places is so rich, that it will not produce the cheese without a mixture of water to make it part from the whey. The dung is a remarkably rich manure; inasmuch that the folding of sheep is become too useful a branch of husbandry for the farmer to neglect. To conclude; whether we consider the advantages that result from this animal to individuals in particular, or to these kingdoms in general, we may, with Columella, consider this, in one sense, as the first of the domestic quadrupeds."*—(*Pennant's British Zoology.*) The importation of sheep was prohibited until 1842 when they were admitted on payment of duties, (sheep 3*s.* a head, lambs 2*s.*), which were repealed in 1846. (See CATTLE.)

The following Table exhibits a compendious view of the more prominent characteristics of the principal breeds of sheep in Great Britain.

Names of Breeds.	Head.	Colour of Face and Legs.	Wool.	Wgt. of Fleece.	Weths. per Qr.	Age killed.
				Lbs.	*Lbs.*	*Years.*
1. Teeswater	No horns	White face and legs	Long wool	9	28	2
2. Lincoln	No horns	White face and legs	Long wool	10	25	2
3. Dishley, or New Leicester	No horns	White face and legs	Long wool (fine)	8	22	2
4. Cotswold	No horns	White face and legs	Long wool (fine)	9	24	2
5. Romney Marsh	No horns	White face and legs	Long wool (fine)	8	22	2
6. Dartmoor, or Brampton	No horns	White face and legs	Long wool (fine)	9	25	2
7. Exmoor	Horned	White face and legs	Long wool (coarse)	6	16	2½
8. Black Faced, or Heath	Horned	Black face and legs	Long wool (coarse)	3	15	3½
9. Hereford, Ryeland	No horns	White face and legs	Short wool (fine)	2½	14	3½
10. Morf, Shropshire	Horned	Black and speckled	Short wool (fine)	1½	12	3½
11. Dorset	Horned	White and speckled	Short wool (fine)	3½	18	2
12. Wilts	Horned	White and speckled	Short wool (mid.)	3	20	3
13. Berks	No horns	Black and white	Long wool	7	18	2½
14. South Down	No horns	Speckled and white	Short wool	2½	18	2
15. Norfolk	Horned	Black and white	Short wool	2	18	3½
16. Herdwick	Horned	Speckled and white	Short wool	2	10	4½
17. Cheviot	No horns	White face and legs	Short wool	3	16	4½
18. Dun-faced	No horns	Dun face and legs	Short wool	1½	7	4½
19. Shetland	No horns	Various coloured ditto	Fine cottony	1⅜	8	4½
20. Spanish	Rams horn'd	White	Short wool (super.)	3½	14	2½
21. Dit o, cross	——	——	Short wool (fine)	2¾	16	2

For details as to the number of sheep, the quantity and quality of wool, &c., see WOOL.

SHERRY. See WINE.

SHIPS, SHIPPING.

I. SHIPS (GENERAL ACCOUNT OF).
II. SHIPS (CLASSIFICATION OF).
III. SHIPS (SAFETY OF).
IV. SHIPPING OFFICES.
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I. SHIPS (GENERAL ACCOUNT OF).

Nautical men apply the term ship to distinguish a vessel having 3 masts, each consisting of a lower mast, a topmast, and top-gallant mast, with their appropriate rigging. In familiar language, it is usually employed to distinguish any large vessel, however rigged: but it is also frequently used as a general designation for all vessels navigated with sails; and it is in this sense that we now employ it.

Merchant Ships.—It is hardly possible to divide merchant ships into classes, at least with any degree of precision. Their size, shape, the mode of their rigging, &c., depend not merely on the particular trade for which they are destined, but on the varying tastes and fancies of their owners. The ships employed in the China and Indian trade

* Post majores quadrupedes ovilli pecoris secunda ratio est; quæ prima sit si ad magnitudinem utilitatis referas. Nam id præcipue contra frigoris violentiam protegit, corporibusque nostris liberaliora præbet velamina; et etiam elegantiam mensas jucundis et numerosis dapibus exornat.—(*De Re Rustică*, lib. vii. cap. 2.)

are the largest and finest merchantmen belonging to this country; those in the West India trade rank next; then follow the whale ships, those engaged in the trade to the Baltic and Canada, the Mediterranean, the coasting trade, &c.

The reader will find, in the articles NAVIGATION LAWS, and REGISTRY, an account of the privileges enjoyed by British ships, the conditions and formalities necessary to be observed in order to acquire and preserve those privileges, the mode of transferring property in ships, &c. And in the articles CHARTERPARTY, FREIGHT, MASTERS, OWNERS, SEAMEN, SEAWORTHY, &c., the law with respect to ships and shipowners, in their capacity of carriers or public servants, and the reciprocal duties and obligations of the masters and crews, is pretty fully expounded. In this place, therefore, we shall content ourselves with laying before the reader some official statements exhibiting the progress and present magnitude of the mercantile navy of Great Britain.

Increase of Shipping in England.—It would be to no purpose, even if our limits permitted, to enter into any details with respect to the shipping of England, previously to the Revolution. Those who wish to examine the subject, will find most of the scattered notices of contemporary writers collected by Anderson, in his "Chronological History of Commerce." The mercantile navy of England first became considerable in the reign of Elizabeth; and gradually increased under her successors, James I. and Charles I. At the Restoration, the British shipping cleared outwards amounted to 95,266 tons; but such was the increase of navigation during the reigns of Charles II. and James II., that, at the Revolution, the British ships cleared outwards amounted to 190,533 tons. The war terminated by the treaty of Ryswick, in 1697, checked this progress. But commerce and navigation have steadily advanced, with the exception of two short periods during the war of 1739 and the American war, from the beginning of last century down to the present day.

The first really authentic account of the magnitude of the commercial navy of England was obtained in 1701-2, from returns to circular letters of the commissioners of customs, issued in January of that year. From these it appears that there belonged, at the period in question, to *all* the ports of England and Wales, 3,281 vessels, measuring (or rather estimated to measure) 261,222 tons, and carrying 27,196 men and 5,660 guns. Of these there belonged to

Ports.	Vessels.	Tons.	Men.	Ports.	Vessels.	Tons.	Men.
London	560	84,882	10,065	Hull	115	7,564	187
Bristol	165	17,338	2,359	Whitby	110	8,292	571
Yarmouth	143	9,914	668	Liverpool	102	8,619	1,101
Exeter	121	7,107	978	Scarborough	100	6,860	606

None of the other ports had 100 vessels; and there is some mistake in the returns as to the tonnage assigned to Newcastle and Ipswich. Of the Hull vessels, 80 were at the time laid up, which accounts for the small number of men in that port.—(*Macpherson's Annals of Commerce*, anno 1701.)

The Table No. V. (see p. [1166.]) of the British and foreign shipping cleared outwards from 1663 to 1811, both inclusive, is taken from the last edition of *Chalmers' Comparative Estimate*. It gives a very complete view of the progress of the navigation of the country; and from the attention paid by the author to such subjects, and the facilities which his situation in the Board of Trade gave for acquiring authentic information, its accuracy may be depended on.

1. COLONIAL SHIPPING.—A Return of the Number and Tonnage of Sailing and Steam Vessels registered on the 31st of December, 1808, at each of the Ports of the Colonies of the U. Kingdom; distinguishing between those under and those above Fifty Tons Register, and between Sailing and Steam Vessels.

Countries.	Sailing Vessels.				Steam Vessels.			
	Of and under 50 Tons.		Above 50 Tons.		Of and under 50 Tons.		Above 50 Tons.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
AFRICA.								
Sierra Leone	18	359	18	1,324				
Bathurst	62	1,000	15	1,329				
Cape of Good Hope	13	425	46	8,746				
Mauritius	69	2,186	54	9,475	-	-	2	454
AUSTRALIA.								
Sydney	187	4,774	253	36,688	19	469	36	7,569
Melbourne	143	3,855	315	51,713	11	329	12	1,120
Hobart Town	78	2,138	100	17,277	-	-	7	1,088
Launceston	19	482	16	2,828	3	111	7	1,121
Adelaide	32	730	39	5,818	1	42	6	667
New Zealand	167	3,620	20	2,960	-	-	2	188
AMERICA.								
British Northern Colonies:								
Newfoundland	586	18,029	581	61,023	2	67		
Canada	320	10,847	540	77,599	36	1,310	93	13,035
New Brunswick	387	10,753	400	129,445	18	502	14	1,885
Nova Scotia and Cape Breton	1,839	52,904	1,463	188,540	4	144	4	778
Prince Edward Island	99	2,818	131	18,552	-	-	2	145
British West Indies:—								
Antigua	56	918	4	372				
Barbadoes	11	410	9	619	-	-	1	80
Dominica	10	205	1	59				
Grenada	26	257						
Jamaica	82	1,975	7	763				
Montserrat	-	-	1	59				
Nevis	2	29						
St. Christopher	20	406	2	316				
St. Lucia	11	286	1	264				
St. Vincent	40	712	5	504				
Tobago	3	69						
Tortola	13	130	4	352				
Trinidad	48	772	4	323				
Bahamas	155	3,576	42	5,127				
Bermuda	6	159	27	3,098				
Demerara	56	987	11	978				
Berbice	17	380	2	133				

II. Account of the Shipping employed in the Trade of the U. Kingdom, exhibiting the Number and Tonnage of Vessels that entered inwards and cleared outwards (including their repeated Voyages), separating British from Foreign Vessels, and Steam from Sailing Vessels, and distinguishing the Trade with each Country, in 1858.

Countries.	Inwards.				Outwards.			
	British.		Foreign.		British.		Foreign.	
	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.	Ships.	Tons.
Russia . . Steam	166	82,037	27	9,955	182	90,938	32	11,214
Russia . . Sailing	1,412	326,269	1,770	388,208	1,011	222,082	1,059	184,945
Sweden . . Steam	63	19,568	25	6,949	57	18,151	20	6,093
Sweden . . Sailing	247	55,989	1,152	215,295	190	28,805	1,036	161,701
Norway . . Steam	12	3,210	18	9,232	15	4,039	31	11,886
Norway . . Sailing	59	4,397	1,447	259,862	50	8,956	1,751	544,157
Denmark . . Steam	151	61,272	15	2,971	105	37,659	20	5,110
Denmark . . Sailing	186	26,051	1,867	156,661	585	59,504	3,904	454,157
Prussia . . Steam	123	41,411	72	19,554	137	44,776	81	21,832
Prussia . . Sailing	688	103,146	1,601	289,420	716	109,435	1,755	314,807
Germany . . Steam	580	205,674	458	172,670	568	202,085	459	149,975
Germany . . Sailing	1,591	312,782	2,321	248 201	1,499	289,808	2,355	227,195
Holland . . Steam	903	272,507	320	73,773	897	251,177	325	78,881
Holland . . Sailing	1,820	266,827	1,712	223,725	1,678	243,876	567	46,791
Belgium . . Steam	377	116,025	78	26,375	377	117,035	78	26,619
Belgium . . Sailing	900	98,824	683	103,550	772	70,721	183	25,574
Channel Islands . Steam	637	85,403	.	.	644	86,988	.	.
Channel Islands . Sailing	1,595	119,002	30	3,656	971	67,141	2	174
France . . Steam	2,089	455,175	114	39,285	2,085	458,312	106	25,178
France . . Sailing	4,489	504,536	4,542	475,636	4,468	545,901	4,543	388,146
Portugal . . Steam	85	27,785	.	.	104	56,051	1	338
Portugal . . Sailing	598	70,504	144	21,189	515	66,378	300	50,489
Spain . . Steam	40	17,456	50	21,064	44	18,122	54	25,505
Spain . . Sailing	761	125,717	350	58,554	1,121	205,159	692	124,767
Gibraltar . . Steam	58	17,124	.	.	54	25,380	2	627
Gibraltar . . Sailing	40	8,465	19	4991	186	30,986	44	11,787
Italian States . Steam	86	55,691	.	.	86	55,110	6	739
Italian States . Sailing	519	85,894	325	69,552	735	142,293	978	242,114
Malta . . Steam	2	425	.	.	42	52,489	.	.
Malta . . Sailing	28	6,390	7	1,455	169	45,234	139	41,904
Ionian Islands . Steam	2	711	.	.	4	2,093	.	.
Ionian Islands . Sailing	42	5,780	3	502	53	10,894	35	12,616
Greece . . Steam	31	18,240	.	.	11	3,292	3	686
Greece . . Sailing	69	11,513	4	750	48	9,274	75	18,965
Turkey . . Steam	50	37,006	.	.	41	29,271	7	1,942
Turkey . . Sailing	187	42,475	143	34,795	243	56,267	355	98,613
Wallachia and Moldavia . Steam	1	333	.	.	1	115	.	.
Wallachia and Moldavia . Sailing	200	36,198	349	64,879	44	6,565	35	4,501
Syria . . Steam	5	3,286	.	.	3	1,513	.	.
Syria . . Sailing	19	4,127	12	3,257	25	5,545	8	1,470
Africa . . Steam	113	95,357	1	800	93	78,032	1	613
Africa . . Sailing	671	194,085	273	76,120	682	211,215	553	80,808
Asia . . Steam	24	35,004	.	.	27	29,208	.	.
Asia . . Sailing	935	687,665	128	90,897	1,222	885,212	384	275,795
America:								
British Northern Colonies . Steam	16	18,071	.	.	18	17,515	103	54,355
British Northern Colonies . Sailing	1,487	699,414	321	182,285	1,216	587,615	.	.
British West Indies . Steam	.	.	.	.	4	1,127	41	17,742
British West Indies . Sailing	800	225,145	51	16,298	685	204,833	2	1,118
Foreign West Indies . Steam	50	51,357	1	559	27	47,545	428	140,569
Foreign West Indies . Sailing	194	37,522	291	87,556	248	69,670	29	43,519
United States . . Steam	108	136,729	2	2,257	111	139,095	1,077	1,051,713
United States . . Sailing	242	154,026	960	915,284	272	172,877	1	155
Central and Southern States . Steam	18	20,052	2	1,925	17	20,677	361	108,809
Central and Southern States . Sailing	896	341,068	327	139,794	789	253,114	.	.
Falkland Islands . Sailing	3	685	.	.	.	.	.	.
The Whale Fisheries . Steam	5	1,825	.	.	4	1,505	.	.
The Whale Fisheries . Sailing	52	14,328	.	.	51	14,404	1	209
Total . .	26,266	6,439.201	22,011	4,522,499	25,704	6,452,204	23,562	4,896.077

III. Account of the total Tonnage of British and Foreign Vessels, distinguishing between each, entered and cleared, whether with Cargoes or in Ballast, at Ports in the U. K.

Years.	Entered.			Cleared.			Total.		
	British.	Foreign.	Total.	British.	Foreign.	Total.	British.	Foreign.	Total.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1840	3,197,501	1,460,294	4,657,795	3,292,984	1,488,888	4,781,872	6,490,485	2,949,182	9,439,667
1841	3,364,211	1,291,165	4,652,376	3,429,279	1,336,892	4,766,171	6,790,490	2,628,057	9,418,547
1842	3,294,725	1,205,303	4,500,028	3,375,270	1,252,176	4,627,446	6,669,995	2,457,479	9,127,474
1843	3,545,346	1,301,950	4,847,296	3,655,853	1,341,453	4,977,266	7,181,179	2,643,383	9,824,562
1844	3,647,463	1,402,138	5,049,601	3,852,822	1,444,346	5,297,168	7,500,285	2,846,484	10,346,769
1845	4,310,659	1,735,079	6,045,718	4,255,451	1,796,156	6,051,587	8,546,090	3,531,215	12,077,305
1846	4,294,753	1,806,282	6,101,015	4,593,418	1,922,156	6,514,571	8,888,150	3,727,458	12,615,586
1847	4,942,094	2,255,859	7,196,033	4,770,370	2,312,793	7,083,163	9,712,464	4,568,732	14,279,196
1848	4,565,533	1,960,412	6,525,945	4,724,027	2,056,654	6,780,681	9,289,560	4,017,066	15,306,626
1849	4,884,210	2,035,690	6,919,900	4,785,428	2,299,060	7,084,488	9,669,658	4,334,750	14,004,388
1850	4,700,199	2,400,277	7,100,476	4,742,345	2,662,245	7,404,588	9,442,544	5,062,520	14,505,064
1851	4,958,386	2,955,708	7,872,094	4,882,490	3,225,614	8,108,104	9,820,876	6,159,322	15,980,198
1852	4,954,863	2,952,584	7,887,447	5,051,106	3,191,596	8,242,702	9,985,969	6,144,180	16,130,149
1853	5,055,345	3,887,763	8,943,108	5,312,980	4,234,124	9,447,104	10,268,325	8,121,887	18,390,210
1854	5,374,554	3,786,813	9,161,366	5,370,398	4,137,425	9,507,721	10,744,849	7,924,238	18,669,087
1855	5,270,792	3,680,447	8,951,239	5,648,940	3,889,291	9,538,231	10,919,732	7,569,738	18,489,470
1856	6,590,715	4,162,419	10,555,134	6,555,056	4,480,859	11,035,915	12,945,771	8,643,278	21,589,049
1857	6,853,705	4,621,494	11,475,199	6,840,402	4,863,191	11,703,593	13,694,107	9,484,685	23,178,792
1858	6,439,201	4,522,499	10,961,700	6,452,204	4,896,077	11,348,281	12,891,405	9,418.576	22,309,981

IV. A Return of the Number and Tonnage of Sailing Vessels registered at each of the Ports of Great Britain and Ireland, including the Isle of Man and the Channel Islands: distinguishing those under and those above Fifty Tons Register, on the 31st Day of December, 1858:—Also, a similar Return of Steam Vessels and their Tonnage.

Ports.	Sailing Vessels.				Steam Vessels.			
	Of and under 50 tons		Above 50 tons.		Of and under 50 tons		Above 50 tons.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
ENGLAND.								
Aberystwith	125	4,281	205	21,089				
Arundel	43	1,193	52	6,832	1	52		
Barnstaple	45	1,603	32	2,988				
Beaumaris	144	4,584	136	13,671				
Berwick	17	517	20	2,175				
Bideford	60	1,969	69	8,511			1	74
Boston	97	3,488	47	5,280	1	18		
Bridgwater	76	2,865	64	13,751	2	21		
Bridport	1	25	12	1,254				
Bristol	180	5,285	208	68,985	15	361	22	4,408
Caernarvon	177	5,856	295	28,851	1	11	1	88
Cardiff	21	606	52	13,185	11	225	2	164
Cardigan	122	5,692	76	7,170				
Carlisle	14	511	15	1,228	1	58	2	469
Chepstow	41	1,137	14	1,115	1	17	2	168
Chester	65	2,351	59	4,150	2	51	10	2,157
Colchester	200	3,830	92	11,455	1	23		
Cowes	141	3,673	46	4,689			1	76
Dartmouth	173	5,241	262	35,984	6	164		
Deal	12	301						
Dover	34	966	20	2,612			2	133
Exeter	30	768	138	19,797	1	37		
Falmouth	41	1,424	91	11,485	2	52		
Faversham	210	5,109	109	13,812	1	9		
Fleetwood	40	1,155	39	7,013	1	25	3	945
Folkestone	9	155	17	2,292				
Fowey	41	1,521	126	12,073			2	126
Gainsborough	10	330	5	926	2	71	4	504
Gloucester	265	7,355	69	8,754	1	54		
Goole	215	9,005	299	23,589	5	103	8	1,017
Grimsby	107	3,212	26	2,266	5	68	10	2,923
Hartlepool	12	225	169	38,198	4	87	10	3,780
Harwich	66	2,045	55	5,419				
Hull	308	11,252	188	41,281	11	252	57	18,112
Ipswich	57	1,909	125	13,777	6	262		
Lancaster	39	1,325	86	10,405	3	81	5	744
Liverpool	261	9,275	1,919	882,074	37	1,381	178	61,225
Llanelly	43	1,239	46	4,727	2	56		
Lowestoft	107	2,287	42	4,096	2	50	3	878
Lyme	4	111	18	1,907				
Lynn	68	2,275	95	14,003	1	13		
Maldon	89	2,741	56	5,967				
Maryport	15	384	99	17,409	3	65		
Milford	87	2,407	78	10,087				
Newcastle	125	3,428	418	121,088	90	1,400	25	8,778
Newhaven	10	209	15	2,769				
Newport	18	677	66	12,373	2	55	1	272
Padstow	64	2,482	69	8,998				
Penzance	18	526	61	6,823				
Plymouth	219	6,656	210	40,302	8	230	1	94
Poole	38	985	76	14,446	1	22		
Portsmouth	170	4,258	93	11,783	4	104	3	180
Preston	77	3,006	39	2,947	1	10	2	429
Ramsgate	66	1,666	33	3,104	1	10		
Rochester	362	11,846	66	3,083	4	186		
Rye	66	1,486	50	5,266	1	21		
Saint Ives	53	1,150	114	12,845			4	711
Scarborough	83	2,789	135	25,230			1	117
Scilly	17	458	43	6,784			1	67
Shields	22	685	942	263,177	119	1,991	5	665
Shoreham	45	857	94	16,471	2	51		
Southampton	140	3,877	106	14,371	9	299	18	5,772
Stockton	15	344	115	26,000	25	513	12	2,896
Sunderland	111	3,288	839	223,060	50	666	16	6,873
Swansea	49	1,553	100	15,187	8	187	6	604
Teignmouth	9	239	56	7,157	1	19		
Truro	11	367	59	6,248				
Wells	98	2,286	80	7,727	2	29		
Weymouth	21	616	61	7,510	3	81	3	331
Whitby	62	1,928	393	72,459	5	60		
Whitehaven	6	141	173	27,358	1	37	2	527
Wisbeach	17	776	54	6,895	1	13	5	1,071
Woodbridge	33	1,106	55	2,491				
Workington	4	125	92	20,211	1	17		
Yarmouth	381	11,258	250	27,187	6	106	4	541
London	657	22,379	1,829	688,485	154	4,677	391	190,588
Total England	6,974	214,785	12,447	3,129,821	626	14,334	821	316,241
SCOTLAND.								
Aberdeen	12	418	249	63,731	2	57	12	4,008
Ayr	16	486	20	4,081			3	267
Alloa	24	807	46	15,010	2	20	3	211
Arbroath	14	608	89	13,311				
Banff	35	1,160	111	14,340				
Borrowstoness	21	607	38	4,964			1	55
Campbeltown	44	1,406	4	856			3	384
Dumfries	61	1,899	65	13,554			1	85
Dundee	15	549	250	48,307	2	69	8	2,275
Glasgow	134	4,676	340	164,787	20	500	146	58,350
Grangemouth	11	365	37	7,179	4	77	5	1,421
Greenock	201	5,884	193	78,627	14	215	16	5,559
Inverness	167	4,005	107	8,999	2	26	2	567
Irvine	41	1,225	79	18,391	2	55	2	238
Kirkaldy	47	1,457	40	5,989	2	79	2	149
Kirkwall	25	621	24	2,334	1	26		
Leith	67	2,085	75	19,458	13	243	28	7,626
Lerwick	52	1,296	10	757				
Montrose	6	276	95	16,219				

Ports.	Sailing Vessels.				Steam Vessels.			
	Of and under 50 tons.		Above 50 tons.		Of and under 50 tons.		Above 50 tons.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
SCOTLAND—*continued.*								
Perth	8	197	46	4,106	1	9	3	384
Peterhead	11	384	63	12,501	1	8	1	319
Port Glasgow	41	1,458	11	2,982	4	122	5	380
Stornoway	31	797	17	2,452				
Stranraer	25	843	5	353				
Wick	25	758	33	2,779	.	.	2	188
Wigtown	41	1,371	9	1,226	.	.	1	316
Total, Scotland	1,175	35,596	2,054	532,233	70	1,566	244	83,280
IRELAND.								
Ballina	2	36	3	236	1	37		
Belfast	101	5,585	318	69,499	7	141	12	2,973
Coleraine	6	160						
Cork	179	4,263	210	42,423	9	285	21	5,655
Drogheda	3	146	45	4,646	.	.	5	1,528
Dublin	303	9,156	165	28,196	7	251	42	9,800
Dundalk	4	144	21	1,861	1	24	4	1,521
Galway	14	398	6	986				
Limerick	27	829	22	5,556	.	.	5	1,675
Londonderry	7	184	19	5,899	1	49	7	2,118
Newry	71	2,246	36	3,543	1	8	3	598
Ross	3	61	12	4,173				
Skibbereen	87	2,095	1	51				
Sligo	10	292	24	4,252	2	78	1	191
Strangford	93	913	28	2,889				
Tralee	13	351	1	82				
Waterford	56	1,417	101	12,808	.	.	24	8,893
Westport	4	90						
Wexford	27	954	75	8,034	1	16	1	207
Total, Ireland	1,005	29,287	1,087	195,124	30	869	125	34,757
Isle of Man	297	7,157	43	3,277	.	.	6	1,195
Channel Islands	210	5,599	323	52,391	1	16	3	212

V. Table of Ships cleared outwards from 1663 to 1811.

Years.	British.	Foreign	Total.	Years.	British.	Foreign.	Total.	Years.	British.	Foreign.	Total.
	Tons.	*Tons.*	*Tons.*		*Tons.*	*Tons.*	*Tons.*		*Tons.*	*Tons.*	*Tons.*
1663	95,266	47,634	142,900	1760	540,241	107,237	647,478	1786	1,115,024	121,197	1,236,221
16 9				1761	582,020	122,735	704,755	1787	1,279,033	138,220	1,417,253
1688	190,533	95,267	285,800	1762	543,444	124,926	668,370	1788	1,411,689	128,997	1,540,686
1697	144,264	100,524	244,788	1763	631,724	91,593	723,317	1789	1,515,021	103,722	1,618,743
1700				1764	662,434	79,800	742,234	1790	1,424,912	148,919	1,573,831
1701	273,693	43,635	317,328	1765	726,402	72,215	798,617	1791	1,511,246	184,729	1,695,975
1702				1766	738,081	66,153	804,234	1792	1,561,158	175,405	1,736,563
1709	243,693	45,625	289,318	1767	725,835	68,006	793,841	1793	1,240,202	187,032	1,427,234
1712	326,620	29,115	355,735	1768	761,786	77,984	839,770	1794	1,382,166	218,077	1,600,243
1713				1769	805,305	68,420	873,725	1795	1,145,450	382,567	1,528,017
1714	421,431	26,573	448,004	1770	806,495	63,176	869,671	1796	1,254,624	478,356	1,732,980
1715				1771	877,004	66,898	943,902	1797	1,103,781	396,271	1,500,052
1726				1772	925,456	72,931	998,387	1798	1,319,151	365,719	1,684,870
1727	432,832	23,651	456,483	1773	874,421	57,994	932,415	1799	1,302,551	414,774	1,717,325
1728				1774	901,016	68,402	969,418	1800	1,445,271	685,051	2,130,322
1736				1775	882,579	68,034	950,613	1801	1,345,621	804,880	2,150,501
1737	476,941	26,627	503,568	1776	872,108	74,323	946,431	1802	1,626,966	461,723	2,088,689
1738				1777	827,067	102,638	929,705	1803	1,453,066	574,542	2,027,608
1739				1778	732,558	93,778	826,336	1804	1,463,286	587,849	2,051,135
1740	384,191	87,260	471,451	1779	643,931	149,040	791,021	1805	1,495,309	605,821	2,101,050
1741				1780	731,286	154,111	885,397	1806	1,486,502	568,170	2,054,472
1749				1781	608,219	170,775	778,994	1807	1,424,103	631,910	2,056,013
1750	609,798	51,386	661,184	1782	615,150	225,456	840,606	1808	1,372,810	282,145	1,654,955
1751				1783	865,967	170,938	1,037,905	1809	1,531,152	699,750	2,230,902
1755				1784	932,219	118,268	1,050,487	1810	1,624,274	1,138,527	2,762,801
1756	496,254	76,456	572,710	1785	1,074,862	107,484	1,182,346	1811	1,507,353	696,232	2,203,585
1757											

VI. Account of the Total Number of Vessels engaged in the Foreign and Colonial Trade of the United Kingdom, with the Amount of their Tonnage, and the Number of Men and Boys employed in navigating the same, that entered inwards from all Parts of the World, in the several Years from 1814 to 1842, both inclusive: distinguishing British from Foreign.

Years.	British and Irish Vessels.			Foreign Vessels.		
	Vessels.	Tons.	Men.	Vessels.	Tons.	Men.
1814	8,075	1,209,248	83,793	5,286	599,287	37,375
1815	8,880	1,572,108	86,390	5,411	764,562	41,000
1820	11,285	1,668,060	100,325	3,472	417,611	27,653
1825	13,503	2,143,317	123,028	6,981	950,312	59,722
1830	13,548	2,180,042	122,103	5,359	758,828	41,670
1831	14,488	2,367,522	131,627	6,085	874,605	47,453
1832	13,372	2,185,980	122,594	4,946	659,919	75,390
1833	13,119	2,183,814	120,495	5,505	782,085	41,993
1834	13,903	2,298,263	126,727	5,894	833,905	45,897
1835	14,295	2,442,754	133,688	6,005	866,990	47,132
1836	14,547	2,505,473	137,589	7,151	988,899	53,921
1837	15,196	2,617,166	146,319	7,543	1,005,940	56,778
1838	16,119	2,785,387	154,499	8,679	1,211,666	68,891
1839	17,635	3,101,650	170,359	10,328	1,331,365	79,550
1840	17,883	3,197,501	172,104	10,198	1,460,294	81,295
1841	18,525	3,561,211	178,696	9,527	1,291,165	73,634
1842	18,987	3,294,725	178,884	8,054	1,205,303	65,952

VII. An Account of the Number of Vessels, with the Amount of their Tonnage, and the Number of Men and Boys usually employed in navigating the same, that belonged to the several Ports of the British Empire on the 31st December, 1855, 1856, and 1857, respectively.

Ports.	1855.			1856.			1857.		
	Vessels.	*Tons.*	*Men.*	*Vessels.*	*Tons.*	*Men.*	*Vessels.*	*Tons.*	*Men.*
England - - -	19,606	3,419,844	155,295	19,778	3,461,051	156,915	20,485	3,594,687	167,805
Scotland - -	3,526	583,293	27,405	3,554	592,974	29,987	3,508	639,557	32,135
Ireland - -	2,183	253,771	13,430	2,203	250,455	13,403	2,226	257,135	14,467
Isles of Guernsey, Jersey, and Man -	833	62,426	4,371	842	62,496	5,424	878	67,365	5,476
British plantations -	9,744	901,219	60,695	9,835	945,480	61,846	9,917	960,414	64,252
Total -	35,692	5,250,553	261,194	36,012	5,312,456	267,573	37,014	5,519,154	284,135

VIII. Account of the Number of Vessels, with the Amount of their Tonnage, that were built and registered in the several Ports of the British Empire in 1855, 1856, and 1857 respectively.

Ports.	1855.		1856.		1857.	
	Vessels.	*Tons.*	*Vessels.*	*Tons.*	*Vessels.*	*Tons.*
England - - - -	866	252,832	901	192,851	1,014	192,761
Scotland - - - -	190	60,245	205	44,163	225	51,533
Ireland - - - -	42	10,123	44	7,564	39	6,178
Isles of Guernsey, Jersey, and Man -	28	5,801	32	3,398	46	5,065
British plantations - - -	744	164,968	694	175,620	721	167,943
Total - - -	1,870	492,062	1,876	423,596	2,045	423,480

IX. Account of the Number of Vessels and of their Tonnage, built and registered in, and belonging to, the different Ports of the British Empire, from 1825 to 1857, both inclusive; specifying the Number of their Crews, and distinguishing between those of the British Islands and Possessions in Europe and those of the Colonies.

Years.	Vessels built and registered.						Vessels and their Crews belonging to the British Empire.						
	U. K. and Possessions in Europe.		Colonies.		Total.		U. K. and Possessions in Europe.		Colonies.		Total.		Crews.
	Ships.	*Tons.*	*Ships.*	*Tons.*	*Ships.*	*Tons.*	*Ships.*	*Tons.*	*Ships.*	*Tons.*	*Ships.*	*Tons.*	
1825	1,003	124,029	536	80,895	1,539	204,924	20,701	2,328,807	3,579	214,875	24,280	2,553,682	166,185
1830	750	77,411	567	32,719	1,147	110,130	19,174	2,201,592	4,547	350,227	23,721	2,551,819	154,812
1833	728	92,171	431	52,476	1,159	144,647	19,689	2,271,301	4,696	365,276	24,385	2,634,577	164,000
1834	806	102,710	425	55,817	1,231	158,527	19,975	2,312,355	5,080	403,745	25,055	2,716,100	168,061
1835	916	121,722	455	63,230	1,371	184,952	23,300	2,360,303	5,211	423,458	25,511	2,783,761	171,020
1836	709	89,636	441	66,604	1,150	156,240	20,388	2,549,749	5,432	442,897	25,820	2,792,646	170,637
1837	1,005	135,922	510	71,306	1,515	207,228	20,536	2,333,521	5,501	457,497	26,037	2,791,018	173,506
1838	1,147	161,459	606	79,947	1,753	241,406	20,912	2,420,759	6,697	469,842	26,609	2,890,601	178,583
1839	1,278	186,903	703	109,025	1,981	295,928	21,670	2,570,655	6,075	492,798	27,745	3,063,453	191,283
1840	1,448	220,961	771	43,288	2,219	365,359	22,654	2,768,862	6,508	545,276	28,962	3,311,138	211,240
1841	1,196	168,309	668	32,857	1,860	301,166	23,461	2,935,399	6,591	577,081	30,052	3,512,480	219,198
1842	971	133,275	558	75,662	1,529	208,937	23,954	3,041,420	5,861	578,430	30,815	3,619,850	181,047
1843	736	85,275	494	55,904	1,230	141,277	23,898	3,007,581	7,085	580,806	30,983	3,588,387	213,977
1844	731	96,876	525	69,857	1,256	166,733	24,016	3,044,392	7,304	592,839	31,320	3,637,231	216,350
1845	890	124,919	638	90,696	1,528	215,615	24,388	3,123,180	7,429	590,881	31,817	3,714,061	224,900
1846	841	127,198	745	113,558	1,586	241,056	24,771	3,199,785	7,728	617,327	32,499	3,817,112	229,276
1847	981	149,924	756	155,313	1,737	305,237	25,200	3,307,921	7,788	644,665	32,988	3,952,584	238,890
1848	878	125,910	655	101,988	1,533	227,928	25,658	3,400,809	8,034	651,351	33,692	4,052,160	236,069
1849	771	121,266	691	123,864	1,462	245,150	25,902	3,485,958	8,188	658,157	34,090	4,144,115	237,971
1850	725	137,530	714	124,953	1,439	262,483	25,977	3,565,133	8,304	667,829	34,288	4,232,962	239,283
1851	702	154,665	546	122,576	1,248	275,139	26,043	3,662,344	8,201	669,741	34,244	4,332,085	240,928
1852	742	170,424	677	138,380	1,419	309,304	26,086	3,759,278	8,316	665,114	34,402	4,424,392	245,512
1853	830	207,238	723	152,550	1,553	359,788	26,608	4,060,204	8,701	734,218	35,309	4,764,122	253,896
1854	830	201,703	752	158,272	1,582	359,975	26,859	4,248,750	9,101	794,590	35,960	5,043,270	266,467
1855	1,126	327,094	744	164,968	1,870	492,062	25,948	4,319,334	9,744	901,219	35,692	5,250,553	261,194
1856	1,182	247,976	694	175,620	1,876	423,596	26,177	4,366,956	9,835	945,480	36,012	5,312,456	267,573
1857	1,324	255,537	721	167,940	2,045	423,477	27,097	4,558,740	9,917	960,414	37,014	5,519,151	284,135

N.B.—The falling off in the number of ships after 1825 is apparent only. The numbers returned in the previous years were those that appeared on the registers. But a ship when once placed on them, remained till evidence was produced of her having been sold to foreigners, lost, or otherwise destroyed: so that a good many ships were at all times on the register, which, in fact, did not exist. The Registry Act passed in 1826 obliged all owners of ships to register them of new; when, of course, the names of those that had ceased to exist disappeared from the books.

Ship-building. — The cost, including the outfit, of the ships built in the U. Kingdom and colonies in 1857, may, we believe, be taken, at a rough average, at from 12*l.* to 14*l.* per ton, or 13*l.* at a medium, making their total value 3,321,981*l.* Sunderland, London, Glasgow, Newcastle, Liverpool, Hull, Yarmouth, &c. are the principal building ports. The business has increased with extraordinary rapidity at Sunderland: so much so that while only 60 ships, of the burden of 7,560 tons, were built in that port in 1820, no fewer than 110 ships, of the burden of 42,003 tons, were built in it in 1858. Ships built in London, Liverpool, Bristol, and other western ports, are, however, in higher estimation than those built in the Tyne and the Wear, at least for those branches of trade where the best ships are required. We subjoin

An Account of the Ships and their Tonnage annually built in Sunderland since 1848.

Years.	Ships.	Tons.	Average Tons.	Years.	Ships.	Tons.	Average Tons.
1848 -	142	37,878	266⅔	1854 -	151	66,929	443¼
1849 -	155	44,535	286	1855 -	151	61,559	405
1850 -	158	51,374	325½	1856 -	154	63,049	409½
1851 -	146	51,823	355	1857 -	145	54,780	383
1852 -	141	56,615	398⅞	1858 -	110	42,003	381⅞
1853 -	152	68,479	451⅓				

Within the last dozen years the building of iron steam ships has been immensely extended on the Tyne and the Clyde, especially the latter, which has become the grand seat of this branch of industry. In 1853–54, no fewer than 266 vessels were built or contracted for on the Clyde. They were partly sailing vessels and partly steamers, the engines for the latter being of 29,000 horse-power. But latterly a check has been given to the business. In 1858 there were launched 60 iron vessels of the aggr. burden of 40,522 tons; and there are now (1859) being built 34 vessels of 18,463 tons. (See antè, p. 532.)

State of the Shipping Interest in 1859. — When the last edition of this work was published during the war with Russia, and when the exports to the Australian colonies had suddenly risen to an extraordinary magnitude, the shipping interest was in the highest state of prosperity. But it was easy to see that the circumstances referred to were of a merely temporary character, and that the prosperity which depended on them would most likely be short-lived. We said so at the time; and our conjectures have been fully verified. The cessation of the Russian war, by putting an end to the extraordinary demand for ships for the conveyance of troops, was followed by an immediate fall of freights. And though this fall was in part, it was not wholly, countervailed by the demand for ships to convey troops to India to quell the revolt of the Bengal native army. Concurrently, too, with these circumstances, the revulsion that took place in the trade with Australia disengaged a considerable number of ships, while the vast additions made by the Americans, Dutch, &c., to their commercial marine contributed still more, by increasing competition beyond the demand, to lower the rate of freight. The latter, consequently, has been much reduced during the last two or three years; and though it has latterly been somewhat increased it is still very low; and a severe check has been given to ship-building both here and in the U. States and Holland.

But independent of the transitory circumstances now alluded to, we apprehend that the grand cause of the depression of the shipping interest here and in America, is to be found in the too great increase of shipping. The truth is, that ship-building has been completely overdone on both sides the Atlantic. It should be borne in mind that in consequence of the more extensive employment of steam ships in the coasting and oversea trades, the same amount of tonnage performs a much greater amount of work. The mere substitution of steam for sailing ships, though there had been no increase of tonnage, would have been really equivalent to a large addition to the latter. Inasmuch, however, as both the proportion of steam ships to the total tonnage and the amount of the latter have greatly increased, we need not be surprised at the existing depression.

But there is no ground for thinking that the latter will be permanent. The continued increase of our trade will afford employment to a still increased amount of shipping; and the check given to building in the meantime will powerfully assist in bringing about the desired equilibrium between the demand and supply.

Some very important changes have been made of late years, and are yet in progress, in the construction of ships. They are now built of a much larger size than formerly, of finer models, and with a power of sailing of which no just idea could previously have been formed. Ships of 2,000 tons burden are now reckoned only of little more than a medium size; and those of 2,300 and 2,500 tons, and upwards, have become very common. But in this, as in most other things, we appear to have run from one extreme into another; and from being too small, our ships, and those of the Americans, were becoming too large and unwieldy. And, speaking generally, they are now being built of a less, though still large, and more convenient size than was customary a few years ago.

Iron ships are also, as previously stated, very extensively constructed; and ships are now frequently fitted out with screws and steam engines to be used only as a subsidiary power in calms, and against contrary winds.

Most sorts of short passage traffic are now carried on by steamers; and it is probable that in the end they will engross the greater part of the coasting trade of most countries and of the trade between foreign countries adjacent to each other. But it is believed by many good judges, that the improved class of sailing ships have little to fear from the competition of steamers in all the more distant branches of trade. This, however, would appear to be very doubtful.

Statements of Shipowners.—It will not excite the reader's surprise to be told that a great many crude projects have been put forward in the view of removing the existing distress. But it must be left to time and to the efforts of the parties concerned to set it to rights. It would be much worse than useless to attempt to improve their situation by engaging in retaliatory proceedings against Spain and those countries that lay discriminating duties on articles conveyed to them in foreign ships. Such proceedings would seriously injure ourselves without having any favourable influence over the foreigner. Certainly he will not abandon the protective system because we complain of its operation, though

that might very probably tempt him to extend it still farther. But there can be little doubt that he will eventually renounce it when he sees that our commerce and shipping, despite the temporary checks to which all departments of industry are necessarily liable, have vastly increased under a free and liberal system.

Besides their reasonings in favour of coercive measures, the shipowners have recently put forth a statement which is intended to show that shippers only profit by a fall in the rate of freight, and that its reduction redounds in no degree to the advantage of the consumers. Suppose, to illustrate this extraordinary statement, that the freight of the barrel of flour from New York to Liverpool generally amounts to 8*s.* or 10*s.*, but that it falls, from some cause or other, to 1*s.*: the shipowners contend that the exporter will pocket the whole of the difference (9*s.* or 7*s.*) between the high and the low rate of freight, and that the British public will in no wise profit by the fall! And such would be the case for the moment; but it is not possible that the exporter should continue to enjoy an advantage of this sort for any length of time: for the fall of freight by adding so much (9*s.* or 7*s.* per barrel) to the profits of the shippers of flour, would give such a stimulus to its exportation, and create so much competition in the trade, that its price would forthwith fall in England. And there can be no manner of doubt that it would continue to fall till the N. York shippers realised only the same profits that are realised by the shippers of other articles either foreign or coastwise; that is, till the price of flour has been reduced 7*s.* or 9*s.* per barrel, or freight has risen to that amount, or till the equalisation has been brought about partly in the one way and partly in the other. To suppose it should be otherwise is to suppose what is evidently contradictory and absurd. The price of articles not consumed on the spot where they are produced, is made up of the cost of their production and carriage. And any reduction of the latter which is not momentary only, has precisely the same influence over the price of an article as if the expense of producing it were diminished to the same extent. One really feels ashamed to have to state what is so very obvious. It is not creditable to the shipowners that they put forth statements so palpably absurd as that now referred to. They can hardly fail, one should think, to be themselves aware of their fallacy; and they count too much upon the ignorance of others if they suppose that they won't be appreciated at their exact value.

II. Classification of Ships.

To insure a ship on right principles, or in such a way that the premium shall be the fair equivalent of the risk, is no easy matter. The risk depends partly on the condition of the ship and the capacity of the master and crew; partly on the nature of the cargo she is to take on board; and partly on the voyage she has to perform. The last two circumstances disclose themselves, and their influence may be appreciated, at least with sufficient accuracy for practical purposes, without any difficulty; but it is far otherwise with the condition of the ship, and the capacity of the master and crew. It is essential to the adjusting of an insurance on fair terms, that these should be known; and it is, at the same time, exceedingly difficult to acquire any accurate information with respect to them.

It is plain that there is but one mode in which any thing satisfactory can be learned with respect to the condition of ships, and that is, by their inspection and examination by persons of competent information as to such matters. To acquire a just character at first, a ship should be repeatedly surveyed while she is being built; and to learn her condition at any subsequent period, some of the planks should be taken off, and her hull and rigging subjected to a thorough examination. This is the only method to be followed if we wish to arrive at results that may be safely depended on. The *age* of a ship should not be altogether overlooked in estimating her condition; but it is not a criterion that, taken by itself, is worth almost anything. There is the greatest possible difference in the materials of which different ships are built, in the way in which they are built, and in the wear and tear to which they are exposed. Some are so very bad, that they actually go to pieces on their first voyage; others, with difficulty, last for 3, 4, or 7 years; and others, again, run for 10, 15, and even 20 years, and upwards, with but little repair. It may be presumed that the condition of ships built of similar materials, on the same plan, and employed in the same departments of trade, will depend materially on their ages, but a thousand circumstances conspire to defeat this presumption; and it would be ludicrous to suppose that it should apply at all in the case of ships constructed of different materials, and engaged in different lines.

But, notwithstanding the criterion of age is thus really worth less than nothing as a rule by which to judge of a ship's condition, it is almost the only one that was referred to in this country down to a late period. From about the year 1760, or perhaps earlier, down to 1834, ships were arranged, by the underwriters at Lloyd's, in classes marked by the letters A, E, I, and O, and the figures 1, 2, and 3; the former referring to the hull of the ship and the latter to the rigging. A ship marked A 1. was in the

highest class; that is, her hull and rigging were both declared to be in the best condition; ships marked E 1. were in the next class; those marked I 1. were in the lowest available class, or that formed of such as were fit only for carrying coals, or other goods not liable to sea damage along the coast; ships marked O were unseaworthy. But to get into the highest class, no examination of the ship, or none worthy of the name, was required. Unless some very flagrant defect was obvious in their construction, all ships were entitled, when new, to be marked in the highest class; and they were entitled, whatever might be their real condition, to stand in it for a certain number of years, varying from 6 to 12, according to the *port* in which they happened to be built! It is not easy to imagine any thing more absurd than such a classification; but the whole extent of the injury arising from it is not immediately obvious. The great majority of merchants and underwriters have not, and could not be expected to have, any personal knowledge of different ships, and have nothing to trust to but the classified accounts. Suppose, now, that two ships were built at the same time in London or any other port; that one was constructed of the best materials, and in the best way, while the other was constructed of the worst materials, and in the most defective manner: these two ships were placed side by side in the class A 1.; the underwriters, seeing them there, were ready, without further inquiry, to insure them at the *same premium*, and the merchants were, for the same reason, quite as willing to employ the one as the other! A bounty was thus given on the construction of what have been called *slop-built* ships, or ships of an inferior class. For a half, or, at most, two thirds, of what would be required to construct a good and really sufficient ship, a ship-owner got an inferior vessel of an equal burden sent to sea; and, owing to the matchless absurdity of the system of classification, the inferior was placed in the same rank with the superior ship; enjoyed all the advantages such distinction could give; and was, in the public estimation, deemed quite as good and as deserving of employment as the other. This has been a more copious source of shipwreck than all the currents, rocks, and fogs that infest our seas; but it was not the only one. At the end of a certain number of years, depending (as already stated) on the port where the ship was built, both the vessels referred to above were degraded to the class E; and yet it might happen, that the superior ship was, when so degraded, better entitled to continue in the class A than the inferior ship was ever to be in it. But even this does not exhaust the whole absurdity of this preposterous scheme; for, supposing that the superior ship had been so thoroughly repaired as to be as good as the day she came off the stocks, and that the inferior ship had got no repair at all, still they were both placed, side by side, in the class E! All the annals of all the maritime nations of the world, from the Phœnicians downwards, furnish no example of a more perverse, contradictory, and absurd regulation. That it should have existed amongst us for the greater part of a century strikingly exemplifies the power of habit to procure toleration for the most destructive practices and errors.

It may be said, perhaps, that, whatever system of classification is adopted, there must be great numbers of inferior vessels; for, though we did not, foreigners would build them; and, being consequently able to sail them cheaper, would drive us totally out of all trades in which they could come fairly into competition with us. This is true; but, provided they be not engaged in the conveyance of passengers, who ever thought of proscribing inferior ships, or of dictating to the ship-owner what sort of ships he should build, or to the merchant what sort he should employ? We do not object to inferior ships, but we do object to the *same character* being given to them that is given to superior ships. This is practising a gross fraud upon the public; and gives an unfair and unjust advantage to the owners of inferior vessels. The interests of navigation and of humanity imperatively require that ships should be correctly classified; that those that are not seaworthy should not be classed with those that are, but that the *real state* of each should be distinctly set forth in the register, and be made known to every one. If this be done, the merchant and the underwriter may be safely left to deal with them as they think fit.

In consequence of the laudable exertions of Mr. Marshall and other gentlemen, the attention of the principal merchants, ship-owners, and underwriters, &c. of the metropolis was some years ago directed to this subject; and in 1824 a committee, consisting of representatives from these different bodies, was appointed to inquire into and report on it. The committee collected a great deal of valuable evidence; and laid an able report before a general meeting of merchants, ship-owners, &c., on the 1st of June, 1826. We subjoin an extract from this report, which more than bears out all that we have stated:—

"From the absence of all control on the original construction of ships while building, and the impossibility of ascertaining by any inspection, after completion, their real quality, it appears to be indisputably proved, by an almost uniform concurrence of testimony, that the first character, or A 1., is indiscriminately extended to ships differing widely in strength, durability of materials, and all those qualities on which character ought to be dependent; that many ships to which the first class is assigned

are decidedly inferior to others which are placed, from lapse of time alone, in a lower class; that many become totally unfit for the conveyance of dry cargoes, long before the expiration of the period during which they are entitled, according to the present system, to remain on the first letter, in which they are notwithstanding continued; that instances are on record of first-class ships which have been unfit from their origin for the conveyance of dry cargoes; and some are declared to have been hardly fit, when new, to proceed to sea with safety. One case is even adduced, in which, from ill construction and insufficiency of fastening in a new ship, her insecurity was predicted, and she actually foundered on her first voyage; and yet this identical vessel was ranked, according to the indiscriminate system pursued, in the first class.

"Such, as respects new ships, appears by the evidence to be the practical results of a system which, assuming to designate by marks their intrinsic quality, provides no means of actually ascertaining that quality; but offers, in effect, *a premium for the building of inferior and insufficient ships*, by the inducement it holds forth to fraudulent construction and by the quality of character it indiscriminately extends to the best and the worst ships built at the same port.

"Nor, your committee regret to have to report, is the evidence of the errors, inconsistencies, and evils arising from the existing system, as applied to old ships, by any means less conclusive. By the *refusal to restore character, in consequence of repairs, however extensive*, the inducement to maintain ships in an efficient state is removed; whilst, from the absence of all regular provision for stated or periodical examination, their efficiency or inefficiency is rendered dependent upon the varying views, the caprices, or the interest of the proprietors. Hence, though the second character, or E, is declared by the rules of the system to be the designation of ships which, having lost the first character from age, are kept in perfect repair, and appear, on survey, to have no defects, and to be completely calculated to carry dry cargoes with safety, the whole body of evidence distinctly proves that character to be, in very numerous instances, assigned to ships, which, from original defect or want of requisite repairs, are *utterly unfit and unsafe* for dry cargoes; while others, which, from sound constitution or efficient reparation, are pronounced in the evidence to be superior to many new ships, are indiscriminately classed with the actually worthless and unseaworthy. Hence, too, the employment of ships, after they have passed the period prescribed by a fallacious standard of classification, becomes uncertain, precarious, and difficult; the ship-owner is injured; the shipper and underwriter misled; the building of superior ships, capable of long service, is discouraged, and direct inducement is held out to the construction of those of an inferior description; the general character of our mercantile marine is degraded; and it is to be feared that, could the system be traced to its ultimate results, it would be found to be productive of a lamentable loss of property and life."

It may have seemed surprising that, despite the continued complaints of the lowness of freights, and the want of employment for shipping, so many new ships should be annually built. But this was, to a considerable extent, at least, occasioned by the system of classification now described. Instead of building a really good and durable ship, the principal object used to be to construct one that should, at farthest, be, as the phrase is, *run off her legs* in about 10 years or thereby; inasmuch as, whatever might be a ship's condition, she was then degraded from class A 1., and that it was hardly possible, in most departments of trade, to find a merchant to employ, on any thing like reasonable terms, a ship to which these symbols of imaginary excellence were not attached. Hence, the ship-owner, instead of repairing his 10-years old ship, sold her for what she would fetch, and built a new one. But the person who purchased the ship degraded to E 1. forced her, though at an enormous reduction, into business; so that there were two bad or inferior ships in the field; whereas, under a reasonable system of classification, there would most likely have been only one good ship. The injury that this practice did to the shipping interest is too obvious to require to be pointed out. It has been infinitely more hostile to it than all those reciprocity treaties, and that foreign competition, about which there has been so much unfounded clamour. "If the system of classification were founded on the principle of *intrinsic merit*, if the real efficiency of the ship formed the basis on which character was given, the consequence, in numerous instances, would be, that, instead of supplying the place of those ships that at present lapse from age only into the second class with new ones, the owners would effectually repair the existing ships; so that there would speedily be not only a material improvement in the construction of ships, but a material increase in the amount of tonnage, and a corresponding increase in the rate of freight."—(*Marshall's Statements*, p. 19.)

The conclusive report and exposition referred to above did not produce the consequences that might have been anticipated. Government, for reasons known only to itself, but which appear to have been of a very questionable description, seems to have concluded that this was not a subject with which it should interfere; and it was laid aside for some years more. But the still increasing amount of shipwreck, and the loss of life

and property consequent thereon, again roused the public attention to the subject; and at length the principal merchants, ship-owners, and underwriters succeeded in setting on foot machinery by which a classified account of shipping has been obtained, founded on more correct principles. The public owe much to the individuals who imposed on themselves this difficult and important task. Notwithstanding the obstacles with which they had to contend, they have done a great deal to improve the character of our mercantile marine, and to lessen the disasters incident to a seafaring life.

2. *New System of Classification.* — This new classification is conducted under the direction and superintendence of a committee of merchants, ship-owners, and underwriters, established in 1834. But many objections have been made to the manner in which this committee is chosen; and we are disposed to think that its composition might be improved, and that, consequently, it might be made to enjoy a larger share of the public confidence. It establishes rules for classifying ships, and appoints, controls, and dismisses the surveyors by whom they are inspected and examined. It is plain, therefore, that the power which it exercises over shipping is very considerable, and that it is of the greatest importance that it should be placed on sound principles, and exercised with the greatest discretion. A classified register is annually published, which should become more and more complete; and the expenses attending the institution are defrayed, partly by the fees charged on making an entry in the register, partly by the profits on the sale of the register or book, and partly from voluntary sources. But, as the subject is of much importance to every one interested in commerce and navigation, we think we shall do an acceptable service to our readers, by laying before them the statement prefixed by the society to their register. It fully explains their objects, the principles on which they proceed, and the means they profess to adopt for carrying their views into effect.

CLASSIFICATION OF SHIPS: RULES AND REGULATIONS FOR, IN 1855.

After announcing the formation of the society, the official statement goes on to say, that —

8. The superintendence of the affairs of the society to be under the direction of a committee in London, of 24 members, consisting of an equal proportion of merchants, ship-owners, and underwriters. The chairman for managing the affairs of Lloyd's, and the chairman of the General Ship-Owners' Society, and also the chairman and deputy chairman of the Liverpool committee, and the chairman of the Rotation Committee for the time being, to be, *ex officio*, members of the committee.

9. Six of the members, namely, two of each of the constituent parts of the committee, to go out annually by rotation, but to be eligible to be re-elected.

10. The vacancies so arising to be filled up by the election of two underwriters and one merchant by the committee for managing the affairs of Lloyd's, and two ship-owners and one merchant by the committee of the General Ship-Owners' Society.

11. The committee to appoint from their own body, annually, a chairman and deputy chairman, and also a chairman for a sub-committee of classification.

12. The committee to appoint a sub-committee of classification, to be so regulated that each member of the general committee may, in rotation, take his turn of duty therein throughout the year.

13. The secretary, clerks, and servants of the society, and the surveyors, to be appointed by, and be under the direction of the general committee.

14. Special meetings to be convened by order of the chairman, or deputy chairman, or on the requisition of any three members.

15. All elections and appointments to be made by ballot.

16. No member of the committee to be permitted to be present on the decision of the classification of any ship of which he is the owner, or wherein he is directly or indirectly interested.

17. The committee to be empowered to make such by-laws for their own government and proceedings as they may deem requisite, not being inconsistent with the original rules and regulations under which the society was established; but no new rule or by-law to be introduced, nor any rule or by-law altered, without special notice being given for that purpose at the meeting of the committee next preceding that at which such motion is intended to be made; such notice to be inserted in the summons convening the meeting. No new rule, or alteration in any existing rule, materially affecting the classification of ships, to take effect until the expiration of six months from the time it shall have been determined upon.

18. All reports of survey to be made in writing by the surveyors according to the forms prescribed, and submitted for the consideration of the general committee, or of the sub-committee of classification; but the character assigned by the latter to be subject to confirmation by the general committee.

19. The reports of the surveyoss, and all documents and proceedings relating to the classification of ships, to be carefully preserved, and parties proving themselves to be interested therein, to have access to the same under the direction of the chairman or deputy chairman.

20. Foreign ships, and ships built in the British possessions abroad where there is not a surveyor (*see also* § 51), to be surveyed on their arrival at a port in the U. K.; but a due regard is to be had to the circumstance of their having been exempted from the supervision while building to which all British ships are subjected, and the character to be assigned to them is to be regulated according to their intrinsic quality, and from the best information the committee can obtain.

21. In every case in which the character assigned to a ship may be proposed, on survey, to be reduced, notice is to be given in writing to the owner, master, or agent, with an intimation that if the reduction be objected to, the committee will be ready to direct a special survey, on the owner, master, or agent, agreeing to pay the expenses attending the same, provided on the said survey there shall appear sufficient ground for the proposed reduction.

22. When the surveyors consider repairs to be requisite, they are respectfully to communicate the same in writing to the owner, master, or agent, and if such repairs be not entered upon within a reasonable time, a corresponding report is to be made to the committee for their decision thereon.

23. Parties considering the repairs suggested by the surveyor to be unnecessary or unreasonable, may appeal to the committee, who will direct a special survey to be held; but should the opinion of the surveyor be confirmed by the committee, then the expense of such special survey is to be paid by the party appealing.

24. The surveyors to the society not to be permitted (without the especial sanction of the committee) to receive any fee, gratuity, or reward whatsoever for their own use or benefit, for any service performed by them in their capacity of surveyors to this society, or pain of immediate dismissal.

25. The surveyors will be directed to attend on special surveys of ships under damage, or repairs for

restoration, when required by merchants, ship-owners, or underwriters; the charge for which is to be regulated according to the nature and extent of the service performed. In all cases, the application for the assistance of the surveyors must be made in writing addressed to the secretary.

Funds.

26. The funds to be under the authority and control of the committee, and a statement of the receipts and expenditure to be annually printed for the information of the subscribers.

27. The following fees to be charged to the owners of ships prior to their vessels being classed and registered in the book.

I.
For entering and classing ships, and for entering and classing ships surveyed for continuation, or repaired for restoration.

	Tons.	£	s.	d.
For each ship - - -	under 100	1	0	0
Ditto - -	of 100 tons and under 200	2	0	0
Ditto - -	200 — 300	3	0	0
Ditto - -	300 — 400	4	0	0
Ditto - -	400 and upwards - -	5	0	0

II.
For registering repairs.

	Tons.	£	s.	d.
For each ship - - - -	under 300	0	10	0
Ditto - -	of 300 tons and under 500	1	0	0
Ditto - -	500 — 1,000	2	0	0
Ditto - -	1,000 and upwards - -	3	0	0

For re-classing ships (except when repaired), the characters of which have been expunged, or change of owners.

	Tons.	£	s.	d.
For each ship - -	under 200 - -	0	10	0
Ditto - - -	200 and above	1	0	0

Special Surveys.

28. For special surveys, and where the surveyors to the society are required by the owners to superintend the building of ships, or repairs for restoration, or otherwise, a charge will be made according to the nature and extent of the service performed. In all such cases the authority of the committee is required.

29. Certificates of character signed by the chairman of the general committee, or by the chairman of the sub-committee of classification, and countersigned by the secretary, will be granted on application; the charge for which will be as follows:—

For ships under 200 tons - - -	2s. 6d. each.
„ 200 „ and above - -	5s. each.
For ships built under special survey, on their first classification - - - -	Gratis.
30. Rules, each copy - - - -	2s. 6d.

Characters.

31. The characters to be assigned to ships to be, as nearly as possible, a correct indication of their real and intrinsic qualities, and to be in all cases fixed (not by the surveyors, but) by the committee, after due consideration of the reports of the surveyors and such other documents as may be submitted to them, and will be distinguished as follows:—

Ships A

To consist of new ships, or ships continued, or restored. *Vide* §§ 34, 54, 55, 57.

Ships Æ asterisk, in Red,

To consist of ships which have passed the period assigned on the original survey, or continuation, or restoration; and also of ships not having had an original character, and which are found on survey of superior description, fit for the conveyance of dry and perishable goods, to and from all parts of the world. *Vide* § 60.

Ships Æ, in Black.

To consist of ships which are found on survey fit for the safe conveyance of dry and perishable goods on shorter voyages. *Vide* § 61.

Ships E

Will comprise all ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage on any voyage. *Vide* § 64.

Ships I

To consist of ships fit to carry cargoes not liable to sea damage on shorter voyages. *Vide* § 66.

32. In all cases in which the application of the rules must necessarily be regulated by the ship's admeasurement, the least tonnage is to be adopted.

Rules for Classification.

Ships A

33. Will consist of new ships and those which have not passed a prescribed age, provided they are kept in a state of complete repair and efficiency. The character A will not, however, be granted to any vessel, unless satisfactory evidence of the date of build and place where built is produced.

34. The number of years to be assigned for this character to be determined with reference to the original construction and quality of the vessels, the materials employed, and the mode of building; and their continuance for the time so assigned to depend upon its being shown by occasional surveys (annually if practicable) that their efficiency is duly maintained. The characters of ships A will be struck out of the register, unless re-surveyed within a period of 4 years from the date of last survey,—or, in the case of ships exceeding the 8 years' grade, within one-half of the time assigned. After the expiration of the periods prescribed, ships will be permitted to continue in the character A, or may be restored thereto, for a further limited period, on complying with the conditions hereinafter prescribed in §§ 54, 55, and 57.

35. New ships are to be surveyed while building, by the surveyors to this society, in the following three stages of their progress, or they will be liable to lose one year of the period to which they might otherwise be entitled. *See* § 53.

First.—When the frame is completed.

Second.—When the beams are put in, but before the decks are laid, and with at least two strakes of the plank of the ceiling between the lower deck and the bilge unwrought, to admit of an examination of the inner surface of the plank of the bottom.

Third.—When completed, and before the plank be painted or payed.

All ships for which a higher character than ten years' A may be claimed, must undergo a survey by a surveyor who is an exclusive officer of the society, twice at least, while building; namely, at the first and at the second stages of their progress as above prescribed. Due notice must be given by the builder or owner of their being ready for this additional survey.

36. A full statement of the dimensions, scantlings, &c. of all new ships, verified by the builder, is to be transmitted by the surveyor, and to be kept as a record in the office of the society.

RULES TO BE OBSERVED IN BUILDING SHIPS.

37. The whole of the timber to be of good quality, of the descriptions shown in the Society's tabular form, No. 1, as applicable to the several terms of years for which ships so constructed may respectively be appointed to remain on the character A. The stem, steru post, beams, transoms, apron, knightheads, hawse timbers, and kelson of ships claiming to stand twelve years, to be entirely free from all defects; the frame to be well squared from the first foothook heads upwards and free from sap, and likewise below, unless the timber be proportionably larger than the scantling hereafter described; every alternate set of timbers to be framed and bolted together to the gunwale. The butts of the timbers to be close, and not to be less in thickness than one third of the entire moulding at that place, and to be well chocked with a butt at each end of the chock. In all cases in which the heads and heels of the timbers shall be square, in vessels intended for the twelve years' grade, a dowel (to be in diameter from one-fourth to one-third of the moulding of the timber) must be introduced into the ends of such timbers in order to connect them together. In the construction of poops and top-gallant forecastles* the timbers must be of the same materials as are required by the rules in the society's table A for the "top-timbers" of the frames of ships, according to the several terms of years appointed for such ships to remain on the character A. The outside planking of the forecastle and the sheerstrakes, plank-sheers, shelf or clamp, and spirketting of poops and top-gallant forecastles must be likewise of the materials required by the rules in table A for the "topsides" of the said ships, admitting also mahogany. The remainder of the planking of the poops and top-gallant forecastles may be of fir of good quality. The beams of top-gallant forecastles and the mast beams, breast beam, and transom beam of poops, must be of the material required by the rules in table A for the beams of the said ships. The remainder of the beams and the water-ways of the poop may be of cedar, mahogany, Baltic fir, red pine, pitch pine, larch, hackmatac, tamarac, juniper, or cowdie; and rock elm, for such beams only, in ships of the 7 A grade and upwards, and of yellow pine or American white spruce in all below that grade. This rule does not apply to raised quarter decks.

38. The scantlings of the timbers, keelson, keel, planking, &c. are not to be less than those shown in the Society's Table B.

39. The intermediate dimensions for the scantling of timbers between the floor heads and the gunwale to be regulated in proportion to the distance from the two points. Should the room and space be increased, the siding of the timbers to be increased in proportion. Whenever ships are built with double floors, thick strakes must be worked inside, to extend from the lower part of the short floor head chocks to the upper part of the long floor head chocks, and be well bolted through and clenched.

40. The sizes of the deck and hold beams have been regulated so as to be determined by the length of the beams amidships, as shown in Society's Table C. The beams will be required to be, of the size of the midship beam, except those at the after end of the ship, which may be reduced in proportion to their length. If beams of spruce or yellow pine are used, the siding of such beams shall be one-fourth larger than is prescribed by the above table, or be increased each way, siding and moulding, equally in area to that amount.

41. The beams of all decks to be sufficient in number and size, and securely fastened to the sides either with lodging knees of iron or wood, or with a shelf-piece and waterway†, or with a shelf-piece and knees, or with some other security equal thereto, so as sufficiently to connect the ends of the beams to the sides of the ship: and, in addition, all ships of 150 tons and above to have vertical knees to the deck beams; and those of 200 tons and above to have vertical knees to the hold beams, fitted as standards or hanging knees (the latter being preferred), in number as shown in the Society's Table E. Vessels of 13 feet, and under 15 feet hold, the spacing of the hold beams not to exceed 8 feet apart, and the deck beams 4 feet:—vessels of 15 feet and under 18 feet hold, the spacing not to exceed 8 feet and 4 feet apart alternately, or in that proportion; the deck beams to be placed one over every hold beam, and one in all double spaces—vessels of 18 feet hold and above, the spacing of the beams not to exceed 4 feet 6 inches; the deck beams to be one over every hold beam. The depth in all such cases to be determined by taking the measure from the top of the limber-strake, to the top of the upper deck beams. Ships having a depth of hold, measured from the limber-strake to the under side of the lower deck beam, above 13 feet but not exceeding 15 feet, must be secured with iron riders of the sizes and be fastened as shown in the Society's Table F., and in number not less than one on every fourth floor, on each side, from fore side of fore-mast to aft side of mizen-mast, to extend from the lower deck beams downwards so as to receive not less than two bolts in a substantial part of the floors; or by orlop beams, sufficient in number and properly secured. All ships having two decks (viz. upper and lower deck), and exceeding 23 feet in depth from the top of the limber-strake to the top of the upper deck beams, or having three decks (viz. upper, middle, and lower deck) and exceeding 23 feet in depth from the under side of the middle deck, to have orlop beams, the number to be in no case less than one half the number of lower deck beams in the space between the foremast and the mizen-mast. The application of this rule to British North American built ships and fir ships will not exempt them from the full operation of the rule, § 62. All dimensions, fastenings, and bolts of the middle deck in vessels having three decks (viz. upper, middle, and lower deck), to be the same as those prescribed in the tables, for the upper deck of ships having only two decks; and a reduction of one-sixth from the dimensions, fastenings, and bolts prescribed in the tables, for the upper deck of vessels having only two (viz. upper and lower deck), will be allowed in the third or upper deck, by some called a spar deck. The middle deck to be a perfect deck laid and caulked. The united lengths of poop and forecastle not to exceed three-fifths of the entire length of the upper deck. All timbers of the frame including poop and forecastle to extend to the extreme height. Every ship exceeding 150 tons to have at least one crutch for the security of the heels of the after-timbers of the frame; one pair of pointers in addition to a knee at each end of the wing transom to connect the stern frame with the after-body of the ship; and a transom over the heels of the stern timbers properly kneed. The heels of the cant timbers forward and aft to be stepped into or on the deadwood, and bolted through.

42. Shifts of timber in ships of 200 tons and upwards, to be not less than one-seventh of the main breadth; and in ships under 200 tons, to be not less than one-sixth of the main breadth.

Plank.—43. The outside planking to be of good quality, of the description prescribed in the Society's Tabular Form, No. 2, and to be clear o' sap and free from all defects.

44. The inside planking to be of the description shown in the Society's Tabular Form, No. 3, and free from all foxy, druxy, or decayed planks. With regard to the ceiling plank, and the efficiency of its fastening, it will be required that the planking shall be properly shifted and fastened so that there shall be at least either treenails or through bolts, or short bolts, in each plank of the ceiling in every timber.

45. No butts to be nearer than 5 feet to each other, unless there be a strake wrought between them, and then a distance of 4 feet will be allowed; and no butts to be on the same timber, unless there be

* The united lengths of which must not exceed three-fifths the entire length of the upper deck.—*See Section* 41.

† When the transverse sectional area of the shelf-pieces and waterways are equal in contents to the transverse sectional area of the beams of their respective decks at their ends, as given in Table C., and the beams are either dowelled or dovetailed to their shelf-pieces and waterways, and the shelves and waterways are properly scarphed and through bolted, having also a hanging knee to the lower side of every beam end, then lodging-knees may be dispensed with, except in the mast-rooms. In ships of 500 tons and under, where lodging knees properly bolted are applied, the ordinary plank clamps may be used, but the through bolting of them cannot be dispensed with.

three stakes between; but vessels under 200 tons will be exempted from the full operation of this rule; and in ships of larger tonnage a literal compliance with it will be dispensed with in cases wherein it may be satisfactorily proved that the departure from the rule is only partial, being confined to the ends of the ship, or the planking of the topside, and does not injuriously affect the ship's general strength; but such relaxation will not be sanctioned unless an accurate description of the shifting of the plank be transmitted by the surveyors, to enable the committee to form a proper judgment on the case.

The thickness of the plank, according to the tonnage of the ship, is not in any instance to be less than is prescribed in the Society's Table B.

Fastenings.—46. The treenails to be of good quality, and of a description of wood equal to the best material through which they are to pass. They are to be circular, being either engine-turned, compressed, or planed. In all cases in which planks above twelve inches in width shall be used, they must be double fastened: and those above nine inches in width must be treenailed double and single except bolts intervene; and if less than that width, then to be treenailed single; in each case at least one-half of the treenails must go through the ceiling. All the outside planking to be fastened with at least one bolt in every butt, the bolt to be through and clenched. The bilges to be secured with bolts so placed that from the foremast to the mainmast, in ships under 300 tons, there shall be, at least, one bolt through and clenched in each first foothook; and that in ships of 300 tons and upwards there shall be at least two bolts through and clenched for each set of timbers in one or other of the thick bilge strakes. All the bolts of the knees, breasthooks, crutches, riders, transoms, pointers, kelsons, shelf-pieces, waterways, heels of timbers against fore and after deadwood, and of all other material fastenings, are to be driven through and clenched on rings of the same metal as the bolts. The up and down bolts in the knees to beams are not required to be through the deck, but whether clenched upon the beams, or upon the deck, they must be clenched on rings of the same metal as the bolts. The two bolts, the nearest to the crowns of the pintles and braces of the rudder are also to be through and clenched, those through the braces to be in the main piece of stern post. The limber strakes to be bolted down to the floors, and one bolt in every floor, on each side, to be through and clenched. When the heels of the first futtocks (either with full moulding or with butted chocks) meet at the middle line on the keel under the kelson, the through bolting of the limber strakes may be dispensed with. Ships, otherwise entitled by their materials to stand higher than the six years' grade, in which the flat of upper deck, poop, and forecastle, are fastened with nails or bolts of copper or yellow metal, and the whole outside planking of which is fastened with treenails and copper or yellow metal, to the entire exclusion of iron bolts and iron nails, and in which no iron bolts are used in any part of the vessel, except—the frame bolts and short bolts of inside planking; up and down bolts of knees which clinch upon the upper deck, poop, or forecastle beams when the flat of deck is laid over them; up and down bolts of hold or lower deck beams; fore and aft bolts in arms of knees to beam; bolts of the coamings, windlass or bowsprit bitts; deck fixtures; athwartship bolts in knee of head afore the stem; bolts or fastenings incidental to the rigging; or any fastenings above the respective plank sheers of poop, waist, and forecastle—such ships will be allowed an additional period of one year.

And, in addition thereto, a further period of one year will be allowed to ships so fastened, in which the outside planking above the floor heads is also fastened entirely with bolts of copper or yellow metal in lieu of treenails.

In all such cases of substitution, the number of bolts must be the same as is already prescribed as above for treenails; the proportion of through bolts must be at least one-half*; and all the through bolts must be of malleable metal, and clenched on rings (of the same metal) inside. The sizes of the copper or mixed metal bolts must be as under, viz.—

In Ships of 150 tons and under	200 tons	-	-	-	-	$\frac{7}{8}$ inch.	Smaller sizes must not be used.
— 200	—	350	-	-	-	-	$\frac{7}{8}$ inch.
— 350	—	500	-	-	-	-	$\frac{13}{16}$ inch.
500	—	700	-	-	-	-	$\frac{15}{16}$ inch.
700	—	900	-	-	-	-	1 inch.
900 and above	-	-	-		-	-	1 inch.

and the lengths of the short bolts not less than as follows, viz.—

When used in plank of	2½ inches,	to be	7	inches long.
,,	3 ,,	,,	8	,,
,,	4 ,,	,,	10	,,
,,	5 ,,	,,	12	,,

and so in proportion for plank of other thicknesses. The sizes of the bolts required in the several parts must not be less than is shown in the Society's Table D.

47. In every case where the butt and bilge bolts are not through and clenched, one year will be deducted from the period which would otherwise be assigned in the classification of the vessel.

48. The scantlings and dimensions for all sized vessels to be proportionately regulated, agreeably to a table adopted by the Society, a copy of which is in the hands of each of the surveyors.

49. Ships surveyed while building, in which all the materials required for a 12 years' ship shall have been used, and most of the other requisites for that grade fulfilled, but which, from partial deficiencies, may not appear to be in all respects entitled to the full period, although superior to the description of a 10 years' ship, may be marked in the book thus, 11 A; thereby denoting that they are to remain on that grade 11 years, provided they be kept in a state of efficient repair.

50. Ships surveyed while building, in which the scantlings and shifts of the timbers, the thickness and shifts of the planks, and size of fastenings may be the same as are required by the rules, and in which the description of materials prescribed in the annexed tables shall also have been used, but in which the alternate sets of timbers shall not have been framed, nor the chocks wrought with a butt at each end, nor the frame so well squared as is required for 12 years' ships, but which shall be in other respects equal thereto, shall be marked "10 A;" thereby denoting that they are to remain on that grade for ten years, provided they be kept in a state of efficient repair.

51. In all other cases, ships surveyed while building, and constructed of the materials of good quality, will be allowed the several terms of years respectively appointed, provided they be kept in a state of efficient repair. All ships, not built under survey, whether in the U. Kingdom or abroad, for which a character may be claimed, must be placed in dry dock or laid on blocks in order that their bottoms may be seen and properly examined; they will also be required to have their timbers completely exposed for examination, by a plank or listing (as the surveyor may direct) being taken out, either inside or outside, all fore and aft, on both sides, equal to one entire strake, at the first foothook heads, and another between decks; and a few treenails must likewise be driven out, so that the surveyors, from actual inspection, may be satisfied whether or not they are of the quality and make prescribed by the rules; and the same being thus ascertained shall be reported to the committee, and a character assigned. If of 400 tons and upwards, the survey must be made by two surveyors, and their reports signed accordingly.

52. Ships built under a roof, which shall project at each end beyond the length, and on each side

* Whenever metal fastenings are used in lieu of treenails, this proportion must be observed.

beyond the breadth, a quantity equal to half the breadth of the vessel shall have one year added to the period prescribed, provided they shall have been surveyed whilst building, and shall have occupied a period of not less than twelve months in their construction, and not less than nine months (as part thereof) after the frames shall have been completed.

53. Ships built in the U. Kingdom, or in Quebec after 1851, or St. John, New Brunswick, after 1853, and not surveyed while building by the surveyors to this society, or where the owners or builders may have refused to permit them to survey and examine the same at the several periods prescribed by the rules, will be subjected to the minutest possible examination previously to assigning a character; but in all such cases one year will be deducted from the period which would otherwise have been assigned, in consequence of their not having been submitted to such survey during their construction. In no case, however, will a higher grade than 10 A be assigned to ships built in the U. Kingdom, which shall not have been surveyed while building.

CONTINUATION OF SHIPS A.

54. If, on the termination of the period of original designation, or if at any subsequent period not exceeding one-third of the number of years assigned originally, or on restoration, an owner should wish to have his ship remain, or be replaced on the letter A (*vide* § 59.), he is to send a written notice thereof to the secretary, and the committee shall then direct a special survey as follows to be held, consisting of not less than two competent persons to be appointed by the committee, one of whom shall be a surveyor the exclusive servant of the society, namely,

Survey.

For the purpose of facilitating such survey, the ship shall be either placed in dry dock or laid on blocks so that the keel may be examined, and be scraped from the light-water mark upwards, including the plank-sheer and waterways, so as to expose the surface of the plank to view.* The hold to be cleared and proper stages made. The attention of the surveyors shall then be particularly directed to the state of the upper or main deck and comings, the upper and lower deck bolts, and the outside planks through which they pass, the plankssheers, waterways, and beams, so far as they can be examined; the hawse timbers, knight-heads, breasthooks, and transoms; the floors and kelsons; the keel and rudder; the planking outside, and the treenails passing through from the light water-mark upwards; the ceiling inside, and the frame and inner surface of the outside planking where it may be seen; and the sheer and general form of the ship; and should any suspicious treenails or bolts appear, the same are to be driven out for inspection. The surveyors on these points shall transmit to the committee a detailed report, accompanied by such observations as may occur to them from inspection of the ship, or from information of the repairs she may have received. If from the report of such special survey the ship shall be found to be in a sound and efficient state, and to have preserved her original form unaltered, the committee shall continue such ship on the letter A for such further period as they may think fit, not exceeding, however, one-third of the number of years which had been originally assigned. Ships so continued shall be distinguished in the Register Book by the number of years for which the character is extended, being inserted separately under the number assigned on the original character, thereby denoting that the ship has been found on survey in such good and efficient order as to entitle her to be continued for years. Ships built in the colonies which shall have had the character A for four years will be allowed a continuation for two years, provided that in addition to the above requisitions, and those prescribed by § 63, the owners shall agree to a strake in the topsides, fore and aft, on both sides, being also removed, and the ships specially surveyed in that state, shall be found to be in a sound and efficient condition. The period assigned for continuation will, upon all occasions, commence from the time the ship may have gone off the letter A, without regard to the date when the survey for this purpose may have been held.

In cases of the repair of ships for continuation of character under the rules, § 54 (but in no other) materials of an inferior description (but not below those prescribed for the 6 years' grade) may be permitted to be used in those parts which must of necessity, under the operation of the rules, § 56, be entirely removed on a repair for restoration; subject, however, to the shipowner, in every instance, making a special application to the committee for ther previous sanction.

RESTORATION OF SHIPS TO THE CHARACTER A.

First Rule.

55. If, at any time before the expiration of two-thirds of the number of years beyond the period originally assigned, an owner be desirous to have his ship restored to the A character, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs found requisite) will be granted for a period not exceeding two-thirds of the time originally assigned, the same to be calculated from the date of such repairs.

Requisites for Restoration.

56. All the bolts in the range of each deck to be driven out, and the planks taken out; the upper deck waterways, and plankssheers and spirketting, and the strake next the waterways on the lower deck in the midships to be taken out; the sheathing to be entirely stripped off the bottom; all the outside planking from the light water-mark upwards to be scraped bright; a strake in the upper course of the bottom, between the wales and the light water-mark fore and aft, and a plank in the ceiling at the floor heads on each side, to be taken out, the limbers to be clear, and the hooks forward to be exposed; and in that state the ship to be submitted to a special survey and examination, at which the attention of the surveyors appointed by this Society is to be particularly directed to the state of the decks, the remaining plank of the topsides, the wales, upper courses, and treenails, and other fastenings; also to the state of the frame, hawse, timbers, and knightheads, kelson, floors, foothooks, ceiling, and breasthooks, the rudder in all its parts and hangings; and if, after such examination, the owner should consent to take out all planks, timbers, beams, knees, waterways, fastenings, and other parts that may be found defective, or objected to, and replace them with materials of the same species, or of equal quality with those of which the ship was originally constructed, such ships to be entitled to restoration for a period proportionate to their real condition and the extent of the repairs performed; or if timber of an inferior

* If the ship has been sheathed with wood over felt, fastened with copper or mixed metal nails, within a period of five years, and the bottom plank from the light water-mark upwards shall, when so sheathed, have been brightened, and the condition of the bolts and treenails and caulking ascertained, and fully and favourably reported upon; and provided that the sheathing which covers the binding bolts, and a strake of sheathing all fore and aft on each side under the wales be removed, and listings cut out at hood ends of stem and stern post; and the planking, fastenings, and caulking so exposed, shall prove to be in good condition, then, on application to the committee, the stripping from the light water-mark upwards may be dispensed with.

If the ship has been recently coppered, and it shall appear to the surveyors that stripping from the light water-mark to the wales may be dispensed with, the case will receive due consideration upon application to the committee by the owner in writing.

description, or second-hand English or African oak or teak be used, then for a period not exceeding that for which such materials would have entitled a new ship to stand A according to the tables, subject in either case to the ship being at all times hereafter kept in a state of efficient repair.

Second Rule.

57. If, at any age of a vessel, an owner be desirous to have his ship restored, such restoration (on his consenting to the special survey hereinafter described, to be held by two surveyors, and performing the repairs thereby found requisite) will be granted for so long a period as may be deemed expedient by the committee, not exceeding, in any case, the term of 8 years.

Requisites for Restoration.

58. The whole of the outside plank of the vessel to be taken off as low as the second foothook heads, and the remainder of the planking, either outside or inside, together with all the decks, to be removed so as to expose the timbers of the frame entirely to view, and in that state the ship to be submitted to a special survey and examination, by the surveyors appointed by this Society; and if, after such examination all timbers, beams, knees, kelsons, transons, breasthooks, remaining plank, inside or outside, or other parts found to be defective, be replaced with materials of the same species, or of equal quality with those of which the ship was originally constructed, and all the treenails driven out and renewed, such ship may be restored. But if timber of an inferior description, or second-hand English or African oak or teak be used, then for a period not exceeding that for which such materials would have entitled a new ship to stand A according to the tables, subject, in either case, to the ship being at all times thereafter kept in a state of efficient repair.

59. Ships which have been restored shall be entitled to continuation, subject to the same conditions of survey and examination as are prescribed for ships proposed to be continued at the expiration of the period first assigned to them (§ 54); but in like manner, the term of such extended continuance shall be limited to a period not exceeding one-third of the number of years for which the ship may respectively have been restored, without any reference whatever to the period originally assigned to them. At the termination of the several periods assigned to ships for remaining on the character A, they will be reduced to the description designated by the diphthong Æ. But if during the last year of the period assigned to them, the owners of a ship shall, in consequence of her being about to proceed on a distant foreign voyage, apply to have her surveyed for continuation on the letter A, or for diphthong Æ with the asterisk, a special survey shall be held conformably to the rules §§ 54 or 60, as the case may be: and if from the report of such special survey, the ship shall appear to be in all respects in a sound and efficient state, such as is required by those rules, the committee shall, from the period at which the ship's character would terminate, continue her on the letter A, or assign to her the character *Æ (in red) in accordance with the rules referred to.

SHIPS Æ ASTERISK, IN RED,

60. Will consist of all ships that have passed the periods which have or might have been assigned to them for the character A, or for continuation, or for restoration, and shall be found on survey to be of superior description, being fit for the conveyance of dry and perishable goods to and from all parts of the world, shall be distinguished by inserting their characters in red with an asterisk thus prefixed,* Æ. But in all cases in which the owner may claim this distinction, the ship must undergo a special survey by two surveyors, to be appointed in every instance by the committee, and be subject in other respects to a compliance with the undermentioned requisitions of

Survey.

The ship to be either placed in dry dock or laid on blocks, so that the keel may be examined, and be scraped from the light water-mark upwards, including the plank sheer and waterways, so as to expose the surface of the plank to view.* The hold to be cleared, and proper stages made both inside and outside. The attention of the surveyors shall then be particularly directed to the state of the upper or main deck and comings, the upper and lower deck bolts, and the outside planks through which they pass, the plank-sheers, waterways, and beams, so far as they can be examined; the hawse timbers, knightheads, breasthooks, and transoms; the floors and kelsons; the keel and rudder; the planking outside, and the treenails passing through from the light water mark upwards; the ceiling inside, and the frame and inner surface of the outside planking where it may be seen: and the sheer and general form of the ship; and should any suspicious treenails or bolts appear, the same are to be driven out for inspection.

And to entitle them to continue this character, such vessels will be required, in addition to the usual annual survey, to undergo a special re-survey, as prescribed above, within a period (from the date of the last special re-survey) not exceeding two-thirds of the several terms of years originally assigned to them, or earlier, if in the judgment of the surveyors, upon a careful examination of the ship, the same shall appear to them to be necessary. With respect to the materials to be used in the repair of vessels, the owners of which may apply for a special survey for the asterisk, not any will be permitted of a description inferior to the materials contained in the tables for vessels of the 6 years' grade, or to those prescribed by the tables for new ships of higher character, for periods equal to two-thirds of the several terms of years of orignal designation of the ships undergoing repair. Those ships, however, the original construction of which may not have entitled them to the A character for a longer period than five years, will not be allowed the distinction of the asterisk. Whenever it shall appear to the surveyors that a vessel classed Æ with the asterisk shall no longer be in a condition to deserve that distinction, notice of the proposal to reduce her shall be given in writing to the owner, master, or agent, in the same manner as is prescribed by the rules, § 21.

SHIPS Æ, IN BLACK.

61. Will consist of ships that have passed the prescribed age for the A character, but have not undergone the repairs which would have entitled them to be continued or restored; or having been continued or restored, and the additional period thus assigned expired, and of ships of the Æ asterisk character, in red, and also such ships as have never had an original character, which shall be found on survey fit for the conveyance of dry and perishable goods on shorter voyages, shall be distinguished by the diphthong Æ in black; and a careful survey will be required to be made annually, or on the return of the ship from every foreign voyage, by one of the surveyors to this society, who is to state distinctly and separately the actual condition of the upper deck fastenings, waterways, spirketting, plank sheers, topsides, upper deck with its appendages, lower deck fastenings, wales, counter, plank, and treenails outside to the water's

* If the ship has been sheathed with wood over felt, fastened with copper or mixed metal nails, within a period of five years, and the bottom plank from the light water-mark upwards shall, when so sheathed, have been brightened, and the condition of the bolts and treenails and caulking ascertained, and fully and favourably reported upon; and provided that the sheathing which covers the binding bolts, and a strake of sheathing all fore and aft on each side under the wales be removed, and listings cut out at hood ends of stem and stern post; and the planking, fastenings, and caulking so exposed, shall prove to be in good condition, then, on application to the committee, the stripping from the light water-mark upwards may be dispensed with.

If the ship has been recently coppered, and it shall appear to the surveyors that stripping from the light water-mark to the wales may be dispensed with, the case will receive due consideration upon application to the committee by the owner in writing.

edge, rudder, windlass and capstan, beams, breasthooks, transoms, and timbers; but if not surveyed within twelve months, such ship having been during that time in some port in the U. K., the character will be omitted until such survey be held; or, as the case may be, she will be allowed to pass into the class E.

BRITISH NORTH-AMERICAN BUILT SHIPS, AND FIR SHIPS.

62. Ships built in the British North-American colonies, and all ships wherever built, the frames of which are composed of fir, of 400 tons and above, shall, in order to entitle them to be classed in the register book of the society, be secured in their bilges by the application of iron knee riders, or hanging knees and riders to cover the joints of the floor and foothook heads, to extend from the height of the hold beams to the floors, so as to receive not less than two bolts in a substantial part of the floors; the number of iron knees and riders to be not less than one of each to every hold or lower deck beam on each side. The knees to be connected with the riders or not, at the option or convenience of the owners; but if not so connected, the side arms of the knees are to be of the length and to be fastened as prescribed in the society's table F. The number of knees to each deck, and of riders, also their dimensions, and number of bolts, are fully explained in the said table F. In cases of refusal, the words "not fastened as per rule, § 62," will be inserted against the vessel's name. All ships built in the colonies will be considered as "iron fastened" in their centre lines, unless it shall be satisfactorily shown to the contrary, either by the exposure of some of the bolts, or by a certificate to be produced from the builders.

63. All British North-American built ships, which have gone, or may go off the list of ships of the A character, or which may be of an age exceeding the period for which they might have had claims to be put upon that grade (whether classed or not), shall, as from time to time they come under examination, be subjected to a careful survey, to be made by one of the surveyors to this society;—and no further character shall be assigned them unless a survey shall be held as follows; and planking, either inside or outside, at the discretion of the surveyors, in quantity equal to one entire strake fore and aft on both sides, shall be removed; to be taken out in midships immediately above the turn of the bilge, and at such height forward and aft as may, in their judgment, best expose the timbers of the frame to view; that a special report of the state of these timbers, and of the general state and condition of the upper deck fastenings, wa erways, spirketting, plankshеers, topsides, upper deck with its appendages, lower deck fastenings, wales, counter, plank and treenails outside to the water's edge, rudder, windlass and capstan, beams and breasthooks, shall be transmitted by the surveyors to the committee; and on the receipt of such report the character shall be assigned. If the diphthong character be then assigned, it shall be continued (subject to an annual survey) for a period not exceeding the number of years originally assigned; at the expiration of which the character will be discontinued, unless a similar survey and examination of the frame be again submitted to.

Ships E.

64. Will comprise all ships which shall be found on survey fit for the conveyance of cargoes not in their nature subject to sea damage on any voyage.

65. Subject to occasional inspection, at least once in every two years, ships will continue in this class so long as their condition shall, in the opinion of the committee, entitle them thereto.

Ships I.

66. Will comprise ships which shall be found on survey fit for the conveyance, on shorter voyages (not out of Europe), of cargoes in their nature not subject to sea-damage.

67. The bottom of every ship is to be caulked once in every five years, unless wood-sheathed and felted, and then once in every 7 years, except in the case of teak-built ships, upon which a special survey may have been requested, and the surveyors having ascertained, by the removal of a strake of sheathing fore and aft under the wales, and a strake at the first foothook heads, and by causing listings to be cut out at the wood's ends, that such caulking is not required, the same may then be dispensed with. If any ship shall be stripped within the periods above mentioned, her bottom is to be caulked, if necessary.

68. In all cases in which ships may be doubled, doubling of not less than the thicknesses hereinafter mentioned will be required, the same to be properly wrought and fastened as follows: in every instance the doubling is to be at least single fastened either with treenails or with bolts, and a through bolt in every butt. If treenails be used, every treenail must, if practicable, be a through fastening; and if bolts be used, then one-sixth of them from the lower part of the bilge upwards must be through and clenched on the ceiling in addition to the butt bolts.

The throat bolts of iron knees, and the bolts of iron hooks, crutches, and pointers, must be renewed through the doubling.

The thickness of the doubling for the wales and bottom, on ships

Under 400 tons to be not less than	-	2 inches
of 400 „ and under 600 tons	-	2½ „
of 600 „ and above	-	3 „

On the topsides of ships not exceeding 300 tons, the thickness may be 1¼ inches.

No ship hereafter doubled, shall be entitled to the asterisk or any higher class, unless it shall be ascertained at the time of doubling that the frame is capable of securely retaining the fastenings.

Iron-fastened Ships.

69. All ships, although iron fastened (except as hereinafter mentioned), shall be classed in the same manner as copper-fastened ships, so long as they remain unsheathed with copper, provided they are, in all other respects, constructed in accordance with the rules; but when sheathed with copper over the iron fastenings, the words "coppered over iron bolts" shall be added to the character in the register book, and continued until the ship be thoroughly copper-fastened.

70. Ships built in India, although fastened with iron, shall be permitted to be copper-sheathed without any mark being placed in the book, provided the bottom be felted or chunamed and wood-sheathed, and subjected to a careful examination of the iron fastenings on every occasion on which the sheathing is stripped off, for which purpose some of the bolts and nails are to be taken out of the lower part of the bottom, and to be seen by the surveyor; but no such ship shall be permitted to continue either on the A or on the *Æ in red class for a longer period than one-half the number of years beyond the term originally assigned for her remaining on the A character, unless the bottom shall have been doubled, or the whole of the iron fastenings taken out or properly secured, and the bottom refastened with bolts, or treenails, or both, including the middle line and breasthook and crutch bolts.

ANCHORS, CABLES, AND STORES.

71. All vessels are required to have their masts, spars, and standing rigging in good order, and sails in sufficient number and good condition, and every ship is to be supplied with a good hempen stream-cable or tow-line of sufficient size and length, and with at least one good warp; and all vessels are to be provided with anchors of proper weight, and cables of approved quality and size, properly tested, in number and length according to the undermentioned scale:

Anchors.

72. All vessels under 200 tons to have at least two bower anchors, and all vessels of 200 tons and above to be provided with at least three bower anchors.

Cables.

	Tons.		*Tons.*		*Fathoms.*	
75.—All vessels of		and under	150	to have at least	150	if chain.
—	150	—	250	—	180	—
—	250	—	350	—	200	—
—	350	—	500	—	240	—
—	500	—	700	—	270	—
—	700 and upwards			—	300	—

A certificate of all new chains having been tested, and of the strain applied to them, must be produced before a ship is classed. The amount of strain applied should be marked on each length.

74. In all cases where hempen cables are used, one-sixth more in length will be required.

Boats.

75. All vessels under 150 tons to be provided with one good boat; and every vessel of 150 tons and above to have a suitable number, and with not less than two good boats.

76. The efficient state and condition of ships' anchors, cables, and stores, will be designated by the figure 1; and where the same are found insufficient in quantity, or defective in quality, by the figure 2.

SHIPS NAVIGATED BY STEAM.

77. All sea-going vessels navigated by steam shall be required to be surveyed twice in each year, when a character will be assigned to them according to the report of survey.

78. That with respect to the boilers and machinery, the owners are required to produce to the surveyors at the above-directed surveys, a certificate from some competent master engineer, describing their state and condition at those periods; and to which certificate it is desirable there should be added a description of the particulars of the same, as far as may be practicable, to be appended to the report of survey, and delivered to the committee, who will thereupon insert in the register book the letters "M.C." denoting that the boilers and machinery have been inspected and certified to be in good order and safe working condition; but if no certificate of their condition be furnished by the owner or master, then no character can be assigned for the machinery.

79. *Hull:*—The surveyors are directed to examine and report the scantling of timbers, plank, and fastenings, and to state where built, and by whom, in the same manner as directed for sailing vessels.

The following relaxation from the rules applicable to sailing vessels will be allowed in favour of steamers.

Fir (to be either pitch pine, Baltic red fir, or American red pine), larch, hackmatack, or juniper, may be used for upper deck beams, to an extent not exceeding one-half the number of beams required according to the vessel's tonnage.

The same materials may be used in the outside planking from the first foothook heads upwards, excepting for the wales, sheerstrakes, and planksheers.

The same materials may be likewise used in the inside planking, excepting for the bilge planks, shelf-pieces and stringers, and clamps.

Steam-vessels built in all other respects in conformity with the annexed tables shall be classed for the term of years therein respectively prescribed, subject to the following conditions:—

That the rule requiring a survey "twice a year" be rigidly enforced, and that whenever the boilers are taken out, the vessel shall be subjected to a particular and special survey, in order to ascertain her general condition, and particularly the state of the fir, or other materials herein allowed to be used.

That unless such surveys be held, the characters which may have been assigned to steam-vessels shall be struck out annually on reprinting the register book.

80. *Scantlings.*—The scantlings for a steam-vessel under 300 tons register including the engine room, are to be deemed sufficient, if equal to those required by the scale prescribed in the rules of this Society for a sailing vessel of two-thirds of the total tonnage of such steam-vessel.

81. But for a steam-vessel above 300 tons register, including the engine-room, the scantlings are to be equal to those required by the scale for a sailing vessel of three-fourths of the total tonnage of such steam-vessel.

82. *Floors.*—Where the vessel is not filled in solid to the floor-heads in the engine room, an exception will be specially made against any reduction of the scantling of the floors, which in such cases will not be permitted to be upon the reduced scale of two-thirds or three-fourths of the dimensions for the scantlings of sailing vessels as before stated; but the floors will then be required to be equal to the dimensions set forth in the rules for ships of the tonnage of the steam-vessel, including the engine-room.

Vessels fitted with auxiliary steam power are considered to be sailing vessels (not steamers), and will not be allowed any exception as to their scantlings.

83. The surveyors are required to report the number, size, length, fastenings, and mode of arrangement of the engine and boiler sleepers, and the description of timber of which they are composed, and whether diagonally trussed with wood or iron, and to what extent; the length, size, and fastenings of shelf-pieces and paddle-beams; and whether the vessel be constructed with sponcings, and how they are formed; and to give the length and shifting of the plank outside and inside.

84. *Materials and Stores.*—The surveyors are to examine and report the number and description of the masts, sails, anchors, cables, hawsers, warps, and boats, as directed to be done for sailing vessels; but the anchors and cables will not be required to exceed in weight and length those of a sailing vessel of two-thirds of the total tonnage of the steam-vessel.

85. The surveyors are to be particular in examining and reporting the condition of the boats of all vessels employed in carrying passengers.

RULES FOR THE BUILDING OF SEA-GOING IRON SHIPS, OF ALL DESCRIPTIONS, WHETHER SAILING OR NAVIGATED BY STEAM.

Considering that iron ship-building is yet in its infancy, and that there are no well-understood general rules for building iron ships, the committee have not deemed it desirable to frame a scheme compelling the adoption of a particular form or mode of construction, but that certain general requirements should be put forward, having for their basis thickness of plates and substance of frame, showing a *minimum in each particular* to entitle ships to the character A for a period of years, subject however to certain periodical surveys; and also to a continuation of such character, should their state and condition justify it on subsequent examination. For the purpose of attaining this object the following rules and the Society's Table G of dimensions have been formed.

1. The whole of the iron to be of good malleable quality, the workmanship to be well-executed, and to be submitted to the closest inspection before coating or painting, and any brittle or inferior article to be rejected. It is not intended to prevent the coating of the plates inside in the way of the frame.

2. The keel, stem, stern, and propeller posts to be scarphed or welded together at discretion, and to be in size according to Table G; if scarphed, the length of scarphs to be regulated in the proportion of eight times the thickness of the keel, and the stern posts and after end of keel, for screw propelled vessels, to be double the thickness of, and tempered fair into, the adjoining length of keel.

N. B.—Where the keel and keelsons are made of several thicknesses of plates, the plates that form the keel, to be in thickness, taken together, the same as is required for a solid keel as per Table G; and the butts of the several plates of which the keel is formed, to be carefully shifted from each other, and from the butts of the garboard strakes.

3. The spacing and dimensions of the ribs or frames, to be as per Table G, and the ribs or frames in as great lengths as possible, and to be fitted close on to the upper edge of the keel, and in all cases to extend to the gunwale, and wherever butted, to have not less than four feet lengths of corresponding angle iron fitted back to back to cover and support the butts and receive the plating. And if welded together, the welds to be perfect, and the shifts not to be less than four feet.

4. The reversed angle irons to be in size as per Table G, and in vessels of 300 tons and upwards, to be rivetted on to every other frame up to the height of deck beam stringer, and in vessels above 1000 tons, to be rivetted on every frame to the height of the lower deck or hold beam stringer; the rivets for securing the angle iron to the frame, not to exceed six times their own diameter apart.

5. The floor plates to be in thickness as per Table G, the depth to be regulated according to the depth of the vessel, as described in foot note of Table G, and the reversed angle iron on the upper edges to run across each floor or frame to above the turn of bilge. A floor plate to be fitted and rivetted to every frame, and at the ends of the vessel the floor plates to be worked across the stem and stern posts, so as to support and unite the sides sufficiently to each other.

6. The middle line keelson, if of single plate, to be of the same thickness as the floor plates, and to be well fitted and rivetted to the same, and a reversed angle iron to be fitted on each side, both of the top and the bottom, extending all fore and aft, the lower angle irons to be secured to the reversed angle irons on the top of floors. If box keelsons be adopted, the plating to be of the thickness as per Table G, and in either case to be two-thirds of the depth of floor plates.

7. The bilge keelsons to be fitted and secured in an efficient manner, extending all fore and aft, and placed according to the form of the bottom.

8. All plates to be well fitted and secured to the ribs and each other, the butts to be closely fitted, and to be united by lining pieces or strips of not less than the same thickness as the plates, and of sufficient breadth for rivetting, as described hereafter. No butts of outside plating to be nearer each other than one space of frames, nor to be nearer to a scarph of keel, than that distance.

The space between the outside plating and the frames, to have solid filling pieces closely fitted in one length, of the same breadth as the frames.

9. All vessels to have a clamp or ceiling plate fitted between each tier of beams all fore and aft inside the frames, and in small vessels where there is but one tier of beams, then about two feet below them, the plate to be of the same dimensions as given for stringer plates upon beams in the Table G, and to be properly rivetted to the frame.

All vessels above 500 tons to have fitted between the bilge keelsons and the hold beams, at the upper part of the turn of bilge, strong angle irons, as stringers, extending all fore and aft, rivetted back to back to the reversed irons on the frames, the size of them not to be less than those used for the middle line keelson.

10. The depth of hold to be measured amidship from the top of the floor plates to the top of the upper deck beams in vessels with two decks, and to the top of the middle deck beams in vessels with three decks.

The beams to be of the dimensions as per Table G, and to be made of "bulb," or any other approved iron plates, with reversed iron angle rivetted to the plates, the beams to be well and efficiently connected or rivetted to the corresponding frames at the sides of the vessel, with bracket ends or knee plates of thickness equal to the beams, and in length, as per Table G, also to the stringer plates, the beams of each deck to be over each other, and pillared where practicable.

Upper deck beams in vessels with one or two tiers of beams, and the upper (or spar deck) and middle deck beams in vessels with three tiers of beams, to be fastened to alternate frames.

Vessels of 12 feet and 13 feet depth of hold, or where the gross register tonnage exceeds 200 tons, shall be required to have as many hold beams as may be practicable or convenient, fastened to, at least, every eighth frame.

Vessels of 13 feet depth and under 15 feet to have hold beams fastened to every fourth frame.

Vessels of 15 feet depth and under 18 feet to have hold or lower deck beams fastened to every second and fourth frame alternately.

Vessels of 18 feet depth and under 23 feet, to have hold or lower deck beams fastened to every alternate frame.

All vessels having two decks, and exceeding 23 feet in depth to the upper side of upper deck beams, and in vessels with three decks, viz., upper (or spar), middle, and lower deck, and exceeding 23 feet in depth to upper side of middle deck beams, such vessels to have orlop beams fastened to every sixth frame.

Where a deviation from the foregoing rules as applying to beams takes place in way of engine room or hatchways, and where partial or entire bulkheads with horizontal shelves, and stringers between them, are substituted for beams, a sketch with all particulars must be submitted through the resident surveyor, for the committee's consideration.

The united lengths of poop and forecastle not to exceed three-fifths of the entire length of the upper deck.

In the scantlings of beams, plating and stringers to upper (or spar deck) in vessels with three decks, viz., upper, middle, and lower deck, and of poop and forecastle, a reduction of one-sixth from the dimensions given for upper deck beams, &c., in the Table G, will be allowed.

The middle deck to be a perfect deck, laid and caulked.

11. The rivets to be of the best quality and to be one quarter of an inch larger in diameter than the thickness of plates through which they pass in the stem, stern post, and keel, and in the remainder of the plating, as per Table G, to be regularly and equally spaced and carefully punched opposite each other in the laps and lining pieces, or strips; to be counter-sunk all through the outer plating, and not to be nearer to the butts or edges of the plating, lining pieces to butts, or any angle iron, than a space not less than their own diameter, and not to be further apart from centre to centre than three times their diameter, and to be spaced through the frames and outside plating a distance equal to eight times their diameter apart. When rivetted up, they are completely to fill the holes, and their points, or outer ends are to be round or convex, and not to be below the surface of the plating through which they are rivetted. The stem, stern post, keel, garboard strakes, and butts of outside plating to be double rivetted in all vessels. The butts and edges of outside plating to be truly fitted, carefully caulked, and made water tight.

12. In addition to the engine room bulkheads of steamers, all vessels to have two water-tight bulkheads, built at a reasonable distance from the ends, to extend from the keel to the upper deck in vessels of two decks, and to the middle deck in vessels of three decks (otherwise called "tonnage deck.") All plating of bulkheads to be of the thickness prescribed in the Table G, and to be closely fitted between two frames or ribs at each side of the vessel, and strongly rivetted through them, or if attached only to one frame, then to have brackets or knee plates rivetted horizontally against the side plating of the vessel, and to the bulkheads, foreside and aftside alternately, near the middle of the outside plates, to be strongly rivetted thereto, also to be supported vertically by angle iron (of the dimensions given in the Table G), which are not to exceed 2 feet 6 inches apart, the whole to be efficiently connected and rivetted together, and to the corresponding floors, beams of the several decks, and the frames or ribs. The whole of the bulkheads to be made thoroughly water-tight.

13. The wood ceiling or lining of all vessels, from 100 to 3,000 tons, to be from 1½ inches to 3 inches in thickness, in proportion to the tonnage, and to be so fastened to the reversed angle irons or frames, that in the event of rivets springing or leaking, it may easily be removed.

14. The decks, waterways, and plancksheers, if of wood, not to be less in thickness or inferior in quality than is prescribed for vessels built of wood of the same tonnage and grade. The flat of upper

deck to be fastened by screw bolts put through from the upper side, and to have nuts at under side of the angle iron of the beams; and the waterways to be similarly fastened to the stringer plates.

15. In all vessels having three decks, the middle deck stringers are to be fitted home to the outside plating and rivetted to the angle irons secured thereto; also to have an additional angle iron extending all fore and aft inside of the ribs, and either above or below the stringers rivetted to the same, and to the reversed angle irons of the frames. All vessels to have above each tier of beams a plate each side the hatchways, of not less than 10 inches in breadth by ½ inch in thickness, and extending all fore and aft throughout, and well rivetted to upper side of all the beams, deck hooks, and transom. Also to have plates, where practicable, of the same dimensions, extended diagonally from side to side, rivetted to the upper side of upper deck beams and stringer plates.

16. The main piece of rudder to be made of the best hammered iron, and so arranged as to ship and unship, where practicable, without docking, and the main piece to be in size according to Table G.

17. Vessels intended for either the 12, 9, or 6 years' grade to be surveyed at least five times, in the following order, viz :—

On the several parts of the frame, when in place, and before being coated, and before the plating is wrought.

On the plating during the progress of rivetting.

When the beams are in and fastened, and before the decks are laid.

Again when the ship is complete, and before the plating is finally coated.

And, lastly, after the ship is launched, either in dry dock or laid on blocks, or otherwise so that the keel may be examined,

All vessels to be subject to occasional or annual survey when practicable, and every third year to be specially surveyed in dry dock or laid on blocks, with both surfaces of outside plating exposed, also at the expiration of the full period originally assigned, when the waterways and plankskeers, if of wood, are to be scraped bright, and at that time, if it is found that no material diminution of thickness by corrosion or wear has occurred, the vessel, being in all respects in efficient condition, may then be continued for a further period, not exceeding one-half the whole number of years first assigned.

On the expiration of the terms assigned to ships classed A, they will be liable to lapse (like ships built of wood) into the diphthong Æ class, unless again especially re-surveyed, to determine their claims to be allowed a higher character.

18. One year will be added to the character of all ships of the A class built under a roof which shall project at each end beyond the length, and on each side beyond the breadth, a quantity equal to one-half the breadth of the vessel.

19. Vessels not surveyed while building, will be classed A from year to year only, but for a period not exceeding six years.

No. 2. White Lion Court, Cornhill,
London, 12th April, 1855.

No one can question the advantages that will result from carrying a plan of this sort completely into execution, or those that have already been derived from the extent to which it has been carried. We confess, however, that we incline to think that the classification of ships should be effected by government agents. It is invidious to impose on one set of merchants and ship owners the task of deciding upon the condition of the ships or other property belonging to others; and, though we have every confidence in the integrity of the gentlemen composing the committee, the most honourable men are liable to be influenced by an *esprit du corps*, and by insensible biasses. We, therefore, cannot help thinking that the scheme would have a much better chance of success, and that the classification would be more likely to be correct, were it managed by individuals nowise connected with business. The surveyors, on whose capacity and honesty the whole scheme principally depends, should be quite independent of the good or ill will of those on whose property they have to report. But can that be said to be the case at present? and can it be fairly presumed that merchants or ship owners will deal by the property of their friends and neighbours as it might be dealt with by officers appointed by, and responsible only to, government? We apprehend that both those questions must be answered in the negative; and hence our conviction that this is a matter in which government should interfere. No one can doubt that it is bound to do every thing in its power to promote the safety of navigation, and to preserve the lives of our seamen. In this view it erects lighthouses, and prescribes regulations as to pilotage, &c. But, how indispensable soever, these are not more essential to the interests of navigation than a proper classification of ships; and, if other means should fail fully to effect this desirable purpose, government will certainly neglect a most important duty if it do not interpose. In the mean time, however, the mercantile and shipping interests are deeply indebted to the gentlemen who have done so much to obviate the abuses of the old system. —(For a further discussion of this important question, see the article on the Frequency of Shipwrecks in the 122d number of the *Edinburgh Review*; see also the *Reports of the Commons Committees* of 1836 and 1843, on Shipwreck.)

III. Ships (Safety of).

The self-interest and the security of the owners and masters of ships may, perhaps, be supposed to afford the only real guarantee against the occurrence of accidents. But this guarantee is not always, nor perhaps in most instances, to be depended upon; and to obviate in as far as possible the calamitous results that might be occasioned by the carelessness of owners and the ignorance or misconduct of masters, the legislature has enacted certain rules in the view of securing the proper fitting out of ships and their management. But it is needless to say that a vast deal depends in such cases on the way in which the rules are enforced. And it were better that they did not exist at all, and that passengers and others were left to depend on their own estimate of the parties,

than that they should be taught to place an undeserved reliance on rules which are not properly carried out.

The following rules on this subject are embodied in Part IV. of the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104.

Application of Part IV. of Act.—The fourth part of this Act shall apply to all British ships: and all foreign steam ships carrying passengers between places in the U. K. shall be subject to all the provisions contained in the 4th part of this Act, and likewise to the same provisions with respect to the certificates of the masters and mates thereof to which British steam ships are subject.—§ 291.

BOATS FOR SEA-GOING SHIPS.

Rules as to Boats and Life Buoys.—The following rules shall be observed with respect to boats and life buoys, viz.:

(1.) No decked ship (except ships used solely as steam tugs and ships engaged in the whale fishery) shall proceed to sea from any place in the U. K., unless she is provided, according to her tonnage, with boats duly supplied with all requisites for use, and not being fewer in number nor less in their cubic contents than the boats the number and cubic contents of which are specified in the following table:

(2.) No ship carrying more than 10 passengers shall proceed to sea from any place in the U. K., unless, in addition to the boats above required, she is also provided with a life boat furnished with all requisites for use, or unless one of her boats above required is rendered buoyant after the manner of a life boat:

(3.) No such ship as last aforesaid shall proceed to sea unless she is also provided with two life buoys: And such boats and life buoys shall be kept so as to be at all times fit and ready for use: provided, that the enactments with respect to boats and life buoys herein contained shall not apply in any case in which a certificate has been duly obtained under the 10th section of the "Passengers' Act, 1852" (the 15 & 16 Vict. c. 44. s. 10.) (SEE PASSENGERS.)—§ 292.

Number and Dimensions of Boats with which Seagoing Ships are to be provided.

REGISTERED TONNAGE.		COLUMN 1. To be carried by Sailing Ships and Steam Ships.								COLUMN 2. To be carried by Sailing Ships and Steam Ships when they do not carry the Boats in Col. 3.				COLUMN 3. To be carried by Steam Ships which do not carry the Boat in Col. 2.								TOTAL NUMBER OF BOATS.	
		Boats.				Boats.				Launches.				Boats.				Life Boats.					
Sailing Ships.	Steam Ships.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Sailing Ships.	Steam Ships.
Tons.	Tons.		Ft	Ft In	Ft In		Ft	Ft In	Ft In		Ft	Ft In	Ft In		Ft	Ft In	Ft In		Ft	Ft In	Ft In		
—	1,000 and upwards.	1	18	5 6	2 3	2	24	5 6	2 6	1	27	8 6	3 3	2	22	5 6	2 6	28	28	8 6	3 6	—	7
—	800 to 1,000	1	18	5 6	2 3	2	26	6 6	2 8	1	26	8 0	3 3	2	22	5 6	2 6	—	—	—	—	—	4 or 5
800 and upwards.	500 to 800	1	18	5 6	2 3	2	24	5 6	2 6	1	26	8 0	3 3	2	22	5 6	2 6	—	—	—	—	4	4 or 5
600 to 800	360 to 500	1	16	5 6	2 3	2	24	5 6	2 6	1	25	7 0	3 6	2	22	5 6	2 6	—	—	—	—	4	4 or 5
400 to 600	240 to 360	1	16	5 6	2 5	1	22	5 6	2 5	1	22	6 6	3 3	2	22	5 6	2 6	—	—	—	—	3	3 or 4
200 to 400	120 to 240	1	14	5 0	2 2	—	—	—	—	1	20	6 0	3 0	2	22	5 6	2 6	—	—	—	—	3	2 or 3
100 to 200	60 to 120	1	14	5 0	2 2	—	—	—	—	1	16	5 6	2 9	2	18	5 6	2 4	—	—	—	—	2	2 or 3
Under 100	Under 60	1	14	5 0	2 2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1

as the Case may be

Note.—In sailing ships carrying the number of boats above specified, and steam ships carrying the larger of the two numbers above specified, the boats are to be considered sufficient, if their aggregate cubic contents are equal to the aggregate cubic contents of the boats specified.

In steam ships carrying the smaller of the two numbers above specified, one of the boats must be a launch of the capacity specified in col. 2.

In sailing ships of 200 tons burden and under, not carrying passengers, a dingy may be substituted for the boat in col. 1.

In sailing ships of 150 tons burden and under, not carrying passengers, a substantial boat of capacity sufficient to carry the crew may be substituted for those above specified.

In all steam ships, two paddlebox boats may be substituted for any two of the boats in col. 3.

Penalties on Masters and Owners, &c., neglecting to provide Boats and Life Buoys.—In any of the following cases, viz.:—

(1.) If any ship herein required to be provided with boats or life buoys proceeds to sea without being so provided therewith, or if any of such boats or life buoys are lost or rendered unfit for service in the course of the voyage through the wilful fault or negligence of the owner or master; or,

(2.) If, in case of any of such boats or life buoys being accidentally lost or injured in the course of the voyage, the master wilfully neglects to replace or repair the same on the first opportunity; or,

(3.) If such boats and life buoys are not kept so as to be at all times fit and ready for use;

then if the owner appears to be in fault he shall incur a penalty not exceeding 100*l.*, and if the master appears to be in fault he shall incur a penalty not exceeding 50*l.*—§ 293.

Officers not to clear Ships not complying with the above Provisions.—No officer of customs shall grant a clearance or transire for any ship herein required to be provided with boats or with life buoys unless the same is duly so provided; and if any such ship attempts to go to sea without such clearance or transire any such officer may detain her until she is so provided.—§ 294.

LIGHTS AND FOG SIGNALS, AND MEETING AND PASSING.
BUILT AND EQUIPMENT OF STEAM SHIPS.

Iron Steamers to be divided by Water-tight Partitions.—The following rules shall be observed with respect to the built of iron steam ships, viz.:

(1.) Every steam ship built of iron, of 100 tons or upwards, the building of which commenced after the 28th of August, 1846, and every steam ship built of iron of less burthen than 100 tons, the building of which commenced after the 7th of August, 1851, (except ships used solely as steam tugs,) shall be divided by substantial transverse water-tight partitions, so that the fore part of the ship shall be separated from the engine room by one of such partitions, and so that the after part of such ship shall be separated from the engine room by another of such partitions:

(2.) Every steam ship built of iron, the building of which commences after the passing of this Act,

shall be divided by such partitions as aforesaid into not less than 3 equal parts, or as nearly so as circumstances permit:

(3.) In such last-mentioned ship each such partition as aforesaid shall be of equal strength with the side plates of the ship with which it is in contact:

(4.) Every screw steam ship built of iron, the building of which commences after the passing of this Act, shall, in addition to the above partitions, be fitted with a small water-tight compartment inclosing the after extremity of the shaft:

And no officer of customs or other person shall grant a clearance or transire for any iron steam ship required to be divided or fitted as aforesaid, unless the same is so divided and fitted; and if any such ship attempts to ply or go to sea without such clearance or transire, any such officer may detain her until she is so divided and fitted: and if any steam ship herein required to be so divided or fitted plies or goes to sea without being so divided or fitted, the owner shall incur a penalty not exceeding 100*l*. — § 300.

Equipment of Steam Ships. — Steam ships shall be provided as follows; (that is to say,)

(1.) Every steam ship of which a survey is hereby required shall be provided with a safety valve upon each boiler, so constructed as to be out of the control of the engineer when the steam is up, and, if such valve is in addition to the ordinary valve, it shall be so constructed as to have an area not less and a pressure not greater than the area of and pressure on that valve:

(2.) Every sea-going steam ship employed to carry passengers shall have her compasses properly adjusted from time to time; such adjustment, in the case of ships surveyed as after mentioned, to be made to the satisfaction of the shipwright surveyor, and according to such regulations as may be issued by the B. of Trade:

(3.) Every sea-going steam ship (unless used solely as a steam tug) shall be provided with a hose adapted for the purpose of extinguishing fire in any part of the ship and capable of being connected with the engines of the ship:

(4.) Every sea-going ship employed to carry passengers shall be provided with the following means of making signals of distress; viz., 12 blue lights or 12 port fires, and 1 cannon with ammunition for at least 12 charges, or, in the discretion of the master or owner of such ship, with such other means of making signals (if any) as may have previously been approved by the B. of Trade:

(5.) Every home trade steam ship employed to carry passengers by sea shall be provided with such shelter for the protection of deck passengers (if any) as the B. of Trade, having regard to the nature of the passage, the number of deck passengers to be carried, the season of the year, the safety of the ship, and the circumstances of the case, may require:

And if any steam ship as aforesaid plies or goes to sea from any port in the U. K. without being so provided as herein required, then for each default in any of the above requisites the owner shall (if he appears to be in fault) incur a penalty not exceeding 100*l*., and the master shall (if he appears to be in fault) incur a penalty not exceeding 50*l*.—§ 301.

Penalty for improper Weight on Safety Valve.—If any person places an undue weight on the safety valve of any steam ship, or, in the case of steam ships surveyed as hereinafter mentioned, increases such weight beyond the limits fixed by such engineer surveyor as herein-after mentioned, he shall, in addition to any other liabilities he may incur by so doing, incur a penalty not exceeding 100*l*.—§ 302.

Survey of Passenger Steamers.

Definition of Passenger Steamer.—For the purpose of the enactments herein contained with respect to surveys and certificates of passenger steam ships, the word "passengers" shall be held to include any persons carried in a steam ship, other than the master and crew and the owner, his family and servants; and the expression "passenger steamer" shall be held to include every British steam ship carrying passengers to, from, or between any place or places in the U. K., excepting steam ferry boats working in chains, commonly called steam bridges.—§ 303.

Passenger Steamers to be surveyed.—Every passenger steamer shall be surveyed twice at least in each year in manner after mentioned.—§ 304.

B. of Trade to appoint Surveyors and fix their Remuneration.—The B. of Trade may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this act at such ports or places as it thinks proper, and may also appoint a surveyor general for the U. K., and may from time to time remove such surveyors or any of them, and may from time to time fix and alter the rates of remuneration to be received by such surveyors. — § 305.

Surveyors to have Power to inspect. — It shall be lawful for the said surveyors in the execution of their duties to go on board any steam ship at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof, or any certificates of the master or mate to which the provisions of this act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the ship from proceeding on any voyage, and, if in consequence of any accident to any such ship or for any other reason they consider it necessary so to do, to require the ship to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam ship or otherwise impedes him in the execution of his duty under this act, shall incur a penalty not exceeding 5*l*. — § 306.

B. of Trade to regulate Mode of making Surveys. — The said surveyors shall execute their duties under the direction of the B. of Trade, and such board shall make regulations as to the manner in which the surveys after mentioned shall be made, and as to the notice to be given to the surveyors when surveys are required, and as to the amount and payment of any travelling or other expenses incurred by such surveyors in the execution of their duties, and may thereby determine the persons by whom and the conditions under which such payment shall be made. — § 307.

Penalty on Surveyors receiving Fees unlawfully. — Every surveyor who demands or receives directly or indirectly from the owner or master of any ship surveyed by him under the provisions of this act any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the officer and by the direction of the B. of Trade, shall incur a penalty not exceeding 50*l*. — § 308.

Owners to have Surveys made by Shipwright and Engineer Surveyors, &c. — The owner of every passenger steamer shall cause the same to be surveyed at the times herein-after directed by one of the said shipwright surveyors and by one of the said engineer surveyors appointed as aforesaid; such shipwright surveyor being in the case of iron steamers, a person who is in the judgment of the B. of Trade properly qualified to survey such ships; and such surveyors shall thereupon, if satisfied that they can with propriety do so, give to such owner declarations as follows:

The declaration of the shipwright surveyor shall contain statements of the following particulars; (that is to say,)

(1.) That the hull of the ship is sufficient for the service intended and in good condition.

(2.) That the partitions, boats, life buoys, lights, signals, compasses, and shelter for deck passengers, and the certificates of the master and mate or mates, are such, and in such condition, as required by this act.

(3.) The time (if less than 6 months) for which the said hull and equipments will be sufficient.

(4.) The limits (if any) beyond which, as regards the hull and equipments, the ship is in the surveyor's judgment not fit to ply.

(5.) The number of passengers which the ship is in the judgment of the surveyor fit to carry, distinguishing, if necessary, between the respective numbers to be carried on the deck and in the cabins, and in different parts of the deck and cabins; such numbers to be subject to such conditions and variations, according to the time of year, the nature of the voyage, the cargo carried, or other circumstances, as the case requires.

And the declaration of the engineer surveyor shall contain statements of the following particulars; (that is to say,)

(1.) That the machinery of the ship is sufficient for the service intended, and in good condition.
(2.) The time (if less than 6 months) for which such machinery will be sufficient.
(3.) That the safety valves and fire hose are such and in such condition as are required by this act.
(4.) The limits of the weight to be placed on the safety valves.
(5.) The limits (if any) beyond which, as regards the machinery, the ship is in the surveyor's judgment not fit to ply.

And such declarations shall be in such form as the B. of Trade directs. — § 309.

Transmission of Declarations to B. of Trade. — The said owner shall transmit such declarations to the B. of Trade within 14 days after the dates of the receipt thereof respectively; and in default shall forfeit a sum not exceeding 10*s.* for every day that the sending of such declarations is delayed; and such sum shall be paid upon the delivery of the certificate herein-after mentioned in addition to the fee payable for the same, and shall be applied in the same manner as such fees. — § 310.

Times appointed for Surveys and Transmission of Declarations. — In all cases where it is possible the said half-yearly surveys shall be made in the months of April and of October, and the declarations shall be transmitted on or before the 30th April and the 31st October respectively; but if the owner of any passenger steamer is unable to have the same surveyed in the month of April or October, (as the case may be,) either by reason of such ship being absent from the U. K during the whole of those periods respectively; or by reason of such ship or the machinery thereof being under construction or repair, or of such ship being laid up in dock, or for any other reason satisfactory to the B. of Trade, then he shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the B. of Trade within 14 days after the receipt thereof, together with a statement of the reasons which have prevented the survey of such ship at the time before prescribed, and shall, in case of delay in transmitting the declarations, be liable to a forfeiture similar to that mentioned in the last section. — § 311.

B. of Trade to issue Certificates. — Upon the receipt of such declarations the B. of Trade shall, if satisfied that the provisions of the 4th part of this act have been complied with, cause a certificate in duplicate to be prepared and issued to the effect that the provisions of the law with respect to the survey of the ship and the transmission of declarations in respect thereof have been complied with; and such certificate shall state the limits (if any) beyond which, according to the declaration of the surveyors, such ship is not fit to ply, and shall also contain a statement of the number of passengers which, according to the declaration of the shipwright surveyor, such ship is fit to carry, distinguishing (if necessary) between the respective numbers to be carried on the deck and in the cabins and in different parts of the deck and cabins, such number to be subject to such conditions and variations according to the time of year, the nature of the voyage, the cargo carried, and other circumstances, as the case requires. — § 312.

Issue and Transmission of Certificates. — The B. of Trade shall transmit such duplicate certificate to the shipping master or to some other public officer at such port as the owner may mention for the purpose or at the port where the owner or his agent resides or where the ship was surveyed and is for the time being lying, and shall cause notice of such transmission to be given by post or otherwise to the master or owner or his agent; and the said shipping master or officer shall deliver such duplicate certificate to the said owner, master, or agent on his applying and paying the fees and other sums (if any) herein mentioned as payable in that behalf; and in proving the due issue and transmission to the owner, agent, or master of such certificate, it shall be sufficient to show that the same has been duly received by such shipping master or public officer as aforesaid, and that due notice of the transmission thereof to such shipping master or officer has been given to such owner, master, or agent. — § 313.

Fees to be paid for Certificates.—The owner of every passenger steamer requiring a certificate under this Act shall pay for every certificate granted by the B. of Trade such fees as such Board directs, not exceeding the fees undermentioned.

	£	s.	d.
For steamers not exceeding 100 tons	2	0	0
— steamers exceeding 100 and not exceeding 300 tons	3	0	0
— steamers exceeding 300 and not exceeding 600 tons	4	0	0
And for every additional 300 tons an additional	1	0	0

— § 314.

How long Certificates to continue in force. — No such certificate shall be held to be in force for the purposes of this act beyond the date fixed by the B. of Trade for the expiration thereof; and no certificate shall be in force after notice is given by the B. of Trade to the owner, agent, or master of the ship to which the same relates, that such Board has cancelled or revoked the same: provided, that if any passenger steamer is absent from the U. K. at the time when her certificate expires, no penalty shall be incurred for the want of a certificate until she first begins to ply with passengers after her next subsequent return to the U. K.; and the B. of Trade may require any certificate which has expired, or has been revoked or cancelled, to be delivered up as it directs; and any owner or master who, without reasonable cause, neglects or refuses to comply with such requirement, shall incur a penalty not exceeding 10*l.*—§ 315.

B. of Trade may cancel Certificates.—The B. of Trade may revoke and cancel such certificates in any case in which it has reason to believe,—

(1.) That the declarations of the sufficiency and good condition of the hull, equipments, and machinery of any passenger steamer, or either of them, have been fraudulently or erroneously made; or,
(2.) That such certificate has otherwise been issued upon false or erroneous information; or,
(3.) That since the making of such declarations the hull, equipments, or machinery of such ship have sustained any injury, or are otherwise insufficient.

And in every such case the B. of Trade may, if it think fit, require the owner to have the hull, equipments, or machinery of such ship again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof, before re-issuing any certificate or granting a fresh one in lieu thereof.—§ 316.

Copy of Certificate to be placed in conspicuous Part of Ship.—The owner or master of every passenger steamer shall forthwith on the transmission of any such certificate as aforesaid to him or his agent cause one of the duplicates thereof so transmitted to be put up in some conspicuous part of the ship, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such ship is in use; and in default such owner or master shall for every offence incur a penalty not exceeding 10*l.*—§ 317.

Ship not to proceed on her Voyage without Certificate.—It shall not be lawful for any passenger steamer to proceed to sea or upon any voyage or excursion with any passengers on board, unless the owner

thereof has transmitted to the B. of Trade the declarations before required, nor unless the owner or master thereof has received from such Board such a certificate as is before provided for, such certificate being a certificate applicable to the voyage or excursion on which such ship is about to proceed; and no officer of customs shall grant any clearance or transire for any passenger steamer unless upon the production of such certificate; and if any passenger steamer attempts to ply or go to sea without such production, any such officer may detain her until such certificate is produced; and if any passenger steamer plies or goes to sea with any passengers on board, without having one of the duplicates of such certificate as aforesaid (being a certificate then in force, and applicable as aforesaid,) so put up as aforesaid in some conspicuous part of the ship, the owner thereof shall for such offence incur a penalty not exceeding 100*l*., and the master of such ship shall also incur a further penalty not exceeding 20*l*.—§ 318.

Penalty for carrying Passengers in Excess of Numbers specified in Certificate.—If the owner or master or other person in charge of any passenger steamer receives on board thereof, or if such ship has on board, any number of passengers which, having regard to the time, occasion, and circumstances of the case, is greater than the number of passengers allowed by the certificate, the owner or master shall incur a penalty not exceeding 20*l*., and also an additional penalty not exceeding 5*s*. for every passenger over and above the number allowed by the certificate, or, if the fare of any of the passengers on board exceeds 5*s*., not exceeding double the amount of the fares of all the passengers who are over and above the number so allowed as aforesaid, such fares to be estimated at the highest rate payable by any passenger on board.—§ 319.

Forgery of Declaration or Certificate a Misdemeanor.—Every person who knowingly and wilfully makes or assists in making or procures to be made a false or fraudulent declaration or certificate with respect to any passenger steamer requiring a certificate under the 4th part of this act, or who forges, assists in forging, or procures to be forged, fraudulently alters, assists in fraudulently altering, or procures to be fraudulently altered, any declaration or certificate required by the 4th part of this act, or any words or figures in any such declaration or certificate, or any signature thereto, shall be deemed guilty of a misdemeanor.—§ 320.

Surveyors to make Returns of the Build and other Particulars of Steam Ships, &c.—The said surveyors shall from time to time make such returns to the B. of Trade as it requires with respect to the build, dimensions, draught, burden, rate of sailing, room for fuel, and the nature and particulars of machinery and equipments of the ships surveyed by them; and every owner, master, and engineer of any such ship shall, on demand, give to such surveyors all such information and assistance within his power as they require for the purpose of such returns; and every such owner, master, or engineer who, on being applied to for that purpose, wilfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding 5*l*.—§ 321.

Penalties on Persons forcing Way on board; or refusing to quit the Ship.—The following offenders, viz.,

(1.) Any person who, after having been refused admission into any steamer by the owner or person in charge thereof or by any person in the employ of the owner, on account of such steamer being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, nevertheless persists in attempting to enter the same; and

(2.) Any person, having got on board any steamer, who, upon being requested on the like account by the owner or person in charge thereof or by any person in the employ of the owner to leave such steamer before the same has quitted the place at which such person got on board, and upon having the full amount of his fare (if he has paid the same) returned or tendered to him, refuses to comply with such request,

shall for each such offence incur a penalty not exceeding 40*s*., to be paid to the said owner.—§ 322.

Penalty for avoiding Payment of Fares.—The following offenders, viz.,

(1.) Any person who travels or attempts to travel in any passenger steamer which has been duly surveyed in conformity with the provisions of this act, without having previously paid his fare, and with intent to avoid payment thereof; and

(2.) Any person who, having paid his fare for a certain distance, knowingly and wilfully proceeds in any such steamer beyond such distance, without previously paying the additional fare for the additional distance, and with intent to avoid payment thereof; and

(3.) Any person who knowingly and wilfully refuses or neglects, on arriving at the point to which he has paid his fare, to quit any such steamer;

shall for every such offence incur a penalty not exceeding 5*s*., in addition to the fare payable by him, such penalty to be payable to the owner of such steamer.—§ 323.

Penalty on Persons refusing to give their Name and Address.—Every person who, having committed any of the offences mentioned in the two last preceding sections or either of them, refuses on application of the master of the ship or of any other person in the employ of the owner to give his name and address, or who on such application gives a false name or address, shall incur a penalty not exceeding 20*l* to be paid to the said owner.—§ 324.

Power to refuse or remove Passengers who are drunk or misconduct themselves.—The master of any home trade passenger steam ship may refuse to receive on board thereof any person who by reason of drunkenness or otherwise is in such a state, or misconducts himself in such a manner, as to cause annoyance to other passengers on board, or if such person is on board, may put him on shore at any convenient place; and no person so refused admittance or put on shore shall be entitled to the return of any fare he may have paid.—§ 325.

Accidents to Steam Ships to be reported to B. of Trade.—Whenever any steam ship has sustained or caused any accident occasioning loss of life, or any serious injury to any person, or has received any material damage affecting her seaworthiness or her efficiency either in her hull or in any part of her machinery, the owner or master shall, within twenty-four hours after the happening of such accident or damage, or as soon thereafter as possible, send to the B. of Trade, by letters signed by such owner or master, a report of such accident or damage, and of the probable occasion thereof, stating the name of the ship, the port to which she belongs, and the place where she is; and if such owner or master neglect so to do he shall for such offence incur a penalty not exceeding 50*l*.—§ 326.

Notice to be given of apprehended Loss of Steam Ships.—If the owner of any steam ship have reason, owing to the nonappearance of such ship, or to any other circumstance, to apprehend that such ship has been wholly lost, he shall as soon as conveniently may be send notice thereof in like manner to the B. of Trade, and if he neglect so to do within a reasonable time he shall for such offence incur a penalty not exceeding 50*l*.—§ 327.

Collisions to be entered in Official Log.—In every case of collision, in which it is practicable so to do, the master shall immediately after the occurrence cause a statement thereof, and of the circumstances under which the same occurred, to be entered in the official log book (if any), such entry to be signed by the master, and also by the mate or one of the crew, and in default shall incur a penalty not exceeding 20*l*.—§ 328.

Provisions to prevent carrying dangerous Goods without due Notice.—No person shall be entitled to carry in any ship, or to require the master or owner of any ship to carry therein, any aquafortis, oil of vitriol, gunpowder, or any other goods which, in the judgment of such master or owner, are of a dan-

gerous nature; and if any person carries or sends by any ship any goods of a dangerous nature, without distinctly marking their nature on the outside of the package containing the same, or otherwise giving notice in writing to the master or owner at or before the time of carrying or sending the same to be shipped, he shall for every such offence incur a penalty not exceeding 100*l.*; and the master or owner of any ship may refuse to take on board any parcel that he suspects to contain goods of a dangerous nature, and may require them to be opened to ascertain the fact.—§ 329.

IV. Shipping Offices, &c.

These were established by the 13 & 14 Vict. c. 93. Their object, as explained below, was to afford facilities for the engagement of seamen and apprentices; to keep an account of their names and characters; to see to their being on board when required; and generally to promote their interests and those of the masters. The following clauses of the Mercantile Shipping Act, the 17 & 18 Vict. c. 104., relate to this subject, viz.:

Marine Boards to establish Shipping Offices.—In every seaport in the U. K. in which there is a Local Marine Board, such board shall establish a shipping office or shipping offices, and may for that purpose, subject as after-mentioned, procure the requisite premises, and appoint and from time to time remove and re-appoint superintendents of such offices, to be called shipping masters, with any necessary deputies, clerks, and servants, and regulate the mode of conducting business at such offices, and shall have complete control over the same; and every act done by or before any deputy duly appointed shall have the same effect as if done by or before a shipping master.—§ 122.

B. of Trade to have partial Control over Shipping Offices.—The sanction of the B. of Trade shall be necessary so far as regards the number of persons appointed by any Local Marine Board, and the amount of their salaries and wages and all other expenses; and the B. of Trade shall have the immediate control of such shipping offices, so far as regards the receipt and payment of money thereat; and all shipping masters, deputies, clerks, and servants appointed as aforesaid shall before entering upon their duties give such security (if any) for the due performance thereof as the B. of Trade requires; and if in any case the B. of Trade has reason to believe that any shipping master, deputy, clerk, or servant appointed by any Local Marine Board does not properly discharge his duties, the B. of Trade may cause the case to be investigated, and may, if it thinks fit so to do, remove him from his office, and may provide for the proper performance of his duties until another person is properly appointed in his place.—§ 123.

Business of such Offices generally.—It shall be the general business of shipping masters appointed as aforesaid—

To afford facilities for engaging seamen by keeping registries of their names and characters.
To superintend and facilitate their engagement and discharge in manner herein-after mentioned.
To provide means for securing the presence on board at the proper times of men who are so engaged.
To facilitate the making of apprenticeships to the sea service.
To perform such other duties relating to merchant seamen and merchant ships as are hereby or may hereafter under the powers herein contained be committed to them.—§ 124.

Fees to be paid upon Engagements and Discharges.—Such fees, not exceeding the sums specified in the annexed table, as are from time to time fixed by the B. of Trade, shall be payable upon all engagements and discharges effected before shipping masters as after mentioned, and the B. of Trade shall cause scales of the fees payable for the time being to be prepared and to be conspicuously placed in the shipping offices: and all shipping masters, their deputies, clerks, and servants, may refuse to proceed with any engagement or discharge unless the fees payable thereon are first paid.—§ 125.

Fees to be charged for Matters transacted at Shipping Offices.

1. Engagement of crews.

	£	s.	d.
In ships under 60 tons.	0	4	0
60 to 100 ,,	0	7	0
100 to 200 ,,	0	15	0
200 to 300 ,,	1	0	0
300 to 400 ,,	1	5	0
400 to 500 ,,	1	10	0
500 to 600 ,,	1	15	0
600 to 700 ,,	2	0	0
700 to 800 ,,	2	5	0
800 to 900 ,,	2	10	0
900 to 1,000 ,,	2	15	0
Above 1,000 ,,	3	0	0

And so on for ships of larger tonnage, adding for every 100 tons above 1,000, 5*s.*

2. Engagement of seamen separately. 2*s.* for each.

3. Discharge of crews.

	£	s.	d.
In ships under 60 tons	0	4	0
60 to 100 ,,	0	7	0
100 to 200 ,,	0	15	0
200 to 300 ,,	1	0	0
300 to 400 ,,	1	5	0
400 to 500 ,,	1	10	0
500 to 600 ,,	1	15	0
600 to 700 ,,	2	0	0
700 to 800 ,,	2	5	0
800 to 900 ,,	2	10	0
900 to 1,000 ,,	2	15	0
Above 1,000 ,,	3	0	0

And so on for ships of larger tonnage, adding for every 100 tons above 1,000, 5*s.*

4. Discharge of seamen separately. 2*s.* for each.

Masters to pay Fees, and to deduct Part from Wages.—Every owner or master of a ship engaging or discharging any seamen or seaman in a shipping office or before a shipping master, shall pay to the shipping master the whole of the fees hereby made payable in respect of such engagement or discharge, and may, for the purpose of in part reimbursing himself, deduct in respect of each such engagement or discharge from the wages of all persons (except apprentices) so engaged or discharged, and retain any sums not exceeding the sums specified in the annexed table, provided that, if in any cases the sums which the owner is so entitled to deduct exceed the amount of the fee payable by him, such excess shall be paid by him to the shipping master in addition to such fee.—§ 126.

Sums to be deducted from Wages by way of partial Repayment of Fees in preceding Table.

1. In respect of engagements and discharges of crews, upon each engagement and each discharge.

	s.	d.
From wages of any mate, purser, engineer, surgeon, carpenter, or steward	1	6
From wages of all others except apprentices	1	0

2. In respect of engagements and discharges of seamen separately, upon each engagement and each discharge. One Shilling.

Penalty on Shipping Masters taking other Remuneration.—Any shipping master; deputy shipping master, or any clerk or servant in any shipping office, who demands or receives any remuneration whatever, either directly or indirectly, for hiring or supplying any seaman for any merchant ship,

excepting the lawful fees payable under this act, shall for every such offence incur a penalty not exceeding 20*l.*, and shall also be liable to be dismissed from his office by the B of Trade. — § 127.

Business of Shipping Offices may be transacted at Custom Houses.—The B. of Trade may, with the consent of the commissioners of customs, direct that at any place in which no separate shipping office is established the whole or any part of the business of the shipping office shall be conducted at the custom house, and thereupon the same shall be there conducted accordingly; and in respect to such business such custom house shall for all purposes be deemed to be a shipping office, and the officer of customs there to whom such business is committed shall for all purposes be deemed to be a shipping master within the meaning of this act. — § 128.

In London Sailors Homes may be Shipping Offices.—The B. of Trade may appoint any superintendent of or other person connected with any sailors home in the port of London to be a shipping master, with any necessary deputies, clerks, and servants, and may appoint any office in any such home to be a shipping office; and all shipping masters and shipping offices so appointed shall be subject to the immediate control of the B. of Trade and not of the Local Marine Board of the port. — § 129.

Dispensation with Shipping Master's Superintendence.—The B. of Trade may from time to time dispense with the transaction before a shipping master or in a shipping office of any matters required by this act to be so transacted; and thereupon such matters shall, if otherwise duly transacted as required by law, be as valid as if transacted before a shipping master or in a shipping office. — § 130.

V. Ships' Papers.

The papers or documents required for the manifestation of the property of the ship and cargo, &c. They are of 2 sorts; viz. 1st, those required by the law of a particular country — as the certificate of registry, licence, charterparty, bills of lading, bill of health, &c. — (see these titles) — required by the law of England to be on board British ships; and, 2dly, those required by the law of nations to be on board neutral ships, to vindicate their title to that character. Mr. Serjeant Marshall, following Hubner (*De la Saisie des Bâtimens Neutres*, i. 241—252.), has given the following description of the latter class of documents: —

1. *The Passport, Sea Brief, or Sea Letter.* — This is a permission from the neutral state to the captain or master of the ship, to proceed on the voyage proposed, and usually contains his name and residence; the name, property, description, tonnage, and destination of the ship; the nature and quantity of the cargo, the place whence it comes, and its destination; with such other matters as the practice of the place requires. This document is indispensably necessary for the safety of every neutral ship. Hubner says that it was the only paper rigorously insisted on by the Barbary corsairs; by the production of which alone their friends were protected from insult.

2. *The proofs of Property.*—These ought to show that the ship really belongs to the subjects of a neutral state. If she appear to either belligerent to have been built in the enemy's country, proof is generally required that she was purchased by the neutral before, or captured and legally condemned and sold to the neutral after, the declaration of war; and in the latter case the *bill of sale*, properly authenticated, ought to be produced. Hubner admits that these proofs are so essential to every neutral vessel, for the prevention of frauds, that such as sail without them have no reason to complain if they be interrupted in their voyages, and their neutrality disputed.

3. *The Muster Roll.*—This, which the French call *rôle d'équipage*, contains the names, ages, quality, place of residence, and, above all, *the place of birth*, of every person of the ship's company. This document is of great use in ascertaining a ship's neutrality. It must naturally excite a strong suspicion, if the majority of the crew be found to consist of foreigners; still more, if they be natives of the enemy's country.—(See Seamen.)

4. *The Charterparty.*—Where the ship is chartered, this instrument serves to authenticate many of the facts on which the truth of her neutrality must rest, and should therefore be always found on board chartered ships.

5. *The Bills of Lading.*—By these the captain acknowledges the receipt of the goods specified therein, and promises to deliver them to the consignee or his order. Of these there are usually several duplicates; one of which is kept by the captain, one by the shipper of the goods, and one transmitted to the consignee. This instrument, being only the evidence of a private transaction between the owner of the goods and the captain, does not carry with it the same degree of authenticity as the charterparty.

6. *The Invoices.* — These contain the particulars and prices of each parcel of goods, with the amount of the freight, duties, and other charges thereon, which are usually transmitted from the shippers to their factors or consignees. These invoices prove by whom the goods were shipped, and to whom consigned. They carry with them, however, but little authenticity; being easily fabricated where fraud is intended.

7. *The Log Book, or Ship's Journal.* — This contains a minute account of the ship's course, with a short history of every occurrence during the voyage. If this be faithfully kept, it will throw great light on the question of neutrality; if it be in any respect fabricated, the fraud may in general be easily detected. See Log, Official.

8. *The Bill of Health.*—This is a certificate, properly authenticated, that the ship comes from a place where no contagious distemper prevails; and that none of the crew,

at the time of her departure, were infected with any such disorder. It is generally found on board ships coming from the Levant, or from the coast of Barbary, where the plague so frequently prevails.

A ship using false or simulated papers is liable to confiscation.—(*Marshall on Insurance*, book i. c. 9. § 6.)

SHOES (Du. *Schoenen*; Fr. *Souliers*; Ger. *Schuhe*; It. *Scarpe*; Rus. *Baschmaki*, Sp. *Zapatos*), articles of clothing that are universally worn, and require no description. The shoe manufacture is of great value and importance; much more so, indeed, than is generally supposed; for it ranks in the public estimation far below many branches to which it is really much superior in intrinsic value. This results from the circumstance of machinery being hardly introduced into the business, and from its being principally carried on either in petty workshops, or, as is the more usual practice, in the houses of the shoemakers. It is very extensively practised in the metropolis, where the best shoes are made; and is diffused over every part of the country. Northamptonshire and Staffordshire have attained to considerable distinction in the business; large quantities of shoes being made in them, partly for the supply of the metropolis and other large towns, where they are sold "ready made," and partly for exportation. Shoemaking (boot-making is always included) is the most extensively practised of all the common trades. At last census, 1851, no fewer than 274,451 persons (243,033 males, and 31,418 females) were engaged in Great Britain in this business, exclusive of 94,175 shoemakers' wives! In London the business furnished employment to 38,855 persons; and in Northamptonshire to 10,743. It may be worth mentioning that, according to the official returns, the business of millinery and dressmaking employed the next greatest number of hands to shoemaking, viz. 267,791.

We estimated in the art. LEATHER the value of the shoes annually manufactured in Great Britain at 7,400,000*l.* But we have no doubt that this estimate, which is some years old, is now a great deal too low; and that their value may at present (1855) be safely estimated at above 10,000,000*l.* If we reckon the wages of the 274,451 persons employed in the business at 18*l.* a year, at an average (which as young people and women are extensively employed is probably not far from the mark), their total amount will be 4,939,518*l.*, to which has to be added the value of the leather and other materials.

Boots and shoes used formerly to be prohibited, but they are now admitted under reasonable duties. With the exception, however, of ladies' shoes (mostly silk), and of boot fronts, their importation is inconsiderable: of the former 26,054, and of the latter 580,386 pairs were entered for consumption in 1853. The export of boots and shoes is very considerable; but being included under the general term of "wrought leather," neither their quantity nor value can be stated.

Massachusetts is the grand seat of the shoemaking business in the U. States; and large quantities of shoes are annually shipped from Boston for N. York, and other southern ports.

Though many, and some very ingenious, efforts have been made to manufacture shoes by the aid of machinery, they have hitherto had but little success. This, however, will not appear surprising when it is considered that the size and shape of the feet differ extremely in different persons, and that, consequently, the articles to be produced are destitute of that sameness in their corresponding parts that is so essential in work produced by machinery. The latter has, however, been applied with considerable advantage to the manufacture of shoes (clogs) with wooden soles; and it may, also, be applied, though with no great advantage, where fine work and accurate fitting are little cared for. On the whole, however, it would seem that the craft of St. Crispin is not very likely to be disturbed by those inventions that have so greatly changed so many other handicrafts. And the vast improvement in the shoes of modern times, compared with those used in antiquity, seems rather to result from the superiority of the leather, or material of which they are made, and the greater skill and dexterity of the workmen, than from the improvement of their tools.

SHUMAC OR SUMACH (Ger. *Schmack, Sumach*; Fr. *Sumac, Roure, Roux*; It. *Sommaco*; Sp. *Zumaque*; Rus. *Sumak*). Common shumac (*Rhus Coriaria*) is a shrub that grows naturally in Syria, Palestine, Spain, and Portugal. That which is cultivated in Italy, and is improperly called *young fustic*, is the *Rhus Cotinus*. It is cultivated with great care: its shoots are cut down every year quite to the root; and, after being dried, they are chipped or reduced to powder by a mill, and thus prepared for the purposes of dyeing and tanning. The shumac cultivated in the neighbourhood of Montpellier is called *rédoul* or *roudo*. Shumac may be considered of good quality when its odour is strong, colour of a lively green, is well ground, and free from stalks. Italian shumac is used in dyeing a full high yellow, approaching to the orange, upon wool or cloth; but the colour is fugitive. Common shumac is useful for drab and

dove colours in calico printing, and is also capable of dyeing black. — *Bancroft on Col urs*, vol. ii. p. 100.

Of 12,929 tons of shumac imported in 1850, no fewer than 12,494 were from Italy. The price of shumac varies from 9*s.* to 18*s.* a cwt. About 10,000 tons are retained for consumption.

The duty of 1*s.* a ton on shumac was repealed in 1845.

SIERRA LEONE, an English settlement, near the mouth of the river of the same name, on the west coast of Africa, lat. 8° 30′ N., lon. 13° 5′ W.

Objects of the Colony. — This colony was founded partly as a commercial establishment, but more from motives of humanity. It was intended to consist principally of free blacks, who, being instructed in the Christian religion, and in the arts of Europe, should become, as it were, a focus whence civilisation might be diffused among the surrounding tribes. About 1,200 free negroes, who, having joined the royal standard in the American war, were obliged, at the termination of that contest, to take refuge in Nova Scotia, were conveyed thither in 1792: to these were afterwards added the Maroons from Jamaica; and, since the legal abolition of the slave trade, the negroes taken in the captured vessels, and liberated by the mixed commission courts, have been carried to the colony. The total population of the colony in 1850, amounted to about 55,500, all black or coloured, with the exception of about 100 whites.

Success of the Efforts to civilise the Blacks.—Great efforts have been made to introduce order and industrious habits amongst these persons. We are sorry, however, to be obliged to add, that these efforts, though prosecuted at an enormous expense of blood and treasure, have been signally unsuccessful. There is, no doubt, some discrepancy in the accounts of the progress made by the blacks. It is, however, sufficiently clear, that it has been very inconsiderable, and we do not think that any other result could be rationally anticipated. Their laziness has been loudly complained of, but without reason. Men are not industrious without a motive; and most of those motives that stimulate all classes in colder climates to engage in laborious employments, are unknown to the indolent inhabitants of this burning region, where clothing is of little importance, where sufficient supplies of food may be obtained with comparatively little exertion, and where more than half the necessaries and conveniences of Europeans would be positive incumbrances. And had it been otherwise, what progress could a colony be expected to make, into which there have been annually imported crowds of liberated negroes, most of whom are barbarians in the lowest stage of civilisation?

Influence of the Colony upon the illicit Slave Trade. — As a means of checking the prevalence of the illicit slave trade, the establishment of a colony at Sierra Leone has been worse than useless. The trade is principally carried on with the countries round the Bight of Biafra and the Bight of Benin, many hundred miles distant from Sierra Leone; and the mortality in the captured ships during their voyage to the latter is often very great. The truth is that this traffic will never be effectually put down otherwise than by the great powers declaring it to be *piracy*, and treating those engaged in it, wherever and by whomsoever they may be found, as sea robbers or pirates. Such a declaration would be quite conformable to the spirit of the declaration put forth by the Congress of Vienna in 1824. — (See SLAVE TRADE.) But the jealousies with respect to the right of visitation and search are so very great, that it is exceedingly doubtful whether the maritime powers will ever be brought to concur in any declaration of the kind now alluded to; unless, however, something of this sort be done, we apprehend there are but slender grounds for supposing that the trade will be speedily suppressed.

Climate of Sierra Leone. — The soil in the vicinity of Sierra Leone seems to be but of indifferent fertility, and the climate is about the most destructive that can be imagined. The mortality among the Africans sent to it seems unusually great; and amongst the whites it is quite excessive. Much as we desire the improvement of the blacks, we protest against its being attempted by sending our countrymen to certain destruction in this most pestiferous of all pestiferous places. It would seem, too, that it is quite unnecessary, and that blacks may be employed to fill the official situations in the colony. But if otherwise, it should be unconditionally abandoned.

Commerce of Sierra Leone, and the West Coast of Africa. — Commercially considered, Sierra Leone appears to quite as little advantage as in other points of view. We import from it teak wood, palm oil, ginger, and ground-nuts, with small quantities of camwood, ivory, hides, gum copal, and other articles; but their value is inconsiderable, not amounting to more than from 50,000*l.* to 70,000*l.* a year. Palm oil is the great article of export from the W. coast of Africa; and by far the largest portion of it is furnished by the coast to the west and south of the Rio Volta, many

hundred miles from Sierra Leone. We doubt, indeed, whether the commerce with the latter will ever be of much importance. At all events, we hardly think that it can be expected materially to increase if it be conducted in the way in which it is affirmed that the intercourse with the liberated negroes is at present conducted.—(*Reports on Colonial Possessions*, 1851, p. 175.) If there be not some mistake or exaggeration in the statement now referred to, nothing can be conceived more disgraceful. Should it, however, be ascertained that an establishment is really required for the advantageous prosecution of the trade to Western Africa, it is abundantly obvious that it should be placed much further to the south than Sierra Leone. The island of Fernando Po has been suggested for this purpose; but, after the dear-bought experience we have already had, it is to be hoped that nothing will be done with respect to it without mature consideration.

Account of the Quantities and Values of the Principal Articles imported into the U. K. from Sierra Leone in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Camwood - - tons	405	256	362	157	£7,784	£4,823	£7,806	£4,942
Ginger - - cwts.	7,470	7,282	6,476	3,206	7,957	6,554	7,147	4,047
Gum, copal - - "	665	1,355	590	222	5,715	4,065	1,554	609
Oil, palm - - "	14,887	11,462	11,067	11,109	34,240	24,930	23,794	24,356
Pepper - - lbs.	146,276	95,648	28,341	10,407	1,828	697	148	70
Teeth, elephants' - cwts.	27	24	89	133	688	636	3,174	5,706
Wax, bees', unbleached - "	176	81	254	461	1,188	577	1,807	3,452
Wood, teak - loads	6,822	7,687	4,941	4,854	92,097	91,283	53,119	49,268
Total value of the above and of all other articles - -	- -	- -	- -	- -	153,559	141,167	99,982	107,062

In 1855 and 1856 the exports of palm oil from Sierra Leone to all parts amounted to 364,414 and 463,130 gallons. The exports of British produce to the colony consist principally of cottons, arms, and ammunition, and are but inconsiderable. In 1857 their value amounted to 223,495*l.*, but that was much above the average. The only manufacture that can be said to exist in the colony is the expression of the oil from the ground nut by means of machinery.—(See NUTS, GROUND.)

Expenses incurred on account of Sierra Leone.—The pecuniary expense occasioned by this colony, and our unsuccessful efforts to suppress the foreign slave trade, have been altogether enormous. Mr. Keith Douglas is reported to have stated, in his place in the House of Commons, in July, 1831, that "down to the year 1824, the *civil* expenses of Sierra Leone amounted to 2,268,000*l.*; and that the same expenses had amounted, from 1824 to 1830, to 1,082,000*l.* The naval expenses, from 1807 to 1824, had been 1,630,000*l.* The payments to Spain and Portugal, to induce them to relinquish the slave trade, amounted to 1,230,000*l.* The expenses on account of captured slaves were 533,092*l.* The expenses incurred on account of the mixed commission courts were 198,000*l.* Altogether, this establishment had cost the country nearly 8,000,000*l.*!"

The prodigality of this expenditure is unmatched, except by its uselessness. It is doubtful whether it has prevented a single African from being dragged into slavery, or conferred the smallest real advantage on Africa. It, however, enabled the kings of Spain and Portugal to turn their mercenary humanity to good account.

For further details with respect to Sierra Leone, and the trade of Western Africa, see the *Report of the Select Committee of the House of Commons, on the West Coast of Africa*, Sess. 1842, and the *Parl. Paper* for 1851, already referred to.

SILK (Lat. *Sericum*, from *Seres*, the supposed ancient name of the Chinese), a fine glossy thread or filament spun by various species of caterpillars or larvæ of the *phalæna* genus. Of these, the *Phalæna atlas* produces the greatest quantity: but the *Phalæna bombyx* is that commonly employed for this purpose in Europe. The silkworm, in its caterpillar state, which may be considered as the first stage of its existence, after acquiring its full growth (about 3 inches in length), proceeds to enclose itself in an oval-shaped ball, or cocoon, which is formed by an exceedingly slender and long filament of fine yellow silk, emitted from the stomach of the insect preparatory to its assuming the shape of the chrysalis or moth. In this latter stage, after emancipating itself from its silken prison, it seeks its mate, which has undergone a similar transformation; and in 2 or 3 days afterwards, the female having deposited her eggs (from 300 to 500 in number), both insects terminate their existence. According to Reaumur, the *phalæna* is not the only insect that affords this material,—several species of the *aranea*, or spider, enclose their eggs in very fine silk.

Raw Silk is produced by the operation of winding off, at the same time, several of the balls or cocoons (which are immersed in hot water, to soften the natural gum on the filament) on a common reel, thereby forming one smooth even thread. When the skein is dry, it is taken from the reel and made up into hanks; but before it is fit for weaving, and in order to enable it to undergo the process of dyeing, without furring up or separating the fibres, it is converted into one of three forms; viz. *singles, tram,* or *organzine.*

Singles (a collective noun) is formed of *one* of the reeled threads, being twisted, in order to give it strength and firmness.

Tram is formed of 2 or more threads twisted together. In this state it is commonly used in weaving, as the *shoot* or *weft.*

Thrown Silk is formed of 2, 3, or more singles, according to the substance required, being twisted together in a *contrary* direction to that in which the singles of which it is composed are twisted. This process is termed organzining; and the silk so twisted, *organzine.* The art of throwing was originally confined to Italy, where it was kept a secret for a long period. Stow says it was known in this country since the 5th of Queen Elizabeth, "when it was gained from the strangers;" and in that year (1562), the silk throwsters of the metropolis were united into a fellowship. They were incorporated in the year 1629; but the art continued to be very imperfect in England until 1719. — (See *post.*)

1. *Historical Sketch of the Manufacture.* — The art of rearing silkworms, of unravelling the threads spun by them, and manufacturing the latter into articles of dress and ornament, seems to have been first practised by the Chinese. Virgil is the earliest of the Roman writers who has been supposed to allude to the production of silk in China, and the terms he employs show how little was then known at Rome of the real nature of the article: —

Velleraque ut foliis depectant tenuia Seres. — (*Georg.* lib. ii. lin. 121.)

But it may be doubted whether Virgil do not, in this line, refer to cotton rather than silk. Pliny, however, has distinctly described the formation of silk by the *bombyx.* — (*Hist. Nat.* lib. xi. c. 17.) It is uncertain when it first began to be introduced at Rome: but it was most probably in the age of Pompey and Julius Cæsar; the latter of whom displayed a profusion of silks in some of the magnificent theatrical spectacles with which he sought to conciliate and amuse the people. Owing principally, no doubt, to the great distance of China from Rome, and to the difficulties in the way of the intercourse with that country, which was carried on by land in caravans whose route lay through the Persian empire, and partly, perhaps, to the high price of silk in China, its cost, when it arrived at Rome, was very great; so much so, that a given weight of silk was sometimes sold for an equal weight of gold; at first it was only used by a few ladies eminent for their rank and opulence. In the beginning of the reign of Tiberius, a law was passed, *ne vestis serica viros fœdaret* — that no man should disgrace himself by wearing a silken garment. — (*Tacit. Annal.* lib. ii. c. 33.) But the profligate Heliogabalus despised this law, and was the first of the Roman emperors who wore a dress composed wholly of silk (*holosericum*). The example once set, the custom of wearing silk soon became general among the wealthy citizens of Rome, and throughout the provinces. According as the demand for the article increased, efforts were made to import larger quantities; and the price seems to have progressively declined from the reign of Aurelian. That this must have been the case, is obvious from the statement of Ammianus Marcellinus, that silk was in his time (anno 370), very generally worn, even by the lowest classes. *Sericum ad usum antehac nobilium, nunc etiam infimorum sine ullâ discretione proficiens.* —(Lib. xviii. c. 6.)

China continued to draw considerable sums from the Roman Empire in return for silk, now become indispensable to the Western World, till the 6th century. About the year 550, two Persian monks, who had long resided in China and made themselves acquainted with the mode of rearing the silkworm, encouraged by the gifts and promises of Justinian, succeeded in carrying the eggs of the insect to Constantinople. Under their direction they were hatched and fed; they lived and laboured in a foreign climate; a sufficient number of butterflies was saved to propagate the race, and mulberry trees were planted to afford nourishment to the rising generations. A new and important branch of industry was thus established in Europe. Experience and reflection gradually corrected the errors of a new attempt; and the Sogdoite ambassadors acknowledged in the succeeding reign, that the Romans were not inferior to the natives of China in the education of the insects, and the manufacture of silk. — (*Gibbon, Decline and Fall,* vol. vii. p. 99.)

Greece, particularly the Peloponnesus, was early distinguished by the rearing of silk-

worms, and by the silk and success with which the inhabitants of Thebes, Corinth, and Argos carried on the manufacture. Until the 12th century, Greece continued to be the only European country in which these arts were practised: but the forces of Roger king of Sicily having, in 1147, sacked Corinth, Athens, and Thebes, carried off large numbers of the inhabitants to Palermo; who introduced the culture of the worm, and the manufacture of silk, into Sicily. From this island the arts spread into Italy; and Venice, Milan, Florence, Lucca, &c. were soon after distinguished for their success in raising silkworms, and for the extent and beauty of their manufactures of silk.—(*Gibbon*, vol. x. p. 110.; *Biographie Universelle*, art. *Roger II.*)

The silk manufacture was introduced into France in 1480; Louis XI. having invited workmen from Italy, who established themselves in Tours. The manufacture was not begun at Lyons till about 1520; when Francis I., having got possession of Milan, prevailed on some artisans of the latter city to establish themselves, under his protection, in the former. Nearly at the same period the rearing of silkworms began to be successfully prosecuted in Provence, and other provinces of the south of France. Henry IV. rewarded such of the early manufacturers as had supported and pursued the trade for 12 years, with patents of nobility.

Silk Manufacture of England. — The manufacture seems to have been introduced into England in the 15th century. Silk had, however, been used by persons of distinction two centuries previously. The manufacture does not appear to have made much progress till the age of Elizabeth; the tranquillity of whose long reign, and the influx of Flemings occasioned by the disturbances in the Low Countries, gave a powerful stimulus to the manufactures of England. The silk throwsters of the metropolis were united, as already observed, in a fellowship, in 1562; and were incorporated in 1629. Though retarded by the civil wars, the manufacture continued gradually to advance; and so flourishing had it become, that it is stated in a preamble to a statute passed in 1666 (13 & 14 Cha. 2. c. 15.), that there were at that time no fewer than 40,000 individuals engaged in the trade! And it is of importance to observe, that though the importation of French and other foreign silks was occasionally prohibited during the reigns of James I. and Charles I., the Protectorate, and the reign of Charles II., the prohibition was not strictly enforced; and, generally speaking, their importation was quite free.

A considerable stimulus, though not nearly so great as has been commonly supposed, was given to the English silk manufacture by the revocation of the edict of Nantes, in 1685. Louis XIV. drove, by that disgraceful measure, several hundreds of thousands of his most industrious subjects to seek an asylum in foreign countries; of whom it is supposed about 50,000 came to England. Such of these refugees as had been engaged in the silk manufacture established themselves in Spitalfields, where they introduced several new branches of the art. When the refugees fled to England, foreign silks were freely admitted; and it appears from the Custom-house returns, that from 600,000*l.* to 700,000*l.* worth were annually imported in the period from 1685 to 1692, being the very period during which the British silk manufacture made the most rapid advances. But the manufacture was not long permitted to continue on this footing. In 1692, the refugees, who seem to have been quite as conversant with the arts of monopoly as with those either of spinning or weaving, obtained a patent, giving them an exclusive right to manufacture lustrings and *à-la-modes*, the silks then in greatest demand. This, however, was not enough to satisfy them; for, in 1697, Parliament passed an act, in compliance with their solicitations, prohibiting the importation of all French and other European silk goods; and in 1701, the prohibition was extended to the silk goods of India and China.

These facts show the fallacy of the opinion, so generally entertained, that we owe the introduction and establishment of the silk manufacture to the prohibitive system. So far from this being the case, it is proved, by statements in numerous acts of parliament, and other authentic documents, that the silk manufacture had overcome all the difficulties incident to its first establishment, had been firmly rooted, and had become of great value and importance, long before it was subjected to the trammels of monopoly; that is, before the manufacturers were taught to trust more to fiscal regulations, and the exertions of custom-house officers, than to their skill and ingenuity, for the sale of their goods.

The year 1719 is an important epoch in the history of the British silk manufacture; a patent being then granted to Mr. (afterwards Sir Thomas) Lombe and his brother, for the exclusive property of the famous silk mill erected by them at Derby, for throwing silk, from models they had clandestinely obtained in Italy. At the expiration of the patent, Parliament refused the petition of Sir Thomas Lombe for its renewal; but granted him 14,000*l.* in consideration of the services he had rendered the country, in erecting a machine which, it was supposed, would very soon enable us to dispense wholly

with the supplies of thrown silk we had previously been in the habit of importing from Italy: but instead of being of any advantage, it is most certainly true that the establishment of throwing mills in England has proved one of the most formidable obstacles to the extension of the manufacture amongst us. These mills could not have been constructed unless oppressive duties had been laid on thrown or organzine silk; and the circumstance of their having been erected, and a large amount of capital vested in them, was successfully urged, for more than a century, as a conclusive reason for continuing the high duties!

From this period down to 1824, the history of the silk manufacture presents little more than complaints, on the part of the manufacturers, of the importation of foreign silks; of impotent efforts on the part of parliament to exclude them; and of combinations and outrages on the part of the workmen. Among the multitude of acts that were passed in reference to this manufacture, from 1697 to the æra of Mr. Huskisson, we believe it would be exceedingly difficult to point out one that is bottomed on any thing like sound principle, or that was productive of any but mischievous consequences. The French writers estimate the average exportation of silks from France to England, during the period from 1688 to 1741, at about 12,500,000 francs, or 500,000*l.* a year! In 1763, attempts were made to check the prevalence of smuggling; and the silk mercers of the metropolis, to show their anxiety to forward the scheme, are said to have recalled their orders for foreign goods! It would seem, however, either that their patriotic ardour had very soon cooled, or they had been supplanted by others not quite so scrupulous; for it appears from a report of a committee of the privy council, appointed, in 1766, to inquire into the subject, that smuggling was then carried on to a greater extent than ever, and that 7,072 looms were out of employment. The same committee reported, that though the French were decidedly superior to us in some branches of the trade, we were quite equal, and even superior, to them in others; but instead of proposing, consistently with their report, to admit French silks on a reasonable duty, a measure which would have proved very advantageous to those branches of the manufacture in which we were superior, or nearly equal, to the French, without doing any material injury to the others, which were already in the most depressed condition, they recommended the continuance of the old system; substituting absolute prohibitions in the place of the prohibitory duties that formerly existed! Whatever immediate advantages the manufacturers might have reaped from this measure, the ultimate tendency of which could not fail of being most injurious, were effectually countervailed by the turbulent proceedings of the workmen, who suceeded, in 1773, in obtaining from the legislature an act which, by itself, was quite sufficient to have destroyed even a prosperous trade. This, which has been commonly called the Spitalfields Act, entitled the weavers of Middlesex to demand a fixed price for their labour, which should be settled by the magistrates; and while both masters and men were restricted from giving or receiving more or less than the fixed price, the manufacturers were liable in heavy penalties if they employed weavers out of the district! The monopoly which the manufacturers had hitherto enjoyed, though incomplete, had had sufficient influence to render inventions and discoveries of comparatively rare occurrence in the silk trade; but the Spitalfields Act extinguished every germ of improvement. Parliament, in its wisdom, having seen fit to enact that a manufacturer should be obliged to pay as much for work done by the best machinery as if it were done by hand, it would have been folly to have thought of attempting any thing new! It is not, however, to be denied that Macclesfied, Manchester, Norwich, Paisley, &c. are under obligations to this act. Had it extended to the whole kingdom, it would have totally extirpated the manufacture; but being confined to Middlesex, it gradually drove the most valuable branches from Spitalfields to places where the rate of wages was determined by the competition of the parties, on the principle of mutual interest and compromised advantage. After having done incalculable mischief, the act was repealed in 1824. Had it continued down to the present day, it would not have left employment in the metropolis for a single silk weaver.

But, as the effects of this act did not immediately manifest themselves, it was at first exceedingly popular. After 1785, however, the substitution of cottons in the place of silk gave a severe check to the manufacture, and the weavers then began to discover the real nature of the Spitalfields Act. Being interdicted from working at reduced wages, they were totally thrown out of employment; so that, in 1793, upwards of 4,000 Spitalfields looms were quite idle. In 1798, the trade began to revive; and continued to extend slowly till 1815 and 1816, when the Spitalfields weavers were again involved in sufferings far more extensive and severe than at any former period.

It appears from this brief sketch of the progress of the English silk trade, that from the year 1695, down to our own times, it has been exposed to the most appalling vicissitudes. The reason is obvious. The monopoly enjoyed by the manufacturers, and the Spitalfields Act, effectually put a stop to all improvement; so that the ma-

nufacture continued stationary in England, while on the Continent it was rapidly advancing. Whenever, therefore, the markets were, either from the miscalculation of the manufacturers, or a change of fashion, overloaded with silks, there were no means of disposing of the surplus profitably abroad, and the distress became extreme. Notwithstanding the unparalleled advances we had made in other departments of manufacturing industry, it was affirmed, in 1826, by the member for Coventry (Mr. Ellice), in his place in the House of Commons, "that there were in that city 9,700 looms; 7,500 of which were in the hands of operative weavers, who applied their manual labour, as well as their machinery, to the manufacture of ribands. These looms were, for the most part, of the *worst possible construction*; and it would scarcely be believed that the improved loom in France would, in a given time, produce 5 times as much riband as the common loom in England with the same manual labour! He could also state that there existed an improved manufacture in Germany, by which one man could make *forty-eight times as much velvet as could be made in an equal time by an English machine.* What chance was there that the English manufacturer could maintain such a competition?"

Perhaps these statements may have been somewhat exaggerated; but there can be no doubt of their substantial accuracy. Surely, however, no one believes that the inferiority of the machinery used by the English manufacturers was ascribable to any thing except that the protection they enjoyed had made them indifferent to improvements. No one believes that the French or Germans are superior to the English in the construction of machines; on the contrary, their inferiority is admitted by themselves, and by everybody else. That that spirit of invention, which has effected such astonishing results in the cotton manufacture, should have been so long wholly unknown in that of silk, is entirely to be ascribed to the fact of the former never having been the object of legislative protection. The cotton manufacturers were not bribed into the adoption of a routine system; they could not rest satisfied with mediocrity; but being compelled to put forth all their powers — to avail themselves of every resource of science and of art — they have, in a few years, raised the British cotton manufacture from a subordinate and trifling, to the very first place amongst the manufactures, not of this country only, but of the world!

Change, in 1826, *of the Monopoly System.* — At length, however, the impolicy of the system by which the silk manufacture had been so long depressed, became obvious to every intelligent individual. The principal manufacturers in and about London subscribed, in 1824, a petition to the House of Commons, in which they stated that "this important manufacture, though recently considerably extended, is still depressed below its natural level, by laws which prevent it from attaining that degree of prosperity which, under more favourable circumstances, it would acquire." Fortified by this authority, by the experience of 130 years, during which the prohibitive system had been allowed to paralyse the energies of the manufacturers, and by the sanction of parliamentary committees, Mr. Huskisson moved, on the 8th of March, 1824, that the prohibition of foreign silks should cease on the 5th of July, 1826, and that they should then be admitted for importation on payment of a duty of 30 per cent. *ad valorem.* On this occasion Mr. H. observed — "The monopoly had produced, what monopoly was always sure to produce, an indifference with regard to improvement. That useful zeal which gives life to industry, which fosters ingenuity, and which in manufactures occasions unceasing efforts to produce the article in the most economical form, had been comparatively extinguished. *To the prohibitive system it was to be ascribed, that in silk only, in the whole range of manufactures, we were left behind our neighbours!* We have here a proof of that chilling and benumbing effect which is sure to be produced when no genius is called into action, and when we are rendered indifferent to exertion by the indolent security derived from restrictive regulations. I have not the slightest doubt, that if the same system had been continued with respect to the cotton manufacture, it would have been at this moment as subordinate in amount to the woollen as it is junior in its introduction into the country."—(*Speeches*, vol. ii. p. 249.)

We have already alluded to the enormous duties imposed, in 1719, when Sir Thomas Lombe erected his throwing mill at Derby, on foreign organzine silk. These, though subsequently reduced, amounted, in 1824, to no less than 14*s.* 7½*d.* per lb. There was also, at the same time, a duty of 4*s.* per lb. on raw silk imported from Bengal, and of 5*s.* 7½*d.* per lb. on that imported from other places. Even had the manufacture been otherwise in a flourishing condition, such exorbitant duties on the raw material were enough to have destroyed it. Mr. Huskisson, therefore, proposed, by way of preparing the manufacturers for the approaching change of system, that the duty on foreign thrown silk should be immediately reduced to 7*s.* 6*d.* (it was further reduced to 5*s.* in 1826), and the duty on raw silk to 3*d.* per lb. These proposals were all agreed to: and considerable reductions were at the same time effected in the duties charged on most of the dye stuffs used in the manufacture.

It is to be regretted that Mr. Huskisson did not propose that the reduction of the

duties on raw and thrown silk, and the legalised importation of foreign silks, should be simultaneous and immediate. During the interval that was allowed our manufacturers to make preparations for the change, the French accumulated a large stock of goods to pour into our markets. To quiet the alarm occasioned by this circumstance, a singular device was fallen upon. The French had long been accustomed to manufacture their goods of a certain length: and, in the view of rendering their accumulated stock unfit for our markets, a law was passed in 1826, prohibiting the importation of any silks except such as were of entirely different lengths from those commonly manufactured by the French! No one can regret that this wretched trick, for it deserves no better name, entirely failed of its object. The French manufacturers immediately commenced, with redoubled zeal, the preparation of goods of the legitimate length: and the others, having become unsaleable at any thing like fair prices, were purchased up by the smugglers, and imported, almost entirely, into this country.

But no permanent injury arose from this circumstance; and, on the whole, the effect of the opening of the trade has been such as to justify all the anticipations which the advocates of the measure had formed of its success.

Effects of the Change of 1826. — We do not exaggerate, we only state the plain matter of fact, when we affirm that the silk manufacture has made a more rapid progress since the abolition of the prohibitive system in 1826, than it did during the preceding century. The former disparity in quality between goods of French and English make has been materially abated in most articles, while in some the superiority is now on our side. Most part of our readers will, probably, be rather surprised to learn that the real or declared value of the silk goods of British manufacture exported to France, in 1852, amounted to 257,555*l.*

But though a great step at the time, the change of system effected in 1826 was far from being sufficiently complete. The duty then imposed of 30 per cent. on the importation of foreign silks was, at least, double what it should have been. The expenses of smuggling silk goods into England may, speaking generally, be estimated at about 12 or 15 per cent.; so that the high duty, instead of excluding them, acted as a bounty on their importation through clandestine channels; and, probably, occasioned, by the temptation which it held out to gambling adventures, a larger quantity to be imported than if the duty had been more nearly proportioned to the expense of smuggling. We ventured to contend in a former edition that in "the event of the duties being reduced to 12 or 15 per cent. *ad valorem*, the legitimate imports of foreign silk goods would be considerably increased, and their clandestine importation more than proportionally diminished; and the apparent protection given to the manufacture being reduced, a new stimulus would be applied to industry and invention. Were such a system adopted, we have little doubt that, in no very long time, perhaps not more than 5 or 6 years, our superiority over France in some important departments of the silk manufacture would be little less decided than in that of cotton.

"It is not, however, to be supposed, that all departments of the silk manufacture will be equally benefited by the change of system from prohibition to duties. — *Non omnia possumus.* The probability is, that the trade, were it placed on a proper footing, would be divided between the English and French. In point of substantial excellence, the plain silk goods manufactured in England are equal to those of France; and the difference in favour of the latter in point of *finish* has become less perceptible; while in all mixed manufactures, of silk and wool, silk and cotton, silk and linen, &c., our ascendancy is admitted by the French themselves. On the other hand, the ribands, figured gauzes and light fancy goods, manufactured in France, are superior to those of this country. But even in this department we have made great progress; and fancy goods are now produced at Spitalfields, Coventry, and other places, contrasting most advantageously, in point of taste and beauty, with those produced previously to the introduction of the new system. Still, however, we are not sanguine in our expectations of our countrymen being able to maintain a successful competition with our neighbours in the manufacture of this class of articles. The greater attention paid to the art of designing in Lyons, the consequent better taste of the artists, and the superior brightness and lustre of their colours, give them advantages with which it will be very difficult to contend.

"But supposing that the trade is partitioned between the two countries in the way now stated, it is easy to see that a large share will belong to us, and that that share will be more valuable than the whole manufacture formerly was." Proofs of the accuracy of these statements have since been supplied in abundance. Notwithstanding the decline of the trade at a few places, the manufacture, taken as a whole, has greatly increased. During 1821, 1822, and 1823, when the restrictive system was in its vigour, the imports of all sorts of raw and thrown silk amounted at an average to 2,399,000 lbs. a year. But, despite the sinister predictions indulged in with respect to the ruin of the manufacture, the imports amounted, at an average of 1850, 1851, and 1852, to above

7,000,000 lbs., and the consumption to above 6,000,000 lbs.; being an increase of more than 250 per cent. upon the quantity consumed during the monopoly!

The manufacture of silk in France has, we are glad to say (for we have nothing in common with those who grudge or envy the prosperity of others), been materially improved of late years, and a large increase has taken place in the value of the silks exported, which amounted, in 1852, to about 280,000,000 fr., or about 11,200,000*l.* But it is satisfactory to know that we have been able to make head against this formidable competitor, and that, while the value of the exports of our silk goods amounted, in 1823, when the monopoly system was in full vigour, to only 351,409*l.*, it amounted, in 1852, to 1,551,846*l.*, being an increase in the interval of nearly 500 per cent.! In fact, we undersell the French in some of the heavier and more important species of goods in every market equally accessible to both parties. The value of our exports of silk goods to the U. States amounted, in 1852, to 464,590*l.*; and does any one suppose that the Americans would have bought so largely of us, or that they would have bought anything at all, had the French or any other party been able to supply them on lower terms?

When we formerly ventured to recommend a reduction of the duty of 30 per cent. on silks, we were inclined to think that it might, perhaps, oblige some of the manufacturers of fine and fancy goods to relinquish their employment; and we endeavoured to show that that was not too great a sacrifice to incur to place the trade on a proper footing. Happily, however, no such sacrifice has been required; and there is no department of the manufacture in which we have any thing to fear, with the existing duty, from the competition of the foreigner. Indeed, the fair presumption seems to be that the duties might be advantageously reduced.

No doubt, however, the improvement of the manufacture has been considerably promoted by the total abolition of the duties on raw and thrown silk effected in 1845.

State of the Silk Trade previously to 1826. — Those unacquainted with the history of the silk trade, who may have looked into the pamphlets and speeches of those opposed to the alterations in 1825, will probably be disposed to think that, though more limited in point of numbers, the condition of the workmen engaged in the trade was better previously to 1825 than afterwards. But those who have looked, however cursorily, into the history of the trade, must know that such is not the fact; and that the situation of those engaged in it has been most materially improved since 1825. We have already adverted to the state of the trade in 1793 and 1816. At the last mentioned period, 7 years before any relaxation of the monopoly had been so much as thought of, the distress in the silk trade was infinitely more severe than it has ever been since the introduction of the new system. In proof of this, we may mention, that at a public meeting held for the relief of the Spitalfields weavers, at the Mansion-house, on the 26th of November, 1816, the secretary stated, that *two thirds* of them were without employment, and without the means of support; "that some had deserted their houses in despair, unable to endure the sight of their starving families; and many pined under languishing diseases brought on by the want of food and clothing." And Sir Fowell Buxton stated, at the same meeting, that the distress among the silk manufacturers was so intense, that "*it partook of the nature of a pestilence*, which spreads its contagion around, and devastates an entire district." Such was the state of the workmen under that monopoly system that has been the worthless theme of so much eulogy. But such, we are glad to say, is not their state at present. The trade, being no longer conducted under an artificial system, is comparatively secure against revulsions: it would, indeed, be an absurdity to imagine, that measures that have about trebled the manufacture, should have been otherwise than supremely advantageous to the workmen.

We have already noticed the smuggling of foreign silks carried on in the early part and towards the middle of last century. The evil was not afterwards abated. The vigilance of the custom-house officer was no match for the ingenuity of the smuggler; and at the very moment when the most strenuous efforts were made to exclude them, the silks of France and Hindostan were openly displayed in the drawing-rooms of St. James's, and in the House of Commons, in mockery of the impotent legislation which sought to exclude them. "I have lately," said Mr. Huskisson, in an able speech in vindication of his policy as to the silk trade, "taken some pains to ascertain the quantity of smuggled silks that has been seized inland throughout the kingdom during the last 10 years; and I find that the whole does not exceed 5,000*l.* a year. I have endeavoured, on the other hand, to get an account of the quantity of silk goods actually smuggled into this country. Any estimate of this quantity must be very vague; but I have been given to understand that the value of such goods as are regularly entered at the custom-houses of France, for exportation to this country, is from 100,000*l.* to 150,000*l.* a year; and this, of course, is exclusive of the *far greater supply* which is poured in throughout all the channels of smuggling, without being subjected to any entry. In fact, to such an extent is this illicit trade carried, that there is scarcely a haberdasher's shop in the smallest village of

the United Kingdom, in which prohibited silks are not sold; and that in the face of day, and to a very considerable extent.

"The honourable member for Coventry (Mr. Ellice) has mentioned the silk goods from India as those against which anything but prohibition would prove an unavailing protection. Now, in my opinion, it is scarcely possible to conceive a stronger case than those very silks furnish against the honourable member's own argument. I believe it is universally known that a large quantity of Bandana handkerchiefs are sold every year, for exportation, by the East India Company. But does any gentleman suppose that these Bandanas are sent to the Continent for the purpose of remaining there? No such thing! They are sold at the Company's sales, to the number of about 800,000 or 1,000,000 a year, at about 4*s.* each; they are immediately shipped off for Hamburg, Antwerp, Rotterdam, Ostend, or Guernsey, and from thence they nearly all illicitly find their way back to this country.

"Mark, then, the effect of this beautiful system. — These Bandanas, which had previously been sold for exportation at 4*s.*, are finally distributed in retail to the people of England at about 8*s.* each: and the result of this prohibition is to levy upon the consumer a tax, and to give those who live by evading your law a bounty of 4*s.* upon each handkerchief sold in this country!"— (*Speeches*, vol. ii. p. 510.)

This, no doubt, was all very true and very striking. But had Mr. Huskisson been in the House of Commons in 1844, he might have used nearly the same language. He scotched, but did not kill, the snake. The 30 per cent. *ad valorem* duty which he established, was but little less productive of smuggling than the prohibition which he repealed; and being about double the expense of the clandestine importation of foreign silks, gave rise within the port of London, and, indeed, within the very walls of the custom-house, to a system of fraud ruinous alike to the interests of the revenue and of the honest dealers. The abuse continued till 1845, when Sir Robert Peel reduced the duty to 15 per cent. *ad valorem*. And while this wise and liberal measure has gone far to suppress smuggling, and to place all classes of dealers on the same footing, it has not materially increased the imports of silk goods. The existing duties on silks are specified in the TARIFF.

Regulations as to the Importation of Silks.—Silk manufactures, the produce of Europe, are not to be imported unless into London, Liverpool, Hull, Southampton, Leith, or Dublin, or ports appointed by the Commissioners of Customs, or into the ports of Dover and Folkestone direct from Calais or Boulogne, and unless in ships of 50 tons burden and upwards.—16 & 17 Vict. c. 107. § 44.

I. Account, illustrative of the Progress of the Silk Manufacture, showing the Quantities of Raw, Waste, and Thrown Silk imported at different Periods.—(*Report of* 1832 *on Silk Trade*, p. 10., and later *Parl. Papers.*)

Average Imports.	Raw.	Waste.	Thrown.	Total.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*
1765, 1766, 1767, being the commencement of the absolute prohibition	352,000	-	363,000	715,000
1785, 1786, 1787	554,000	-	337,000	891,000
1801 to 1812	760,000	-	350,000	1,110,000
1815, 1816, 1817, being 50 years after prohibition, and the first 3 years of peace	1,095,000	27,000	293,000	1,415,000
1821, 1822, 1823, being the years immediately previous to the abolition of the prohibition	1,970,000	74,000	355,000	2,399,000
1831, 1832, 1833	3,157,271	688,369	345,270	4,170,910
1839, 1840, 1841	3,518,076	1,055,737	262,085	4,835,898
1850, 1851, 1852	5,127,764	1,695,104	427,156	7,248,024

II. Account of the Quantities of Raw, Waste, and Thrown Silk *entered for Consumption* in the undermentioned Years since 1815, with the total Amount of Duty received on the same.—(*Parl. Paper*, No. 296. Sess. 1842.)

Years.	Raw.	Waste.	Thrown.	Total of all Sorts.	Duty received.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	£ *s.* *d.*
1815	1,069,596	27,971	377,822	1,475,389	516,027 12 11
1820	1,622,797	94,883	309,955	2,027,635	614,478 15 7
1825	2,848,506	195,910	559,642	3,604,058	246,430 12 2
1830	3,771,969	485,015	436,535	4,693,517	89,544 0 5
1835	4,151,008	1,382,872	254,578	5,788,458	58,603 14 3
1836	4,372,501	1,598,721	294,938	6,266,160	66,853 3 4
1837	3,730,427	875,781	213,368	4,819,576	50,685 16 6
1838	3,683,739	960,147	243,570	4,887,456	54,229 18 7
1839	3,485,363	1,042,655	229,940	4,755,958	51,087 17 0
1840	3,860,980	745,243	288,981	4,895,204	65,601 19 9
1841	3,209,885	1,379,314	267,533	4,856,532	59,890 2 3

In 1845 the duties on raw and thrown silk were repealed, so that it is no longer possible to give any account of the exact quantities admitted to consumption. But they may, notwithstanding, be learned with sufficient precision for every practical purpose from the following statement.

III.—Account of the Imports and Exports of Raw and Thrown Silk during each of the 7 Years ending with 1858.

Silk.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
Imports							
Raw - - -	5,832,551	6,480,724	7,535,407	6,618,862	7,383,672	12,077,931	6,277,576
Thrown - - -	426,463	828,493	1,021,832	929,897	853,015	610,936	358,269
	6,259,014	7,309,217	8,557,239	7,548,759	8,236,687	12,718,867	6,635,845
Exports							
Raw - -	703,320	433,872	1,096,303	2,185,555	1,438,598	1,706,625	2,314,519
Thrown - -	242,102	252,769	524,817	402,264	282,705	238,529	364,680
	945,422	686,641	1,621,120	2,587,819	1,721,303	1,945,154	2,679,199
Remains for consumption -	5,313,592	6,622,576	6,936,119	4,960,940	6,515,384	10,773,713	3,956,646
Average for the 7 years - - - - 6,439,853 lbs. a year.							

Sources of the Supply of Silk.— The following table shows the sources whence we directly derive our supplies of raw and of foreign thrown silk.

IV. — Account of the Quantities of Raw, Thrown, and Manufactured Silk imported into the U. Kingdom in each of the 3 Years ending with 1858; specifying the Countries whence they were brought, and the Quantities brought from each.

Raw.	1856.	1857.	1858.	Thrown.	1856.	1857.	1858.
China - - lbs.	3,723,693	6,664,532	2,011,186	France - - lbs.	331,048	289,800	124,129
British East Indies and Egypt - - „	3,124,778	4,678,415	3,652,617	China - - „	428,553	262,494	185,990
Other countries - „	535,201	734,984	613,773	Other countries - „	93,414	88,642	48,150
Total - - „	7,383,672	12,077,931	6,277,576	Total - „	853,015	640,936	358,269
Waste, knubs, and husks cwts.	17,993	20,680	16,765				

Silk Manufactures.	Imported.			Entered for Consumption.		
	1856.	1857.	1858.	1856.	1857.	1858
Of Europe:						
Broad stuffs, silk or satin - lbs.	230,568	204,297	277,163	229,288	197,550	270,914
gauze, crape, and velvet - „	39,529	27,598	32,762	38,294	26,282	31,681
Ribbons, of all kinds - - „	463,780	375,890	383,619	441,421	365,159	376,562
Plush for making hats - - „	170,936	118,368	134,106	170,818	118,717	133,738
Of India;						
Bandannas, corahs, choppas, tussore cloths, romals, and taffaties - - pieces	601,461	370,295	207,081	108,193	93,014	83,012

V.—Account of the Quantities and Values of the Silk Goods produced in the U. Kingdom and exported therefrom, in each of the 3 Years ending with 1858.

Silk Manufactures.	Countries to which exported.	Quantities.			Values.		
		1856.	1857.	1858.	1856.	1857.	1858.
Stuffs, handkerchiefs and ribbons (silk only) -	Hanse Towns - lbs.	69,927	48,699	21,301	£91,467	£61,598	£25,950
	France - „	22,473	15,595	13,276	30,366	22,019	19,497
	United States - „	179,908	180,256	132,948	192,341	206,120	135,902
	British N. America - „	33,879	26,213	28,333	51,190	36,254	37,727
	Australia - „	95,504	130,965	100,700	138,735	202,367	159,602
	Other countries - „	253,527	223,166	193,151	269,290	275,344	227,021
	Total - -	655,218	624,894	489,709	773,389	803,502	603,699
Other articles (of silk only) entered at value -	Hanse Towns - -	- -	- -	- -	142,012	111,666	58,447
	United States - -	- -	- -	- -	209,345	168,424	151,565
	Other countries - -	- -	- -	- -	206,005	199,025	138,698
	Total - -	- -	- -	- -	557,362	479,115	328,710
Silk manufactures mixed with other materials - -		- -	- -	- -	427,906	520,593	372,536
Silk thrown - - -	France - - lbs.	546,119	455,601	372,936	574,266	519,552	372,675
	Holland - - „	88,052	42,290	64,566	98,678	54,821	72,648
	Other countries - „	207,382	145,313	113,779	234,536	195,524	117,679
	Total - -	841,553	641,204	551,281	907,480	769,897	563,002
Silk, twist and yarn -	France - - lbs.	442,352	399,588	288,081	194,539	197,845	143,256
	Other countries - „	160,507	177,228	154,560	101,380	118,877	85,408
	Total - -	602,859	577,116	442,641	295,919	316,722	228,644
Total values of exports of silk goods - - -					2,962,056	2,889,829	2,096,591

The silk exported from China consists of two leading varieties, known in commerce by the names of Canton and Nanking. The first, which is raised principally in the province of Canton, is divided into 5 sorts. The Nanking silk, produced in the province of Kiangnan, is divided into two sorts, known in commerce by the names of Tsatlee and Taysaam. It is very superior to the other, and usually fetches more than double its price. It is wholly imported from Shanghae.

The quantity of Chinese silk produced to supply the native consumption is so enormous, that notwithstanding the vast increase of the exports during the 10 years ending

with 1854-55, the average price was lower than when the export was but $\frac{1}{4}$th part its present amount. The silk grower looks to the home market for fixing the value of his produce, and prices range according as that demand is active or dull, little or no effect being produced by the foreign exportation, except among speculative holders at the ports.—(*Chinese Commercial Guide*, p. 185.)

East India native silk comes wholly from Bengal. About the year 1760, the East India Company introduced the Italian mode of reeling silk, which was productive of a very great improvement in the quality of the article; but we are not aware that any subsequent improvement has been effected. The silk goods brought from India are not only inferior, in point of quality, to those of Europe, but also to those of China. The imports of Indian raw silk are specified in Tables Nos. III. and IV.

Turkey silk wholly consisted some years back of what is termed long reel and short reel brutia, a rather coarse description, suited to few buyers, and chiefly used in the ribbon trade of Coventry; but of late it has been imported of a very far superior texture and quality, coming successfully into competition with Italian and China silk. The qualities now known as brutias may be classed as follows, viz. long reel brutia, short reel brutia, long reel Mestup (being a finer thread than common brutia), short reel Mestup Selè (a finer sort, generally in loose skeins), Demirdask (a superior kind).

At Brusa, the seat of the silk trade in Asia Minor, it is now sold by the oke of 400 drams, and not by the teffee of 610 drams, as formerly; the teffee, is, however, still used at Constantinople. The plains of Brusa and the adjacent villages produce different qualities, varying considerably in size, colour, and quality. The village of Demirdask produces the finest, owing to the care taken by the natives in selecting the best cocoons, and attending carefully to the evenness of the thread throughout the process of reeling; consequently this description commands a high price, and is approved by our throwsters.

The water of this place is considered favourable to the brightness and glossiness of the silk, by which it may be distinguished from that of Brusa. The silk at Brusa is taken by the country people in small parcels to the bechestar or customs, where it pays duty. The proprietor with a broker then takes it to the silk bazaar, where it is handed round to the different stands and sold to the highest bidder, resembling, in this respect, the mode of selling the ores in Cornwall to the different smelters.

Thus a person buying okes at a time, assorts as well as he can the different qualities for packing. It is generally bought by speculators for the Constantinople market, and is forwarded to Ghemlek on camels for shipment per steamers to Constantinople, where it finds its way to the Mizam or some broker's rooms, where it is sold to the different merchants. The finest longs are mostly bought for the French and Russian markets, generally the latter. The long reels are going out of use in this country, as the more modern machinery is not adapted to its use.

The prices of silk at Brusa, in September, 1842, were—

1st quality Demirdask	$235 to $240	per oke of 400 drams.
2nd quality ditto	210 — 215	—
1st Selè	190 — 193	—
2nd Selè	180 — 185	—
Long Mestups	165	
Long Brusas	150	
Short Brusas	170 — 175	

Costs and Charges on Silk bought at Brusa and shipped at Constantinople for London

1 case 46 teffees = 70 okes 60 drams, at $216½		$15,167
Packing charges and commission		428
		$15,595
Carriage from Brusa to Constantinople		
Loss on gold sent to Brusa		
Bills, lading, and petty expenses	$28½ per oke,	
Inward duty 70 okes 60 drams, at $18, and 7,0/0 thereon	or ca. 15½ per cent.	2,115
		$17,710
Export duty, 70 okes 60 drams, at $6 and 7,0/0 thereon		
Carriage of money, ½ per cent.		
Constantinople commission, 3,0/0		531
		$18,241

Ex. 118. 155*l*.—46 at 4½, 194 lbs. = 16*s*. 6*d*.
Discount and charges in London 2 3
18*s*. 9*d*.

By far the greater part of the raw and thrown silk that comes to us from France is not the growth of that country, but of Italy; being principally conveyed by the canal of Languedoc and the Garonne to Bordeaux, whence it is shipped for England. So much is this the case, that it appears from the official accounts published by the French government, that while the aggregate quantity of the French and foreign raw and thrown silk exported from France in 1857 amounted to 1,261,989 kilog., the portion which was of French origin amounted to only 431,517 kilog.—(*Administration des Douanes*, 1857, p. 206.)

SILVER (Ger. *Silber*; Du. *Zilver*; Da. *Solv*; Sw. *Silfver*; Fr. *Argent*; It. *Argento*; Sp. *Plata*; Port. *Prata*; Rus. *Serebro*; Pol. *Srebro*; Lat. *Argentum*; Gr. ἄργυρος; Arab. *Fazzeh*), a metal of a fine white colour, without either taste or smell; being in point of brilliancy inferior to none of the metallic bodies, if we except polished steel. It is softer than copper; but harder than gold. When melted its specific gravity is 10·474; when hammered, 10·51. In malleability, it is inferior to none of the metals, if we except gold. It may be beaten out into leaves only $\frac{1}{100000}$ of an inch thick. Its ductility is equally remarkable: it may be drawn out into wire much finer than a human hair; so fine, indeed, that a single grain of silver may be extended about 400 feet in length. Its tenacity is such, that a wire of silver 0·078 inch in diameter is capable of supporting a weight of 187·13 lbs. avoirdupois without breaking. Silver is easily alloyed with copper by fusion. The compound is harder and more sonorous than silver, and retains its white colour even when the proportion of copper exceeds $\frac{1}{2}$. The hardness is at a maximum when the copper amounts to *one-fifth* of the silver. The standard or sterling silver of Britain, of which coin is made, is a compound of $12\frac{1}{2}$ parts silver and 1 copper. Its specific gravity is 10·2. The specific gravity of Paris standard silver, composed of 137 parts silver and 7 copper, is 10·175. The French silver coin during the old government was not nearly so fine, being composed of 261 parts silver and 27 copper, or $9\frac{2}{3}$ parts silver to one part copper. The Austrian silver coin contains $\frac{13}{283}$ of copper. The silver coin of the ancients was nearly pure, and appears not to have been mixed with alloy.—(*Thomson's Chemistry.*) Besides being used as coin, or money, silver is extensively employed in the arts. The value of the silver plate annually manufactured is very considerable. Large quantities are also used in plating.

The most productive silver mines are in America, particularly in Mexico and Peru. There are also silver mines in Hungary, Saxony, Spain, and other parts of Europe, and in Asiatic Russia.—(See PRECIOUS METALS.) And we have already seen (art. LEAD)

that considerable quantities of silver have been obtained in this country by the refining of lead. In proof of this we subjoin the followng statement of the

Silver produced from Ores raised in G. Britain during each of the 5 Years ending with 1858. — (*Hunt's Mining Records* for 1858, p. 41.)

		1854.	1855.	1856.	1857.	1858.
England	Lead ores	oz. 419,824	oz. 459,983	oz. 481,909	oz. 417,343	oz. 401,954
Wales	Lead ores	67,951	57,521	62,357	58,097	71,595
Ireland	Lead ores	18,096	7,252	3,700	3,071	14,361
Scotland	Lead ores	5,426	4,947	5,289	4,206	6,882
Isle of Man	Lead ores	52,262	51,597	60,382	48,016	46,985
Silver ores						4,250*
		562,659	561,300	613,637	530,733	571,345
Value at 5s. 6d. per oz.		£154,730	£154,357	£168,750	£146,501	157,119

SINGAPORE, an island and British settlement at the eastern extremity of the Straits of Malacca, the town being in lat. 1° 17′ 22″ N., lon. 103° 51′ 45″ E.

The island is of an elliptical form, about 27 miles in its greatest length, and 11 in breadth, containing an estimated area of 275 square miles. But the whole British settlement embraces a circumference of above 120 miles; in which is included about 50 desert islets, and the seas and straits within 10 miles of the coast of the principal island. The latter is separated from the main land by a strait of the same name, of small breadth throughout, and scarcely, indeed, ¼ of a mile wide in its narrowest part, which, in the early period of European navigation, was the thoroughfare between India and China. But the grand commercial highway between the eastern and western portions of maritime Asia now passes along the south side of the island, on which the town is built, between it and a chain of desert islands about 9 miles distant; the safest and most convenient channel being so near to the island that ships in passing and repassing come close to the roads. The town is wholly indebted for its rapid rise and growing importance to its position on this strait. This has rendered it not merely a convenient *entrepôt* for the trade between the Western world and India on the one hand, and China on the other; but also for that between the former and the Eastern Archipelago, the Philippines, &c. It is situated on a river, or rather salt creek, navigable by lighters about ¾ of a mile from the sea. Ships lie in the roads, or open harbour, at the distance of from 1 to 2 miles from town, according to their draught of water. The assistance of a number of convenient lighters, which are always in readiness, enables them to load or unload, with scarcely any interruption, throughout the year. The creek is accessible to the lighters, and the goods are taken in and discharged at convenient quays, at the doors of the principal warehouses. — (See *Chart* of the *Island of Singapore* in the *Mercator's Chart* in this work.)

The climate of Singapore, though hot, is healthy. Fahrenheit's thermometer ranges from 71° to 89°. Being only about 80 miles from the equator, there is, of course, very little variety in the seasons. There is neither summer nor winter; and even the periodical rains are short, and not very well marked — moderate showers of rain falling for about 150 days each year. The settlement of Singapore was formed in February, 1819, and its sovereignty and property, in their present extent, confirmed to the British government in 1825, by a convention with the king of the Netherlands, and a treaty with the Malay princes to whom it belonged. Previously to its being taken possession of by the English, it had been inhabited for about 8 years by a colony of Malays, half fishermen and half pirates. When the first census was taken in January, 1824, the population was found to amount to 10,683. In 1828, it had increased to 15,834; in both cases, exclusive of troops, camp followers, Indian convicts, and a floating population of about 3,000. In 1837 it amounted to 29,984, of whom 13,749 were Chinese settlers and 9,132 Malays, the Europeans being but few in number; and at present (1858) the population exceeds 50,000, of whom about a half are Chinese.

The principal merchants and agents are Englishmen, of whom also there are a few shopkeepers, auctioneers, &c. There are also some respectable Chinese merchants; and the bulk of the shopkeepers, with the most valuable part of the labouring population, consist of Chinese. About 5,000 adult males arrive annually from China by the junks; about 1,000 of whom remain at Singapore, the rest dispersing themselves among the neighbouring Dutch, English, and Malay settlements. The boatmen are chiefly natives of the Coromandel coast; and the Malays employ themselves as fishermen, in cutting timber, and in supplying the settlement with the rude produce of the neighbourhood. There are good daily markets, open at all hours, and well-supplied with vegetables, fruits, grain, fish, pork, and green turtle; the latter, the cheapest animal food that can be procured. There are no export or import duties, nor anchorage, harbour, lighthouse dues, or any fees; but a register is kept of all exports and imports. Reports must be made to the master attendant by the masters of vessels, and invoices delivered to the superintendent of imports and exports.

Currency, Weights, Language, &c. — The currency and weights are simple and convenient. Accounts are kept in Spanish dollars, divided into 100 parts, represented either by Dutch doits, or by English copper coins of the same value. The weights in use (and almost everything is sold by weight, as in China) are the Chinese picul of 100 catties, or 133⅓ lbs. avoirdupois. Rice (the produce of Siam and the

Archipelago) and salt are sold by the coyan of 40 piculs. Gold dust is sold by a Malay weight called the bungkal, which weighs 2 Spanish dollars, or 832 grains Troy. Bengal rice, wheat, and pulses of the same country, are sold by the bag, containing 2 Bengal maunds, or 164½ lbs. avoirdupois. Piece goods, &c., are sold by the corge or score. English weights and measures are frequently used in reference to European commodities. The mode of transacting business among the European merchants is simple and efficient. Instead of trusting their affairs to native agents, as in other parts of India, they transact them in person, with the occasional assistance of a Chinese creole as an interpreter and broker. The European merchants transact business on their own account; but a great deal of their employment consists in acting as agents for houses in London, Liverpool, Glasgow, Amsterdam, Antwerp, Calcutta, Bombay, Madras, Canton, and Batavia. They are also agents for various insurance offices at Calcutta and elsewhere, and policies of insurance to any extent may be effected without difficulty. The language of commercial intercourse, where any of the natives of the East are concerned, is universally Malay,—a simple and easy dialect, of which all the resident merchants have a sufficient acquaintance to enable them to transact ordinary business. The *Singapore Free Press*, published once a week, contains a price current, an account of the arrivals and departures of shipping, and an official detail of the exports and imports of the preceding week. The administration of justice is entirely English, there being a recorder's court for the settlement, in common with the two neighbouring ones of Penang and Malacca.

Commodities and Prices. — Singapore is chiefly an *entrepôt*, having, with the exception of pearl sago manufactured on the spot from the raw material imported from the north coast of Sumatra, implements of agriculture, and some others fabricated by the Chinese from European iron, with gambier and catechu grown and manufactured on the island, few commodities of its own for exportation. The grain produced on the island not being sufficient for the consumption of the inhabitants for a week, their supplies of rice, wheat, &c. are mostly all imported, principally from Java and Calcutta.

Trade of Singapore. — The following Table has been obligingly furnished to us by Mr. Hornidge of the East India House.

Abstract Statement of the Import and Export Trade of Singapore with the undermentioned Places in the Year 1855-56.

Places.	Imports.			Exports.		
	Merchandise	Treasure.	Total.	Merchandise.	Treasure.	Total.
United Kingdom	£934,727	£508,155	£1,242,882	£434,792	£582	£435,174
Aden	-	224	224	145	4,518	4,465
America, North	21,408	-	21,408	213,712	-	215,712
„ South	195	-	195	-	-	-
Amsterdam	-	-	-	5,775	-	5,775
Arabia and gulf	2,021	674	2,695	20,767	18,861	39,628
Australia	6,254	41,415	47,649	47,877	-	47,877
Austria	350	-	350	15,228	-	15,228
Belgium	23,392	-	23,392	5,751	-	5,751
Borneo	93,410	32,531	125,941	112,149	27,750	139,879
Bourbon	-	-	-	1,655	-	1,655
Cadiz	1,959	674	2,633	-	-	-
Cape of Good Hope	-	-	-	4,875	-	4,875
Celebes	104,441	16,382	120,823	117,685	4,797	122,490
Ceylon	5,937	14,257	20,174	25,100	22,811	45,911
China	624,851	73,785	698,634	734,345	208,260	942,605
Cochin China	88,695	56	88,749	79,848	1,197	81,045
Denmark	2,488	-	2,488	7,751	-	7,751
Egypt	829	-	829	-	6	6
France	5,033	10,127	15,180	55,535	-	55,535
Hamburgh and Bremen	127,157	-	127,157	66,246	-	66,246
Italy	34	-	34	-	-	-
Java, Rhio, Bally, Sambawa, and Minto	356,019	387,343	743,362	289,589	144,690	434,279
Kongpoot	26,480	79	26,559	27,515	615	28,130
Malayan Peninsula	103,852	64,106	167,958	115,575	60,632	176,197
Manilla	35,675	-	35,675	20,026	26,967	46,993
Mauritius	1,607	-	1,607	12,797	-	12,797
Penang and Malacca	297,146	69,572	366,718	226,500	180,580	407,080
Portugal	5,357	449	5,806	-	-	-
St. Francisco	80	1,684	1,764	-	-	-
Siam	153,646	3,345	156,991	117,554	16,508	134,062
Spain	-	-	-	15,913	-	15,913
Suez	2,100	225	2,325	56	-	56
Sumatra	57,610	15,661	73,271	35,515	13,704	49,219
Turkey	8,645	-	8,645	-	-	-
Other islands and places	45,115	6,357	51,470	30,867	19,272	50,139
Total trade with United Kingdom and foreign ports	3,112,467	1,047,079	4,159,546	2,855,131	751,514	3,586,445
Arracan	44,144	23,527	67,671	3,872	20,853	24,725
Bombay	109,650	15,651	125,281	137,925	20,622	158,547
Calcutta	694,616	-	694,616	74,668	452,576	527,242
Chittagong	-	-	-	171	584	755
Cuddalore	5,042	-	5,042	-	-	-
Fort St. George	39,639	1,000	40,639	36,075	40,944	77,019
Goa	-	-	-	5,662	-	5,662
Karical	2,119	224	2,343	2,559	374	2,933
Moulmein	11,746	750	12,496	6,451	1,800	8,251
Nagapatam	99	-	99	13,730	846	14,576
Pegu	25,095	-	25,095	5,917	9,217	15,154
Pondicherry	-	-	-	2,500	-	2,500
Porto Novo	190	-	190	137	224	361
Tuticorin	8,905	-	8,905	-	-	-
Total trade with home ports	941,243	41,132	982,375	287,665	548,040	835,705
Grand total	4,053,710	1,088,211	5,141,921	3,122,796	1,299,554	4,422,150

Account of the Quantities of some of the Principal Articles exported from Singapore for the U. Kingdom, from 1854 to 1858, both inclusive.

Articles.		1854.	1855.	1856.	1857.	1858.	Articles.		1854.	1855.	1856.	1857.	1858.
Tin	pls.	25,362	19,748	25,729	14,292	28,676	India rubber	pls.	4,950	10,778	1,684	2,472	2,246
Gutta percha	„	28,330	14,595	10,259	12,778	12,165	Sugar	„	48,515	61,955	75,410	72,844	59,755
Sago flour	„	52,099	64,278	68,722	55,506	92,029	Nutmegs	„	1,465	2,686	3,289	2,645	3,191
Pearl sago	„	10,507	27,712	44,053	97,274	45,599	Mace	„	424	546	896	762	579
Black pepper	„	42,420	29,053	50,224	29,465	66,450	Cloves	„	928	556	355	304	106
White pepper	„	10,200	7,785	6,057	6,229	10,265	Sapanwood	„	12,672	5,900	5,161	11,288	25,135

The following rates of commission and warehouse rent are charged at Singapore, except in cases of special agreement: —

Commission.

1. On all sales or purchases, except the following, 5 per cent.
2. On purchases of goods or produce for returns, 2½ per cent.
3. On sales or purchases of opium, 3 per cent.
4. On sale or purchase of ships, vessels, houses, or lands, 2½ per cent.
5. On sale, purchase, or shipment of bullion, 1 per cent.
6. On sale or purchase of diamonds, jewels, &c., 2 per cent.
7. On returns in treasure, bullion, or bills, 1 per cent.
8. On all goods consigned and withdrawn, ½ commission.
9. On sale, purchase, or negotiating of bills not serving for purchase of goods, or produce, 1 per cent.
10. On all goods sold by auction by the agents themselves, in addition to the above, 2½ per cent.
11. On del credere, or guaranteeing sales, when specially required, 2½ per cent.
12. Shroffage, 1 per cent. per mile.
13. On all advances of money for the purpose of trade, whether the goods are consigned to the agent or not, and where a commission of ½ per cent. is not charged, 2½ per cent.
14. On ordering goods, or superintending the fulfilment of contracts whence no other commission is derived, 2½ per cent.
15. On guaranteeing bills, bonds, or other engagements, and on becoming security for administration of estates, or to government or individuals for contracts, agreements, &c., ½ per cent.
16. On acting for the estates of persons deceased as executors or administrators, 5 per cent.
17. On the management of estates for others, on the amount received, 2½ per cent.
18. On procuring freight, or advertising as the agent of owner or commanders, on the amount of freight, whether the same passes through the hands of the agent or not, 5 per cent.
19. On chartering ships for other parties, 2½ per cent.
20. On making insurance, or writing orders for do., ½ per cent.
21. On settling insurance losses, total or partial, and on procuring return of premium, 1 per cent.
22. On debts, when a process at law or arbitration is necessary, 2½ per cent.—And if received by such means, 5 per cent.
23. On bills of exchange noted or protested, 2 per cent.
24. On collecting house rent, 5 per cent.
25. On ships' disbursements, 2½ per cent.
26. On negotiating loans on respondentia, 2 per cent.
27. On letters of credit granted for mercantile purposes, 2½ per cent.
28. On purchasing or selling government securities, or on exchanging or transferring the same, ½ per cent.
29. On delivering up do., ½ per cent.
30. On all advances, not punctually liquidated, the agent to have the option of charging a second commission, as upon a fresh advance, provided the charge be only made once in the same year.
31. On transhipping all goods or produce, except the following, 1 per cent.
32. On transhipping whole chests of cassia, cassia buds, aniseed, camphor, nankeens, and gunny bags, per package, ¼ dollar.
33. At the option of the agent, on the amount debited or credited within the year, including interest, and excepting only such items, on which at least 2½ per cent. has been charged, 1 per cent.

This charge is not to apply to paying over a balance due on an account made up to a particular period, unless where such balance is withdrawn without reasonable notice.

Warehouse Rent per Month.

Chests of opium or silk, bales of woollens, pipes of wine or brandy, leaguers of arrack, &c., 1 dollar.
Bales of Indian piece goods, cotton and gunny bags, 50 cents.
Cases of European piece goods, trusses of woollens, &c., 25 cents.
Hogsheads of liquor, ½ chests of wine, &c., 40 cents.
Pepper, rice, coffee, sugar, saltpetre, &c., 10 per cent.
Iron, tin, tutenague, spelter, lead, &c., 5 per cent.
All other goods not mentioned, to pay accordingly, or by measurement, at the rate of, per ton of 50 cubic feet 1 dollar.

Eastern Ports trading with Singapore. — As everything that relates to the trade of the East is now becoming of the greatest importance, we make no apology for laying before the reader the following statements, taken from the *Singapore Free Press*, respecting the Eastern ports from which native ships arrive at Singapore. They are mostly all very imperfectly known even to residents in the settlement; and the names of some of them may now, perhaps, be learned for the first time by the English reader.

Commencing with ports to the northward, those in China, from which junks (which are included among the *native craft*) arrive here, are, CANTON, TEW-CHEW, CHUNGLIM, and MACAO, in Canton province; AMOY and CHINCHEW in Fokien; and SHANGHAE and NINGPO, large commercial cities, in Chekeang province. They come also from HAILAM or HAINAN, which is subject to Canton. The average number of these vessels (some of which are of large burden, 300 to 400 tons), is 20 arriving here annually. The cargoes they bring are chiefly intended for the consumption of the numerous Chinese who are settled in Dutch and English colonies in these parts, as well as in the native states, and are re-exported thence by smaller vessels, to places where they may be mostly required. The only articles they bring, in any way required by Europeans, are raw silks, nankeens, and teas. These vessels likewise convey a large number of emigrants from China every year, probably from 4,000 to 5,000, most of whom, however, proceed to other places soon after landing here.

The ports in Cochin-China and Cambodia, from which similar vessels arrive, are KANGKAO and LOKNOI, in Cambodia, and TURON and SAIGON, in Cochin-China Proper. Anom or Anam, from which many vessels report themselves to come, is but a general name for either Cochin-China or Tonquin. The average number of vessels arriving from these ports are 40 annually, bringing, principally, sugar, rice, oil, salt, and some other articles of minor importance. These vessels are usually smaller than the Chinese and Siamese junks.

The total imports from Cochin-China during the official year 1842-43 were valued at 254,785 dollars. They consisted of raw silk, 149 piculs; rice, 12,010 piculs; sugar, 27,540 piculs; and salt, 15,120 piculs. The gross exports during this period were 227,848 dollars, consisting chiefly of cotton, 1,084 bales and 985 piculs; British cotton goods, 3,588 pieces; opium, 263 chests; and woollens, to the value of 25,378 dollars. During the same time 82 boats, equal to 4,195 tons, arrived here from Cochin-China.

It was formerly noticed how extremely liable the Cochin-Chinese boats were to be plundered, and their crews murdered or made slaves of, by Malay and Chinese pirates, in consequence of their being entirely defenceless. During the past year many instances have occurred which too well justify the statement. It is to be hoped that the measures which government are contemplating may have the effect during the approaching season of materially diminishing, if not altogether checking the evil, at least in the vicinity of our shores.

BANKOK and CHANTIBUN are the only two ports in Siam of any note, and from these about 30 to 40 junks and topes arrive annually. They are manned and owned almost entirely by Chinese residing in Siam, and bring, chiefly, sugar, rice, oil, iron pans, sticklac, gamboge, salt, indigo, paddy, tobacco, and sapan-wood.

We have had too frequent occasion to notice the depredations and cruelties which every class of vessels from the places above mentioned have suffered at the hands of pirates every year, on their way to this port, which certainly contributes to check an increase of trade with the countries they come from.

The ports on the east coast of the Peninsula are SUNGORA and CALANTAN, subject to Siam; and TRINGANU, KEMMAMAN and PAHANG, independent states. There are other ports on this coast, but of little note; namely, Doongoon, Endau, Pakoh, Sudeelee, and Teloban. The produce usually brought here by pucats and other craft from those first mentioned consists chiefly of tin, gold dust, pepper, Malay sarongs and trowsers, bees'-wax, hides, elephants' teeth. Junks occasionally touch at these ports, and we sometimes have the produce of Siam and China brought here from them. The average number of craft arriving thence may be about 120 to 130 annually.

BORNEO. — The imports into Singapore from Borneo in 1842-43 consisted of antimony ore, 7,478 piculs; gold dust, 4,337 bunkals, valued at 126,652 dollars; rattans, 9,050 piculs; specie, 7,395 dollars, &c. The antimony ore comes principally from Sarawak; where it is said, Mr. (now Sir James) Brooke, has a monopoly of the trade. The exports for the year 1842-43 amounted to 296,637 dollars, showing a decrease of 22,311 dollars. The most important were British cotton goods, 3,908 corges and 15 dozen; opium, 227 chests; téa, 1,928 boxes and 52 piculs; and specie equal to 34,202 dollars.

The ports in Borneo, from which vessels report themselves, are *BANJERMASSIN, BALEMBANGAN, BURNAI, COTI, MEMPAWA, MATTAN, PONTIANAK, PASSEIR, PEGGOTAN, SARAWAK, SAMBAS, SUCCADANA, *Brissil, Batulichen, Buncalan, Bintooloo, Calakak, Coti-ringin, Cooboo, Chinkol, Kayong, Monterado, Mukah, Mahto, Oyak, Pambuang Sadong, Sampit, Tekrang*, and *Tannah Darat*. Some of these ports are well known; but of others we know little except the names. Those with which trade is principally carried on are Brunai, or Borneo Proper, Banjermassin, Pontianak, Sambas, Coti, Passeir, Peggotan, and Sarawak. The products commonly brought here from Borneo are, rattans, birds' nests, bees' wax, tortoiseshell, gold dust, and diamonds, biche de mer, pearl and raw sago, camphor, rice and paddy, mother of pearl shells, garro and lakka woods, pepper, seaweed, mats, ebony, and antimony ore. The boats which come from the southern and eastern ports are commonly manned by Bugis, the principal carriers in the Archipelago, and, next to the Chinese, the most enterprising and industrious of the traders in these regions. They are considerably less tainted with piracy than the Malays.

MANILLA.—The commerce with Manilla continues to increase. In a late year the gross imports were valued at 323,932 dollars. The most important articles consisted of hemp and rope, 2,044 piculs; cigars, 20,770,100; sugar, 6,546 piculs; tea, 585 piculs; and sapan wood, 19,306 piculs; it would also appear 5,300 pieces of British piece goods were imported, probably on account of their being unsuitable for the Manilla market. The exports amounted to 127,315 dollars. The chief articles were opium, 49 chests; iron, 3,762 piculs; and British cotton goods, 88 dozen, 60 corges and 4,189 pieces.

CELEBES is the parent country of the Bugis, which name, though properly belonging only to one of the tribes on Celebes, is applied generally to all traders from that island, from the east and south-east coasts of Borneo, and from the islands to the southward and eastward of it. Of these tribes, by far the most considerable in point of improvement and numbers are the Bugis of Wajo or Tuwajo, a country near the centre of Celebes, and situated up the Bay of Boni. The ports in Celebes from which prahus arrive here are Bonirati, Bugis Pari-para, Wajok, Bugis Pemana, Kailie, Macassar, Mandhar, and Sangye. They usually bring sarongs — the produce of their own looms — rattans, wax, tortoiseshell, pearl shells, seaweed, biche de mer, coffee, birds' nests, sándal and bookoo woods, and other articles of minor importance. The number of vessels arriving here from the above places averages about 50 or 60 annually.

The islands to the eastward and southward of Celebes, from which the Bugis bring cargoes to this port, are chiefly Bootoon, Enday or Flores, Selayer, Timor, Booroo, Lombok, Sumbawa, Amboyna, Ceram, and even from the Aroos and Papua. The articles are the same as those from Celebes, with the addition of kayu-pooteh oil, birds of paradise, and wild nutmegs. The vessels arriving from these places may average about 30 every year. The island of Bali, or Bally, contains several ports, from which upwards of 50 prahus annually arrive here: the principal of these are Baliling, Bali Badong, Sasak, Saliparang, and Anpanan.

SUMATRA, the various ports on the east coast of which furnish the greatest number of native craft frequenting this port, amounting on an average to between 300 and 400 annually. The names of these ports are, Acheen, Apong, Assahan, Batubara, Bukitbatu, Billah, Ayeretam, Campar, Delli, Gawang, Indragiri, Jambie, Kitaman, Langkat, Lampung, Manda, Merba, Pulo Padang, Panai, Palembang, Rantow, Rittee, Siac, Subee, and Tabing Tingie. The greatest portion of boats come from Apong, Manda, Ranto, and Tabing Tingie, with raw sago. The next in number are those from Campar, Jambie, and Siac, bringing coffee, rice, wax, rattans, ivory, gold dust, benzoin, dragons' blood, lakka, wood, and a few other articles. From Palembang come the lacquered basons and creeree boxes so much in request among natives; and the best rattan mats are made there. The coast near Siac furnishes in great abundance the *Trubo*, or fish-roe, so universally used, and affords our principal supply of sago, which has now become an important article of commerce at Singapore.

The names of the petty places on the west side of the MALAY PENINSULA, opposite the Sumatra shore, between this and Penang, are, — Batu Pahat, Beenook, Beladong, Dooyong, Brooas, Muar, Padang, Poontian, and Panghie; while the principal ports, besides Malacca and her dependencies, are— Perak, Selengore, Lingin, and Lookoot. From the former very few articles, and those only of trifling value, are brought here, consisting chiefly of fowls, cocoa nuts, paddy, fruit, &c.; but the other ports all furnish tin in large quantities, besides several other articles of less importance. The whole of this coast, however, bears a bad name for piracy. The number of prahus arriving here from all the places above named amounts to about 100 every year.

Of the neighbouring islands, RHIO is the one with which we carry on the most extensive and constant trade; the number of boats, or rather trips of a regular set of Chinese boats, called *sampan pucats*, employed in the trade, being about 300 a year. They bring chiefly pepper and gambier, the produce of Bintang. The chief imports are gambier, pepper, and rice. Rhio is the only place from whence gambier is imported into Singapore, and the quantity now grown and manufactured is certainly not less than 70,000 piculs. Rhio may be considered as a free port, as there are neither import nor export duties, strictly so called. From LINGIN, or LINGA, also, we have upwards of 70 or 80 boats arriving annually, bringing a great variety of useful produce, but principally pepper, tin, rattans, &c. BILLITON sends about 25 boats yearly, which bring biche de mer, seaweed, tortoiseshell, wax, &c.

BUNGORAN (or Great Natunas) and SEANTAN (or N. Anambas) are the next in importance, from which 30 or 40 vessels trade with this settlement. The other islands are— Pulo Awore, Benawang, Condore, Carimons, Jamaja (or S. Anambas), Pulo Laut, Laboo, Leboc, Meppa, Nongsa, Sarassan, Sinkip, Soobie, Tajam, Timblan, Timiang, Tingih, Trong, Carimata, Ungaran, and some others.

* The places mentioned in this statement, of which the names are in capitals, are either well known to Europeans by long report or actual intercourse; while those in italics remain, so far as we have ascertained, not only unvisited by, but are only recently known by name to them; few or none of them earlier than the foundation of this settlement.

JAVA.—The trade with this rich and flourishing island is of great importance. During 1854, 90 vessels, of the burden of 14,409 lasts, cleared out from Java for Singapore; and the value of the merchandise imported in 1855–56 into the latter from the former, ex treasure, amounted to 1,602,000 dollars. Among the principal items were, birds' nests, benjamin, coffee, cotton goods, rice, copper, mace, nutmegs, cloves, spirits, sugar, tin, tobacco, woollens. During the same space the exports from Singapore to Java amounted, ex treasure, to 1,305 dollars. The principal articles were, country cotton goods, and China cotton goods, crockery china, opium, raw silk, tea, China paper. The small quantity of grain produced in Singapore, hardly equal to the consumption of the population for one week, renders it exceedingly desirable to have the means at hand of obtaining a large and constant supply: this Java furnishes us with, and this alone renders our trade with that island of considerable importance and interest.

Piracy in the Eastern Seas. — We regret to have to state that piracy has always prevailed to a less or greater extent in the Eastern Seas. In 1824 we bound ourselves by treaty with the Dutch to co-operate with them for its suppression; but it is affirmed that, for a long while, we did little or nothing towards the fulfilment of this engagement, though we are far more interested in the cessation of piracy than any other people. Hitherto the trade of Singapore has chiefly suffered from piratical attacks; but, besides waylaying the smaller junks and ships of the Chinese, Siamese, &c., the pirates, emboldened by impunity, have sometimes attacked British ships in the Straits of Malacca, and actually captured ships in the seas more to the eastward, inflicting the most horrid barbarities on the unhappy passengers and crews. The Andromache ship of war destroyed in June, 1836, a nest of pirates; and in 1843, H. M. ship Dido fell in with and destroyed another nest in one of the ports of Borneo. But an example of this sort, if not vigorously followed up, is of little use. This, however, is a matter of more importance, perhaps, than is commonly supposed. We believe we are within the mark when we affirm that from 20 to 25 millions' worth of British property (including the trade between India and Canton) is annually conveyed through the Straits of Malacca and other Eastern Seas infested by pirates. The trade from England to China, already of vast importance, and increasing more rapidly, perhaps, than any other department of our commerce, is wholly carried on through the channels referred to; and, as we do not hesitate to send powerful squadrons to secure less valuable interests in other quarters, it is not easy to see why we should not send some half-dozen war steamers to protect this great and growing trade, as well as that which we carry on with the Philippine Islands, New South Wales, &c., from the depredations of a piratical banditti. Nothing but the employment of steamers can effectually abate the evil of piracy. The infinite number of small islands in the Eastern Seas, the difficulty of their navigation, and our little acquaintance with any but the principal lines of intercourse, afford the greatest facilities for the escape of pirates from ordinary cruisers. But steam ships of small draught of water could follow them into their haunts; and the pirates would not be able to escape from them, as they frequently do from sailing vessels, by taking to their oars while their pursuers are becalmed. Except when defending our own shores, the navy is never so legitimately employed as in the defence and extension of commerce. Its protection is one of the most important duties which government has to discharge; and considering the immense naval force at our disposal, it may well excite astonishment that piracy in the Eastern Seas — one of the great highways by which commerce is carried on — should have been allowed to attain to any considerable magnitude, and that the reiterated complaints of the merchants and others, who have suffered by its prevalence, should have been so little attended to. A very little outlay on the part of the government might make, in so far at least as piracy is concerned, the navigation of the Eastern Seas quite as safe as that of the Channel; and the advantages thence resulting to our trade would, in a very short period, far more than countervail the little sacrifice required at the outset.

But, at the same time, it is indispensable that when we endeavour to suppress piracy, we should not confound the innocent with the guilty, and chastise those who have not made themselves amenable to any punishment at our hands. It would be inconsistent alike with our objects and limits to enter into any inquiries with respect to the conduct of Sir James Brooke in relation to this subject. He may have been warranted in the vengeance he inflicted on the Dyaks and other alleged pirates of Borneo; and, if so, the severest treatment in the meantime was perhaps the most humane in the end. At the same time we confess that the accounts of his expeditions appear to be singularly revolting; and that it would require much stronger testimony of the guilt of the natives than any hitherto produced to justify the atrocities of which they have been made the victims. We subjoin

A Statement of the Prices of the Principal Articles of Eastern Produce at Singapore on the 20th of January, 1859, from *Ker, Rawson, and Co's Circular* of that date.

In this port there are no duties on imports and exports, and vessels of every nation are free of all charges, except light dues levied on certain vessels under the Act 13. of 1854, the highest of which is one anna (less than 3 cents) per ton.

Accounts are kept in Spanish dollars divided into cents. The usual credit on sales is as follows: — Europe goods 3 months; Indian and China goods, 2 months; opium and produce are generally bought for cash.

The common weight is the picul of 133⅓ lbs. avoirdupois divided into 100 catties. Rice is sold by the coyan of 40 piculs. Salt by the same measure, but weighs about 52 piculs. Java tobacco, by the corge of 40 baskets. Bengal wheat, rice, and

gram, by the bag containing 2 Bengal maunds. Indian piece goods by the corge of 20 pieces. Gold and silver thread by the catty of 56 dollars' weight. Gold dust by the bunkal, which weighs 2 dollars, equal to 352 grams troy.

Articles.			Prices. Sp. Dolls.		Cents.
Alum	per picul		2·50	to	0·00
Arrack	per half-leag.		19·00	—	22·00
Arrow-root	per picul		10·00	—	00·00
Betelnut	—		2·10	—	0·00
Beeswax	—		38·00	—	42·00
Camphor, China	—		14·50	—	00·00
Cassia lignea	—		18·00	—	00·00
vera	—		5·00	—	7·00
Cloves	—		7·75	—	0·00
Coffee, Bally	—		9·00	—	0·00
Bagis	—		9·75	—	12·00
Java	—		00·00	—	00·00
Copper, Japan	—		35·00	—	00·
Adelaide	—		00·	—	00·
China, cash	—		16·50	—	00·00
Cubebs	—		22·00	—	24·00
Cotton, Bengal	per bale		00·	—	00·
Bombay	—		36·	—	00·
Cutch	per picul		6·00	—	00·
Cordage, coir	—		3·00	—	5·50
Bengal	—		4·50	—	5·50
Manilla	—		9·50	—	10·00
Dragons' blood	—		22·	—	32·00
Ebony, Ceylon	—		1·00	—	00·
Elephants' tusks	—		130·00	—	250·
Gambóge	—		20·00	—	22·
Gambier	—		2·70	—	2·7
Gold dust, Malay and Borneo	per bunkal		28·00	—	30·50
Australian	—		30·	—	31·
Gunnies, jail	100		14·00	—	16·00
common	—		8·00	—	8·50
Gutta percha	per picul		37·50	—	37·50
Gum benjamin, inferior	—		16·00	—	16·50
good quality	—		45·00	—	75·00
dammar or copal	—		9·00	—	11·00
elastic	—		11·00	—	12·00
Gram	per bag		22·0	—	00·
Hides, buffalo	per picul		7·50	—	8·00
cow	—		11·00	—	11·50
Horns, buffalo	—		7·50	—	8·0
deer	—		6·00	—	7·00
India-rubber	—		16·00	—	17·00
Mother o'pearl shells	per picul		28·	—	28·25
Mace	—		35·00	—	00·00

Articles.			Prices. Sp. Dolls.		Cents.
Nutmegs	—		45·00	—	00·00
Oil, cocoa-nut	—		6·50	—	00·
Opium, Benares	per chest		770	—	000·00
Patna	—		760	—	
Malwa	—		000	—	00·
Turkey	per picul		600	—	000·00
Pepper, black	—		7·10	—	7·15
white	—		13·25	—	14·00
long	—		9·00	—	00·
Rice, Arracan	per koyan		50·00	—	50·00
Bally	—		68·00	—	70·00
Java	—		70·	—	75·00
Siam	—		60·00	—	90·00
Bengal	per 2 mds. bag		2·75	—	3·00
Rattans, Banjarmassin	per picul		3·50	—	3·75
Straits	—		1·50	—	2·50
Rum	per gallon		0·60	—	0·65
Sago, flour	per picul		2·80	—	2·85
pearl	—		3·25	—	0·00
Salt	per koyan		16·00	—	19·00
Sandal-wood, Timor	per picul		7·50	—	8·50
Swan River	—		4·50	—	4·75
Segars, No. 2, Manilla	per mil.		8·50	—	9·00
3, —	—		8·00	—	0·00
Sapan-wood, Siam	per picul		2·10	—	2·15
Manilla	—		1·90	—	0·00
Sticklac	—		8·30	—	0·00
Silk, raw, China	—		340	—	360
Cochin China	—		265	—	000
Siam	—		130	—	000
Sugar, Siam white	—		7·50	—	0·00
brown	—		5·60	—	6·00
Cochin China	—		5·50	—	6·10
Java	—		0·00	—	0·00
China	—		5·00	—	7·00
Sugar candy	—		10·00	—	11·00
Tea, junk ordinary, 25 ctys.	per box		2·50	—	0·00
Tin, Malacca	per picul		29·50	—	30·0
Pahang, &c.	—		28·00	—	00·00
Tallow, buffalo	—		11·0	—	12·
vegetable	—		10·50	—	11·50
Tortoiseshell	—		300·00	—	450·00
Teel seed, black	—		2·50	—	2·60
Timber, planks 11 ft. by 9 by $\frac{3}{4}$ in. 100			16·00	—	19·00
16 „ 9 „ $1\frac{1}{2}$ in. „			30·00	—	40·00
beams 22 „ 6 „ 3 in. each			1·25	—	1·50
Wheat, Bengal	per 2 mds. bag		2·0	—	3·00

SINOPE, a town of Asia Minor, on the S. coast of the Black Sea, lat. 42° 2′ 30″ N., lon. 35° 9′ 45″ E. Population uncertain, probably from 8,000 to 10,000. Sinope is situated on a low narrow isthmus, connecting the high rocky promontory of Ada with the main land. Its port, which is the best on this coast, on the south side of the town, is protected from the N. and N.E. gales by the isthmus and promontory already mentioned. Ships anchor within $\frac{1}{3}$ mile of the town, in from 13 to 17 fathoms; or nearer to it, in from 5 to 7 fathoms. There is a roadstead on the north side of the isthmus, but it is open and exposed. Sinope is one of the principal stations of the Turkish fleet; and there are docks and arsenals for its accommodation and outfit. But the fortifications can neither afford efficient protection to the town or the shipping. This was strikingly exemplified in the latter part of 1853, when a Russian squadron attacked, and, without any material loss to itself, totally destroyed 6 Turkish frigates with several transports at anchor in the roads. Its exports are inconsiderable, the principal being timber, salt, cordage, fish oil, &c.

In ancient times, Sinope was a city of great wealth, magnitude, and importance. It was the birthplace of Diogenes the Cynic; and Mithridates made it the capital of his dominions. After its conquest by the Romans under Lucullus, it became the seat of a colony; and continued for a lengthened period to enjoy a good deal of consideration.

Should civilisation and the arts once more revive in the ancient Pontus, and the other countries to the South of the Black Sea, the excellence of its port could not fail to restore to Sinope some portion of its former grandeur. Even now a considerable intercourse is beginning to take place with the countries E. and S. of Sinope. Diarbeker on the Tigris, in lat. 37° 54′ N., lon. 39° 53′ 45″ E., is one of the principal seats of Eastern commerce; and caravans set out regularly from it for Aleppo, Smyrna, and Constantinople: but any one who consults a map of Asia Minor, and of the contiguous countries, will see at once that Trebisond and the neighbouring ports on the S.E. coast of the Black Sea are the natural channels through which Armenia, Koordistan, and the north-western ports of Persia may best maintain an intercourse with Europe. We shall afterwards show that the danger to vessels in the roads of Trebisond has been very much exaggerated. — (See TREBISOND.) In the event, however, of the commerce with the countries referred to becoming of any considerable importance, Sinope would be an advantageous *entrepôt* to which goods might be brought, and whence they might be conveyed in proper vessels, and at proper times, to the other ports. At all events, it is of material importance that a direct intercourse with the southern coast of the Black Sea should be established, and that the trade with it should not be carried on, as hitherto, through Odessa. — (For further particulars as to Sinope, see *Tournefort, Voy-*

age au Levant, tom. ii. pp. 202—212.; and *Norie's Sailing Directions for the Black Sea.* See also the article TREBISOND, in this work.)

SKINS. The term is applied in commercial language to the skins of those animals, as deer, goats, kids, lambs, &c., which, when prepared, are used in the lighter works of bookbinding, the manufacture of gloves, parchment, &c.; while the term hides is applied to the skins of the ox, horse, &c. which, when tanned, are used in the manufacture of shoes, harness, and other heavy and strong articles. Lamb and kid skins are principally used in the glove manufacture; 120 skins being supposed to produce, at an average, 18 dozen pairs of gloves.

Account of the Quantities of the different Kinds of Skins imported into the U. Kingdom during each of the undermentioned Years ending with 1852, specifying the Countries whence they were brought, and the Quantities brought from each.

Countries.	1836.	1840.	1852.
Deer (undressed)—			
U. States of America - - - number	192,139	409,208	40,763
Other countries - - - - —	123,277	2,577	9,290
Total - - —	315,416	411,785	50,053
Retained for consumption and re-exported - —	171,451	90,481	23,846*
Goat (undressed) —			
Norway - - - - —	10,731	8,301	15,089
Prussia - - - - —	10,268	32,278	5,852
Germany - - - - —	19,462	8,298	12,565
Holland - - - - —	12,914	6,054	97,600
France - - - - —	89,817	68,853	24,682
Portugal Proper - - - - —	35,775	1,245	
Tripoli, Tunis, Algiers, and Morocco - - —	96,857	115,699	
Cape of Good Hope - - - —	116,289	98,511	70,540
East India Company's territories and Ceylon - —	16,102	25,118	357,883
Other countries - - - - —	5,561	20,079	8,051
Total - - —	413,756	387,436	592,042
Retained for consumption and re-exported - —	383,544	322,838	297,077*
Kid (undressed)—			
Italy and the Italian Islands - - —	180,330	94,960	67,879
East India Company's territories and Ceylon - —	3,587	39,590	20,476
Other countries - - - - —	12,408	7,125	13,547
Total - - —	196,325	141,675	101,902
Retained for consumption and re-exported - —	153,210	136,241	8,073*
Kid (dressed) —			
France - - - - —	551,582	571,055	545,252
Other countries - - - - —	39,037	1,212	31,009
Total - - —	590,619	572,267	576,261
Retained for consumption and re-exported - —	590,469	560,771	4,932*
Lamb (undressed) —			
Germany - - - - —	123,948	28,499	10,190
France - - - - —	314,863	149,315	33,857
Italy and the Italian Islands - - —	2,152,887	1,400,749	1,011,336
Turkey - - - - —	158,818	165,354	208,370
Other countries - - - - —	74,295	42,876	111,855
Total - - —	2,784,841	1,784,793	1,377,608
Retained for consumption and re-exported - —	2,692,724	1,552,528	120*
Seal (undressed) —			
British North American Colonies - - —	115,736	523,298	533,361
The whale fisheries - - - —	1,212	17,170	129,318
Other countries - - - - —	32,591	20,128	148,851
Total - - —	147,539	560,596	811,530
Retained for consumption and re-exported - —	113,744	556,568	8,771*

* The duty on skins having been repealed in 1846, the quantities retained for consumption in 1852 cannot be stated; but the re-exports in that year are given.

SLATE (ROOF), (Ger. *Schiefer*; Fr. *Ardoise*; It. *Lavagna, Lastra*; Sp. *Pizarra*), a fossil or compact stone (*argillaceous schistus*) that may be readily split into even, smooth, thin laminæ. There are several varieties of this valuable mineral, the prevailing colours being grey, blue, and brown. But the tints are very various; and slates are often marked with streaks of a different colour from the ground. Slate is principally used in the covering of houses, for which purpose it is infinitely superior to thatch or tiles, and is far less expensive than lead. Good roofing slate should not absorb water; and it should be so compact as not to be decomposed by the action of the atmosphere. When properly selected, roof slates are of almost perpetual duration; but those which are spongy and imbibe moisture speedily get covered with moss, and require, at no very distant period, to be renewed.

The use of slates in the covering of houses is entirely European. From the Hellespont to China inclusive there is not a single slated house; and this does not arise from any want of slate, which is as abundant in Asia as in Europe.

Slates carried by land have never been subjected to any duty; but those carried coastwise were, until 1831, charged with duties varying according to their size and species. The injustice of this distinction, and the impolicy of laying any duty on an article of this sort, are obvious. The revenue it produced was quite inconsiderable, not exceeding 35,000*l.* a-year. It was repealed at the same time as the duty on coal carried coastwise.

Since the repeal of the duty, the consumption of slate has been materially increased; and it is now

extensively employed for various purposes to which it was not formerly made applicable, such as the flooring of warehouses and vaults, the paving of streets, the formation of cisterns, the covering of worn or decayed floors, and of the walls of houses in exposed situations, &c. The slate used for these purposes is cut by the circular saw into pieces of from ½ an inch to 2 inches thick. Many hundred tons have been used in the course of the last few years in paving, flooring, &c. at the London Docks, and other large establishments.

The principal slate quarries in Great Britain are in Caernarvonshire. Those belonging to Mr. Pennant (formerly Lord Penrhyn's), near Bangor, employ about 1,500 men and boys, and are the most extensive and valuable in the empire. The other quarries in the same county employ about 1,620 men and boys: and there are some in other parts of Wales. There are also extensive quarries at Ulverstone, in Lancashire; and others, of inferior magnitude, in various parts of Westmoreland and Cumberland.

The principal slate quarries in Scotland are at Easdale and Balachulish, in Argyleshire. Speaking generally, the Scotch quarries do not afford slates of the size and smoothness of those obtained from the Welsh quarries; and the wood-work of the roofs covered with them requires to be stronger.

Roofing slates are of different sizes, and are denominated Imperials, Queens, Princesses, &c. Their price, supposing their quality to be in other respects equal, depends partly on their size and partly on their weight.

SLAVES AND SLAVE TRADE. A slave, in the ordinary sense of the term, is an individual at the absolute disposal of another, who has a right to employ and treat him as he pleases. But the state of slavery is susceptible of innumerable modifications; and it has been usual, in most countries where it has been long established, to limit in various ways the power of the master over the slave. The *slave trade* is, of course, the business of those who deal in slaves.

Origin of Slavery.—A great deal of learning has been employed in tracing the history of slavery, though the subject is still far from exhausted. It seems most probable that it originally grew out of a state of war. In rude uncivilised communities, where the passion of revenge acquires a strength unknown in more advanced states of society, captives taken in war are adjudged to belong to the victors, who may either put them to the sword, or reduce them to a state of servitude. In antiquity, the ideas of war and slavery were inseparable. Probably in very remote ages, prisoners were most commonly put to death; but the selfish gradually predominated over the more passionate feelings, and for many ages it was usual to reduce them to the condition of slaves; being either sold by their captors to others, or employed by them as they might think fit.

The practice of reducing men to a state of slavery, having once begun, was extended in various ways. The progeny of slaves or of women in a state of slavery were slaves; men born free might sell themselves as slaves; and parents had authority, in Judæa and Rome, to dispose of their children for the same purpose.—(*Michaelis on the Laws of Moses*, ii. 163. Eng. ed.) It was the law of Rome, and of most other ancient states, that the persons of debtors who had contracted obligations which they could not discharge, should become the property of their creditors. "*Servi*," says Justinian, "*autem aut nascuntur aut fiunt: nascuntur ex ancillis nostris, fiunt aut jure gentium, id est ex captivitate; aut jure civili, cum liber homo major viginti annos ad pretium participandum sese venundari passus est.*"—(*Instit.* lib. i. tit. 3.)

Treatment of Slaves.—The treatment of slaves in antiquity, as in more modern times, differed very widely in different countries and periods, and among different classes of slaves in the same country, and at the same time. A great deal also depended on the character of particular masters. Slaves bred up in the house or family of the masters were uniformly treated with greater indulgence than others, and became entitled, by custom, to several important privileges. At Athens, slaves appear to have been better treated than in any other ancient state; and Demosthenes affirms, in his second Philippic, that, "a slave was better off at Athens than a free citizen in many other countries." In republican Rome, the masters had the power of life and death over their slaves, who were often treated with the most detestable barbarity. It was not an uncommon practice to expose old, useless, or sick slaves to starve in an island in the Tiber! We may, as Hume has justly remarked, "imagine what others would practise, when it was the professed maxim of the elder Cato to sell his superannuated slaves at any price, rather than maintain what he esteemed a useless burden."—(*Plutarch, in Vitâ Catonis,*) *Ergastula*, or dungeons, where slaves were confined and chained at night, and where they were sometimes made to work in the day, were common all over Italy. Columella advises that they be always built under ground—(lib. i. c. 6.): and remains of them are still seen in the lower stories of ancient buildings in Italy and Sicily. Hundreds of slaves were sometimes put to death for the crime of one only; and they were exposed, when they committed any petty fault, to all the violence of the most capricious and unrestrained despotism.

It was not uncommon in the barbarous ages to immolate captives on the tomb of such chiefs as had fallen in battle; and magnificent games were celebrated on these occasions.* The gladiatorial exhibitions, so common at Rome after the Punic wars, seem to have grown out of this practice. These were contests between slaves, denominated gladiators, trained to fight in public for the amusement of a ferocious populace, who took the

* Achilles sacrificed 12 Trojan captives on the tomb of Patroclus.—(*Iliad*, lib. 23.)

greatest delight in their sanguinary combats. Thousands of unfortunate wretches were annually sacrificed in this inhuman sport. After his triumph over the Dacians, Trajan exhibited spectacles, in which no fewer than 11,000 wild beasts of different kinds were killed, and 10,000 gladiators fought!—(*Adam's Roman Antiquities*, p. 317.)

The cruelties inflicted on the slaves occasioned frequent revolts, attended by the most dreadful excesses. Spartacus, a Thracian captive, destined for the profession of a gladiator, headed a rebellion of gladiators and slaves, which continued for 3 years, and required all the force of the republic to suppress. When finally defeated by Crassus, about 6,000 of his followers were nailed to the cross, in double rows, that extended almost from Capua to Rome.—(*Ferguson, Rom. Republic*, c. 16.) No one acquainted with the manners of the Romans can be surprised at the atrocities of so many of the emperors. The worst of them treated the citizens better than the latter treated the slaves. Humanity could not be looked for in the rulers of a state in which human life was held in contempt, and human suffering made the subject of popular sport.

In consequence partly of their ill usage, and partly of its being accounted cheaper to buy than to breed slaves, vast numbers were annually imported into Italy. Thrace and the countries round the Black Sea furnished large supplies of the best slaves; and numbers were obtained from Egypt, Syria, Britain, Gaul, and other countries. The famous island of Delos, in the centre of the Cyclades, was the greatest slave market of antiquity; as many as 10,000 slaves have been sold there in a single day.—(*Strabo*, lib. xiv.)

It should, however, be observed, that slavery among the ancients was very different from the slavery of modern times, at least from the slavery that exists in the U. States, Cuba, &c., and which did till lately exist in our West India islands. Slaves in antiquity were physically identical with freemen, and were discriminated only by peculiar marks*, or by the character of their employments. It was truly said of them, "*Servi homines sunt, et æque unum lactem biberunt, etiamsi illos malus fatus oppresserit.*" (*Petronius ed Burm.* cap. 71.) But modern slaves belong to a different variety of the human race; the distinction between them and their masters being obvious and striking. Owing to this difference between the slaves of ancient and modern times, the influence of slavery at the two periods has been materially different. The freemen of antiquity, who were accustomed to tyrannise over persons in all respects (except their social rank) on a level with themselves, could hardly fail to acquire a ferocity of disposition, and coarseness of manner, that either disappear, or are much softened down in a society where all are equal. But such results do not certainly follow to the same, nor perhaps to any extent, from the practice of modern slavery. In this case the masters do not tyrannise over their equals, but over those who differ from the class to which they belong by the broadest and most distinctly marked characters; and their behaviour towards their slaves is found to have very little influence over their behaviour towards their fellow citizens. The white inhabitants of Virginia, for example, are quite as gentlemanlike in their manners, and observant of the respect due to others, as their countrymen of New York or New England. Indeed, if there be any difference between them, it will probably be found to be in favour of the former.

Although, therefore, there can be no doubt that the slavery that existed in the ancient world had a brutalising influence over the manners of the people, and gave them a degree of ferocity to which happily we have long been strangers, it by no means follows that the slavery which prevails in the new world should have the same influence. In the former case, masters and slaves were of the same variety of the species; but in the latter, the masters belong to one variety, and the slaves to a totally distinct, and most probably lower, variety; so that the domination of the one set, and the subjection of the other, partake in some measure of the character of the supremacy exercised by man over the lower animals: and have comparatively little influence over the morals or conduct of the masters.

There can be no manner of doubt that the slavery that existed in the ancient world was unfavourable to the progress of arts and industry. In the most celebrated nations of antiquity, the greater number of mechanical employments were principally carried on by slaves and the dregs of the free population; so that, while the workmen employed in them were without emulation or invention, the employments themselves were looked upon as mean and servile. To such an extent did this prejudice operate, that in Rome, Sparta, and other celebrated states, agriculture and arms were the only occupations that were reckoned worthy of a freeman, or in which he could engage without being degraded.

But the principal difference between the slavery of the ancient and modern world

* Slaves wore their beards and hair long; and when manumitted they shaved their head and put on a cap, which has in consequence become the symbol of liberty. Brutus, after the assassination of Cæsar, coined money, on which the figure of a cap was impressed, to indicate that the people had been rendered free.—(See *Adam's Antiquities*, p. 376.; See, also, *Burlamaqui, Principes du Droit des Gens*, iv. 454., where the reader will remark a singular error.)

consists in the fact that in the former freemen were quite as well suited as slaves for carrying on every art and employment; while in the latter the peculiar constitution of the slaves fit them for employments which, though of the highest importance, cannot be carried on by their masters. The greater intelligence of the whites enables them to exercise a decided superiority over the black or coloured natives of the torrid zone, notwithstanding the latter are incomparably better adapted for the prosecution of those laborious occupations which are indigenous, as it were, to the soil they occupy. It is doubtful whether the constitution of the whites will ever be so accommodated to the climate of the Tropics, as to enable them to engage in that field labour, carried on in the lower and hotter districts (*tierras calientes*), which is congenial to the blacks. At all events, no such accommodation has hitherto taken place; and, therefore, it would appear that some modification of slavery, or that a supply of suitable compulsory labour of some sort or other, is necessary to enable civilised man to occupy, and to turn to a useful account, some of the most fertile and extensive regions of the earth. And hence the propriety of inquiring into the policy of institutions like this, of carefully considering the peculiar conditions or circumstances under which they are to be acted upon. Slavery in Europe may be, and we believe is (notwithstanding the opinion of Michaelis to the contrary), in all respects most objectionable; but it is quite another matter with slavery in Louisiana, Cuba, and Brazil; the circumstances under which they are placed are so very different from ours, that an institution exceedingly inexpedient on this side the Atlantic, may be especially suited to them.

The establishment of Christianity contributed more, perhaps, than any thing else, first to mitigate, and finally to suppress slavery in Europe. But, within no very long period after its abolition had been completely effected in this part of the world, it began to be established in America.

The African Slave Trade was commenced by the Portuguese, in 1442. It was, however, but of trifling extent till the commencement of the 16th century. In consequence, however, of the rapid destruction of the Indians employed in the mines of St. Domingo or Hayti, Charles V. authorised, in 1517, the introduction into the island of African slaves from the establishments of the Portuguese on the coast of Guinea. The concurrence of the emperor was obtained by the intercession of the celebrated Las Casas, bishop of Chiapa, who laboured to protect the Indians by enslaving the Africans; though, as the latter were certainly more vigorous and capable of bearing fatigue than the former, the measure was not in reality so contradictory as it would, at first sight, appear to be. —(*Robertson's Hist. America*, book iii.)

The importation of negroes into the West Indies and America, having once begun, gradually increased, until the traffic became of great extent and importance. Sir John Hawkins was the first Englishman who engaged in it: and such was the ardour with which our countrymen followed his example, that they exported from Africa more than 300,000 slaves between the years 1680 and 1700; and between 1700 and 1786, 610,000 Africans were imported into Jamaica only; to which adding the imports into the other islands and the continental colonies, and those who died on their passage, the number carried from Africa will appear immense. —(*Bryan Edwards, Hist. West Indies*, ii. 64.) The importations by other nations, particularly the French and Portuguese, were also very great.

We do not intend, though the subject be one of the highest interest, to make any lengthened inquiries as to the legitimacy or illegitimacy, the policy or impolicy, of the slave trade. We may, however, shortly observe that there can be no doubt that slavery has always existed in Africa; and it is sufficiently well known that previously to the commencement of the traffic, such of the captives taken in war as could not be advantageously employed as slaves were most commonly put to death; cannibalism, the exposure of infants, and human sacrifices being then also very frequent. The slave trade, by opening a ready and profitable market for slaves, assisted in putting an end to these enormities, though it be, at the same time, true that the desire of profiting by their sale has tempted the petty princes to make war on each other for the chance of making captives, and has given a stimulus to man-stealing and other atrocities. —(*Geog. Dict.* art. *Africa.*) There can, however, be no reasonable doubt that civilisation has been, on the whole, advanced by the practice of the trade. At all events, no evidence either has been, or, we believe, can be, produced to show that the state of Africa would have been perceptibly improved had the slave trade never been heard of. But it is quite certain, had such been the case, that there would have been a wide difference in the condition of the West Indies, the Southern States of North America, Brazil, &c. It will, we apprehend, be found that the culture of sugar and other great colonial staples cannot be profitably carried on in these countries, nor, perhaps, anywhere within the Tropics, without a supply of compulsory labour of some sort or other (see *antè*, p 342.). Neither, we apprehend, can there be a question that the extensive culture of these staples has added greatly to the comforts and conveniences of the

inhabitants of most civilised countries; and, if this addition to their enjoyments has been effected without injury to the slaves, it will not be so easy a matter as has been supposed to show the impolicy of the trade. But those who inquire dispassionately into the subject will probably come to the conclusion, that, instead of being injured, the slaves have gained by being carried from the Old to the New World. Speaking generally, the negroes are in the lowest state of abasement, possessing merely the rudiments of the most indispensable arts, a prey to the vilest superstition and tyranny, without any tincture of learning, and with little or no regard for the future. The circumstances under which they are placed in their native land may, perhaps, account for the low state in which we find them; but, however explained, the genuine negroes of Africa are admitted, even by those least inclined to depreciate them, to be, for the most part, "either ferocious savages, or stupid, sensual, and indolent."—(*Prichard, History of Man*, ii. 338. 3d ed.)—Excepting the violence done to their habits and inclinations, no one who knows any thing of their state in Africa and in the Western hemisphere can possibly doubt that they have gained most materially by their transference to the latter.

But, supposing their character to be such as represented, still it may be contended that their weakness or inferiority gives the whites no right to lord it over them, to convey them to foreign countries, and to reduce them to a state of bondage: and no doubt it is exceedingly difficult to specify in how far the civilised portion of mankind may be entitled to control those that are decidedly less intelligent and advanced than themselves. That they have done so from the earliest ages, is, however, indisputable; and every one who has any acquaintance, however slight, with the history of society, is aware that the consequences of this control have been in the highest degree advantageous; for, though polished nations have too often abused their superior power and intelligence, still it is abundantly certain that but for their dictating to and subjugating others, half the civilised world would at this moment have been immersed in the grossest barbarism. But without entering into any discussion respecting the application of this principle in the case of Africa, it is enough to know that the Europeans did not originate slavery in that continent; the Africans were enslaved and disposed of as other goods and chattels for centuries before they began to be purchased by the former; and the conduct of the whites is to be determined by the nature of the treatment which the slaves received at their hands.

Now, though it be abundantly certain that this has been on the whole indulgent, it is not to be denied that very many enormities have been perpetrated, which the law should have prohibited and severely punished. The crowding of slaves together in their passage across the Atlantic, and the cruelties which some worthless masters have been accustomed to commit, are of this description. But these outrages are not of the essence of slavery; and they might and should, no doubt, have been suppressed. An institution is not to be confounded with its abuse. The object of the slave trade was to procure a supply of compulsory labourers for the service of the colonists in the West Indies and other tropical countries; but it did not, therefore, follow that the colonists were to be under no restraints either as to the methods by which they sought to procure such bondmen, or as to the power which they might exercise over them.

Neither does it follow, because the slave trade may have been for the general advantage of mankind at a particular period, that it should be indefinitely extended. When as large a supply of negroes has been imported as may be necessary to supply its markets with labour, there can be no good reason for allowing their farther importation into a country, at the same time that there seem to be sundry good reasons why it should be put a stop to. By preventing the importation of fresh slaves, the proprietors may find it for their interest to be more attentive to the condition of those already in their possession than they might otherwise be; for it is evident that in such cases they could only look to the natural increase of their slaves for a supply of labour in future; and that they could not expect to supply by foreign importations the place of those who might perish by bad treatment. On these grounds we are inclined to think that the English and Americans acted with quite as much prudence as humanity, in forbidding, in 1807, the farther importation of slaves into their dominions. Cuba, and perhaps also Brazil, might, it is alleged, advantageously follow their example. The slave population in these countries is now probably large enough to furnish, with proper treatment, an adequate supply of labourers, how rapidly soever we may suppose them to advance in the career of industry.

We have ventured to submit these statements to the consideration of the reader, not because we have any desire to extenuate the evils inseparable from a state of slavery, or the cruelties of which slave-dealers and slave-proprietors may be justly accused. But, after making every allowance for these drawbacks, it is evident, if the preceding statements be well founded, that slavery as it exists in modern times, and still more as it might be established, is not the unqualified abuse it has uniformly almost been represented. On

the contrary, we are disposed to regard it as being, under proper modifications all but indispensable to the profitable cultivation of the western countries in which it is at present met with. It is to no purpose to say that free labour is cheaper than slave labour. We more than doubt whether, when applied to them, there be any foundation for such a statement; but that is really immaterial, the fact being, that were slavery abolished, few or no free labourers would be found to engage in the great departments of industry carried on in the slave-holding countries. It would, indeed, be a contradiction and an absurdity to suppose that it should be otherwise. In countries with a fruitful soil and under a tropical sun, the principal wants of the inhabitants are supplied with but little exertion, and the *dolce far niente* is their *summum bonum*. In such situations industry is a sickly plant; and instead of employing their surplus time in the production of articles of ostentation and luxury, the inhabitants most commonly waste it in idleness and apathy. Were the slaves completely emancipated in the U. States, Cuba, and Brazil, it is all but certain that the culture of sugar and cotton would be as completely abandoned in them as in Hayti. And if the change were accompanied by a considerable improvement in the condition of the black population, the sacrifice might not, perhaps, be deemed too great. But where is the ground for supposing that such would be the case? Indeed the fair presumption seems to be the other way. Little, at all events, would be gained by turning a laborious, well-fed slave, into an idle, improvident, and perhaps beggarly freeman.

There may, however, be such a thing in a colony as a *quasi* emancipation of slaves, or, which is the same thing, regulations may be enacted giving the slaves freedom, and at the same time excluding them from the possession of that which can alone make that freedom of any practical value. Speaking generally, the blacks in our colonies have little or no capital; and, therefore, they must live either by occupying patches or land on their own account, or by working for others. And provided they be debarred, by regulations effectual to their object, from acquiring or occupying small portions of land, they will necessarily be compelled, how much soever they may dislike it, to engage as labourers on the estates of others. This, however, is probably the very worst sort of compulsory labour. It gives the blacks enough of freedom to make them in the last degree dissatisfied with the regulations by which it is sought practically to nullify it, and makes them at once discontented, refractory, and idle. But, wretched as it is, we believe that at this moment the obstacles that have been and may be thrown in the way of the blacks obtaining patches of land are the principal dependence of the colonists in our West India islands for the continued culture of colonial staples!

Without entering farther on a subject which would require a long essay for its discussion, we may remark that a good work on the subject of slavery is a desideratum which will not, probably, be speedily supplied. In this country it has been treated as if it were everywhere the same, and as if it were in every case an unmixed evil, and an outrage on humanity. This, however, is to confound the most obvious distinctions; to substitute abuse for reasoning, assertion for inquiry, and prejudice for principle. Those who inquire dispassionately into the matter will, perhaps, see abundant reason for agreeing in opinion with Michaelis and Grotius (*De Jure Belli*, lib. ii. cap. 27.), that while slavery has its evils, it may also have its advantages; and that if there be countries and states of society in which the former very decidedly preponderate, there are those also in which the preponderance is as certainly on the side of the latter.

Abolition of the Slave Trade. — Notwithstanding the sanction it received from parliament, and the supineness of the public, the slave trade was frequently denounced by distinguished individuals, in this and other countries, as essentially cruel and unjust.

The first motion with relation to it in parliament was made in 1776; but the subject was not taken up systematically till 1787, when a committee was formed, of which Mr. Granville Sharp and Mr. Clarkson, whose names are imperishably associated with the abolition of the slave trade, were members. This committee collected some highly coloured evidence of the enormities produced by the trade, which they circulated throughout the country, and thereby succeeded in making a great impression on the public mind. After a number of witnesses on both sides had been examined before the privy council, Mr. Wilberforce, on the 12th of May, 1789, moved a series of resolutions condemnatory of the traffic. They were supported by Mr. Burke, Mr. Pitt, and Mr. Fox. But, notwithstanding the resolutions were carried, nothing was done to give them effect. The friends of the trade having obtained leave to produce evidence at the bar of the House, contrived to interpose so many delays that the session passed off without any thing being done. In the following sessions the struggle was continued with various success, but without any definite result. At length the triumph of the abolitionists was finally consummated in 1807; a bill for the total and immediate abolition of the slave trade, having been carried in both Houses by immense

majorities, received the royal assent on the 25th of March, being the last act of the administration of Mr. Fox and Lord Grenville.

America abolished the slave trade at the same time as England.

But notwithstanding what had been done, further measures were soon discovered to be necessary. The Spanish and the Portuguese continued to carry on the trade to a greater extent than ever; and British subjects did not hesitate, under cover of their flags, to become partners in their adventures. An effectual stop was put to this practice in 1811, by the enactment of a law introduced by Mr. (now Lord) Brougham, that made trading in slaves punishable by transportation for 14 years, or by confinement to hard labour for a term of not more than 5 years nor less than 3 years. And since that period the British government has zealously exerted itself for the suppression of the slave trade in every part of the world. But, in defiance of its efforts, considerable numbers of slaves still continue to be carried across the Atlantic to Brazil and Cuba, and it will be no easy matter wholly to suppress the trade. Provided, indeed, the great powers were to concede a mutual right of search, and to make the traffic in slaves piracy, it might be effectually put down; but there are all but insuperable prejudices and jealousies in the way of their consenting to adopt such measures. (Mr. Bandinel's work on the Slave Trade contains the clearest and best exposition that is anywhere to be found of its rise, progress, and suppression; and of the efforts made by the British government to induce other nations to abandon it.)

The British laws relative to the slave trade were consolidated by the act 5 Geo. 4. c. 113. But, as the greater part of this act was superseded by the statute for the extinction of slavery (3 & 4 Will. 4. c. 73.), we shall merely lay before the reader the clauses still in force relating to dealing in slaves.

Dealing in Slaves in the High Seas, &c. to be deemed piracy. — And if any subject or subjects of his Majesty, or any person or persons residing or being within any of the dominions, forts, settlements, factories, or territories, now or hereafter belonging to his Majesty, or being in his Majesty's occupation or possession, or under the government of the United Company of Merchants of England trading to the East Indies, shall, except in such cases as are by this act permitted, after the 1st day of January, 1825, upon the high seas, or in any haven, river, creek, or place, where the admiral has jurisdiction, knowingly and wilfully carry away, convey, or remove, or aid or assist in carrying away, conveying, or removing, any person or persons as a slave or slaves, or for the purpose of his, her, or their being imported or brought as a slave or slaves into any island, colony, country, territory, or place whatsoever, or for the purpose of his, her, or their being sold, transferred, used, or dealt with as a slave or slaves; or shall, after the said 1st day of January, 1825, except in such cases as are by this act permitted, upon the high seas or within the jurisdiction aforesaid, knowingly and wilfully ship, embark, receive, detain, or confine, or assist in shipping, embarking, receiving, detaining, or confining, on board any ship, vessel, or boat, any person or persons for the purpose of his, her, or their being carried away, conveyed, or removed as a slave or slaves, or for the purpose of his, her, or their being imported, or brought as a slave or slaves into any island, colony, country, territory, or place whatsoever, or for the purpose of his, her, or their being sold, transferred, used, or dealt with as a slave or slaves; then and in every such case the *persons so offending shall be deemed and adjudged guilty of piracy*, felony, and robbery, *and being convicted thereof shall suffer death without benefit of clergy*, — and loss of lands, goods, and chattels, as pirates, felons, and robbers upon the seas ought to suffer. — § 9.

Persons dealing in Slaves, or exporting or importing Slaves, &c., guilty of Felony. — And (except in such special cases as are by this act permitted) if any persons shall deal or trade in, purchase, sell, barter, or transfer, or contract for the dealing or trading in, purchase, sale, barter, or transfer of slaves, or persons intended to be dealt with as slaves; or shall, otherwise than as aforesaid, carry away or remove, or contract for the carrying away or removing of slaves or other persons, as or in order to their being dealt with as slaves; or shall import or bring, or contract for the importing or bringing into any place whatsoever, slaves, or other persons, as or in order to their being dealt with as slaves; or shall, otherwise than as aforesaid, ship, tranship, embark, receive, detain, or confine on board, or contract for the shipping, transhipping, embarking, receiving, detaining, or confining on board of any ship, vessel, or boat, slaves or other persons, for the purpose of their being carried away or removed, as or in order to their being dealt with as slaves; or shall ship, tranship, embark, receive, detain, or confine on board, or contract for the shipping, transhipping, embarking, receiving, detaining, or confining on board of any ship, vessel, or boat, slaves or other persons, for the purpose of their being imported or brought into any place whatsoever, as or in order to their being dealt with as slaves; or shall fit out, man, navigate, equip, despatch, use, employ, let or take to freight or on hire, or contract for the fitting out, manning, navigating, equipping, despatching, using, employing, letting, or taking to freight or on hire, any ship, vessel, or boat, in order to accomplish any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful; or shall knowingly and wilfully lend or advance, or become security for the loan or advance, or contract for the lending or advancing, or becoming security for the loan or advance of money, goods, or effects, employed or to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful; or shall knowingly and wilfully become guarantee or security, or contract for the becoming guarantee or security, for agents employed or to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful, or in any other manner to engage, or contract to engage, directly or indirectly, therein, as a partner, agent, or otherwise; or shall knowingly and wilfully ship, tranship, lade, or receive or put on board, or contract for the shipping, transhipping, lading, receiving, or putting on board of any ship, vessel, or boat, money, goods, or effects, to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful; or shall take the charge or command, or navigate or enter and embark on board, or contract for the taking the charge or command, or for the navigating or entering and embarking on board of any ship, vessel, or boat, as captain, master, mate, surgeon, or supercargo, knowing that such ship, vessel, or boat is actually employed, or is in the same voyage, or upon the same occasion, in respect of which they shall so take the charge or comamnd, or navigate or enter and embark, or contract so to do as aforesaid, intended to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful; or shall knowingly and wilfully insure, or contract for the insuring of any slaves, or any property or other subject matter engaged or employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful; or shall wilfully and fraudulently forge or counterfeit any

certificate, certificate of valuation, sentence or decree of condemnation or restitution, copy of sentence or decree of condemnation or restitution, or any receipt (such receipts being required by this act), or any part of such certificate, certificate of valuation, sentence or decree of condemnation or restitution, copy of sentence or decree of condemnation or restitution, or receipt as aforesaid; or shall knowingly and wilfully utter or publish the same, knowing it to be forged or counterfeited, with intent to defraud his Majesty, or any other person or persons whatsoever, or any body politic or corporate; then, and in every such case the persons so offending, and their procurers, counsellors, aiders, and abettors, *shall be felons, and shall be transported* for a term not exceeding 14 years, or shall be confined and kept to hard labour for a term not exceeding 5 or less than 3 years, at the discretion of the court before whom such offenders shall be tried.—§ 10.

Seamen, &c. serving on board such Ships guilty of Misdemeanour.—And (except in such special cases or for such special purposes as are by this act permitted) if any person shall enter and embark on board, or contract for the entering and embarking on board of any ship, vessel, or boat, as petty officer, seaman, marine, or servant, or in any other capacity not herein-before specifically mentioned, knowing that such ship, vessel, or boat is actually employed, or is in the same voyage, or upon the same occasion, in respect of which they shall so enter and embark on board, or contract so to do as aforesaid, intended to be employed in accomplishing any of the objects, or the contracts in relation to the objects, which objects and contracts have herein-before been declared unlawful; then, and in every such case, the persons so offending, and their procurers, counsellors, aiders, and abettors, shall be guilty of a misdemeanour only, and shall be punished by imprisonment for a term not exceeding 2 years.—§ 11.

Abolition of Slavery.—We have already alluded (*antè*, p. 342.) to the memorable act of 1833, for the ABOLITION OF SLAVERY throughout the British colonies. In enacting this celebrated statute, parliament endeavoured to reconcile the apparently conflicting claims of humanity and justice, by providing for the emancipation of the slaves, without prejudice to the just rights and claims of their proprietors. This was effected by assigning to the latter the sum of *twenty millions* sterling, which was distributed amongst them on their complying with the provisions of the act. This is, perhaps, the greatest pecuniary sacrifice ever voluntarily made by any nation in vindication of the right of property. But it was not too great for the object in view; for had that right been violated in this instance, a precedent would have been set for its violation in others, and the consequences would have been most disastrous. The measure, in fact, reflects quite as much credit on the wisdom and honesty, as on the generosity, of the British nation.

We gave, in the previous edition of this work, an abstract of this celebrated statute, to which we beg to refer the reader who may wish to become minutely acquainted with its provisions. It is sufficient, now, to mention that it enacted that slavery should cease in all our possessions on the 1st of August, 1834; when the slaves were to become apprenticed labourers, their final and complete emancipation taking place partly on the 1st of August, 1838, and partly on the 1st of August, 1840. But a clamour having been raised against the duration of the apprenticeship, its period was shortened, and the blacks became universally free in 1838.

Distribution of Slave Compensation.—The commissioners for the apportionment of the 20,000,000*l.* granted by parliament as compensation to slave owners, under the act 3 & 4 Will. 4. cap. 73., issued the following table, showing the average value of a slave in each colony; the number of slaves in each; the total value of the slaves, supposing the annual value of each were realised; and the proportion of the 20,000,000*l.* received by each colony.

Colony.	Average Value of a Slave from 1822 to 1830.	Number of Slaves by the last Registration in this Country.	Relative Value of the Slaves.	Proportion of the 20,000,000*l.* to which each Colony is entitled.
	£ s. d.		£ s. d.	£ s. d.
Bermuda	27 4 11¾	4,203	114,527 7 5½	50,584 7 0½ ·41
Bahamas	29 18 9¾	9,705	290,573 15 2¾	128,340 7 5½ ·47
Jamaica	44 15 2½	311,692	13,951,159 2 3	6,161,927 5 10½ ·58
Honduras	120 4 7½	1,920	230,844 0 0	101,958 19 7½ ·92
Virgin Islands	31 16 1¾	5,192	165,143 9 2	72,940 8 5½ ·76
Antigua	32 12 10½	29,537	964,198 0 10½	425,866 7 0½ ·13
Montserrat	36 17 10½	6,555	234,466 8 0½	103,558 18 5½ ·38
Nevis	39 3 11½	5,722	341,893 6 2½	151,007 2 11½ ·55
St. Christopher's	36 6 10½	20,660	750,340 7 1	331,650 10 7½ ·82
Dominica	43 8 7½	14,384	624,715 2 0	275,923 12 8½ ·30
Barbadoes	47 1 3½	82,807	3,897,276 19 0½	1,721,345 19 7 ·87
Grenada	59 6 0	25,536	1,595,684 16 0	616,444 17 7 ·03
St. Vincent's	58 6 8	22,997	1,341,491 13 4	592,503 18 0½ ·25
Tobago	45 12 0½	11,921	529,941 16 0½	234,064 4 11½ ·06
St. Lucia	56 18 7	15,348	759,890 10 4	335,627 15 11½ ·19
Trinidad	105 4 5½	22,359	2,352,655 18 0½	1,039,119 1 3½ ·11
British Guiana	114 11 5½	84,915	9,729,047 13 5½	4,297,117 10 6½ ·30
Cape of Good Hope	73 9 11	38,427	2,824,224 7 9	1,247,491 0 7½ ·76
Mauritius	69 14 3	68,613	4,783,183 15 3	2,112,632 10 11½ ·06
				Deficient fractions ·08
		780,995	45,281,738 15 10½	20,000,000 0 0

SMALTZ, OR SMALT (Ger. *Schmalz*; Du. *Smalt*; Fr. *Smalt*; It. *Smalto azzurro*, *Smaltino*; Sp. *Esmalte*, *Azul azur*; Rus. *Lasor*), an oxide of cobalt, melted with siliceous earth and potash. It is a sort of glass, of a beautiful deep blue colour; and being ground very fine, is known by the name of powder blue. The colour of smaltz is not affected by fire; and it is consequently in great demand in the painting of earthenware. It is also employed in the colouring of paper, and for other purposes in the arts. Beckmann has proved that the process used in the preparation of smaltz was invented about the end of the 15th or the beginning of the 16th century; and that the blue

glass of the ancients owes its colour, not to the presence of cobalt or of smaltz, but to that of iron. — (*Hist. of Inventions*, vol. ii. art. *Cobalt.*)

Smaltz is principally manufactured in Germany and Norway. Of 118,638 lbs. imported into Great Britain in 1840, 97,751 lbs. came from Norway, and the remainder from Germany and Holland. The entries of smaltz for home consumption have latterly decreased. In 1842 they amounted to 145,470 lbs.

SMUGGLING, the offence of importing prohibited articles, or of defrauding the revenue by the introduction of articles into consumption, without paying the duties chargeable upon them. It may be committed indifferently either upon the excise or customs revenue.

Origin and Prevention of Smuggling. — This crime, which occupies so prominent a place in the criminal legislation of all modern states, is wholly the result of vicious commercial and financial legislation. It is the fruit either of prohibitions of importation, or of oppressively high duties. It does not originate in any depravity inherent in man; but in the folly and ignorance of legislators. A prohibition against importing a commodity does not take away the taste for it; and the imposition of a high duty on any article occasions a universal desire to escape or evade its payment. Hence the rise and occupation of the smuggler. The risk of being detected in the clandestine introduction of commodities under any system of fiscal regulations may always be valued at a certain average rate; and wherever the duties exceed this rate, smuggling immediately takes place. Now, there are plainly but two ways of checking this practice,— either the temptation to smuggle must be diminished by lowering the duties, or the difficulties in the way of smuggling must be increased. The first is obviously the more natural and efficient method of effecting the object in view; but the second has been most generally resorted to, even in cases where the duties were quite excessive. Governments have uniformly almost consulted the persons employed in the collection of the revenue with respect to the best mode of rendering taxes effectual; though it is clear that the interests, prejudices, and peculiar habits of such persons utterly disqualify them from forming a sound opinion on such a subject. They cannot recommend a reduction of duties as a means of repressing smuggling and increasing revenue, without acknowledging their own incapacity to detect and defeat illicit practices; and the result has been, that, instead of ascribing the prevalence of smuggling to its true causes, the officers of customs and excise have almost universally ascribed it to some defect in the laws, or in the mode of administering them, and have proposed repressing it by new regulations, and by increasing the number and severity of the penalties affecting the smuggler. As might have been expected, these attempts have, in the great majority of cases, proved signally unsuccessful. And it has been invariably found, that no vigilance on the part of the revenue officers, and no severity of punishment, can prevent the smuggling of such commodities as are either prohibited or loaded with oppressive duties. The smuggler is generally a popular character; and whatever the law may declare on the subject, it is ludicrous to expect that the bulk of society should ever be brought to think that those who furnish them with cheap brandy, geneva, tobacco, &c. are guilty of any very heinous offence.

"To pretend," says Dr. Smith, "to have any scruple about buying smuggled goods, though a manifest encouragement to the violation of the revenue laws, and to the perjury which almost always attends it, would, in most countries, be regarded as one of those pedantic pieces of hypocrisy, which, instead of gaining credit with anybody, seems only to expose the person who affects to practise them to the suspicion of being a greater knave than most of his neighbours. By this indulgence of the public, the smuggler is often encouraged to continue a trade, which he is thus taught to consider as, in some measure, innocent; and when the severity of the revenue laws is ready to fall upon him, he is frequently disposed to defend with violence what he has been accustomed to regard as his just property; and from being at first rather imprudent than criminal, he, at last, too often becomes one of the most determined violators of the laws of society." — (*Wealth of Nations*, p. 406.)

To create by means of high duties an overwhelming temptation to indulge in crime, and then to punish men for indulging in it, is a proceeding completely subversive of every principle of justice. It revolts the natural feelings of the people; and teaches them to feel an interest in the worst characters — for such smugglers generally are — to espouse their cause, and avenge their wrongs. A punishment which is not proportioned to the offence, and which does not carry the sanction of public opinion along with it, can never be productive of any good effect. The true way to put down smuggling is to render it unprofitable; to diminish the temptation to engage in it: and this is not to be done by surrounding the coasts with cordons of troops, by the muliplication of oaths and penalties, and making the country the theatre of ferocious and bloody contests in the field, and of perjury and chicanery in the courts of law; but by repealing prohibitions, and reducing duties, so that their collection may be enforced with a moderate degree of vigilance; and that the forfeiture of the article may be a sufficient penalty

upon the smuggler. It is in this, and in this only, that we must seek for an effectual check to illicit trafficking. Whenever the profits of the fair trader become nearly equal to those of the smuggler, the latter is forced to abandon his hazardous profession. But so long as prohibitions or oppressively high duties are kept up, or, which is, in fact, the same thing, so long as *high bounties* are held out to encourage the adventurous, the needy, and the profligate, to enter on this career, we may be assured that armies of excise and customs officers, backed by the utmost severity of the revenue laws, will be insufficient to hinder them.

It would be useless to enter in this place into any lengthened details to prove the truth of these statements. Unluckily the entire financial and commercial history of this country and others abounds with instances in point, many of which must be familiar to every reader. The prohibition of foreign products, or the imposition of heavy duties on foreign or native products, does not take away the taste for them. On the contrary, it would seem as if the desire to obtain prohibited or over-taxed articles acquired new strength from the obstacles opposed to its gratification.

"Per damna, per cædes, ab ipso
Ducit opes animumque ferro."

The prohibition of foreign silks which existed previously to 1826 did not hinder their importation in immense quantities. The vigilance and integrity of the custom-house officers were no match for the ingenuity, daring, and *douceurs* of the smugglers. And at the very moment when the most strenuous efforts were made to effect their exclusion, the silks of France and Hindostan were openly displayed in Almack's, in the drawing-rooms of St. James's, and in the House of Commons, in mockery of the impotent legislation by which it was attempted to shut them out. There is, in truth, great room for doubting whether the substitution of an *ad valorem* duty, for the old system of prohibition, was at first productive of any material increase in the imports of foreign silks. The repeal of the prohibition was a most judicious measure; but the duty being unfortunately fixed at too high a limit it gave an overwhelming stimulus to smuggling. The expense of the clandestine importation of silks from France has been roughly estimated at about 15 per cent. *ad valorem;* and as the duty on silks, down to 1845, was double that amount, or 30 per cent., we need not wonder that it was estimated, by well-informed parties, that from a third to a half of the total quantity of imported silks escaped the duty. Indeed, every one is aware that their clandestine importation was carried on to a great extent, within the port of London, and in the custom-house itself, by the corruption and connivance of the officers! And this, we may be assured, is not a solitary instance. The corruption of the officers is in truth an inevitable consequence of the over-tax system.

The enormous duties that were imposed previously to 1823 on home-made Scotch and Irish spirits produced, as is seen in the art. SPIRITS, an extent of smuggling and demoralization of which it is not easy for those who have not attended to such matters to form an idea. At present, however, the duties on tobacco, brandy, and hollands, but especially the first, are the great incentives to smuggling. The preventive water-guard, the expense of which exceeds 365,000*l.* a year, is kept up for little other purpose than to hinder the clandestine importation of these articles. But notwithstanding its efforts, considerable quantities of them find their way into the country without being subjected to any duty. And how should it be otherwise? The price of tobacco, brandy, and hollands in the contiguous continental ports may, at an average, be taken, the first at from 4*d.* to 6*d.* per lb., and the two latter at about 4*s.* or 4*s.* 6*d.* a gallon: and as the duty on tobacco is 3*s.* per lb., and on brandy and hollands 15*s.* a gallon, need we be surprised to learn that, allowing for the expenses of smuggling, if one cargo out of three be safely landed, the business is as profitable as it is adventurous and exciting? A trade that would otherwise have been harmless, or advantageous, has thus, through fiscal rapacity, been perverted into a source of vice and crime. The excess of duty tempts numbers of people to despise and trample on the law. It renders smuggling, though probably the most direct road to the gallows, a favourite occupation; and makes the smuggler, even when soiled with the blood of some revenue officer, an object of public sympathy and support.

It may, however, be right to state that it must not be imagined that the mere diminution of an oppressive duty on any article will put down the smuggling to which the duty may have given rise. The diminution may not be sufficiently great; and if so, it will have but little influence. Thus, taking as above the cost of smuggling French and other silks into England at 15 per cent. *ad valorem*, a reduction of the late duty of 30, to 25 or even 20 per cent. would, it is plain, have done little or nothing to prevent their clandestine importation. But its reduction, in 1845, to 15 per cent., by taking away the supposed advantage on the side of the smuggler, has all but destroyed his occupation. In reducing duties, either for the prevention of smuggling or the

increase of consumption, the reduction must be effectual to its end; that is, in the former case, it must be such as to bring the duty below, or nearly to the level of, the cost of smuggling, and in the latter it must be such as to bring the article within the command of a decidedly larger class of consumers. A reduction of 5*s.* or 6*s.* from the late duty of 22*s.* 10*d.* a gallon on foreign brandy and hollands would have been of no use; for it would not have had any sensible influence either in lessening smuggling or increasing consumption. Even the reduction effected in 1845, by Sir Robert Peel, of 7*s.* 10*d.* a gallon, though advantageous, was too small to have the desired effect. It should have been 10*s.* a gallon.

These considerations show the degree of weight which should be attached to the statements of those who endeavour to excuse or apologise for exorbitant duties, by showing that they have sometimes been reduced without any material increase taking place in the consumption of the articles on which they are laid, or any material diminution of smuggling. In exemplification of this, it has been stated that though the duty on tobacco was reduced in 1825 from 4*s.* to 3*s.* per lb., the consumption was not increased in any thing like the same proportion; and that, notwithstanding the rapid growth of population, a period of 10 years elapsed before the tobacco revenue rose to its former level. But no one acquainted with the facts could have anticipated any other result. Taking the cost of tobacco at an average at 6*d.* per lb. (which is beyond the mark), the duty previously to and since the reduction has been respectively 800 and 600 per cent. *ad valorem!* And it is needless to say that the least of these duties holds out an overwhelming temptation to smuggling and fraud. The truth is, that the reduction of duty in 1825 was an ill-advised measure; and there is perhaps no great reason to conclude that the further reduction of the present duty of 3*s.* per lb. to 2*s.* would be much wiser, or that, while it sacrificed revenue, it would be at all sufficient to suppress illicit practices. It is idle, therefore, by referring to instances of this sort, to endeavour to make it be believed that an adequate diminution of taxation is not followed by a corresponding increase of consumption. Had the duty on coffee, instead of being reduced, in 1808, from 1*s.* 8*d.* per lb. to 7*d.*, been reduced only to 1*s.* 3*d.* (the proportion in which the tobacco-duty was reduced), the effect would have been all but imperceptible; and instead of the consumption being immediately increased from about 1,000,000 lbs. to 9,000,000 lbs., the presumption is it would not have been increased to 1,500,000 lbs. In taxation, as in everything else, unless the means be adequate to the desired ends, the result will be nothing. If you offer a premium of 8 to 1 on smuggling, do you imagine you will abate the nuisance you have called into existence by reducing the premium to 6 to 1 or 4 to 1? It will be found in every case in which a reduction of duty is not followed by a more than corresponding increase of consumption, that the article continues to be over-taxed, or that the duty left upon it either exceeds the cost of smuggling, or places it beyond the reach of those who might otherwise become its consumers. We are bold to say that no instance can be found in the financial history of this or any other country of an adequate reduction of the duty on an over-taxed article not being followed by a cessation of smuggling and a great increase of consumption. (See *Treatise on Taxation*, by the author of this work, Part. ii. c. 9. 2nd ed.).

Law as to Smuggling in England. — The penalties imposed on illicit dealing in commodities subject to duties of excise have been specified in the articles on such commodities. The following extract from the Customs Consolidation Act, the 16 & 17 Vict. c. 107., refers expressly to smuggling. The importance of the subject has induced us to give a full abstract of the clauses.

RESTRICTIONS ON SMALL CRAFT, AND THE REGULATIONS FOR THE PREVENTION OF SMUGGLING.

Commissioners may make General Regulations for Vessels and Boats not exceeding 100 *Tons.* — The commissioners of customs may from time to time, by order under their hands, make such general regulations as they shall deem expedient in respect of vessels and boats not exceeding 100 tons burden, for the purpose of prescribing, with reference to the tonnage, build, or description of such vessels or boats, the limits within which the same may be employed, the mode of navigation, the manner in which such vessels or boats shall be so employed, and, if armed, the number and description of arms, the quantity of ammunition, and such other terms, particulars, conditions, and restrictions as the said commissioners may think fit, and also from time to time may revoke, alter, or vary such regulations; and the general regulations made under any former act, and in force at the time of the passing of this act, shall remain and continue in force until altered, varied, or revoked. — § 196.

Vessels and Boats used contrary to Regulations forfeited. — Every ship or boat which shall be used or employed in any manner contrary to the regulations prescribed by the commissioners of customs shall be liable to forfeiture, unless the same shall have been specially licensed by the commissioners of customs to be so used or employed, as next herein-after provided. — § 197.

Commissioners of Customs may grant special Licences, on Terms. — The commissioners of customs may, if they shall so think fit, grant licences in respect of any vessels or boats not exceeding 100 tons burden, upon such terms and conditions, and subject to such restrictions and stipulations, as in such licences mentioned, notwithstanding any general regulations made in pursuance of this act, whether the said regulations shall be revoked or not; and if any vessel or boat so licensed shall not comply with the conditions imposed by or expressed in any such licence, or if such vessel or boat shall be found without having such licence on board, such vessel or boat shall be forfeited. — § 198.

Commissioners may revoke Licences.— The commissioners of customs may revoke, alter, or vary any licence or licences granted under any former act, or which may hereafter be granted under this or any other act relating to the customs. — § 199.

Vessels made use of in Removal of uncustomed or prohibited Goods forfeited. — If any such vessel or boat shall be used in the importation, landing, removal, carriage, or conveyance of any uncustomed or prohibited goods, the same shall be forfeited, and the owner and master of every such vessel or boat shall each forfeit and pay a penalty equal to the value of such vessel or boat, not in any case exceeding 500*l*. — § 200.

Regulations to extend to Channel Islands. — All the regulations which shall be so made by the said commissioners of customs relating to vessels and boats, and the power to grant, revoke, or vary such licences, shall extend to the Channel Islands. — § 201.

Ships not to sail from Channel Islands without Clearance. — No ship or boat belonging wholly or in part to H. Majesty's subjects shall sail from the Channel Islands without a clearance, whether in ballast or having a cargo; and if with cargo, the master shall give bond to H. Majesty in double the value of such cargo for the due landing thereof at the port for which such ship or boat clears; and every such ship or boat not having such clearance, or which, having a clearance for her cargo, shall be found light, or to have discharged any part of her cargo before arrival at the port or place of discharge specified in the clearance, shall be forfeited. — § 202.

Boats of Vessels to bear Name of Vessel, Port, and Master. — The owner of every ship belonging wholly or in part to any of H. Majesty's subjects shall paint or cause to be painted upon the outside of the stern of every boat belonging to such ship the name of such ship and the port or place to which she belongs, and the master's name within side the transom, in white or yellow Roman letters, not less than 2 inches in length, on a black ground, on pain of the forfeiture of every such boat not so marked, wherever the same shall be found. — § 203.

Boat not belonging to Ships to have Name of Owner and Port thereon. — The owner of every boat not belonging to any ship shall paint or cause to be painted upon the stern of such boat, in white or yellow Roman letters, of 2 inches in length, on a black ground, the name of the owner of the boat and the port or place to which she belongs, on pain of the forfeiture of such boat not so marked, wherever the same shall be found. — § 204.

British Vessels having secret Places for concealing or Devices for running Goods, and Foreign Vessels having Goods in secret Places, forfeited. — All ships and boats belonging wholly or in part to H. Majesty's subjects having false bulkheads, false bows, double sides or bottoms, or any secret or disguised place whatsoever, adapted for the purpose of concealing goods, constructed in such ships or boats, or having any hole, pipe, or device in or about such ships or boats adapted for the purpose of running goods, shall be forfeited; and all foreign ships or boats coming into any port of the U. K. having on board any goods liable to the payment of duties, or prohibited to be imported into the U. K. concealed in false bulkheads, false bows, double sides or bottoms, or in any secret or disguised place whatsoever, constructed in such ships or boats, shall be forfeited. — § 205.

Goods unshipped without Payment of Duty, and prohibited Goods, liable to Forfeiture. — If any goods liable to the payment of duties shall be unshipped from any ship or boat in the U. K. (customs or other duties not being first paid or secured), or if any prohibited goods whatsoever shall be imported or brought into any part of the U. K., or if any goods whatever which shall have been warehoused or otherwise secured in the U. K., either for home consumption or exportation, shall be clandestinely or illegally removed from or out of any warehouse or place of security; or if any goods which are prohibited to be exported shall be put on board any ship or boat, with intent to be laden or shipped for exportation, or shall be brought to any quay, wharf, or other place in the U. K., in order to be put on board any ship or boat for the purpose of being exported; or if any goods which are prohibited to be exported shall be found in any package produced to any officer of customs as containing goods not so prohibited; or if any goods subject to any duty or restriction in respect of importation, or which are prohibited to be imported into the U. K., shall be found or discovered to have been concealed in any manner on board any ship or boat within the limits of any port of the U. K., or shall be found either before or after landing to have been concealed in any manner on board any such ship or boat, within such limits as aforesaid; then and in every of the foregoing cases all such goods shall be forfeited, together with any goods which shall be found packed with or used in concealing them. — § 206.

Spirits and Tobacco found removing to be deemed run. — All spirits and tobacco which shall be found removing without a legal permit or certificate for the same shall be deemed to be spirits or tobacco respectively liable to and unshipped without payment of duty, unless the party in whose possession the same shall be found or seized shall prove to the contrary. — § 207.

Restricted Goods to be deemed run. — All goods the importation of which is in any way restricted, which are of a description admissible to duty, and which shall be found or seized in the U. K. under any law relating to the customs or excise, shall, for the purpose of proceeding for the forfeiture of them, or for any penalty incurred in respect of them, be described in any information exhibited on account of such forfeiture or penalty as and on the trial or hearing thereof be deemed and taken to be goods liable to and unshipped without payment of duties, unless the contrary be proved. — § 208.

Vessels found within certain Distances of the Coast of the U. K. or Channel Islands with certain Goods on board, forfeited, with the Goods. — If any ship or boat, belonging wholly or in part to H. Majesty's subjects, or having half the persons on board subjects of H. Majesty, shall be found or discovered to have been within 4 leagues of that part of the coast of the U. K. which is between the North Foreland on the coast of Kent and Beachy Head on the coast of Sussex, or within 8 leagues of any other part of the coast of the U. K., or if any foreign ship or boat having 1 or more subjects of H. Majesty on board shall be found or discovered to have been within 3 leagues of the coast of the U. K., or if any foreign ship or boat shall be found or discovered to have been within 1 league of the coast of the U. K., or if any ship or boat shall be found or discovered to have been within 1 league of the Channel Islands, any such ship or boat so found or discovered, having on board or in any manner attached thereto, or having on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tea exceeding 6 pounds weight in the whole, or any tobacco or snuff not being in a cask or package containing 200 pounds weight of tobacco or snuff at the least, or being separated or divided in any manner within any cask or package, or any tobacco stalks, tobacco stalk flour, snuff work, or any cordage or other articles adapted and prepared for slinging or sinking small casks, or any casks or other vessels whatsoever of less size or content than 20 gallons, of the description used for the smuggling of spirits, then and in every such case the said spirits, tea, tobacco, snuff, tobacco stalks, tobacco stalk flour, and snuff work, together with the casks or packages containing the same, and the cordage or other articles, casks, and other vessels of the description aforesaid, and also the ship or boat, shall be forfeited. — § 209.

Vessels or Boats arriving within any Port of the U. K. or of the Channel Islands having prohibited Goods on board or attached thereto forfeited. — If any ship or boat shall be found or discovered to have been within any port, bay, harbour, river, or creek of the U. K. or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tobacco or snuff, not being in a cask or package containing 200 pounds weight of such tobacco or snuff at the least, or being separated or

divided in any manner within any cask or package, or any tobacco stalks, tobacco stalk flour, or snuff work, every such ship or boat, and such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, and snuff work, shall be forfeited; but if it shall be made to appear to the satisfaction of the commissioners of customs that such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff work were on board without the knowledge or privity of the owner or master of such ship or boat, and without any wilful neglect or want of reasonable care on their parts, then and in such case the said commissioners shall deliver up the said ship or boat to the owner or master of the same.—§ 210.

Forfeiture not to extend to Ships and Goods in certain Cases. — Nothing herein contained shall extend to render any ship of 120 tons burden or upwards liable to forfeiture on account of any tobacco coming direct from the East Indies or the Turkish dominions, including Egypt, if in packages each containing not less than 100 lbs. net weight of such tobacco; nor on account of any snuff or negrohead tobacco the produce of and imported direct from the U. S. of America, if in packages each containing not less than 180 lbs. net weight of such snuff or tobacco; nor on account of any tobacco imported from Malta in packages each containing not less than 80 lbs. net weight of such tobacco; nor on account of any tobacco the produce of Porto Rico, Mexico, South America, St. Domingo, Cuba, the British Possessions in America and the West Coast of Africa, if in packages each containing not less than 80 lbs. net weight of such tobacco, and imported direct from those places or from the U. S. of America; nor on account of any cigars, if in packages each containing not less than 100 lbs. net weight of such cigars; nor on account of any cigarillos or cigarettos, if in packages each containing not less than 75 lbs. net weight of such cigarillos or cigarettos; nor to render any ship of 150 tons burden or upwards liable to forfeiture on account of any tea, or of any spirits in glass bottles or stone bottles not exceeding the size of 3 pints each, such tobacco, snuff, cigars, cigarillos or cigarettos, tea, and spirits being really part of the cargo of such ship; nor to render any ship liable to forfeiture on account of any spirits, tea, or tobacco really intended for the consumption of the seamen or passengers on board during their voyage, and not being more in quantity than is necessary for that purpose; nor to render any ship liable to forfeiture if really bound from one foreign port to another foreign port, and pursuing such voyage, wind and weather permitting.—§ 211.

Ships in Port with a Cargo, and afterwards found in Ballast, and Cargo unaccounted for, forfeited.— If any ship or boat whatever shall be found within the limits of any port of the U. K. with a cargo on board, and such ship or boat shall afterwards be found light or in ballast, and the master is unable to give a due account of the port or place within the U. K. where such ship or boat shall have legally discharged her cargo; such ship or boat shall be forfeited.—§ 212.

Certain Ships from which Goods are thrown overboard to prevent Seizure to be forfeited.—Every ship or boat belonging wholly or in part to H. Majesty's subjects, or having on board one or more of H. Majesty's subjects, which shall be found or discovered to have been within 4 leagues of that part of the coast of the U. K. which is between the North Foreland on the coast of Kent and Beechy Head on the coast of Sussex, or within 8 leagues of any other part of the coast of the U. K., from which any part of the lading of such ship or boat shall have been thrown overboard, or on board which any of the goods shall be staved or destroyed to prevent seizure, shall be forfeited.—§ 213.

Ships throwing overboard any Goods during Chase, forfeited, and Persons escaping deemed Subjects.— When any ship or boat belonging wholly or in part to H. Majesty's subjects, or having half the persons on board subjects of H. Majesty, shall be found within 100 leagues of the coast of the U. K., and shall not bring to upon signal made by any vessel or boat in H. Majesty's service or in the service of the revenue, hoisting the proper pendant and ensign in order to bring such ship or boat to, and thereupon chase shall be given, if any person or persons on board such ship or boat so chased shall during the chase, or before such ship or boat shall bring to, throw overboard any part of her lading, or shall stave or destroy any part of such lading, to prevent seizure thereof, then and in any such case such ship or boat shall be forfeited; and all persons escaping from any such ship or boat, or from any foreign ship or boat, during any chase made thereof by any vessel or boat in H. Majesty's service or in the service of the revenue, shall be deemed subjects of H. Majesty, unless the contrary be proved.—§ 214.

Ships not bringing to may be fired into.—If any ship or boat liable to seizure or examination under this or any act for the prevention of smuggling shall not bring to when required so to do, on being chased by any vessel or boat in H. Majesty's navy having the proper pendant and ensign of H. Majesty's ships hoisted, or by any vessel or boat duly employed for the prevention of smuggling, having a proper pendant and ensign hoisted, it shall be lawful for the captain, master, or other person having the charge or command of such vessel or boat in H. Majesty's navy, or employed as aforesaid (first causing a gun to be fired as a signal), to fire at or into such ship or boat, and such captain, master, or other person acting in his aid or by his direction, shall be and is hereby indemnified and discharged from any indictment, penalty, action, or other proceeding for so doing.—§ 215.

Ships may be searched within the Limits of the Ports.—Any officer or officers of the army, navy, or marines duly employed for the prevention of smuggling, and on full pay, or any officer or officers of customs, producing his or their warrant or deputation (if required), may go on board any ship which shall be within the limits of any port of the U. K., and rummage and search the cabin and all other parts of such ship for prohibited or uncustomed goods, and remain on board such ship so long as she shall continue within the limits of such port.—§ 216.

Officers of Customs may, on probable Cause, stop Carts, &c., and search for Goods.—Any officer of customs or excise, or other person acting in his or their aid, or duly employed for the prevention of smuggling, may, upon reasonable suspicion, stop and examine any cart, waggon, or other means of conveyance, for the purpose of ascertaining whether any smuggled goods are contained therein; and if no such goods shall be found, the officer or other person so stopping and examining such cart, waggon, or other conveyance, having had probable cause to suspect that such cart, waggon, or other conveyance had smuggled goods contained therein, shall not, on account of such stoppage and search, be liable to any prosecution or action at law on account thereof; and all persons driving or conducting such cart, waggon, or other conveyance, refusing to stop or allow any such examination when required in the Queen's name, shall forfeit the sum of 100*l*.—§ 217.

Officers authorized by Writ of Assistance may search Houses for uncustomed or prohibited Goods.— Any officer of customs, or person acting under the direction of the Commissioners of Customs, having a writ of assistance issued from the Court of Exchequer, may, in the daytime, enter into and search any house, shop, cellar, warehouse, room, or other place, and in case of resistance break open doors, chests, trunks, and other packages, and seize and bring away any uncustomed or prohibited goods, and put and secure the same in the Queen's warehouse, and may take with him any constable, headborough, police or other public officer, duly sworn as such, who may act as well without the limits of the parish or other place for which he shall be so sworn as within such limits; and all writs of assistance so issued shall continue in force during the reign for which they were granted, and for six months afterwards.—§ 218.

Ships and Boats used in Removal of run Goods to be forfeited.—All ships, boats, carriages, or other means of conveyance, together with all horses and other animals made use of in the removal, carriage, or conveyance of any goods liable to forfeiture under this or any other act relating to the customs, shall be forfeited.—§ 219.

Ships, Boats, Goods, and Persons may be seized or detained, and Goods delivered to the proper Officer.—All ships and boats, and all goods whatsoever, liable to forfeiture, and all persons liable to be detained for any offence under this or any other act relating to the customs, shall and may be seized or detained in any place, either upon land or water, by any officer or officers of H. Majesty's army, navy,

or marines, duly employed for the prevention of smuggling, and on full pay, or by any officer or officers of customs or excise, or by any person having authority from the Commissioners of Customs or Inland Revenue to seize, or duly employed for the prevention of smuggling; and all ships, boats, and goods so seized shall, as soon as conveniently may be, be delivered into the care of the proper officer appointed to receive the same; and the forfeiture of any ship or boat shall be deemed to include her tackle, apparel, and furniture, and the forfeiture of any goods shall be deemed to include the package in which the same are found, and all the contents thereof.—§ 220.

Police Officers seizing Goods to carry them to the Customs Warehouse.—If any goods liable to forfeiture under this or any other act relating to the customs shall be stopped or taken by any police officer or other person acting by virtue of any act of parliament, or otherwise duly authorized, such goods shall be carried to the customs warehouse next to the place where the goods were stopped or taken, and there delivered to the proper officer appointed to receive the same, within 48 hours after the said goods were stopped and taken.—§ 221.

Goods stopped by Police Officers may be retained until Trial of Persons charged with stealing them.—If any such goods shall be stopped or taken by any police officer on suspicion that the same had been feloniously stolen, the said officer may carry the same to the police office to which the offender is taken, there to remain until and in order to be produced at the trial of the offender, and in such case the officer is required to give notice in writing to the Commissioners of Customs of his having so detained the said goods, with the particulars of the same; and immediately after the trial of such offender all such goods shall be conveyed to and deposited in the customs warehouse as aforesaid, to be proceeded against according to law; and in case any police officer making detention of any such goods shall neglect to convey the same to such warehouse, or to give the notice of having stopped the same as before prescribed, such officer shall forfeit the sum of 20*l.*—§ 222.

Notice to be given by seizing Officer to Owner of Ships or Goods seized, and Seizures to be claimed within One Month.—Whenever any ship, boat, or goods shall be seized as forfeited under this or any act relating to the customs, the seizing officer shall forthwith give notice in writing of such seizure, and of the grounds thereof, to the master or owner of such ship, boat, or goods, if known, either by delivering the same to him personally, or by letter addressed to him at his place of abode, if known, and transmitted by post; and all ships, boats, or goods so seized under any law relating to the customs shall be deemed and taken to be condemned, and may be sold, in the manner directed by law in respect to ships, boats, and goods seized and condemned for breach of any law relating to the customs, unless the person from whom such ships, boats, and goods shall have been seized, or the owner of them, or some person authorized by him, shall, within one calendar month from the day of seizing the same, give notice in writing, if in London, to the person seizing the same, or to the secretary or solicitor for the customs, and, if elsewhere, to the person seizing the same, or to the collector, comptroller, or other chief officer of the customs at the nearest port, that he claims the ship, boat, or goods, or intends to claim them.—§ 223.

Commissioners of Treasury or of Customs may restore Seizures.—The Commissioners of the Treasury or of the Customs may, by any order made by them for that purpose, direct any ship, boat, goods, or commodities whatever seized under this or any act relating to the customs to be delivered to the proprietor thereof, whether condemnation shall have taken place or not, upon such terms and conditions as the said commissioners respectively may see fit.—§ 224.

Ships and Goods seized may be disposed of as Commissioners of Customs direct.—All ships and boats and all goods whatsoever which shall have been seized and condemned for breach of any law relating to the customs shall be disposed of, as soon as conveniently may be after the condemnation thereof, in such manner as the commissioners of customs may direct; and any nets, dredges, instruments, or implements of fishing liable to seizure or forfeiture, and seized under the act 6 & 7 Vict. c. 79. and the convention and articles therein referred to, shall and may be sold or otherwise disposed of, as the commissioners of customs may direct, unless claimed within one month after seizure thereof, or within one month after the passing of this act as to such as may be then under seizure, such claim being made in the same manner as is prescribed by the 223rd section of this act with respect to ships, boats, or goods seized under this act.—§ 225.

AS TO OFFENCES COMMITTED BY AND PENALTIES ATTACHING TO PERSONS.

Persons may be searched if Officers have Reason to suspect smuggled Goods are concealed upon them.—Any officer of customs, or of the army, navy, or marines, duly employed in the prevention of smuggling and on full pay, may search any person on board any ship or boat within the limits of any port in the U. K. or the Channel Islands, or any person who shall have landed from any ship or boat, provided such officer shall have good reason to suppose that such person has any uncustomed or prohibited goods secreted about his person; and if any person shall obstruct any such officer in going, remaining, or returning from on board, or in searching such ship or boat or person, every such person shall forfeit the sum of 100*l.*; and if any passenger or other person on board any such ship or boat, or who may have landed from any such ship or boat, shall, upon being questioned by any such officer whether he has any foreign goods upon his person or in his possession, deny the same, and any such goods shall after such denial be discovered to be or to have been upon his person or in his possession, such goods shall be forfeited, and such person shall forfeit treble the value of such goods.—§ 226.

Person before Search may require to be taken before a Justice or Officers of Customs.—Before any person shall be searched by any such officer as aforesaid, such person may require such officer to take him or her before any justice, or before the collector, comptroller, or other acting principal officer of the customs, who shall, if he see no reasonable cause for search, discharge such person, but if otherwise, direct such person to be searched, and if a female, she shall not be searched by any other than a female.—§ 227.

Penalty on Officers for Misconduct.—Any officer required to take any such person before such justice, collector, comptroller, or other superior officer of customs shall do so with all reasonable despatch; but if such officer shall require any person to be searched, not having reasonable ground to suppose that he has uncustomed or prohibited goods about his person, such officer shall forfeit and pay any sum not exceeding 10*l.*—§ 228.

Persons concerned in importing prohibited or restricted Goods, &c. to forfeit treble the Value, or 100*l.*—Every person who shall be concerned in importing or bringing into the U. K. any prohibited goods, or any goods the importation of which is restricted, contrary to such prohibition or restriction, and whether the same be unshipped or not; and every person who shall unship or assist or be otherwise concerned in the unshipping of any goods which are prohibited or of any goods which are restricted and imported contrary to such restriction, or of any goods liable to duty, the duties for which have not been paid or secured; or who shall knowingly harbour, keep, or conceal, or shall knowingly permit or suffer or cause or procure to be harboured, kept, or concealed, any such goods, or any goods which shall have been illegally removed without payment of duty from any warehouse or place of security in which they may have been deposited; or to whose hands and possession any such goods shall knowingly come; or who shall assist or be concerned in the illegal removal of any goods from any warehouse or place of security in which they shall have been deposited as aforesaid; or who shall be in any way knowingly concerned in conveying, removing, depositing, concealing, or in any manner dealing with any goods liable to duties of customs, with intent to defraud H. M. of such duties or any part thereof; or who shall be in any way knowingly concerned in any fraudulent evasion or attempt at evasion of such duties

or any part thereof; shall in each and every of the foregoing cases forfeit either treble the value of the goods or the penalty of 100*l.*, at the election of the commissioners of customs.—§ 229.

If Goods be removed prior to Examination, Penalty upon the Party concerned in the Removal.—Every person who shall remove any goods imported into the U. K. from any ship, quay, wharf, or other place previous to the examination thereof by the proper officer of customs, unless under the care or authority of such officer; or who shall remove or withdraw from any quay, wharf, or other place any goods entered to be warehoused after the landing thereof, so that no sufficient account is taken thereof by the proper officer, or so that the same are not duly warehoused, and every person who shall assist or be otherwise concerned in such removal or withdrawal, or shall knowingly harbour, keep, or conceal, or shall knowingly permit or suffer, or cause or procure to be harboured, kept, or concealed, any such goods, or to whose possession any such goods shall knowingly come, every such person shall forfeit either treble the value thereof or the penalty of 100*l.*, at the election of the commissioners of customs.—§ 230.

Persons unshipping or concerned in the carrying away or concealing Spirits or Tobacco to forfeit 100*l. and may be detained.*—Every person who shall unship or be aiding or concerned in the unshipping of any spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff-work, or of any tea or silk, such tea or silk being of the value of 10*l.* or upwards, liable to forfeiture under this or any other act relating to the customs or excise, or who shall carry, convey, or conceal, or be aiding, assisting, or concerned in the carrying, conveying, or concealing of any such spirits, tobacco, snuff, tobacco stalks, tobacco stalk flour, or snuff-work, or of any such tea or silk as aforesaid, shall forfeit for each such offence treble the value of such goods, or the sum of 100*l.*, at the election of the commissioners of customs; and every such person may be detained, to be dealt with as hereinafter directed.—§ 231.

Persons found or discovered to have been on board Vessels liable to Forfeiture subject to be committed to any House of Correction.—Every subject of H. M. who shall be found or discovered to have been on board any ship or boat liable to forfeiture under this or any act relating to the customs for being found or discovered to have been within any of the distances in this act mentioned from the U. K. or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, such goods or things as subject such ship or boat to forfeiture, or who shall be found or discovered to have been within any such distances as aforesaid on board any ship or boat from which any part of the cargo or lading shall have been thrown overboard, or staved or destroyed, to prevent seizure, and every person, not being a subject of H. M., who shall be found or discovered to have been on board any ship or boat liable to forfeiture for any of the causes last aforesaid within one league of the coast of the U. K. or of the Channel Islands, shall, upon being duly convicted of any of the said offences before any justice, be adjudged by such justice, for the first of such offences, to be imprisoned in any house of correction, and there kept to hard labour, for any term not less than 6 nor more than 9 months, and for the second of such offences for any term not less than 9 nor more than 12 months, and for the third or any subsequent offence for 12 months; and every such person may be detained, and taken before any justice, to be dealt with as hereinafter directed.—§ 232.

Persons on board Vessels within Ports of the U. K. with Contraband Articles, subject to Penalty of 100*l.*, *and Detention.*—Every person who shall be found or discovered to have been on board any ship or boat liable to forfeiture under this or any other act relating to the customs for being found or discovered to have been within any port, bay, harbour, river, or creek of the U. K. or of the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, such goods or things as subject such ship or boat to forfeiture, or who shall be found or discovered to have been on board any of H. Majesty's ships or vessels, or on board any ship or vessel in H. Majesty's employment or service, or on board of any foreign post office packet, being a national vessel, employed in carrying the mails between any foreign country and the U. K., such last-mentioned ships, vessels, or packets being found or discovered to have been within any port, bay, harbour, river, or creek of the U. K. or the Channel Islands, having on board or in any manner attached thereto, or having had on board or in any manner attached thereto, or conveying or having conveyed in any manner, any spirits, not being in a cask or other vessel capable of containing liquids of the size or content of 20 gallons at the least, or any tobacco or snuff, not being in a cask or package containing 200 lbs. of such tobacco or snuff at least, or being separated or divided in any manner within any cask or package, shall forfeit the sum of 100*l.*; and every such person shall and may be detained, and taken before any justice, to be dealt with as herein-after directed.—§ 233.

Persons in H. Majesty's Service detained, to be secured on board until Warrant procured.—Where any person or persons, being part of the crew of any of H. Majesty's ships or vessels, or of any ship or vessel in H. Majesty's employment or service, and liable to detention, shall have been detained under any law relating to the customs, such person or persons, upon notice thereof by the detaining officer to the commanding officer of the ship or vessel, shall be placed in security by such commanding officer on board such ship or vessel, until such detaining officer shall have obtained a warrant from a justice for bringing such person or persons before him or any other justice or justices, to be dealt with according to law, which warrant such justice is required to grant upon complaint made to him by such officer of customs stating the offence for which such person or persons is or are liable to detention.—§ 234.

Any Person escaping may afterwards be detained.—If any person liable to be detained under this or any other act relating to the customs shall not be detained at the time of committing the offence for which he is so liable, or shall after detention make his escape, such person shall and may at any time afterwards be detained, and taken before any justice, to be dealt with as if detained at the time of committing such offence.—§ 235.

Magistrates to proceed to Conviction of Smugglers in certain Cases without an Order of Customs.—Whenever any person shall have been detained, and taken before any justice, for being found or discovered to have been on board any ship or boat within any port, bay, harbour, river, or creek of the U. K. or the Channel Islands, such ship or boat having on board or having had on board spirits or tobacco in such casks or packages as would under this or any other act relating to customs subject the same to forfeiture, or for unshipping or for aiding or being concerned in the unshipping of any spirits or tobacco liable to forfeiture under this or any other act relating to the customs or excise, or for carrying, conveying, or concealing, or for aiding or being concerned in the carrying, conveying, or concealing of any such spirits or tobacco, and it shall appear to such justice that the quantity of spirits in respect of which such person has been so detained does not exceed 2 gallons, or that the quantity of tobacco in respect of which such person has been so detained does not exceed 10 lbs. weight, such justice may proceed summarily upon the case without any information, and although no direction shall have been given by the Commissioners of Customs, and convict such person of such offence, and adjudge that such person shall, in lieu of any other penalty, forfeit any sum not less than the single value nor more than treble the value of such goods, including the duties of importation due thereon, and in default of payment of such sum of money commit such person to any of H. Majesty's gaols for any time not exceeding one month.—§ 236.

Where Persons are taken before a Justice under any Act relating to the Customs, such Justice may order them to be detained a reasonable Time, or admit to Bail.—When any person shall have been detained for any offence against this or any other act relating to the customs, and taken before any justice, such justice may, if he see reasonable cause, order such person to be detained in gaol, or in the custody of the police or constabulary force, a reasonable time, to obtain the order of the Commissioners of Customs or Inland Revenue, and to prepare the necessary informations, convictions, and warrants of commitment,

and at the expiration of such time to be brought before him, or any other justice or justices, who may then finally hear and determine the matter: but any person so detained may be liberated, on giving, by recognizance, security to the satisfaction of such justice in the sum of 100*l.*, or in the amount of the penalty sought to be recovered, to appear at such time and place as shall be appointed by such justice for hearing the case.—§ 237.

Penalty on Persons offering Goods for Sale under Pretence of being run or prohibited. — If any person shall offer for sale any goods under pretence that the same are prohibited, or have been unshipped and run on shore without payment of duties, all such goods (although not liable to any duties or prohibited) shall be forfeited, and every person so offering the same for sale shall forfeit treble the value of such goods. — § 238.

No Subjects except Officers, to take up Spirits in small Casks sunk or floating upon the Sea. — No subject of H. Majesty, other than officers of the navy, customs, or excise, shall intermeddle with or take up any spirits, being in casks of less content than 20 gallons, which may be found floating upon or sunk in the sea within 100 leagues of the U. K., and if any spirits shall be so intermeddled with or taken up the same shall be forfeited, together with any ship or boat in which they are found. — § 239.

Commissioners of Treasury or Customs may restore Seizures, &c. — The Commissioners of the Treasury or Customs may mitigate or remit any penalty or fine, or any part of any penalty or fine, incurred under this or any act relating to the customs, or release from confinement any person committed under this or any act relating to the customs, on such terms and conditions as to them shall appear proper. — § 240.

Persons signaling Smuggling Vessels may be detained, and forfeit 100l. or be kept to Hard Labour for One Year. — No person shall, after sunset and before sunrise between the 21st day of September and the 1st day of April, or after the hour of 8 in the evening and before the hour of 6 in the morning at any other time of the year, make, aid, or assist in making any signal in or on board or from any ship or boat, or on or from any part of the coast or shore of the U. K., or within 6 miles of any part of such coast or shore, for the purpose of giving notice to any person on board any smuggling ship or boat, whether any person so on board of such ship or boat be or not within distance to notice any such signal; and if any person, contrary to this act, shall make or cause to be made, or aid or assist in making, any such signal, such person so offending shall be guilty of a misdemeanor; and any person may stop, arrest, and detain the person so offending, and convey him before any justice, who, if he see cause, shall commit the offender to the next county gaol, there to remain until delivered by due course of law; and it shall not be necessary to prove on any indictment or information in such case that any ship or boat was actually on the coast; and the offender being duly convicted, shall, by order of the court before whom he shall be convicted, either forfeit the penalty of 100*l.*, or, at the discretion of such court, be committed to the common gaol or house of correction, there to be kept to hard labour for any term not exceeding one year.—§ 241.

Proof of a Signal not being intended on Defendant. — If any person be charged with or indicted for having made or caused to be made, or for aiding or assisting in making, any such signal as aforesaid, the burden of proof that such signal so charged as having been made with intent and for the purpose of giving such notice as aforesaid was not made with such intent and for such purpose shall be upon the defendant against whom such charge is made or such indictment is found. — § 242.

Any Person may prevent Signals, and enter Lands for that Purpose. — Any person whatsoever may prevent any signal being made as aforesaid, and may go upon any lands for that purpose, without being liable to any indictment, suit, or action for the same.— § 243.

Persons assembling, to the Number of Three or more, to run Spirits, Tobacco, &c. or obstructing Officers, to be sent to House of Correction. — All persons assembled to the number of 3 or more, for the purpose of unshipping, carrying, conveying, or concealing any spirits or tobacco, or any tea or silk (such tea or silk being of the value of 10*l.* or more), liable to forfeiture under this or any other act relating to the customs or excise, and every person who shall by any means procure or hire, or shall depute or authorise any other person to procure or hire, any person or assemble for the purpose of being concerned in the landing or unshipping, or carrying, conveying, or concealing any goods which are prohibited to be imported, or the duties for which have not been paid or secured, and every person who shall obstruct any officer or officers of the army, navy, or marines, being duly employed for the prevention of smuggling, or any officer or officers of customs or excise, or any person acting in his or their assistance, or duly employed for the prevention of smuggling, in the execution of his or their duty, or in the due seizing of any goods liable to forfeiture by this act or any act relating to the customs, or who shall rescue, attempt or endeavour to rescue, or cause to be rescued, any goods which have been duly seized, or who shall before or at or after any seizure stave, break, or otherwise destroy, or attempt or endeavour to stave, break, or otherwise destroy, any goods, to prevent the seizure thereof or the securing of the same, shall, upon being duly convicted of any of the said offences before any justice of the peace, be adjudged by such justice for the first offence to be imprisoned in any house of correction, and there kept to hard labour, for any term not less than 6 nor more than 9 months, and for the second offence for any term not less than 9 nor more than 12 months, and for the third or any subsequent offence for 12 months. — § 244.

Three or more armed Persons assembled to land or rescue smuggled Goods guilty of Felony. — If any persons, to the number of 3 or more, armed with firearms or other offensive weapons, shall, within the U. K., or within the limits of any port, harbour, or creek thereof, be assembled in order to be aiding and assisting in the illegal landing, running, or carrying away of any prohibited goods, or any goods liable to any duties which have not been paid or secured, or in rescuing or taking away any such goods as aforesaid after seizure from the officer of the customs, or other officer authorised to seize the same, or from any person or persons employed by or assisting them, or from the place where the same shall have been lodged by them, or in rescuing any person who shall have been apprehended for any offence made felony by this or any act relating to the customs, or in the preventing the apprehension of any person who shall have been guilty of such offence, or in case any persons to the number of three or more, so armed as aforesaid, shall, within the U. K., or within the limits of any port, harbour, or creek thereof, be so aiding or assisting, every person so offending, and every person aiding, abetting, or assisting therein, shall, being thereof convicted, be adjudged guilty of felony, and shall be liable, at the discretion of the court before which he shall be convicted, to be transported beyond the seas for the term of his natural life, or for any term not less than 15 years, or to be imprisoned for any term not exceeding 3 years. — § 245.

Persons shooting at Boats belonging to Navy or Revenue Service, guilty of Felony. — If any person shall maliciously shoot at any vessel or boat belonging to H. Majesty's navy, or in the service of the revenue, within 100 leagues of any part of the coast of the U. K., or shall maliciously shoot at, maim, or wound any officer of the army, navy, or marines, being duly employed for the prevention of smuggling, and on full pay, or any officer of customs or excise, or any person acting in his aid or assistance, or duly employed for the prevention of smuggling, in the execution of his office or duty, every person so offending, every person aiding, abetting, or assisting therein, shall, upon conviction, be adjudged guilty of felony, and shall be liable, at the discretion of the court before which he shall be convicted, to be transported beyond the seas for the term of his natural life, or for any term not less than 15 years, or to be imprisoned for any term not exceeding 3 years. — § 246.

Any Person in company with Four others, having smuggled Goods, or with one other, armed or disguised, guilty of Felony. — If any person in company with more than 4 others, be found with any goods liable to forfeiture under this or any other act relating to the customs or excise, or in company with 1 other person, within 5 miles of the sea coast or of any tidal river, and carrying offensive arms or weapons, or disguised in any way, every such person shall be adjudged guilty of felony, and shall, on conviction of such offence, be transported as a felon for the term of 7 years. — § 247.

Persons assaulting Officers by Force or Violence may be transported. — If any person shall, by force or violence, assault, resist, or obstruct any officer of the army, navy, or marines, being duly employed for the prevention of smuggling, and on full pay, or any officer of customs or excise, or other person duly employed for the prevention of smuggling, in the due execution of his or their duty, or any person acting in his or their aid, every person so offending, being thereof convicted, shall be transported for 7 years, or sentenced to be imprisoned in any house of correction or common gaol, and kept to hard labour for any term not exceeding 3 years, at the discretion of the court before whom such offender shall be tried and convicted as aforesaid. — §248.

Clause 249. enacts that the commanding officers of boats for the prevention of smuggling may haul them on shore without being liable to be sued for so doing.

Clause 250. authorises officers of army, navy, and marines, to patrol the coasts for the prevention of smuggling without being liable to suit for so doing.

As to Compensations and Rewards.

Officers wounded to be provided for, &c. — If any officer or seamen employed in the service of the customs or inland revenue shall be killed, maimed, wounded, or in any way injured in the due execution of his office, or if any person acting in his aid, or duly employed for the prevention of smuggling, shall be so killed, maimed, wounded, or in any way injured while so aiding such officer or seaman, or so employed, the Commissioners of Customs or Inland Revenue respectively may, with the sanction of the Commissioners of the Treasury, make such provision for such officer or person, or for the widows and families of such as shall be killed, as they may see fit. — § 251.

Rewards for detaining Smugglers. — The Commissioners of Customs may award to any officer or other person detaining

any person liable to detention under this or any other Act relating to the customs, if convicted, such reward as they may think fit, not exceeding the sum of 20*l.* for each person. — § 252.

Rewards out of Penalties. — The Commissioners of Customs may order such reward as they see fit out of any pecuniary penalty or composition to any officer or other person by whose means the same is recovered. — § 253.

Rewards to Officers making Seizures. — The Commissioners of Customs may order to be paid in respect of any seizure made under this or any Act relating to the customs, to the person or persons making the same, such rewards as they may see fit, not exceeding the value of the goods or things so seized, and for this purpose the value of spirits and tobacco seized as aforesaid shall be deemed and taken to be such as the Lords of the Treasury or the Commissioners of Customs may think fit. — § 254.

How Value is to be ascertained. — In all cases where any penalty the amount of which is to be determined by the value of any *goods*, is directed to be sued for under any Act relating to the customs or excise, such value shall, as regards proceedings in any court or before justices, be estimated and taken according to the rate and price for which goods of the like kind but of the best quality upon which the duties of importation shall have been paid were sold at or about the time of the offence, or according to the rate and price for which the like sort of goods were sold in bond at or about the time of the offence, with the duties due thereon added to such rate or price in bond, except as to tobacco stalks, tobacco stalk flour, and snuff-work, the value of which shall, for the purpose of any suit or proceeding under this or any Act relating to the customs, be estimated at the same rate as that of unmanufactured tobacco upon which the duties of importation shall have been paid. — § 255.

All Rewards and Seizures payable to Officers of Army, Navy, or Marines to be regulated by Order in Council. — Every reward or share of any such seizure, or of the value thereof, payable to any officer or officers, non-commissioned officers, petty officers, seamen, or privates of H. Majesty's army, navy, or marines, or acting under the orders of the Lord High Admiral or Commissioners of the Admiralty, shall be divided and distributed in such proportions, and according to such rules, regulations, and orders, as H. Majesty shall by royal proclamation in that behalf be pleased to direct and appoint. — § 256.

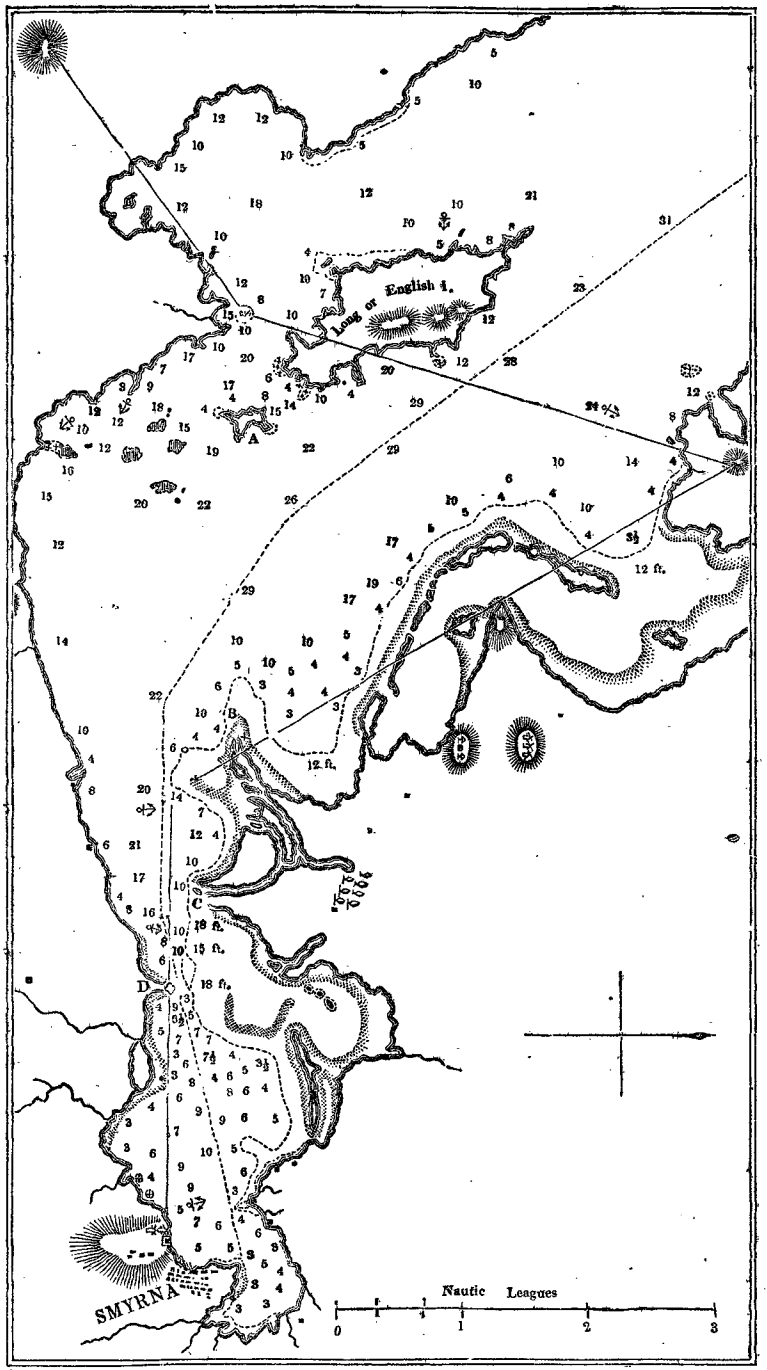
Commissioners may distribute Officers' Shares of Seizure so as to reward Persons not actually present. — The Commissioners of Customs or Inland Revenue respectively may, in case of any seizure of ships, boats, or goods, or of the apprehension of any parties, under this or any other Act relating to the customs, direct the distribution of the seizor's share of such ships, boats, or goods, or of any penalties or rewards that may be recovered on account of any seizure, so that any other person through whose information or means such seizure shall have been made or penalty recovered or party apprehended, and who may by them be deemed to be so entitled, may participate in such proportions as the said commissioners shall respectively deem expedient. — § 257.

Rewards to Persons giving Information of Goods floating or sunk in the Sea. — If any person shall discover any spirits in casks of less content than 20 gallons found floating upon or sunk in the sea, and shall give information to any officer of the customs, or other person duly authorised to make seizure of such spirits, so that seizure shall be made of the same, the person giving such information shall be entitled to and shall receive such reward as the Commissioners of Customs may direct. — § 258.

As to collusive Seizures.

Penalty on Officers and Persons making collusive Seizures, or taking Bribes, and on Persons offering them. — If any officer of customs or excise, or of the army, navy, or marines, duly employed for the prevention of smuggling, and on full pay, or any other person or persons whomsoever duly employed for the prevention of smuggling, shall make any collusive seizure, or deliver up, or make any agreement to deliver up or not to seize any vessel or boat, or any goods liable to forfeiture, or shall take any bribe, gratuity, recompence, or reward for the neglect or nonperformance of his duty, or conspire or connive with any person to import or bring into the U. K. or the Channel Islands, or any of the British possessions abroad, or be in any way concerned in the importation or bringing into the U. K., or the said islands or possessions, of any goods prohibited to be imported or liable to duties of customs for the purpose of seizing any ship, boat, or goods, and obtaining any reward for such seizure or otherwise, every such officer or other person shall forfeit for every such offence the sum of 500*l.*, and be rendered incapable of serving H. Majesty in any office whatever, either civil or military; and every person who shall give or offer, or promise to give or procure to be given, any bribe, recompence, or reward to, or shall make any collusive agreement with, any such officer or person as aforesaid to induce him in any way to neglect his duty, or to do, conceal, or connive at any act whereby any of the provisions of any Act of Parliament relating to the customs may be evaded, shall forfeit the sum of 200*l.* — § 259.

SMYRNA, a large city and sea-port of Asiatic Turkey, on the western side of Asia Minor, lat. 33° 25′ 36″ N., lon. 27° 6′ 45″ E. Population, in 1852, estimated at about 150,000, of whom 45,000 may be Turks, 50,000 Greeks, and the remainder Armenians, Franks, Jews, &c. Smyrna is situated at the bottom of a deep gulph; the entrance to which lies between Mytilene on the north, and Cape Carabourun, in lat. 38° 41′ 30″ N.; lon. 26° 21′ E., on the south. The woodcut on the next page gives a better idea of the Gulph of Smyrna than could be derived from any description. The dotted line shows the course inwards. The passage between James' Castle (D) on the south and the opposite sand-bank is narrow; but there is from 9 to 10 fathoms water, with blue clay bottom. Merchant ships anchor abreast of the city in from 7 to 8 fathoms; but the water is so deep that they may come close to the quays. The *inbat*, or sea breeze, blows from morning till evening, and is always waited for by ships going up to the city. There is excellent anchorage in most parts of the gulph, merely avoiding the shoals on the north side. Smyrna is a place of great antiquity. The excellence of its port, and its admirable situation, have made it be several times rebuilt, after being destroyed by earthquakes. On approaching it from the sea, it has the appearance of an amphitheatre: the castle is at the back of the town, which it commands, on the top of the hill; but it is in a state of decay, and could oppose no resistance to an invading force. The interior of the city does not correspond to its external appearance; the streets being, for the most part, narrow, dirty, and ill paved. Owing to the want of cleanliness, and of all sorts of precautions, on the part of the Turks, Smyrna is frequently visited by the plague. In 1814, from 50,000 to 60,000 of the inhabitants are said to have been cut off by this dreadful scourge. The trade of this city is more extensive than that of any other in the Turkish empire. The caravans from Persia are chiefly composed of Armenians. They arrive and depart at fixed periods, which are nearly identical with those of the arrival and departure of most of the foreign ships frequenting the port. But it is now about to be connected by a railway constructed by English engineers, and by means of English capital, with Ghuzel-Hissar, or Aidin, near the Mendere, 62 miles S.E. Smyrna. Bargains are principally effected by Jew brokers, many of whom have amassed considerable fortunes. The principal articles of import consist of furs, iron, butter, &c. from Odessa and Taganrog; and of cotton-stuffs and twist, silk and woollen goods, coffee, sugar, cochineal, and dye-woods, iron, coal, tin, and tin plates, rum, brandy, paper, cheese, glass, wine, &c. from Great Britain, France, Italy, the United States, &c. The exports consist principally of madder, which is the most valuable article, dried fruits, valonia, opium, sponges, carpets, silk, wool, box-wood, emery-stone, drugs, yellow-berries, olive oil, galls, wax, copper, hare-skins, goats' wool, &c.



References to Plan.—A, Partridge Island, on the south side of which there is excellent anchorage in from 15 to 7 fathoms, muddy bottom. B, a mud point. C, Pelican Point. D, James' Castle. E, Low narrow islands. Soundings, except where otherwise marked, in fathoms.

The admirable Report* of Mr. Rolleston on Smyrna, contains the latest and most authentic details, in regard to the population, trade, &c. of that city. We are indebted to it, and to information communicated to us by a house in Smyrna, for most part of the following details.

"The business," says Mr. Rolleston, "of exporting and importing goods to and from Europe is becoming more and more monopolised by the Greek merchants. They are compelled by the conditions of the insurance companies to employ European bottoms and sailors to transport their freight, and they have a line of English steamers in their employment, several of them reaching a tonnage of 1,200 tons, and numbering already five or six vessels named after the several countries of ancient Hellas, the 'Arcadia,' the 'Laconia,' &c. It is in great measure their local knowledge and connections which enable them to compete with merchants of other nations at so great an advantage in this particular branch of business. There are many instances to be pointed out in Smyrna of Greek merchants who have raised themselves by their own exertions and industry from a very poor condition to one of opulence, and on the other hand it is said that their very wealthiest merchants are in the habit of furthering their own interests by methods which, though not positively dishonest, are yet such as none but the pettiest tradesman of another race would condescend to employ."

But this natural result of the brutal tyranny under which (thanks to the jealousies and selfishness of the principal Christian powers) they have so long groaned, is now rapidly wearing away; and at the present time there are many Greek merchants who are not more distinguished by their intelligence and enterprise than by their straightforwardness and integrity.

"The Greek is to be found in all the employments of humble life, whether as a small tradesman, artisan, boatman, or day labourer. The profits of the small tradesmen cannot easily be estimated, but in several instances we have found the master of a shop of very humble pretensions to be the owner and occupier of a house in some other part of the town, the rent of which in Smyrna would have been 35*l.* to 40*l.* per annum. The wages paid to day labourers during the time that we were in Smyrna varied from 8 piastres = 16*d.*, up to 12 piastres = 2*s.* per diem. Previously to the war 7 piastres = 14*d.*, was the amount usually paid. The condition of the labouring population was at this time one of well-being, as the price of bread was 2 piastres per oke = 4*d.* for 2¾ lbs., and a whole sheep might be purchased for 80 piastres, *i.e.*, about 13*s.* Indeed, squalid visages and ragged clothes are seldom, if ever, to be seen among the Greek population."

Mr. Rolleston says that hatred of the Turks is so deeply rooted in the heart of every Greek, as to constitute a part of their moral nature; and it would have been extraordinary indeed had such not been the case.

The Turkish population is almost wholly occupied in agricultural labour, or in the rudest sorts of manufactures. The porterage of Symrna gives employment to about 3,000 of the lowest order of Turks.

Monies, Weights, and Measures, same as at Constantinople; which see. Accounts are kept in piastres of 40 paras, or medini. The value of the piastre fluctuates according to the exchange. It has been very much degraded; and is at present (1843) worth about 2*d.*, the exchange being 119 or 110½ piastres per 1*l.* sterling. The oke is the principal weight used. It is equivalent to 2 lbs. 13 oz. 5. dr. avoirdupois; 45 okes = 1 kintal = 100 rottolas = 127·48 lbs. avoirdupois. The kintal of Constantinople is only 44 okes. A teffee of silk = 4⅝ lbs. avoirdupois. A chequee of opium = 1⅛ lbs.; a chequee of goats' wool = 5¾ lbs. Corn is measured by the killow = 1·456 Winch. bushels. The pic, or long measure, = 27 Eng. inches; But for an account of what the Turkey weights usually render in England, see *post.*

Commerce of Smyrna.

Charges on Selling and Buying.—As we conceive that a correct list of selling and buying charges is an essential piece of information for those interested in the commerce of the Levant, we annex the same, including every item of expense, namely:—

On Selling.	Per cent.
Freight (according to the rate agreed upon in England) say	2
Custom duty (on general goods)	3
Porterage from 1 to 2 piastres per package (according to the size).	
Shroffage	0½
House and street brokerage	2
Commission for effecting sale	3
Ditto, if proceeds are remitted by bill or specie	1½
Del credere ditto (when required to be charged)	2
Warehouse rent	0½

On Buying.	Per cent.
Custom duty (according to the quality of the article)	1 to 3
Porterage (included in the cost of packages, which vary according to the quality of the goods packed).	
House and street brokerage	1½
Commission (except on figs, which is 6 per cent)	3
Warehouse rent	0½

Sales are effected by a merchants' broker, and what is termed a street or out-door broker; the former receiving his instructions from the seller, and the latter acting on behalf of the buyer. When the terms are mutually agreed upon, the real buyer and seller personally meet; and a bond or obligatory note stating the terms and amount of the transaction is drawn out and signed by the buyer, and when not much approved of, one or more signatures are required to the bond, who individually and collectively become responsible for the fulfilment of it.

Purchases are similarly made, except that the purchaser or agent himself, in the first instance, and his brokers, inspect the goods he is about to treat for: cash down is generally expected; and it is but seldom that a short credit of 1 or 2 couriers is obtained: it not unfrequently happens, also, that ¼ or even ½ of the purchase amount is advanced to the seller, when an insufficient quantity of the article wanted by the buyer is in the place, and which must then be procured from the interior or place of growth. The money advanced (which is to be returned if the quality does not suit) is sent by a confidential person on the part of the purchaser, accompanied either by the seller in person, or by some one representing him.

Barters are generally attended with delay, impediments, and sacrifices to the European agent who exchanges his constituents' goods for native produce, and are never completed without his paying a large portion in cash, which is mostly ½, sometimes even ⅔, but never less than ⅓ of the full amount; besides always paying a higher price for the produce than if it were bought for ready money. On the other hand, so far as the agent's transaction goes in goods, the price of which he also advances, it is equal to an advantageous cash sale, deducting a discount; but still he loses, as we have just stated, on that part of the operation which subjects him to the necessity of giving ready money for such part of the produce as remains above the counter-value given in goods, at a higher rate than it is worth in the open market. Thus the advantage is all in favour of this country, and against the agent. Indeed, barters are seldom undertaken unless when a profitable result is anticipated, when European goods are difficult to be placed upon saving conditions, either from the want of demand or a glutted market, or when (which is mostly the case) the holder of such goods has orders from the owners of them to remit them in produce, and thus realise their property, if not upon profitable terms, at least without the risk arising from bad debts: sometimes, also, outstanding bonds are taken in part payment, to the extent occasionally of ⅓; another ⅓ is taken in goods at an advance of from 5 to 10 or 12 per cent. above current prices; and the remaining ⅓ in cash against produce, at from 5 to 10 per cent. more than it

* Addressed to the Secretary-at-War, November 1, 1836.

fetches in the bazaars. However it is by barter alone that any extensive transaction ever takes place, or that it can be either readily or safely effected.

Sales on Credit. — The terms of credit vary considerably, and depend entirely upon the quality of the goods which the agent sells.

Sales for Cash.—These very seldom occur, indeed, and then only when money is abundant, or the article sold scarce and in great demand; in fact, not 1 sale in 100 is made on these terms; and in about the same ratio is a discount taken off from a bazaar bond at even an exorbitant rate, however short the period may be that it has to run; occasionally a sale is, however, effected for ¼ cash, and the other ¼ short credit, for some very current goods.

IMPORTS.

Coffee.—This is one of the most current articles received here, and is sent from England, France, Holland, Trieste, Marseilles, Leghorn, Genoa, and America; but first, and principally of late years, from the latter country; the vessels of which are frequently laden with coffee, and always partly so: the next in point of quantity comes from England; but is shipped mostly in small parcels at a time of from 300 to 600 sacks, although occasionally that amount is doubled. France follows, but on a less extensive scale; and Austria, Holland, and the small ports in the south of Europe, do not together export more than what is received from England alone. We have 4 different qualities of coffee in our markets; namely, Mocha, St. Domingo, Havannah, and Brazil: the first is sent from Alexandria, and by American vessels, and but seldom from Europe; the consumption is, however, limited, and does not exceed 60,000 okes annually. At Constantinople the consumption is much greater. An Asiatic cannot do without his coffee; and it is well known that in Smyrna alone not less than perhaps 400,000 cups of it are daily drunk, which, computed at the cost price of 2 paras each, amount to 20,000 piastres! St. Domingo and Havannah coffees are preferred to the Brazil, although, when the latter is of a fair round quality, there is not more than 5 per cent. difference in price; the small green West India berry certainly commands a ready sale; but, for the finest sort, not more than 6 or 8 per cent. can be obtained above the middling and sound quality. Coffee is amongst the very few articles which occasionally meet with a partial and entire cash sale and short credit; and is, moreover, from the means and character of the dealers in it, the least liable to risk from insolvency. It is also the easiest through which an advantageous barter can be effected, as a much larger quantity of coffee will be taken in exchange for produce than almost any other item of European merchandise.

Sugar is the next in consequence. This article is supplied from the same sources as coffee, and is attended in its disposal with similar results. We receive the following qualities: — White crushed, white Havannah, brown do., white East India, refined in small loaves of 4 lbs. and in large of 8 lbs. each: the 2 latter are mostly shipped from America and England. The brown and ordinary sorts are not so current.

Indigo always meets a ready sale, and not unfrequently a profitable one; it is attended likewise with all the advantages and facilities attached to coffee and sugar, and is furnished by Europe and America, but principally by England. The qualities we receive consist of East India purple and copper, ditto common, and Guatemala. The first of the 3 is the kind best adapted for our markets, and is placed sooner and better than the other 2; but, as is the case with coffee, the *very fine* will not pay cost price, and ought therefore never to be sent. The pieces suited for our buyers ought to be good sized, with about an equal proportion of purple and copper in each piece.

Manufactures.—White or unprinted cotton goods are most in demand during the warm weather, and the coloured or printed stuffs during winter, although a considerable quantity of all sorts is regularly and largely sold throughout the whole year. East Indian manufactures are supplied by America and England exclusively; the latter country also sends fair imitations of the East Indian loom, in long cloths, seersuckers, &c. The native consumers are exceedingly fastidious in their choice of designs and colours, which ought very frequently to be altered, in order to meet their capricious taste. Manufactured goods are always sold at long credits, but large barters are often effected through them. A person desirous of entering into this item of our commerce is almost certain ultimately to reap an advantage; but he must have patience, a large capital, and must not be disheartened at the first or second result of his enterprise, should it disappoint his hopes of profit. He must also enter into the thing with spirit, and keep his agent always supplied with the goods he may recommend; and he is to remember that many months must elapse before he can expect a return by bills of exchange, but sooner if he order a barter. The capital employed must also at least be to the amount of 20,000*l.* to do any good; and further, this sum ought to be disbursed by him without any pecuniary embarrassment or inconvenience. For a person willing to undertake such a step, he would require to be regularly furnished with patterns, and advices of the manner in which they ought to be printed and varied; and we again repeat, that with *competent means*, a real desire to follow the branch up firmly, and full information hence of what is required, a most extensive and finally lucrative business would be done: and we recommend the matter strongly to your best consideration.

Cotton Twist forms no inconsiderable article in our trade, and is supplied exclusively from England. Mule twist has, however, superseded, in some degree, the demand which formerly existed for water twist, and is consequently more in request. Water twist is nevertheless saleable, and both qualities ought to be of rather high numbers. This article is often given in barter, but mostly sold at rather long credits, and hardly ever for cash.

Iron, machinery, and *coal*, are all largely imported, especially since the commencement of the railway to Aidin. They are wholly supplied by England.

Rum and Brandy.—Leeward Island and Jamaica are furnished by America and England; the former particularly in the lower qualities, of which we have a full market at low prices. The better kind and brandy are supplied from England, but do not obtain a proportionate advance compared with the common sorts. Brandy is but of limited demand, and 2 or 3 puncheons are sufficient at a time. It ought, as well as rum, to be deeply coloured.

Spices are all saleable in small parcels at a time, particularly pepper and pimento; the latter of which, in small sound berries, is demanded at good prices. Nutmegs are very abundant, and offering very low without finding purchasers. France, America, and England supply us with spices, but France more so in cloves than in other kinds; and it may be remarked that the qualities received from England are preferred. Credit on selling is generally short.

Cochineal is a fair article now and then in small quantities; and when in demand, at times fetches good prices, occasionally a cash sale, and always one of the shortest credits. Annual consumption, 4,500 okes.

In concluding our observations on imports, we could wish to impress the conviction, that a poor man's purpose cannot be answered in speculating to this country; for, should his circumstances require a speedy remittance in bills, he must submit to a heavy sacrifice, in order to meet his wants, by selling his property for whatever it may fetch in cash; and such a measure cannot but be attended with very heavy loss. On the contrary, when an opulent person finds that his property cannot be realised at saving prices, he can afford to wait until a more favourable moment presents itself; and such a moment, in less than 12 months, is almost certain to arrive, when he retires his money with an advantage more than equal to any interest he could obtain for it in Europe.

EXPORTS.

The following condensed Statement shows the Values of the Principal Articles, classed according to their importance, exported from Smyrna in 1854, with the Value of those shipped for the U. K.

Articles.	Total Value.	Value to England.
	Piastres.	*Piastres.*
Madder	18,497,970	18,133,270
Valonia	17,512,270	15,300,850
Figs	13,225,100	5,421,800
Raisins	17,943,350	5,330,000
Opium	13,271,510	2,882,265
Sponges	4,515,500	3,456,000
Carpets	3,844,600	2,300,000
Sorted gums	3,139,700	1,093,500

It is seen from this statement that nearly the whole of the two great articles of madder and valonia comes to England; and we, also, share largely in the other leading articles. In the year now referred to (1854) a greater quantity of opium was shipped for the U. States (278 cases, valued at 3,000,000 piastres) than for England. Large quantities are, also, shipped for Alexandria (in 1854, 724 cases) in transit for China. It is principally brought from Afiom (or Opium), Kara Hissar, and other places in the interior of Asia Minor. "It is," says Mr. Rolleston, "packed in hampers of matting, which again are packed within coarse haircloth, and it is thus transported on camels from the place of growth. Whatever adulterations it is subjected to, it undergoes previously to its arrival in Smyrna. When it arrives there it is unpacked in the presence of an authorised person, and the process of sorting commences. The opium is in cakelike masses, seldom weighing more than 2 lb.; each mass is enveloped in a dry leaf, and covered thickly with the adherent *achænia* of some species of dock. Lump after lump is handed to the assayer, whose process is more rough and empirical than any process in the world which is exercised on objects of such value. He seizes each lump as it is handed to him, and plunges a knife into its substance; then, according to the odour evolved, to the appearance of its fracture, to the presence or absence of cretaceous, gummy, or amylaceous impurities, he tosses the lump, after one instant's examination, into one or other of three heaps, the *first*, *second*, and *third* qualities. The same process is repeated upon the rest of the lumps, and from beginning to end the knife is never wiped; and thus the test of smell, the most valuable criterion furnished in the whole process, is rendered wholly nugatory. It is obvious that the decisions passed after such an examination as this must often be quite other than the value, *i.e.* the per-centage of morphia in each piece would warrant."

Figs are exported in larger quantity for America than for England, but those intended for the English market are of a finer quality. A considerable quantity of the figs intended for America are shipped on board the Liverpool line of steamers for England, and are subsequently transhipped at that port. The certainty and expedition of this route to America has begun to cause a diminution in the number of clippers employed in the fruit trade between America and Asia Minor.

Carpets.—"England takes more than 2-3rds of the carpets manufactured in Anatolia. These carpets are made in the interior, and by the aid of very simple machinery, manual labour entering largely into the means employed. Women and children work the carpets; the dyeing is done by men. Orders are given by an agent, and it is generally necessary for him, on account of the poverty of the workers, to advance a considerable sum of money to enable them to purchase materials. As much as 2-3rds of the entire value of the carpets is thus advanced sometimes previously to their completion. In some of the villages where this branch of industry is carried on the work-people can make carpets of one pattern only, but there are other villages in which numerous patterns are worked. As regards the dyeing of the carpet, the red colour in the Turkey carpet is generally, and ought to be always, produced by madder. Logwood is, also, employed, and cochineal; but where the latter is made use of the colour of the carpet is apt to fade. Blue comes from indigo, and yellow from the yellow Persian berries. By referring to the table of exports it will be seen that carpets, silk, paper, and spun cotton, are the only manufactures which it contains; and though the silk manufacture cannot be said to be in a declining condition, the carpet manufacture is the only one that has made some advances within the last few years. At present the carpet manufacture of Anatolia is competing successfully with that of Persia."

Silk.—Much of the silk exported from Smyrna is brought from Brusa and other places in the interior; but within the last few years a good deal has been prepared in Smyrna in a very extensive establishment belonging to a French company.

Drugs and Gums form a principal branch of commerce, and is almost entirely in the hands of the Jews. At present, gum Arabic and mastic are exceedingly scarce; and it is only when that is the case, or the demand for exportation is very brisk, that much variation exists in the price of drugs. Trieste, and occasionally America, consume a considerable portion of gums, but the largest quantity goes to the English markets. Barters are often effected through this medium. It is impossible to ascertain the quantities of drugs received in Smyrna, and equally so to know the quantity remaining, as they are dispersed all over the city, and consumed so irregularly in Europe, as bids defiance to all regular calculation.

Sponges are an article of considerable moment, particularly for the English markets, and are found among the islands in the Grecian Archipelago, brought here, and cleaned for exportation. They vary in price from 6 to 90 piastres per oke, according to fineness and quality: the better sort alone answers for speculation, and which, it would appear, from the considerable quantity sent to London, turns to good account. The produce depends so entirely on chance, that no correct estimate of the yearly quantity can be formed; however, we are seldom in want of a moderate supply.

Galls are shipped in considerable quantities for the English, German, and French markets; the two former, however, being the largest consumers: for England, the blue galls are those principally sent; though the market there for their sale being dull and low, prices with us, moderate as they are compared to last year, will still further decline, should a demand not spring up, of which there is no appearance. Annual produce of all sorts, 5,500 kintals.

Valonia employs more British shipping for full cargoes of only one article, than any other species of produce, if we except, perhaps, fruit. The annual produce is sufficient to meet the wants of all Europe. It can be had to any extent, and at all periods.

Fruit.—This is an article which occupies the attention of all Smyrna, more or less, and produces, during the season, great interest and activity. Figs come to market early in September, and raisins are ready for shipping early in October; the former are procurable only at Smyrna, where the latter in all their qualities may be procured; but the shipments are generally made at Cesné, Vouria, Carabourna, Usbeck, &c., from which ports the name of the raisin takes its origin. Large sums are frequently gained in fruit speculations; and when the demand in England is brisk, and the prices and quality fair with us, it very seldom happens, indeed, that any loss is sustained: it is, however, attended with risk; must be shipped dry; and ought only to go in a very fast, sound vessel, as much depends upon a first, or at least an early arrival, which obtains in general a higher price than the later arrivals. The quantity produced is always uncertain.

Accounts are kept in piastres composed of 40 paras and 80ths.

Exchange.

London, 119 to 119½ piastres per £ sterling.

Turkey weights generally render as follows in England :—

A quintal - - = 117 to 124 lbs.
An oke - - - = 2½ — 2·79
A chequee of goats' wool = 5 — 5¼
18 quintals of oil - = 1 ton.
A chequee of opium - = 1¼ to 1⅜

A teffie - - - = 4 lbs.
6½ metsals - - = ½ oz. troy
9 drams - - = 1 oz.
A pike - - = 27 inches.

English weights at Smyrna render generally, viz.:—

126 lbs. = 1 quintal of 45 okes.
112 = 40 okes.
$2\frac{79}{100}$ = 1 oke.

Pro Formâ Invoice of 10 Chests Opium bought and shipped at Smyrna.

		Piastres.
10 chests opium, weighing 664 okes $\frac{63}{100}$, or chequees 1063 $\frac{40}{100}$, at $44 - -		46,739 24
Charges.	*Piastres.*	
Porterage, packing, weighing, at $68 - - - -	680 00	
Export duty, at 563/120 and 5 0/0 fees - - - -	5,376 14	
Inspection, ½ per cent. - - - -	235 38	
Brokerage, 1½ per cent. - - - -	701 34	
		4,992 6
		$51,731 30
Commission and rent, 3½ 0/0 - - -		1,294 20
		$53,076 10
Bill brokerage, ½ 0/0 - - - -		132 50
		$53,209 0

Ex. 100½ £529 8*s.* 10*d.*; at $1\frac{60}{100}$ lbs. per chequee, 1,700 lbs.; costing, 6/2½ per lb. on board.

Account of the Quantities and Values of the Articles exported from Smyrna in 1854, specifying the Quantities and Values of those sent to the U. K.

Articles.	Total Quantities.	Quantities for England.	Total Value.	Value for England.
			Piastres.	*Piastres.*
Madder roots - - - quintals	72,628	71,225	13,497,970	13,133,270
Almonds - - - - ,,	250	- -	114,980	
Corn - - - - kilos	94,501	23,290	4,563,850	861,800
Bronze - - - - quintals	77	- -	36,360	
Rags - - - - ,,	36,230	2,110	3,157,580	145,700
Yellow wax - - - - ,,	2,175	- -	1,998,820	
Cocoons - - - - ,,	517	- -	1,118,600	
Cottons: raw - - - - ,,	870	- -	219,340	
spun, Anatolia - - - ,,	626	- -	268,650	
Chromate of iron - - - ,,	- -	11,808	- -	416,400
Old copper - - - - ,,	1,248	- -	685,908	
Emery - - - - ,,	44,950	38,360	2,257,250	1,926,250
Sponges - - - bags and cases	2,817	1,715	4,313,400	3,436,000
Otto of roses - - - - ,,	32,500	18,300	552,600	290,000
Figs - - - - quintals	53,060	18,070	13,225,100	5,421,000
Olive oil - - - - ,,	1,718	- -	452,600	
Dried fruits - - - - ,,	2,223	940	446,560	235,000
Galls - - - - ,,	10,131	1,571	4,168,970	643,810
Sorted gums - - - - ,,	2,863	998	3,139,700	1,093,500
Dried vegetables - - - kilos	21,944	- -	627,520	
Maize - - - - ,,	22,471	- -	573,010	
Nuts - - - - ,,	6,395	5,311	774,540	677,510
Opium - - - - cases	1,538	267	13,271,510	2,882,265
Barley - - - - kilos	162,050	59,150	5,066,250	162,050
Bones - - - - ,,	13,020	12,640	186,270	177,100
Paper from Smyrna - - - bales	806	- -	843,700	
Dry ox hides - - - quintals	5,738	- -	956,980	
Lambs' and goats' hides - - bales	887	830	1,015,500	949,500
Dry raisins red - - - ,,	98,670	41,060	9,464,250	3,895,000
Dry raisins black - - - ,,	98,056	3,900	4,906,000	445,000
Dry raisins sultanas - - - ,,	15,014	3,600	3,573,000	990,000
Hare skins - - - - ,,	385	- -	1,046,100	
Radix saponaria - - - quintals	137	- -	45,910	
Salep - - - - ,,	137	- -	91,500	
Leeches - - - - okes	1,502	5	1,384,150	4,750
Scammony - - - - ,,	3,270	2,495	997,050	776,500
Silk - - - - quintals	483	- -	2,806,700	
Storax - - - - ,,	139	- -	76,450	
Carpets, Anatolia - - - ,,	1,048	596	3,844,600	2,300,000
Valonia - - - - ,,	213,999	218,674	17,512,270	15,350,850
Boxwood - - - - ,,	26,826	12,785	858,110	456,250
Total - - -	- -	- -	127,133,368	61,650,365

But in 1855 the trade was so much increased, that the goods imported into Smyrna were of the value of 257,004,700 piastres In the same year the goods exported were of the value of 284,957,026 piastres. The agg. value of exports and imports were 541,058,726 piastres. We subjoin

An Account showing the Countries with which Smyrna traded in 1858, with the Exports to, and the Imports from, each.

Countries.	Exports.	Imports.	Countries.	Exports.	Imports.
America - - - piastres	19,123,110	18,540,820	Sardinia - - - piastres	1,940,640	3,828,480
Austria - - - —	50,739,270	38,033,700	Tuscany - - - —	1,884,690	2,353,600
Belgium - - - —	455,700	2,998,230	East Indies - - —	10,837,500	
France - - - —	33,184,580	41,733,080	Ionian Islands - - —	1,350,650	304,800
Great Britain - - —	123,966,220	110,471,120	Hanse Towns - - —	630,100	
Greece - - - —	1,802,960	5,708,020	Kingdom of the Two Sicilies —	478,240	57,500
Holland - - - —	2,120,410	4,000,250	Gibraltar - - - —	175,500	
Malta - - - —	948,880	1,997,100	Papal States - - —	72,500	421,000
Turkish ports - - —	21,708,480	67,735,590			
Russia - - - —	4,190,860		Total - -	275,588,270	296,213,270

In 1857, the value of the imports amounted to 305,936,710 piastres, and that of the exports to 299,667,790 piastres. The diminution is to be ascribed to the influence of the crisis of 1857.

The *English* imports were coals, linen, iron, machinery, inc. steam-engines, indigo, cotton stuffs, hardware, and a great variety of other goods.

French. — Coffee, fezes, hats, nails, woollens, watches, precious stones, wrought hides, warm stuffs, paper, salted fish, hardware, silks.

Austrian.—Woodware, coffee, hemp, woollens, warm stuffs from Switzerland, paper, hardware.

United States.—Woven goods, coffee, flour, salted fish, hardware, rum, brandy, sugar, tobacco.

The goods exported from Smyrna were figs, raisins, madder, valonia, galls, gums, opium, hides, leeches, silk, and carpets.

Shipping in 1856.—The total number of vessels which entered the port of Smyrna, by steam and sail, were 1,772, having 442,253 tons. The total number of those which left it was 1,759, with 436,975 tons, as follows:—

Arrivals.					Departures.				
	Vessels.	*Tons.*	*Steamers.*	*Tons.*		*Vessels.*	*Tons.*	*Steamers.*	*Tons.*
British - -	166	35,324	140	71,215	British - -	163	35,039	159	73,750
American - -	31	11,836			American - -	23	11,857		
Austrian - -	70	17,807	224	93,136	Austrian - -	74	17,836	223	92,876
Belgian - -	2	293			Belgian - -	4	587		
Danish - -	1	165			Danish - -	41	6,708	160	106,058
French - -	40	8,172	160	106,053	French - -	6	163		
Greek - -	292	30,512			Greek - -	289	29,970		
Hanoverian -	5	914			Hanoverian -	4	596		
Ionian - -	28	2,236			Ionian - -	29	2,503		
Oldenburgian -	-	-	1	295	Oldenburgian -	-	-		
Ottoman - -	541	44,190	22	8,113	Ottoman - -	524	42,666	1	295
Sardinian - -	6	1,267			Sardinian - -	5	997	22	8,117
Sicilian - -	4	976			Sicilian - -	4	976		
Swedo-Norwegian -	12	2,572			Swedo-Norwegian -	11	2,451		
Dutch - -	24	4,171			Dutch - -	23	3,940		

Lines of Steamers of the three nations—Austria, France, and England—call regularly at Smyrna, and it is seldom that a less number than 2 or 3 steamers is to be seen in the harbour at any one time. Every merchant steamer carrying either the Austrian or the French flag which came into Smyrna during our sojourn there of more than a year, was, with the exception of an occasional French transport, either in the Austrian Lloyd, or the Messageries Impériales Company. Both these companies are richly endowed by their respective governments, and the latter of the two has for some time carried the English mails, but, as a rule, their boats are ill-appointed and unpunctual, and they are small, brig-rigged, and propelled by paddles in the immense majority of cases. Each of these companies sends two boats to Smyrna every week—one from Constantinople, and one from the west; and fortnightly each company has a line running to Alexandria, the boats of which call here also. Though these steam companies aim especially at securing passenger traffic, they nevertheless afford considerable facilities for shipping cargo, and goods of all kinds are weekly exported and imported by their agency.

There are several lines of steam-ships between Smyrna and Liverpool, but no mail is carried by any of the English ships. These ships are all, without exception, propelled by the screw; the majority are barque and a few ship-rigged. Their average tonnage is much larger than that of the other two lines, and they direct their attention to the securing of good freights rather than passengers, who, though well provided for in other respects, might be inconvenienced in these boats by the long stay which their waiting for cargo sometimes entails upon them in Smyrna and Alexandria. The Liverpool ships generally go to Constantinople first, and having discharged cargo there, they return to Smyrna. If they succeed in getting a full cargo there they return direct to England; but if not, they go round by Alexandria. Besides the English lines belonging to English houses, there is, also, as already mentioned, a line of English steam-ships in the employ of a company of Greek and Armenian merchants. Though there is no regular line of steam communication between Smyrna and London, yet this means of intercourse between the two places does exist, and about once every month a steamer sails direct for London.

This profuse supply of steam ships has begun to affect the interests of sailing vessels engaged in the Smyrna trade. A good average passage for a sailing vessel, when favoured by the wind, from England to Smyrna, may be estimated at 30 days; it is not unfrequently done in less time; and we have heard of an instance in which a ship arrived in Smyrna in 21 days after leaving Cardiff. But these are all voyages performed under favourable conditions, and these favourable conditions are very frequently wanting. The Liverpool steamers will, under the most unfavourable circumstances, reach Liverpool within 17 days from the date of their leaving Smyrna. It is obvious that sailing vessels must compete with great disadvantge with these steamers, in all cases where certainty and expedition are required; and in the fruit trade it is said that steam will at no distant period enjoy almost a monopoly in freights. The merchant in America finds it answer his purpose better in many cases to have his cargo of figs shipped in a steamer at Smyrna for Liverpool, and subsequently transhipped at the latter port, than to have them brought direct without any transhipment in a sailing ship from Smyrna to America. The same causes will operate still more powerfully upon the European fruit ships. In fact, the peculiarities of the Mediterranean navigation seem to require steam more than most other seas. The Mediterranean possesses no trade winds, and is, on the contrary, especially liable to sudden changes and dead calms. Schooners and brigs were the favourite class of vessels employed in the Smyrna fruit trade, but within the last few years a somewhat higher style of vessel has been introduced for this purpose.

In his *Lettres sur la Turquie* (i. 425.), the well informed M. Ubicini estimates the value of the imports into Smyrna in 1851 at 28,473,000 fr., and that of the exports at 36,682,000 fr. The coasting trade, as that between Smyrna, Constantinople, Syra, Alexandria, and the Levant generally, is usually denominated, is almost entirely in the hands of the Greeks, and is very extensive. Excluding Greeks, the port is annually visited by from 550 to 600 foreign ships. Ubicini reckons the value of the imports of English and Swiss cottons at above 14,000,000 fr.: the other leading articles of import are English and German woollens, French silks, and colonial products.

SNUFF (Ger. *Schnupftaback*; Fr. *Tabac en poudre*; It. *Tabacco da naso*; Sp. *Tabáco de polvo*; Rus. *Nosowoi tabak*), a powder in very general use as an errhine. Tobacco is the usual basis of snuff; but small quantities of other articles are frequently added to it, to vary its pungency, flavour, scent, &c. Though substantially the same, the kinds and names of snuff are infinite, and are perpetually changing. There are, however, 3 principal sorts: the first, granulated; the second, an impalpable powder; and the third, the bran or coarse part remaining after sifting the second sort. Unless taken in excess, no bad consequences result from its use.

Dealers in tobacco and snuff are obliged to take out a licence, renewable annually, which costs 5*s.* 3*d.* They are also obliged to enter their premises, and have their names written in large legible characters over their door, or on some conspicuous part of their house, under a penalty of 50*l.* The dyeing of snuff with ochre, amber, or any other colouring matter except water tinged with colour, is prohibited under a penalty of 100*l.*; and its intermixture with fustic, yellow, ebony, touchwood, sand, dirt, leaves, &c. is prohibited under a penalty of 100*l.* and the forfeiture of the article.—(1 & 2 *Geo.* 4. c. 109.) If snuff be found to contain 4 per cent. of any substance, not being tobacco, and other than water only, or water tinged with colour, or flavoured only, such snuff shall be deemed adulterated, and shall be forfeited, and the parties subjected to a penalty of 100*l.* over and above all other penalties and forfeitures — (*Ib.*) No quantity of snuff weighing above 2 lbs. shall be removed by land or water without a permit.—(29 *Geo.* 3. c. 68.) (See Tobacco.)

SNUFF-BOXES are made of every variety of pattern, and of an endless variety of materials. We only mention them here for the purpose of giving the following details, not elsewhere to be met with, with respect to the manufacture of Laurencekirk or Ayrshire boxes. These are made of wood, admirably jointed, painted, and varnished.

These beautiful boxes were first manufactured at the village of Laurencekirk, in Kincardineshire, about 60 years since. The original inventor was a cripple hardly possessed of the power of locomotion. Instead of curtains, his bed (rather a curious workshop) was surrounded with benches and receptacles for tools, in the contrivance and use of which he discovered the utmost ingenuity. Instead of taking out a patent, the inventor confided his secret to a joiner in the same village, who in a few years amassed considerable property; while the other died, as he had lived, in the greatest poverty. The great difficulty of the manufacture lies in the formation of the hinge, which, in a genuine box, is so delicately made as hardly to be visible. Peculiar, or, as they are called, secret tools, are required in its formation; and though greatly improved by time and experience, the mystery attached to their preparation is still so studiously kept up, that the workmen employed in one shop are debarred having any communication with those employed in another.

About the beginning of this century, an ingenious individual belonging to the village of Cumnock, in Ayrshire, of the name of Crawford, having seen one of the Laurencekirk snuff-boxes, succeeded, after various attempts, by the assistance of a watchmaker of the same village, who made the tools, in producing a similar box; and by his success greatly enriched his native parish and province. Unfortunately, however, he did not improve his own fortune by his ingenuity; and died early in 1844 in very poor circumstances. For a while, the Laurencekirk boxes were most in demand; but Crawford and his neighbours in Cumnock not only copied the art, but so improved and perfected it, that in a few years for every box made in the north there were, probably, 20 made in the south. In 1826, the Cumnock trade was divided among 8 master manufacturers, who employed considerably more than 100 persons. But we are sorry to say that it has greatly declined in the interval; and that at present it does not employ more than 5 per cent. of that number. Mauchline is now the principal seat of the manufacture, and there about 213 hands are at present (1853) engaged in it and in the manufacture of work-boxes, tea-boxes, and other fancy wood work, principally the latter. About 1664 doz. snuff-boxes are annually produced, of which about 75 per cent. are exported. The popularity of the boxes has of late years declined in Britain (they never had any sale in Ireland); but, on the other hand, the taste for them has gained ground in several parts of the continent and in America, and the demand for them is brisk and gradually increasing. The manufacture is also carried on, though to a very limited extent, at Auchinleck, and one or two other places. Plane is the wood in common use, and the cost of the wood in an ordinary sized box does not exceed 1*d.*; the paints and varnish are rated at 2*d.*; and though something is lost by selecting timber of the finest colour, the whole expense of the raw material falls considerably short of ½ per cent. on the return it yields, which consists almost wholly of the wages of labour.

The snuff-box manufacture, like most other departments of industry, has been greatly facilitated by the division of labour; and in all workshops of any size 3 classes of persons are employed, — box-makers, painters, and checkers or polishers; the wages of which may at present amount, the 1st class from 16*s.* to 20*s.* per week; the 2d from 18*s.* to 27*s.*, and the 3d from 10*s.* to 14*s.* per do. When Crawford first commenced business, he obtained almost any price he chose to ask; and many instances occurred, in which ordinary snuff-boxes sold at 2*l.* 12*s.* 6*d.*, and ladies' work-boxes at 25*l.* But as the trade increased, it became necessary to employ apprentices, who first became journeymen, and then masters; and such have been the effects of improvement and competition, that articles such as those specified above may be obtained at the respective prices of *two* and *twenty-five shillings*; while common boxes, which, in 1837, sold for 18*s.* a dozen, might, in 1850, be bought for 7*s.*! By means of the *Pentagraph*, which is much employed, the largest engravings are reduced to the size most convenient to the workman, without injury to the prints; so that a snuff-box manufacturer, like a Dunfermline weaver, can work to order by exhibiting on wood his employer's coat of arms, or any object he may fancy within the range of the pictorial art. Some of the painters display considerable talent, and, when they put forth their strength, produce boxlids worth being preserved as pictures. At first, nearly the whole subjects chosen as ornaments were taken from Burns's poems; and there can be no doubt that the "Cotter's Saturday Night," "Tam O'Shanter," "Willie brewed a peck o'maut," &c. &c. have penetrated in this form into every quarter of the habitable globe. Now, however, the artists take a wider range; the studios of Wilkie, Landseer, &c. have been laid under contribution; landscapes are as often met with as figures; and there is scarcely a celebrated scene in the county that is not pictured forth more or less perfectly on the lid of an Ayrshire snuff-box. Some very wretched imitations of Ayrshire boxes have been produced in different parts of England: but they can deceive no one who ever saw a genuine box. The hinge, as well as the finishing, is clumsy in the extreme.

*** The article on this curious manufacture in our former editi n was written by our esteemed friend, the late John M'Diarmid, Esq., editor of the *Dumfries Courier*; but the business has materially changed during the last 10 years. The statements in the present article have been derived from Mauchline and other seats of the manufacture.

SOAP (Ger. *Seife*; Fr. *Savon*; It. *Sapone*; Sp. *Jabon*; Rus. *Mülo*; Lat. *Sapo*). The soap met with in commerce is generally divided into 2 sorts, *hard* and *soft*: the former is made of soda and tallow or oil, and the latter of potash and similar oily matters. Soap made of tallow and soda has a whitish colour, and is, therefore, sometimes denominated *white* soap: but it is usual for soap makers, in order to lower the price of the article, to mix a considerable portion of rosin with the tallow; this mixture forms the common *yellow* soap of this country. Soap made of tallow, &c. and potash does not assume a solid form; its consistence is never greater than that of hog's lard. The properties of soft soap as a detergent do not differ materially from those of hard soap, but it is not nearly so convenient to use. The alkali employed by the ancient Gauls and Germans in the formation of soap was potash; hence we see why it was described by the Romans as an unguent. The oil employed for making soft soap in this country is whale oil. A little tallow is also added, which, by a peculiar management, is dispersed through the soap in fine white spots. The soap made in countries which produce olive oil, as the south of France, Italy, and Spain, is preferable to the soap of this country, which is usually manufactured from grease, tallow, &c. — (*Thomson's Chemistry.*)

The use of soap as a detergent is well known: it may, in fact, be considered as a necessary of life. Its consumption in most civilised countries is immense. Pliny informs us, that soap was first invented by the Gauls; that it was composed of tallow and ashes; and that the German soap was reckoned the best. — (Lib. xviii. c. 51.)

Down to 1833, a duty was charged on hard soap, which is by far the most extensively used, of 3*d.* per lb., or 28*s.* per cwt., while the price of soap duty paid rarely exceeded 6*d.* per lb., or 56*s.* per cwt., so that the duty was fully 100 per cent.! But besides this high duty, the substances of which soap is made, viz. tallow, barilla, and turpentine, or resin, were respectively charged with duties of 3*s.* 4*d.*, 2*s.*, and 4*s.* 4*d.* a cwt.; and taking these indirect taxes into account, it may be truly stated that soap was taxed from 120 to 130 per cent. *ad valorem!* The imposition of so exorbitant a duty on an article indispensable to the prosecution of many branches of manufacture, and to the comfort and cleanliness of all orders of persons, was in the last degree inexpedient. During the 5 years ending with 1832, the consumption of duty-paid soap was nearly stationary; though there can be little doubt, from the increase of manufactures and population during that period, that it would have been very considerably extended, but for the increase of smuggling. This practice was facilitated by the total exemption which Ireland enjoyed from this duty; for it not unfrequently happened that the soap made in this country, and sent to Ireland under a drawback, was again clandestinely introduced into Great Britain. It is, perhaps, needless to say that nothing but the effectual reduction of the duty could put a stop to the smuggling and fraud that had been so generally practised. So long as the profit to be made by breaking the law was so high as 120 or 130 per cent., so long was it sure to be broken, despite the multiplication of penalties and the utmost activity and vigilance of the officers. But the duty having been reduced 50 per cent. in 1833, the temptation to

smuggle was materially diminished. And the increased consumption which followed the reduction of duties hindered the revenue from declining more than ¼th part, or 25 per cent. Hence the advantages resulting from the diminished temptation to smuggling and fraud, and the influence of the reduced price of the article, in facilitating manufacturing industry, and in promoting habits of cleanliness, were obtained without any very considerable sacrifice.

In the last edition of this work we took leave to observe that "the entire repeal of the soap duty would be a popular measure; but, seeing that a large amount of revenue must be raised, and that those taxes only are productive which affect all classes of the community, we should not be disposed to recommend such a measure. It is not the tax itself, but the oppressive extent to which it was carried, that made it objectionable. Instead of proposing its repeal, we think it should be extended to Ireland. The exemption of one part of the empire from a duty of this sort imposed on another part, is contrary to all principle, and is fraught with pernicious results. It will be impossible to get rid of smuggling so long as this unjust distinction is suffered to exist. Were the duty extended to Ireland, the necessity for granting drawbacks on the soap exported to it, and of laying countervailing duties on that imported from it, would, of course, fall to the ground. And we feel pretty confident that, though a still farther deduction were made from the rate of duty, its productiveness would not, under such circumstances, be impaired even in England."

Government, however, not feeling disposed to support an unpopular, and, in some respects an objectionable tax, consented in the course of the present year (1853) to its repeal.

The following table is interesting, inasmuch as it shows the extent of the manufacture during the last year but one that it was subject to a duty, and as it will be an authentic standard with which to compare its future progress.

An Account of the Quantity of Soap made in different Towns of Great Britain, distinguishing between Silicated, Hard, and Soft Soap, during the Year ended 5th January, 1852.

Towns.	Silicated Soap.	Other Hard Soap.	Soft Soap.	Towns.	Silicated Soap.	Other Hard Soap.	Soft Soap.
England.	*Lbs.*	*Lbs.*	*Lbs.*	*England.*	*Lbs.*	*Lbs.*	*Lbs.*
Bath	-	409,050		Yarmouth	-	65,890	
Hempstead	-	151,627		Oxford	-	5,350	
Birmingham	-	363,110		Plymouth	-	3,851,820	3,080
Smethwick	-	2,373,720	54,696	Liskeard	-	-	1,560
Blackburn	-	322,550		Wallingford	-	12,278	
Burnley	-	311,780		Greenwich	-	8,712,130	
Haslingden	-	614,640		Sheffield	7	425,546	
St. Helen's	-	-	111,040	Bury	-	168,300	
Bristol	-	12,898,650	407,900	Ipswich	7,710	572,100	
Canterbury	-	531,040		Brentford	-	4,440,450	
Chester	6,480	651,620		Horsham	-	24,420	
Derby	-	297,520		Staines	-	11,420	
Dorchester	-	134,680		Wandsworth	-	3,484	
Gateshead	-	7,131,690		Brighton	-	311,490	CF
Braintree	6,000	6,040		Lewes	-	360,890	
Maldon	3,800	86,950		Taunton	-	20,020	
Clare	33,880	212,630		Bridgewater	-	12,190	
Gloucester	-	1,543,730		Cardiff	4,650	97,270	
Stamford	-	464,510		Llandilo	-	4,620	
Bradford	-	-	1,561,570	Bromsgrove	-	1,749,182	
Huddersfield	-	-	726,910	York	-	833,040	
Arundel	-	278,850					
Gosport	-	448,500			420,297	125,485,099	11,335,533
Portsmouth	-	406,710		London	899,736	44,034,102	539,599
Hull	-	2,322,042	155,360	Total, England	1,320,033	169,519,201	11,874,932
Bridlington	-	34,400					
Southampton	-	4,120		*Scotland.*			
Preston	-	225,970		Aberdeen	-	-	447,290
Leeds	-	935,880	774,910	Ayr	-	-	21,128
Wakefield	-	3,795,810		Greenock	-	111,045	310,003
Leicester	4,550	34,700		Paisley	-	698,270	661,830
Oakham	-	2,060		Leith	-	2,297,480	136,290
Dudley	-	809,200		Glasgow	7,150	10,642,219	5,560,908
Wednesbury	-	633,020		Preston Pans	-	874,210	
Lincoln	-	263,080		Linlithgow	-	338,650	12,670
Louth	-	405,790		Dunfermline	-	243,490	
Spilsby	-	26,070					
Liverpool	350,250	39,384,595	7,375,270	Total, Scotland	7,150	15,206,064	7,150,119
Birkenhead	-	290,824					
Holt	-	15,600				Totals Collected.	
Manchester	-	1,145,550	163,015				
Salford	-	779,010					
Newcastle	-	3,584,040					
South Shields	-	1,076,880					
Towcester	-	29,230		England	1,320,033	169,519,201	11,874,932
Runcorn	-	11,787,360		Scotland	7,150	15,206,064	7,150,119
Warrington	-	5,147,090					
Norwich	2,970	1,241,550			1,327,183	184,725,265	19,025,051
Lowestoft	-	129,260					

The total nett revenue derived from soap amounted in 1852 to 1,126,046*l.* In 1851, 13,487,270 lbs. soap were exported, the drawback on which amounted to 88,468*l.*

Drawbacks and allowances were also made during the same year of 104,420*l.* to the woollen, silk, flax, and cotton manufacturers on account of the soap used by them. And the trouble to the manufacturers arising from this system, with the opportunities which it afforded for the commission of fraud, constituted the principal objections to the duty.

The declared value of the soap and candles exported in 1852 amounted to 315,649*l.*

SODA. See Alkali.

SOUTH SEA DUTIES. The act of the 9 Ann. c. 21., establishing the South Sea Company, conveyed to them the exclusive privilege of trading to the Pacific Ocean, and along the east coast of America, from the Orinoco to Cape Horn.

This privilege was taken away by the 47 Geo. 3. c. 23.; and in order to raise a guarantee fund for the indemnification of the Company, a duty of 2 per cent. *ad valorem* was imposed by the 55 Geo. 3. c. 57. on all goods (with the exception of those from Brazil and Dutch Surinam*; and with the exception of blubber, oil, &c. of whales, or fish caught by the crews of British or Irish ships) imported from within the aforesaid limits. A duty of 1*s.* 6*d.* per ton was also imposed on all vessels (except in ballast or importing the produce of the fishery of British subjects) entering inwards or clearing outwards from or to places within the said limits. The duties are to cease when the guarantee fund is completed.

SOY, a species of sauce prepared in China and Japan from a small bean, the produce of the *Dolichos soja*. It is eaten with fish and other articles. It should be chosen of a good flavour, not too salt nor too sweet, of a good thick consistence, a brown colour, and clear; when shaken in a glass, it should leave a coat on the surface, of a bright yellowish brown colour; if it do not, it is of an inferior kind, and should be rejected. Japan soy is deemed superior to the Chinese, It is worth, in bond, from 6*s.* to 7*s.* a gallon. It is believed to be extensively counterfeited. — (*Milburn's Orient. Com.*)

SPELTER, a name frequently given to Zinc; which see.

SPERMACETI (Ger. *Wallrath*; Fr. *Blanc de Baleine, Sperme de Baleine*; It. *Spermaceti*; Sp. *Esperma de Ballena*; Rus. *Spermazet*), a product obtained from the brain of the *physeter macrocephalus*, a species of whale inhabiting the Southern Ocean. The brain being dug out from the cavity of the head, the oil is separated from it by dripping. The residue is crude spermaceti, of which an ordinary sized whale will yield 12 barrels. After being brought to England, it is purified. It then concretes into a white, crystallised, brittle, semitransparent, unctuous substance, nearly inodorous and insipid. On being cut into small pieces it assumes a flaky aspect. It is very heavy; its specific gravity being 0·433. It is used in the manufacture of candles, in medicine, &c.

SPICES (Ger. *Spezereyen*; Du. *Speceryen*; Fr. *Epiceries, Epices*; It. *Spezj, Spezierie*; Sp. *Especias, Especerias*; Port. *Especiaria*; Rus. *Pränüe korenja*). Under this denomination are included all those vegetable productions which are fragrant to the smell and pungent to the palate; such as cloves, ginger, nutmegs, allspice, &c. These will be found under their proper heads.

SPIRIT OF WINE. See Alcohol.

SPIRITS. All inflammable liquors obtained by distillation, as brandy, rum, geneva, whisky, gin, &c., are comprised under this designation. The term *British spirits* is applied indiscriminately to the various sorts of spirits manufactured in Great Britain and Ireland. Of these, gin and whisky are by far the most important.

The manufacture of spirits are placed under the *surveillance* of the excise, and a very large revenue is obtained from it. The act 6 Geo. 4. c. 80. lays down the regulations to be followed by the distillers in the manufacture, and by the officers in charging the duties. This act is of great length, having no fewer than 151 clauses; it is, besides, exceedingly complicated, and the penalties in it amount to many thousand pounds. It would, therefore, be to no purpose to attempt giving any abstract of it in this place. Every one carrying on the business of distillation must have the act in his possession, and be practically acquainted with its operation.

1. *Spirit Duties. Consumption of British Spirits in Great Britain and Ireland.*—There are, perhaps, no better subjects for taxation than spirituous and fermented liquors. They are essentially luxuries; and while moderate duties on them are, in consequence of their being very generally used, exceedingly productive, the increase of price which they occasion has a tendency to lessen their consumption by the poor, to whom, when taken in excess, they are exceedingly pernicious. Few governments, however, have been satisfied with imposing moderate duties on spirits; but, partly in the view of increasing the revenue, and partly in the view of placing them beyond the reach of the lower classes, have almost invariably loaded them with such oppressively high duties as have entirely defeated both objects. The imposition of such duties does not take away the appetite for spirits; and as no vigilance of the officers or severity of the laws has been found sufficient to secure a monopoly of the market to the legal distillers, the real effect of the high duties has been to throw the supply of a large proportion of the demand into the hands of the illicit distiller, and to superadd the atrocities of the smuggler to the idleness and dissipation of the drunkard.

During the latter part of the reign of George I., and the earlier part of that of George II., gin-drinking was exceedingly prevalent; and the cheapness of ardent spirits, and the multiplication of public houses, were denounced from the pulpit, and in

* The provinces of the Rio de la Plata have since been added. — (*Treas. Order*, 12th of March, 1828.)

the presentments of grand juries, as pregnant with the most destructive consequences to the health and morals of the community. At length, ministers determined to make a vigorous effort to put a stop to the further use of spirituous liquors, except as a cordial or medicine. For this purpose, an act was passed in 1736, the history and effects of which deserve to be studied by all who are clamorous for an increase of the duties on spirits. Its preamble is to this effect; — "Whereas the drinking of spirituous liquors, or strong water, is become very common, especially among people of lower and inferior rank, the constant and excessive use of which tends greatly to the destruction of their health, rendering them unfit for useful labour and business, debauching their morals, and inciting them to perpetrate all vices; and the ill consequences of the excessive use of such liquors are not confined to the present generation, but extend to future ages, and tend to the destruction and ruin of this kingdom." The enactments were such as might be expected to follow a preamble of this sort. They were not intended to repress the vice of gin-drinking, but to root it out altogether. To accomplish this, a duty of *twenty shillings* a gallon was laid on spirits, exclusive of a heavy licence duty on retailers. Extraordinary encouragements were at the same time held out to informers, and a fine of 100*l.* was ordered to be rigorously exacted from those who, were it even through inadvertency, should vend the smallest quantity of spirits which had not paid the full duty. Here was an act which might, one should think, have satisfied the bitterest enemy of gin. But instead of the anticipated effects, it produced those directly opposite. The respectable dealers withdrew from a trade proscribed by the legislature; so that the spirit business fell almost entirely into the hands of the lowest and most profligate characters, who, as they had nothing to lose, were not deterred by penalties from breaking through all its provisions. The populace having in this, as in all similar cases, espoused the cause of the smugglers and unlicensed dealers, the officers of the revenue were openly assaulted in the streets of London and other great towns; informers were hunted down like wild beasts; and drunkenness, disorders, and crimes increased with a frightful rapidity. "Within 2 years of the passing of the act," says Tindal, "it had become *odious and contemptible*, and policy as well as humanity forced the commissioners of excise to mitigate its penalties." — (*Continuation of Rapin*, vol. viii. p. 358. ed. 1759.) The same historian mentions (vol. viii. p. 390.), that during the 2 years in question, no fewer than 12,000 persons were convicted of offences connected with the sale of spirits. But no exertion on the part of the revenue officers and magistrates could stem the torrent of smuggling. According to a statement made by the Earl of Cholmondeley, in the House of Lords — (*Timberland's Debates in the House of Lords*, vol. viii. p. 388.), it appears, that at the very moment when the sale of spirits was declared to be illegal, and every possible exertion made to suppress it, upwards of SEVEN MILLIONS of gallons were annually consumed in London, and other parts immediately adjacent! Under such circumstances, government had but one course to follow — to give up the unequal struggle. In 1742, the high prohibitory duties were accordingly repealed, and such moderate duties imposed, as were calculated to increase the revenue, by increasing the consumption of legally distilled spirits. The bill for this purpose was vehemently opposed in the House of Lords by most of the bishops, and many other peers, who exhausted all their rhetoric in depicting the mischievous consequences that would result from a toleration of the practice of gin-drinking. To these declamations it was unanswerably replied, that whatever the evils of the practice might be, it was impossible to repress them by prohibitory enactments; and that the attempts to do so had been productive of far more mischief than had ever resulted, or could be expected to result, from the greatest abuse of spirits. The consequences of the change were highly beneficial. An instant stop was put to smuggling; and if the vice of drunkenness was not materially diminished, it has never been stated that it was increased.

But it is unnecessary to go back to the reign of George II. for proofs of the impotency of high duties to take away the taste for such an article, or to lessen its consumption. The occurrences that took place in later reigns, though they would seem to be already forgotten, are equally decisive as to this question.

Duties in Ireland. — Perhaps no country has suffered more from the excessive height to which duties on spirits have been carried than in Ireland. If heavy taxes, enforced by severe fiscal regulations, could make a people sober and industrious, the Irish would be the most so of any on the face of the earth. In order to make the possessors of property join heartily in suppressing illicit distillation, the novel expedient was here resorted to, of imposing a heavy fine on every parish, town land, manor land, or lordship in which an unlicensed still was found; while the unfortunate wretches found working it were subjected to *transportation for seven years*. But instead of putting down illicit distillation, these unheard-of severities rendered it universal, and filled the

country with bloodshed, and even rebellion. It is stated by the Rev. Mr. Chichester, in his valuable pamphlet on the *Irish Distillery Laws*, published in 1818, that "the Irish system seemed to have been formed in order to perpetuate smuggling and anarchy. It has culled the evils of both savage and civilised life, and rejected all the advantages which they contain. The calamities of civilised warfare are, in general, inferior to those produced by the Irish distillery laws; and I doubt whether any nation of modern Europe, which is not in a state of actual revolution, can furnish instances of legal cruelty commensurate to those which I have represented."—(Pp. 92—107.)

These statements are borne out to the fullest extent by the official details in the *Reports of the Revenue Commissioners*. In 1811, say the commissioners (*Fifth Report*, p. 19.), when the duty on spirits was 2*s.* 6*d.* a gallon, duty was paid in Ireland on 6,500,361 gallons (Irish measure); whereas, in 1822, when the duty was 5*s.* 6*d.*, only 2,910,483 gallons were brought to the charge. The commissioners estimate that the annual consumption of spirits in Ireland was at this very period not less than TEN MILLIONS of gallons; and, as scarcely *three* millions paid duty, it followed that *seven* millions were illegally supplied; and "taking *one* million of gallons as the quantity fraudulently furnished for consumption by the licensed distillers, the produce of the unlicensed stills may be estimated at *six millions of gallons*."—(*Ib.* p. 8.) Now, it is material to keep in mind that this vast amount of smuggling was carried on in the teeth of the above barbarous statutes, and in despite of the utmost exertions of the police and military to prevent it; the only result being the exasperation of the populace, and the perpetration of revolting atrocities both by them and the military. "In Ireland," say the commissioners, "it will appear, from the evidence annexed to this Report, that parts of the country have been absolutely disorganised, and placed in opposition not only to the civil authority, but to the military force of the government. The profits to be obtained from the evasion of the law have been such as to encourage numerous individuals to persevere in these desperate pursuits, notwithstanding the risk of property and life with which they have been attended."

To put an end to such evils, the commissioners recommended that the duty on spirits should be reduced from 5*s.* 6*d.* to 2*s.* the wine gallon (2*s.* 4*d.* the Imperial gallon), and government wisely consented to act upon this recommendation. In 1823, the duties were accordingly reduced; and the annexed official account will show what has been the result of this measure: (see p. 1225.)

It may appear, on a superficial view of this Table, as if the consumption of spirits in Ireland had been nearly trebled in consequence of the reduction of the duty in 1823; but, in point of fact, it was not in any degree increased. The reduction of the duties substituted legal for illicit distillation, and freed the country from the perjuries and other atrocities that grew out of the previous system; but it would be wholly erroneous to say that it increased drunkenness. We have already seen that the commissioners, who had the best means of obtaining accurate information, estimated the consumption of spirits in Ireland, in 1823, at TEN millions of gallons; and when greatest, in 1838, 15 years after, the consumption was only 12,296,342 gallons. No doubt, therefore, the measure deserves to be considered as having been in every point of view most successful. It will be seen that the increase of duty from 2*s.* 10*d.* to 3*s.* 4*d.* in 1830, perceptibly diminished the quantity of spirits brought to the charge; and as it was found to give a considerable stimulus to illicit distillation, which had previously been nearly extinct, the duty was reduced to 2*s.* 4*d.* in 1835. The extraordinary decrease in the consumption of spirits after 1839, though in some degree, perhaps, ascribable to the addition of 4*d.* a gallon made to the duty in 1840, was no doubt principally owing to the exertions of Father Matthew, and the spread of temperance societies; and notwithstanding the loss of revenue it occasioned, the change was certainly of great public advantage; and provided it had been maintained, it is not easy to suppose that anything should have occurred better fitted to improve the physical and moral condition of the people. The addition of 1*s.* a gallon made to the duty in 1842 was repealed in 1844; for while it gave a stimulus to clandestine distillation, it was pretty obvious it would not have added anything to the revenue, or given any additional impetus to the temperance movement. It remains to be seen what will be the effect of the late additions to the duty.

Duties in Scotland.—The experience of Scotland is hardly less decisive as to this question. The exorbitancy of the duties produced nearly the same effects there as in Ireland. Mr. John Hay Forbes, sheriff-depute of Perthshire, and afterwards a Lord of Session, stated in evidence before the commissioners, that, according to the best information he could obtain, the quantity of illegally distilled spirits annually produced in the Highlands could not amount to less than TWO *millions of gallons*. In corroboration of this, he stated that, in 1821, only 298,138 gallons were brought to the charge in the Highlands; and of these, 254,000 gallons were permitted to the

An Account of the Quantities of Home made Spirits charged with Consumption Duties, and specifying the Rates of Duty in each Division of the Empire since 1800, with the total Amount of the Duty.

Years.	England.		Scotland.			Ireland.		U. Kingdom.	
	Imperial Galls. charged with Consumption Duty.	Rate of Duty.	Imperial Galls. charged with Consumption Duty.	Rate of Duty.		Imperial Galls. charged with Consumption Duty.	Rate of Duty.	Total Gallons.	Total Amount of Duty.
				Lowlands, per gallon of still content.	Highlands, per gallon of still content.				
		s. d. s. d.		£ s. d.	£ s. d.		s. d.		£ s. d.
1800	4,352,888	4-10 18/19 5-4 6/19	1,277,596	64 16 4	7 16 0 4/4	1,350,500	2-4 1/2	6,960,984	1,370,054 16 10
1801	2,556,920	5-4 6/19	295,951	,,	,,	355,106	,,	3,206,957	723,992 4 9
				per gall. of spirits.	per gall. of spirits				
1802	3,981,072	,,	1,158,558	3-10 50/165	3-4 12/23	4,715,098	2-10 1/2	9,854,728	1,956,313 17 3
1803	5,370,377	5-4 6/19 8-0 1/19	2,022,409	,,	,,	4,343,095	2-10 1/2 3-6 3/4	11,735,881	2,508,286 0 5
1804	3,690,745	8-0 1/10	1,389,757	5-9 37/55	5-0 6/23	3,543,599	3-6 3/4 4-1	9,124,101	2,678,413 10 11
1805	4,032,615	,,	1,625,987	,,	,,	3,656,253	4-1	10,244,865	3,122,820 6 4
1806	4,094,985	,,	1,812,237	,,	,,	3,858,107	,,	9,765,329	2,877,052 0 0
1807	4,747,365	,,	2,655,478	5-8 157/165	5-0 6/23 4-11 18/23	5,597,204	,,	12,998,047	3,863,053 10 2
1808	5,390,884	,,	2,685,542	,,	4-11 18/23	3,575,430	,,	11,649,656	3,825,442 7 7
1809	4,035,825	,,	1,315,135	,,	,,	1,360,386	,,	6,711,346	1,875,147 1 8
1810	4,787,555	,,	1,748,140	,,	,,	4,728,522	4-1 2-6 1/2	11,264,217	2,515,404 14 4
1811	4,776,330	8-0 1/19 10-2 7/19	1,951,092	5-8 157/165 8-0 10/43	4-11 18/23 6-7 1/2	13,105,901	2-6 1/2	13,105,901	2,969,136 6 5
1812	5,242,470	10-2 7/19	1,687,905	8-0 1/43	6-7 1/2	4,009,301	2-6 1/2 5-1 1/2	10,959,676	4,176,977 13 2
1813	4,292,477	,,	1,254,291	,,	,,	3,158,693	5-1 1/2 5-7 1/2	8,685,461	3,022,546 9 2
1814	4,956,965	,,	1,474,187	,,	,,	5,395,713	5-7 1/2	11,824,865	4,527,011 2 2
				Lowlands and Highlands.					
1815	5,468,987	,,	1,591,148	9-4 1/2		4,323,844	5-7 1/2 6-1 1/2	11,385,979	4,897,006 11 3
1816	4,745,484	,,	918,859	,,		3,557,200	6-1 1/2 5-7 1/2	9,221,543	3,911,981 10 5
1817	4,133,065	,,	1,906,950	6-2		3,586,932	5-7 1/2	9,626,945	3,757,766 9 11
1818	5,259,662	,,	2,066,988	,,		4,284,547	,,	11,610,997	4,496,709 5 11
1819	4,146,505	10-2 7/19 11-8 10/19	2,125,150	,,		3,676,516	,,	9,948,171	5,915,705 10 3
1820	4,284,798	11-8 10/19	1,563,987	,,		3,299,650	,,	9,448,435	4,012,707 8 8
1821	4,125,616	,,	2,385,495	,,		3,311,462	,,	9,822,573	4,085,673 14 11
1822	4,694,055	,,	2,225,124	,,		2,910,483	,,	9,829,662	4,252,010 3 6
1823	3,803,312	,,	2,303,286	6-2 2-4 5/23		3,590,376	5-7 1/2 2-4 5/23	9,696,974	3,407,449 17 2
1824	4,592,611	,,	1,350,301	2-4 5/23		6,699,315	2-4 5/23	15,433,227	3,895,285 11 1
1825	3,684,049	,,	5,981,549	,,		9,262,744	,,	18,928,342	3,884,830 6 5
1826	7,407,204	7-0	5,988,788	2-10		6,354,867	2-10	18,250,859	4,125,598 14 1
1827	6,671,562	,,	4,752,199	,,		8,260,664	,,	19,684,425	4,175,508 8 2
1828	7,739,687	,,	5,716,180	,,		9,237,965	,,	23,413,770	4,355,552 4 2
1829	7,700,766	,,	5,777,280	,,		9,212,224	,,	22,690,270	4,818,781 0 6
1830	7,732,101	7-0 7-6	6,007,631	2-10 3-0 3-4		9,004,539	2-10 3-0 3-4	22,744,271	5,209,590 8 6
1831	7,434,047	7-6	5,700,689	3-4		8,710,672	3-4	21,845,408	5,189,661 2 6
1832	7,281,908	,,	5,487,097	,,		8,657,756	,,	21,346,753	5,074,854 13 4
1833	7,717,303	,,	5,988,556	,,		8,168,596	,,	21,874,455	5,255,513 19 2
1834	7,644,301	,,	6,045,045	,,		9,708,416	3-4 2-4	23,397,762	5,243,430 13 6
1835	7,515,055	,,	6,015,939	,,		11,381,223	2-4	24,710,208	5,073,276 4 6
1836	7,875,702	,,	6,620,826	,,		12,248,772	,,	26,745,300	5,485,882 13 0
1837	7,133,869	,,	6,124,035	,,		11,235,635	,,	24,493,559	5,006,697 9 2
1838	7,930,490	,,	6,259,711	,,		12,296,342	,,	26,486,543	5,451,792 3 0
1839	8,186,552	,,	6,188,582	,,		10,815,709	,,	25,190,843	5,363,220 1 0
1840	8,278,148	7-6 7-10	6,180,138	3-4 3-8		7,401,051	2-4 2-8	21,859,337	5,208,040 13 0
1841	8,166,985	7-10	5,989,905	3-8		6,445,435	2-8	20,582,333	5,161,410 15 6
1842	7,956,364	,,	5,595,186	,,		5,490,650	2 3-8	18,841,890	5,046,815 13 0
1843	7,724,051	,,	5,593,798	,,		5,546,483	3-8 2-8	18,864,332	4,903,201 10 2
1844	8,234,440	,,	5,922,948	,,		6,451,137	2-8	20,608,525	5,171,185 1 4
1845	9,076,381	,,	6,441,011	,,		7,605,196	,,	23,122,588	5,749,794 0 10
1846	9,179,530	,,	6,975,091	,,		7,952,076	,,	24,106,697	5,934,359 8 0
1847	8,409,165	,,	6,195,249	,,		6,037,583	,,	20,639,797	5,234,003 0 2
1848	8,581,527	,,	6,548,190	,,		7,072,933	,,	22,202,650	5,258,478 19
1849	9,053,678	,,	6,935,905	,,		6,975,333	,,	22,962,012	5,747,218 1 0
1850	9,331,512	,,	7,122,987	,,		7,408,086	,,	23,862,585	5,948,467 19 0
1851	9,595,568	,,	6,830,710	,,		7,550,518	,,	23,976,596	6,017,218 7 4
1852	9,820,608	,,	7,172,015	,,		8,208,256	,,	25,200,879	6,256,708 7 0
1853	10,350,307	,,	6,554,648	3-8 4-8		8,156,362	2-8 3-4	25,021,317	6,760,422 6 6
1854	10,889,611	,,	6,553,239	4-8 5-8 6-0		8,447,734	3-4 4-0	25,885,584	7,660,778 2 2
1855	10,384,100	7-10 8-0	5,344,219	6-0 7-10 8-0		6,298,856	4-0 6-0 6-2	21,957,275	7,617,482 6 6
1856	9,343,549	8-0	7,175,939	8-0		6,781,068	6-2	23,300,556	8,698,624 10 0
1857	no return	,,	no return	,,		6,920,046	,,	24,150,433	9,025,835 13 0
1858	10,448,572	,,	6,836,037	,,		6,402,142	6-2 8-0	23,686,751	9,195,154 7 6

An Account of the Foreign, Colonial, and Channel Island Spirits imported into, exported from, retained for Home Consumption in the U. K. &c., in the Year ended 31st December, 1857.

	Quantities imported.	Quantities retained for Home Consumption.	Quantities exported as Merchandise.	Quantities shipped as Stores.	Quantities delivered for the Use of the Navy.	Quantities remaining in Bond, in U. Kingdm. 31 Dec. 1857.
Rum:	*Proof Galls.*	*Proof Galls.*	*Proof Galls.*	*Proof Galls.*	*Proof Galls.*	*Proof Galls.*
Of British possessions, viz.:—						
West India and Mauritius	5,906,054	3,075,480	1,887,497	148,886	21,902	4,070,260
East India	-	4,758	61,023	10,409	-	266,910
East India	358,526	318,137	84,022	44,045	-	28,434
Foreign (including, in cases of the exports and the stock, foreign and British rum vatted together)	251,103	162	421,688	2,124	-	231,771
All sorts	6,515,685	3,596,537	2,454,230	205,464	21,902	4,597,375
Brandy	2,899,952	1,289,615	1,047,763	71,736	42	2,382,080
Geneva	178,041	25,851	115,491	19,196	-	67,686
Other foreign and colonial spirits	905,527	19,973	387,792	442	-	232,456
Spirits mixed in bond	-	-	506,734	3,244	-	50,054
Spirits of Heligoland	-	-				
Spirits of the Channel Islands (imported previously to the passing of act 8 & 9 Vict. c. 65., by which act these spirits were placed under the management of the excise)	-	-	-	-	-	362
Total	10,499,205	4,731,976	4,511,940	300,082	21,944	7,330,013

Lowlands, leaving only 44,000 gallons for the consumption of the whole country; — a supply which. we are well assured, would hardly be sufficient for the demand of two moderately populous parishes. In a letter of Captain Munro of Teaninich to the commissioners, it is stated that, "at Tain, where there are upwards of 23 licensed public houses, *not one gallon had been permitted from the legal distilleries for upwards of twelve months*," though a small quantity of smuggled whisky had been purchased at the excise sales, to give a colour of legality to the trade. The same gentlemen thus expresses himself in another part of his letter: — "The moral effects of this baneful trade of smuggling on the lower classes is most conspicuous, and increasing in an alarming degree, as evidenced by the multiplicity of crimes, and by a degree of insubordination formerly little known in this part of the country. In several districts, such as Strathconon, Strathcarron, &c., the excise officers are now often deforced, and dare not attempt to do their duty; and smuggled whisky is often carried to market by smugglers escorted by armed men, in defiance of the laws. In short, the Irish system is making progress in the Highlands of Scotland."

To arrest the progress of demoralisation, government, pursuant to the judicious advice of the commissioners, reduced the duties on Scotch to the same level as those on Irish whisky; and the consequences were equally salutary. The opposite official statement sets the influence of the reduction of the duty in 1823 in the most striking point of view, the consumption of duty-paid spirits having more than doubled in the course of two years, at the same time that illicit distillation was all but suppressed. But we much doubt whether the existing duties (1859) be not a great deal too high. They are now, it is true, more easily collected than formerly, and spirit drinking is, no doubt, much too prevalent in Scotland. But the latter will not be lessened by any increase of duty that gives a stimulus to smuggling.

Duties in England.— Previously to the reduction of the duty on Irish and Scotch spirits, the duty on English spirits had been as high as 11*s.* 8*d.* a gallon. This high duty, and the restrictions under which the trade was placed, were productive of the worst effects. They went far to enable the distillers to fix the price of spirits, "and consequently" (we quote the words of the commissioners of excise inquiry) "to raise it much beyond that which was sufficient to repay, with a profit, the cost of the manufacture and the duty advanced to the crown." And, in proof of this, the commissioners mention, that in November, 1823. "when corn spirits might be purchased in Scotland for about 2*s.* 3*d.* a gallon, raw spirits could not be purchased in England for less than 4*s.* 6*d.* ready money, and 5*s.* 9*d.* credit, omitting, in both cases, the duty." In consequence of this state of things, the adulteration of spirits was carried on to a great extent in England; and the large profits made by the smuggler occasioned clandestine importation in considerable quantities from Scotland and Ireland. To obviate these inconveniences, and at the same time to neutralise the powerful additional stimulus that the reduction of the duties in Scotland and Ireland would have given to smuggling, had the duties in England been continued at their former amount, the latter were reduced, in 1826, to 7*s.* a gallon, facilities being at the same time given to the importation of spirits from the other parts of the empire. Many complaints have been made of the influence of this measure in increasing drunkenness; but nothing can be imagined more completely destitute of foundation. The commissioners estimated the consumption of British spirits in England and Wales, in 1823, at 5,000,000 gallons (*Supp. to Fifth Report*, p. 8.); and it appears from the opposite account, that it amounted, for the year ending 5th of January, 1844, to 7,724,051 gallons; producing 3,025,245*l.* of revenue; so that, making allowance for the increase of population since 1823, and for the check given to adulteration and smuggling, and considering, also, that the consumption of foreign spirits was not greater in 1843 than in 1823, it may be safely affirmed that the practice of spirit-drinking had not increased in England during the 20 years ending with 1844; nor has it since increased. No doubt, however, it is still a great deal too prevalent, and large sums of money are wasted by the poor on gin, which had far better be expended on other things. But how much soever we may deplore the prevalence of gin-drinking, we may be assured that the evil is not one that can be cured, or even mitigated, by increasing the existing duties on spirits. Such increase would substitute illegitimate for legitimate channels of supply; it would injure the public revenue; and diffuse among the populace the idle, disorderly, and predatory habits that mark the character of the smuggler; and it would do all this without lessening in any degree the vice of drunkenness.

Spirit Drinking in Scotland.—The extraordinary prevalence of spirit drinking in Scotland, and the many abuses to which it gives rise, have occasioned a great deal of discussion, and led to sundry efforts for its diminution. But, speaking generally, we doubt whether these have been bottomed on sound principles. They all, or mostly all, have too much of a puritanical spirit about them; and expect to bring that reformation about by dint of police regulations, that would be more likely to be introduced and promoted by a less officious system.

An act was passed in 1853, the 16 & 17 Vict. c. 67., (applicable to Scotland only,) which, among other things, gave the justices of the peace increased power over the licensing of public houses, and added considerably to the duties on licences. Much discussion has taken place with respect to the real influence of this very questionable measure; and there would seem to be no little exaggeration in the statements both of its opponents and defenders. It has certainly reduced, though in a very arbitrary manner, the number of licensed taverns; and if the facilities for getting whisky or aught else be diminished, the chances are ten to one that its consumption will also be diminished. But it is alleged that the diminution in the number of public houses in Scotland is not real but apparent only; and that those that have been legally shut up have been balanced or more by the number of those that have been surreptitiously opened, while the latter are at the same time of a comparatively worthless description. And

the convictions that have taken place of parties for selling spirits without licences, show that this statement is in the main well-founded; and that in endeavouring to put down one form of abuse, we seem to be introducing another and a much more dangerous one in its stead.

The better, as well as the more constitutional plan, would be to make an end of the system of interference. Why should not A., or B., or C. be entitled to open a house for the sale of spirituous liquors, and be permitted to keep it open so long as he pays the licence duty, and conducts his establishment in an orderly and proper manner? To weaken the taste for liquor let all sorts of cheap, interesting, and innocent amusements be open to the public. To prohibit the sale of spirits on Sundays, and at the same time to shut up museums, parks, and public places, and to prevent as far as possible (as is done at Glasgow) all travelling by sea or land, is a contradictory as well as an oppressive policy; and wherever it is carried to the greatest extent, there the population is the most brutalised and debased.

It is not easy, since the equalisation of the duties, to obtain any accurate information in regard to the consumption of spirits in any one of the great divisions of the empire. But though great in Scotland, it is not so very great as is commonly supposed. Spirits may be sent from one part of the U. K. to another under bond, under permit, or under certificate from the dealer's stock. In the first case the duty is not paid till the spirits are taken for consumption; whereas in the last two cases it is paid before the spirits are removed. And hence, unless we knew the quantity of spirits removed from and brought into Scotland under permits and certificates, the fact of so many gallons having been charged in it with the consumption duty, would not enable us to specify what the consumption really amounted to. Thus, in 1858, duty was paid in Scotland on 6,836,037 gallons; but the commissioners of inland revenue, after making the previously mentioned allowances, estimate the consumption at only 5,301,000 gallons. This amount being, of course, exclusive of foreign spirits, and of all such British spirits as may be illegally brought into consumption.

Equalisation of the Duties on Spirits. — It would require very cogent reasons to vindicate the policy of imposing different duties on the same article in the different divisions of the U. K. And it was supposed that in the case of the duties on spirits, the greater facilities for illegal distillation in Scotland and Ireland afforded a valid plea for the duties being less in them than in England. But though this may have been the case formerly, the more perfect civilisation of both countries has tended, in this respect, to assimilate them more and more to England. And there cannot, as we think, be a doubt of the expediency of the recent equalisation of the duties. But it does not, therefore, follow that 8*s.* a gallon is a proper sum at which to fix the general duty. We apprehend that it will be found to be too high; and that, while a lower duty would yield as large, or perhaps a larger revenue, it would do this without stimulating drunkenness, by checking smuggling and adulteration.

Trade in Spirits. — All persons whatsoever, not being licensed distillers, rectifiers, or compounders, having more than *twenty* gallons of spirits in their possession, shall be deemed dealers in spirits, and subject to the survey of the officers of excise, and to all the regulations, penalties, &c. to which such persons are liable.—(6 Geo. 4. c. 80. sect. 122.)

Dealers in British spirits are prohibited selling or having in their possession any plain British spirits, except spirits of wine, of any strength exceeding the strength *of 25 per cent.* above hydrometer, or of any strength below 17 per cent. under hydrometer proof, or any compounded spirits, except shrub, of any greater strength than 17 per cent., under hydrometer, under pain of forfeiting all such spirits, with the casks, &c. — Sect. 124.

Dealers in foreign and British spirits are to keep them separate, in cellars, vaults, or other places specially entered, for that purpose, under a heavy penalty; and any person mixing, selling, or sending out any British spirits mixed with foreign or colonial spirits, shall forfeit 100*l.* for every such offence. — Sect. 126.

No retailer of spirits, or any other person licensed or unlicensed, shall sell or send out from his stock or custody any quantity of spirits exceeding 1 gallon, unless the same be accompanied by a true and lawful permit, under pain of forfeiting 200*l.*; and any rectifier, compounder, or dealer in spirits, receiving the same into their stock, or allowing any one else to receive it, and any carrier, boatman, or other person knowingly carrying the same, shall forfeit the sum of 200*l.*, with the boat, horse, cart, &c. used in the carriage.—Sect. 116.

No licence to be granted for retailing spirits *within* gaols, houses of correction, or workhouses for parish poor; nor are spirits to be used there, except medicinally prescribed by a regular physician, surgeon, or apothecary. Penalty for a first offence of this sort committed by gaolers, &c. 100*l.*; a second offence to be deemed a forfeiture of their office.—Sect. 134.

Persons *hawking spirits* to forfeit them and 100*l.*; and if the penalty be not immediately paid, they are to be committed to the house of correction for 3 months, or until paid. — (Sect. 138.) Any person is authorised to detain a hawker of spirits, and give notice to a peace officer, who is to carry the offender before a justice.—Sect. 140.

Any officer of excise, or other person employed in the excise, taking any sum of money or other reward from, or entering into any collusive agreement with, any person, to act contrary to his duty, to forfeit 500*l.*, and be incapacitated; and any person offering such reward or proposing such agreement, to forfeit 500*l.*— Sect. 145.

For the regulations as to the importation, &c. of foreign spirits, see BRANDY, GENEVA, and RUM.

SPONGE (Ger. *Schwamm*; Fr. *Eponge*; It. *Spugna*; Sp. *Esponja*), a soft, light, very porous, and compressible substance, readily imbibing water, and as readily giving it out again.

It is found adhering to rocks, particularly in the Mediterranean Sea, about the islands of the Archipelago. It was formerly supposed to be a vegetable production, but is now classed among the zoöphytes; and analysed, it yields the same principles as animal substances in general. The inhabitants in several of the Greek islands have been trained from their infancy to dive for sponges. They adhere firmly to the bottom, and are not detached without a good deal of trouble. The extraordinary clearness of the water facilitates the operations of the divers. Smyrna is the great market for sponge. The price varies from 6 to 16 piastres per oke for ordinary and dirty, and from 80 to 100 piastres per oke for fine and picked specimens. Sponge is also fished for in the Red Sea. (*Ure's Dictionary*; *Savary's Letters on Greece*, Eng. ed. p. 109.; and *private communications*.)

About 20 miles S. E. from Napoli di Romania, (Nauplia), in the gulph of that name, is the small town of Cranidi, the inhabitants of which are the principal sponge-fishers of the Archipelago and Levant. The fishery is carried on partly by spearing, and partly by diving; the latter securing the sponge free from injury, which is not the case with the former. The Cranidiots are most expert divers, and anecdotes approaching to the marvellous are told of their feats. After the sponge is fished up, when perfectly free from sand, and dry, it is so very light that large pieces of it are moved with the slightest breath of air. It is customary, however, to impregnate it with sand. This is done by stringing the sponges together, and laying them on the sand to allow the ripple of the sea to slush them with the finest particles. They are then placed in heaps under piles of stones which press them closely together, so that they become when dry hard and flat, and have to be beaten and sifted. But though this be done, and though they are sometimes farther washed and sifted, they will, though apparently quite clean, weigh three or four times their original weight! It is, perhaps, needless to add that they are always sold by weight. (We are indebted for these interesting details to the excellent art. on Greece, by Mr. Consul Green, in the *Supp. to the Geographical Dictionary*.)

Sponge is used in surgery, and for a variety of purposes in the arts. It was formerly charged with a duty of 6*d.* per lb., which was repealed in 1845. In 1857, the imports and exports of sponge were respectively 490,008 and 172,173 lbs.

SQUILL (Ger. *Meerzwiebel*; Fr. *Scille, Oignon marin*; It. *Scilla, Cipolla marina*; Sp. *Cebolla albarranna*), or, as it is sometimes denominated, the *Sea onion*, is a plant with a large bulbous root, which is the only part that is used.

It grows spontaneously on sandy shores in Spain and the Levant; whence we are annually supplied with the root. They should be chosen large, plump, fresh, and full of a clammy juice: some are of a reddish colour, and others white; but no difference is observed in the qualities of the two sorts. The root is very nauseous, intensely bitter, and acrimonious; much handled, it ulcerates the skin. The bulbs are brought to England preserved fresh in sand. The acrimony of the roots, on which their virtue depends, is partially destroyed by drying and long keeping, and is completely destroyed by exposure to heat above 212°. Squill is one of the most powerful and useful remedies in the materia medica. (*Lewis's Mat. Med.*; *Thomson's Dispensatory.*)

STADE, a small city of Hanover, on the Schwinge, 22 miles W. by N. of Hamburg, lat. 53° 36′ 32″ N., lon. 9° 28′ 34″ E. It has very little trade, and would be quite unworthy of notice in a work of this sort, except for the circumstance that a toll or duty, charged by the Hanoverian government on goods conveyed up the Elbe to Hamburg, whether for consumption or transit, used to be charged at the castle of Brunshausen, contiguous to this town.

All vessels bound for Hamburg had to heave-to (and those of some countries to anchor) in passing the guard-ship opposite to the castle, and send their papers, including manifests, bills of lading, cockets, &c., on shore, that the duty, which was in general about ½ per cent. *ad valorem*, might be computed from them. This being done, the ship was allowed to proceed, and the duty was paid at Hamburg. (See art. STADE, in the last edition of this work.)

On former occasions we expressed our surprise, "that an obstruction of this sort should have been tolerated for so long a period. The duties fall heavily on certain descriptions of goods; and are, at an average, decidedly higher than the duties charged in Hamburg. They are most objectionable, however, from their requiring many troublesome regulations to be complied with; the unintentional deviation from any one of which exposes the cargo to confiscation, and never fails to occasion a great deal of delay, trouble, and expense. As the principal part of the foreign trade of the Elbe is in our hands, we are, of course, principally affected by the Stade toll; and considering the source of the nuisance, it is not a little astonishing it should not have been abated long ago. The sum which the Hanoverian government derives from the duties is but trifling compared with the injury they inflict on our trade. It would, consequently, be good policy for the former to sell, and for the British government to buy, an exemption from so vexatious a duty; and few things would do more to extend our trade with Hamburg than the completion of an arrangement of this sort."

This anticipation has not, however, been realised. By an agreement effected with Hanover in 1844, the duties were reduced and placed on an improved footing; and British vessels, with those belonging to countries having reciprocity treaties with Hanover, are no longer obliged to *heave-to* in passing the guard-ship at Brunshausen, but may proceed direct to Hamburg, and pay the duties in the toll-office in that city. Still, however, this arrangement is merely an improvement of what is in its nature incurably bad. The toll on the Elbe is an outrage on all commercial nations; and instead of being modified, should be wholly repealed.

We have shown in the art. HAMBURG, to which we beg to refer, that the abolition of the Stade duty would be of the greatest consequence to that city and to all the extensive countries traversed by the Elbe. But we doubt whether considerations of this sort will be enough to procure the abolition of the toll; and if so, the better plan will be to follow the precedent set by the abolition of the Sound dues; that is, to buy up the tax by a contribution imposed on the different countries which trade with Hamburg in proportion to the number of their ships engaged in the trade.

But it is not enough that the Stade duties be abolished. All the duties imposed on the traffic carried on by the Elbe above Hamburg ought, also, to be suppressed. This great highway should be open to the free use of those who may be inclined to avail themselves of the facilities which it affords for the importation and exportation of products into and from the centre of Europe. It is quite monstrous that it should be in the power of the governments of petty states like Hanover or Mecklenburg to shut up or encumber one of the principal channels of the trade of this quarter of the world. For full details with respect to the Stade duty, see the Report of the Committee of the House of Commons on the subject, Paper No. 429, Sept. 1858.

STARCH (Ger. *Amidan*; Fr. *Amidon*; It. *Amodi, Amito*; Sp. *Amidon, Almidon*; Rus. *Kruchmal*), a substance obtained from vegetables.

It has a fine white colour, and is usually concreted in longish masses; it has scarcely any smell, and very little taste. When kept dry, it continues for a long time uninjured, though exposed to the air. It is insoluble in cold water; but combines with boiling water—forming with it a kind of jelly. It exists chiefly in the white and brittle parts of vegetables, particularly in tuberose roots, and the seeds of the gramineous plants. It may be extracted by pounding these parts, and agitating them in cold water; when the *parenchyma* or fibrous parts will first subside; and these being removed, a fine white powder diffused through the water will gradually subside, which is the starch. Or the pounded or grated substance, as the roots of potatoes, acorns, or horse chesnuts, for instance, may be put into a hair sieve, and the starch washed through with cold water, leaving the grosser matters behind. Farinaceous seeds may be ground and treated in a similar manner. Oily seeds require to have the oil expressed from them before the farina is extracted. Potato starch goes a good deal further than wheat starch—a less quantity of it sufficing to form a paste of equal thickness with water. It has a very perceptible crystallised appearance, and is apparently heavier than common starch.—(*Thomson's Chemistry*; *Ure's Dictionary.*)

Starch was charged, down to 1834, with an excise duty of 3½*d.* per lb.; but the injurious influence of the duty, the nett produce of which did not exceed 85,000*l.*, having been forcibly pointed out by the Commissioners of Revenue Inquiry, it was repealed in the course of the above year. In 1833, duty was paid on 8,070,026 lbs. starch. The manufacture has since, however, been greatly extended.

STATIONERY, a term which is not very well defined; but which is now commonly understood to designate the pens, ink, paper, wax, wafers, and other materials necessary to the writing of letters, inc., pen-knives, erasers, &c. Formerly the term had a wider signification, stationer and bookseller being held to be synonymous. (Johnson, *voce* Stationer.) And hence it is that the Stationers' Company formerly comprised, and continues to comprise, all the more eminent booksellers and publishers of the metropolis. The name has no doubt been derived from the *stationes* (stations) that were assigned in the forum at Rome to the vendors of books, which were classed among the *mercium vilissimarum!* (Ducange, vi. 715., voce *Stationarii.*)

Besides the vast quantities of stationery consumed at home, the value of the exports amounted, in 1857, to 742,372*l.*, whereof the exports to Australia made 215,993*l.*, those to the East Indies, 160,837*l.*, to the United States, 69,162*l.*, to North America, 65,523*l.*, &c.

The stationery for the British government is supplied by a peculiar department called the "Stationery Office," which has, also, the charge of the public printing.

STEAM VESSELS (REGULATION OF).

Subjoined is an abstract of the Act 14 & 15 Vict. cap. 79. (7th Aug. 1851), for the regulation of steam navigation, and the boats and lights to be carried by sea-going vessels.

Clause 1. repeals the 9 & 10 Vict. c. 100., and 11 & 12 Vic. c. 81., except as respects penalties, and the certificates of the sufficiency of steam vessels issued by the Board of Trade.

Naval Department of the Board of Trade to assist in the Execution of this Act. — The persons from time to time appointed to assist the Board of Trade in the execution of the Mercantile Marine Act of 1850, and who are herein-after referred to as the Naval Department of the Board of Trade, shall assist the board in the execution of this Act. — § 2.

Steam Vessels to be surveyed, &c. — The owner of every steam vessel constructed or intended to carry passengers (except vessels which fall within the definition of foreign-going ships in the Mercantile Marine Act, 1850, and are employed in the conveyance of the public mails or dispatches), shall cause such steam vessel to be surveyed twice at least in every year, at the times herein-after directed, by a shipwright surveyor and by an engineer surveyor appointed for the purposes of this Act by the Board of Trade, such shipwright surveyor in the case of an iron steam vessel being a person properly qualified to survey iron steam vessels, and shall obtain a declaration of the sufficiency and good condition of the hull of such steamer, and of the boats and other equipments thereof, required by this Act, and also, if the board so require, a statement of the number of passengers (whether deck passengers or other passengers) which such vessel is constructed to carry, under the hand of such shipwright surveyor, and a declaration of the sufficiency and good condition of the machinery of such steamer under the hand of such engineer surveyor, and in such declarations it shall be distinguished whether such vessel is in construction and equipments adapted for sea service as well as for river or lake service, or for river or lake service only; and when any such vessel is adapted for lake and river service only, such declaration shall state the local limits within which such vessel is in the judgment of the surveyor adapted for plying; and in the case of sea-going vessels the declaration of one of the surveyors shall contain a statement that he is satisfied that the compasses have been properly examined and adjusted; and such owner shall transmit such declarations to the lords of the said committee within 14 days after the dates thereof respectively. — § 3.

Times appointed for the Surveys. — In all cases where the same may be possible, such surveys shall be made in the months of April and of October, and such declarations shall be transmitted on or before the 30th of April and the 31st of October respectively, or if the last preceding survey of any such steam vessel were not made in either of those months, then such survey shall be made and such declaration transmitted in the course of the 30 days next before the expiration of 6 months next after the date of the certificate granted as herein-after mentioned upon the last preceding survey; but if the owner of any such steam vessel as aforesaid be unable to have the same surveyed in the month of April or of October, as the case may be, or in the course of such 30 days as aforesaid, either by reason of such vessel being absent from the U. K. during the whole of those periods respectively, or by reason of such vessel or the machinery thereof being under construction or repair, or of such vessel being laid up in dock, or for any other reason satisfactory to the Board of Trade, then the owner of such steam vessel shall have the same surveyed as aforesaid as soon thereafter as possible, and shall transmit such declarations to the said board within 14 days after the date thereof, together with a statement of the reasons which have prevented the survey of such vessel at the time before prescribed; and the owner of every such steam vessel in respect of which such declarations shall not have been transmitted at the times and in the manner herein directed shall, except in any case in which the survey of such vessel shall have been prevented as herein provided, forfeit and pay the sum of 10*s.* for every day that the sending of such declaration is delayed, and such sum shall be paid upon the issue of the certificate herein-after mentioned, together with the fee herein-after mentioned, unless the Board of Trade think fit in any case to remit such forfeiture or any part thereof. — § 4.

Board of Trade to grant Certificates, and transmit Lists, to be put up at Custom Houses. — Upon the receipt of such declarations the Board of Trade shall register the same, and, if they are satisfied that the provisions of this Act have been complied with, shall cause to be transmitted to the master or owner of the steam vessel to which such declarations refer a certificate, signed by one of the secretaries to the said board, or by some one or more of the members of the Naval Department of the Board of Trade, or the secretary to such department, that the provisions of the law with respect to the transmission of declarations in respect of such vessel have been complied with; and such certificate shall be called a "Sea-going Certificate," where, according to the declaration of the surveyor, such vessel is adapted for sea-service as well as river or lake service; and such certificate shall be called a "River Certificate" where, according to such declaration, such vessel is adapted for river or lake service only, and shall set out the local limits within which such vessel is to ply; and where any such vessel is constructed to carry passengers, and the B. of T. think fit so to do, in order to prevent the over-crowding of such vessel with passengers, they shall insert in such certificate the number of passengers, whether deck passengers or other passengers, which such vessel is constructed to carry; and the B. of T. shall from time to time transmit lists of the vessels in respect of which such certificates have been issued to the officers of customs in all ports in the U. K., who shall cause such lists to be put up in a conspicuous place in the custom house at each port. — § 5.

Board of Trade may cancel Certificates, and require fresh Declarations. — The B. of T. may revoke and cancel such certificates in any case where they have reason to believe that the declarations of the sufficiency and good condition of the hull and machinery of any vessel, or either of them, have been fraudulently or erroneously made, or that such certificate has otherwise been issued upon false or erroneous information, or where they have reason to believe that since the making of such declarations the hull or machinery of such vessel has sustained any injury, or is otherwise insufficient; and in every such case the B. of T. may, if they think fit, require the owner to have the hull or machinery of such vessel again surveyed, and to transmit a further declaration or declarations of the sufficiency and good condition thereof before re-issuing any certificate, or granting a fresh one in lieu thereof; and the B. of T. may at any time revoke any certificate, for the purpose of inserting in any certificate to be issued in lieu thereof the number of passengers which the vessel to which such certificate relates is constructed to carry. — § 6.

How long Certificates to continue in force. — No certificate bearing date on any day between the 1st April and the 15th May in any year shall be held to be in force, for the purposes of this Act, after 15th November following, and no certificate bearing date on any day between the 1st October and the 15th November following shall be held to be in force for the purposes of this Act after the 15th May following, and no certificate bearing date on any day not falling within the periods before defined shall be held to be in force after the expiration of 6 months from the date thereof, and no certificate shall be in force after notice to the owner or master of the vessel to which the same relates by the B. of T. that they have revoked the same: provided always, that if any steam vessel shall have been absent from the U. K. for

the whole of April or October in any year, or the whole of the 30 days next before the expiration of 6 months from the date of the certificate last granted in respect of such vessel, the certificate previously granted to such vessel (if not expressly cancelled or revoked) shall continue in force till the return of such vessel to the U. K., and for 21 days afterwards. — § 7.

Fees to be paid for Certificates.— The owner of every steam vessel requiring a certificate under this Act shall pay for every certificate granted by the B. of T. such sum as they shall appoint, not exceeding the sums following: — that is to say,—

Where the tonnage of such vessel does not exceed 100 tons, a sum not exceeding 2*l.*
Where such tonnage exceeds 100 tons and does not exceed 300 tons, a sum not exceeding 3*l.*
Where such tonnage exceeds 300 tons, a sum not exceeding 4*l.*

And such fees, as well as such forfeitures as herein-before mentioned, shall be paid to the B. of T., or as they may direct, and shall be applied towards defraying the expenses incurred in execution of this Act; and the B. of T. may regulate the manner in which such fees and forfeitures are to be received, and in which they are to be kept, and in which they are to be accounted for. — § 8.

Forgery of Declaration or Certificate to be a Misdemeanor. — Every person who knowingly and wilfully makes or assists in making a false or fraudulent declaration or certificate with respect to any vessel requiring a certificate under this Act, or who knowingly and wilfully forges, counterfeits, or fraudulently alters, or assists in forging, counterfeiting, or fraudulently altering, any declaration or certificate required by this Act, or any words or figures in any such declaration or certificate, or the signature thereto, shall be deemed guilty of a misdemeanor, or shall be liable, on summary conviction, to a penalty not exceeding 50*l.*, or to imprisonment, with or without hard labour, not exceeding 1 month. — § 9.

Copy of Certificate to be placed in conspicuous Part of Vessel. — The owner or master of every steam vessel shall forthwith on receipt of any such certificate as aforesaid by him or his agent from the B. of T. cause the same or a true copy thereof, in distinct and legible characters, to be put up in some conspicuous part of the vessel, so as to be visible to all persons on board the same, and shall cause it to be continued so put up so long as such certificate remains in force and such vessel is in use, and in default such owner, or if he can prove the default to have been caused by the master, such master shall for every offence be liable to a forfeiture or penalty not exceeding 10*l.* — § 10.

Vessel not to proceed on her Voyage without Certificate. — It shall not be lawful for any steam vessel (other than a mail packet as aforesaid) to proceed to sea or upon any voyage or excursion with any passengers on board the owner of which has not transmitted to the B. of T. the declarations herein required, and the owner or master of which has not received from them a certificate that the provisions of the law in that respect have been complied with as herein provided for, such certificate being a certificate applicable to the voyage or excursion on which such vessel is proceeding; and no officer of H. M. customs shall clear out any steam vessel (other than mail packet aforesaid) for sea or for any voyage or excursion, with passengers on board, or grant to the owner or master thereof any transire or other customs document necessary for the conduct thereof, unless upon the production of such certificate as aforesaid (being a certificate then in force); and if the owner or master of any steam vessel (other than mail packet as aforesaid) proceed to sea or on any voyage or excursion, with any passengers on board, without having such certificate as aforesaid, or a true copy thereof in distinct and legible characters on board, and put up in some conspicuous part of the vessel (such certificate being a certificate then in force), the owner thereof shall for such offence be liable to a penalty not exceeding 100*l.*, and the master of such vessel shall also be liable to a further penalty not exceeding 20*l.* — § 11.

Penalty on Owners, &c. for carrying more Passengers than specified in Certificate. — If in any such certificate the number of passengers which the vessel to which such certificate relates is constructed to carry is stated, it shall not be lawful to carry on board thereof any greater number of passengers, whether deck passengers or other passengers, than the numbers thereof respectively stated in such certificate; and if the owner or master or other person in charge of any such vessel receive on board thereof, or if such vessel shall at any time have on board, any greater number of passengers, whether deck passengers or other passengers, than the numbers thereof respectively specified in such certificate, the owner or the master or other person having charge thereof shall forfeit a sum not exceeding 20*l.*, and shall also forfeit 5*s.* for every passenger over and above the number so specified in the certificate as aforesaid. — § 12.

Penalty on Persons forcing their Way on board when Vessels are full. — If any person, after having been refused admission into any steam vessel by the owner or person in charge thereof, or by any person in the employ of the owner thereof, on account of such steam vessel being full, and after having had the full amount of his fare (if he has paid the same) returned or tendered to him, shall nevertheless persist in attempting to enter the same, or if any person, having got on board any steam vessel, be requested, on the like account, by the owner or person in charge thereof, or by any person in the employ of the owner, to leave such steam vessel before the same has quitted the place at which such person got on board, and shall refuse so to do after having had the full amount of his fare (if he has paid the same) returned or tendered to him, then and in either of such cases such person shall for such offence forfeit and pay to the owner of such vessel any sum not exceeding 40*s.* — § 13.

Penalty on Persons refusing to pay their Fares or to quit the Vessel. — If any person travel or attempt to travel in any steam vessel that has been duly surveyed in conformity with the provisions of this Act without having previously paid his fare, and with intent to avoid payment thereof, or if any person having paid his fare for a certain distance knowingly and wilfully proceed in any such vessel beyond such distance without previously paying the additional fare for the additional distance, and with intent to avoid payment thereof, or if any person knowingly and wilfully refuse or neglect, on arriving at the point to which he has paid his fare, to quit such vessel, every such person shall for every such offence forfeit and pay to the owner of such vessel a sum not exceeding 5*s.*, in addition to the fare payable by him. — § 14.

Penalty on refusing to give Name and Address. — Every person who, having committed any of the offences mentioned in the last two preceding sections or either of them, refuses, on application of the master of the vessel or other person in the employ of the owner thereof, to give his name and address, or who on such application gives a false name or address, shall forfeit and pay to the owner of such vessel a sum not exceeding 20*l.* — § 15.

Power for Board of Trade to appoint and remove Shipwright Surveyors, &c. — The B. of T. may from time to time appoint such number of fit and proper persons to be shipwright surveyors and engineer surveyors for the purposes of this Act, at such ports or places as they think proper, and may from time to time remove such surveyors; and may from time to time fix, alter, or vary the rates of remuneration to be received by such surveyors. — § 16.

Surveyors to make Returns of the Build, &c. of Vessels. — The said surveyors shall make such returns from time to time to the B. of T. with respect to the build, dimensions, draft, burden, rate of sailing, room for fuel, and the nature and particulars of machinery of the vessels surveyed by them, as shall be required by the said board; and every owner, master, and engineer of any such vessel shall, on demand, give to such surveyors all such information and assistance within his power as may be required by them for the purpose of such returns; and every such owner, master, and engineer who, on being applied to for that purpose, wilfully refuses or neglects to give such information or assistance, shall be liable to a penalty not exceeding 5*l.* — § 17.

Surveyors to act under Direction of the Board of Trade. — The said surveyors shall execute their duties

under the direction of the B. of T.; and in the execution of such duties it shall be lawful for them to go on board any steam vessel at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof to which the provisions of this Act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the vessel from proceeding on any voyage, and, if in consequence of any accident to any such vessel or for any other reason they consider it necessary so to do, to require the vessel to be taken into dock for the purpose of surveying the hull thereof; and any person who hinders any such surveyor from going on board any such steam vessel, or otherwise impedes him in the execution of his duty under this Act, shall be liable to a penalty not exceeding 5*l.* — § 18.

Penalty on Surveyors demanding or receiving Fees unlawfully. — Every such surveyor who demands or receives, directly or indirectly, from the owner or master of any vessel surveyed by him under the provisions of this Act, any fee or remuneration whatsoever for or in respect of such survey, otherwise than as the agent, and by the direction of the B. of T., shall be liable to a penalty not exceeding 50*l.* at the suit of any person whomsoever. — § 19.

Iron Steamers to be divided by Water-tight Partitions. — The owner of every steam vessel built of iron, of 100 tons burthen or upwards, the building of which shall have been commenced since the 28th of August, 1846, and the owner of every steam vessel built of iron of less burthen than 100 tons, the building of which shall have commenced after the passing of this Act, except vessels used solely as steam tugs, shall cause the same to be divided by transverse water-tight partitions, so that the fore part of the vessel shall be separated from the engine room by one of such partitions, and so that the after part of such vessel shall be separated from the engine room by another of such partitions; and it shall not be lawful for the officers of H. M. customs, or for any other person, to grant a certificate of British registry to, or to clear out or grant a transire to, or allow to proceed to sea, any iron steamer of 100 tons burthen or upwards, built since the said 28th of August, 1846, or to any iron steamer of less burthen than 100 tons built after the passing of this Act, except as aforesaid, unless the same be divided as aforesaid; and if any steamer required to be so divided proceeds to sea without being so divided, the owner shall be liable to a penalty not exceeding 100*l.* — § 20.

Steam Vessels to carry Safety Valves out of Control of Engineer. — After the 31st March, 1852, it shall not be lawful for any steam boat, of which surveys are required by the provisions of this Act, to go to sea, or to steam upon the rivers of the U. K., without having a safety valve upon each boiler, free from the care of the engineer, and out of his control and interference; and such safety valve shall be deemed to be a necessary part of the machinery, upon the sufficiency of which the engineer surveyor is to report as herein provided. — § 21.

Sea-going Vessels to be provided with Boats. — No decked vessel, except vessels used solely as steam tugs, shall proceed to sea from any port or place in the U. K. unless it be provided, according to its tonnage, with boats duly supplied with all requisites for their use, and not being fewer in number nor less in their cubic contents than the boats the number and cubic contents of which are specified in the following table; provided that the said limits of dimension be not considered applicable to vessels engaged in the whale fishery:

Registered Tonnage.		Column 1. To be carried by Sailing Vessels and Steam Vessels.								Column 2. To be carried by Sailing Vessels, and by Steam Vessels, unless they carry the Boats in No. 3.					Column 3. To be carried by Steam Vessels which do not carry the Boats in Col. 2.				Total Number of Boats.	
		Boats.				Boats.				Launches.					Boats.					
Sailing Vessels.	Steam Vessels.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.	Number.	Length.	Breadth.	Depth.		Number.	Length.	Breadth.	Depth.	Sailing Vessels.	Steam Vessels.
Tons.	Tons.		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In.	Ft. In.		Ft.	Ft. In.	Ft. In.			Ft.	Ft. In.	Ft. In.		
800 and upwards	500 and upwards	1	18	5 6	2 3	2	24	5 6	2 6	1	25	8 0	3 8		2	22	5 6	2 6	4	4 or 5
600 to 800	360 to 500	1	16	5 2	2 3	2	21	5 6	2 6	1	25	7 0	3 6		2	22	5 6	2 6	4	4 or 5
400 to 600	240 to 360	1	16	5 6	2 3	1	22	5 6	2 5	1	22	6 6	3 5		2	22	5 6	2 6	3	3 or 4
200 to 400	120 to 240	1	14	5 0	2 2	—	—	—	—	1	20	6 0	3 0		2	22	5 6	2 6	2	2 or 3
100 to 200	60 to 120	1	14	5 0	2 2	—	—	—	—	1	16	5 6	2 9		2	18	5 6	2 4	2	2 or 3
Under 100	Under 60	1	14	5 0	2 2	—	—	—	—	—	—	—	—		—	—	—	—	1	1

as the case may be.

Note. — In the case of steam vessels, two paddle-box boats may be substituted for any two of the boats in Column 3.

And no such vessel carrying more than ten passengers shall proceed to sea unless, in addition to the boats herein-before required, it also be provided with a life boat furnished with all requisites for use, or unless one of its boats herein-before required be rendered buoyant after the manner of life boats; and no such vessel shall proceed to sea with passengers as aforesaid unless it also be provided with two life buoys, to be kept ready for immediate use: provided, that the enactments with respect to boats and life buoys herein contained shall not apply in any case in which a certificate has been duly obtained under sect. 9. of 12 & 13 Vict. c. 33. — § 22.

No Steamer to proceed to Sea without being provided with a Hose and Signals. — No steam vessel, except vessels used solely as steam tugs, shall proceed to sea unless it be provided with a hose adapted for the purpose of extinguishing fire in any part of the vessel, and capable of being connected with the engines of the vessel, nor, if carrying passengers, without being provided with the following means of making signals of distress, that is to say, 12 blue lights, or 12 port-fires, and 1 cannon, with ammunition for at least 12 charges, or, in the discretion of the master or owner of such vessel, with such other means of making signals as shall have been previously approved by the B. of T. — § 23.

Penalties on Masters, &c. neglecting to provide Boats, &c. — If any such steam or other vessel as aforesaid proceed to sea without being provided with such boats and other equipments as are required for such vessel, or if any of such boats or other equipments be lost or rendered useless in the course of the voyage through the wilful fault or negligence of the owner or master, or if in case of any of such boats or life buoys being accidentally lost or injured in the course of the voyage the master or other person having charge of the vessel wilfully neglect to replace or repair the same on the first convenient opportunity, then and in every case where the owner shall appear to be in fault he shall be liable to a penalty not exceeding 100*l.*, and in every case where the master or other person having charge of the vessel shall appear to be in fault he shall be liable to a penalty not exceeding 50*l.* — § 24.

Officers of Customs not to clear out Vessels not complying with the above Provisions. — It shall not be lawful for any officer of customs to clear out, or to grant a transire to, or allow to proceed to sea, any

steam or other vessel, unless the same is provided with such boats and other equipments as are required for such vessel; and in any case in which any vessel is delayed by reason of non-compliance with any of the provisions herein-before contained the tide-waiter left on board shall be maintained at the expense of the master or owner of such vessel until such provisions are complied with.—§ 25.

Admiralty to make Regulations as to Lights.—The Admiralty shall from time to time make regulations requiring the exhibition of such lights, by such classes of vessels, whether steam or sailing vessels, within such places and under such circumstances as they think fit, and may from time to time revoke, alter, or vary the same, and they shall cause such regulations to be published in the London Gazette, and to be otherwise publicly made known, and such regulations shall come into operation on a day to be named in such Gazette, and they shall cause such regulations to be printed, and shall furnish a copy thereof to any owner or master of a vessel who applies for the same, and production of the Gazette containing such regulations shall be sufficient evidence of the purport and due making thereof; and all owners and masters or persons having charge of vessels shall be bound to take notice of the same, and shall, so long as the same continue in force, exhibit such lights, and no others, at such times, within such places, in such manner, and under such circumstances as are enjoined by such regulations; and in case of default the master or other person having charge of any vessel, or the owner of such vessel, if it appear that he was in fault, shall for each and every occasion upon which such regulations are infringed forfeit and pay a sum not exceeding 20*l.*: provided always that all regulations made by the Admiralty, under the authority of the said recited Acts or either of them, and in force at the passing of this Act, together with the penalties applicable thereto, shall continue and be in force as if the same had been made under this Act, until the same be revoked.—§ 26.

Rules to be observed by Vessels passing each other.—Whenever any vessel proceeding in one direction meets a vessel proceeding in another direction, and the master or other person having charge of either such vessel perceives that if both vessels continue their respective courses they will pass so near as to involve any risk of a collision, he shall put the helm of his vessel to port, so as to pass on the port side of the other vessel, due regard being had to the tide and to the position of each vessel with respect to the dangers of the channel, and, as regards sailing vessels, to the keeping of each vessel under command; and the master of any steam vessel navigating any river or narrow channel shall keep as far as is practicable to that side of the fairway or mid-channel thereof which lies on the starboard side of such vessel; and if the master or other person having charge of any steam vessel neglect to observe these regulations or either of them, he shall for every such offence be liable to a penalty not exceeding 50*l.*—§ 27.

Owners not entitled to Compensation in certain Cases of Collision.—If in any case of a collision between 2 or more vessels it appear that such collision was occasioned by the non-observance either of the foregoing rules with respect to the passing of steamers or of rules to be made by the Admiralty with respect to the exhibition of lights, the owner of the vessel by which any such rule has been infringed shall not be entitled to recover any recompence whatsoever for any damage sustained by such vessel in such collision, unless it appears to the court before which the case is tried that the circumstances of the case were such as to justify a departure from the rule; and in case any damage to person or property be sustained in consequence of the non-observance of any of the said rules, the same shall in all courts of justice be deemed, in the absence of proof to the contrary, to have been occasioned by the wilful default of the master or other person having the charge of such vessel, and such master or other person shall, unless it appears to the court before which the case is tried that the circumstances of the case were such as to justify a departure from the rule, be subject in all proceedings, whether civil or criminal, to the legal consequences of such default.—§ 28.

Accidents to be reported to Board of Trade.—Whenever any steam vessel (other than a ship of war) has sustained or caused any accident occasioning loss of life or any serious injury to any person, or has received any material damage affecting her seaworthiness or efficiency either in her hull or in any part of her machinery, the owner, master, or other person having the charge of such vessel shall, within 24 hours after the happening of such accident or damage, or as soon thereafter as possible, transmit through the post office to the B. of T. by letter signed by such master or other person, a report of such accident or damage, and the probable occasion thereof, stating the name of the vessel, the port to which she belongs, and the place where she is; and if such master or other person neglect so to do he shall for such offence be liable to a penalty not exceeding 50*l.*—§ 29.

Notice to be given of apprehended Loss of Steam Vessels.—If the owner of any steam vessel have reason, owing to the non-appearance of such vessel, or to any other circumstance, to apprehend that such vessel has been wholly lost, he shall as soon as conveniently may be send notice thereof in like manner to the B. of T., and if he neglect so to do within a reasonable time he shall for such offence be liable to a penalty not exceeding 50*l.*—§ 30.

Board of Trade may send Inspectors on board Vessels whenever necessary.—The B. of T. may from time to time, whenever it seems expedient to them so to do, appoint any of the surveyors to be appointed by them as aforesaid, or any other fit person, as an inspector, to go on board any ship or vessel, to report to them whether the provisions of this Act, or the regulations made under or by virtue of this Act, have been complied with, and also whether the hull and machinery of such vessel, if the same be a steam vessel, are sufficient and in good condition, or to report to them upon the nature and causes of any accident or damage which such vessel has sustained or caused, or is said to have sustained or caused.—§ 31.

Powers of Inspectors.—It shall be lawful for any such inspector, and also for any person being a member of the naval department of the B. of T., to go on board any steam vessel at all reasonable times, and to inspect the same or any part thereof, or any of the machinery, boats, equipments, or articles on board thereof to which the provisions of this Act or any of the regulations to be made by virtue thereof apply, not unnecessarily detaining or delaying the vessel from proceeding on any voyage; and in all cases of accident or damage such inspector or other person may make such inquiries, and require answers or returns thereto, as to the nature, circumstances, and causes of such accident or damage, as he thinks fit, and may, by summons under his hand, require the attendance of all persons whom he thinks fit to call before him upon any question or matter connected therewith or relating thereto, and may administer oaths, and examine such persons upon oath, and may require and enforce the production upon oath of all log books, accounts, agreements, or other papers or writings in anywise relating to any such matter as aforesaid, or in lieu of requiring and administering an oath may require any person to make and subscribe a declaration of the truth of the matters respecting which he has been examined or interrogated: provided that no person shall be required, in obedience to any summons from such inspector or other person, to travel more than 10 miles from his actual abode at the time of receiving such summons, unless such reasonable allowance for expenses in respect of his attendance to give evidence and of his journeys to and from the place where he may be required to attend for that purpose be made and tendered to him as would be allowed to any witness attending on subpœna to give evidence before any of H. M. courts at Westminster; and in case of any dispute as to the amount of such expenses the same shall be referred by such inspector, or other person, to one of the masters of H. M. court of Queen's Bench, and such master shall, on a request made to him for that purpose under the hand of such inspector or other person, ascertain and certify the proper amount of such expenses.—§ 32.

Penalty for obstructing Inspectors.—If any person wilfully impede such inspector or other person in the execution of any part of his duty, whether on board any ship or vessel or elsewhere, every person so

offending, and all persons aiding and assisting therein, may be seized and detained by such inspector or other person, or by any persons called by him to his assistance, until such offender can be conveniently taken before some justice of the peace or other officer having proper jurisdiction; and every such offender, and also every person who refuses to attend as a witness before any such inspector or other person, when required so to do, in the manner hereby directed, or who refuses or neglects to make any answer, or to give any return, or to produce any document in his possession, or to make or subscribe any declarations which such inspector or other person is hereby empowered to require as aforesaid, shall for each offence be liable to a penalty not exceeding 5*l.* — § 33.

The rest of the clauses relate to the legal proceedings which may be carried on under the Act.

STEEL (Fr. *Acier*; Ger. *Stahl*; It. *Acciajo*; Lat. *Chalybs*; Rus. *Stal*; Span. *Acero*; Sw. *Stål*), is iron combined with a small portion of carbon; and has been, for that reason, called carburetted iron. The proportion of carbon has not been ascertained with much precision. It is supposed to amount, at an average, to $\frac{1}{140}$th part. Steel is so hard as to be unmalleable while cold; or at least it acquires that property by being immersed, while ignited, in a cold liquid: for this immersion, though it has no effect upon iron, adds greatly to the hardness of steel. It is brittle, resists the file, cut-glass, affords sparks with flint, and retains the magnetic virtue for any length of time. It loses this hardness by being ignited, and cooled very slowly. It is malleable when red hot, but scarcely so when raised to a white heat. It may be hammered out into much thinner plates than iron. It is more sonorous; and its specific gravity when hammered is greater than that of iron—varying from 7·78 to 7·84. Steel is usually divided into 3 sorts, according to the method in which it is prepared; as *natural steel*, *steel of cementation*, and *cast steel*. The latter is the most valuable of all, as its texture is the most compact, and it admits of the finest polish. It is used for razors, surgeons' instruments, and similar purposes. Steel is chiefly employed in the manufacture of swords, knives, and cutting instruments of all sorts used in the arts; for which it is peculiarly adapted by its hardness, and the fineness of the edge which may be given to it.—(*Thomson's Chemistry*; and see IRON.)

STETTIN, a city of Prussia, on the left bank of the Oder, about 36 miles from its mouth, in lat. 53° 23′ 20″ N., long. 14° 33′ E.. It is well built, strongly fortified, and had, in 1855, a population of 50,058.

Stettin is the seat of an extensive and growing commerce; and is now, indeed, the principal port of importation in Prussia. She owes this distinction mainly to her situation. The Oder, which flows through the centre of the Prussian dominions, is navigable as far as Ratibor, near the extreme southern boundary of Prussian Silesia; and is united by means of canals with the Vistula, the Elbe, the Spree, &c. Stettin is, consequently, the principal emporium of some very extensive and flourishing countries; being not only the port of Frankfort-on-the-Oder, Breslaw, &c., but also of Berlin. She is, also, the centre of an extensive system of railways, communicating with Berlin and the W. parts of Germany on the one hand, and on the other with Posen, Bromberg, and Dantzic. Hence, at the proper seasons, her wharfs are crowded with lighters that bring down the produce of the different countries traversed by the river, and bring back colonial products, and other articles of foreign growth and manufacture. Vessels of considerable burden, or those drawing above 7 or 8 feet water, load and unload, by means of lighters, at the mouth of the river, at Swinemunde, the outport of Stettin, on the east coast of the isle of Usedom, in lat. 53° 55′ N., long. 14° 15′ 15″ E. Formerly there were not more than 7 feet water over the bar adjacent to Swinemunde; but the harbour of the latter has recently been so much improved, by the construction of piers and breakwaters, dredging, &c., that it is now the best on the Prussian coast, and admits vessels drawing from 18 to 19 feet water. A lighthouse has been erected at the extremity of the eastern pier. Stettin is a free port; that is, a port into and from which all sorts of goods may be imported and re-exported free of duty. Goods brought through the Sound, imported at Stettin, and entered for home consumption in the Prussian states, used to be charged with 2½ per cent. less duty than if they had been imported through any other channel. This was intended to reimburse the merchant for the Sound duties, and to encourage importation by this direct route in preference to that carried on through Hamburg and Embden; but as the Sound duties have been abolished, it is probable that goods imported at Stettin will no longer enjoy this preference. There is a great wool fair in the month of June each year.

Monies, Weights, and Measures, same as at Dantzic, which see. The Bank of Berlin has a branch at Stettin, and there is also an insurance office.

Imports and Exports.—The principal articles of import at Stettin are sugar, coffee, dye-woods, wine, iron, and hardware, oil, tallow, cotton and cotton goods, herrings, spirits, linseed, coal, salt, &c. The principal exports are corn, especially wheat; spirits, rapeseed, spelter, timber, &c.; bones, manganese, fruits, &c.

Harbour Dues paid by all privileged Vessels.

1. Harbour dues at Swinemunde on vessels arriving and departing seawards.

	Per last of 4,000 lb.	
	Rd.	*S. G.*
1. With cargo, entering the harbour	12	8
— leaving	12	8
2. With ballast or without, entering the harbour	6	4
— — leaving	6	4
2. Navigation dues of all vessels.		
a, with cargoes	1	4
b, — ballast	0	8

Vessels under 15 lasts pay only half dues.

3. Ships which remain in the roads of Swinemunde pay the following expenses:—

a, when they leave the roads, without having discharged or laden any part of the cargo, or without altering the papers, they pay no harbour dues.

b, when they are changing papers, 6 *rd.* 4 *s. g.* per last, once.

c, when they discharge or load, either cargo or ballast, they have to pay either 12 *rd.* 8 *s. g.* or 6 *rd.* 4 *s. g.* per last, once.

d, when they discharge and load a cargo the whole harbour dues.

e, when the 10th part of the cargo of a vessel is laden and not surpassed, they pay for such part only the dues as stated 1., with 12 *rd.* 8 *s. g.* once.

Pilotage.

From Stettin to Swinemunde } up to 10 lasts, 2 r. dollars.
Swinemunde to Stettin }
from 11-20 — 3 —
— 21-30 — 3½ —
— 31-40 — 4 —
— 41- up to 150 lasts

and upwards, for each 10 lasts, ½ dollar more.

Ships of more than 150 lasts burden, to pay the same dues as those of 141 to 150 lasts.

Stettin is one of the principal shipping ports in the Prussian dominions. For an account of the shipping belonging to it and the other Prussian ports on the 1st January, 1858, see Dantzic.

Port Regulations.—All vessels are prohibited entering Swinemunde, unless forced by stress of weather, without previously heaving to for, and receiving a pilot on board. But when compelled to enter without a pilot, the master is to observe the signals made from the beacon erected on the eastern and western moles as follows :—

Notice.

1. When pilots cannot put to sea, and captains of ships are nevertheless resolved to enter the harbour, a red flag will be hoisted on the direction beacon of the eastern mole.

2. The captains will then steer until they find themselves, S.E. by S. on the compass, from the lighthouse placed on the utmost point of the east mole, taking care to keep the outermost great white buoy, situate on the end of the western ground in a depth of 16 feet, on the starboard, and the next black buoy, in an oblique line towards the lighthouse, on the larboard.

3. In that situation of the vessel the two new beacons cover themselves in the direction of S.S.E., and this course, keeping the two beacons completely covered, the captains sail into the port up to the second landing berth of the eastern mole, four cables' length beyond the lighthouse, keeping off the mole half a cable's length.

4. At that place, the captains taking care to remain a little South, are expected by the pilots to go on board of their vessels.

5. On entering the port all the white buoys are to remain on the starboard side of the vessel (see 2).

6. For facilitating the finding and keeping the directions given in this instruction in case the buoys should have been removed by sea, or taken up on account of the advanced season, signals will be given with a red flag from the direction beacon on the eastern mole.

7. The captains must follow the signals in so far as to steer to that part where the flag is hoisted perpendicularly.

8. Should there be no pilot at sea, and no flag hoisted on the beckoning beacon, the captains must not attempt to enter the port at all, but either anchor in the roads or remain at sea.

Trade.—The abolition of the Sound dues, and the improved communications by means of railways with the interior, have led to a great increase in the trade of Stettin. This is evident from the following account of the Imports and Exports of the town by sea :—

Years.	Imports.	Exports.	Total.
1855	£2,604,954	£1,041,969	£3,646,902
1856	3,602,567	1,709,693	5,312,260
1857	4,208,636	2,722,451	6,931,088

This is a very extraordinary increase. In the import trade it has principally taken place in the articles of raw cotton, iron, and coals, from England ; palm and cocoa-nut oil, coffee, herrings, &c. The great articles of export from Stettin are corn, timber, and spirits ; and in 1857 the exports of corn were of unparalleled magnitude.

Account of the Quantities of the different Varieties of Corn exported from Stettin in 1857, specifying the Countries to which they were sent, and the Quantities sent to each in Imperial Quarters.

Countries to which Exported.	Wheat.	Rye.	Barley.	Oats.	Total.	Per-centage of the total Amount.
Great Britain	305,138	28,872	359,899	3,046	696,955	77·75
Sweden and Norway	5,490	65,814	17,550	89	88,943	9·93
German States	—	40,721	—	518	41,239	4·6
Holland	8,254	19,585	5,384	—	33,223	3·7
Denmark	2,467	17,321	2,109	408	22,305	2·49
France	6,312	4,339	972	—	11,623	1·3
Spain	1,611	—	—	—	1,611	·18
Russia	—	—	456	—	456	·05
Total	329,272	176,652	386,350	4,061	896,535	100·

In addition to corn, timber, and spirits, the principal articles of export are spelter, oil cake, bones, clover and other seeds, wool, glass, &c.

Direct Trade of the U. Kingdom with Prussia.—Account of the Quantities, and of the Computed Values of the Principal Articles imported from Prussia into the U. Kingdom in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Beer, spruce . . gallons	103,646	82,252	60,216	78,891	£1,619	£1,413	£1,224	£1,603
Bones . . . tons	3,021	4,951	826	1,041	42,110	51,065	4,233	6,454
Bristles . . . lbs.	772,754	1,578,903	423,467	42,403	110,797	194,235	52,038	5,478
Corn: wheat . . qrs.	679,842	556,123	222,681	866,311	2,472,693	2,144,492	812,787	2,636,086
barley . . „	7,408	1,291	73,887	551,585	12,038	2,174	121,913	929,139
oats . . „	23,457	28,133	23,225	116,451	30,077	35,870	27,870	134,519
rye . . „	403	—	17,489	36,891	706	—	34,979	66,437
peas and beans . „	22,671	36,325	14,638	147,828	52,658	83,670	30,798	281,968
Flax : undressed . cwts.	626,188	904,854	269,585	263,177	1,630,233	2,307,578	592,647	475,154
tow and codilla . „	26,884	35,855	18,617	10,339	69,480	78,881	27,925	15,110
Hemp, undressed . „	366,220	370,712	119,417	110,592	1,078,863	796,478	196,609	17,569
Oil seed cake . . tons	10,511	11,087	9,986	11,651	96,176	111,979	85,880	98,253
Pork, salted . . cwts.	4,320	9,653	5,787	5,716	10,800	25,581	15,480	10,126
Rags, and other materials, for making paper . tons	2,349	2,729	2,045	3,527	50,504	61,641	44,990	77,329
Seed : linseed and flaxseed qrs.	116,267	139,900	158,955	69,323	358,057	424,558	403,363	194,773
rape . . „	2,212	3,305	256	20,813	7,022	13,523	951	65,561
tares . . „	4,734	14,597	4,875	5,179	13,451	45,981	12,127	16,592
Spelter . . . tons	6,485	5,791	1,747	3,744	154,120	138,448	47,560	114,749
Tallow . . . cwts.	253,679	644,695	198,298	3,282	797,199	1,857,381	520,533	9,518
Wood and timber :								
not sawn or split . loads	293,266	261,573	288,242	284,926	1,114,411	954,740	893,551	884,243
deals, battens, boards, &c., sawn or split . loads	90,098	69,083	63,760	51,111	405,126	312,601	212,800	164,846
staves . . „	25,238	22,726	28,818	43,183	201,904	203,401	259,365	385,406
lathwood . . fathoms	5,321	4,909	5,199	4,504	37,248	47,252	48,807	35,471
Total value of the above and of all other articles .	. .	. .	. .	. .	9,055,503	10,242,862	4,534,815	6,732,078

Account of the Quantities and Values of the Principal Articles of domestic Growth and Manufacture exported from the U. Kingdom to Prussia in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Ashes, pot and pearl . cwts.	7,760	2,153	2,840	3,674	£10,776	£2,667	£1,653	£2,655
Beer and ale . . bris.	3,080	4,577	2,614	3,226	2,102	15,658	3,658	11,225
Bgrax, refined in the U. K. lbs.	157,208	78,995	48,647	68,010	6,786	3,066	1,838	2,240
Cement . . . cwts.	34,494	100,271	201,462	259,902	4,088	9,841	25,125	33,770
Coals, cinders, and culm tons	286,319	302,478	366,357	413,914	122,688	135,961	164,091	180,508
Copper, wrought and unwrought . . cwts.	373	63	691	6,543	2,172	395	5,728	45,181
Cottons, entered by the yrd. yrds.	289,035	231,204	57,089	776,464	6,247	7,174	1,584	17,697
Cotton yarn . . lbs.	1,324,998	1,991,124	308,159	3,438,189	66,302	81,377	12,743	164,853
Fish, herrings . . brls.	145,120	226,464	154,975	189,216	148,210	248,351	195,903	288,684
Hardwares and cutlery cwts.	2,540	2,668	2,363	3,573	18,084	18,779	11,826	17,918
Iron, wrought and unwrought, and unwrought steel . tons	24,332	49,514	64,235	119,793	129,227	246,253	348,115	712,347
Linen yarn . . lbs.	4,929	14,324	3,402	318,239	428	900	229	25,043
Machinery: steam engines value	.	.	.	.	300	1,000	552	6,794
all other kinds ,,	.	.	.	.	28,188	23,575	1,617	27,293
Mill grease . . cwts.	7,381	16,008	4,253	1,029	4,311	8,091	4,466	368
Oil: linseed . . galls.	262,142	151,643	120,232	22,363	39,693	20,594	17,676	3,384
train . . tuns	545	1,014	364	261	15,591	21,637	2,215	8,322
Painters' colours (not otherwise described) . . value	.	.	.	.	4,458	8,934	7,732	4,972
Rosin . . . cwts.	10,098	8,777	4,307	8,215	3,122	3,692	1,439	3,210
Salt . . . tons	53,192	70,964	42,940	55,214	38,536	45,538	24,015	32,015
Soda . . . cwts.	96,839	104,111	85,364	129,253	44,866	42,234	39,936	65,251
Tin plates . . value	.	.	.	.	2,805	14,591	5,581	7,846
Woollens: ent. by the piece pieces	2,444	7,827	1,403	5,426	5,934	11,405	1,820	7,998
by the yard yards	17,470	67,307	4,933	37,259	1,211	3,527	533	2,492
Woollen yarn . . lbs.	102,592	297,248	12,320	53,312	11,815	32,698	1,549	6,410
Total value of the above and of all other articles. .	.	.	.	.	798,434	1,100,021	955,715	1,741,014

We also send to Prussia large quantities of foreign and colonial produce, the value of the exports thereof in 1857 having amounted to 896,424*l.* Sometimes, however, they are much greater. But it can hardly be necessary to add that a large (though not so large now as formerly) portion of our trade with Prussia is indirect, being carried on through the Hanse Towns, Holland, &c.

STOCKHOLM, the capital city of Sweden, situated at the junction of the lake Maelar with an inlet of the Baltic, in lat. 59° 20′ 31″ N., lon. 17° 54′ E.; a well-built handsome city. Population in 1855, 97,952.

The entrance to the harbour is intricate and dangerous, and should not be attempted without a pilot; but the harbour itself is capacious and excellent, the largest vessels lying in safety close to the quays. Stockholm possesses from a third to a half of the foreign trade of Sweden; but this is confined within comparatively narrow limits. The government was long accustomed to endeavour to promote industry by excluding foreign products; latterly, however, this system has been very considerably relaxed, with great advantage to the trade of the country, and the well-being of the people. Notwithstanding the general inferiority of the soil, and the backwardness of the climate, agriculture has, within the last 20 years, made a more rapid progress in Sweden than in, perhaps, any other country of Europe; and instead of importing, as was formerly the case, she now exports large quantities of oats and other grain. (See *post* for her exports of corn to England.) Iron, timber, and deals form, however, the principal articles of export. Swedish iron is of very superior quality; and is rather extensively used in Great Britain; the imports of it amounting, of late years, to about 40,000 tons, exclusive of 800 tons of steel. In addition to the above leading articles, Stockholm exports pitch, tar, copper, &c. The timber is inferior to that from the southern ports of the Baltic. The imports principally consist of colonial products; cotton stuffs and yarn, iron, hardware, machinery, and coal, mostly from England; with woollens, wine, silks, salt, hides, guano, fish, brandy, wool, fruit, &c.

Pilotage.—Vessels bound for Stockholm take a pilot at the small island of Oja. Lands-hort light-house is erected on the southern extremity of this island, in lat. 58° 44′ 30″ N., lon. 17° 52′ 15″ E. It is painted white, and is furnished with a fixed light, elevated 158 feet above the level of the sea, which may be seen, under favourable circumstances, 5 leagues off. The signal for a pilot is a flag at the fore-top-mast-head, or firing a gun.

Shipping and Character of Sailors.—In 1856, there belonged to Sweden 2,374 vessels of the aggregate burden of 126,236 lasts. "I would," says the British consul at Stockholm, "beg to remark, that in consequence of the superior education of the masters and mates of Swedish mercantile vessels, the subordination and steadiness of their crews, combined with great care in loading and unloading their cargoes, they and the Norwegians have become favourite carriers with merchants of all nations. This preference is not to be attributed to a lower rate of freight, though they offer that advantage also, but to the confidence reposed in the zeal and intelligence of the masters and crews." This is the true cause of the great increase, of late years, in the number of Swedish ships bringing cargoes from foreign countries to England.

Money.—Accounts are kept here, in Gottenburg, and generally throughout Sweden, in paper money, consisting of rix-dollars *banco;* 1 rixdollar being equal to 48 skillings, and 1 skilling to 12 rundstycks. The exchange with London is at about 12 rixdollars banco per £, so that the rixdollar is worth about 1*s.* 8*d.* sterling. Rixdollars banco may be exchanged for specie rixdollars at the rate of ⅔ the former for one of the latter. But there are very few coins, except of copper, in circulation; the currency consisting almost wholly of notes, varying from 5 skillings to 500 rixdollars banco.

Weights and Measures.—The victual or commercial weights are punds, lippunds, and skippunds; 20 punds being equal to 1 lispund, and 20 lispunds=1 skippund; 100 lbs. Swedish commercial weight=93⅔ lbs. avoirdupois=42½ kilog.=87⅔ lbs. of Hamburg.

The iron weights are 3-5ths of the victual or commercial weights; 20 marks=1 mark pund; 20 mark punds=1 skippund; and 7½ skippunds=1 ton English. Hence, 100 punds Swedish iron weight=75 lbs. avoirdupois, and 100 lbs. avoirdupois=133⅓ lbs. Swedish iron weight.

In corn measure:—

4 Quarts	-	=	1 Spann.
2 Spann	-	=	1 Tun or barrel.
1 Tun	-	=	4 1-6th Winch. bush.
A last *of* rye from Riga	-	=	18 Tuns.
Ditto	Liebau	=	19½ —
Ditto	Stettin	=	22½ —
Ditto	Stralsund=		24 —

The tun of 32 kappor contains 4 1-5th Winchester bushels.

In liquid measure:—

2	Stup -	=	1 Kanna.
15	Kanner -	=	1 Anker.
2	Ankers -	=	1 Eimer.
2	Eimers -	=	1 Ahm.
1½	Ahm -	=	1 Oxhoft.
2	Oxhoft -	=	1 Pipe.

The pipe=124¼ English wine gallons; and, consequently, the ahm=41 5-12ths ditto, and 700 kanner=1 5-6th ditto.

The Swedish foot=11·684 English inches; the ell or alna =2 feet; the fathom=3 ells; the rod=8 ells.

In estimating by lasts*—

1	Last of pitch, ashes, &c. -	=	12 barrels.
1	ditto tar, oil, &c. -	=	43 ditto.
1	Last of hemp, flax, tallow, &c. -	=	6 skippunds.
1	Ton of Liverpool common salt	=	7 tuns Swed.

Account of the Values of the Imports and Exports at Stockholm from and to each Country traded with; showing the Average Amounts of the 5 and 4 Years ending with 1855, and the Nett Amounts for 1856 and 1857.

Countries.	Imports.			Exports.		
	1851-55.	1856.	1857.	1851-54.	1856.	1857.
G. Britain and Colonies	£180,065	£284,361	£269,846	£141,121	£132,435	£175,026
Austria	729	5,767	5,284	6,161	1,092	
Belgium	2,609	2,955	1,576	2,697	685	3,699
Brazil	202,781	256,517	137,386	9,402	8,255	12,677
Denmark	27,423	38,146	37,088	62,228	52,834	46,957
France and Algiers	33,974	56,143	41,072	34,526	56,214	55,724
Hanse Towns	316,585	489,942	306,034	89,483	80,749	92,732
Hanover, Mecklenburg, and Oldenburg	1,857	715	816	19,590	15,957	10,336
Italy	13,850	37,395	14,554	6,560	4,977	11,909
Netherlands	29,569	107,578	45,506	19,588	53,881	29,932
Norway	46,291	43,164	46,039	7,355	6,724	2,486
Portugal	22,493	14,262	11,029	35,528	58,196	56,069
Prussia	40,417	105,971	100,322	79,563	122,454	72,554
Russia	84,676	298,236	225,472	6,025	16,047	8,337
Spain	14,524	13,628	15,574	1,718	2,746	4,265
Turkey		1,846		286		1,511
United States	17,734	13,578	7,955	39,710	36,220	28,516
West Indies	2,724	59,184	29,723			
	1,038,506	1,829,380	1,296,568	561,551	629,466	615,502

Trade of the U. Kingdom with Sweden. — Account of the Quantities and Values of the Principal Articles imported from Sweden into the U. Kingdom in each of the 3 Years ending with 1857.

Principal Articles.		Quantities.			Computed Values.		
		1855.	1856.	1857.	1855.	1856.	1857.
					£	£	£
Bones	tons	378	318	354	2,582	1,630	2,195
Corn: wheat	qrs.	35,624	10,708	4,766	131,511	35,068	12,445
barley	,,	13,622	6,834	28,622	22,950	11,277	49,368
oats	,,	343,564	200,141	258,110	446,633	240,169	297,733
other kinds	,,	16,991	643	2,296	39,408	676	4,560
Iron: in bars	tons	36,423	38,741	44,282	528,133	559,897	577,998
bloom	,,	326	773	1,918	3,100	7,726	17,262
Oil seed cake	,,	2,002	1,233	1,122	20,220	10,604	9,266
Steel, unwrought	,,	913	1,515	1,812	7,116	29,994	37,165
Tar	lasts	9,131	2,365	887	141,079	25,191	8,870
Wood and timber: not sawn or split deals, battens, boards,	loads	96,706	82,073	108,416	552,978	254,426	310,985
&c., sawn or split	,,	230,708	236,717	161,205	1,043,954	756,669	484,789
firewood	fathoms	3,339	3,543	3,478	16,694	16,297	15,997
lathwood	,,	1,759	1,905	2,085	16,935	17,881	16,416
Total value of the above and of all other articles					2,825,171	2,031,861	1,912,260

Account of the Quantities and Values of the Principal Articles of domestic Produce and Manufacture exported from the U. Kingdom to Sweden in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Apparel, slops, and haberdashery	value					3,543	4,728	26,156	9,655
Beer and ale	barrels	465	704	866	576	2,079	3,350	4,581	2,666
Coals, cinders, and culm	tons	97,577	105,604	143,794	179,238	41,759	48,447	65,179	79,461
Copper, wrought and unwrought	cwts.	886	1,161	1,551	1,448	4,900	6,468	8,122	8,060
Cottons, entered by the yard	yards	766,065	1,360,854	1,244,430	716,508	6,829	25,776	25,220	13,704
Cotton yarn	lbs.	3,148,454	4,028,475	2,868,494	1,746,056	110,157	146,262	101,165	75,508
Hardwares and cutlery	cwts.	1,945	2,521	3,499	4,723	12,475	14,117	22,356	21,179
Iron, inc. unwrought steel	tons	1,098	9,251	13,856	12,044	17,894	88,909	140,992	100,504
Lead and shot	,,	127	202	171	122	5,147	4,301	4,434	3,017
Machinery: steam engines	value					1,815	10,598	34,568	8,796
all other sorts	,,					15,983	73,290	53,425	109,327
Painters' colours	,,					1,333	2,222	2,517	2,850
Salt	tons	5,734	1,909	1,320	2,320	4,156	1,199	669	1,393
Soda	cwts.	13,478	14,908	14,924	17,781	5,070	5,226	6,384	8,255
Stationery	value					1,757	932	1,881	3,394
Tin, unwrought	cwts.	478	340	412	335	2,551	1,811	2,544	2,900
Tin plates	value					3,732	3,898	4,682	4,565
Woollens: entered by the piece	pieces	41,921	53,193	44,142	31,231	58,139	60,585	55,107	41,796
by the yard	yards	75,345	16,502	60,140	45,004	4,968	1,107	4,668	4,585
at value	value					2,709	1,655	13,845	2,327
Woollen yarn	lbs.	10,752	14,560	26,320	13,888	1,451	1,437	3,655	1,529
Total value of the above and of all other articles						334,518	545,384	629,697	559,699

We also export to Sweden considerable quantities of colonial and foreign produce, the value of the exports thereof having amounted in 1856 to 300,795*l.*, and in 1857 to 196,341*l.*

The smelting furnaces and iron works are licensed to produce certain quantities, some being as low as 50 tons, and others as high as 400 or 500 tons; and some fine bar iron works have licences for 1,000 tons each. These licences are granted by the College of Mines, which has a control over all iron works and mining operations. The iron masters make annual returns of their manufactures, which must not exceed the privileged or licensed quantity, on pain of the overplus being confiscated. The college has established courts of mines in every district, with supervising officers of various ranks. All iron sent to a port of shipment must be landed at the public weigh-house, the superintendent of which is a delegate of the college, so that it is impossible for an iron-master to send more iron to market than his licence authorises. It is true that sales are made to inland consumers at the forges, of which no returns are made out, and in so far the licences are exceeded; but it is not supposed that the quantity so disposed of exceeds a few thousand tons a year. Every furnace and forge pays a certain annual duty to the crown. Its amount is fixed by the college when the licence is granted; and care is taken not to grant the licence to any one unless he have the command of forests equal to the required supply of charcoal without encroaching on the supply of this material required for the existing forges in the neighbourhood. As the supply of pig-iron is limited to the quantity licensed to be made, the college, in granting new licences to bar-iron works, always takes into consideration how far this may be done without creating a scarcity of pig-iron. Hence, the erection of new forges depends — 1st, on having a supply of charcoal, without encroaching on the forests which supply your neighbours; and 2d, on the quantity of pig iron which the college knows to be disposable. The courts of the mines decide all disputes that arise

among the iron-masters regarding the exceeding of their licences, encroachments, &c.; an appeal to the college lying from their decision, and ultimately to the king in council, or to the supreme court of the kingdom.

It is needless to dwell on the impolicy of such regulations. No doubt it is quite right for government to interfere to prevent the waste and destruction of the forests; but, having done this, it should abstain from all other interference, and leave every one at liberty to produce as much iron as he may think proper. Mines of any importance are usually held by a society of shareholders. Some of them are only worked occasionally; and, as the labour is performed by peasants, who live ostensibly by industry, it is impossible to form any correct estimate of the numbers engaged in mining industry.

STOCKINGS, as every one knows, are coverings for the legs. They are formed of only one thread entwined, so as to form a species of tissue, extremely elastic, and readily adapting itself to the figure of the part it is employed to cover. This tissue cannot be called cloth, for it has neither warp nor woof, but it approaches closely to it; and for the purposes to which it is applied, it is very superior.

1. *Historical Sketch of the Stocking Manufacture.*—It is well known that the Romans and other ancient nations had no particular clothing for the legs. During the middle ages, however, hose or *leggings*, made of cloth, began to be used; and at a later period, the art of knitting stockings was discovered. Unluckily, nothing certain is known as to the individual by whom, the place where, or the time when, this important invention was made. Howell, in his *History of the World* (vol. iii. p. 222.), says that Henry VIII. wore none but cloth hose, except there came from Spain by great chance a pair of silk stockings; that Sir Thomas Gresham, the famous merchant, presented Edward VI. with a pair of long silk stockings from Spain, and that the present was much taken notice of; and he adds, that Queen Elizabeth was presented, in the third year of her reign, with a pair of black knit silk stockings, and that from that time she ceased to wear cloth hose. It would appear from this circumstantial account, that the art of knitting stockings, or at least that the first specimens of knit stockings, had been introduced into England from Spain about the middle of the 16th century; and such seems to have been the general opinion, till an allusion to the practice of knitting, in the pretended poems of Rowley, forged by Chatterton, made the subject be more carefully investigated. The result of this investigation showed clearly that the practice of knitting was well known in England, and had been referred to in acts of parliament, a good many years previously to the period mentioned by Howell. But it had then, most probably, been applied only to the manufacture of woollen stockings; and the general use of cloth hose shows that even these had not been numerous. There is no evidence to show whether the art is native to England, or has been imported.—(See *Beckmann's Inventions*, vol. iv. art. *Knitting, Nets, and Stockings.*)

It is singular that the stocking frame, which, even in its rudest form, is a very complex and ingenious machine, that could not be discovered accidentally, but must have been the result of deep combination and profound sagacity, should have been discovered so early as 1589; before, in fact, the business of knitting was generally introduced. The inventor of this admirable machine was Mr. William Lee, of Woodborough, in Nottinghamshire. He attempted to set up an establishment at Calverton, near Nottingham, for the manufacture of stockings, but met with no success. In this situation he applied to the queen for assistance; but instead of meeting with that remuneration to which his genius and inventions so well entitled him, he was discouraged and discountenanced! It need not, therefore, excite surprise that Lee accepted the invitation of Henry IV. of France, who, having heard of the invention, promised him a magnificent reward if he would carry it to France. Henry kept his word, and Lee introduced the stocking frame at Rouen with distinguished success; but after the assassination of the king, the concern got into difficulties, and Lee died in poverty at Paris. A knowledge of the machine was brought back from France to England by some of the workmen who had emigrated with Lee, and who established themselves in Nottinghamshire, which still continues to be the principal seat of the manufacture.—(See *Beckmann's Inventions*, vol. iv. pp. 313—324.; and *Letters on the Utility and Policy of Machines*, Lond. 1780.)

During the first century after the invention of the stocking frame, few improvements were made upon it, and 2 men were usually employed to work 1 frame. But in the course of last century the machine was very greatly improved. The late ingenious Mr. Jedediah Strutt, of Derby, was the first individual who succeeded in adapting it to the manufacture of *ribbed* stockings.

2. *Statistical View of the Stocking Trade.*—It is not possible, perhaps, to obtain any very satisfactory information in regard to the extent or value of the stocking trade. It embraces not only stockings, properly so called, but a great many other articles, including woollen and cotton drawers, gloves, mitts, night caps, socks, knitted shawls, &c. And even as respects stockings, the varieties are so very numerous and differ so widely, comprising all sorts, from those of the finest to those of the coarsest silk, cotton, and wool, that nothing better than a rough estimate can be formed of their value.

In 1832, Mr. Felkin, of Nottingham, who made many elaborate inquiries into the subject, estimated the number of frames at work at 33,000, and the total value of the hosiery produced at 1,991,000*l.* This estimate (see last edition of this work) was probably underrated at the time; and is now, there can be no doubt, greatly below the mark. From the best information we can obtain, we incline to think that the entire value of the hosiery produced in Great Britain, whether by frames or otherwise, may (1859) amount to somewhere about 5,100,000*l.* a year. The average consumption per individual of hosiery in the same division of the empire may, it is believed, be taken at about 4*s.* a year; and, if we take the population at 22 millions, this will give 4,400,000*l.* for their consumption; and adding to this 300,000*l.* for the value of the exports to foreign countries (266,279*l.* in 1857), a sum of 400,000*l.* will remain to defray the cost of those sent to Ireland. We are pretty well satisfied that this estimate is not far from the mark. And moderate as it may seem to be when compared with others that have been put

forward, it sets the great importance of the manufacture in a very striking point of view.

Of 1,015,960 doz. pairs stockings of the value of 266,269*l.* exported in 1857, no fewer than 729,737 doz. pairs, worth 163,133*l.*, were shipped for the U. States. Of the residue, which were sent to a great many places, Cuba and Australia took the largest numbers.

STORAX. See BALSAM.

STORES, MILITARY AND NAVAL, include arms, ammunition, &c. It is enacted, that no arms, ammunition, or utensils of war, be imported by way of merchandise, except by licence, for furnishing his Majesty's public stores only.—(6 *Geo.* 4. c. 107.)

STORES, in commercial navigation, the supplies of different articles provided for the subsistence and accommodation of the ship's crew and passengers.

It is laid down, in general, that the surplus stores of every ship arriving from parts beyond seas are to be subject to the same duties and regulations as those which affect similar commodities when imported as merchandise; but if it shall appear to the collector and comptroller that the quantity of such stores is not excessive, nor unsuitable, under all the circumstances of the voyage, they may be entered for the private use of the master, purser, or owner of such ship, on payment of the proper duties, or be warehoused for the future use of such ship, although the same could not be legally imported by way of merchandise.—(3 & 4 *Will.* 4. c. 52. § 35.)

A List, by which to calculate the Amount of Stores, of the estimated Average Number of Days' Duration of a Voyage from the U. Kingdom to the different Ports enumerated, and back.

Ports of Destination.	Days of Voyage.	Ports of Destination.	Days of Voyage.	Ports of Destination.	Days of Voyage.	Ports of Destination.	Days of Voyage.
Abo	100	Cyprus	180	Majorca	110	Rhodes Island	180
Algiers	120	Cape of Good Hope	240	Minorca	110	River Gambia	190
Almeria	100	Callao	400	Marseilles	130	St. Andero	80
Azores Isles	90	Coquimbo	400	Messina	130	St. Ubes	80
Alicant	110	Chili	360	Montreal	150	Salee	120
Altea	110	Calcutta	400	Malta	140	Stettin	100
Antigua	180	Colombo	365	Martinico	180	Stockholm	100
Augustine's Bay	150	Ceylon	365	Mariegalante	180	St. John's, Newfound.	120
Ancona	160	Cuddalore	400	*Miramichi*	100	St. Mary's	95
Alexandria	180	China	420	Montserrat	180	St. Michael's, Azores	80
Ascension Isle	240	Canton	420	Maranham	180	St. John, New Bruns.	120
Archipelago Isles	180	Dantzic	100	Monte Video	250	St. Andrew, do.	120
Annabona	180	Drontheim	100	Madagascar	270	Salerno	130
Archangel	120	Delaware Bay	130	Mexico. *Vide* Vera Cruz and Acapulco.		Sardinia Isle	130
Australia	420	Demarara	150			Susa	120
Alexandretta	180	Dominica	180	Mogadore	105	Savannah	150
Acapulco, Mexico	450	Davis's Straits	240	Mauritius	270	Syracuse	140
Bergen	240	Embden	42	Madras	400	St. Augustine's Bay	150
Bona	120	Elbing	95	Malabar	365	St. Helena	240
Bornholm	100	Elsineur	100	Malacca	400	Sydney, N. S. Wales	400
Barcelona	110	Elba Isle	130	Manilla	420	Sumatra	400
Bay of Roses	110	Essequibo	180	Mangalore	365	Society Islands	420
Baltimore	120	Friendly Islands	420	Masulipatam	400	Swan River	365
Bahama Isles	150	Fare Islands, N. Sea	100	Mocha	365	Singapore	365
Barbadoes	180	Fare Islands, Canaries	95	Nantes	80	Surat	365
Berbice	180	Ferrol	80	Newfoundland	120	Sandwich Isles	480
Bermuda	120	Fayal	80	North Bergen	100	South Sea Fishery	3 years
Boston	120	Fernando Po	180	Naples	130	St. Bartholomew	180
Bahia	200	Falkland Islands	240	Narbonne	130	St. Croix	180
Brazils	200	Göttenburg	100	Nice	130	St. Christopher's	180
Buenos Ayres	240	Gibraltar	130	Nevis	180	St. Domingo	210
Bay of Campeachy	240	Genoa	130	Nova Scotia	120	St. Eustatia	186
Barcelor	365	Grenada	180	New York	120	St. Lucia	180
Bombay	365	Guadaloupe	180	New Providence	165	St. Martin	180
Bengal	400	Greek Islands, and Greece	180	New Orleans	190	St. Thomas	180
Botany Bay	420	Guinea	190	New Guinea	400	St. Vincent's	180
Batavia	400	Gallipoli	180	New South Wales	400	Salonica	180
Bremen	42	Greenland Fishery	180	New Zealand	400	Santa Martha	240
Bayonne	80	Goree	190	Negapatam	400	St. Salvador, or Bahia	200
Bilboa	80	Guayaquil	420	New Brunswick	120	St. Sebastian	210
Bordeaux	80	Gaugapatam	400	Newport	120	Senegal	180
Corunna	80	Goa	365	Oporto	80	Sierra Leone	180
Cadiz	90	Hamburg	42	Odessa	240	Scandaroon	180
Carlscrona	100	Heligoland	42	Otaheite	420	Syra	180
Carthagena	100	Hayti	210	Owhyhee	420	Smyrna	180
Cape de Verde Islands, viz.:—		Halifax	120	Petersburg	100	Tangier	120
St. Antonio		Havannah	200	Pillau	100	Trinity Bay	120
St. Vincent	100	Honduras	240	Placentia Harbour	120	Tunis	120
St. Jago		Hudson's Bay	240	Port St. John, Newfoundland	120	Tarragona	110
Ceuta	120	Hobart Town	400	Port-au-Prince, Hayti	210	Tonningen	42
Canary Isles	95	Iceland	100	Palermo	130	Toulon	130
Christiania	100	Ivica	110	Pensacola	190	Tripoli	120
Copenhagen	100	Italy	150	Philadelphia	120	Teneriffe	95
Cette	130	Isle of Sable	120	Port Rico	210	Tortola	180
Civita Vecchia	130	Ionian Isles	150	Providence, Bahama Islands	160	Tobago	180
Corsica Isle	130	Islands in the Archip.	180	Pernambuco	190	Trinidad	180
Cayenne	180	Isles of France and Bourbon	270	Porto Bello	240	Trieste	160
Cape Hayti	210	Jamaica	210	Para	185	Truxillo	410
Charlestown	120	Java	400	Panama	420	Tumur	420
Chesapeake Bay	120	Königsberg	100	Peru	400	Tellicherry	365
Cuba	210	Lima	400	Philippine Islands	420	Tranquebar	400
Curaçoa	180	Ladrones	430	Pondicherry	400	Trincomalee	380
Cronstadt	100	Lisbon	80	Pellew Islands	420	Vigo	80
Candia Isle	160	Lubeck	100	Quebec	150	Valencia	110
Cephalonia	160	Leghorn	150	Queen Ann's Point	180	Venice	160
Corfu Isle	160	Long Island	150	Rio Grande	200	Vera Cruz	260
Calabar	180	La Guayra	240	Rio Janeiro	200	Venezuela	240
Cape Coast Castle	200	La Conception	400	Rochelle	80	Valdivia	400
Carthagena, Spanish main	240	Maalstroom	100	Revel	100	Valparaiso	400
Cape St. Mary	180	Malaga	100	Riga	100	Van Diemen's Land	365
Constantinople	180	Madeira	90	Rugen	100	Wyburg	100
Colombia River	700	Memel	140	Rome	150	Zara	160
Cumana	240	Mogadore	120			Zea	160
						Zante Isle	160

For such places as are not included in the List, the same allowance should be granted as is given to the place nearest thereunto.

No stores shall be shipped for the use of any ship bound to parts beyond the seas, nor shall any goods be deemed to be such stores, except such as shall be borne upon the victualling bill. —(3 & 4 *Will.* 4. c. 52. sect. 16.)

Goods delivered into the charge of the searchers to be shipped as stores, may be so shipped without entry or payment of any duty, for any ship of the burden of 70 tons at least bound upon a voyage to foreign parts, the probable duration of which outand home will not be less than 40 days: provided such stores be duly borne upon the ship's victualling bill, and be shipped in such quantities, and subject to such directions and regulations, as the commissioners of customs shall direct and appoint. —(3 & 4 *Will.* 4. c. 57. sect. 16.)

Rum of the British plantations may be delivered to the searcher, to be shipped as stores for any ship, without entry or payment of any duty; and any surplus stores of any ship may be delivered to the searcher, to be re-shipped as stores for the same ship, or for the same master in another ship, without entry or payment of any duty, —such rum and such surplus stores being duly borne upon the victualling bills of such ships respectively; and if the ship, for the future use of which any surplus stores have been warehoused, shall have been broken up or sold, such stores may be so delivered for the use of any other ship belonging to the same owners, or may be entered for payment of duty, and delivered for the private use of such owners or any of them, or of the master or purser of the ship. — Sect. 17.

The searchers in London, on clearance of vessels coastwise to take in cargoes for foreign parts, are to apprise the collectors and comptrollers at the outports where the vessels may be bound, of the quantity and description of the goods which may have been shipped as stores on board such vessels, and that bond has been given by the masters of the vessels that no part of such stores shall be consumed by the crews, or any package opened or altered, until the vessels have actually been cleared on their foreign voyages; and the collectors and comptrollers at the out-ports are in like manner to cause a similar communication to be made to the ports where the outward cargoes are to be taken on board, and the officers at such ports are to take care to ascertain that the several goods so shipped are actually on board the vessels on their arrival, and have neither been consumed or run on shore during the coasting voyage; and if so, to report the same to the Board. — (*Min. by Com. of Customs*, 19th of Feb. 1833.)

List of Foreign Goods allowed to be shipped as Stores, from the bonded Warehouses free of Duty. — (Customs Minute, 29th of Nov. 1832.)

Tea, ½ of an oz.; coffee or cocoa, 1 oz. per day for each person on board, with the option to ship the entire quantity required for the voyage of either species of these articles, *half* an oz. of tea being considered equal *to one oz.* of coffee or cocoa; the tea to be shipped in the original packages in which it was imported.

Wine, 1 quart per day for the master, each mate, and cabin passenger.

Wine bottled in the bonded warehouses for exportation may be shipped as stores, in packages containing not less than 3 doz. reputed quart, or 6 doz. reputed pint bottles.

Spirits, viz. brandy, geneva, rum (British plantation), ½ pint per day for each person on board.

British plantation rum to be in the proportion of ⅓ of the whole quantity of spirits shipped. Each description of spirits intended as stores to be shipped in *one* cask capable of containing the entire quantity of brandy, or of geneva or rum, allowed for the voyage, or in casks containing not less than 40 gallons of brandy or geneva, or 20 gallons of British plantation rum, as the case may be: provided that if spirits shall have been imported in bottles, or bottled in the bonded warehouses for exportation, the same may be shipped as stores, in packages containing not less than 3 doz. reputed quart, or 6 doz. reputed pint bottles.

Raw Sugar and Molasses (together or separate), 2 oz. per day for each person on board.

Dried Fruits, 2 lbs. per week for each person on board.

Rice, 2 lbs. per week for each person on board.

Foreign Segars, ½ oz. per day for the master, each mate, and each cabin passenger.

The entire quantity of foreign segars allowed as stores for each voyage to be shipped in *one* package.

A List of British manufactured Goods to be allowed to be shipped as Stores on the usual Bounty or Drawback.

British refined Sugar, 3 oz. per day for the master, each mate, and each cabin passenger.

British manufactured Tobacco, ½ oz. per day per man.

British exciseable Goods, viz. beer, ale, and porter (together or separate), 1 quart per day for the master, each mate, and each passenger.

Vinegar, ½ pint per week for each person on board.

Soap, ½ oz. per day for each person on board. The same indulgence, in respect of the shipment of stores, which has been granted to merchant vessels under the 2 & 3 Will. 4. c. 84., and by subsequent orders, is granted to transports under the following conditions, viz.: — On a certificate being produced for each vessel, from the office of a comptroller for victualling and transport service, setting forth the destination of the vessel, and the number of the crew and passengers on board, who are not to be messed by the victualling shipped by the public; and as respects soldiers embarked as guards in ships chartered for the transportation of convicts, on a certificate being produced from the proper department, specifying the number of soldiers to be embarked in each case; but no indulgence can be granted in regard to the article of soap. — (*Treas. Order*, 6th of March, 1833; see also *Ellis's British Tariff.*)

STRANDING, in navigation, the running of a ship on shore, or on the beach.

It is the invariable practice to subjoin the following *memorandum* to policies of insurance executed by private individuals in this country: — "*N. B.* — Corn, fish, salt, fruit, flour, and seed are warranted free from average, unless general, *or the ship be stranded*; sugar, tobacco, hemp, flax, hides, and skins are warranted free from average under *5l.* per cent.; and all other goods, also the ship and freight, are warranted free of average under *3l.* per cent., unless general, *or the ship be stranded.*"

It is, therefore, of the greatest importance accurately to define what shall be deemed a stranding. But this is no easy matter; and much diversity of opinion has been entertained with respect to it. It would, however, appear that merely striking against a rock, bank, or shore, is not a stranding; and that, to constitute it, the ship must be upon the rock, &c. for some time (how long?). — Mr. Justice Park has the following observations on this subject: — "It is not every touching or striking upon a fixed body in the sea or river that will constitute a stranding. Thus Lord Ellenborough held, that in order to establish a stranding, the ship must be *stationary*; for that merely striking on a rock, and *remaining there a short time* (as in the case then at the bar, about a minute and a half), and then passing on, though the vessel may have received some injury, is not a stranding. Lord Ellenborough's language is important. — *Ex vi termini* stranding means lying on the shore, or something analogous to that. To use a vulgar phrase, which has been applied to this subject, if it be *touch and go* with the ship, there is no stranding. It cannot be enough that the ship lie for a few moments on her beam ends. Every striking must necessarily produce a retardation of the ship's motion. If by the force of the elements she is run aground, and becomes stationary, it is immaterial whether this be on piles, on the muddy bank of a river, or on rocks on the sea shore; but a mere *striking* will not do, *wherever* that may happen. I cannot look to the consequences, without considering the *causa causans*. There has been a curiosity in the cases about stranding not creditable to the law. A little common sense may dispose of them more satisfactorily."

This is the clearest and most satisfactory statement we have met with on this subject; still, however, it is very vague. Lord Ellenborough and Mr Justice Park hold, that to constitute a stranding, the ship must be *stationary*; but they also hold, that if she merely remain upon a rock, &c. for a *short time*, she is not to be considered as having been stationary. Hence every thing turns upon what shall be considered as a short time. And we cannot help thinking that it would be better, in order to put to rest all doubts upon the subject, to decide either that every striking against a rock, the

shore, &c., by which damage is done to the ship, should be considered a stranding; or that no striking against a rock, &c. should be considered as such, provided the ship be got off within a *specified time.* Perhaps a *tide* would be the most proper period that could be fixed.

The insurance companies exclude the words, "*or the ship be stranded,*" from the memorandum. — (See INSURANCE, MARINE.)

STURGEON FISHERY. The sturgeon is a large, valuable, and well-known fish, of which there are several species, viz. the sturgeon, properly so called, or *Accipenser sturo;* the beluga, or *Accipenser huso;* the sevruga, or *Accipenser stellatus,* &c. The sturgeon annually ascends our rivers, but in no great number, and is taken by accident in the salmon nets. It is plentiful in the North American rivers, and on the southern shores of the Baltic; and is met with in the Mediterranean, &c. But it is found in the greatest abundance on the northern shores of the Caspian, and in the rivers Wolga and Ural; and there its fishery employs a great number of hands, and is an important object of national industry. Owing to the length and strictness of the Lents in the Greek Church, the consumption of fish in Russia is immense; and from its central position, and the facilities afforded for their conveyance by the Wolga, the products of the Caspian fishery, and those of its tributary streams, are easily distributed over a vast extent of country. Besides the pickled carcases of the fish, caviar is prepared from the roes; and isinglass, of the best quality, from the sounds. The caviar made by the Ural Cossacks is reckoned superior to any other; and both it and isinglass are exported in considerable quantities. The belugas are sometimes of a very large size, weighing from 1,000 to 1,500 lbs., and yield a good deal of oil. The seal fishery is also pretty extensively prosecuted in the Caspian. The reader will find a detailed account of the mode in which the fishery is carried on in this sea, and in the rivers Wolga and Ural, in *Tooke's Russia,* vol. iii. pp. 49—72. We subjoin the following official statement of the produce of the Russian fisheries of the Caspian and its tributary streams in 1828 and 1829:—

Year.	Number of Persons employed.		Number of Fish taken.					Products of Sturgeon.		
	In Fishing.	In hunting Seals.	Sturgeon.	Sevruga.	Beluga.	Sasans. (Carp).	Seals.	Caviar.	Fish Cartilage.	Isinglass.
								Pouds. lbs.	*Pouds. lbs.*	*Pouds. lbs.*
1828	8,887	254	45,035	653,164	23,069	8,353	98,584	34,860 1	1,407 38	1,225 27
1829	8,760	257	68,325	697,716	20,391	5,940	69,872	28,420 7	1,173 26½	1,092 22

M. Tegoborski (*Forces Productives de la Russie,* i. 284.) estimates the total value of the produce of the fisheries now referred to at 5,000,000 silver roubles a year. In 1852, 13,338 pouds pressed, and 11,238 do. soft caviar were exported from Taganrog.

SUGAR (Fr. *Sucre;* Ger. *Zucher;* It. *Zucchero;* Russ. *Sachar;* Sp. *Azùcar;* Arab. *Sukhir;* Malay, *Soola;* Sans. *Sarkarā*), a sweet granulated substance, too well known to require any particular description. It is every where in extensive use; and in this country ranks rather among the indispensable necessaries of life, than among luxuries. In point of commercial importance, it is second to very few articles. It is chiefly prepared from the expressed juice of the *arundo saccharifera,* or sugar cane; but it is also procured from an immense variety of other plants, as maple, beet-root, birch, parsnep, &c.

I. *Species of Sugar.* — The sugar met with in commerce is usually of 4 sorts; — brown, or muscovado sugar; clayed sugar; refined, or loaf sugar; and sugar candy. The difference between one sort of sugar and another depends altogether on the different modes in which they are prepared.

1. *Brown, or Muscovado Sugar.* — The plants or canes being crushed in a mill, the juice, having passed through a strainer, is collected in the clarifier, where it is first exposed to the action of a gentle fire, after being "tempered" (mixed with alkali), for the purpose of facilitating the separation of the liquor from its impurities. It is then conveyed into the large evaporating copper, and successively into two others, each of smaller size; the superintending boiler freeing it, during the process, from the scum and feculent matters which rise to the surface. The syrup then reaches the last copper vessel, called the "striking tache," where it is boiled till sufficiently concentrated to be capable of granulating in the cooler, whence it is transferred with the least possible delay, to prevent charring. Here it soon ceases to be a liquid; and when fully crystallised, is put into hogsheads (called "potting"), placed on their ends in the curing-house, with several apertures in their bottoms, through which the molasses drain into a cistern below. In this state they remain till properly cured, when the casks are filled up, and prepared for shipment.

2. *Clayed Sugar* is prepared by taking the juice, as in the case of muscovado sugar when boiled to a proper consistency, and pouring it into conical pots with the apex downwards. These pots have a hole at the lower extremity, through which the molasses or syrup is allowed to drain. After this drain has continued for some time, a stratum

of moistened clay is spread over the surface of the pots; the moisture of which, percolating through the mass, is found to contribute powerfully to its purification.

3. *Refined Sugar* may be prepared from muscovado or clayed sugar, by redissolving the sugar in water, and, after boiling it with some purifying substances, pouring it, as before, into conical pots, which are again covered with moistened clay. A repetition of this process produces *double refined* sugar. But a variety of improved processes are now resorted to.

4. *Sugar Candy.*—Solutions of brown or clayed sugar, boiled till they become thick, and then removed into a hot room, formed upon sticks or strings put into the vessels for that purpose, into crystals, or candy.

II. *Historical Notice of Sugar.*—The history of sugar is involved in a good deal of obscurity. It was very imperfectly known by the Greeks and Romans. Theophrastus, who lived about 320 years before the Christian era, the first writer whose works have come down to us by whom it is mentioned, calls it a sort of "honey extracted from canes or reeds." Strabo states, on the authority of Nearchus, Alexander's admiral, that "reeds in India yield honey without bees." And Seneca, who was put to death A. C. 65, alludes to sugar in a way which shows how little was then known respecting it (Epist. 84.):—*Aiunt*, says he, *inveniri apud Indos mel in arundinum foliis, quod aut ros illius cœli, aut ipsius arundinis humor dulcis et pinguior gignat.*

Of the ancients, Dioscorides and Pliny have given the most precise description of sugar. The former says, it is "a sort of concreted honey, found upon canes, in India and Arabia Felix; it is in consistence like salt, and is, like it, brittle between the teeth." And Pliny describes it as "honey collected from canes, like a gum, white and brittle between the teeth; the largest is of the size of a hazel nut: it is used in medicine only."—(*Saccharum et Arabia fert, sed laudatius India; est autem mel in arundinibus collectum, gummium modo candidum, dentibus fragile, amplissimum nucis avellanæ magnitudine, ad medicinæ tantum usum.*—Lib. xii. c. 8.)

It is evident, from these statements, that the knowledge of the Greeks and Romans with respect to the mode of obtaining sugar was singularly imperfect. They appear to have thought that it was found adhering to the cane, or that it issued from it in the state of juice, and then concreted like gum. Indeed, Lucan expressly alludes to Indians near the Ganges,—

Quique bibunt tenerâ dulces ab arundine succos.—(Lib. iii. l. 237.)

But these statements are evidently without foundation. Sugar cannot be obtained from the cane without the aid of art. It is never found native. Instead of flowing from the plant, it must be forcibly expressed, and then subjected to a variety of processes. It is not, however, quite so clear as has been generally supposed that the Romans were wholly unacquainted with the mode of procuring sugar. The remarkable line of Statius—

Et quas percoquit Ebusia cannas.—(Sylv. lib. i. v. 15.)

has been conjectured, apparently on pretty good grounds, to refer to the boiling of the juice of the cane. But the passage has been differently read, and is too enigmatical to be much depended on.

Dr. Moseley conjectures, apparently with much probability, that the sugar described by Pliny and Dioscorides, as being made use of at Rome, was sugar candy obtained from China. This, indeed, is the only sort of sugar to which their description will at all apply. And it would seem that the mode of preparing sugar candy has been understood and practised in China from a very remote antiquity; and that large quantities of it have been in all ages exported to India, whence, it is most probable, small quantities found their way to Rome.—(*Treatise on Sugar*, 2d. edit. pp. 66—71. This, as well as Dr. Moseley's *Treatise on Coffee*, is a very learned and able work.)

Europe seems to be indebted to the Saracens, not only for the first considerable supplies of sugar, but for the earliest example of its manufacture. Having, in the course of the 9th century, conquered Rhodes, Cyprus, Sicily, and Crete, they introduced into them the sugar cane, with the cultivation and preparation of which they were familiar. It is mentioned by the Venetian historians, that their countrymen imported, in the 12th century, sugar from Sicily at a cheaper rate than they could import it from Egypt.—(*Essai de l'Histoire du Commerce de Venise*, p. 100.) The Crusades tended to spread a taste for sugar throughout the Western world; but there can be no doubt that it was cultivated as now stated, in modern Europe, antecedently to the æra of the Crusades; and that it was also previously imported by the Venetians, Amalphitans, and others, who carried on a commercial intercourse, from a very remote epoch, with Alexandria and other cities in the Levant. It was certainly imported into Venice in 996.—(See the *Essai, &c.* p. 70.)

The art of refining sugar, and making what is called loaf-sugar, is said, by Dr.

Moseley, to be a modern European invention, the discovery of a Venetian about the end of the 15th or the beginning of the 16th century.—(*Moseley*, p. 66.) But this is doubtful, for Le Grand D'Aussy has shown that white or, as he calls it, refined sugar, (*sucre blanc ou raffiné*) had been introduced into and used in France for more than a century and a half previously to the date assigned for the discovery of the process of refining in Venice.*—(*Vie Privée des François*, ii. 198. ed. 1815.) This sugar was imported from Egypt principally by Italians; and the probability is, that the latter were the first Europeans who practised the art, which, however, would appear to have originated in the East.

The cane had, as already seen, been introduced into Sicily, and its culture practised, previously to the middle of the 12th century. It also was carried to Spain and cultivated by the Saracens soon after they obtained a footing in that country. The first plantations were at Valencia; but they were afterwards extended to Granada and Murcia. Mr. Thomas Willoughby, who travelled over great part of Spain in 1664, has given an interesting account of the state of the Spanish sugar plantations, and of the mode of manufacturing the sugar.

Plants of the sugar cane were carried by the Spaniards and Portuguese to the Canary Islands, and Madeira, in the early part of the 15th century; and it has been asserted by many, that these islands furnished the first plants of the sugar cane that ever grew in America.

But though it is sufficiently established that the Spaniards early conveyed plants of the sugar cane to the New World, there can be no doubt, notwithstanding Humboldt seems to incline to the opposite opinion (*Essai Politique sur la Nouvelle Espagne*, liv. iv. c. 10), that this was a work of supererogation, and that the cane was indigenous both to the American continent and islands. It was not for the plant itself, which flourished spontaneously in many parts when it was discovered by Columbus, but for the art of making sugar from it, that the New World is indebted to the Spaniards and Portuguese: and these to the nations of the East.—(See *Lafitau, Mœurs des Sauvages*, tome ii. p. 150; *Edwards's West Indies*, vol. ii. p. 238.)

Barbadoes is the oldest settlement of the English in the West Indies. We took possession of it in 1627; and so early as 1646 began to export sugar thence to England. The trade of Barbadoes attained its maximum in 1676, furnishing, it is said, employment, at that period, for 400 sail of vessels, averaging 150 tons burden; but this statement is most probably exaggerated.

Jamaica was discovered by Columbus, in his second voyage, and was first occupied by the Spaniards. It was wrested from them by an expedition sent against it by Cromwell in 1656; and has since continued in our possession, forming by far the most valuable of our West Indian colonies. At the time when it was conquered, there were only 3 small sugar plantations upon it. But, in consequence of the influx of English settlers from Barbadoes and the mother country, fresh plantations were speedily formed, and continued rapidly to increase.

The sugar cane is said to have been first cultivated in St. Domingo, or Hayti, in 1506. It succeeded better there than in any other of the West Indian Islands. Peter Martyr in a work published in 1530, states that, in 1518, there were 20 sugar-works in St. Domingo established by the Spaniards. "It is marvellous," says he, "to consider how all things increase and prosper in the island. There are now 28 sugar presses, wherewith great plenty of sugar is made. The canes or reeds wherein the sugar groweth are bigger and higher than in any other place; and are as big as a man's wrist, and higher than the stature of a man by the half. This is more wonderful, that whereas in Valencia, in Spain, where a great quantity of sugar is made yearly, whensoever they apply themselves to the great increase thereof, yet doth every root bring forth not past 5 or 6, or at most 7 of these reeds; whereas at St. Domingo, 1 root beareth 20, and oftentimes 30."—(Eng. Trans. p. 172.)

Sugar from St. Domingo formed, for a lengthened period, the principal part of the European supplies. Previously to its devastation in 1790, no fewer than 65,000 tons of sugar were exported from the French portion of the island.

III. *Sources whence the Supply of Sugar is derived.*— The West Indies, inc. Cuba, Louisiana, Java, Brazil, Bengal, Mauritius, the Isle de Réunion, and the Philippines, are the principal sources whence the foreign supplies required for the European, American, and Australian markets are derived. But of late years the supplies of tropical sugar brought to Europe have been materially increased by the beet-root sugar raised in France, Belgium, Germany, &c.

The following estimate, of which we have borrowed the principal portion from a valuable article on Sugar in *Hunt's Commercial Magazine*, gives what is, we believe, a pretty accurate account of its production during each of the 9 years ending with 1857: —

	1849.	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Cuba - - tons	220,000	250,000	320,000	310,107	331,204	349,502	375,475	357,347	369,610
Porto Rico - - „	43,600	48,200	49,500	47,981	39,202	40,107	41,058	53,377	35,660
Brazil - - „	121,000	113,271	141,685	106,672	152,601	114,509	113,754	105,603	125,000
United States - - „	98,200	120,400	103,200	118,273	160,967	224,660	173,317	115,713	36,903
Colonies, French - „	56,000	46,000	55,000	69,000	61,102	81,780	87,000	94,000	92,500
„ Danish - „	7,900	5,000	6,000	8,011	9,000	10,000	9,711	11,204	12,212
„ Dutch - „	13,000	14,200	15,000	15,100	14,101	17,102	16,701	18,291	19,000
„ British, ex Mau. „	142,200	129,200	168,000	153,134	141,538	172,215	146,198	147,911	146,925
East Indies - - „	73,400	67,300	66,000	78,280	79,112	40,121	37,104	58,583	57,822
Mauritius - - „	44,700	50,200	58,000	68,066	80,000	82,000	123,000	106,000	110,000
Java - - „	90,000	82,000	82,000	86,297	85,109	74,771	59,210	68,240	72,911
Manilla - - „	20,000	23,189	26,806	25,912	39,270	41,908	46,210	48,422	42,210
Total cane -	930,000	948,960	1,091,191	1,084,833	1,193,206	1,248,675	1,228,738	1,184,491	1,120,753
France - - „	38,000	61,000	75,000	69,110	74,910	76,951	44,669	92,197	85,126
Belgium - - „	5,000	6,000	8,000	7,121	9,200	8,760	9,000	9,180	10,101
Zollverein - - „	33,000	38,000	49,000	62,111	85,000	70,821	73,981	80,755	87,319
Russia - - „	13,000	14,000	15,000	17,525	16,201	17,192	18,192	21,207	22,208
Austria - - „	6,500	10,000	15,000	16,101	15,611	14,211	17,111	19,102	19,892
Total beet-root -	95,500	129,000	162,000	171,968	200,922	187,935	162,953	222,439	222,646
Grand total -	1,925,500	1,077,960	1,253,191	1,256,801	1,394,128	1,436,610	1,391,691	1,406,930	1,343,399
Average price of sugar at Amsterdam -	fl. 53	59	58	58	60·50	60·95	66·15	67·15	69

* But white sugar is not necessarily, as Le Grand D'Aussy seems to suppose, refined; it may be merely clayed, like Havannah sugar, which is as white as refined sugar.

The produce of sugar in the U. States in 1857 is set down in the above table at rather less than 37,000 tons. But this was an extraordinarily small crop, occasioned by the early frost of that year (see N. ORLEANS): and the produce of the U. States may be safely estimated as amounting, at an average, to at least from 160,000 to 180,000 tons a-year or upwards.

On the whole we incline to think that we shall be sufficiently near the mark if we estimate the produce of sugar in 1858 at about 1,250,000 tons cane, and 230,000 tons beet-root, making a total produce of 1,480,000, or perhaps 1,500,000 tons.

Loaf or lump sugar is unknown in the East, sugar candy being the only species of refined sugar that is made use of in India, China, &c. The manufacture of sugar candy is carried on in Hindostan, but the process is extremely rude and imperfect. In China, however, it is manufactured in a very superior manner, and large quantities are exported. When of the best description, it is in large white crystals, and is a very beautiful article. Two sorts of sugar candy are met with at Canton, viz. Chinchew and Canton; the former being the produce of the province of Fokien, and the latter, as its name implies, of that of Canton. The Chinchew is by far the best, and is about 50 per cent. dearer than the other. Chinese sugar candy is extensively consumed by Europeans at the different settlements throughout the East. With the exception of 1852, when 2,085 tons raw sugar were imported from China, very little has latterly been brought to our markets from that empire. It seems, indeed, to be pretty well understood that the sugar of China is unable to withstand the competition of that of Java, Brazil, and Cuba.

Consumption of Tropical Sugar.—It is exceedingly difficult, or rather we should say quite impossible, to get any correct information with respect to the consumption of sugar in most countries. In as far, however, as regards this country, the subjoined tables furnish ample information. It appears from them that at an average of the 3 years ending with 1844, the consumption of sugar in the U. Kingdom amounted to about 200,000 tons a-year, exclusive of about 10,000 tons of bastard or inferior sugar, obtained from boiling molasses. In the course of the ensuing year, Sir Robert Peel reduced the duties on British colonial muscovado sugars from *25s.* 2⅔*d.* to *14s.* a cwt., a considerable reduction being made, at the same time, in the duty on foreign sugar the produce of free labour. In consequence of this reduction the entries of sugar for home consumption increased from 206,472 tons in 1844 to 242,830 tons in 1845, exclusive in both years of molasses equivalent to about 15,000 tons. In 1846 farther changes were made in the duties by the admission of foreign slave grown sugar at a reasonable rate; and in 1854 the entries for consumption amounted to 416,619 tons. But they declined during the next 3 years. The entries in 1858, however, rose, inc. refined, to about 437,000 tons, to which from 25,000 to 30,000 tons may be added for molasses. (See *post.*)

The statements given by Schnitzler (*Statistique de la France*, i. 296.) show that at an average of 1840 and 1841 the consumption of colonial and foreign sugars amounted in France to 73,139,000 kilog., or 71,425 tons a year; and adding to this quantity the produce of the beet-root plantations for these years, amounting to about 30,000,000 kilog., the whole consumption would be about 103,000,000 kilog., exclusive of the quantity surreptitiously introduced. But the home supply of sugar has greatly increased in the interval: and it further appears from the official accounts published by the French customs, that, in 1857, no fewer than 136,240,817 kilog., or 134,000 tons, of foreign and colonial sugar were entered for consumption. And it may be proper to observe that this quantity, though greatly in excess of the imports previously to 1854, does not differ materially from the imports of 1855 and 1856. We hardly think, however, that we should be justified in estimating the imports of foreign and colonial sugar into France at above 110,000 tons in ordinary years, making, with beet-root, the consumption about 200,000 tons.

The Low Countries, Germany, and Austria are supplied through Holland, the Hanse Towns, the ports on the south shore of the Baltic, and Trieste. Most part of the produce of the Dutch colonies is imported into Holland, and considerable quantities are also imported from other countries; so that, on the whole, the imports into the Dutch ports may be fairly estimated at from 100,000 to 110,000 tons a year. The imports into Hamburg and Bremen amount, at an average, to about 35,000 or 40,000 tons a year; and those into Antwerp to above 15,000 tons. There is also a considerable importation of sugar into Stettin and other Baltic ports belonging to Germany and Prussia. The imports into the Austrian dominions through Trieste, Venice, and other channels, may be taken at about 30,000 tons.

The consumption of sugar in Spain has been estimated by Montveran (*Statistique des Colonies*, p. 92.) at 41,050 tons. But, despite the considerable consumption of cocoa in Spain, and the moderation of the duties on sugar, we have little or no doubt that this estimate is considerably beyond the mark. Probably, were the consumption stated at 36,000 tons, it would be quite as much as it amounts to. On the like grounds we may, perhaps, estimate the consumption of Portugal at about 10,000 tons.

Duty is paid in Russia on about 25,000 tons of raw sugar, exclusive of what is clandestinely imported, and exclusive, also, of the clandestine imports of refined sugar. This, with beet-root sugar, may raise the total supply to 60,000 tons.

The following Table shows the Imports of Foreign Sugar, of all Sorts, into Russia, with its estimated Value, according to the Official Returns published by the Imperial Government.

Years.	By Sea.	By Land.	Total.	Value.	Duty.
1852	*Tons* 31,232	*Tons* 27	*Tons* 31,259	*Roub.* 7,027,834	*Roub.* 7,241,891
1853	21,173	Nil.	21,173	4,936,560	4,871,206
1854	15,611	2,607	18,218	5,918,226	3,960,610
1855	1,233	14,950	16,183	5,208,436	2,290,936
1856	8,697	12,769	21,466	7,111,092	3,472,615
1857	24,797	1,604	26,401	8,901,014	4,931,814

To the above has to be added about 24,000,000 lbs. beet-root sugar imported from Poland in 1857, and 42,000,000 lbs. raised in the empire; making in all about 36,000 tons. (*Consular Report on Poland in* 1857.) The growth of beet-root sugar in Poland is said to have been 1849–50, 3,628,170 lbs. Eng.; 1855–56, 11,031,000 lbs.; and 1856–57, 15,377,000 lbs. of superior quality, exc. in 1856–57, of 13,636,000 lbs. inferior do.

During the year ending the 30th June, 1858, the U. States imported (principally from Cuba and Porto Rico) 517,228,624 lbs., of which 74,470,454 lbs. were re-exported, leaving 442,758,170 lbs., or nearly 200,000 tons, for the consumption of the Union. But in addition to their imports of foreign sugar the U. States draw a principal portion

of their supply from the plantations in Louisiana, the produce of which has increased very rapidly of late years. In 1854 it amounted to 224,000 tons. But, as already stated, the produce fluctuates very greatly in different years, and may, perhaps, be estimated at about 175,000 tons at an average. The exports of this sugar are not very considerable: the whole shipments of native raw and refined sugar from the Union during the year ended the 30th of June, 1858, having amounted to 46,367,786 lbs., or about 20,000 tons. (*Papers published by order of Congress.*) The States derive a further supply of 15,000 or 18,000 tons sugar from the maple.

On the whole, therefore, we shall not perhaps be far wrong in estimating the consumption of colonial, tropical, and beet-root sugar as follows, viz.:—

	Tons.	Tons.
The U. Kingdom, inclusive of distilleries, &c.		430,000
France, inc. beet-root		200,000
Colonial sugars for the Netherlands, Belgium, Germany, Prussia, Austria, Hungary, and Austrian Italy, per Dutch ports, deducting re-exports to Russia and other countries	60,000	
per Hanse Towns	35,000	
— Antwerp	15,000	
— Rostock, Stettin, Königsberg, and other ports on the Baltic, including the imports from Holland and the Hanse Towns	8,000	
Trieste, Venice, Fiume, &c.	30,000	
Beet-root, do.	117,000	
		265,000
Spain		35,000
Portugal		10,000
Russia, inc. beet-root		60,000
Denmark and Sweden		13,000
Italy, Sicily, Malta, Turkey, Greece, and the Levant generally		52,000
U. States		360,000
Canada, Australia, Cape of Good Hope, &c.		45,000
		1,470,000

Now, supposing these statements to be reasonably correct, it would appear that the aggregate supply of sugar so far exceeds the demand, that it may be fairly presumed, that the giving of full permission to employ sugar in our distilleries and breweries will have no lasting influence over its price.* It is, no doubt, true that the demand for sugar is rapidly increasing in this and most other countries; but, as the power to increase its supply (so long, at least, as Cuba, Brazil, and Louisiana are supplied with slave labour) is all but illimitable, no permanent rise of prices need at present be anticipated.

Taking the price of sugar at the rate of 1*l.* 4*s.* a cwt. or 24*l.* a ton, the prime cost of the article (1,470,000 tons) to the people of Europe and the U. States will be 35,280,000*l.* sterling; to which adding 50 per cent. for duty, its total cost will be 52,920,000*l.*! This is sufficient to prove the paramount importance of the trade in this article. Exclusive, however, of sugar, the other products of the cane, as rum, molasses, treacle, &c. are of very great value. The revenue derived by the British treasury for rum only, amounted, in 1858, to 1,396,093*l.* nett., but it has sometimes been greater.

Progressive Consumption of Sugar in Great Britain.—We are not aware that there are any authentic accounts with respect to the precise period when sugar first began to be used in England. It was, however, imported in small quantities by the Venetians and Genoese in the 14th and 15th centuries†; but honey was then, and for long after, the principal ingredient employed in sweetening liquors and dishes. Even in the early part of the 17th century, the quantity of sugar imported was very inconsiderable; and it was made use of only in the houses of the rich and great. It was not till the latter part of the century, when coffee and tea began to be introduced, that sugar came into general demand. In 1700, the quantity consumed in Great Britain was about 10,000 tons, or 22,400,000 lbs.; whereas, in 1854, the consumption amounted (bastards excluded) to above 416,000 tons, or more than 930,000,000 lbs.; so that sugar forms not only one of the principal articles of importation and sources of revenue, but an important necessary of life.

Great, however, as the increase in the use of sugar has certainly been, it may, we think, be fairly presumed that the demand for it is still a good deal below its natural limit; and now that the duties are reasonable, and the trade placed on a proper footing, we confidently anticipate that the consumption of sugar, and, also, the revenue derived from it, will yet be considerably increased.

During the first half of last century, the consumption of sugar increased five-fold. It amounted, as already stated—

* The quantities taken for this purpose have hitherto been inconsiderable, viz., in 1856, 134,623 cwt.; 1857, 5,225 do.; and in 1858, 17,553 do.

† In Marin's *Storia del Commercio de Veneziani* (vol. v. p. 306.), there is an account of a shipment made at Venice for England in 1319, of 100,000 lbs. sugar, and 10,000 lbs. sugar candy. The sugar is said to have been brought from the Levant.

In 1700,	to 10,000 tons	- or 22,000,000 lbs.	In 1754,	to 53,270 tons	or 119,320,000 lbs.
1710,	- 14,000	- 31,369,000	1770—75,	- 72,500 (average)	- 162,509,000
1734,	- 42,000	- 94,080,000	1786—90,	- 81,000 —	- 181,500,000

In the reign of Queen Anne, the duty on sugar amounted to 3*s.* 5*d.* per cwt. Small additions were made to it in the reign of George II.; but in 1780 it was only 6*s.* 8*d.* In 1781 a considerable addition was made to the previous duty; and in 1787 it was as high as 12*s.* 4*d.* In 1791 it was raised to 15*s.*; and while its extensive and increasing consumption pointed it out as an article well fitted to augment the public revenue, the pressure on the public finances, caused by the French war, occasioned its being loaded with duties, which, though they yielded a large return, would, there is good reason to think, have been more productive had they been lower. In 1797, the duty was raised to 17*s.* 6*d.*; 2 years after, it was raised to 20*s.*; and, by successive augmentations in 1803, 1804, and 1806, it was raised to 30*s.*; but in the last mentioned year it was enacted, that, in the event of the market price of sugar in bond, or exclusive of the duty, being for the 4 months previous to the 5th of January, the 5th of May, or the 5th of September, below 49*s.* a cwt., the Lords of the Treasury might remit 1*s.* a cwt. of the duty; that if the prices were below 48*s.*, they might remit 2*s.*; and if below 47*s.*, they might remit 3*s.*, which was the greatest reduction that could be made. In 1826, the duty on West India sugar was declared to be constant at 27*s.*, without regard to price; the duty on sugar from the Mauritius being then also reduced to 27*s.* In 1830, the duty was reduced to 24*s.* on West India and Mauritius sugar, and to 32*s.* on East India sugar; and in 1836, the duty on the latter was reduced to the same level as that on the former.

Account of the Quantity of Sugar retained for Home Consumption in GREAT BRITAIN, the Nett Revenue derived from it, and the rates of Duty with which it was charged, in each Year from 1789 to 1814, both inclusive.

Years.	Quantities retained for Home Consumption.	Nett Revenue.	Rates of Duty. British Plantation Sugar.	Rates of Duty. East India Sugar, including Mauritius.
	Cwt.	£ *s.* *d.*	*Per Cwt.* £ *s.* *d.*	*Per Cwt.* £ *s.* *d.* / *Per Cent. ad valorem.* £ *s.* *d.*
1789	1,547,109	862,632 11 11	0 12 4	- - / 37 16 3
1790	1,556,232	908,934 17 4		
1791	1,403,211	1,074,903 16 5	0 15 0	0 2 8 / 37 16 3
1792	1,361,592	1,019,538 12 1		
1793	1,677,097	1,316,502 14 3		
1794	1,489,392	1,031,492 4 2		
1795	1,336,230	949,961 16 1		
1796	1,554,062	1,225,215 7 5		
1797	1,273,722	1,293,744 0 7	0 17 6	0 5 2 / 37 16 3
1798	1,476,552	1,794,990 15 9	0 19 0	0 5 2 / 40 16 3
1799	2,772,438	2,321,935 16 5	1 0 0	0 2 6 / 42 16 3
1800	1,506,921	1,835,112 11 1		
1801	2,773,795	2,782,232 18 1	- -	0 3 2 / 42 16 3
1802	2,250,311	2,210,801 6 11		
1803	1,492,365	1,561,457 17 11	1 4 0	1 6 4½ / 1 4 0
1804	2,144,369	2,258,124 13 3	1 6 6	1 9 6 / 1 6 6
1805	2,076,103	2,439,795 1 10	1 7 0	1 9 8½ / 1 7 0
1806	2,801,747	3,097,590 3 6		
1807	2,277,665	3,150,753 6 3		
1808	2,842,813	4,177,916 3 4	- -	1 10 0 / 1 0 0
1809	2,501,507	3,273,995 2 3		
1810	3,489,312	3,417,330 12 9	1 9 0 / 1 8 0	1 12 0 / 1 11 0 / 1 0 0
1811	3,226,757	3,339,218 4 3	1 7 0	1 10 0 / 1 0 0
* 1812	2,604,019	3,939,939 17 2		
1813	2,209,063	3,447,560 4 5	1 10 0	1 13 0 / 1 0 0
				Per Cwt. £1 10 0 / 1 11 0 / 1 19 0
1814	1,997,999	3,276,513 6 5	- -	

* Sugar used in distilleries included in these years.

Account of the Quantities of Sugar imported into the United Kingdom from the West Indies, and British Guiana, distinguishing the Quantities from each Colony, in the under-mentioned Years, from 1831 to 1858, both inclusive.

Colonies from which imported.	Sugar, unrefined.										
	1831.	1835.	1840.	1845.	1850.	1853.	1854.	1855.	1856.	1857.	1858.
	Cwts.	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*	*Cwts.*
Antigua -	193,177	174,818	203,071	210,015	123,860	202,413	244,508	219,939	203,992	203,082	258,459
Barbadoes -	379,052	344,639	207,484	551,435	524,658	590,063	666,465	592,567	632,445	583,623	754,236
Dominica -	56,339	25,014	34,673	57,883	51,816	57,295	58,315	55,978	47,041	57,651	60,826
Grenada -	185,771	170,280	88,982	71,252	92,850	93,668	95,681	66,981	55,184	90,455	98,768
Jamaica -	1,429,093	1,148,760	513,541	742,867	575,022	441,210	505,680	450,282	371,319	422,772	535,098
Montserrat -	26,137	16,261	12,205	11,265	1,607	- -	58	455	1,764	283	785
Nevis - -	49,924	39,637	27,857	30,858	15,518	38,197	34,663	33,982	13,744	21,926	29,554
St. Christopher	101,968	87,614	94,390	122,773	70,717	101,919	140,842	111,785	103,652	91,371	159,256
St. Lucia -	72,376	54,744	37,667	71,250	55,903	66,981	75,053	65,952	91,286	65,970	77,579
St. Vincent -	221,662	195,057	101,020	132,673	139,581	137,806	142,460	98,121	105,956	126,653	146,401
Tobago -	121,249	77,263	51,548	62,709	44,297	57,950	44,428	39,534	58,585	34,172	67,952
Tortola -	15,559	13,821	7,566	7,177	1,406	- -	1,582				
Trinadad -	327,167	289,393	245,778	364,152	366,220	481,120	537,280	418,902	483,078	442,476	549,626
Bahamas -	- -	- -	202	1,669	- -	- -	101				4,500
Bermudas -	104	- -	4,336	- -	- -	1	- -	2	- -	2	
Demerara -	802,134	760,376	436,487	499,102	472,750	521,802	806,534	675,851	597,013	691,849	678,667
Berbice -	122,088	126,485	93,157	120,575	55,215	62,637	91,780	85,461	75,613	112,745	95,201
Total -	4,103,800	3,524,809	2,214,764	2,857,703	2,589,420	2,845,065	3,443,190	2,915,592	2,810,648	2,945,751	3,496,938

An Account, showing the Quantities in cwts. of the several Sorts of Raw, exc. Refined, Sugar imported Duty charged on Sugar when entered for Home Consumption, and the Nett Revenue accruing thereon; Bond for the same Years.

Years.	Quantities of Sugar imported into the U. Kingdom, in cwts.					Quantities of Sugar retained for Consumption in the U. Kingdom, in cwts.*			
	British Plantation.	Mauritius.	East India.	Foreign.	Total Quantity imported.	British Plantation.	East India.	Foreign.	Total Quantity retained for Consumption.
1815	3,642,807	- -	125,659	366,889	4,134,335	2,151,050	43,041	37,228	2,211,299
1816	3,360,317	- -	127,052	192,780	3,680,149	2,446,458	33,980	49,493	2,529,931
1817	3,679,352	- -	125,893	105,916	3,911,161	3,267,054	27,332	4,575	3,298,941
1818	3,775,379	- - Considered as E. I. sugar in	162,395	138,032	4,076,806	1,701,421	25,056	419	1,726,896
1819	3,907,151	these years.	205,527	85,837	4,198,515	2,720,609	100,046	245	2,820,900
1820	3,769,458	- -	277,228	162,990	4,209,676	2,816,788	84,795	281	2,901,864
1821	3,906,967	- -	269,162	197,037	4,373,166	2,956,411	120,205	208	3,056,882
1822	3,455,061	- -	226,371	112,954	3,774,386	2,851,678	137,092	287	2,989,057
1823	3,772,528	- -	219,580	208,598	4,201,706	3,125,907	102,901	183	3,228,991
1824	3,935,052	- -	271,848	205,750	4,412,650	3,214,701	152,675	50	3,367,424
1825	3,501,281	93,723	145,995	167,136	3,908,135	2,972,623	107,200	25	3,079,848
1826	4,002,426	186,782	155,986	75,901	4,419,095	3,430,652	143,312	26	3,573,990
1827	3,550,918	204,344	160,585	194,171	4,110,018	3,270,885	69,856	186	3,340,927
1828	4,315,430	361,325	132,722	160,543	4,968,020	3,504,164	97,244	11	3,601,419
1829	4,152,815	297,958	174,056	231,584	4,856,593	3,421,409	118,400	12	3,539,821
1830	3,913,268	485,710	213,494	303,532	4,916,004	3,690,041	131,979	24	3,722,044
1831	4,103,746	517,553	161,779	583,184	5,366,262	3,667,396	113,536	79	3,781,011
1832	3,784,245	541,770	88,257	453,477	4,867,749	3,575,529	79,600	605	3,655,534
1833	3,655,612	529,352	111,731	442,597	4,739,292	3,555,450	98,283	71	3,651,804
1834	3,844,244	555,860	76,617	266,693	4,743,414	3,620,522	121,007	50	3,741,579
1835	3,525,948	558,237	101,351	264,751	4,448,267	3,757,851	98,680	31	3,856,562
1836	3,600,517	497,303	152,229	399,112	4,649,161	3,378,144	110,222	33	3,488,399
1837	3,305,258	537,961	296,679	542,700	4,482,578	3,684,712	270,055	43	3,954,810
1838	3,521,454	604,671	428,854	475,415	5,030,374	3,491,225	418,575	65	3,909,865
1839	2,825,951	612,586	518,925	722,777	4,673,219	3,548,298	477,252	49	4,025,599
1840	2,202,833	545,009	482,826	805,167	4,035,845	3,074,198	518,520	2,316	3,594,834
1841	2,145,500	716,112	1,230,758	805,668	4,905,018	2,991,953	1,065,414	261	4,057,628
1842	2,508,910	689,353	940,452	617,514	4,756,011	2,952,415	935,948	103	3,888,466
1843	2,503,567	476,925	1,102,176	937,903	5,020,569	2,972,564	1,055,667	76	4,028,307
1844	2,452,778	540,620	1,101,261	785,416	4,880,075	3,084,159	1,045,208	98	4,129,443
1845	2,854,010	716,173	1,358,786	911,921	5,820,890	3,548,141	1 251,176	77,307	4,856,624
1846	2,147,363	845,198	1,452,274	1,197,852	5,622,507	3,176,600	1,440,909	602,739	5,220,248
1847	3,199,821	1,193,571	1,407,154	2,408,981	8,209,527	3,623,066	1,182,423	974,019	5,779,508
1848	2,795,311	886,284	1,352,747	1,855,589	6,869,931	3,571,581	1,349,751	1,220,964	6,142,296
1849	2,839,911	897,815	1,474,474	1,725,149	6,937,349	4,054,981	1,354,228	496,478	5,905,687
1850	2,587,420	1,003,296	1,350,296	1,350,523	6,291,535	5,786,002	1,397,095	908,395	6,091,492
1851	3,065,560	1,000,056	1,570,854	2,296,304	7,932 534	3,596,868	1,257,638	1,379,041	6,233,547
1852	3,402,551	1,121,995	1,303,650	1,068,585	6,896,781	4,684,529	1,552,012	682,526	6,898,867
1853	2,850,724	1,252,207	1,225,959	1,977,400	7,284,290	4,379,481	1,361,375	1,551,979	7,272,853
1854	3,444,316	1,661,619	786,678	3,219,751	9,112,364	4,599,064	990,403	2,439,291	8,028,758
1855	2,927,671	1,363,132	752,095	2,501,255	7,324,153	4,174,254	783,460	2,321,434	7,259,148
1856	2,817,678	1,647,256	1,250,429	2,065,877	7,781,240	4,354,947	859,775	1,618,750	6,815,470
1857	2,960,109	1,184,329	1,181,537	3,064,721	8,390,696	5,451,971	1,075,447	2,616.172	7,121,590
1858	3,499,071	10,86,501	796,512	3,628,912	9,010,796	4,527,308	951,821	3,117,127	8,490,256

* These are the quantities retained for consumption, after the quantities exported in a raw or refined state, after payment

into the U. Kingdom; the Quantities retained for actual Consumption within the same; the Rates of in each Year since 1815: with a Statement of the Average Prices of British and Foreign Sugar in

Rates of Duty per cwt.				Nett Revenue from Duties on Sugar.	Prices of	
British Plantation.	Mauritius.	East India.	Foreign.		British Muscovado. London Gazette.	Havannah (Brown and Yellow). Price Current.
(Muscovado.) £ s. d.			(Muscovado.) £ s. d.	£	s. d.	s. d.
1 10 0	- -	- - - £ s. 1 10 / From 5th May - 1 17	3 3 0	5,454,335	61 10	74 2
from 5th Sept. £ s. 1 10 / - 1 7	- -	1 17 0	From 5th Sept. £ s. 3 0	3,612,193	48 7	53 8
1 7 0	- -	1 17 0	3 0 0	4,433,926	49 8	51 6
1 10 0	charged as East India sugar in these years.	2 0 0	3 3 0	2,751,107	50 0	52 2
to 5th May 1 10 / 5th May to 5th Sept. 1 8 / from 5th Sept. - 1 7	- -	To 5th May - - 2 0 / 5th May to 5th Sept. - 1 18 / From 5th Sept. - - 1 17	To 5th May - 3 3 / 5th May to 5th Sept. 3 1 / From 5th Sept. - 3 0	5,996,545	41 4	42 2
1 7 0	- -	1 17 0	3 0 0	3,925,587	36 2	38 4
1 7 0	- -	1 17 0	3 0 0	4,188,958	33 2	30 4
1 7 0	- -	1 17 0	3 0 0	4,060,444	31 0	26 6
1 7 0	- -	1 17 0	3 0 0	4,407,410	32 11	32 10
1 7 0	- -	1 17 0	3 0 0	4,641,904	31 6	26 10
1 7 0	charged as B. P. from 5th July, 1825.	1 17 0	3 0 0	4,176,655	38 6	37 6
Brown or Muscovado and clayed.			Muscovado and clayed.			
1 7 0	- -	1 17 0	3 3 0	4,950,998	30 7	32 8
1 7 0	- -	1 17 0	3 3 0	4,650,192	35 9	37 0
1 7 0	- -	1 17 0	3 3 0	5,002,297	31 8	34 8
1 7 0	- -	1 17 0	3 3 0	4,896,242	28 7	30 8
from 5th July - 1 4	- -	From 5th July - - 1 12	3 3 0	4,767,342	24 11	24 2
1 4 0	- -	1 12 0	3 3 0	4,650,590	23 8	23 10
1 4 0	- -	1 12 0	3 3 0	4,594,338	27 8	24 10
1 4 0	- -	1 12 0	3 3 0	4,414,302	29 8	24 9
1 4 0	- -	1 12 0	3 3 0	4,559,392	29 5	25 11
1 4 0	- -	1 12 0	3 3 0	4,667,900	33 5	31 4
		1 12 0				
1 4 0	- -	From 15th August. Of any Brit. P. within the E. I. C.'s charter in which foreign sugar is prohibited. £ s. d. 1 4 0 / Of any other British P. within those limits, and thence imported. £ s. d. 1 12 0	3 3 0	4,184,165	40 10	33 2
1 4 0	- -	1 4 0 / 1 12 0	3 3 0	4,760,565	34 7	27 10
1 4 0	- -	1 4 0 / 1 12 6	3 3 0	4,658,892	33 8	27 5
1 4 0	- -	1 4 0 / 1 12 0	3 3 0	4,586,936	39 2	24 8
1 5 2½	- -	1 5 2½ / 1 13 7½	3 6 1½	4,449,076	49 1	25 4
1 5 2½	- -	1 5 2½ / 1 13 7½	3 6 1½	5,114,590	39 8	31 6
1 5 2½	- -	1 5 2½ / 1 13 7½	3 6 1½	4,874,812	36 11	30 1
1 5 2⅜	- -	1 5 2⅜ / 1 15 7⅛	3 6 1⅜	5,076,326	33 9	21 2
			Of any for. country, not produced by slave labour. / Other foreign sugar.			
from 10th Nov. - 1 5 2½	- -	1 5 2½ / 1 13 7½	1 15 8⅛ / 3 6 1	5,203,270	33 8	21 8
Equal.*	Not equal.*	Equal.* / Not equal.* / Equal.* / Not equal.*	Equal.* / Not equal.*			
from 14th March 0 16 4	0 14 0	0 16 4 / 0 14 0 / 1 1 9 / 0 18 8	1 8 0 / 1 3 4 / 3 3 0 Of any foreign country.	3,574,471	32 11	26 4
			If imported direct. Equal.* / Not equal.* / Otherwise imported			
from 18th Aug. 0 16 4	0 14 0	0 16 4 / 0 14 0 / 1 0 5 / 0 17 6	1 4 6 / 1 1 0 / 2 2	5,896,780	34 5	24 6
from 5th July - 0 16 4	0 14 0	0 16 4 / 0 14 0 / 0 19 10 / 0 17 0	1 3 4 / 1 0 0 / 2 2 0	4,405,237	28 3	25 10
From 1848 to 1854 the duties were progressively reduced.				4,557,337	25 8	21 4
				3,912,170	25 4	22 8
				3,884,141	26 1	21 2
				3,979,141	25 6	23 5
				3,895,656	22 5	21 11
				4,085,856	24 6	24 5
From 5th July, 1854, the duties have been on all sorts and whencesoever imported:—						
Equal.*	Not equal.*	Not equal to Brown-Clayed.				
£ s. d.	£ s. d.	£ s. d.				
0 14 0	0 12 0	0 11 0		4,741,757	22 8	23 9
0 17 6	0 15 0	0 13 9		5,058,500	25 1	26 7
0 17 6	0 15 0	0 13 9		5,129,046	30 0	31 6
0 16 0	0 13 10	0 12 8		5,055,034	36 11	38 0
0 16 0	0 13 10	0 12 8		5,848,170	27 6	29 7

of the duty, have been deducted.

* To White-Clayed.

We had occasion, in a former edition of this work, to remark on the impolicy and injustice of charging sugar from our possessions in the East Indies with a higher rate of duty than was laid on sugar from the West Indies. But, as already seen, this distinction was suppressed in 1836, and the sugar of our various colonial possessions and dependencies is now admitted for consumption on the same terms.

Previously to 1845 the duty on sugar from a British possession was decidedly too high, being no less than 25*s.* 2*d.* (24*s.* + 5 per cent.) per cwt. But whether this were so or not, there cannot, we apprehend, be so much as the shadow of a doubt that the duty on foreign sugars was then more than twice as great as it should have been. This duty, which amounted for a lengthened period to 63*s.* a cwt., was, in fact, intended to be prohibitory; and so long as our foreign dependencies furnished so much sugar as not only to supply the markets of the U. Kingdom, but to furnish, besides, a considerable excess for exportation to others, there was little to object to in the magnitude of the duty. Latterly, however, it became most oppressive in its operation. In consequence, as already seen, of the measures connected with the emancipation of the slaves, the imports of sugar from the West Indies declined from 4,103,746 cwts. in 1831, to 2,857,703 cwts. in 1845. Owing to the immigration of hill-coolies, and other circumstances, the emancipation of the slaves in the Mauritius had comparatively little effect; and since 1845 there has been a very great increase in the exports of sugar from that island. (See Port Louis.) But despite this circumstance, and the increase in the imports of sugar from India since 1840, the decrease in the imports from the West Indies was not, for a considerable time, fully compensated. On the one hand, therefore, we had a rapidly increasing population, and on the other we had that population confined by an oppressive duty to a market for sugar, the supply of which had been diminished! The consequences were such as every man of sense might have anticipated from the outset. The business of refining for the foreign market, and our export trade in sugar, were all but annihilated, while the average gazette price of muscovado sugar admissible to the English markets amounted during the 3 years ending with 1844 to about double the price of foreign sugar in bond, of equal or superior quality! We beg, in illustration of what is now stated, to subjoin an

Account of the Quantities of Sugar retained for Consumption, of the Nett Produce of the Duties thereon, and of the Prices of British Sugar (ex Duty), and Brazil Sugar in Bond, in 1842, 1843, and 1844, with the Average of these 3 Years.

Years.	Quantities.	Nett Revenue from Duties on Sugar.	Average Prices of British Muscovado Sugar.	Average Prices of Brazil Sugar (Brown and Yellow).
	Cwts.	£	*s.* *d.*	*s.* *d.*
1842 - -	3,868,437	4,874,812	56 1½	18 3
1843 - -	4,028,307	5,076,526	53 9½	17 2
1844 - -	4,129,994	5,203,222	53 3	17 0
Total -	12,026,738	15,154,560	163 11½	£2 12 5
Average of 3 years -	4,008,912⅔	5,051,453½	54 7¾	17 5⅔

Now, it appears from this statement, that while the price of British sugar (exclusive of duty) amounted during the 3 years ending with 1844 to 34*s.* 7¾*d.* per cwt., the price of Brazil (and Cuba) sugar was only 17*s.* 5⅔*d.* per do.! And hence it follows, that, had the then prohibitory duty of 63*s.* on foreign sugar been reduced to the same rate (25*s.* 2*d.*, or 24*s.* + 5 per cent.) as the then duty on British sugars, the people of the U. Kingdom might have bought the same quantity of sugar for 17*s.* 5⅔*d.* that cost them 34*s.* 7*d.*, that is, they might have got about 2 lbs. of sugar for the same sacrifice it cost them to get 1 lb. The aggregate loss to the public from this preposterous arrangement of the sugar duties, during the period in question, was quite enormous. It appears from the above account that the average consumption of sugar, during each of the three years ending with 1844, amounted to 4,008,912⅔ cwts., which at 34*s.* 7¾*d.* cost 6,944,605*l.* 14*s.* 5*d.* But had we been allowed to go into the foreign market for sugar, we might have got the same quantity for 3,502,230*l.* 13*s.*, being a saving in 1 year of no less than 3,442,375*l.* 1*s.* 5*d.*, and on 3 years, of 10,327,125*l.* 4*s.* 3*d.* But it may, perhaps, be said, that had our ports been open to the free importation of Brazilian and other foreign sugars, the price of the latter would have been raised: and so probably it would; though, considering the vast extent and productiveness of the field from which sugar may be brought, we doubt whether this effect would be very sensible. But, supposing that the opening of our ports had raised the price of foreign sugar from 17*s.* 5⅔*d.* to 22*s.* a cwt., still the saving would have amounted to 2,534,801*l.* 15*s.* 9*d.* a year!

Under these circumstances there could no longer be a doubt that the reduction of the old prohibitory duty of 66*s.* a cwt. on foreign sugar was imperatively required; this was partially effected in 1844, when the duty on foreign sugar, if produced by free

labour, was reduced to 35*s.* 8½*d.* a cwt.; and when, in 1845, the duty on British colonial sugars was reduced to 14*s.* a cwt., that on foreign free labour sugar was farther reduced to 23*s.* 4*d.* a cwt.

But though these reductions of duty effected a great improvement in the old system, they were inadequate to place it on a satisfactory footing. The reduction of the duty on foreign sugar applied to that only which was produced by free labour, the sugar produced by the labour of slaves (unless we happened to be bound by treaty to admit it at the low duty) continuing subject to the old prohibitory duty of 66*s.* per cwt. Nothing, however, could be more inexpedient than this distinction, on which we took the liberty to animadvert as follows in a former edition of this work:—

"We take, without any scruple, the cotton, tobacco, rice, and other products of slave-holding countries; and such being the case, it is not very easy to see on what principle we refuse to take their sugar. There is no reason to think that we are at all likely to hasten, by this refusal, the emancipation of their slaves (even if that were certainly desirable), or to improve their condition: our policy in this respect is injurious to ourselves, without being of the smallest advantage to any one else.

"But the truth is, if we look a little narrowly into the circumstances, we shall find that we do the very thing we pretend not to do. We annually export large quantities of British produce to Cuba and Brazil; but the sugar of those countries, the principal article they have to send us, being excluded from our markets, we cannot bring it direct to this country, but we carry it to Hamburg and other continental emporiums, and there exchange it for wool, flax, and other articles we are allowed to import; so that, in effect, we transmute the slave-grown sugar into other things, and consume it under its new form. We do not employ it to sweeten tea and coffee; but we clothe ourselves with wool and flax, manure our lands with bones, and manufacture our paper of rags, which are all bought by it! But suppose we were a little more Quixotic, and that after getting the sugar we threw it into the sea, the result, as respects Cuba and Brazil, would be the same. We give, by buying their sugar, all the encouragement in our power to the slavery that exists in them; what we shall do with the sugar is our own affair; and whether we use it, sell it to others, or destroy it, is, as far as slavery is concerned, quite immaterial. But it is by no means immaterial as respects our trade with slave-holding countries; inasmuch as the preference we give to the sugars of others tempts them to lay discriminating duties on our products, and to discourage and embarrass our trade. And even were it otherwise desirable, it may be doubted whether it be in our power to exclude slave-grown sugar. Certificates of origin will, we apprehend, be rather a slender security for this result. But supposing them to be effectual, the consequence will be that a greater quantity of Java and Manilla sugar being consumed in England, less of it will remain to be sent to the Continent, where, by means of our policy, a corresponding market will be opened for slave-grown sugar!

"But admitting that something might be found to say in favour of the policy of wholly excluding slave-grown sugar, we, in effect, abandon it, by admitting the slave-grown sugar of the U. States and other countries with which we have treaties of reciprocity; so that, after all, our policy, in this respect, is prohibitive only of the sugars of Cuba, Porto-Rico, and Brazil! If the Americans chose to send us the whole sugar grown in Louisiana, every ounce of which is the produce of slave labour, importing in its stead sugar from the Havannah and Bahia, it would be freely admitted to our markets. Hence it is that, while we exclude the slave-grown sugar of those friendly countries of whose trade we might, if we chose, have a virtual monopoly, we admit the slave-grown sugar of our rivals, of the only people whose commercial marine can come into competition with our own! And to show that this contradiction is not imaginary, we may mention that, during the present year (1845) about 300 tons of the sugar of Louisiana* and Venezuela have been admitted to consumption under the new act! Is it, we beg to ask, possible to speak too harshly of such a policy? to imagine anything more perverse, contradictory, and absurd?

"It were really, therefore, to be wished that we should cease to rave, as we have done for the last 20 years, about slavery; and that we should allow our merchants to buy sugar, as we allow them to buy cotton and other things, without inquiring how, or by whom, it is produced. We may be assured that we should give as little encouragement to slavery by so doing as we give by our present system, while we should, at the same time, give greater facilities to our trade, and full scope to the late, and in other respects, wise and liberal measures."

We are glad to have to state that the principle contended for in the above paragraphs has since been fully admitted by the legislature; the act of 1846, 9 & 10 Vict. c. 63., having equalised the duty on all descriptions of foreign sugars.

* The quality of the latter is not, as now prepared, well suited to our markets.

It will farther be observed that under the system adopted in 1845, a discriminating duty of 9*s.* 4*d.* per cwt. was imposed on foreign muscovado sugar admitted to consumption over and above the duty (14*s.* per cwt.) imposed on British sugar. Inasmuch, however, as the latter was inadequate to the supply of the U. Kingdom, the effect of this regulation was to add 9*s.* 4*d.* per cwt. to the price of all the sugar, British as well as foreign, entered for consumption. And it was hardly to be supposed, after the striking recognition of the principles of free trade given by the legislature in passing the act for the abolition of the corn laws, that the protective system would be permitted to continue for the sake of the sugar colonies. The abolition of the former was, in truth, all but equivalent to the abolition of the latter. And the 9 & 10 Vict. c. 63. referred to above, which put an end to the distinction between free and slave-grown sugar, provided also for the equalisation of the duties on British and foreign sugars, which, had it been maintained, would have been finally effected on the 5th of July, 1851.

This last act, however, was afterwards superseded by the 11 & 12 Vict. c. 97., which, exclusive of some changes in the duties, deferred their complete equalisation till 1854.

Comparative Efficiency of Free and Slave Labour in the Production of Sugar. — But though it was not to be expected that a discriminating duty in favour of the sugar of our colonies would be tolerated, it is by no means clear that its abolition has not been an injustice to the latter. The equalisation of the duties would have been in all respects unobjectionable, were the circumstances under which the planters in our colonies are placed identical with or similar to those under which their competitors are placed in Cuba, Brazil, and Java. Such, however, is not the case. The instruments of production possessed by the latter are totally different from those possessed by the former. In Brazil and Cuba the planters are furnished with slave labour, and in Java the population, though not enslaved, is subjected to compulsory service. Unless, therefore, it can be shown that free labour is as efficient in the production of sugar in the West Indies and Demerara as slave or compulsory labour, it will necessarily follow that the equalisation of the duties on British and foreign sugars was an injustice to our colonists.

It has been alleged over and over again in vindication of this equalisation, that free labour is at once cheaper and more efficient than slave labour; and without inquiring into the truth of this allegation, we shall admit the greater cheapness of free labour in countries where freemen and slaves are equally suited to the employments carried on in them, and where these employments would be spontaneously followed by the slaves were they emancipated. But the conditions under which the production of sugar is carried on in the intertropical regions of the New World are entirely different from those now stated. Whites are not capable of field labour in such climates; and the raising of sugar is not an employment that would be voluntarily undertaken by free blacks. The latter have few wants. They reckon as useless incumbrances many articles indispensable in cold or temperate climates. Hence the *curis acuens mortalia corda*, so powerful in Europe, has but little influence in Jamaica and Trinidad. Men are not instinctively laborious or enterprising. Industry is with them merely a means to an end, a sacrifice they make to obtain supplies of the necessaries and conveniences of human life. Whenever the sacrifice required to procure food, clothes, and other necessary accommodations is considerable, the population is generally industrious; and a taste for labour being widely diffused, those who are not obliged to apply themselves to the production of necessaries, engage in the production of superfluities. But wherever the principal wants of man may be supplied with but little exertion, indolence becomes the distinguishing characteristic of the population; and, instead of employing their spare time in the production of articles of ostentation and luxury, they usually waste it in idleness and apathy. Now this is the precise state of the blacks in the W. Indies. Their necessities and desires are of a very limited description; and are generally indeed fully satisfied by the produce of a small patch of land, requiring but little labour in its cultivation: and such being the case it would be contradictory to suppose that they should voluntarily employ themselves in the hard labour necessary to produce sugar. Consistently with what is now stated, we find that Hayti, or St. Domingo, though the most fruitful of the West Indian islands, and though, when a colony of France, it furnished immense supplies of sugar, does not export, now that it is occupied by free blacks, a single ton! This, also, is the case in Mexico: and what reasonable ground have we for supposing that the result would be different in Jamaica, Cuba, or Brazil, were the blacks free and able (which is not the case in our islands) easily to obtain patches of land? The possession of the latter is requisite to enable them to exist without engaging in laborious service; and in the event of their not being able to obtain land, they may be forced to employ themselves in the culture of sugar; though, as it is against their inclination, they will withdraw from their work on the first opportunity, and will, while employed, indulge as much as possible in idleness.

Hence it would seem that, whether slave and compulsory labour be cheaper or

dearer than free labour, it is indispensable to the production of sugar. We do not presume in making this statement to give any opinion in regard to the policy or impolicy of the suppression of slavery in our colonies. The freedom of the blacks may be a more than sufficient compensation for the cessation of supplies of sugar from them. But, whether it be so or not, we regard it as the merest illusion to suppose that the severe drudgery of sugar planting will ever be efficiently carried on in the W. Indies by really free labourers.

The mere exclusion of slave-grown sugar would not, however, as many seem to suppose, have in any degree obviated the hardships to which our planters have been exposed. It would merely have forced a larger quantity of the sugars of Java and China upon our markets, and opened a larger field for the consumption of slave-grown sugar on the Continent. Justice to our colonists required that either a discriminating duty should have been imposed in their favour on all foreign sugars, or that they should have been compensated in some other way. But as the former method of dealing fairly by them would have been repugnant to the national feeling and highly objectionable, at the same time that it is more than doubtful whether it would have done real service to the planters, some less offensive and more efficient alternative should have been resorted to. We subjoin

An Account of the Quantities of the different Descriptions of Unrefined Sugar entered for Consumption in the United Kingdom during each of the 26 Years ending with 1857; with an Account of the Amount of Duty received on the same, the average Price of Muscovado Sugar in Bond, &c.

Years.	Quantities entered for Consumption.				Nett Revenue from Duties on Sugar.	Av. Prices of British Muscovado Sugar, per cwt.		
	British Plantation (inc. Mauritius.)	East India.	Foreign.	Total.		£	s.	d.
	Cwts.	*Cwts.*	*Cwts.*	*Cwts.*	£	£	s.	d.
1832	3,575,529	79,600	605	3,655,534	4,394,338	1	7	8
1833	3,553,460	98,253	71	3,651,804	4,411,302	1	9	8
1834	3,620,522	121,007	50	3,741,579	4,599,592	1	9	5
1835	3,757,851	98,680	31	3,856,562	4,667,900	1	13	5
1836	3,378,144	110,222	33	3,488,399	4,181,165	2	0	10
1837	3,684,712	270,055	43	3,954,810	4,760,565	1	14	7
1838	3,491,225	418,575	65	3,909,665	4,656,891	1	13	8
1839	3,348,298	477,252	49	3,825,599	4,586,936	1	19	2
1840	3,074,198	618,350	2,316	3,694,834	4,449,070	2	9	1
1841	2,992,203	1,065,414	261	4,057,878	5,114,590	1	19	8
1842	2,952,386	955,948	104	3,868,457	4,874,812	1	16	11
1843	2,972,564	1,055,667	76	4,028,307	5,076,326	1	13	9
1844	3,084,139	1,044,206	98	4,129,443	5,203,270	1	13	8
1845	3,548,141	1,231,176	77,307	4,856,624	3,574,171	1	12	11
1846	3,176,600	1,440,909	602,739	5,220,248	3,896,780	1	14	5
1847	3,623,066	1,182,193	974,019	5,779,508	4,405,257	1	8	3
1848	3,571,581	1,349,751	1,220,964	6,142,296	4,557,337	1	3	8
1849	4,054,981	1,351,228	496,478	5,905,687	3,912,170	1	5	4
1850	3,786,002	1,397,095	908,595	6,091,492	3,884,441	1	6	1
1851	3,596,868	1,257,638	1,379,041	6,233,547	3,979,141	1	5	6
1852	4,684,329	1,532,012	682,526	6,898,867	3,893,836	1	2	5
1853	4,379,481	1,361,373	1,531,979	7,272,833	4,085,856	1	4	6
1854	4,599,064	990,103	2,439,291	8,028,758	4,741,757	1	2	8
1855	4,174,254	765,160	2,321,434	7,259,148	5,058,500	1	5	1
1856	4,334,947	859,773	1,618,750	6,813,470	5,129,646	1	10	0
1857	3,431,971	1,073,447	2,616,172	7,121,590	5,055,034	1	6	6
1858	4,527,508	951,821	3,117,127	8,490,256	5,848,170	1	7	6

Sugar Duties. — The 11 & 12 Vict. c. 97. regulated and materially reduced the duties on colonial and foreign sugars. But the war with Russia occasioned their subsequent increase. And though they have been again reduced, it is very doubtful whether that reduction will be permanent. The probability, indeed, seems to be quite the other way. And it must be admitted that when fairly imposed, and not carried to an extravagant height, these duties afford one of the least exceptionable means by which a large revenue may be most conveniently raised. The sugar duties at present are as follows, viz.

Duties on Sugar imposed by the Act 20 & 21 Vict. c. 61.

Sugar, viz.:		£	s.	d.	
Candy, brown or white refined sugar, or sugar rendered by any process equal in quality thereto -	cwt.	0	18	4	Till 31 March, 1860.
White clayed sugar, or sugar rendered by any process equal in quality to white clayed, not being refined, or equal in quality to refined - - - - - -	,,	0	16	0	
Yellow Muscovado and brown clayed sugar, or sugar rendered by any process equal in quality to yellow Muscovado or brown clayed, and not equal to white clayed - - - -	,,	0	13	10	
Brown Muscovado or any other sugar, not being equal in quality to yellow Muscovado or brown clayed sugar - - - - - - - - - -	,,	0	12	8	
Cane juice - - - - - - - - - -	,,	0	10	4	
Molasses - - - - - - - - - -	,,	0	5	0	

The quantity of sugar consumed in Great Britain, previously to the change in 1845, allowing for the quantity sent to Ireland, was more than double what it was in 1790. But had the duty continued at 12*s.* 4*d.*, its amount in that year, there cannot, we think, be much doubt, provided foreign sugars had also been admitted under a reasonable duty, that the consumption would have been trebled or more. During the intervening period the population had been little less than doubled; and the proportion which the middle classes bear to the whole population had been decidedly augmented. The consump-

tion of coffee—an article in the preparation of which a great deal of sugar is used in this country by all who can afford it—is about 35 times as great now as in 1790; that is, it has increased from under 1,000,000 lbs. to about 35,000,000 lbs.! The consumption of tea has more than doubled; and there has been a great increase in the use of home-made wines, preserved and baked fruits, &c. Instead, therefore, of having done little more than increase proportionally to the increase of population, it may be fairly presumed that the consumption of sugar would, had there not been some powerful counter-vailing cause in operation, have increased in a far greater degree. Instead of amounting, in 1844, to little more than 4,000,000 cwt., the consumption of Great Britain should have amounted to about 6,000,000 cwt.

Taking the aggregate consumption of sugar in Great Britain previously to 1845 at 400,000,000 lbs., and the population at 20,000,000, the average consumption of each individual would have been about 20 lbs., ex molasses. This, though a far greater average than that of France, or any of the continental states, was but small compared with what it was supposed it would amount to when supplied under a more liberal system. In workhouses, the customary annual allowance for each individual is, we believe, 34 lbs.; and, in private families, the smallest separate allowance for domestics is 1 lb. a week, or 52 lbs. a year. These facts strongly corroborate what we formerly stated as to the extent to which the consumption of sugar would probably be increased under the new system; and others may be referred to, that are little less conclusive. Mr. Huskisson observed, in his place in the House of Commons, on Mr. Grant's motion for a reduction of the sugar duties, 25th of May, 1829, that "in consequence of the present enormous duty on sugar, the poor working man with a large family," to whom pence were a serious consideration, was denied the use of that commodity; and he believed *he did not go too far when he stated that* TWO-THIRDS *of the poorer consumers of coffee drank that beverage without sugar.* If, then, the price of sugar were reduced, it would become an article of his consumption, like many other articles—woollens, for example, which are now used for their cheapness — which he was formerly unable to purchase."—(*Speeches*, vol. iii. p. 455.) Mr. Huskisson's conclusions are now in the way of being fully realised. But for the late check given to consumption by the increase of the duty occasioned by the war with Russia, it is not easy to anticipate what might have been its amount in 1860. In 1844, for example, the consumption of the U. K. amounted to 206,472 tons; in 1847 it had increased to 290,282 tons; in 1850 to 310,390; and in 1854, when the duties were equalised, it amounted to 401,437 tons raw, and 15,182 do. refined. And this, it will be observed, is exclusive of about 42,000 tons molasses entered for consumption. And we may add, in illustration of the way in which this extraordinary increase has been effected, that while, in London and other parts of the country, the sales of sugar by the grocers who supply the higher classes have been but little extended, the sales by those who principally deal with the lower classes have augmented from 50 to 100, and, in some cases, to 150 and 200 per cent.! This is the best possible proof of the salutary as well as of the powerful influence of the reduction of the duties. But it is only what might have been anticipated; inasmuch as the consumption of the more opulent classes was but little affected by the previous high duty.

In Ireland, especially, the most beneficial effects have resulted from the reduction of the duties on sugar. The direct importations of sugar into Ireland did not, previously to the late changes, exceed 18,500 tons; and, adding to these 6,500 tons for the second-hand importations (including bastards) from Great Britain, which, we believe, was quite as much or more than they amounted to, the entire consumption of that country would be 25,000 tons, or 57,000,000 lbs., which, taking the then population at 8,000,000, gave 7·125 lbs. to each individual; or nearly 1-3d part of the average consumption of each individual in Great Britain. So singular a result must, no doubt, be principally ascribed to the poverty of the Irish; but there can be no doubt that it was partly, also, owing to over-taxation. And the reduction of the duty, though it occasioned an immediate loss of revenue in Ireland, was sure in the end to be productive of its increase, besides being attended with other and still more beneficial consequences. Next to the suppression of agitation, and assassination, the "one thing needful" in Ireland is to inspire the population with a taste for the conveniences and enjoyments of civilised life; and the first step towards supplying this desideratum is, if possible, to make articles of convenience and luxury attainable by the mass of the people. If this be done, whether by a reduction of duties or otherwise, we may expect that the desire inherent in all individuals of improving their condition will impel them to exert themselves to obtain them. A taste for such articles will be gradually diffused among all ranks; and ultimately, it may be presumed, it will be thought discreditable to be without them. It is probable, owing to the late extraordinary decrease of the population in Ireland, that the deliveries of sugar may not be greater now than formerly. But if it be maintained at near its old level, it will show a great increase in the consumption per individual.

The Board of Inland Revenue has latterly made some elaborate inquiries with respect to the comparative consumption of sugar and tea by the higher, the middle, and the lower classes. But it would be wrong to lay much stress on the conclusions resulting from such investigations. At the best they should be regarded only as very rude approximations. Even as such, however, they are deserving of attention. We subjoin the result of the Board's inquiries in as far as they relate to sugar.

Proportional Consumption of Sugar in Great Britain by the Higher, the Middle, and the Poorer or Working Classes.

	England.	Scotland.	Great Britain.
The upper classes consume	23 per cent.	22 per cent.	22½ per cent.
The middle classes	37 „	40 „	38 „
The poorer or working classes	40 „	38 „	39½ „
Total	100 per cent.	100 per cent.	100 per cent.

Mr. Ogilvie, a very intelligent Customs officer, has made the following observations in regard to the consumption of sugar.

"In England, sugar is generally used by the working classes in the raw or unrefined state, though the preference for refined sugar is gradually and extensively increasing. In London and other large towns, when refined sugar can be purchased for 6*d.* per lb., it is universally preferred; but when the price rises above that, the poor are obliged to fall back upon the raw.

"In Scotland, raw sugar is but little used, except by the very poorest; inferior qualities of refined, known as 'crushed lump' and 'bastards,' being generally used by the middling and lower classes, the use of loaf sugar being confined to the wealthier classes.

"In the north of Ireland, particularly in the manufacturing districts around Belfast and Londonderry, the produce of Liverpool and Greenock refineries meets with a large sale. In Limerick it is stated that two-thirds of the consumption consist of refined loaf and crushed; but in the other parts of Ireland, raw sugar is the chief article of consumption among the working classes, loaf sugar being consumed only by the rich, and by the better classes of mechanics and farmers in their whiskey punch. Among all classes, sugar is more an article of consumption than tea, because the poor use it with coffee and cocoa as well as with tea, and among the rich it enters largely into many culinary preparations."—(*Parl. Paper*, No. 184, Sess. 1857.)

U. States.—Next to, or even, perhaps, before Great Britain, the U. States are now, as previously seen, by far the largest consumers of sugar; and Louisiana has become a principal producing country. It appears from the best attainable information that the consumption of foreign and native sugar, allowing for stocks on hand, &c., in the Union in the under-mentioned years was nearly as follows, viz.:—

Consumption of Foreign and Domestic Cane Sugar, in the U. States, in the following Years, ending 31st of December (in Tons):—

Years.	Foreign.	Domestic.	Total.	Years.	Foreign.	Domestic.	Total.
1850	143,045	126,421	269,466	1855	192,604	185,148	377,752
1851	181,047	107,438	288,485	1856	255,292	123,468	378,760
1852	196,558	118,659	315,217	1857	241,765	39,000	280,765
1853	200,610	172,379	372,989	1858	244,758	143,654	388,492
1854	150,854	234,444	385,298				

But this, it will be observed, is exclusive of molasses and maple sugar. And allowing 36,000 tons for these, and taking the population of the Union at 30,000,000, the total average consumption in 1858 has been estimated at nearly 32 lbs. for each individual!

The crops of sugar in Louisiana are very fluctuating, being very apt to be injured by frost. The crop of 1853-54 was the largest ever known; and has been estimated at 225,000 or 227,000 tons. Probably, however, the average produce may not, as previously stated, exceed from 170,000 to 180,000 tons. The refining business has made a rapid progress in the U. States; so much so, that the produce of refined sugar is now estimated at about 170,000 tons.

Sugar Trade of the U. States in 1858.

Total Imports	tons	255,100
Add stock in ports, 1st January, 1858		15,529
Supply for year		270,629
Deduct exports and shipments inland to Canada	12,525	
Stock in ports, 1st January, 1859	13,346	25,871
Total consumption of Foreign sugar in U. States		244,758
Add crop of 1857-58 of Louisiana, Texas, Florida, &c., the bulk of which was distributed in 1858, and assuming the stock 1st January each year to be equal		143,734
Would make the total consumption of cane sugar in U. States in 1858		388,492

It may, perhaps, be proper to state that these estimates, like others of the same kind, though nearly, are not to be considered as being entirely accurate; and the best of them always differ more or less from each other. In the statements now laid before the reader the years terminate on the 31st December; whereas, in the official returns, they terminate on the 30th June. And it appears from the latter that the imports of raw sugar in the year ending the 30th June, 1858, amounted to 517,228,624 lbs., being rather above 230,000 tons, while the exports during the same year were 71,674,178 lbs., or very near 32,000 tons, leaving 198,000 tons for consumption. But it does not, therefore, follow that it was consumed. To decide this point we must know the stocks on hand at the beginning and end of the year, and these it is either impossible or very difficult to learn exactly.

Use of Sugar in Distilleries and Breweries.—In the last edition of this work we expressed ourselves on this subject as follows: "The use of sugar in these establishments, though not absolutely prohibited, is at present placed under restrictions which are equivalent to a prohibition. There can, however, be no doubt that these restrictions should be abolished, and free leave given to the growers and importers of sugar and molasses, and, indeed, of everything else, to convert them to any purpose to which they may be applicable. This has hitherto been objected to, except in periods of scarcity, partly from a wish to promote the interests of the barley growers and maltsters in this country, and partly from the alleged risk of smuggling and loss to the revenue. But now that the policy, or rather impolicy, of protection has been renounced by the legislature, and that foreign barley may be imported and employed in any way, under a nearly nominal duty, there is plainly no ground or pretence on which the agriculturists can object to the use of sugar; and as respects the risk of fraud and loss to the revenue, we do not think it amounts to much. In cases where sugar only is to be used in distilleries and breweries, the risk of fraud could hardly amount to anything; and in the cases in which it is partly used along with malt or raw grain, or both, it would be easy, seeing that the capacity of sugar to produce spirits and beer, as compared with malt and grain, is well known, to take such precautions as would prevent any amount of fraud worth talking about. But, however it may be carried into effect, it would seem to be indispensable that the distilleries and breweries, as well as every other legitimate channel of consumption carried on in the kingdom, should be open to all who raise or import sugar, or anything else, on their paying the customary rates of duty. This is the only way in which the interests of the consumers, which are identical with those of the public, can be effectually secured; and it is obvious that, to carry out the great principle of the freedom of industry, it is not merely necessary to permit the free importation of colonial and other products, but to allow them, after being imported, to be employed in any way their owners may think fit. Under this system justice will be done to all parties, and the public be supplied with the best and the cheapest articles." And we are glad to have to state that this principle has since been fully carried into effect by the acts 10 Vict. c. 5., and 11 & 12 Vict. c. 100., to which we beg to refer.

Adulteration.—Sugar is an article which is especially liable to adulteration; and its high price during many years, coupled with the high duty, gave a powerful stimulus to this nefarious practice. Perhaps, we might not be far from the mark, were we to estimate the quantity of foreign matters intentionally mixed up with sugar, and sold as such in this country, previously to the late reduction of duties, at 10,000 or 12,000 tons a-year! Sago and potato flour are the articles which have been most extensively used for this purpose. When mixed with sugar they give it a whiter and finer appearance; and, unless the dose be overdone, increase its price about 4*s.* a cwt. It is extremely difficult to deal with an abuse of this sort. No doubt the fall in the price of sugar following the placing of the trade on a proper footing, and the reduction of the duty, have lessened the temptation to adulterate. But they have not wholly removed it, the materials employed to adulterate being decidedly cheaper than sugar, however supplied. In this, as in most cases of the sort, the best security against adulteration is to deal only with grocers of the highest character.

Refining of Sugar for Home Consumption.—Of late years the refining of British colonial sugar for exportation has wholly ceased. Indeed the tide has now turned the other way. In 1857, 14,896 tons foreign refined sugar, principally from Holland and Belgium, were taken for consumption. But despite this circumstance, the refining of sugar for home use is extensively carried on, and has increased considerably since the reduction of the duties. At present (1859) there are upwards of 50 refining establishments in G. Britain, with a capital probably exceeding 1,500,000*l.* It is supposed that these establishments will use in the course of the current year from 230,000 to 250,000 tons raw sugar, which will produce, exclusive of molasses and bastards, from about 180,000 to 200,000 tons refined sugar. A large proportion of this produce consists of what is called "crushed lumps," a variety of refined sugar which is rapidly superseding the finer descriptions of E. Indian sugar and even of W. Indian muscovadoes. Refined sugar is now used by very many families by whom it was formerly never tasted.

According to the mean of several estimates,

100 cwts. of sugar, double-refined (or corresponding in quality to double-refined) are equal to 129 cwts. raw sugar.

100	„ of sugar single-refined	110
100	„ of bastards	85
100	„ of molasses	39

Drawback or Bounty on the Exportation of Refined British Colonial Sugar.—It may be doubted whether the business of refining sugar for exportation has ever been productive of any material national advantage to us. It was long suspected—and the fact

seems to have been sufficiently established—that the drawback formerly allowed on the exportation of refined sugar was greater than the duty charged on the raw sugar used in its manufacture; the excess being, in fact, a bounty paid to those engaged in the trade. Previously to 1826, the drawback on double-refined sugar was 46*s.* a cwt.: it was then reduced to 43*s.*; but there is reason to think that that was still considerably above the mark. The average price of sugar in bond in this country was, for several years, from 5*s.* to 6*s.* a cwt. above what sugar of the same quality brought on the Continent; a difference which, as we then exported sugar, could not have been maintained, had it not been for the bounty. The same conclusion was established by trials made at a sugar-house taken for the purpose by government; and in consequence the drawback was reduced to what was supposed to be the fair equivalent of the duties paid on the raw sugar; a measure of the expediency of which no doubt can be entertained.

The existing bounties or drawbacks on the exportation of British refined sugar are as follows, viz.: —

Drawbacks allowed by the Act 20 & 21 Vict. c. 61. on Refined Sugar, when exported to Foreign Parts, or removed to the Isle of Man for Consumption therein.

		£	s.	d.	
Sugar: refined sugar in loaf, complete or whole or lumps duly refined, having been perfectly clarified and thoroughly dried in the stove, and being of an uniform whiteness throughout, or sugar candy, or sugar refined by the centrifugal machine, or by any other process, and not in any way inferior to the export standard No. 3., approved of by the Lords of the Treasury -	cwt.		17	2	Till 31st March 1860.
Such refined sugar already described, if pounded, crushed, or broken in a warehouse approved by the Commissioners of Customs, such sugar having been there first inspected by the officers of customs in lumps or loaves, as if for immediate shipment, and then packed for exportation in the presence of such officers, and at the expense of the exporter - - - -	cwt.		17	2	
Refined sugar unstoved, pounded, crushed or broken, and not in any way inferior to the export standard sample No. 1, approved by the Lords of the Treasury, and which shall not contain more than 5 per cent. moisture, over and above what the same would contain if thoroughly dried in the stove - - - - - - - -	cwt.		16	4	
Bastard or refined sugar, unstoved, broken in pieces, or being ground, powdered, or crushed, not in any way inferior to the export standard sample No. 2, approved by the Lords of the Treasury - - - - - - - - - - -	cwt.		15	1	
Bastard or refined sugar being inferior in quality to the said export standard sample No. 2. -	cwt.		12	8	

Most foreign countries have endeavoured to bolster up the refining business, not merely by excluding foreign refined sugars from their markets, but by granting the most lavish bounties on the exportation of sugar refined at home. In France, this sort of policy, if we may so call it, was carried so far, that out of a gross revenue of about 40,000,000 francs (1,570,000*l.*) paid into the treasury on account of the sugar duties in 1832, about 19,000,000 (760,000*l.*) were returned as drawback on the export of refined sugar. As the French government could not afford to lose the sugar duties, which would very speedily have been swallowed up by the drawback, necessity compelled them to modify their system, by making the allowance to the exporter more nearly correspond with the duty. The refining of sugar has been carried on within the last few years to a very great extent in Holland. But here also the business has received an unnatural extension, by artificial encouragement.

Prussia, and most parts of Germany, to which we formerly exported large quantities of refined sugar, no longer admit it except at a high duty.

Beet-Root Sugar.—The manufacture of sugar from beet-root is carried on to a very considerable extent in several parts of the Continent, particularly in France and the N. of Germany. It began in France during the exclusion of colonial products in the reign of Napoleon, and received a severe check at the return of peace, by the admission of West Indian sugars at a reasonable duty. It is probable, indeed, that it would long since have been entirely extinguished, but for the additions made to the duties on colonial and foreign sugars in 1820 and 1822. After the last-mentioned epoch, however, the production of beet-root sugar began rapidly to increase; and such was its progress, that though, in 1828, its produce did not exceed 4,000,000 kilogs., it amounted, in 1838, to 39,199,408 kilogs.! But this extension of cultivation, instead of being of any advantage, entailed a heavy loss on the public, inasmuch as the beet-root growers sold their sugar, which paid no duty, at the same rate that the colonists sold theirs, which paid a large revenue to the treasury! It was not possible that such a system could be permanent. And the well-founded complaints of the colonists of the injustice of which they were the victims, enforced by the rapid decline of the revenue derived from sugar, which, indeed, was threatened with total extinction, occasioned the imposition, in 1838, of a duty of 16 fr. 50 cents per 100 kilogs. (about 6*s.* 9*d.* a cwt.) on beet-root sugar, which, in 1840, was increased to 27 fr. 50 cents (about 11*s.* a cwt.) But even this last increase left a differential duty (or bounty) of 20 fr. per 100 kilogs. in favour of beet-root sugar, as compared with colonial raw sugar; so that, while the beet-root cultivators affirmed they would be ruined, the colonists vehemently complained of the preference that was given to them. It was, indeed, known, from the facility with which the beet-root growers had previously contrived to evade the duty, that its increase would not be so injurious to them as was supposed; but the manufacture sustained notwithstanding a severe check, and sundry plantations were abandoned.

But farther and still more considerable changes have since been made in the conditions under which the culture of beet-root is carried on. In 1842 it was proposed, in order to get rid of the difficulties in which it had involved the country, to grub up the plantations, paying the planters 40,000,000 fr. (1,600,000*l.*) as an indemnity for their loss. And this was at the time considered by many as the best and most equitable mode of dealing with what was confessedly a very difficult matter. It was not, however, adopted; and next year it was resolved annually to raise the duty on beet-root sugar by 5 fr. per 100 kilog., till the duty on it should be equalised with that on colonial sugar. This new system came into operation on the 1st of August, 1844; and in August, 1848, the nominal equalisation of the duties was effected. It was very generally believed at the time that this measure would go far to annihilate the production of beet-root sugar; but such has not been the case. The falling off in the supplies of sugar from the French colonies which took place in the 5 or 6 years immediately posterior to 1848, when the slaves were emancipated, and the high differential duty on foreign sugars, were very favourable to the beet-root growers, and gave them, indeed, a modified monopoly of the home market. These, however, which were uncertain and evanescent advantages, disappeared with the increased production of sugar in the Isle of Réunion (Bourbon) and the diminution of the differential duties. Owing, however, to the very great improvements that had been effected in the interval in the production of beet-root sugar, it was not injuriously affected by these circumstances, and has continued not only to keep its ground in competition with colonial and foreign sugars, but to make a rapid increase. It is affected, of course, by variations in the seasons, in the price of corn, and other circumstances. But such has been its progress that in 1858 (which, however, was an unusually favourable year), the crop was estimated at 151,514,436 kilog.; or about 150,000 tons! And besides France the production of beet-root sugar is largely carried on, and is rapidly increasing in Belgium, Germany, and Russia. Hence it would appear that what was long considered as a sort of exotic industry, introduced when colonial sugar was excluded from the Continent, and depending in great measure on custom-house regulations, will most probably become a well-established, leading, industrial pursuit. This is a very unprecedented result, and one which we certainly did not anticipate. There are very few instances in the history of industry, of any important business or employment, originating under such peculiar circumstances, being able to maintain its ground after they have ceased to exist. Whether, indeed, it be really worth the sacrifices that have been incurred in its establishment, may be fairly doubted. But in this case they appear, at all events, to have been sufficient to insure their object.

But, though the beet-root sugar of France and the Continent generally were loaded with the same duty as colonial sugar, and though its culture were notwithstanding extensively prosecuted, that would give no countenance to the opinion of those who contend that free labour is universally as effective in the production of sugar as slave or compulsory labour. The question which the legislature and people of America have to consider, is not between the efficiency of free and slave labour in Europe, but between free and slave labour in the intertropical regions of the New World. Admitting that the free labourers of France and Prussia raise sugar as cheaply as the slaves of Cuba and Brazil, does that afford any solid ground for concluding that the blacks of Louisiana and Texas, were they really free, would be equally successful in their competition with them? There is plainly no analogy between the cases. And our conviction is, as previously stated, that without compulsory labour of some sort or other, not a pound of sugar will eventually be raised either in Louisiana, or in our colonies or anywhere else in America.

Sugar raised in the United Kingdom is charged with the like duty that is laid on colonial sugar.

Maple Sugar.—A species of maple (*Acer saccharinum*, Lin.) yields a considerable quantity of sugar. It grows plentifully in the U. States and in Canada; and in some districts furnishes the inhabitants with most of the sugar they make use of. Though inferior both in grain and strength to that which is produced from the cane, maple sugar granulates better than that of the beet-root, or any other vegetable, the cane excepted. It is produced from the sap, which is obtained by perforating the tree in the spring, to the depth of about 2 inches, and setting a vessel for its reception. The quantity afforded varies with the tree and the season. From 2 to 3 gallons may be about the daily average yield of a single tree, but some trees have yielded more than 20 gallons in a day, and others not more than a pint. The process of boiling the juice does not differ materially from what is followed with the cane juice in the West Indies. It is necessary that it should be boiled as soon after it is drawn from the tree as possible. If it be allowed to stand above 24 hours, it is apt to undergo the vinous and acetous fermentation, by which its saccharine quality is destroyed.—(*Bouchette's British America*, vol. i. p. 371.; *Timber Trees and Fruits, Library of Entertaining Knowledge.*)

Prices Current of the different Varieties of Sugar (Duty paid) in the London Market, on the 15th of April, 1859.

		s. d.		s. d.
Sugar, single refined	cwt.	52 6 to 0 0	Mauritius, grainy	cwt. 43 0 — 48 6
Brown lumps	,,	53 0 — 55 0	Bengal:	
Grocery ditto	,,	54 0 — 60 0	good and fine white	,, 44 6 — 46 6
Hambro loaves	,,	53 0 — 59 0	low and middling white	,, 42 0 — 44 0
Tittlers	,,	48 6 — 50 0	yellow	,, 36 0 — 42 0
Wet lumps	,,	44 0 — 47 6	brown	,, 30 0 — 35 6
Pieces	,,	51 0 — 40 0	crystallised	,, 45 0 — 49 0
Bastards	,,	37 0 — 57 3	Penang, brown	,, 32 0 — 35 0
Crushed (bond)	,,	33 6 — 35 6	yellow	,, 39 0 — 44 0
Dutch crushed (bond)	,,	15 0 — 18 0	fine	,, 40 0 — 46 0
Treacle, British	,,	13 6 — 18 6	crystallised	,, 40 0 — 48 0
West India	,,	13 0 — 15 0	Havannah, white (in bond)	,, 34 0 — 38 0
East India	,,		florets	,, 46 0 — 49 0
Sugar, West India raw:			brown and yellow (duty paid)	,, 37 0 — 45 6
fine yellow	,,	44 0 — 45 6	Brazil, white	,, 43 0 — 47 0
good ditto	,,	43 0 — 43 6	brown and yellow	,, 32 0 — 42 0
low to middling	,,	41 0 — 42 0	Manilla	,, 33 0 — 39 0
good brown	,,	38 0 — 40 0	Java	,, 33 0 — 50 0
brown	,,	36 0 — 37 6	Porto Rico	,, 37 0 — 47 0
crystallised	,,	39 0 — 48 0	Siam and China	,, 30 0 — 49 0
Mauritius, brown	,,	31 0 — 39 0	Madras	,, 31 0 — 48 0
yellow	,,	39 6 — 44 6		

N. B.—Whatever may be thought of the speculative parts of this article, we flatter ourselves that its practical and more important portion will be found to be as accurate as it could well be made. At all events, it has been submitted to the highest authorities on such subjects, who have gone carefully over the greater number of the statements, and satisfied themselves of their substantial accuracy.

The following very complete set of *Pro formâ* sales of sugar have been compiled by gentlemen engaged in the trade, and may be relied on.

Pro Formâ Sales of 100 Hogsheads Jamaica Sugar, per "Agnes," Captain Smith, sold by Order and for Account of Messrs. William Henry and Co.

1855.		Cwt. qrs. lbs.	£ s. d.
Aug. 1.	50 hhds. landed weighing	16 2 14 each.	
	50 do. reweighing	16 2 4 do. probable loss 10 lb. each.	
		Cwt. qrs. lbs.	
		Average market tare 1 2 14	
		Draft 0 0 2	
	50 do. good bright weighing	826 3 4 gross.	
		82 2 16	
		744 0 16 at 38s.	1,415 17 6
	50 do. ordinary brown	744 0 16 at 35s.	1,302 5 0
			2,716 2 6
		Charges. £ s. d.	
	To inward entry		0 4 6
	,, Marine insurance 1,100l. at 50s. per cent., and stamp 3s. 6d. per cent.		29 8 6
	,, Fire insurance 1,650l. at 3s. per cent., 3 months		2 9 6
	,, Duty on 752 cwt. 1 qr. 19 lbs. at 15s.	564 6 4	
	,, ,, 752 cwt. 1 qr. 19 lbs. at 13s. 9d.	517 5 9	
			1,081 12 1
	,, Freight 1,512 cwt. 2 qrs. at 4s. 6d. per cwt.		340 6 3
	,, Primage on ditto., 6d. per hhd.		2 10 0
	,, Pierage ,, 4½d.		1 17 6
	,, Consolidated rate 1,512 cwt. 2 qrs. at 10s. 6d. per ton*		39 14 0
	,, Stamp, &c.		2 0 0
	,, Interest on duty and dock rates, 73 days	11 4 0	
	,, Do. on freight, 25 days	1 3 8	
			12 7 8
	,, Brokerage, ½ per cent.		13 21 7
	,, Del credere		27 3 2
	,, Commission, 2½ per cent.		68 2 2
			1,616 6 11
		Due in cash, 15th October, 1855.	£ 1,099 15 7

* This charge includes reweighing and 12 weeks' rent, but should the importer keep the sugar on hand beyond that period, he would be liable to a rent of 5*d.* per ton per week. The buyer has also the sugar delivered to him free of expense.

All sugar from our West India Colonies is sold at reweights. The purchaser is allowed 2 months to take delivery in, during which period it lies at the seller's risk unless paid for. The rent, if any, during the 2 months is paid by the seller.

The duty is payable on the weight delivered from the warehouse, adding 1½ lb. per hhd. and tierce, and ⅔ lb. per barrel for samples.

The tares allowed to the buyer and by the customs are as follows: they are calculated on the landing weights.

	To the Buyer. Cwt. qrs. lbs.	By the Customs. Cwt. qrs. lbs.
On all casks under 8 cwt.	0 0 14 lb. per cwt.	0 0 14 lb. per cwt.
— weighing 8 cwt. and under 9 cwt.	1 0 7	
— 9 — 10	1 0 14	1 0 0
— 10 — 11	1 1 0	
— 11 — 12	1 1 7	
— 12 — 13	1 1 14	
— 13 — 14	1 1 21	1 1 12
— 14 — 15	1 2 0	
— 15 — 16	1 2 7	
— 16 — 17	1 2 14	1 2 0
— 17 — 18	1 2 21	
— 18 — 19	1 3 0	1 3 0
And on each cwt. above 19 an additional	0 0 7	

A draft of 2 lbs. per hhd. and tierce, and 1 lb. per barrel is allowed to the buyer, and if he has any suspicion of there being a heavy super tare, he has the right, within 30 days from the date of sale, and before the removal of half the purchase, to require the dock company to tare a certain proportion as follows:—Of 5 casks the middle number, of 6 to 20 casks the first and last numbers, of 21 to 30 the first, middle, and last numbers, of 31 casks and upwards the last number of each ten; should the casks average 7 lbs. and upwards above the scale, he is entitled to the increased tare; but if less than 7 lbs., he gets no allowance, and has to pay the expense.

Pro Formâ Sales of 1600 Bags Bengal Sugar, ex "Vernon," sold for Account of W. S. Warwick, Esq.

1855.		Cwt. qrs. lbs.	£ s. d.	£ s. d.
Aug. 1.	500 bags White Benares (weighing 919 2 16 gross, each bag weighing 1 cwt. 3 qrs. 10 lb. gross, sold at landing weight, revenue tare (which is an average one), and 1 lb. per bag draft.			
	Tare and draft 49 0 12			
	10 & 1			
	870 2 4 nett - - - at 40*s.* per cwt.		1741 1 5	
	500 Brown do. 919 2 16 gross, brown. 49 0 12			
	870 2 4 nett - - - at 33*s.* per cwt.		1436 7 8	3177 9 1
	Charges.	£ s. d.		
	To inward entry - - - - -	-	0 4 6	
	,, Marine insurance, 1,500*l.* at 60*s.* per cent. and stamp 4*s.* 6*d.* per cent.	-	48 7 6	
	,, Insurance against fire on 1,920*l.*, 3 months, at 3*s.* per cent. -	-	2 17 8	
	,, Duty on 875 cwt., at 15*s.* - - -	656 5 0		
	,, Ditto on 875 cwt., at 13*s.* 9*d.* - - -	601 11 3	1257 16 3	
	,, Freight on 1,750 cwt., at 5*l.* per 20 cwt. -	-	437 10 0	
	,, Consolidated dock rates on 1,750 cwt. at 7*s.* 6*d.* per ton* -	-	32 16 3	
	,, Lotting at 1*d.* per cwt. gross - - -	-	7 13 5	
	,, Interest, 75 days on duty and dock rates	13 0 0		
	,, — 25 days on freight - -	1 9 11	14 9 11	
	,, Advertising and public sale expenses - - -	-	5 0 0	
	,, Brokerage and guarantee, 1 per cent. - - -	-	31 15 6	
	,, Commission, at 2½ per cent. - - - -	-	79 8 9	1917 19 7
	Due in cash, 13th October, 1855. - £			1259 9 6

* This charge includes 12 weeks' rent; but should the importer keep the sugar on hand beyond that period, he would be liable to rent at the rate of 4*d.* per ton per week. The buyer also has the sugar delivered to him free of expense.

The purchaser has two months to take delivery in, during which period the rent, if any, is paid by the seller, and the sugar lies at the seller's risk, unless paid for.

Pro Formâ Sales of 600 Baskets Java Sugar, per "Superior," sold for Home Consumption, by Order of G. Anderson, Esq.

1855.		Cwt. qrs. lbs.	£ s. d.	£ s. d.
Aug. 1.	300 baskets fine yellow, weighing 1,536 2 12 gross, sold at landing weights, revenue tare, (which is an average one), draft 2 lbs. each.			
	91 0 8 tare and draft.			
	1,245 2 4 nett at 40*s.* per cwt. -			2491 1 8
	300 ,, ordinary brown, weighing 1,245 2 4 nett at 35*s.* per cwt. -			2179 13 6
				4670 15 2
	Charges.	£ s. d.		
	To inward entry - - - - -	-	0 4 6	
	,, Marine insurance, 3,000*l.* at 60*s.* and 4*s.* 6*d.* per cent. -	-	96 15 0	
	,, Insurance against fire, on 2,900*l.*, for 3 months, at 3*s.* per cent. -	-	4 7 0	
	,, Duty on 1,250 cwt. at 15*s.* per cwt. - - -	-	937 10 0	
	,, Duty on 1,250 cwt. at 13*s.* 9*d.* per cwt. - - -	-	859 7 6	
	,, Freight on 2,500 cwt. at 5*l.* per ton - - -	-	625 0 0	
	,, Consolidated rate, 2,500 cwt. at 9*s.* per ton* -	56 5 0		
	,, Lotting, 1*d.* per cwt. gross - - -	11 2 9	67 7 9	
	,, Interest on duty and dock rates, 75 days, and on freight, 25 days -	-	27 17 7	
	,, Advertising and public sale expenses - - -	-	7 10 0	
	,, Brokerage and guarantee, at ½ per cent. - - -	-	46 14 2	
	,, Commission, at 2½ per cent. - - - -	-	116 15 4	2789 8 10
	Due in cash, 13th October, 1855. - £			1881 6 4

* This charge includes 12 weeks' rent, but should the importer keep the sugar on hand beyond that period, he would be liable to rent at the rate of 4*d.* per ton per week. The buyer has also the sugar delivered to him free of expense.

The buyer has 2 months to take delivery in, during which period the rent, if any, is paid by the seller, and the sugar lies for that time at the seller's risk unless paid for: but the sugar when sold at the bonded price for exportation is payable on delivery without discount, or at the expiration of 3 months, the purchasers having paid a deposit of 15 per cent. within 3 days of the sale. The goods are then rent free for the 3 months, and are at the seller's risk. Of course there would be no charge for duty or interest on duty. Brokerage and commission would be charged on the selling price, but other charges would remain the same.

Pro Formâ Sales of 1,600 Bags Manilla Sugar ex "Alfred," sold for Home Consumption, by Order of Samuel Williams, Esquire.

		£ s. d.	£ s. d.
1855. August 1.	800 bags grey, weighing 84lbs. each, sold at landing weights, revenue tare (which is an average one), and 1 lb. per bag draft, weighing, Cwt. qrs. lbs. 600 0 0 gross. 28 2 8 tare and draft.		
	571 1 20 nett. - - 6s. per cwt.	1,028 11 6	
	800 bags brown, weighing 571 1 20 nett. - at 32s. per cwt.	914 5 9	1,942 17 5
	Charges.		
	To inward entry - - - - - - -	0 4 6	
	„ Marine insurance on 800*l.* at 70*s.* per cent., and Stamp 4*s.* 6*d.* per cent. -	29 16 0	
	„ Insurance against fire 1,100*l.* at 3*s.* - - - -	1 13 0	
	„ Duty on 578 cwts. 2 qrs. 8 lbs. at 15*s.* - - - - 433 18 7		
	„ „ 578 cwts. 2 qrs. 8 lbs. at 13*s.* 9*d.* - - - 397 15 4		
		831 13 11	
	„ Freight 1,157 cwts. 0 qr. 16 lbs. at 5*l.* per 20 cwt. - - -	289 5 8	
	„ Consolidated rate on do. at 7*s.* 6*d.* per ton nett* - - -	21 13 9	
	„ Lotting, 1*d.* per cwt. gross - - - - -	5 0 0	
	„ Interest on duty and dock rates, 73 days, and freight 25 days - -	12 18 0	
	„ Advertising and public sale charges - - - - -	5 0 0	
	„ Brokerage and guarantee, 1*l.* per cent. - - - - -	19 8 6	
	„ Commission, 2½ per cent. - - - - - -	48 11 6	1,265 4 10
	Due in cash, October 13, 1855 -		£ 675 12 5

* This charge includes 12 weeks' rent; but should the importer keep the sugar on hand beyond that period, he would be liable to a rent at the rate of 4*d.* per ton per week. The buyer has also the sugar delivered to him free of expense.

The buyer has 2 months to take delivery in, during which period the rent, if any, is paid by the seller, and the sugar is for that time at the seller's risk, unless paid for. But the sugar when sold at the bonded price for exportation is payable on delivery without discount, or at the expiration of 3 months, the purchaser having paid a deposit of 15 per cent. within 3 days of the sale. The goods are then rent free for the 3 months, and are at the seller's risk. Of course there would be no charge for duty or interest on duty. Brokerage and commission would be charged on the selling price, but other charges would remain the same.

Pro Formâ Sales of 500 Chests Havannah Sugar, per "Portia," sold by Order and for Account of William Watkins, Esquire.

		£ s. d.	£ s. d.
1855. August 1.	250 chests good yellow weighing 4½ cwt. each, sold at landing weights, revenue tare (which is an average one), and 1 lb. per bag draft Cwts. qrs. lbs. 1,062 2 0 gross. 118 1 6 tare and draft		
	944 0 22 nett. - at 38*s.* per cwt.	1,793 19 6	
	250 „ common brown 944 0 22 nett. at 35*s.* 6*d.* per cwt.	1,675 18 11	
	500 chests - - - - - - - -	-	3,469 18 4
	Charges.		
	To inward entry - - - - - - -	0 4 6	
	„ Marine insurance, 1,600*l.* at 45*s.* per cent. and 3*s.* 6*d.* per cent. - -	38 16 0	
	„ Fire insurance, 2,060*l.* at 3*s.* per cent. for 3 months - -	3 1 9	
	„ Duty on 946 cwt. 1 qr. 16 lbs. at 15*s.* per cwt. - £709 15 11		
	„ „ 946 cwt. 1 qr. 16 lbs. at 15*s.* 9*d.* per cwt. - 650 12 9		
		1,360 8 8	
	„ Freight, 1,892 cwt. 3 qrs. 12 lbs. at 7*s.* per 20 cwt. - £331 5 0		
	Primage, 5 per cent. - 16 11 3		
	Pierage, 3¼*d.* per ton - 1 7 8		
		349 3 11	
	„ Consolidated rate on 1892 cwt. 3 qrs. 12 lbs. at 7*s.* 9*d.* per ton* - -	36 13 5	
	„ Interest on duty and rates, 73 days, and on freight, 25 days - -	15 10 9	
	„ Advertising and public sale expenses - - - - -	3 1 6	
	„ Brokerage, 1 per cent. - - - - - -	34 14 0	
	„ Commission, 2½ per cent. - - - - - -	86 14 10	1,928 9 4
	Due in cash, 13th October, 1855 -		£ 1,541 9 0

* This charge includes 12 weeks' rent; but should the importer keep the sugar on hand beyond that period, he would be liable to rent at the rate of 4*d.* per ton per week. The buyer also has the sugar delivered to him free of expense.

Instead of reweighing the sugar, as was formerly the case, an allowance is now generally made of 2 lbs. per chest on the sound, and 3 lbs. per chest on the damaged.

The sugar is rent free to the buyer to the prompt day, and lies at the seller's risk, unless paid for.

When Havannah sugar is sold in bond for exportation it is sold at a prompt of 1 month, allowing 2½ per cent. discount; and the same rule applies to Brazil and all foreign sugar, not East India, when sold in bond.

SULPHUR, OR BRIMSTONE (Fr. *Soufre*; Ger. *Schwefel*; It. *Zolfo*, *Solfo*; Sp. *Azufre*; Arab. *Kibreet*), a crystallised, hard, brittle substance, commonly of a greenish yellow colour, without any smell, and of a weak though perceptible taste; its specific gravity is from 1·9 to 2·1.

It burns with a pale blue flame, and emits a great quantity of pungent suffocating vapours. In some parts of Italy and Sicily it is dug up in a state of comparative purity. That which is manufactured in this country is obtained by the roasting of pyrites. It is denominated *rough* or *roll sulphur*, from its being cast in cylindrical moulds. The Italian roll sulphur does not contain more than 3 per cent. of a simple earth; and is in higher estimation than the English. When roll sulphur is purified, it receives the name of *sublimed sulphur*, and is in the form of a bright yellow powder.—(*Thomson's Chemistry, &c.*)

Sulphur is of great importance in the arts. It is used extensively in the manufacture of gunpowder, and in the formation of sulphuric acid, or oil of vitriol. It is also used extensively in medicine, and for

other purposes. The entries for home consumption amounted, at an average of the three years ending with 1842, to 333,731 cwt. a year. The duty on refined or roll brimstone was reduced in 1842 to 2*s.* a cwt.; and that on rough brimstone to 6*d.* a cwt., and they have since been wholly repealed. In 1857 the imports amounted to 48,982 tons, of which 46,773 tons were brought from the Neapolitan dominions.

Our supplies of brimstone are almost wholly derived from Sicily. The mines of sulphur in that island have been wrought for several centuries; but it is only since 1820 that any considerable quantity has been prepared for exportation. Subsequently to 1833, the trade with this country increased so much that the export of sulphur to the U. Kingdom rose from 19,122 tons in that year to 38,654 tons in 1838. We have elsewhere (see art. PALERMO) noticed the way in which this rapidly growing trade was interfered with by the Neapolitan government. Luckily, however, the monopoly in favour of the French company was abolished in 1841, and the trade, as seen above, has since reverted to its old channels.

SYDNEY, the capital of New South Wales, and of the British settlements in New Holland, or Australia, on a cove on the south side of Port Jackson, about 7 miles from its mouth, lat 33° 55′ S., lon. 150° 10′ E. Population in 1856, 53,358, and now (1859) probably 60,000.

Owing to a want of attention at first, the streets of Sydney were laid out, and the houses built, according to the views of individuals, without any fixed or regular plan. But latterly this defect has been to a considerable degree remedied in the old streets; and the new ones are systematically laid out. The town covers a great extent of land; almost every house having a considerable piece of ground attached to it. Schools for the instruction of poor children have been established, and there are, besides two establishments dignified with the pompous titles of colleges, numerous seminaries, some of them said to be very well conducted, for the education of the middle and upper classes. There are several newspapers and other periodical publications.

Sydney is admirably adapted for the capital of a great trading colony. Port Jackson is one of the finest natural basins in the world. It stretches about 15 m. into the country, and has numerous creeks and bays; the anchorage is everywhere excellent, and ships are protected from every wind. The entrance to this fine bay is between two gigantic cliffs, not quite 2 m. apart. On the most southerly, in lat. 33° 51′ 30″ S., long. 161° 15′ 30″ E., a lighthouse has been erected, the lantern of which is elevated 67 ft. above the ground, and about 345 ft. above the sea. It is navigable for ships of any burthen to the distance of 15 m. from its entrance, or 7 m. above Sydney, up what is called the Parramatta River. Ships come close up to the wharfs and stores of the town, their cargoes being hoisted from the ship's hold into the warehouses. Sydney is consequently the emporium of all the settlements in this part of Australia, and has a very extensive trade.

Down to the discovery of the gold fields in 1851, wool was by far the most important product raised in the colony. The increase of cattle and sheep, but especially the latter, in Australia, has, in truth, been altogether extraordinary. Previously to the arrival of the English settlers in N. S. Wales in 1778, neither horse nor cow, sheep nor hog, had ever set foot on the continent. The stock they brought with them was limited in the extreme, consisting only of 7 horses, 7 head of cattle, 29 sheep, 19 goats, and 74 pigs. And from this late and scanty stock, assisted by a few subsequent importations, have been derived all the vast numbers of sheep and other useful animals now to be found in the Australian continent. For a while the rate of increase was comparatively slow. But from 1810 down to 1851, when the revolution occasioned by the gold discovery affected every branch of industry, the multiplication of sheep and other stock, especially the former, has been rapid beyond all precedent. This is shown by the following

Account of the Sheep's Wool annually imported from Australia into the U. Kingdom since 1818.

	lbs.		lbs.		lbs.
1818	86,525	1835	4,210,301	1847	26,056,815
1820	99,415	1836	4,996,645	1848	30,054,567
1825	323,995	1837	7,080,525	1849	37,774,671
1826	1,106,302	1838	7,837,425	1850	39,018,221
1827	512,758	1839	10,128,774	1851	41,810,137
1828	1,574,186	1840	9,721,423	1852	45,197,301
1829	1,838,642	1841	12,399,090	1853	47,076,010
1830	1,967,279	1842	12,959,671	1854	47,489,650
1831	2,541,205	1843	17,433,780	1855	49,142,306
1832	2,377,057	1844	17,589,712	1856	52,052,139
1833	3,516,869	1845	24,150,687	1857	49,209,655
1834	3,558,091	1846	21,865,270	1858	51,104,560

Down to 1851 the colony of N. S. Wales comprised the extensive province of Port Phillip, now Victoria. But the latter was then separated from the former, and formed into an independent state, with a governor and legislature of its own. And the district called Moreton, on the north, has been separated from it in the course of the present year (1859), and formed into the independent colony of Queensland. See MELBOURNE in SUPPLEMENT. We subjoin a

Table illustrative of the Progress of the Colony from 1845 to 1856 inclusive.

Year.	Population.	Value of Exports.	Value of Imports.	Value of Imports, Produce or Manufacture of the U. K.	Land in Cultivation.	Value of Exports of Wool.	Value of Exports of Tallow.	Produce of Land Sales.	Receipts from Leases, Lic., and Quit Rents.
		£	£	£	*Acres.*	£	£	£	£
1845	181,556	1,092,389	985,561	612,912	138,237	612,705	90,479	14,104	29,414
1850	265,503	1,357,784	1,533,413	961,364	144,647	788,051	167,858	55,251	41,437
1856	286,875	3,430,880	5,460,971	3,475,359	185,015	1,503,370	137,202		

The revenue of the colony amounted in 1856 to 1,986,583*l.*, and the expenditure to 1,835,134*l.*

N. B. — The returns of the population include the late district of Port Phillip, now the colony of Victoria, down to the year 1850 inclusive.

Trade of the U. K. with N. S. Wales.

Account of the Quantities and Values of the Principal Foreign Articles exported from the U. K. to N. S. Wales during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Currants . . . cwts.	3,949	3,553	7,131	7,296	£4,295	£10,842	£19,699	£13,527
Gloves of leather . . pairs	109,296	52,698	67,803	135,662	7,025	3,301	5,127	11,246
Hats or bonnets of straw . lbs.	19,554	7,165	8,393	20,499	58,663	15,405	19,618	37,752
Raisins . . . cwts.	4,155	2,751	4,476	2,856	6,513	4,035	10,165	6,460
Silk manufactures of Europe:—								
broad stuffs and ribbons . lbs.	5,870	1,800	3,383	3,360	15,526	4,959	7,941	7,305
Spirits: rum . . proof gallons	480,757	304,542	392,626	575,474	87,994	42,994	48,696	82,635
brandy . . . ,,	175,703	142,398	270,425	204,590	72,428	68,233	136,339	129,447
Tobacco, manufactured, and cigars . . . lbs.	545,051	578,459	162,050	141,853	57,344	52,421	21,606	23,938
Wine . . . gallons	260,171	176,873	254,768	215,163	87,495	61,881	104,105	87,773
Wood, sawn or split . loads	2,290	1,128	1,707	4,207	10,205	4,369	5,680	12,670
Total value of the above and of all other articles . .	. . .	. . .	. . .	. . .	497,195	307,025	418,581	465,886

Account of the Quantities and Values of the Principal Articles of British Produce and Manufacture exported from the U. K. to N. S. Wales during each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
						£	£	£	£
Apothecary wares, drugs, &c.	value	.	.	.	.	45,253	20,206	28,172	29,826
Apparel, slops, and haberdashery	,,	.	.	.	.	719,510	275,756	452,368	608,684
Bags, empty	dozen	50,879	10,923	27,090	55,871	41,861	13,565	23,093	38,361
Beer and ale	barrel	43,524	51,488	45,785	57,543	148,251	119,493	166,265	212,117
Books, printed	cwts.	3,568	2,114	1,719	2,323	55,157	33,616	22,211	32,476
Butter and cheese	,,	4,521	6,879	7,967	5,100	19,001	31,769	37,858	24,302
Carriages of all sorts	no.	296	276	249	185	30,074	13,521	27,374	19,239
Confectionery	cwts.	3,885	3,307	1,785	2,200	19,242	16,742	9,005	10,811
Corn, grain, meal, and flour	value	.	.	.	.	31,912	24,412	18,788	28,287
Cottons, entered by the yard	yards	12,471,815	6,506,424	10,088,716	9,810,681	268,459	119,553	196,196	198,294
at value	value	.	.	.	.	51,845	19,195	27,334	40,955
Earthenware and porcelain	,,	.	.	.	.	45,560	15,367	20,926	37,610
Furniture, cabinet and upholstery wares	,,	.	.	.	.	51,726	24,083	27,273	35,818
Glass manufactures	,,	.	.	.	.	64,865	41,871	42,311	59,596
Hardwares and cutlery	cwts.	33,348	18,721	21,649	30,448	165,269	96,086	112,192	135,648
Hats of all sorts	dozen	27,560	7,645	17,494	24,599	58,038	20,190	30,248	57,566
Iron, wrought and unwrought, &c.	tons	14,605	10,591	16,939	14,200	239,133	144,672	233,902	212,918
Lead and shot	,,	895	431	586	646	22,723	10,557	15,375	16,355
Leather: wrought and unwrought	lbs.	990,651	772,693	1,104,265	1,647,730	210,245	150,844	231,523	373,392
saddlery and harness	value	.	.	.	.	68,054	48,895	34,456	50,546
Linens, entered by the yard	yards	2,133,278	704,948	1,204,416	1,595,823	82,797	27,113	40,220	54,194
Machinery: steam engines	value	.	.	.	.	46,558	21,768	15,610	12,770
all other sorts	,,	.	.	.	.	56,439	23,597	37,138	27,607
Musical instruments	,,	.	.	.	.	29,546	16,084	10,001	13,965
Pickles and sauces	,,	.	.	.	.	86,253	60,813	48,915	44,472
Plate, plated ware, jewellery, &c.	,,	.	.	.	.	43,943	26,372	20,857	17,907
Silk manufactures	,,	.	.	.	.	78,866	42,330	66,895	71,413
Soap and candles	lbs.	1,362,759	1,743,116	2,233,229	911,107	34,592	46,076	71,210	41,375
Spirits, British	gallons	47,075	26,603	88,701	150,063	13,309	6,350	22,175	21,904
Stationery	value	.	.	.	.	111,696	55,754	45,965	60,352
Woollens: entered by the piece	pieces	70,801	22,766	25,615	49,451	162,881	47,603	62,563	107,621
by the yard	yards	1,797,528	740,988	745,517	1,289,747	108,368	55,526	52,473	87,762
at value	value	.	.	.	.	38,239	15,675	18,100	25,426
All other articles	,,	.	.	.	.	402,418	245,780	315,913	332,110
Total		.	.	.	.	3,648,072	1,928,735	2,584,879	3,150,709

Account of the Quantities and Values of the Principal Articles imported into the U. K. from N. S. Wales in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Computed Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Bones of animals and fish (except whalefins)	tons	375	524	682	383	£1,696	£3,301	£5,495	£2,375
Copper ore	,,	18	212	412	2,174	432	4,755	11,951	32,610
Gum, unenumerated	cwts.	22,140	4,856	11,122	23,653	35,424	6,475	14,757	23,949
Hides: not tanned	,,	27,585	29,452	39,569	39,975	52,115	66,695	111,222	112,899
tanned, tawed, curred, or dressed	lbs.	230,256	196,117	70,923	58,699	13,601	7,159	3,400	3,356
Oil: cocoa-nut	cwts.	4,386	13,122	9,114	17,723	10,746	28,868	19,139	38,883
spermaceti or head-matter	tuns	368	275	1,015	465	58,574	34,471	108,093	39,120
Skins, sheep, undressed	no.	1,963	12,854	5,123	11,209	172	1,229	816	2,020
Tallow	cwts.	64,378	42,029	73,281	48,257	193,136	111,579	192,362	127,042
Tortoiseshell, or turtleshell unmanufactured	lbs.	2,595	3,446	4,957	5,135	3,114	3,618	5,184	5,777
Whalefins	tons	12	6	13	2	2,183	1,438	3,746	803
Wood, red and blue, gum, &c.	loads	1,254	368	525	408	12,130	3,301	3,965	2,386
Wool, sheep and lambs'	lbs.	17,384,205	16,143,548	20,439,888	15,820,365	1,303,815	1,252,807	1,788,490	1,591,270
Total value of the above and of all other articles		.	.	.	.	1,711,972	1,589,874	2,517,591	2,035,586

Return of the duties levied on articles imported into the colony of New South Wales, now collected under the Acts of Council, 19 Vict., No. 14, and 21 Vict., No. 1.

	s.	d.
Brandy and gin, per gallon	10	0
Whiskey, rum, and all other spirits, per gallon	7	0
Spirits, cordials, liqueurs, or strong waters, sweetened or mixed with any article, so that the degree of strength cannot be ascertained by Sykes's hydrometer, per gallon	10	0
Perfumed spirits, per gallon	7	0
Wine, containing more than 25 per cent. of alcohol, of a specific gravity of ·825, at the temperature of 60 degrees of Fahrenheit's thermometer, for every gallon, in proportion to strength, per gallon	10	0
Wine, not containing more than 25 per cent. of alcohol, of a specific gravity of ·825, at the temperature of 60 degrees of Fahrenheit's thermometer, per gallon	2	0
Ale, porter, and beer, of all sorts:—		
In wood, per gallon	0	1
In bottle, per gallon	0	2
Tea, the lb.	0	3
Sugar:—		
Refined and candy, the cwt.	6	8
Unrefined, the cwt.	5	0
Treacle and molasses, the cwt.	3	4
Coffee and chicory, the lb.	0	2
Cigars, the lb.	3	0
Tobacco and snuff, the lb.	2	0
Under 21 Vict., No. 1:—		
Opium, per lb. avoirdupois	10	0

Return of the duties levied on articles exported from the colony of New South Wales, now collected under the Act of Council 20 Vict., No. 17.

	s.	d.
Gold, the oz. troy weight	2	6

Exemptions.—All goods imported for the supply of Her Majesty's service are exempted from all duties and imposts of every description whatsoever.

All wine imported into the colony of New South Wales, or taken out of bond for the use of military or naval officers serving on full pay in the said colony or the adjoining seas, is exempted from duty.

Tariff.—It is but justice to the colonial legislature to say, that it has done all that was in its power to consolidate and extend the trade of the colony. The new tariff enacted in is one of the shortest and least onerous in existence.

Harbour Dues &c.—The colonial legislature has also, by an act passed in 1852, suppressed all charges on shipping for harbour dues, light-house dues, fees on entering and clearing, water police dues, &c. Sydney is therefore really a free port.

Bonded Warehouse Charges.

Description of Goods.	Rent per Week.		Housing and Marking.		Delivery.	
	s.	d.	s.	d.	s.	d.
Pipes	0	6	1	0	1	0
Puncheons	0	4	1	0	1	0
Hogsheads	0	3	0	9	0	9
Barrels under 25 gallons	0	2	0	6	0	6
Hogsheads tobacco	1	0	2	6	2	6
Tierces ditto, above 400 lbs.	0	4	1	0	1	0
Ditto ditto, under 400 lbs.	0	3	0	9	0	9
Kegs tobacco	0	1½	0	3	0	3
Skins ditto, under 150 lbs.	0	1	0	3	0	3
Bales ditto	0	3	0	6	0	6
Cases or baskets, 6 gallons	0	1½	0	3	0	3
Ditto ditto, 4 gallons	0	1	0	2	0	3
Ditto ditto, 2 gallons	0	0½	0	1½	0	2
Cigar cases containing 10,000	0	3	1	0	1	0
Ditto ditto, under 10,000	0	2	0	9	0	9

Pilotage, being a private charge for services which may or may not be required, is fixed as follows:—

Pilotage Rates, payable to licensed pilots on ships and vessels from and to a distance of 2 leagues out to sea, into and out of any port or harbour in New South Wales, for which a pilot shall be appointed; vessels registered in Sydney, not exceeding 50 tons, or while employed in the coasting trade from one part of New South Wales to another, and steam vessels while so employed, excepted, unless the assistance of a pilot be required and received.

For every vessel drawing	£	s.	d.
7 feet or under	4	0	0
8 — and under 9 feet	4	5	0
9 — — 10 —	4	10	0
10 — — 11 —	5	0	0
11 — — 12 —	5	10	0
12 — — 13 —	6	0	0

For every vessel drawing	£	s.	d.
13 feet and under 14 feet	6	10	0
14 — — 15 —	7	0	0
15 — — 16 —	7	10	0
16 — — 17 —	8	0	0
17 — — 18 —	8	10	0
18 — — 19 —	9	0	0

For every vessel drawing	£	s.	d.
19 feet and under 20 feet	9	10	0
20 — — 21 —	10	0	0
21 — — 22 —	11	0	0
22 — — 23 —	12	0	0

And so on, 1*l*. for every additional foot.

Scale of Mercantile Charges, Agency, &c. as fixed by the Chamber of Commerce of Sydney, in 1852.

On sales of merchandise	5 per cent.
On sales of ships, houses, land, and shares in public companies	2½ —
On sales of government securities	1 —
On sales of live stock, stations, &c. For residents	2½ —
For non-residents	5 —
On sales of colonial produce, viz.:—wool, tallow, hides, sheepskins, &c.	2½ —
On sales of gold, gold dust, bullion, and specie	1 —
On all property withdrawn, shipped, or delivered to order, one half of the rates chargeable in cases of sale.	
On goods consigned for conditional delivery	2½ —
On purchase of merchandise, ships, houses, land, stock, or stations: with funds	2½ —
Ditto, ditto, without funds	5 —
On purchases of shares, government securities, &c.	2½ —
On purchases of gold, gold dust, bullion, and specie	1 —
On effecting insurance on the amount insured	½ —
On settling insurance losses, total or partial, and procuring returns of premium	2½ —
On procuring money on bottomry and respondentia	2½ —
On guaranteeing sales, bills, or bonds, by indorsement or otherwise	2½ —
On recovering debts	5 —
On the management of estates, as executors, administrators, or attorneys	5 per cent.
On procuring charter for vessels, including the collection of freight—if the ship returns	5 —
On procuring freight and passage for vessels	5 —
On collecting inward freight or charter money	5 —
On ships' disbursements from funds arising from freight collected on which a commission of 5 per cent. has already been charged	Nil.
On ships' disbursements from funds in hand not arising from freight collected	2½ —
On ditto ditto under advance	5 —
Settler's Accounts.	
On purchases or payments under advance	5 —
On ditto or ditto with funds in hand	2½ —
Any balance of account unliquidated at the end of the year to be considered as a new advance, and charged accordingly.	
Interest on current accounts to be charged the rate of discount charged by the banks on bills having six months to run.	
Re-exchange.	
On inter-colonial bills dishonoured	5 — and notarial charges.
On bills from New Zealand dishonoured	7½ — and notarial charges.
On all other foreign bills dishonoured	20 and notarial charges.

The colony is naturally better suited for pasturage than for tillage, and, in consequence, considerable quantities of corn and rice are imported from Van Diemen's Land, and other places. But we may remark, by the way, that the preference given to pasturage has been in no inconsiderable degree occasioned by the policy (if so we may designate a worthless compound of pedantry and quackery) that has been pursued in regard to the sale of waste lands in the colony. We have elsewhere shown that since the *minimum* price charged for these waste lands, 4 or 5 acres of which are required to depasture a single sheep, has been fixed at no less than 20*s*. an acre (!) the purchase of land for agricultural purposes comparatively ceased; and it was taken in large tracts for grazing by lessees, or squatters. In consequence the progress of cultivation, and the settlement of the colony, have been seriously interrupted by this system; while, instead of concentrating the population, as we were told it would do, it led to its all but indefinite dispersion. But a *felo-de-se* policy of this sort cannot be long maintained. And when it has been abandoned, a fresh stimulus will be given to agriculture and emigration, and the prosperity of this and the other Australian colonies will be materially increased.

Considering the character of a large proportion of the population, one need not be surprised at the circumstance of drunkenness being a prevalent vice, and consequently, that spirits and wines are very largely imported. The other great articles of importation are manufactured goods and apparel of all sorts, hardware, earthenware, saddlery, books and stationery, carriages, &c., from England; tea from China; and sugar from the Mauritius and Calcutta.

The value of the imports into Sydney exceeded for a lengthened period the value of the exports; the excess of the former being, in fact, the amount of the remittances from this country on account of the convict establishment. But since the latter was suppressed, the value of the exports has been equal to that of the imports, and now greatly exceeds them. Occasionally there has been a great deal of overtrading at Sydney; and the revulsions consequent thereon have been quite as ruinous there as in England and elsewhere. There are 4 banks in the town, and a savings' bank.

Population, &c.—The British settlements in New South Wales were originally intended to serve as penal establishments, to which convicts might be transported, and employed in public and private works; and were, till very lately, used for this purpose. The first vessel with convicts arrived at Botany Bay in January, 1788; but it having been found to be quite unsuitable as a site for a colony, the establishment was removed to Port Jackson. Convicts of all sorts continued to be sent to the latter till 1839; but from that period down to 1843 none were sent, except those who had been confined in Pentonville and other penitentiaries. In the last-mentioned year the system entirely ceased; and from that period no convicts have been sent to Sydney. During the period that transportation continued in force, 54,583 convicts, of whom 47,092 were males and 7,491 females, were carried to Sydney. In 1846 the convicts of all classes in New South Wales amounted to 10,555, of whom 6,500 were liberated in 1848; and the residue had been reduced to 1708 in December, 1851. Convictism (to borrow a colonial phrase) has, therefore, terminated in New South Wales; but the taint it has imparted to the population will not be easily effaced.

The total population of the colony of New South Wales, ex Victoria, amounted, in 1857, to 305,484, of whom 171,673 were males. The progress of the colony has been much more rapid than might have been anticipated, considering the character and habits of the convicts annually landed upon its shores, the difficulties which the great distance from England interpose in the way of an emigration of the voluntary settlers, and inferiority of the soil. Owing to the circumstance of the great majority of the convicts and other emigrants being males, a great disproportion has always existed between the sexes in the colony, which has materially retarded its progress, and been, in other respects, productive of pernicious results. Government, however, availing itself of the assistance of benevolent individuals at home, and in the colony, has within these few years materially lessened the disproportion referred to, by sending out considerable numbers of young unmarried females free

of expense. Much, it was obvious, of the influence of this measure, was to depend on the discrimination with which the female emigrants were selected; and various precautions were taken, by the organisation of committees, and otherwise, to exclude from amongst them those whose character was in any degree suspicious. It was not, however, to be expected, that these precautions should be completely successful; and very conflicting accounts have been received as to the conduct of the females on their landing, and the influence of their immigration on the colony. But though the results of the scheme may, in some respects, have fallen short of the anticipations of its more sanguine promoters, there can be no manner of doubt that it has been, on the whole, decidedly advantageous; and that it has tended both to increase the population, and to improve the morals of the colony.

Emigration to New South Wales, independently of the allurements of the gold fields, holds out several advantages to the industrious emigrant, which, however, are partially countervailed by some disadvantages. There has been at all times a pretty brisk demand for labour; wages, though not extravagant, have been high; provisions, except in years of drought, have been moderately cheap; and the climate is mild, moderately healthy, and suitable for European constitutions. The drawbacks are, — the immense distance from Europe, and the consequent cost of the voyage; the general inferiority and exorbitant price of land, which, however, will no doubt be shortly obviated; the frequent recurrence of droughts; and, perhaps, also, the taint of convictism, in a large portion of the population. The greater mildness and salubrity of the climate appears to be the principal recommendation in favour of emigrating to Australia rather than to Canada or the United States. Whether, however, this be a sufficient counterpoise to the disadvantages attending it, is a point which we do not presume to decide, but which deserves the serious consideration of intending emigrants. It seems to be the unanimous opinion of every one acquainted with the colony, and entitled to be heard upon such a subject, that "*in every case, emigrants of every sort will find it for their interest to come out married.*"

The stimulus given to immigration by the discovery of gold has been less felt here than in Victoria: but it has, notwithstanding, been very powerful. It is impossible, however, to form any conjecture in regard to its continuance, as that must in great measure depend on the future productiveness of the gold fields. But whether it continue about stationary, diminish or increase, still it is plain that the demand of those engaged in the search for gold, for provisions and other articles of accommodation cannot fail in the end to give a corresponding impulse to every branch of industry, and to re-establish that general equality, taking all things into account, which usually subsists between wages and profits in different departments. How prosperous soever the "diggings" may be, the labourers drawn to them in the first instance from agriculture and other pursuits will be sure to be restored to the latter, or replaced by others.

Monies, Weights, and Measures.—Accounts are kept in sterling money; but Spanish dollars are most abundant. They pass current at 5*s.* each. The weights and measures are the same as those of England.

SYRA, the ancient Syros, one of the islands of the Greek Archipelago, whose salubrity and fertility have been celebrated by Homer (*Pope's Odyssey*, book xv. v. 438. &c.), in the group called the Northern Cyclades, 15 m. W. from the greater Delos, its port, on the east side of the island, being in lat. 37° 26′ 30″ N., long. 24° 57′ E. It is from 9 to 10 miles in length, by about 5 in breadth. Though rugged, it is carefully cultivated, and produces garden stuffs, wine, olives, figs, cotton, &c., with a little barley. The population in 1830, was set down by Mr. Urquhart at 4,500; but we have been assured that it is at present (1858) little, if at all, short of 25,000.

It is indebted for this extraordinary increase of population to the convenience and excellence of its port and its central situation, which have made it a considerable commercial *entrepôt*. Though small, its harbour is accessible to line-of-battle ships. The holding ground is good, and it has in its centre about 10 fathoms water. Merchantmen of from 400 to 500 tons burden moor within about 100 yards of the wharfs. Winds from the S.E. round to E.N.E. throw in a heavy swell; but the port is well protected from winds from all other points. A lighthouse, with a revolving light, has been erected on Gaidoro island, about 1½ m. S.E. from the port. Most part of the trade that formerly centred at Scio is now carried on here; and the island has not only received numerous immigrants from Scio, but also from many other parts of Greece. Great Britain and most European powers have consuls in Syra: and it also is the principal seat of the Protestant missionaries to the Levant. The town is on the N. side of the harbour. — The oldest portion occupies the summit of a conical shaped hill, probably the site of the acropolis of the ancient city. (See the sketch in *Tournefort, Voyage du Levant*, i. 321.) But the new streets and houses, of which there are many, come down to the water's edge. It has an appearance of great bustle and animation. Its copious spring of pure fresh water has been eulogised by Clarke (*Travels*, vi. 153.). In 1856 no fewer than 766 ships of the burden of 121,342 tons were registered at Syra, being more than three times the amount of shipping that belonged to any other Greek port. Pherycides, one of the most celebrated of the ancient Greek philosophers, the disciple of Pittacus, and the master of Pythagoras, was a native of this island.

Port Regulations, Quarantine, &c. — Trading vessels from Turkey and Egypt with foul bills of health perform 17 days quarantine; men of war and steamers 14 days. With clean bills of health, the former 12 days, and the latter 10 days.

Vessels arriving from any port in Europe with clean bills of health, are immediately admitted to free pratique; but should any error occur in the bill of health as to the number of persons on board, the vessel is subject to a quarantine of 7 days, with an additional number of days should the vessel be without a bill of health: in such cases, also, the master is liable in damages to the merchants who may have goods on board.

Dues under Quarantine.—Trading vessels pay one lepta, or cent each day per ton, for every day they are under quarantine, besides 1½ drachma per day for the guardian placed on board of the vessel by the Health Office.

Men-of-war and steamers are exempted from tonnage dues, and only pay the guardian.

Trading vessels, and men-of-war, and steamers wind-bound under quarantine, only pay for a guard-boat, at the rate of 5 drachmas a day, during the time they remain in port.

Harbour Dues. — Vessels discharging and shipping goods pay 12 leptas per ton, with the addition of 2 leptas per ton to the Health Office.

Vessels only landing, or only loading goods, pay 8 leptas per ton with the 2 leptas per ton to the Health Office.

Vessels wind-bound pay only the light house dues, but should they remain in port over 7 days, they pay 4 leptas a ton, with the additional 2 leptas to the Health Office.

All these dues are paid on the register tonnage.

The charge of clearance is from 1 to 5 drachmas on the vessel, according to its size.

The lighthouse dues are likewise levied on the size of the vessel, from 1 drachma to 10 drachmas.

The lowest rate for vessels of from 20 to 50 tons register,

and so on upwards to the highest rate, for vessels of from 300 tons upwards.

Pilotage.—There are no fixed dues for pilotage; but when a vessel makes a signal for a pilot, the harbour master sends his boat to pilot the vessel in, for which service a fee of 5 Spanish dollars is paid.

Weights and Measures same as at Constantinople.—(*Private information.*)

A few miles to the east of Syra lies Delos. This island, regarded in antiquity with peculiar veneration from its being the birthplace of Apollo and Diana, is no less celebrated in the commercial than in the religious history of ancient Greece. Its sacred character, by insuring its immunity from hostile attacks, and its central situation, made it a favourite mart for the products of the states of Greece, Asia Minor, Phœnicia, Egypt, &c. Religion, pleasure, and trade had all their votaries at its festivals; which were famous throughout the ancient world for the splendour of the rites and processions, and the magnitude of the business transacted. It were too much to expect that Syra should ever attain to equal importance, even as an *entrepôt*. But as she enjoys most of those advantages of position that contributed to render Delos one of the principal emporiums of antiquity, it may be hoped, now that there is a reasonable prospect of good order and freedom being again established in Greece, that she may also acquire some portion of her celebrity. It may be worth while mentioning, as strikingly evincing the mutability of human affairs, that at present both the great and the little Delos are uninhabited. And Tournefort states, that the inhabitants of Mycone were, in the early part of last century, in the habit of holding the greater Delos, for the purposes of pasturage, paying to the Grand Seignior a rent of 20 crowns a year for that famous island!—(*Tournefort, Voyage du Levant*, 4to. ed. tome i. pp. 290–325. There is a good account of the religious rites celebrated at Delos, though but a very indifferent one of its commerce, in the *Travels of Anacharsis.*)

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TACAMAHAC, a resin obtained from the *Fagara octandra;* and likewise, it is supposed, from the *Populus balsamifera.* It is imported from America in large oblong masses wrapt in flag leaves. It is of a light brown colour, very brittle, and easily melted when heated. When pure, it has an aromatic smell, between that of lavender and musk; and dissolves completely in alcohol, water having no action upon it.—(*Thomson's Chemistry.*)

TAGANROG, a city of European Russia, on the north coast of the sea of Azof, near the mouth of the River Don, lat. 47° 12′ 48″ N., lon. 38° 39′ E. Population 18,000. It has a naval hospital, a lazaretto, &c.; and there are annual fairs in May, August, and November. Taganrog is a place of considerable commercial importance. It was intended by its illustrious founder, Peter the Great, to replace Azof, the ancient emporium of the Don, the port of which had become all but inaccessible; and its whole consequence is derived from this circumstance, or from its being the *entrepôt* of the commerce of the countries traversed by that great river. The largest portion by far of the trade is carried on with Constantinople, Smyrna, and other Turkish ports: but a good deal is also carried on with the Italian and other foreign ports; and there is an extensive coasting trade with Odessa and other Russian ports. In 1857 the exports to foreign countries comprised, among other articles, 1,070,523 chetwerts wheat, 201,563 poods tallow, 207,182 poods wool, 68,096 poods caviar, 288,976 chet. linseed, &c.

Seeing that Taganrog was built to obviate the difficulties that had to be encountered by vessels entering the Don, through the shallowness of the water, it might have been supposed that care would be taken to place it in a position in which it should be, in as far as possible, free from this defect. This important consideration seems, however, to have been to a great degree overlooked. The gulph of the Don is seldom navigable by vessels drawing more than from 10 to 11 ft. water, and even these cannot approach within less than about 700 yards of the town. They are principally loaded by carts, drawn each by a single horse, the expenses being so very considerable that it costs from 120 to 150 copecks to ship a chetwert of wheat. Without, however, altering the position of the town, these defects might be obviated with but little difficulty, by constructing a wooden pier by which vessels in the roads might be sheltered, and from which they might be laden.

Sea of Azof.—Any one who takes up a map of Russia in Europe will at once perceive the vast importance of this sea (the *Palus Mœotis* of the ancients) as an outlet for the products of the most fertile provinces of the empire. At its N.E. extremity it receives the Don (an. *Tanais*), which with its navigable tributaries the Donetz, Medveditza, &c., flows through an immense extent of fruitful territory. Peter the Great was fully sensible of the paramount importance of this channel of communication; and he not only, as stated above, founded Taganrog on the æstuary of the Don, but joined the latter to the Wolga by means of a canal, uniting in this way the Caspian with the sea of Azof. It is singular, however, that the Russian government, which has, in other respects, so sedulously followed up the plans of the great father of his

country, would seem of late years rather to have discouraged the trade of the sea of Azof. As evidence of this, we may mention that no efforts have been made to deepen the channel over the bar at the mouth of the Don, to remove the other obstructions to the easy navigation of the river, or to improve any of the ports on the sea; and farther, all vessels entering the sea are obliged to perform a lengthened quarantine at Kertsch on the W. side of the Straits of Yenikalé. We believe, indeed, that this measure was chiefly dictated by a wish to make Kertsch a depôt for the produce of the various ports on the sea of Azof, which it was supposed would be conveyed to it in lighters. But the experience of the last twelve years has shown that this expectation is not destined to be realised; the charges attending the bringing of produce to the Straits of Yenikalé by means of lighters, and its transhipment, being so very heavy that more than 4-5ths of the shipping that arrive at Kertsch proceed, after performing quarantine there, to load at Taganrog, Mariapol, and other ports on the sea.

It is not surely too much to expect that the Russian government will see the advantage of making an end of these preposterous arrangements, the only effect of which is to obstruct one of the principal channels for the commerce of the empire; and to hinder its subjects from availing themselves of those gigantic means of production which a less illiberal policy would enable them fully to command. It is plain that ships may load and unload at Taganrog with as little danger to the health of the contiguous provinces as at Kertsch; and such being the case, why should they not be permitted to sail direct for the former?

The sea of Azof is usually shut by frost for about 3 months in winter, and it is besides shallow, and in parts incumbered with sand banks. But it may, notwithstanding, be navigated by vessels of considerable burden with but little risk or difficulty. Its greatest depth in the middle is about 7 fathoms: but it shoals gradually to the sides, and at Taganrog there is only from 10 to 11 feet water. Its depth is, however, materially affected by the direction and strength of winds. The only entrance to this sea is by the Straits of Yenikalé, the *Bosphorus Cimmerius* of the ancients, a narrow and difficult passage, having in some places not more than 13 feet water. Owing to the great quantity of fresh water poured into the sea of Azof, and its limited magnitude, its water is brackish merely. (*Norie's Sailing Directions for the Mediterranean and Black Seas; Annuaire du Commerce Maritime* for 1833, p. 161, &c.)

It is impossible to form any estimate of the future magnitude of the trade of this sea, were it placed under a more liberal policy, and reasonable facilities afforded for its extension. No doubt, however, it would be very great; it being the natural seat of the commerce of some of the most extensive and fertile countries of Eastern Europe. The subjoined returns show that even now it is of the first importance; and with a little encouragement, or with the mere absence of obstruction, it would no doubt rapidly increase. It may, indeed, be fully concluded that sooner or later Taganrog is destined to become one of the first corn-shipping ports in the world, if not the very first.

Statement showing the Quantities of the Principal Articles exported from the Sea of Azof during the Year 1857, with their Values in Roubles, and their total Value in Pounds Sterling.

Products.	Taganrog.	Berdiansk.	Mariapol.	Yeisk.	Total Russian.	Total English.
Wheat - -	Ch. 1,070,523	203,163	108,133	18,896	Ch. 1,400,720	Qrs. 994,511
Rye - -	,, 44,421	- -	- -	1,000	,, 45,421	,, 31,974
Linseed - -	,, 288,976	62,539	22,421	7,646	,, 381,582	,, 316,712
Flour - -	,, 52,250	- -	- -	7,000	,, 59,250	,, 19,044
Biscuit and maccaroni -	Pds. 13,490	30	- -	- -	Pds. 13,520	Cwts. 4,515
Butter - -	,, 115,291	- -	- -	3,700	,, 118,991	,, 38,247
Tallow - -	,, 201,563	132,435	- -	1,890	,, 335,888	,, 120,918
Wool - -	,, 207,182	42,752	50	16,352	,, 266,336	lbs. 9,588,096
Hides - -	,, 39,433	95,711	4,620	5,582	,, 145,346	,, 5,160,456
Caviar - -	,, 68,096	- -	- -	- -	,, 68,096	Cwts. 21,888
Tobacco - -	,, 18,754	50	- -	- -	,, 18,804	lbs. 778,836
Iron - -	,, 76,849	- -	- -	2,000	,, 78,849	Tons 1,172
Sail cloth - -	Arch. 113,000	- -	- -	- -	Ars. 11,000	Yds. 87,888
Total value silver R. -	16,083,597	4,776,000	1,302,000	521,000	22,682,597	£3,658,463

In 1858, 1,610,000 chet. wheat, 344,000 chet. linseed, 408,000 poods tallow, &c., were exported from the sea of Azof. By far the largest portion of the wheat and tallow are shipped for England.— (For an account of the imports from S. Russia, see article PETERSBURG.) In 1858 the ports on the sea of Azof were visited by 144 British ships, of the aggregate burden of 42,026 tons.

Were the navigation of the Don improved, and facilities given to foreigners entering the sea, the exports might be largely increased, even with recent prices, which have been nearly the same as those of Odessa (which see). The harvests in the S. of Russia fluctuate very greatly, see ODESSA.

The imports into the sea of Azof are but inconsiderable, principally consisting of tobacco, Greek wines, oils, dry salteries, and such like articles.

The emperor Alexander, whose reign will always form a memorable and brilliant æra in the history of Russia, expired at Taganrog on the 19th of November, 1825. —(For further particulars see *Schniztler, La Russie*, p. 717.; *Hagemeister on the Trade of the Black Sea*, p. 31, &c.; *Russian Official Accounts; and Reports*, by Mr. Yeames, the intelligent British consul at Odessa.)

Monies, Weights, and Measures, same as those of PETERSBURG; which see.

Caspian Sea, Magnitude, Ports of, &c.— The Caspian Sea, or rather Lake (the *Mare Hyrcanum* of the ancients), extends lengthwise from N. to S. about 740 miles, varying in breadth from 112 to 275 miles. In some parts, particularly on the southern shores, it is so very deep that a line of 450 fathoms will not reach the bottom; whereas in the northern parts, and opposite to the mouths of the Wolga, it is comparatively shallow; and owing to the frequent occurrence of shoals, it is not safely navigated by vessels drawing more than 10 or 12 feet water. Its level had been variously estimated by Olivier and Lowitz at from 64 to 53 feet below that of the Black Sea; but the observations of M. Humboldt made the difference of level between them no less than 300 feet! This, however, was supposed to involve some mistake; and its level has since been ascertained by an expedition fitted out by the Russian government to be 116 feet below the level of the Black Sea. The water of the Caspian is not salt, but brackish merely; it has no tides, but gales of wind raise a very heavy sea. It is extremely prolific of fish and seals. The value of the sturgeon caught in the Russian fisheries amounts to a very large sum. —(See STURGEON FISHERY.) They proceed in shoals up the rivers, where they are captured without the least apparent diminution of their numbers. The salmon is remarkably fine; and herrings are in such abundance, that, after a storm, the shores of the Persian provinces of Ghilan and Mazunderan are nearly covered with them. —(*Kinneir's Memoir of the Persian Empire*, p. 6.; *Memoir on the Caspian Sea, in Malte Brun's Geography.; Humboldt, Fragmens de Géologie, &c.*)

Astrakhan is situated on an island of the Wolga, more than 50 miles from the mouth of that river; and owing to the extensive command of internal navigation it possesses, it is a place of very considerable commercial importance. Baku, acquired by the Russians in 1801, is, however, the best port on the western side of the Caspian. It is situated on the southern shore of a peninsula that projects far into the sea, in lat. 40° 22′ N., lon. 51° 10′ E. The harbour is spacious and convenient; and its central and advanced position gives it superior advantages as a trading station. Prodigious quantities of naphtha are procured in the vicinity of Baku. It is drawn from wells, some of which yield from 1,000 to 1,500 lbs. a day. It is used as a substitute for lamp oil; and when ignited, emits a clear light, with much smoke and a disagreeable smell. Large quantities are exported in skins to the Persian and Tartar ports on the south and east shores of the sea.

Vessels.—The largest class of vessels by which the Caspian Sea is navigated are called by the Russians *schuyts*, and belong wholly to Astrakhan and Baku; their burden varies from 90 to 150, and, in some instances, 200 tons. They are not built on any scientific principle, and are constructed of the worst materials, that is, of the timber of the barks that bring grain down the Wolga to Astrakhan. There are supposed to be, in all, about 100 sail of these vessels. There is a second class of vessels employed in the trade of the Caspian, called *razchives*. They carry from 70 to 140 tons, and sail better than the schuyts. Their number is estimated at about 50. Exclusive of the above, there are great numbers of small craft employed in the coasting trade, in the rivers, in the fisheries, and in acting as lighters to the schuyts. Steam boats are extensively employed on the Wolga; and they are now also found in most parts of the Caspian. The masters and crews of the vessels employed on this sea are, for the most part, as ignorant as can well be imagined. They are generally quite incapable of making an observation, or of keeping a reckoning; so that accidents frequently occur, that might be avoided by the most ordinary acquaintance with the principles of navigation. —(These statements are made, partly upon official, and partly upon private authority: the latter may, however, be safely relied on.)

The trade of this great sea is entirely in the hands of the Russians; by whom it is carried on from the ports of Astrakhan and Baku, with the Persian ports of Astrabad, Balfroosh, &c. on the south; and with the Tartar ports of Mangishlak, Balkan, &c. on the east. It is very insignificant, compared with what it ought to be; the value of the Russian produce exported by it in 1857 being only 633,557 silver roubles; and that of the imports 3,192,912 do. On the whole, however, a gradual improvement is taking place; and whatever objections may, on other grounds, be made to the encroachments of Russia in this quarter, there can be no manner of doubt, that, by introducing comparative security and good order into the countries under her authority, she has materially improved their condition, and accelerated their progress to a more advanced state.

TALC, a species of fossil nearly allied to mica. It is soft, smooth, greasy to the feel, and may be split into fine plates or leaves, which are flexible, but not elastic. It has a greenish, whitish, or silver-like lustre. The leaves are transparent, and are used in many parts of India and China, as they were used in ancient Rome—(*Plin. Hist. Nat.* lib. xxxvi. c. 22.)—in windows instead of glass. In Bengal, a seer of talc costs about 2 rupees, and will sometimes yield a dozen panes 12 inches by 9, or 10 by 10, according to the form of the mass, transparent enough to allow ordinary subjects to be seen at 20 or 30 yards' distance. It should be chosen of a beautiful pearl colour; but it has, in general, either a yellowish or faint blue tinge. Its pure translucent flakes are frequently used by the Indians for ornamenting the baubles employed in their ceremonies. Talc is employed in the composition of *rouge végétal*. The Romans prepared with it a beautiful blue, by combining it with the colouring fluid of particular kinds of testaceous animals. Talc is met with in Aberdeenshire, Perthshire, and Banffshire in Scotland; and in various parts of the Continent, where rocks of serpentine and porphyry occur. The talc brought from the Tyrolese mountains is called in commerce Venetian talc. Several varieties are found in India and Ceylon.—(*Thomson's Chemistry; Rees's Cyclopædia; Milburn's Orient. Com.*; *Ainslie's Mat. Indica.*)

TALLOW (Fr. *Suif*; Ger. *Talg*; It. *Sevo, Sego*; Rus. *Salo, toplenoe*; Sp. *Sebo*), animal fat melted and separated from the fibrous matter mixed with it. Its quality depends partly on the animal from which it has been prepared; but more, perhaps, on the care taken in its purification. It is firm, brittle, and has a peculiar heavy odour. When pure, it is white, tasteless, and nearly insipid; but the tallow of commerce has usually a yellowish tinge; and is divided, according to the degree of its purity and consistence, into candle and soap tallow.

Tallow is an article of great importance. It is manufactured into candles and soap; and is extensively used in the dressing of leather, and in various processes of the arts. Besides our extensive supplies of native tallow, we annually import a very large quantity, principally from Russia, the River Plate, and the Australian colonies. The exports of tallow from Russia amount, at an average, to about 3,810,000 poods, or 137,160,000 lbs. a year.—(*Tegoborski, Forces Productives de la Russie*, i. 233.) Of this immense supply by far the largest portion is brought to England; the remainder being exported to Prussia, France, the Hanse Towns, Turkey, &c.

We borrow from the work of Mr. Borrisow, on the commerce of Petersburg, the following details with respect to the tallow trade of that city:—

Tallow is divided into different sorts; namely, white and yellow *candle tallow*, and common and Siberian *soap tallow*; although it is allowed that the same sort often differs in quality.

Tallow is brought to Petersburg from the interior; and the best soap tallow from Siberia, by various rivers, to the lake Ladoga; and thence, by the canal of Schlusselburg, to the Neva.

An *ambare*, or warehouse, is appropriated to the reception of tallow, where, on its arrival, it is selected and assorted (*bracked*). The casks are then marked with three circular stamps, which state the quality of the tallow, the period of selecting, and the name of the selector (*bracker*).

The casks in which white tallow is brought have a singular appearance: their form being conical, and their diameter at one end about 2½ feet, and at the other only 1½ foot; the casks of yellow tallow are of the common shape. There are also others, denominated ¼ casks.

To calculate the tare, the tallow is removed from a certain number of casks, which are weighed, and an average tare is thence deduced for the whole lot. A cask weighs 8½, 9, 10, or 11 per cent., but the average is generally about 10 per cent. of the entire weight of tallow and cask.

Account of the Quantities and Values of the Tallow imported into the U. Kingdom in 1857, specifying the Countries whence it was brought, and the Quantities and Values furnished by each.

Countries.	Imports.	Entries for Consumption.	Computed value of Imports.	Gross Amount of Duty.	Countries.	Imports.	Entries for Consumption.	Computed value of Imports.	Gross Amount of Duty.
			£	£				£	£
Russia - - cwts.	839,257	709,638	2,256,914	53,224	United States - cwts.	41,587	41,543	120,721	3,116
Sweden - - ,,	10,689	10,779	31,656	808	Uruguay - ,,	49,152	49,011	136,802	3,676
Prussia - - ,,	3,282	6,130	9,518	460	Buenos Ayres - ,,	82,438	82,040	227,796	6,153
Hanse Towns - ,,	10,803	12,893	29,123	967	British E. Indies ,,	17,444	18,595	48,062	125
Belgium - ,,	14,456	15,033	39,960	977	Australia - ,,	73,955	74,559	196,968	324
France - - ,,	31,781	27,725	89,104	2,079	Other parts - ,,	21,418	24,298	58,229	1,710
Austrian Italy - ,,	6,781	6,781	19,351	509					
Turkey Proper - ,,	7,504	8,707	20,846	653	Total - -	1,210,347	1,085,528	3,285,048	74,776

Account of the Quantities of Tallow imported into the U. Kingdom in each of the 7 Years ending with 1858.

	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Tallow - - cwts.	1,049,703	1,175,754	749,721	952,322	1,122,736	1,210,347	1,235,789

Yellow candle tallow, when good, should be clean, dry, hard when broken, and of a fine yellow colour throughout. The white candle tallow, when good, is white, brittle, hard, dry, and clean. The best white tallow is brought from Woronesch. As for soap tallow, the more greasy and yellow it is, the better the quality. That from Siberia is the purest, and commonly fetches a higher price than the other sorts. The exports of tallow from Petersburg in 1858 amounted to 2,886,157 poods.

Formerly the oil and tallow warehouses were the same; and this occasioned great difficulties in shipping, because all vessels or lighters taking in tallow or oil were obliged to haul down to the *ambare* and wait in rotation for their cargoes. The consequence was, that when much business was doing, a vessel was often detained for several weeks at the *ambare* before she could get her cargo on board. Now the tallow and oil warehouses are separated, and every article has its own place. When a shipment of tallow is made, the agent is furnished by the selector (*bracker*) with a sample from each cask.

Captains, in order to obtain more freight, usually load some casks of tallow upon deck; but it is more for the interest of the owner to avoid this, if possible, because the tallow loses, through the heat of the sun, considerably both in weight and quality.

One hundred and twenty poods of tallow, at gross weight, make a Petersburg last, and 63 poods an English ton.

M. Tegoborski estimated the average annual exports of tallow from Russia at 3,810,000 poods, of the value of 13,871,000 roubles, that is, taking the rouble at 3*s.* 2*d.*, 2,196,241*l.* sterling.—(*Forces Productives de la Russie*, i. 242.)

Tallow from foreign countries is charged with a duty of 1*s.* 6*d.* per cwt., while that from a British possession is charged with a duty of only 1*d.* per cwt. In a financial point of view these duties are of little importance, but they are imposed on an illiberal principle, are justly offensive to other countries, and provoke them to retaliate.

The price of tallow fluctuated very much during the war. This was occasioned, principally, by the obstacles that were at different periods thrown in the way of supplies from Russia. The price of tallow is also affected by the state of the seasons. Some very extensive speculations have at various periods been attempted in tallow; but seldom, it is believed, with much advantage to the parties. Yellow candle tallow was worth, in the London market, in April, 1859, from 55*s.* 3*d.* to 55*s.* 9*d.* per cwt.

TALLY TRADE, the name given to a system of dealing carried on in London and other large towns, by which shopkeepers furnish certain articles on credit to their customers, the latter agreeing to pay the stipulated price by certain weekly or monthly instalments.

In the metropolis there are about 60 or 70 tally-shops of note; and from 500 to 600 on a smaller scale. They are also spread over the country to a considerable extent, particularly in the manufacturing districts. The customers of the tally-shops are mostly women; consisting, principally, of the wives of labourers, mechanics, porters, &c., servant girls, and females of loose character. Few only of the more respectable classes have been infatuated enough to resort to them. Drapery goods, wearing apparel, coals, household furniture, hardware, &c. are furnished; and even funerals are performed; but few or no articles of food, except tea, are sold upon the tally plan.

We believe that this is the very worst mode in which credit is afforded. The facility which it gives of obtaining an article when wanted, and the notion so apt to be entertained that the weekly or monthly instalments may be paid without difficulty, make those who resort to the tally-shops overlook the exorbitant price, and usual bad quality, of the articles they obtain from them; and generates habits of improvidence that seldom fail to involve the parties in irretrievable ruin. It is not going too far to say that nine tenths of the articles supplied by tally-shops might be dispensed with. As already observed, women are the principal customers; and it is not easy to exaggerate the mischief that has been entailed on the families of many industrious labourers by their wives having got entangled with tally-shops. They buy goods without the knowledge of their husbands; and these are not unfrequently pawned, and the proceeds spent in gin. So destructive, indeed, is the operation of the system, that the establishment of a tally-shop in any district is almost certain to occasion an increase in the paupers belonging to it. Even the unmarried females who do not pay are demoralised and ruined by the system; because, if a woman who buys 3 gowns pays for the 2 first, and runs away from the payment of the last, she gains nothing *in point of saving*, while she becomes indifferent to an act of dishonesty. As tally debts can only be collected whilst a supply of goods is kept up, as soon as that supply is stopped, the debtor either flies to another district, or awaits a summons. Where the wife has contracted the debt, she usually appears before the commissioners, who in general order the debt to be paid by weekly or monthly instalments. But it often occurs, from the wife not being able to keep up such payments, that execution issues, and the poor husband is frequently arrested and lodged in prison for a debt, of the existence of which he was entirely ignorant. In this way, numbers of the working classes are completely ruined; they lose their employment, and themselves and families are reduced to beggary. The intelligent keeper of Whitecross-street prison (Mr. Barrett) stated, that from 150 to 200 persons are annually imprisoned there for tally-shop debts, in sums of from 10*s.* to 5*l.*, and that in one year 30 prisoners were at the suit of one tally-shop alone! Such imprisonments, however, are now much decreased, in consequence, as is believed, of the Court of Requests discouraging the tally system, by ordering claims of *this* kind to be paid by *extremely small* instalments, and these at *very distant* intervals; and also in consequence of no composition being allowed by the charities for the relief of poor prisoners with reference to such debts.

It is estimated that in London alone about 850,000*l.*, or nearly 1,000,000*l.* sterling, is annually returned in this trade. From his large profits (generally from 25 to 40

per cent.), it is obvious that in a few transactions the tally-shop keeper becomes independent of the existing debt; and with capital and good management, it is said that some have realised considerable sums of money in this business.

According to the custom of the trade, Mondays, Tuesdays, Wednesdays, and Thursdays are the days set apart for collecting money from the customers. The tally-man sends round his collector through the different "walks," and the amount of a collection which keeps the collector engaged from morning till night, even in a good tally concern, seldom exceeds 4*l.* a day. The payments are invariably made in *shillings* and *sixpences*—but the people seldom or never pay at the tally-shops; they rarely call there unless something else is wanted. The tally-shop keeper trusts one party on the recommendation of another; but guarantees are never required—certainly no *written* guarantees; and a verbal guarantee is, according to Lord Tenterden's act, not binding. It is part of the collector's business, besides getting money, to beat up for fresh customers in his walk.

The greater number of the small tally concerns are kept by Scotchmen; it is a curious fact, that when a "Tally-walk" is to be sold, which is often the case, a Scotchman's walk will bring 15 per cent. more than an Englishman's! It is believed to contain a better description of customers.

From the causes above mentioned, assisted, perhaps, by the salutary influence of Savings Banks, this obnoxious trade is understood to be rather on the wane. It will never, however, be completely rooted out, except by adopting the plan we have previously suggested—(see CREDIT)—for placing all small debts beyond the pale of the law; and the fact, that the adoption of this plan would have so beneficial a result, is an additional and powerful recommendation in its favour. In cases where failures take place, the creditors of a tally-shop keeper are in general *terrified* into the acceptance of a small composition. The very sight of the tally Ledgers, from 10 to 20 in number, containing debts from 5*s.* to 5*l.*, dotted over the pages like a small pattern on a piece of printed cotton, and spread over every district in and round London, determines the creditors to accept of any offer, however small, rather than encounter the collection of such disreputable assets. In an affair of this kind, concluded a few years since, where the business was under the management of a respectable accountant in the city, the whole debts due to the concern, good, bad, and doubtful, amounted to 8,700*l.*, while the number of debtors was 7,600! giving an average of 22*s.* 10*d.* each.

N.B.—This article has been compiled wholly from *private*, but *authentic, information.*

TAMARINDS (Ger. *Tamarinden;* Fr. *Tamarins;* It. and Sp. *Tamarindo;* Arab. *Umblie;* Hind. *Tintiri*), the fruit of the *Tamarindus Indica*, a tree which grows in the East and West Indies, in Arabia, and Egypt. In the West Indies the pods or fruit, being gathered when ripe, and freed from the shelly fragments, are placed in layers in a cask, and boiling syrup poured over them, till the cask be filled; the syrup pervades every part quite down to the bottom; and when cool, the cask is headed for sale. The East India tamarinds are darker coloured and drier, and are said to be preserved without sugar. When good, tamarinds are free from any degree of mustiness; the seeds are hard, flat, and clean; the strings tough and entire; and a clean knife thrust into them does not receive any coating of copper. They should be preserved in closely covered jars.—(*Thomson's Dispensatory.*) The duty on tamarinds after being greatly reduced in 1842 was wholly repealed in 1853. The imports and exports of tamarinds in 1857 amounted respectively to 1,544,193 lbs., and 1,517,713 do.

TAPIOCA, a species of starch or white coarse powder derived from the roots of the bitter cassava (*Jatropa manihot*), an American plant, raised all over South America, but principally in Brazil, where it is called *mandioc* or *manioc*. The roots of the plant, being peeled, are subjected to pressure in a kind of bag made of rushes; the juice which is forced out by this process being a deadly poison, and employed as such by the Indians to poison their arrows! But the residuum, or farinaceous matter remaining after the expulsion of the juice, is perfectly wholesome, and makes excellent bread. Tapioca, as stated above, is prepared from this residuum; and being nutritious, and easy of digestion, is extensively used in the making of puddings. When dressed, it is not easily distinguished from sago. The imports amounted in 1857 to 9,528 cwt., whereof 5,512 were from Brazil. Duty 4½*d.* per cwt.

TAR (Fr. *Goudron;* Ger. *Theer;* It. *Catrame;* Pol. *Smola gesta;* Rus. *Degot, Smola shithaja;* Sw. *Tjara*), a thick, black, unctuous substance, chiefly obtained from the pine, and other turpentine trees, by burning them in a close smothering heat.

The tar of the north of Europe is very superior to that of the United States, and is an article of great commercial importance. The process followed in making it has been described as follows by Dr. Clarke:—"The inlets of the gulph (Bothnia) everywhere appeared of the grandest character; surrounded by noble forests, whose tall trees,

flourishing luxuriantly, covered the soil quite down to the water's edge. From the most southern parts of Westro-Bothnia, to the northern extremity of the gulph, the inhabitants are occupied in the manufacture of tar; proofs of which are visible in the whole extent of the coast. The process by which the tar is obtained is very simple: and as we often witnessed it, we shall now describe it, from a tar-work we halted to inspect upon the spot. The situation most favourable to the process is in a forest near to a marsh or bog; because the roots of the fir, from which tar is principally extracted, are always most productive in such places. A conical cavity is then made in the ground (generally in the side of a bank or sloping hill); and the roots of the fir, together with logs and billets of the same, being neatly trussed in a stack of the same conical shape, are let into this cavity. The whole is then covered with turf, to prevent the volatile parts from being dissipated, which by means of a heavy wooden mallet, and a wooden stamper, worked separately by two men, is beaten down and rendered as firm as possible above the wood. The stack of billets is then kindled, and a slow combustion of the fir takes place, without flame, as in making charcoal. During this combustion the tar exudes; and a cast iron pan being at the bottom of the funnel, with a spout which projects through the side of the bank, barrels are placed beneath this spout to collect the fluid as it comes away. As fast as the barrels are filled, they are bunged and ready for immediate exportation. From this description it will be evident that the mode of obtaining tar is by a kind of distillation *per descensum*; the turpentine, melted by fire, mixing with the sap and juices of the fir, while the wood itself, becoming charred, is converted into charcoal. The most curious part of the story is, that this simple method of extracting tar is precisely that which is described by Theophrastus and Dioscorides; and there is not the smallest difference between a tar-work in the forests of Westro-Bothnia and those of ancient Greece. The Greeks made stacks of pine; and having covered them with turf, they were suffered to burn in the same smothered manner; while the tar, melting, fell to the bottom of the stack, and ran out by a small channel cut for the purpose."

Tar was charged, previously to 1844, on being admitted to consumption, with a duty of 15*s.* a barrel. But this duty being repealed in the course of that year, it has since been admitted duty free. It is principally brought from Russia, the U. States, and Sweden. Thus of 18,239 lasts imported in 1857, 14,128 were supplied by the first, 2,369 by the U. S., and 887 by Sweden. N. B. The last contains 12 barrels, and each barrel 31½ gallons.

TARE, an abatement or deduction made from the weight of a parcel of goods, on account of the weight of the chest, cask, bag, &c. in which they are contained. Tare is distinguished into *real tare, customary tare,* and *average tare.* The first is the actual weight of the package; the second, its supposed weight, according to the practice among merchants; and the third is the medium tare, deduced from weighing a few packages, and taking it as a standard for the whole. In Amsterdam, and some other commercial cities, tares are generally fixed by custom: but in this country, the prevailing practice, as to all goods that can be unpacked without injury, both at the Custom-house and among merchants, is to ascertain the real tare. Sometimes, however, the buyer and seller make a particular agreement about it. We have, for the most part, specified the different tares allowed upon particular commodities, in the descriptions given of them in this work. (For the tares at Amsterdam, Bordeaux, &c., see these articles; see also ALLOWANCES.)

TARE, VETCH, or FITCH, a plant (*Vicia sativa* Lin.) that has been cultivated in this country from time immemorial; principally for its stem and leaves, which are used in the feeding of sheep, horses, and cattle; but partly, also, for its seed. Horses are said to thrive better upon tares than upon clover and rye grass; and cows that are fed upon them to give most milk. The seed is principally used in the feeding of pigeons and other poultry. The imports in 1857 amounted to 25,589 qrs. from Denmark, Prussia, the Hanse Towns, and France.

TARIFF, a table, alphabetically arranged, specifying the various duties, drawbacks bounties, &c. charged and allowed on the importation and exportation of articles of foreign and domestic produce.

The first two columns of the subjoined Table contain an account of the duties existing on the 1st November, 1859, on the various articles charged with duties on being imported for consumption into the U. Kingdom, distinguishing between the duties when the articles come from foreign countries and from colonial possessions.

Those who compare the following tariff, with the tariffs in the copies of this work issued previously to 1842, will be forcibly struck with the vast difference between them. Notwithstanding the improvements effected by Mr. Huskisson, the tariff continued down to the epoch now referred to, on a most objectionable footing. Hundreds of articles were loaded with duties, which, while they brought little revenue into the public treasury, opposed formidable obstacles to the extension of commerce; a host of other articles, including live cattle and fresh provisions, were wholly prohibited; high duties were laid on various articles of consumption, and on others that were necessary

to the prosecution of some of our principal manufactures; and some most important articles, including corn, sugar, and timber, were burdened with duties, imposed not so much for the sake of revenue as of protection. But the change in these respects since 1842 has been greater than any one, however sanguine, could have anticipated. It was then that Sir Robert Peel began that course of commercial reform that will, for ever, distinguish his administration; and such were the energy, skill, and success with which that great minister prosecuted his plans, that in the brief space of 4 years, he obviated, with but little sacrifice of revenue, almost all the defects alluded to above, and effected a vast and most salutary change in our commercial policy.

Sir Robert Peel's commercial reforms were principally embodied in the acts 5 & 6 Vict. c. 47., 8 Vict. c. 12., 9 & 10 Vict. c. 22., and 9 & 10 Vict. c. 23. The *first* of these acts permitted cattle, sheep, hogs, beef, salmon, and other articles that had previously been prohibited, to be imported under reasonable duties: the *second*, or the 8 Vict. c. 12., repealed the duties on about 420 different articles; and though many of these were of comparatively trifling importance, the list comprised others of a very different class, such, for example, as ashes, barilla, bark, flax and tow, cotton wool, hemp, hides, indigo, madder; palm, olive, and train oil; sago, saltpetre, raw silk, all sorts of skins and furs, straw for platting, all sorts of fancy woods, with a host of others: the *third* of the above mentioned statutes, or the 9 & 10 Vict. c. 22., is the famous act for the modification and repeal of the corn laws: and the *fourth* and last, the 9 & 10 Vict. c. 23., is the tariff act of 1846, which entirely repealed the duties on cattle, sheep, hogs, beef, bacon, and other leading products; at the same time that it reduced the duties on silks, butter, cheese, and nearly 100 other articles!

Sir Robert Peel also reduced the duty on muscovado sugar from a British possession, from 25*s.* 2*d.* to 14*s.* a cwt., at the same time that he made a very great reduction in the duty on certain descriptions of foreign sugar. And Lord John Russell subsequently followed up the policy of his predecessor in this respect, by making an end of the distinction between free and slave grown sugars; and providing for the gradual equalisation of the duties on sugars, without regard to their origin.

Independent of the powerful influence which the repeal and reduction of the duties on so many important articles has had on the well-being and industry of the people, it must always be borne in mind that owing to the reciprocity which is of the essence of all commercial transactions, it is impossible to increase the importation of foreign articles, without at the same time proportionally increasing the exportation of the native products with which the former must be paid. It is, therefore, no easy matter to estimate the future influence of such extensive changes on the trade and prosperity of the U. Kingdom. It has already been, and there can be no doubt that it will continue to be, very great. And beside contributing to improve our manufactures, it can hardly fail to deepen and enlarge the existing channels of commercial intercourse, and gradually to open others with which we may now, perhaps, be wholly unacquainted.

Sir Robert Peel left but little for others to do in the way of commercial reform; and that little has since been in great measure accomplished. The duty on tea was the only very objectionable one in the amended tariff bequeathed to the country by Sir Robert Peel; and he had merely deferred to a more convenient opportunity his determination to place it on a more reasonable and equitable footing. He did not, unhappily, live to effect this object; but it has since been effected by others. The reduction of the tea duties formed a striking feature in the budget proposed by Mr. Disraeli; and after the rejection of the latter, the project was introduced into the budget of Mr. Gladstone, and was passed into a law. But, among its other bad consequences, the war with Russia has unfortunately interfered to prevent this reduction being carried out; and has made the retention and, in some instances, even the increase of customs duties, not of the most unobjectionable description, a matter not of choice but of necessity. But for this contest tobacco would now have been the only decidedly over-taxed article in our tariff; though except in the check it would give to smuggling and adulteration, the reduction of the duty on it is of secondary importance.

We have excluded from the following table numerous articles which are at this moment (1st January, 1856) duty free; and we have annexed to the table of existing duties two additional columns; the first exhibiting the amount of the customs duties in 1819, as fixed by the act 59 Geo. 3. c. 52.; and the second, their amount in 1787, as fixed by Mr. Pitt's Consolidation Act, the 27 Geo. 3. c. 13. The reader has, therefore, before him, and may compare the present customs duties with the duties on the same articles as they existed after the termination of the last war, and of the American war.* No table of this sort is to be met with in any other publication, unless it be

* It must, however, be carefully borne in mind that this table does not fully represent the customs duties as they existed in 1787 and 1819. It exhibits those duties only which were charged at the epochs in question on the articles now (1st Jan. 1856) subject to customs duties; whereas the tariff embraced in 1787 and 1819 more than 500 articles not included in the present tariff.

purloined from this. It was furnished for a former edition of this work by Mr. J. D. Hume, late of the Board of Trade.

The duties in the following table were imposed by the 18 & 19 Vict. c. 97. The table of duties is preceded by the following clauses:—

Instead of all other Duties and Drawbacks of Customs, there shall be paid, &c.—From and after the passing of this Act, there shall be raised, levied, collected, and paid upon goods imported into Great Britain or Ireland, the several duties of customs, and there shall be allowed upon goods exported the several drawbacks respectively inserted and set forth in the annexed Table A.; and there shall be raised, levied, collected, and paid, the several duties of customs, upon the importation of goods into the Isle of Man, set forth in figures in Table B. annexed to this Act; and all the goods described as free in Table A. shall be exempt from duty on importation into Great Britain or Ireland, and those described as free in Table B. shall be exempt from duty on importation into the Isle of Man.—§ 1.

Section 2. gives power to the Treasury to remit and reimpose the duties of 15 per cent., levied on unenumerated articles imported into the Isle of Man.

Drawbacks upon Sugar.—The drawbacks upon sugar allowed under Table A. shall also be allowed and paid on the like kinds of sugar, upon the same being deposited in any approved warehouse, upon such terms and conditions, and subject to such regulations as the Commissioners of Customs may direct, for delivery therefrom as ships stores only, or for the purpose of sweetening British spirits in bond.—§ 3.

Section 4. directs that the Commissioners of Customs shall provide standard samples of white clayed sugar, and brown clayed sugar.

Metage Dues on Fruit.—The metage dues now payable upon fruit imported into the port of London shall not be increased in consequence of the duties upon such fruit being levied by the bushel.

Entries of Arms, &c.—On the entry of arms and ammunition of war, whether for home use, exportation, or transit, the number and quantity of articles of each description, as denominated in the annexed table A, shall be stated in the import, export, or transit entry, as the case may be.—§ 6.

Clause 7. enacts that manufactures of Gibraltar, Malta, and Heligoland, from foreign materials shall be deemed foreign.

Acts repealed.—The following Acts, viz. "The Customs Tariff Act, 1853," the Acts of the 17th and 18th years of Her present Majesty, caps. 28 and 29, and the 1st and 5th sect. of cap. 122, and the Acts of the 13th of H. Majesty, caps. 9 and 21, are hereby repealed, except as to anything done before the commencement of this Act, and except so far as relates to any arrears of duty, or to any drawback which shall have become due or payable, and except so far as may be necessary for the purpose of supporting or continuing any proceeding heretofore taken, or to be taken after the commencement of this Act, and except as to the recovery or application of any penalty for any offence which shall have been committed or any forfeiture which shall have been incurred before the commencement of this Act; and the duties imposed by the several Acts in force at the time of the passing of the Act of the 17th and 18th of H. present Majesty, cap. 122, are hereby declared not to have been affected or repealed by that Act, except as to the articles enumerated therein; and the duties collected since the passing of that Act according to the tables contained in the said several Acts and in that Act are hereby declared to have been legally charged and collected; and all orders made by H. M. in council, all bonds taken or licences granted, and all things done under the authority or in pursuance of any of the Acts or parts of Acts hereby repealed, shall nevertheless be valid and effectual.—§ 8.

When Contracts have been entered into, Amount of increased or decreased Duty to be added or deducted.—In the event of any increase or decrease by law in the duties of customs chargeable upon any goods or commodities after the making of any contract or agreement for the sale or delivery of such goods duty-paid, it shall be lawful for the seller, in case such increase shall accrue before the clearance and delivery from the warehouse of such goods at such increased duty, and after payment thereof, to add so much money to the contract price as will be equivalent to such increase of duty, and he shall be entitled to be paid and to sue for and recover the same; and it shall be lawful for the purchaser under any such contract or agreement, in case such decrease shall take effect before the clearance and delivery from the warehouse at such decreased duty, to deduct so much money from the contract price as will be equivalent to such decrease of duty, and he shall not be liable to pay or be sued for or in respect of such deduction.—§ 9.

The rules and regulations to be followed in regard to the importation and exportation of goods are embodied in the Customs Consolidation Act of 1853, the 16 & 17 Vict. c. 107.; and will be found in this work under the head IMPORTATION AND EXPORTATION. But it may be useful to subjoin the following clause in regard to the importation of duty free goods, viz.:—

Particulars of Entry.—The importer of any goods not subject to duties of customs, or his agent, shall deliver to the collector or comptroller a bill of entry of such goods in the same manner and form and containing the same particulars as are required on the entry of dutiable goods, so far as the same is applicable, which entry, so far as regards the goods, shall be a transcript of the report, and shall therein describe such goods according to the terms upon which such goods are free of duty, and the value of such goods as shall have been previously chargeable with duty at value; and such bill of entry, when signed by the collector or comptroller, shall be transmitted to the proper officer, and be his warrant for the delivery of the goods mentioned therein; and the importer, owner, or consignee of such goods, or his agent, shall, within 14 days after the entry and landing thereof, deliver to the collector, comptroller, or other proper officer of customs a full and true account of the goods so landed; provided, that at Liverpool, and with the sanction of the Commissioners of Customs at any other port where the docks, quays, and wharfs shall in like manner be wholly or principally under the control and management of one and the same corporate body, the owner, master, or consignee of the importing ship, or his agent, shall sign and leave with the collector of the customs, within 14 days next after the final discharge of such goods, a full and accurate list thereof, stating the quantities and distinguishing the weight and contents by measurement of such goods, if any, comprised therein, as shall be chargeable by weight or by measurement for the freight payable thereon, and the names of the consignees (according to the bills of lading), or the names of the persons actually paying freight for the same; and on failure to leave such list, such owner, master, consignee, or agent shall forfeit the sum of 20*l.*—§ 60.

Table (A.) exhibiting the Duties payable on 1st of November, 1859, on Goods, Wares, and Merchandise imported into the U. K., from Foreign Parts, and from British Possessions; and those payable on the same Articles in 1819 and 1787, when imported from Foreign Parts.

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
A.				
Agates or cornelians, set, for every 100*l.* value	10 0 0	10 0 0	60 0 0	27 10 0
Ale and beer, of all sorts, per barrel	1 0 0	1 0 0	0 15 0	0 5 3
Almonds, not Jordan, nor bitter, per cwt.	0 10 0	0 10 0	2 7 6	1 3 2
Jordan, per cwt.	0 10 0	0 10 0	4 15 0	2 6 3
paste of, per lb.	0 0 2	0 0 2	60 0 0 per 100*l.* val.	27 10 0
Amber, manufactures of, not enumerated, (except beads)	Free.	Free.	60 0 0 per 100*l.* val.	27 10 0
Ammunition, shot, large and small, of lead, per cwt.	0 2 0	0 2 0		
of iron per cwt.	0 2 6	0 2 6		
rockets and other combustibles, for purposes of war, not enumerated, every 100*l.* value	10 0 0	10 0 0		
Anchovies	Free.	Free.	0 1 0 per lb.	0 0 1½
Apples, raw, per bushel	0 0 3	0 0 2	0 4 0	0 2 4
dried, per bushel	0 1 0	0 1 0	0 7 0	0 3 0
Aquafortis	Free.	Free.	0 14 3 per cwt.	0 4 8
Arms, viz.—				
swords, cutlasses, matchetts, bayonets, gun barrels, gun locks, cannon, and mortars of iron, not mounted nor accompanied with carriages, per cwt.	0 2 6	0 2 6		
Cannon and mortars of brass, not mounted nor accompanied with carriages, per cwt.	0 10 0	0 10 0		
Cannon and mortars, mounted or accompanied with carriages, and other fire arms, viz.: muskets, rifles, carbines, fowling pieces, or guns of any other sort not enumerated, and pistols, for every 100*l.* value	10 0 0	10 0 0		
Arrowroot, per cwt.	0 0 4½	0 0 4½	0 0 2 per lb.	27 10 0 per cent
B.				
Bandstring twist	Free.	Free.	0 5 0 per 384 yds.	0 2 3 per 384 yds.
Barley, pearled, per cwt.	0 0 4½	0 0 4½	0 17 6	0 8 10
Baskets, per cubic foot	0 0 4	0 0 4	50 0 0 per 100*l.* val.	27 10 0
Bast ropes, twines, and strands	Free.	Free.	0 10 0 per cwt.	0 1 10 per cwt.
Beads, viz.—				
arango, per lb.	0 0 2	0 0 2	51 5 0 per 100*l.* val.	31 13 4
coral, per lb.	0 1 6	0 1 6	0 15 10 per lb.	0 4 5
crystal, per lb.	0 0 2	0 0 2		
jet, per lb.	0 0 2	0 0 2	0 3 2 per lb.	0 1 5
not otherwise enumerated or described	0 0 2	0 0 2	50 0 0 per 100*l.* val.	27 10 0 per cent.
Beer or mum, the barrel	1 0 0	1 0 0	1 1 2	0 5 8
spruce, the barrel	1 10 0	1 0 0		
other sorts, the barrel	1 0 0	1 0 0	1 6 0	0 11 0
Biscuit and bread, per cwt.	0 0 4½	0 0 4½		
Blacking	Free.	Free.	3 12 0 per 100*l.* val.	0 17 8
Books, viz.—				
being of editions printed prior to the year 1801, bound or unbound	Free.	Free.	6 10 0bound,p.cwt.	0 19 3 bound.
being of editions printed in or since the year 1801, bound or unbound, per cwt.	1 10 0	1 10 0	5 0 0 unbound.	0 8 10 unbound.
admitted under treaties of international copyright, per cwt.	0 15 0	0 15 0		
Boxes—				
brass, per cwt.	1 10 0	1 10 0		
not otherwise charged, for every 100*l.* value	10 0 0	10 0 0	50 0 0	27 10 0
Brass, manufactures of, not otherwise enumerated, per cwt.	0 10 0	0 10 0	50 0 0 per 100*l.* val.	Prohibited.
powder of	Free.	Free.	0 5 6 per lb.	0 2 8 per lb.
Bricks or clinkers (Dutch)	Free.	Free.	1 2 6 per 1000.	0 7 2
other sorts	Free.	Free.		
Brocade of gold or silver, per lb.	0 5 0	0 5 0	Prohibited.	Prohibited.
Bronze, all works of art	Free.	Free.	50 0 0 per cent.	27 10 0 per cent.
manufactures of, or of metal bronzed or lacquered, per cwt.	0 10 0	0 10 0		
powder	Free.	Free.	50 0 0 per cent.	27 10 0 per cent.
Butter, per cwt.	0 5 0	0 2 6	1 0 0	0 2 6
Buttons (metal)	Free.	Free.	Prohibited.	Prohibited.
C.				
Cables (not being iron cables), tarred or untarred, old and new	Free.	Free.	1 1 6 per cwt.	0 8 6
Cameos, not set	Free.	Free.		
Camphor, refined	Free.	Free.	14 0 0 per cwt.	3 14 8 per cwt.
Candles, viz.—				
spermaceti, per cwt.	0 2 4	0 2 4	0 2 6 per lb.	0 1 4 per lb.
stearine, per cwt. till April 5th, 1858, unless the duty upon tallow shall be repealed at an earlier time, in which case, or after April 5th, 1858, this duty shall be reduced to the same rate as tallow candles	0 3 6	0 3 6		
tallow, per cwt.	0 2 4	0 2 4	3 3 4	1 12 8
wax, per cwt.	0 2 4	0 2 4	0 2 6 per lb.	0 1 8
Canes, viz.				
walking canes or sticks mounted, painted or otherwise ornamented, per 100	0 6 0	0 6 0	50 0 0 per 100*l.* val.	1 18 6 per 1000
umbrella or parasol sticks, per 100	0 3 0	0 3 0		
Canes or sticks, unenumerated	Free.	Free.	4 0 0 per 1000	1 18 6
Cantharides	Free.	Free.	0 3 6 per lb.	0 1 0
Caoutchouc	Free.	Free.		
manufactures of, per lb.	0 0 2	0 0 2		
Capers, including the pickle, per lb.	0 0 1½	0 0 1½	0 1 0	0 0 2
Cards, viz.—				
Playing cards, the dozen packs	0 15 0	0 15 0	4 0 0	Prohibited.
Carmine	Free.	Free.	0 4 0 per oz.	27 10 0 per cent.
Carriages of all sorts	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0 per cent.
Casks (empty)	Free.	Free.	50 0 0 per 100*l.* val.	0 8 3 per ton.
Cassava powder, per cwt.	0 0 4½	0 0 4½		
Cassia lignea, per lb.	0 0 1	0 0 1	0 2 4 per lb.	0 0 4
Castings	Free.	Free.	0 6 4	0 2 6
Chalk, viz.—				
prepared or manufactured, and not otherwise enumerated	Free.	Free.	40 0 0 per 100*l.* val	27 10 0

Articles.	Rate of Duty, on 1st Nov. 1859. Of and from Foreign Countries.	Rate of Duty, on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cheese, per cwt. (*the duty to be charged on the landing weight*)	0 2 6	0 1 6	0 10 6	0 1 6
Cherries, raw, per bushel	0 0 2	0 0 2	0 18 8 per cwt.	0 4 5
dried, until 31st March, 1860	0 0 2	0 0 2	0 0 8	0 4 5
Chicory, or any other vegetable matter applicable to the uses of chicory or coffee, viz.—				
raw or kiln dried, per cwt.	Free.	Free.		
roasted or ground, per lb.	0 0 4	0 0 4	20 0 0 per cent.	27 10 0 per cent.
China or porcelain ware, plain, painted, gilt or-namented, per cwt.	0 10 0	0 10 0	75 0 0 per 100*l.* val.	47 10 0
Chloroform, per lb.	0 3 0	0 3 0		
Cider	Free.	Free.	14 5 0 per tun.	7 7 10½
Cinnamon, per lb.	0 0 2	0 0 2	0 3 6 per lb.	0 4 5
Citron, preserved with salt	Free.	Free.	20 0 0 per 100*l.* val.	27 10 0
Clocks, viz.—				
not exceeding the value of 5*s.* each, per dozen	0 4 0	0 4 0		
exceeding 5*s.* and not exceeding 12*s.*6*d.* each, per dozen	0 8 0	0 8 0	50 0 0per 100*l.*val.	27 10 0
exceeding 12*s.*6*d.*, and not exceeding 3*l.*, each	0 2 0	0 2 0		
— 3*l.* — 10*l.* —	0 4 0	0 4 0		
— 10*l.* — —	0 10 0	0 10 0		
Cloves, per lb.	0 0 2	0 0 2	0 3 9	0 2 8
Cocoa, per lb.	0 0 1	0 0 1	Excise.	0 0 6
husks and shells, per cwt.	0 2 0	0 2 0	Prohibited.	Prohibited.
paste, or chocolate, per lb	0 0 2	0 0 2		
Coculus Indicus, per cwt.	0 5 0	0 5 0	0 2 6	0 0 5
Coffee, per lb.	0 0 3	0 0 3	0 2 6 excise.	0 0 4
kiln-dried, roasted or ground, per lb.	0 0 4	0 0 4		
A drawback allowed on all roasted coffee exported as ship's stores or removed to the Isle of Man for consumption there, equal to the import duty on raw coffee.				
Coir rope, twine, and strands	Free.	Free.	1 1 6 *per cwt.*	0 8 6
Comfits, dry, until 31st March, 1860, per lb.	0 0 2	0 0 2	0 2 6	0 0 6
Confectionery, until 31st March, 1860, per lb.	0 0 2	0 0 2		
Copper, ore of	Free.	Free.	1 1 0 per cwt.	0 0 9 per cwt.
regulus of	Free.	Free.		
old, fit only to be manufactured	Free.	Free.	1 9 2 per ton.	27 10 0 per cent.
unwrought, viz. in bricks or pigs, rose copper, and all cast copper	Free.	Free.	2 14 2	0 10 6
in part wrought, viz. bars, rods, or ingots, hammered or raised	Free.	Free.	3 15 6	2 2 0
in plates and copper coin	Free.	Free.	3 0 0	0 16 0
manufactures of copper, not otherwise enumerated or described, and copper plates engraved, per cwt.	0 10 0	0 10 0	50 0 0 per 100*l.* val.	Prohibited.
copper wire	Free.	Free.	5 14 0 per cwt.	2 12 3
Coral, whole or in fragments, polished or unpolished (except beads)	Free.	Free.		
negligées, per lb.	0 1 0	0 1 0		
Cordage, tarred or untarred	Free.	Free.	1 1 6 per cwt.	0 8 6
Cork	Free.	Free.		
Corks, ready made, per lb.	0 0 6	0 0 6	0 7 0	0 0 6 per gross.
squared for rounding, per cwt.	0 8 0	0 8 0		
fishermen's	Free.	Free.		
Corn, viz.—				
Upon all wheat, barley, bear or bigg, oats, rye, peas, beans, buck wheat, and maize — And so in proportion for a less quantity.	*s. d.* 1 0 per qr.		*N.B.*—The duties on corn, meal, and flour must be paid on their being imported: and no abatement is to be made from them on account of any waste to which the articles may be liable in warehouse.—16 & 17 Vict. c. 107. §§ 41. 76.	
Upon all wheat meal and flour, barley meal, oatmeal, rye meal and flour, pea meal, bean meal, buck wheat meal, and maize or Indian corn meat	0 4½ per cwt.			
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Cotton manufactures, viz.—				
Yarn and East India piece goods, dyed or coloured, viz.— calicoes and muslins, nankeens and handkerchiefs	Free.	Free.		
fringe, per lb.	0 0 2	0 0 2		
manufactures of, not being articles wholly or in part made up, not otherwise charged with duty	Free.	Free.	50 0 0 per 100*l.* val.	44 0 0
gloves of cotton or thread, per doz. pairs	0 0 3	0 0 3		
stockings of cotton or thread, per doz. pairs	0 0 6	0 0 6		
socks or half hose, of cotton or thread, per doz. pairs	0 0 3	0 0 3		
articles or manufactures of cotton, wholly or in part made up, not otherwise charged with duty, for every 100*l.* value	5 0 0	5 0 0	50 0 0	44 0 0
Crayons	Free.	Free.	40 0 0	27 10 0
Crystal, viz.—				
rough	Free.	Free.		
cut or manufactured (except beads)	Free.	Free.	60 0 0	27 10 0
Cucumbers, preserved in salt	Free.	Free.	20 0 0	27 10 0
Currants, per cwt.	*6 15 0 with 5 per cent. thereon	0 15 0	2 4 4	1 3 4
D.				
Daguerreotype plates, per lb.	0 0 3	0 0 3		
Dates, per cwt.	0 10 0	0 10 0	4 10 3	2 6 3
Dice, per pair	1 1 0	1 1 0	1 6 2	Prohibited.
E.				
Earthenware, not otherwise enumerated or described, per cwt.	0 10 0	0 10 0	75 0 0 per 100*l.* val.	41 16 0
Eggs, per cubic foot of package internal measurement	0 0 8	0 0 4	0 0 10 per 120.	0 0 5 per 120

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Embroidery and needlework, viz:—				
on silk or silk mixed with other materials, not being silk net	15 0 0	5 0 0	Prohibited.	Prohibited.
silk net, figured with the needle, being imitation lace, and articles thereof, per lb.	0 10 0	0 10 0		
cotton net, figured with the needle, being imitation lace, and articles thereof, per lb.	0 8 0	0 8 0		
curtains, commonly called Swiss, embroidered on muslin or net, per lb.	0 1 0	0 1 0		
all other embroidery not enumerated, for every 100*l.* value	10 0 0	5 0 0		
Essence of spruce, for every 100*l.* value	10 0 0	10 0 0	20 0 0	27 10 0
Essences not otherwise described, viz.:—				
extract of cardamoms, coculus Indicus, Guinea grains of Paradise, liquorice, nux vomica, opium, Guinea pepper, quassia, and vitriol, for every 100*l.* value	20 0 0	20 0 0	75 0 0	27 10 0
Peruvian or Jesuits' bark, and radix rhataniæ, for every 100*l.* value	20 0 0	20 0 0	0 5 0 per lb.	27 10 0 per cent.
Extract or preparation of any article, not being particularly enumerated or described, nor otherwise charged with duty, for every 100*l.* value	20 0 0	20 0 0	50 0 0	27 10 0
or at the option of the importer, per lb.	0 5 0	0 5 0	Option not existing.	
F.				
Feathers, ostrich, dressed, per lb.	0 3 0	0 3 0	2 15 6	0 8 10
not otherwise enumerated or described, viz.—				
dressed, per lb.	0 3 0	0 3 0	50 0 0 per 100*l.* val.	27 10 0
undressed	Free.	Free.	20 0 0 per cent.	27 10 0
paddy birds', dressed, per lb.	0 3 0	0 3 0		
undressed	Free.	Free.		
Figs, per cwt.	0 15 0 with 5 per cent thereon	0 15 0	1 1 6	0 12 10
Fig cake, per cwt.	0 15 0	0 15 0		
Fish, viz.:—				
eels	Free.	Free.	13 1 3 per shipload.	4 13 6
turbots	Free.	Free.	Free.	Free.
of foreign taking, imported from foreign places in other than fishing vessels, viz.:—				
oysters	Free.	Free.	0 1 6 per bushel.	0 0 6
salmon	Free.	Free.	Prohibited.	
soles	Free.	Free.		
turtle	Free.	Free.		
fresh, not otherwise enumerated	Free.	Free.	Prohibited.	
cured, not otherwise enumerated	Free.	Free.		
of British taking, fresh or cured	Free.	Free.		
Flowers, artificial, whether of silk or other materials, per cubic foot as packed; no allowance for vacant spaces	0 12 0	0 12 0	50 0 0 per 100*l.* val.	27 10 0
Frames for pictures, prints, or drawings	Free.	Free.	50 0 0	27 10 0
Fruit, viz. raw, and not otherwise enumerated, per bushel	0 0 2	0 0 2	20 0 0 per 100*l.* val.	27 10 0
G.				
Gauze of thread	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Ginger, per cwt.	0 5 0	0 5 0	2 13 0 per cwt.	1 8 0
preserved, until the 31st March, 1860, per lb.	0 0 2	0 0 2	0 3 2 per lb.	27 10 0 per cent.
Glass, viz.:—				
any kind of window glass, white or stained of one colour only (except plate or rolled glass), and shades and cylinders, per cwt.	Free.	Free.	4 18 0	60 0 0 per cent.
articles of green or common glass	Free.	Free.		
painted	Free.	Free.		
plate glass, cast or rolled of whatever thickness, whether silvered, polished, or rough	Free.	Free.		
white flint glass bottles, not cut, engraved, or otherwise ornamented, and beads and bugles of glass	Free.	Free.		
wine glasses, tumblers, and all other white flint glass goods, not cut, engraved, or otherwise ornamented	Free.	Free.		
flint cut glass, flint coloured glass, and fancy ornamental glass, of whatever kind, per cwt.	0 10 0	0 10 0		
bottles of glass covered with wicker (not being cut glass), or of green or common glass	Free.	Free.		
manufactures not otherwise enumerated or described, and old broken glass, fit only to be remanufactured	Free.	Free.		
Gold leaves	Free.	Free.	0 3 0 per 100	0 1 2
ore of	Free.	Free.		
Gongs, per cwt.	1 0 0	1 0 0		
Grains, Guinea and Paradise, per cwt.	0 15 0	0 15 0	0 2 9 per lb.	27 10 0 per cent.
Grapes, per bushel	0 0 2	0 0 2	50 0 0 per 100*l.* val.	27 10 0
Gunpowder	Free.	Free.	3 0 0 per cwt.	1 15 3
Gutta percha	Free.	Free.		
manufactures of, not moulded, such as bands, sheets, soles, tubing, per cwt.	0 5 0	0 5 0		
articles moulded, per lb.	0 0 2	0 0 2		
H.				
Hair,—				
manufactures of, or goats' wool, or of hair or goats' wool and any other material, wholly or in part made up, not particularly enumerated, or otherwise charged with duty, for every 100*l.* value	5 0 0	5 0 0	50 0 0	27 10 0
Hams of all kinds	Free.	Free.	2 16 0 per cwt.	2 7 0
Harp strings or lute strings, silvered	Free.	Free.	0 6 4 per gross.	0 2 6 per gross.

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Hats or bonnets, viz.				
of chip, per lb.	0 2 6	0 2 6		
of bast, cane, or horse hair, per lb.	0 2 6	0 2 6	1*l.* to 2*l.* per dozen	0 3 6
of straw, per lb.	0 2 6	0 2 6		
of felt, hair, wool, or beaver, each	0 1 0	0 1 0	0 10 6	Prohibited.
made of silk, silk shag laid upon felt, linen, or other material, each	0 1 0	0 1 0		
Honey	Free.	Free.	0 15 0 per cwt.	0 8 10 per barrel.
Hops, per cwt.	2 5 0	2 5 0	8 11 0	5 18 10
I.				
Iron ore, pig, bars, unwrought, wire, rough casting, bloom, chromate of, slit or hammered into rods, cast, hoops, old broken, and old cast iron	Free.	Free.		
Iron, and steel, wrought or manufactured, viz.—				
machinery, wrought castings, tools, cutlery, and other manufactures not enumerated, per cwt.	0 2 6	0 2 6	50 0 0 per 100*l.* val.	Prohibited.
fancy ornamental articles, of iron or steel, per cwt.	0 15 0	0 15 0		
manufactures of, coated with brass or copper by any galvanic process, per cwt.	0 3 6	0 3 6		
Isinglass	Free.	Free.	2 7 6 per cwt.	0 0 5½
J.				
Japanned or lacquered ware, per cwt.	1 0 0	1 0 0	62 10 0 per 100*l.* val.	49 10 0 per 100*l.* val.
Jewels, emeralds, and all other precious stones, set, for every 100*l.* value	10 0 0	10 0 0	50 0 0	Free.
L.				
Lace, viz.				
mohair or worsted, per lb.	0 1 0	0 1 0		
thread or cotton pillow lace (not being Brussels point or Saxon bone lace), not exceeding 1 inch in width, per lb.	1 0 0	1 0 0	40 0 0 per 100*l.* val.	0 17 8 per 12 yds.
exceeding 1 inch in width, per lb.	2 0 0	2 0 0		
silk pillow lace (not being Saxon wire ground lace), and application, per lb.	1 10 0	1 10 0		
silk Saxon wire ground lace, and all lace known as Maltese, per lb.	0 8 0	0 8 0		
Brussels point, and other lace made by the hand, not otherwise charged with duty, per 100*l.* value	10 0 0	10 0 0		
Latten	Free.	Free.		
Lead, pig and sheet	Free.	Free.	20 0 0 per cent.	27 10 0
ore, black, red, and white lead, and chromate of	Free.	Free.		
manufactures of, not otherwise enumerated, per cwt.	0 2 0	0 2 0		
Leather manufactures, viz.—				
boots, shoes, and galashes, viz.—				
women's boots and galashes, per dozen pairs	0 6 0	0 6 0		
if lined or trimmed with fur or other trimming, per dozen pairs	0 7 6	0 7 6		
shoes, with cork or double soles, quilted shoes and clogs, per dozen pairs	0 5 0	0 5 0		
if trimmed or lined with fur or any other trimming, per dozen pairs	0 6 0	0 6 0	Leather.	
women's shoes of silk, satin, jean, or other stuffs, kid, morocco, or other leather, per dozen pairs	0 4 6	0 4 6	75 0 0 per cent. Of silk, prohibited.	Prohibited.
if trimmed or lined with fur or any other trimming, per dozen pairs	0 5 0	0 5 0		
girls' boots, shoes, and galashes, not exceeding 7 inches in length, to be charged with two-thirds of the above duties.				
men's boots and shoes, if the quarter do not exceed 2¾ inches, or the vamp 4 inches in height from the sole inside, per dozen pairs	0 7 0	0 7 0		
if either the quarter or vamp exceed the above dimensions, but do not exceed 6 inches in height from the sole inside, per dozen pairs	0 10 6	0 10 6		
if either the quarter or vamp do exceed 6 inches in height from the sole inside, per dozen pairs	0 14 0	0 14 0		
boys' boots, not exceeding 7 inches in length, per dozen pairs	0 9 4	0 9 4		
boys' shoes, not exceeding 7 inches in length, per dozen pairs	0 4 8	0 4 8		
boot backs, per dozen pairs	0 1 6	0 1 6		
cut into shapes, per cwt.	0 10 0	0 10 0		
boot fronts, not exceeding 9 inches in height, per dozen pairs	0 1 9	0 1 9		
exceeding 9 inches in height, per dozen pairs	0 2 9	0 2 9		
cut into shapes	0 10 0	0 10 0		
gloves of leather, viz.—				
habit mitts, per dozen pairs — and	0 2 4	0 2 4		
habit gloves, per dozen pairs — 5 per cent.	0 3 6	0 3 6		
men's gloves, per dozen pairs — thereon.	0 3 6	0 3 6	Prohibited.	Prohibited.
women's gloves or mitts, per dozen pairs	0 4 6	0 4 6		
any articles made of leather, or any manufacture whereof leather is the most valuable part, not otherwise enumerated or described, for every 100*l.* value	10 0 0	10 0 0	75 0 0	Prohibited.
Linen, or linen and cotton, viz.—				
cambrics and lawns, commonly called French lawns, plain	Free.	Free.	0 11 6 per piece.	0 5 0
bordered handkerchiefs	Free.	Free.		

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Linen, lawns of any sort, not French	Free.	Free.		
damasks	Free.	Free.		
damask diaper	Free.	Free.		
sails of all sorts	Free.	Free.		
stays, per dozen pairs	0 2 0	0 2 0		
cambric handkerchiefs, hemmed, or hem-stitched, not trimmed, per dozen	0 2 6	0 2 6		
articles, manufactures of linen, or of linen mixed with wool or with cotton, wholly or in part made up, not particularly enumerated or otherwise charged with duty, for every 100*l.* value	5 0 0	5 0 0		
Liquorice *root*, per cwt.	Free.	Free.	3 3 4	1 8 10
paste, per cwt.	1 0 0	0 10 0	3 15 0	1 8 0
juice, per cwt.	1 0 0	1 0 0	3 15 0	1 8 0
powder	1 0 0	0 15 0	5 10 0	2 12 1
Lucifers of wood, the cubic foot of external package, measured internally	0 0 4	0 0 4		
vesta of wax, per 1000 matches	0 0 0½	0 0 0½		
M.				
Maccaroni and vermicelli, per cwt.	0 1 0	0 1 0	0 0 8 per lb.	0 0 2
Mace, per lb.	0 1 0	0 1 0	0 4 6	0 4 6
Mandioca flour, per cwt.	0 0 4½	0 0 4½		
Manna Croup, per cwt.	0 0 4½	0 0 4½		
Marmalade, per lb., until the 31st March, 1860	0 0 2	0 0 2	1 3 0	0 0 3
Mats and matting	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Mead	Free.	Free.	0 0 7 per gallon.	0 0 2
Medlars, per bushel	0 0 2	0 0 2	0 5 0	0 2 4
Mercury, prepared	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Metal, viz.—				
bell	Free.	Free.	1 0 0 per cwt.	1 11 1 per cwt.
leaf (not gold)	Free.	Free.	0 0 8 per 250 leaves	0 0 2
Mill boards, per lb.	0 0 2½	0 0 2½	3 8 2 per cwt.	0 10 0
Morphia and its salts, per lb.	0 10 0	0 10 0		
Musical instruments, viz.—				
musical boxes, small, not exceeding 4 inches in length, per air	0 0 3	0 0 3		
large, per air	0 0 8	0 0 8		
overtures or extra accompaniments, per air	0 2 6	0 2 6		
pianofortes, horizontal grand, each	3 0 0	3 0 0		
upright or square	2 0 0	2 0 0		
harmoniums or seraphines	0 12 0	0 12 0		
accordions, commonly called Chinese, the 100 notes	0 1 0	0 1 0	50 0 0 per cent.	27 10 0
other sorts, including flutinas, and common German concertinas, the 100 notes	0 5 0	0 5 0		
brass instruments, all sorts, per lb.	0 0 9	0 0 9		
not otherwise enumerated or described, per 100*l.* value	10 0 0	10 0 0		
Mustard flour, per cwt.	0 1 6	0 1 6		
mixed or manufactured (except flour), per cwt.	0 5 0	0 5 0		
N.				
Nutmegs, per lb.	0 1 0	0 1 0	0 3 6	0 2 0
wild, in the shell, per lb.	0 0 3	0 0 3		
wild, not in the shell, per lb.	0 0 5	0 0 5		
or other spices or admixtures thereof, ground, per lb.	0 1 0	0 1 0		
Nuts, viz.—				
small nuts, per bushel	0 1 0	0 1 0	0 4 0	0 0 9
walnuts, per bushel	0 1 0	0 1 0	0 4 0	0 0 9
nuts and kernels, unenumerated	Free.	Free.	20 0 0 per cent.	27 10 0
Nux vomica, per cwt.	0 2 0	0 2 0	0 2 6 per lb.	0 0 1½ per lb.
O.				
Oil of almonds, per lb.	0 0 1	0 0 1	0 0 10	0 0 3
bays, per lb.	0 0 1	0 0 1	0 0 3	0 8 9 per cwt.
chemical, essential, or perfumed, per lb.	0 1 0	0 1 0		
of cloves, per lb.	0 1 0	0 1 0	1 12 0	0 0 7½
train oil or blubber	Free.	Free.		
spermaceti or head matter	Free.	Free.		
walnut	Free.	Free.	0 0 6 per lb.	27 10 0 per cent.
or spirits of turpentine, per cwt.	Free.	Free.	0 0 8 per lb.	0 0 1½ per lb.
not particularly enumerated or described, nor otherwise charged with duty	Free.	Free.	50 0 0 per cent.	27 10 0
Oil cloth for table covers, per square yard	0 0 1½	0 0 1½		
Olives	Free.	Free.	0 3 0 per gallon.	0 0 8
Onions, per bushel	0 0 1	0 0 1	0 3 0	0 0 3
Opera glasses, single, each	0 1 0	0 1 0		
double, and all marine, and race glasses not being telescopes, each	0 2 6	0 2 6		
Opium, per lb.	0 1 0	0 1 0	0 9 0	0 1 6
Orange flower water	Free.	Free.	0 3 9 per gallon.	0 1 2½ per gallon.
Oranges and lemons, per bushel	0 0 8	0 0 8	1 5 0 per 1,000 oranges and lemons.	0 4 5 per 1,000 oranges and lemons.
peel of	Free.	Free.	0 0 6 per lb.	27 10 0 per cent.
Orsedew, per cwt.	Free.	Free.	0 1 3 per lb.	0 0 6 per lb.
P.				
Painters' colours, unenumerated, viz.— unmanufactured or manufactured	Free	Free.	50 0 0 per cent.	0 0 2 per lb.
Paper, viz.—				
brown, made of old rope or cordage only, without separating or extracting the pitch or tar therefrom, and without any mixture of other materials therewith, per lb.	0 0 2½	0 0 2½	0 0 10	0 2 11 per bundle.
printed, painted, or stained paper hangings, or flock paper, per square yard	0 0 3	0 0 3	0 1 7	75 0 0 per cent.
waste, or paper of any other sort not particularly enumerated or described, not otherwise charged with duty, per lb.	0 0 2½	0 0 2½	0 1 7	

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Paper, gilt, stained, coloured, embossed, and all fancy kinds, not being paper hangings, per lb.	0 0 2½	0 0 2½		
Pasteboard, per lb.	0 0 2½	0 0 2½	3 8 2 per cwt.	0 10 0
Pears, raw, per bushel	0 0 3	0 0 3	0 7 6	0 1 5
dried, per bushel	0 1 0	0 1 0	0 10 0	0 0 9
Pencils of slate and other sorts	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Pepper of all sorts, per lb. (5 per cent. thereon)	0 0 6	0 0 6	- - -	0 0 3
Percussion caps, per 1,000	0 0 1	0 0 1		
Perfumery, not otherwise enumerated, per lb.	0 0 2	0 0 2	50 0 0 per 100*l.* val.	27 10 0
Perry	Free.	Free.	20 9 2 per tun.	10 1 7
Pewter, manufactures of, not otherwise enumerated, per cwt.	0 2 0	0 2 0	50 0 0 per 100*l.* val.	27 10 0
Phosphorus	Free.	Free.		
Pickles, preserved in vinegar, per gallon	0 0 1	0 0 1	0 6 0	0 0 10½
and vegetables preserved in salt	Free.	Free.		
Pictures	Free.	Free.	10 4 0 each when above 200 sq. feet. / 3 11 6	
Pimento, per cwt.	0 5 0	0 5 0	0 1 3 per lb.	0 0 6 per lb.
Plate of gold, per oz. Troy	1 1 0	1 1 0	3 16 9 per oz.	Prohibited.
silver, gilt and ungilt, per oz. Troy	0 1 8	0 1 8	0 6 4 per oz.	Prohibited.
battered	Free.	Free.	Free.	Free.
wire, gilt or plated	Free.	Free.	50 0 0 per 100*l.* val.	Prohibited.
Platting, of chip, not being of greater value than 6*d.* per piece of 60 yards, per lb.	0 0 6	0 0 6		
or other manufactures of straw, chip, or other materials to be used in, or proper for making or ornamenting hats or bonnets, not otherwise enumerated or charged with duty, per lb.	0 2 0	0 2 0	0 6 0	0 1 10
cordonet, single and twist of straw, or of other materials, per lb.	0 0 6	0 0 6	0 17 0	0 1 10
Platting, willow squares, per cwt.	0 10 0	0 10 0		
Plums, dried or preserved (except in sugar), not otherwise described, per cwt.	0 7 0	0 7 0	7 0 0	1 8 0
commonly called French plums and prunelloes, per cwt.	0 7 0	0 7 0	7 0 0	1 8 0
preserved in sugar, until 31st March, 1860, per lb.	0 0 2	0 0 2		
Pomatum, per lb.	0 0 2	0 0 2	50 0 0 per 100*l.* val.	27 10 0
Pomegranates	Free.	Free.	1 10 0 per 1,000	0 8 10
peel of	Free.	Free.	0 15 0 per cwt.	0 4 8
Potato flour, per cwt.	0 0 4½	0 0 4½		
Pots, viz.—				
melting, for goldsmiths	Free.	Free.		
of stone	Free.	Free.	0 3 2 per cwt.	0 0 7 per cwt.
Poultry, game, and rabbits, alive or dead	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Powder, viz.—				
hair, per lb.	0 0 2	0 0 2	9 15 0 per cwt.	5 5 8
perfumed, per lb.	0 0 2	0 0 2	13 13 0 per cwt.	5 5 8
not otherwise enumerated or described, that will serve for the same use as starch, per cwt.	0 0 4½	0 0 4½	0 9 10	27 10 0 per 100*l.* val.
Prints and drawings, plain or coloured, per lb.	0 0 3	0 0 3	- - -	0 0 6 each.
admitted under treaties of international copyright, per lb.	0 0 1½	0 0 1½		
or and at the option of the importer, single, each	0 0 0½	0 0 0½		
bound, per doz.	0 0 1½	0 0 1½		
Prunes, per cwt.	0 7 0	0 7 0	1 7 6	0 12 5
Puddings and sausages	Free.	Free.	0 1 3 per lb.	0 0 3½
Q.				
Quassia, per cwt.	0 1 0	0 1 0	8 17 6	27 10 0 per cent.
Quinces, per bushel	0 0 3	0 0 3	2 0 0 per 1,000	0 18 4
Quinine, sulphate of, per oz.	0 0 6	0 0 6	50 0 0 per cent.	27 10 0 per cent.
R.				
Raisins, per cwt.	0 10 0	0 10 0		
Rice, viz.—				
not rough nor in the husk, per cwt.	0 0 4½	0 0 4½	0 15 0	0 7 4 per cwt.
rough and in the husk, per quarter	0 0 9	0 0 9	0 10 0 per cwt.	
dust for feeding cattle	Free.	Free.		
Upon exportation from the U. K. of any foreign rice or paddy cleaned therein, which shall have paid the duties payable on the importation thereof, and having been deposited in some bonded warehouse within 1 calendar month from the date of such payment, shall have there remained secured until the time of exportation, the exporter making declaration that such rice was cleaned from rough rice or paddy upon which the duties had been paid, there shall be allowed and paid for every hundredweight thereof a drawback equal in amount to the duty paid on every 4 bushels of the rough rice or paddy from which the same shall have been cleaned.				
S.				
Saccharum saturni	Free.	Free.	0 0 10 per lb.	0 0 3 per lb.
Sago, per cwt.	0 0 4½	0 0 4½	3 14 8	1 8 0
Salicine, per oz.	0 0 3	0 0 3		
Sauces, not otherwise enumerated, per lb.	0 0 1	0 0 1		
Sausages or puddings	Free.	Free.	0 1 3 per lb.	0 0 3½
Scaleboards, per cwt.	0 1 0	0 1 0	3 8 2	0 11 0
Seeds, viz.—				
canary	Free.	Free.	3 0 0 per cwt.	0 16 6
carraway, per cwt.	0 5 0	0 2 6	1 0 0	0 5 0
carrot	Free.	Free.	0 0 9 per lb.	0 0 1½
clover	Free.	Free.	1 0 0 per cwt.	0 2 9
grass, of all sorts	Free.	Free.	50 0 0 per cent.	27 10 0
leek	Free.	Free.	0 1 0 per lb.	0 0 1½
lucerne	Free.	Free.	0 12 6 per cwt.	0 2 9
mustard	Free.	Free.	0 9 4 per cwt.	0 2 3

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Seeds, onion	Free.	Free.	0 0 5½ per lb.	0 0 1½ per lb.
trefoil	Free.	Free.	50 0 0 per cent.	27 10 0 per cent.
all seeds unenumerated, commonly used for expressing oil therefrom	Free.	Free.	0 0 4½ per qr.	27 10 0 per cent.
all other seeds not particularly enumerated or described, nor otherwise charged with duty	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Semolina, per cwt.	0 0 4½	0 0 4½		
Ships broken up or to be broken up, with their tackle, apparel, and furniture (except sails), viz. —				
foreign ships or vessels, for every 100*l.* value	5 0 0	5 0 0	50 0 0	5 10 0
British ships, or vessels entitled to be registered as such, not having been built in the U. Kingdom	Free.	Free.	Free.	Free.
Silk, viz. —				
corahs, choppas, bandannas, tussore clothes, romals and taffaties, viz. —				
in pieces not exceeding 6½ yards in length, the piece	0 0 6	0 0 6		
exceeding 6½ and not exceeding 7½ yards in length, the piece	0 0 8	0 0 8		
exceeding 7½ and not exceeding 12 yards in length, the piece	0 0 10	0 0 10		
and for every additional yard in length, the yard	0 0 1½	0 0 1½		
China crape shawls, scarfs, handkerchiefs, and pieces, viz. —				
plain and damask, the lb.	0 3 0	0 3 0		
embroidery, the lb.	0 5 0	0 5 0		
damask, the running yard	0 0 8	0 0 8		
pongees, viz. —				
in pieces not exceeding 15 yards in length, the piece	0 2 0	0 2 0		
exceeding 15 yards and not exceeding 21 yards in length, the piece	0 3 0	0 3 0		
exceeding 21 yards and not exceeding 31 yards the length, the piece	0 5 0	0 5 0		
handkerchiefs, plain and figured, in pieces not exceeding 9 yards in length, the piece	0 1 6	0 1 6		
exceeding 9 yards and not exceeding 18 yards in length, the piece	0 3 0	0 3 0		
articles, manufactures of silk, or of silk and any other material, not being articles wholly or in part made up, not particularly enumerated or otherwise charged with duty, for every 100*l.* value	15 0 0	5 0 0		
manufactures of silk, or of silk and any other material, not particularly enumerated or otherwise charged with duty, for every 100*l.* value	15 0 0	5 0 0		
manufactures of silk, or of silk mixed with metal or any other material the produce of Europe, viz. —				
silk or satin, plain, striped, figured, or brocaded, viz. —			Prohibited.	Prohibited.
broad stuffs, per lb.	0 5 0	0 5 0		
articles thereof not otherwise enumerated, per lb.	0 6 0	0 6 0		
or, and at the option of the officers of the customs, for every 100*l.* value	15 0 0	15 0 0		
silk gauze or crape, plain, striped, figured, or brocaded, viz. —				
broad stuffs, per lb.	0 9 0	0 9 0		
articles thereof not otherwise enumerated, per lb.	0 10 0	0 10 0		
or, and at the option of the officers of the customs, for every 100*l.* value	5 0 0	15 0 0		
gauze, mixed with silk, satin, or other materials, the gauze being in less proportion than one-half of the fabric, viz. —				
broad stuffs, per lb.	0 9 0	0 9 0		
articles thereof not otherwise enumerated, per lb.	0 10 0	0 10 0		
or, and at the option of the officers of the customs, for every 100*l.* value	15 0 0	15 0 0		
velvet, plain or figured, viz. —				
broad stuffs, per lb.	0 9 0	0 9 0		
articles thereof not otherwise enumerated, per lb.	0 10 0	0 10 0		
or, and at the option of the officers of the customs, for every 100*l.* value	15 0 0	15 0 0		
broad stuffs, the foundation of which is wholly composed of cotton, or other materials than silk, per lb.	0 3 0	0 3 0		
ribbons, plain silk, of one colour only, per lb.	0 6 0	0 6 0		
plain satin of one colour only, per lb.	0 8 0	0 8 0		
silk or satin striped, figured, or brocaded, or plain ribbons of more than one colour, per lb.	0 10 0	0 10 0		
gauze or crape, plain, striped, figured, or brocaded, per lb.	0 14 0	0 14 0		
gauze mixed with silk, satin, or other materials, of less proportion than one-half part of the fabric, per lb.	0 12 0	0 12 0		
velvet or plush, wholly of silk, or of silk mixed with cotton, not exceeding 9 inches in width, viz. —				
plaid, or embossed by depression, without satin or fancy edge, per lb.	0 5 0	0 5 0		
figured, brocaded, or striped or spotted, or with fancy or satin edge, and silk ribbons, in any way mixed or ornamented with velvet or plush, per lb.	0 10 0	0 10 0		
manufactures of silk, or of silk and any other				

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
material called plush, not being ribbons, per lb.	0 3 0	0 3 0		
articles thereof, not otherwise enumerated, per lb.	0 3 6	0 3 6		
black plush, commonly used for making hats, per lb.	0 1 0	0 1 0		
fancy silk net or tricot, per lb.	0 8 0	0 8 0	Prohibited.	Prohibited.
plain silk lace or net called tulle, per lb.	0 8 0	0 8 0		
parasols and umbrellas, each	0 1 0	0 1 0		
damask of silk and wool, or of silk and other materials for furniture, per lb.	0 0 10	0 0 10		
millinery of silk, or of which the greater part of the materials is of silk, viz. —				
turbans or caps, each	0 3 6	0 3 6		
hats or bonnets, each	0 7 0	0 7 0		
dresses, each	1 10 0	1 10 0		
manufactures of silk, or of silk mixed with any other material, not particularly enumerated or otherwise charged with duty, for every 100*l.* value	15 0 0	15 0 0		
Silkworm gut	Free.	Free.	20 0 0 per 100*l.* val.	27 10 0
Skins, articles manufactured of, or furs	Free.	Free.	75 0 0	77 0 0
Smalts	Free.	Free.	0 0 9½ per lb.	0 0 4
Soap, hard, per cwt.	0 0 8	0 0 8	4 10 0	2 4 0
soft, per cwt.	0 0 8	0 0 8	3 11 5	1 17 5
Naples, per cwt.	0 0 8	0 0 8		
scented or fancy soap, per cwt.	0 0 2	0 0 2		
Soy, per gallon	0 0 6	0 0 6		
Spa ware, per cubic foot	0 0 6	0 0 6	0 0 0	27 10 0 per 100*l.* val.
Spelter, manufactures of, not otherwise enumerated, per cwt.	0 2 0	0 2 0		
Spelter or zinc, crude, rolled, but not otherwise manufactured, and rods for bolts	Free.	Free.		
Spermaceti	Free.	Free.		
Spirits, or strong waters of all sorts, viz. —				
not being sweetened or mixed with any article, so that the degree of strength thereof cannot be ascertained by Sykes's hydrometer, per proof gallon	0 15 0	0 15 0	0 2 2½	0 0 10¾
of and from a B. possession in America or the island of Mauritius, and rum of and from any B. possession within the limits of the E. I. Co.'s charter, in regard to which the conditions of the act 4 Vict. c. 8. have or shall have been fulfilled	- -	0 8 2	0 1 6	0 0 6
rum shrub, cordials, and liqueurs, of and from a B. possession in America or the island of Mauritius, or a B. possession within the limits of the E. I. Co.'s charter, qualified as aforesaid	- -	0 8 2	0 1 6	0 0 6
other spirits, being sweetened or mixed, so that the degree of strength cannot be ascertained, per gallon	1 0 0	1 0 0		
spirits or strong waters imported into the U. K. mixed with any ingredient, and although thereby coming under some other denomination, except varnish, shall nevertheless be deemed to be spirits or strong waters, and be subject to duty as such.				
Starch, per cwt.	0 0 4½	0 0 4½		
Starch, gum of, torrified or calcined, per cwt.	0 0 4½	0 0 4½		
Stays or corsets of linen or cotton, or of linen and cotton mixed, per dozen pairs	0 2 0	0 2 0		
Stearine	Free.	Free.		
Steel, manufactures of. [*See* Iron and Steel.]				
Stones in lumps, not in any manner hewn, including stones to be used for lithography	Free.	Free.		
in blocks, shaped or rough scalped	Free.	Free.		
stone and slate, hewn	Free.	Free.		
marble, sawn in slabs, or otherwise manufactured	Free.	Free.		
Succades, including all fruits and vegetables preserved in sugar, not otherwise enumerated, till 31st March, 1860, per lb.	0 0 2	0 0 2		

Duties on Sugar imposed by the Act 20 & 21 Vict. c. 61.

		£ s. d.	
Sugar, viz.:			
Candy, brown or white refined sugar, or sugar rendered by any process equal in quality thereto	cwt.	0 18 4	Till 31 March, 1860.
White clayed sugar, or sugar rendered by any process equal in quality to white clayed, not being refined, or equal in quality to refined	,,	0 16 0	
Yellow Muscovado and brown clayed sugar, or sugar rendered by any process equal in quality to yellow Muscovado or brown clayed, and not equal to white clayed	,,	0 13 10	
Brown Muscovado or any other sugar, not being equal in quality to yellow Muscovado or brown clayed sugar	,,	0 12 8	
Cane juice	,,	0 10 4	
Molasses	,,	0 5 0	

Drawbacks allowed by the Act 20 & 21 Vict. c. 61. on Refined Sugar, when exported to Foreign Parts, or removed to the Isle of Man for Consumption therein.

		£ s. d.	
Sugar: refined sugar in loaf, complete or whole or lumps duly refined, having been perfectly clarified and thoroughly dried in the stove, and being of an uniform whiteness throughout, or sugar candy, or sugar refined by the centrifugal machine, or by any other process, and not in any way inferior to the export standard No. 3., approved of by the Lords of the Treasury	cwt.	0 17 2	Till 31st March, 1860.
Such refined sugar already described, if pounded, crushed, or broken in a warehouse approved by the Commissioners of Customs, such sugar having been there first inspected by the officers of customs in lumps or loaves, as if for immediate shipment, and then picked for exportation in the presence of such officers, and at the expense of the exporter	,,	0 17 2	
Refined sugar unstoved, pounded, crushed or broken, and *not* in any way inferior to the export standard sample No. 1., approved by the Lords of the Treasury, and which shall not contain more than 5 per cent. moisture, over and above what the same would contain if thoroughly dried in the stove	,,	0 16 4	
Bastard or refined sugar, unstoved, broken in pieces, or being ground, powdered, or crushed, not in any way inferior to the export standard sample No. 2., approved by the Lords of the Treasury	,,	0 15 1	
Bastard or refined sugar being inferior in quality to the said export standard sample No. 2.	,,	0 12 8	

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
T.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Tallow, per cwt.	0 1 6	0 0 1	0 3 2	Free.
vegetable	Free.	Free.		
Tamarinds	Free.	Free.	0 0 8	0 0 2
Tapioca, per cwt.	0 0 4½	0 0 4½	2 16 0	0 18 8
Tea, till 31st March, 1860, per lb. without any allowance for draft.	0 1 5	0 1 5	Excise.	Excise.
Tiles	Free.	Free.	50 0 0 per 100*l.* val.	
Tin, ore and regulus of	Free.	Free.	20 0 0 per cent.	27 10 0
in blocks, ingots, bars, or slabs	Free.	Free.		
manufactures of, not otherwise enumerated, per cwt.	0 10 0	0 10 0	50 0 0 per 100*l.* val.	27 10 0
foil, per cwt.	0 10 0	0 10 0	50 0 0 per cent.	27 10 0 per cent.
Tobacco, the following duties, with 5 per cent. thereon, viz.: —				
unmanufactured, stemmed or stripped, per lb.	0 3 0	0 3 0	Excise.	0 3 6
unstemmed, per lb.	0 3 0	0 3 0		
snuff, per lb.	0 6 0	0 6 0	Excise.	
manufactured, or cigars, per lb.	0 9 0	0 9 0	0 6 0	0 3 6
stalks and flour of	Prohibited.	Prohibited.		
manufactured in the U. Kingdom, made into cut, shag, roll, or carrot tobacco, or cigars, such cigars, when exported as merchandize, being packed in cases containing not less than 100 lbs. net weight, a drawback shall be allowed on exportation or shipment as stores, of 2*s.* 7½*d.* per lb.				
Tobacco pipes of clay	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Tongues	Free.	Free.	0 3 0 per dozen.	0 1 0 per dozen.
Toys, viz. —				
marbles, per cwt.	0 1 0	0 1 0	50 0 0 per 100*l.* val.	33 0 0
all other toys, per cubic foot	0 0 4	0 0 4		
Truffles	Free.	Free.	0 5 6 per lb.	0 2 3
Turnery, not otherwise described, per cubic foot	0 0 4	0 0 4	50 0 0 per 100*l.* val.	27 10 0
Turpentine	Free.	Free.	0 4 4 per cwt.	0 2 3
of Venice, Scio, or Cyprus	Free.	Free.	0 0 10 per cwt.	0 0 4
Twine	Free.	Free.	1 11 0 per 100*l.* val.	0 10 0
V.				
Vanelloes	Free.	Free.	0 16 8 per lb.	0 8 3
Varnish containing any quantity of alcohol or spirit, per gallon	0 12 0	0 12 0		
Varnish, not otherwise described	Free.	Free.	50 0 0 per 100*l.* val.	0 8 9 per cwt.
Vegetables, viz.: —				
all vegetables not enumerated or described	Free.	Free.		
preserved in salt	Free.	Free.		
Veneers, per cwt.	0 1 0	0 1 0		
Verdigris	Free.	Free.	0 3 4 per lb.	0 0 3 per lb.
Verjuice	Free.	Free.	73 12 9 per tun.	27 10 0
Vermicelli and macaroni, per cwt.	0 1 0	0 1 0		
Vinegar, per gallon	0 0 3	0 0 3	73 12 9 per tun.	39 10 7
W.				
Wafers	Free.	Free.	0 1 3 per lb.	0 0 6
Washing balls, per lb.	0 0 2	0 0 2	0 1 8	27 10 0 per cent.
Watches of gold, silver, or other metal, exceeding the value of 10*l.* each	1 0 0	1 0 0		
Other watches, viz.: —				
gold, open faces, each	0 5 0	0 5 0		
hunters, each	0 7 6	0 7 6		
repeaters, each	0 15 0	0 15 0	50 0 0 per 100*l.* val.	27 10 0
Silver and other metal, not gold: —				
open faces, each	0 2 6	0 2 6		
hunters, each	0 3 6	0 3 6		
repeaters, each	0 8 0	0 8 0		
Water, viz.: —				
Cologne, the flask (thirty containing not more than one gallon)	0 0 8	0 0 8	0 6 7½ per gall.	0 3 4½ per gall.
when not in flasks (as perfumed spirit), per gallon	1 0 0	1 0 0		
mineral, per gallon	Free.	Free.		
Wax, sealing	Free.	Free.	50 0 0 per 100*l.* val.	27 10 0
Whale fins	Free.	Free.	2 7 6 per ton.	2 15 0
Whipcord	Free.	Free.	0 1 0 per lb.	0 0 2
Wine, viz.: —				
red, per gallon (with 5 per cent.)	0 5 6	0 2 9	79 7 7 per tun.	35 5 7 per tun.
white, per gallon (Do.)	0 5 6	0 2 9	79 7 7 per tun.	40 6 5 per tun.
(The full duties on wine are drawn back upon re-exportation or shipment as stores.)				
lees of wine subject to the same duty as wine, but no drawback is allowed on lees exported.				

Wood.	Foreign Countries. £ s. d.	British Possessions. £ s. d.
Upon timber and wood the following duties with 5 per cent. on all wood and timber the produce a British possession, viz.: —		
Timber and wood, not being deals, battens, boards, staves, handspikes, oars, lathwood, or other timber or wood sawn, split, or otherwise dressed, except hewn, and not being timber or wood otherwise charged with duty, the load of 50 cubic feet	0 7 6	*0 1 0 per load.†
deals, battens, boards, or other timber or wood sawn or split, and not otherwise charged with duty, the load of 30 cubic feet	0 10 0	*0 2 0 per load.†

Or, in lieu of ascertaining the cubical contents in pile, the importer may have the option, at the time of passing the first entry, in respect of planks, deals, deal ends, battens, and batten ends, not the produce of the British possessions, of entering the same by tale upon a computation of their cubic content, calculated according to the under-mentioned scale, specifying in such entry the number and dimensions of the several pieces included therein; and the duties imposed thereon by this act shall be ascertained, computed, and charged upon the planks, deals, deal ends, battens, and batten ends included in such entry on the cubical contents thereof, computed in conformity with the said scale.

† The wood articles from British possessions marked * are subject to an additional duty of 5 per cent.

	Planks.	Deals.	Battens.		
	3×11 Inch and not above 3½×11½ Inch.	3×9 Inch and not above 3½×9½ Inch.	3×7 Inch and not above 3½×7½ Inch.	2½×7 Inch. and not above 2⅝×7½ Inch.	2½×6½ Inch and not above 2⅝×6⅝ Inch.
	Cubic Feet.	*Cubic Feet.*	*Cubic Feet.*	*Cubic Feet.*	*Cubic Feet.*
Not above 4 feet in length, per 120	115	95	73	61	57
Above 4 feet and not above 5 feet in length, per 120	144	118	91	77	71
— 5 feet — 6 feet, per 120	173	142	110	92	86
— 6 feet — 7 feet, per 120	202	165	128	107	100
— 7 feet — 8 feet, per 120	231	189	146	123	114
— 8 feet — 9 feet, per 120	260	213	165	138	128
— 9 feet — 10 feet, per 120	288	236	183	153	143
— 10 feet — 11 feet, per 120	317	260	201	169	157
— 11 feet — 12 feet, per 120	346	284	220	184	171
— 12 feet — 13 feet, per 120	375	307	238	200	185
— 13 feet — 14 feet, per 120	404	331	256	215	200
— 14 feet — 15 feet, per 120	433	354	274	230	214
— 15 feet — 16 feet, per 120	462	378	293	246	228
— 16 feet — 17 feet, per 120	490	402	311	261	242
— 17 feet — 18 feet, per 120	519	425	329	276	257
— 18 feet — 19 feet, per 120	548	449	348	292	271
— 19 feet — 20 feet, per 120	577	473	366	307	285
— 20 feet — 21 feet, per 120	606	496	384	322	300

	Foreign Countries. £ s. d.	British Possessions. £ s. d.
Timber and wood,—		
staves, if exceeding 72 inches in length, 7 inches in breadth, or 3½ inches in thickness, the load of 50 cubic feet	0 9 0	0 2 0 per load.
firewood, per fathom of 216 cubic feet	0 6 0	Free.
handspikes, not exceeding 7 feet in length, the 120	0 6 0	0 0 6 per 120.
exceeding 7 feet in length, the 120	0 12 0	0 1 0 per 120.
knees, under 5 inches square, the 120	0 3 0	0 0 3 per 120.
5 inches and under 8 inches square, the 120	0 12 0	0 1 0 per 120.
lathwood, the fathom of 216 cubic feet	0 12 0	0 1 0 per fathom.
oars, the 120	2 5 0	0 3 9 per 120.
spars or poles, under 22 feet in length, and under 4 inches in diameter, the 120	0 6 0	0 0 6 per 120.
22 feet in length and upwards, and under 4 inches in diameter, the 120	0 12 0	0 1 0 per 120.
of all lengths, 4 inches and under 6 inches in diameter, the 120	1 4 0	0 2 0 per 120.
spokes for wheels, not exceeding 2 feet in length, per 1000	1 4 0	0 1 0 per 1000.
exceeding 2 feet in length, per 1000	2 8 0	0 2 0 per 1000.
wood planed or otherwise dressed or prepared for use, and not particularly enumerated or otherwise charged with duty	0 0 2 per foot of cubic content, with further for every 100*l.* value, 10*l.*	0 0 2 and with further 5*l.* per cent. for every 100*l.* value.

Articles.	Rates of Duty on 1st Nov. 1859. Of and from Foreign Countries.	Rates of Duty on 1st Nov. 1859. Of and from British Possessions.	Rates of Duty in 1819.	Rates of Duty in 1787.
Woollens, viz.—				
articles or manufactures of wool (not being goats' wool), or of wool mixed with cotton, viz.:—				
carpets and rugs, per square yard	0 0 6	0 0 6		
shawls, scarfs, and handkerchiefs, plain, per lb.	0 0 4	0 0 4		
printed, per lb.	0 0 8	0 0 8		
gloves, per dozen pairs	0 0 3	0 0 3		
wholly or in part made up, not otherwise charged with duty, for every 100*l.* value	5 0 0	5 0 0	50 0 0	Prohibited.
Y.				
Yarn, viz.—				
cable	Free.	Free.	1 1 6 per cwt.	0 8 6
woollen or worsted, scoured, bleached, or coloured, per lb.	0 0 6	0 0 6	0 1 7	0 0 10
not scoured, bleached or coloured, per lb.	0 0 3	0 0 3		
Goods being either in part or wholly manufactured, and not being enumerated or described, nor otherwise charged with duty, and not prohibited to be imported into or used in Great Britain or Ireland, for every 100*l.* value	10 0 0	10 0 0	50 0 0	27 10 0
Goods not enumerated or described, not being either in part or wholly manufactured, not otherwise charged with duty and not prohibited	Free.	Free.	20 0 0 per cent.	27 10 0 per cent.

TABLE (B.)

Duties applicable to the Isle of Man, existing on the 1st November, 1859.

	£ s. d.
Coffee, the import duties in Great Britain or Ireland, not having been there paid thereon, per lb.	0 0 2
Corn, viz.:—	
Wheat, barley, bear or bigg, oats, rye, peas, beans, buckwheat, maize or Indian corn, per qr.	0 1 0
Wheat meal and flour, barleymeal, oatmeal, ryemeal, and flour peameal, beanmeal, buckwheat meal, and maize or Indian cornmeal, per cwt.	0 0 4½
Hemp	Free.
Hops, from Great Britain or Ireland	Free.
Iron	Free.
Spirits, viz.:—	
Brandy, Geneva, and *all foreign spirits, not* being liqueurs, cordials, or perfumed spirits, per gall.	0 6 0
Rum and rum shrub, of the British possessions, per gall.	0 3 8
British or Irish spirits exported from a duty-free warehouse under bond in the U. K., per gall.	0 3 0
Such spirits not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon.	
Eau de Cologne, per flask (30 not containing more than 1 gallon) or per gall.	0 0 4 / 0 10 0
Liqueurs, cordials, and perfumed spirits, per gall. of the British possessions	0 10 0
Sugar, viz.:—	0 5 0
Muscovado, per cwt.	0 1 0
Sugar candy, white or brown, refined sugar, or sugar rendered by any process equal to refined, foreign or British, per cwt.	0 3 0
Tea, per lb.	0 0 6
Tobacco, viz.:—	
Unmanufactured, per lb.	0 1 6
Manufactured, per lb.	0 4 9

	£	s.	d.
Cigars, per lb.	0	4	9
Wine, per tun of 252 galls.	12	0	0
Wood, all sorts		Free.	
Goods, wares, and merchandise brought from Great Britain or Ireland and entitled to any bounty or drawback of excise on exportation from thence, and not hereinbefore enumerated or charged with duty		Free.	
Goods, wares, and merchandise, the growth, produce, or manufacture of and brought from Great Britain or Ireland and not herein-before charged with duty		Free.	

	£	s.	d.
Goods, wares, and merchandise, not the growth, produce, or manufacture of Great Britain or Ireland but brought from thence, and having there been entered for consumption, and the import duties having been there paid thereon		Free.	
Goods, wares, or merchandise imported or brought from any place from whence such goods may be lawfully imported into the Isle of Man, and not hereinbefore charged with duty, or declared to be free of duty, for every 100*l.* of the value thereof	15	0	0

Inland or Excise Duties in the U. Kingdom, on the 1st of November, 1859.

Articles.	Duties.		
	£	s.	d.
Hops, per lb.	0	0	2*
Malt from barley, per bushel	0	2	8½
from bear or bigg, per bushel	0	1	1
Paper and pasteboard, per lb.	0	0	1½*
Plate (gold) per oz. troy	0	17	0
(silver) per oz. troy	0	1	6
Spirits, per gallon	0	8	0
Sugar, from beet-root, &c., per cwt.	0	12	8

N.B.—5 per cent. to be added to the duties on the articles marked thus *

The excise or inland duties are repaid, or, as it is termed, drawn back, on the goods being exported; and countervailing duties are imposed in the case of articles exempted from duty in Ireland and charged with it in Great Britain, being imported from the former into the latter. The drawback on the malt used in brewing is computed at the rate of 5*s.* the barrel of 36 Imperial gallons.

Duties repealed. We subjoin a list of the articles the duties on which were repealed in 1845, 1846, and 1853 by the acts 8 Vic. c. 12., 9 & 10 Vic. c. 23., and 16 & 17 Vic. c. 106.

Agates, or cornelians, not set.
Albumen.
Alganobilla seed.
Alkali.
Alkanet root.
Almonds, bitter.
Aloes.
Alum,
  rough.
Amber, rough,
  manufactured, except beads.
Ambergris.
Amboyna wood.
Anchovies.
Angelica.
Animals, living; viz.:
  asses.
  goats.
  kids.
  oxen and bulls.
  cows.
  calves.
  horses, mares, geldings, colts, foals.
  mules.
  sheep.
  lambs.
  swine and hogs.
  pigs, sucking.
Annatto.
  roll.
Antimony, ore of.
  crude.
  regulus of.
Aquafortis.
Argol.
Aristolochia.
Arsenic.
Ashes, pearl and pot.
  soap, weed, and wood.
  unenumerated.
Asphaltum or Bitumen Judaicum.

Bacon.
Balsam, Canada.
  capivi.
  Peru.
  Riga.
  Tolu.
  balm of Gilead, and unenumerated balsam.
Bandstring twist.
Barilla.
Bark, extract of, or of other vegetable substances, to be used for tanning or other manufacturing purposes.
  for tanners' or dyers' use.
  cascarilla.
  Peruvian.
  of other sorts.
Bar wood.
Barytes, sulphate of, ground.
Basket rods, peeled and unpeeled.
Bast ropes, twines, and strands.
Beads and bugles of glass.
Beef, fresh or slightly salted.
  salted.
Beef wood.
Berries, bay.
  juniper.
  yellow.
  unenumerated.
Birds, singing.
Blacking.
Blackwood.
Bladders.
Bones (except whale fins), whether burnt or not, or as animal charcoal.
Books of editions, printed prior to 1801, bound or unbound.
Borax, refined.
Borax or tincal, unrefined.
Boracic acid.
Bottles of earth and stone, empty.
Box wood.
Bran.
Brass, powder of.
  old, fit only to be remanufactured.
  wire.
Brazil wood.
Brazilletto wood.
Bricks or clinkers.
Brimstone, refined in rolls.
  in flour.
  not refined.
Bristles, rough, or in any way sorted.
Bronze, works of art.
  powder.
Brushes, paint.
Bulrushes.
Bullion and foreign coin of gold or silver.
Buttons.

Cables, not iron.
Cameos, not set.
Camomile flowers.
Camphor, refined and unrefined.
Canewood.
Candlewick.
Canella alba.
Canes, bamboo.
  reed.
  rattans, not ground.
  or sticks, unenumerated.
Cantharides.
Caoutchouc.
Cardamoms.
Carmine.
Carriages of all sorts.
Casks, empty.
Cassia buds.
  fistula.
Castor.
Casts of busts, statues, or figures.
Catlings.
Caviare.
Cedar wood.
Chalk, manufactured or unmanufactured.
Chip, or willow, for platting.
Cherry wood.
Chesnuts.
China root.
Cider.
Cinnabaris nativa.
Citrate of lime.
Citric acid.
Citron preserved with salt.
Civet.
Coals, culm, and cinders.
Cobalt.
  ore of.
  oxide of.
Cochineal.
  dust.
  granilla.
Cochinella wood.
Coco nuts.
Coir rope, twine, and strands.
Colocynth.
Columbo root.
Copper, ore of.
  regulus.
  old.
  unwrought.
  part wrought.
  plates and coin.
  wire.
Copperas, blue.
  green.
  white.
Coral, whole, polished.
  unpolished.
  in fragments.
Cordage, tarred or untarred.
Cork.
Corks, fishermen's.
Cotton manufactures, not being articles wholly or in part made up, not otherwise charged with duty.
Cotton yarn.
Cranberries.
Crayons.
Cream of tartar.
Crystal, rough or cut, except beads.
Cubebs.
Cucumbers preserved in salt.
Cutch.

Diamonds.
Divi divi.
Down.
Drugs, unenumerated.

Ebony.
Elderflower water.
Enamel.
Extract.
  chesnut bark.
  quercitron bark.
  logwood.
  saffiower.
  bark, &c. for tanning.

Feathers for beds, in beds or otherwise.
  ostrich, undressed.
  paddy bird, undressed.
  unenumerated and undressed.
Fish.
Flax and tow, or codilla of.
  dressed and undressed.

Flock for paper stainers.
Flocks.
Flower roots.
Frames for pictures, prints, or mirrors.
Furniture woods, except ash, beech, birch, elm, oak, wainscot.
Fustic.

Gallic powder.
Galls.
Gamboge.
Garancine.
Garnets, cut or uncut, not set.
Gauze of threads.
Gelatine.
Gentian.
Ginseng.
Glass, plate.
painted.
white flint-glass bottles, not cut, engraved, or ornamented.
wine glasses, tumblers, and all other white flint-glass.
goods not cut, engraved, or otherwise ornamented.
bottles of glass covered with wicker (not being cut glass.)
or of green or common glass.
articles of green or common glass.
manufactures, not otherwise enumerated, and old broken glass, fit only to be re-manufactured.
Glue.
clippings, or waste of any kind, fit only for glue.
Gold leaves, and ore of.
Goods unenumerated, not being either in part or wholly manufactured, not enumerated or prohibited.
Grease.
Greaves for dogs, and tallow greaves.
Guano.
Gum, animi.
Arabic.
assafœtida.
ammoniacum.
copal.
euphorbium.
guaiacum.
kino.
lac dye.
mastic.
seed lac.
stick lac.
Senegal.
shellac.
tragacanth.
unenumerated.
Gunpowder.
Gun-stocks in the rough, of wood.
Gutta percha.
Gypsum.

Hair, camel hair or wool.
cow, ox, bull, or elk.
horse.
human.
Hair, unenumerated.
manufactures of hair or goats' wool, or of hair or goats wool, and any other material not particularly enumerated.
Hams of all kinds.
Harp strings or lute strings silvered.
Hay.
Heath, for brushes.
Hellebore.
Hemp, dressed.
rough or undressed, or any other vegetable substance of the nature and quality of undressed hemp, and applicable to the same purposes.
tow and codilla of hemp.
jute.
Hides, or pieces thereof, tawed, curried, varnished, japanned, enamelled.
Muscovy or Russia hides, or pieces thereof, tanned, coloured, shaved, or otherwise dressed, and hides or pieces thereof in any way dressed, not otherwise enumerated.
not tanned, tawed, curried, or in any way dressed, dry and wet.
Losh hides.
or pieces of hides, raw or undressed, and unenumerated.
tails, buffalo, bull, cow, or ox.
tanned, not otherwise dressed.
Hones.
Honey.
Hoofs of cattle.
Hoops of wood.
Horns—horn tips, and pieces of horns.

Ice.
Indigo.
Ink for printers.
Indian.
Inkle, wrought.
unwrought.
Iron, bloom.
cast.
chromate of.
in bars, unwrought.
wire.
hoops.
old broken, and old cast iron.
ore.
pig.
slit or hammered into rods.
rough castings.
Isinglass.

Jalap.
Jet.
Jewels—emeralds and *all* other precious stones, unset.
Juice of lemons, limes, or oranges.

Kingwood.

Lac; viz. sticklac.
Lamp black.
Lapis calaminaris.
Lard.
Latten.
shaven and wire.
Lavender flowers.
Lead ore.
red.
white.
black.
pig and sheet.
chromate of.
Leaves of roses.
Leeches.
Lignum vitæ.
Linen; viz.:—
cambrics and lawns, plain.
bordered handkerchiefs.
damasks.
damask diaper.
sails of all sorts.
plain linens and diaper, whether chequered or striped with dye yarn or not, and manufactures of linen, or of linen mixed with cotton or with wool, not particularly enumerated, or otherwise charged with duty, not being articles wholly or in part made up.
Litharge.
Live creatures illustrative of natural history.
Logwood.
Losh Hides.

Madder.
Madder root.
Magna græcia ware.
Mahogany.
Manganese, ore of.
Manna.
Manures, unenumerated.
Manuscripts.
Maps and charts, or parts thereof, plain or coloured.
Maple wood.
Mats and matting.
Mattresses.
Mead or metheglin.
Meat, salted or fresh, not otherwise described, or preserved in any other way than salted.
Medals of any sort.
Mercury, prepared.
Metal—bell metal, and leaf, not gold.
Minerals and fossils, unenumerated.
Models of cork or wood.
Moss, lichen islandicus.
other than rock or Iceland moss.
rock, for dyers' use.
Mother-o'pearl shells.
Musk.
Myrrh.

Naphtha.
New Zealand wood.
Nicaragua wood.
Nickel, arseniate of, in lumps or powder, being in an unrefined state.
metallic, and oxide of, refined.
ore of.
Nitre—cubic nitre.
Nuts; viz.
kernels of walnuts, and of peach stones, and of nuts or kernels thereof, unenumerated, commonly used for expressing oil therefrom.
Coco nuts.
Nuts, Pistachio.
Nuts and kernels, unenumerated.

Oakum.
Ochre.
Oil, animal.
castor.
cocoa nut.
olive.
lard.
palm.
paran.
Oil, rock.
resin.
train, blubber, spermaceti oil, or head matter.
hempseed.
linseed.
rapeseed.
walnut.
or spirit of turpentine.
seed, unenumerated.
Oil seed cake.
Olibanum.
Olive wood.
Olives.
Orange peel and lemon peel.
Orange flower water.
Orchal.
Ore, unenumerated.
Orpiment.
Orris root.
Orsedew.

Painters' colours, unenumerated, manufactured or unmanufactured.
Palmetto thatch.
Palmetto thatch manufactures.
Parchment.
Partridge wood.
Pearls.
Pencils of all kinds.
Pens.
Perry.
Phosphorus.
Pink root.
Pickles and vegetables preserved in salt.
Pictures.
Pitch.
Burgundy.
Plantains.
Plants, shrubs, and trees alive.
Plaster of Paris.
Plate, battered.
Platina, and ore of platina.
Pollard.
Pomegranates or peel of.
Pork, fresh.
salted, not hams.
Potatoes.
Pots, melting, for goldsmiths'.
stone.
Poultry and game alive or dead, including rabbits.
Prussiate of potash.
Purple wood.

Quicksilver.
Quills, goose.
swan.

Radix contrayervæ.
enulæ campanæ.
eringii.
ipecacuanhæ.
rhatanieæ.
senekæ.
serpentariæ or snake root.
Rags, old ropes or junk, or old fishing-nets, fit only for making paper or pasteboard.
pulp of.
woollen.
Rape of grapes.
Red wood or guinea wood.
Rhubarb.
Rice dust, for feeding cattle.
Rose water.
Rosewood.
Rosin.

Saccharum saturni.
Safflower.
Saffron.
Sal ammoniac.
limonum.
prunella.
Salep or salop.
Salt.
Saltpetre.
Sanguis draconis.
Santa Maria wood.
Sapan wood.
Sarsaparilla.
Sassafras.
Satin wood.
Saunders' red.
white or yellow
Sausages or puddings.
Scammony.
Seeds; viz.
acorn.
aniseed.
beans, kidney or French.
burnet.
canary.
carrot.
clover.
colchicum.
cole.
coriander.
croton.
cummin.
dari.
fenugreek.

Seeds, flax.
forest.
garden, unenumerated.
grass seeds of all sorts.
hemp.
leek.
lentiles.
lettuce.
linseed and flaxseed.
lucerne.
lupin.
maw.
millet.
mustard.
onion.
parsley.
poppy.
quince.
rape.
sesamum.
shrub or tree.
tares.
trefoil.
unenumerated, commonly used for expressing oil therefrom.
worm.
not particularly enumerated or described, or otherwise charged with duty.
Senna.
Ships, British, broken up or to be broken up, with tackle, apparel, and furniture (except sails).
Shumuch.
Silk, raw.
knubs or husks, and waste silk.
thrown, not dyed, and dyed, viz.
singles or tram, organzine or crape.
Silkworm gut.
Skins and furs; viz.
pelts and tails.
marten, undressed.
seal, in the hair, not tanned, tawed, or dressed.
squirrel or calabar, undressed.
badger, undressed.
bear, undressed.
beaver, undressed.
cat, undressed.
chincilla, undressed.
coney, undressed.
deer, undressed.
dog in the hair, not tanned, tawed, or dressed.
dog fish, undressed.
elk, undressed.
ermine, dressed or undressed.
fisher, undressed.
fitch, undressed.
fox, undressed.
fox tails, undressed.
goat raw, or undressed.
goose, undressed.
hare, undressed.
husse, undressed.
kangaroo, undressed.
kid, in the hair, undressed.
kolinski, undressed.
leopard, undressed.
lion, undressed.
lynx, undressed.
marten tails, undressed.
minx, undressed.
mole, undressed.
musquash, undressed.
nutria, undressed.
otter, undressed.
ounce, undressed.
panther, undressed.
pelts, undressed.
racoon, undressed.
sable, undressed.
sable tails or tips, undressed.
Skins and furs, viz.
squirrel or calabar, tails of, undressed.
swan, undressed.
tiger, undressed.
weasel, undressed.
wolf, undressed or tawed.
wolverings, undressed.
deer, Indian, half dressed, tanned tawed, or in any way dressed.
ermine, dressed.
kid, dressed and dyed or coloured.
lamb, tanned or tawed.
lamb, dyed or coloured, dressed in oil.
minx, dressed.
pelts, tanned, tawed, or in any way dressed.
goat, tanned, tawed, or in any way dressed.
lamb, undressed, in the wool.
sheep, undressed, in the wool, tanned or tawed, dressed in oil.
squirrel or calabar undressed, tawed.
wolf, tawed.
kid, dressed, and dyed or coloured.
and furs, or pieces thereof, unenumerated, tanned, tawed, curried, or dressed.
and furs, or pieces thereof, raw or undressed, unenumerated.
Smalts.
Specimens of minerals, fossils, illustrative of natural history.
Speckled wood.
Spectacles.
Spelter or zinc, rolled, but not otherwise manufactured.
crude, in cakes.
oxide and white of.
rods for bolts.
Spermaceti.
Sponge.
Squills, dried or not dried.
Stavesacre.
Staves, not exceeding 72 inches in length, nor 7 inches in breadth, nor 3¼ inches in thickness.
Steel, unwrought.
scrap.
Straw or grass for platting.
Sulphur impressions.
Sweet wood.
Stone and marble in blocks, shaped or rough scalped.

Talc.
Tallow, vegetable.
Tamarinds.
Tar.
Barbadoes.
Tarras.
Tartaric acid.
Teasles.
Teeth, elephants'.
sea-cow, sea-horse, or sea-morse.
Telescopes.
Terra Japonica.
Sienna.
verde.
umbra.
Thread, not otherwise enumerated or described.
Tiles.
Tin ore, and regulus of, or in blocks, ingots, bars, or slabs.
Tobacco pipes of clay
Tongues.
Tornsal.
Tortoise-shell or turtle shell unmanufactured.
Truffles.
Tulip-wood.
Turmeric.
Turpentine of Venice, Scio, or Cyprus.
Turpentine.
Twine.

Ultra marine.

Valonia.
Vanellocs.
Varnish, not otherwise described.
Vases, ancient, not of stone or wood.
Vegetables, all, not otherwise enumerated or described.
preserved in salt.
Vellum.
Vermilion.
Verdigris.
Verjuice.

Wafers.
Walnut wood.
Water, mineral.
Wax, bleached.
unbleached.
myrtle.
sealing.
vegetable.
Weld.
Whale fins.
Whipcord.
Wire, gilt or plated.
silver.
Wool.
Wood for ship-building, viz.; stringy bark, red and blue gum, green hart, mora, and locust woods, and wood formerly admitted at the same duty as teak.
treenails of stringy bark, red and blue gum, and locust woods, and all treenails of and from British possessions.
shovel hilts.
Wood.
birch and fir, hewn, not exceeding 3 feet long, nor exceeding 8 inches square, imported for the sole purpose of making herring barrels for the use of fisheries.
waste wood.
hoops.
firewood of and from British possessions.
teak.
Wool, beaver.
cut and combed.
goats' wool or hair.
sheep's or lambs' wool.
coney.
hares'.
cotton and waste of cotton wool.
Woollens; viz. manufactures of wool, (not being goats' wool), or of wool mixed with cotton, not particularly enumerated, not otherwise charged with duty.

Yarn.
cable yarn.
camel or mohair.
raw linen.
Yarn of silk and worsted spun together and not dyed.
worsted yarn, raw not dyed, or only partially dyed, and not being fit or proper for embroidering or other purposes.
Yeast, dried.

Zaffre.
Zebra wood.

The 8 Vict. c. 12. s. 4. directs, in the view of preserving exact accounts of the value of goods entered inwards, upon which the duties have been repealed; "That upon the entry inwards of any such goods, the value thereof shall be stated in the entry, and shall be affirmed by the declaration of the importer or his known agent, written upon the entry and attested by his signature, and if such declaration be false, the person signing the same shall forfeit a sum not exceeding 20*l.*; and it shall be lawful for the landing waiter or other officer appointed to examine such goods to call for the invoice, bills of parcels, and such other documents relating thereto as he may think necessary for ascertaining the true value of the same."

TARTAR. See ARGAL.

TATTA, a town in the territory of Sinde, situated about 60 miles in a direct line from the sea, at a short distance from the western bank of the river Indus, in lat. 24° 44′ N., lon. 68° 17′ E. Population uncertain, probably about 8,000. The streets are narrow and dirty; but the houses, though built of mud, chopped straw, and timber, are superior to the low huts seen in the adjoining towns and villages.

Trade. — Being situated a little above the part where the Indus divides into the two great branches by which its waters are poured into the Indian Ocean, it might be supposed that Tatta would be a place of great trade. But, owing to the unwholesomeness of the climate, the barbarism of the tribes on its banks, and other causes, its commerce has never corresponded with what might have been anticipated, looking at its position on the map. It had probably attained the acmé of its prosperity in the beginning of the 16th century. In 1555, the Portuguese, by way, as they stated, of avenging the

treachery of the king of Sinde, inhumanly massacred 8,000 of the inhabitants, and burned the town. — (*Conquêtes des Portugais*, tome iv. p. 183.) It is probable that Tatta never fully recovered from this dreadful blow; but Mr. Hamilton mentions, that in the 17th century it was extensive and populous, possessing much commerce, with manufactures of silk, wool, and cabinet ware. The decayed state in which we now find it, has been a consequence of the misgovernment and rapacity of its present rulers, the Ameers of Sinde, under whose sway it fell more than 50 years ago.

In 1635, the English established a factory at Tatta, in the view of facilitating the disposal of woollens and other goods in the countries traversed by the Indus; and the building occupied by the factory, though far from magnificent, was recently, if it be not still, the best, not in Tatta only, but in the whole country of Sinde.

The chief exports are rice, shawls from Cashmere, opium from Malwah, hides, ghee, cotton, goats' wool, carpets, drugs, &c. Putchock, an article largely consumed in China, is a peculiar export of Sinde. The imports comprise a variety of articles, but the quantities are trifling: they consist principally of spices, dye stuffs, hardware, tin, iron, &c., broad cloths, English cottons, silks, &c. But at present the trade is quite inconsiderable; and no one could believe, *à priori*, that the natural emporium of so great a river as the Indus, traversing many extensive countries, would cut so insignificant a figure in the trading world.

Navigation and Trade of the Indus. — The navigation of this magnificent river by the fleet of Alexander the Great, has conferred on it a classical celebrity not to be matched by any other river of the East. Its magnitude, too, is worthy of its fame. It may be navigated by flat-bottomed boats as far as Attock, and its tributary stream the Ravee is navigable to Lahor, both places being above 1,000 miles from the sea. But, unfortunately, its navigation is extremely difficult, and it may be doubted whether it will ever realise any considerable portion of the advantages which have of late years been anticipated from its being opened. The mouths of the river are ill-defined, shallow, and infested with moveable sand-banks, while the violence of the *bore*, or tide * makes their entrance at all times a matter of difficulty for vessels of a small draught of water suitable to their navigation, and during the period of the western monsoon they are all but impracticable. This, no doubt, is the reason that for centuries past the navigation from and to the sea through the delta of the Indus has been almost wholly abandoned; and that all products brought down the river and destined for exportation by sea are conveyed from Tatta overland to Curachee, a sea-port a little to the north of the most northerly mouth of the river, about 60 miles in a direct line from Tatta; and that all those coming from parts beyond sea and destined for countries on the Indus are conveyed from Curachee to Tatta by the same route.

Even after it has been entered, the navigation of the river is peculiarly difficult, partly from the strength of the current during the period of the inundation, and partly from shallows, and the sudden and constant shifting of the channel; what was a navigable passage one day is not unfrequently quite unnavigable a day or two after. The *doondees*, or native craft, by which the river is navigated, though of very small burden, frequently get aground.

If the Indus should ever become a considerable commercial highway, it will, most probably, be brought about by the intervention of suitable steamers; and it seems to be the opinion of the best judges, that, provided the steamers employed be flat-bottomed, and do not draw more than 28 or 30 inches water, they might, with proper precautions, be navigated from the sea for nearly 1,000 miles inland. But, exclusive of the physical obstacles to the navigation of the river, the backward state of the country, through which it flows, and the poverty and barbarism of the inhabitants, are formidable obstacles to its becoming of much importance as a commercial highway. The inhabitants along its banks have little taste for foreign commodities; and even if they had, they have few products suitable for export to exchange for them. No doubt, should regular government, industry, and civilisation be introduced into the Punjab, Caubul, and the contiguous countries, the case might be very different, and the trade of the Indus might become of very considerable importance. But this, if it be ever effected, must require a lengthened period to bring it about; so that those who look for any material addition being speedily made to our trade, or to that of India, by the opening of the Indus, will, there is too much reason to think, be entirely disappointed. (See, for farther particulars, the art. *Indus* in the *Geographical Dictionary*, and the authorities there referred to; see also Captain Postan's work on Sinde; and especially the memoir in the appendix (p. 361.) of Captain Carless, *On the Navigation of the Indus.*)

A very well-informed party, Dr. Buist, editor of the *Bombay Times*, has, in his work

* Whatever other changes may have taken place in the river, the tides at its mouth would seem to have been nearly the same in antiquity as at present. Their violence created the greatest alarm in the fleet of Alexander; and occasioned, indeed, the loss of several vessels! — (*Arrian*, lib. vi. cap. 19.)

on the late expedition into Affghanistan, made the following observations on the trade of the Indus: —

"The glowing descriptions of Burnes appear to have given a very exaggerated idea of the value of the internal traffic of the countries beyond the Indus. It was forgotten that where there was no industry, no manufactures or mineral wealth, no sea-coast or rivers to permit exportation, there could be little or nothing to give in exchange for imports; and that the wants of a population purely nomade must at all times be simple and singularly few. The whole of our commerce with Persia has never exceeded two millions sterling a year, rarely above one; the total of our trade with Affghanistan certainly never exceeded a million annually, and has very rarely amounted to much more than the half of one. Besides this, the Indus in reality was never closed save by its own dangerous entrances and shallow depth of water. Lord Ellenborough has opened the Indus as far as Mithen Kote; and the Sutlej, in continuation of this, to the Markunda, where it ceases to be navigable for the smallest craft. Yet the gross value of the British goods consumed by the countries adjoining does not at present amount to a quarter of a million sterling, and will not in all likelihood be doubled for 10 years to come; the expense of maintaining troops betwixt Kurrachee and Bukkur, both stations included, exceeding 600,000*l.* a year; with a less force it would be unwise to think of keeping these stations at all. The great line of traffic was not along but across the Indus, by the Delhi frontier, or parallel to it at a distance of 100 miles, by Sonmeanee and Kelat. The countries beyond the Indus, besides, have always been open to the free admission of every variety of foreign imports on paying a moderate fixed duty. The chief obstruction in reaching these is irremediable by treaty; and arises from the attacks of the plundering tribes in the passes, which cannot be restrained save by the payment of a black mail or subsidy."

The delta of the Indus has little in common with the delta of the Nile, except its shape. Not a fourth part of it is cultivated, and its few inhabitants principally lead a pastoral life. It is overgrown with tamarisks and other wild shrubs; and though intersected by the numerous mouths of the river, its surface is dry and arid, and it is in a great degree destitute of fresh water.

Money, Weights, and Measures.—Accounts are kept in rupees, carivals, and pice: 12 pice = 1 carival; 50 carivals = 1 rupee. Cowries are current in Sinde, 48 cowries = 1 pice.

Small Weights.—24 Moons = 1 Ruttee.
6 Ruttees = 1 Massa.
12 Massas = 1 Tolah.

Gross Weights. — 4 Pice = 1 Anna.
16 Annas = 1 Pucca seer.
40 Seers = 1 Maund, or 74 lbs. 5 oz. 7 dwts. avoirdupois.

Long Measure. — 1 Garee = 2 inches.
16 Garees = 1 Guz; but 1 guz cloth = 34 inches at Tatta.

Grain Measure.—4 Puttees = 1 Twier.
4 Twiers = 1 Cossa.
60 Cossas = 1 Carval of wheat; or 22 Pucca maunds, or 21 Bombay parahs.

Diamonds and pearls are sold by hubbas and ruttees.—8 hubba = 1 ruttee, about 2 grs. Troy.—(*Milburn's Orient. Commerce.*)

TEA (in one Chinese dialect *Cha*, in another *Te*; Du. *Te*; Fr. *Thé*; It. *Te*; Rus. *Tchai*; Hind. *Cha*; Malay, *Teh*), the leaves of the tree or shrub (*Thea viridis* Lin.).

I. Description of the Tea Plant. — Tea Trade of China.

II. Rise and Progress of the British Tea Trade. — Consumption of Tea.

III. East India Company's Monopoly — Influence of, on the Price of Tea — Conditions under which it was held — Abolition of.

IV. Duties on Tea. — Consumption of, in the U. Kingdom, the Continent, the United States, etc.

I. Description of the Tea Plant. — Tea Trade of China.

Description of the Plant. — Places where it is cultivated. — The tea plant ordinarily grows to the height of from 3 to 6 feet, and has a general resemblance to the myrtle, as the latter is seen in congenial situations in the southern countries of Europe. It is a polyandrous plant, of the natural order *Columniferæ*, and has a white blossom, with yellow style and anthers, not unlike those of a small dog-rose. The stem is bushy, with numerous branches, and very leafy. The leaves are alternate, on short, thick, channelled footstalks, evergreen, of a longish elliptic form, with a blunt, notched point, and serrated except at the base. These leaves are the valuable part of the plant. The *Camellias*, particularly the *Camellia Sasanqua*, of the same natural family as the tea tree, and very closely resembling it, are the only plants liable to be confounded with it by a careful observer. The leaves of the particular camellia just named are, indeed, often used in some parts of China, as a substitute for those of the tea tree.

The effects of tea on the human frame are those of a very mild narcotic; and, like those of many other narcotics taken in small quantities — even of opium itself — they are exhilarating. The green varieties of the plant possess this quality in a higher degree than the black; and a stronger infusion of the former will, in most constitutions, produce considerable excitement and wakefulness. Of all narcotics, however, tea is the least pernicious: if, indeed, it be so in any degree, which we very much doubt.

The tea shrub may be described as a very hardy evergreen, growing readily in the open air, from the equator to the 45th degree of latitude. For the last 60 years it has been reared in this country, without difficulty, in greenhouses; and thriving plants of it

are to be seen in the gardens of Java, Singapore, Malacca, and Penang; all within 6 degrees of the equator. The climate most congenial to it, however, seems to be that between the 25th and 23d degrees of latitude, judging from the success of its cultivation in China. For the general purposes of commerce, the growth of good tea is confined to China; and is there restricted to 5 provinces, or rather parts of provinces, viz. Fokien and Canton, but more particularly the first, for black tea; and Kiang-nan, Kiang-si, and Che-kiang, but chiefly the first of these, for green. The tea districts all lie between the latitudes just mentioned, and the 115th and 122d degrees of East longitude. However, almost every province of China produces more or less tea, but generally of an inferior quality, and for local consumption only; or when of a superior quality, like some of the fine wines of France, losing its flavour when exported. The plant is also extensively cultivated in Japan, Tonquin, and Cochin-China; and in some of the mountainous parts of Ava; the people of which country use it largely as a kind of *pickle preserved in oil!*

Botanically considered, the tea tree is a single species; the green and black, with all the diversities of each, being mere varieties, like the varieties of the grape, produced by difference of climate, soil, locality, age of the crop when taken, and modes of preparation for the market. Considered as an object of agricultural produce, the tea plant bears a close resemblance to the vine. In the husbandry of China, it may be said to take the same place which the vine occupies in the southern countries of Europe. Like the latter, its growth is chiefly confined to hilly tracts, not suited to the growth of corn. The soils capable of producing the finest kinds are within given districts, limited, and partial. Skill and care, both in husbandry and preparation, are quite as necessary to the production of good tea, as to that of good wine.

The best wine is produced only in particular latitudes, as is the best tea; although, perhaps, the latter is not restricted to an equal degree. Only the most civilised nations of Europe have as yet succeeded in producing good wines; which is also the case in the East with tea; for the agricultural and manufacturing skill and industry of the Chinese are there unquestionably pre-eminent. These circumstances deserve to be attended to, in estimating the difficulties which must be encountered in any attempt to propagate the tea plant in colonial or other possessions. These difficulties are obviously very great; and, perhaps, all but insuperable. Most of the attempts hitherto made to raise it in foreign countries were not, indeed, of a sort from which much was to be expected. Within the last few years, however, considerable efforts have been made by the Dutch government of Java, to produce tea on the hills of that island; and having the assistance of Chinese cultivators from Fokien, who form a considerable part of the emigrants to Java, a degree of success has attended them, beyond what might have been expected in so warm a climate. The Brazilians have made similar efforts; having also, with the assistance of Chinese labourers, attempted to propagate the tea shrub near Rio de Janeiro; and a small quantity of tolerably good tea has been produced. But owing to the high price of labour in America, and the quantity required in the cultivation and manipulation of tea, there is no probability, even were the soil suitable to the plant, that its culture can be profitably carried on in that country.

It may, perhaps, succeed in Assam, where its culture is now being attempted; for labour is there comparatively cheap, and the hilly and table lands are said to bear a close resemblance to those of the tea districts of China; but we are not sanguine in our expectations as to the result.

Species of Tea. — Manner in which they are manufactured. — The *black* teas usually exported by Europeans from Canton are as follows, beginning with the lowest qualities: — Bohea, Congou, Souchong, and Pekoe. The *green* teas are Twankay, Hyson skin, young Hyson, Hyson, Imperial, and Gunpowder. All the black teas exported (with the exception of a part of the bohea, grown in Woping, a district of Canton) are grown in Fokien — a hilly, maritime, populous, and industrious province, bordering to the north-east on Canton. Owing to the peculiar nature of the Chinese laws as to inheritance, and probably, also, in some degree, to the despotic genius of the government, landed property is much subdivided throughout the empire; so that tea is generally grown in gardens or plantations of no great extent. The plant comes to maturity and yields a crop in from 2 to 3 years. The leaves are picked by the cultivator's family, and immediately conveyed to market; where a class of persons, who make it their particular business, purchase and collect them in quantities, and manufacture them in part; that is, expose them to be dried under a shed. A second class of persons, commonly known in the Canton market as "the tea merchants," repair to the districts where the tea is produced, and purchase it in its half-prepared state from the first class, and complete the manufacture by garbling the different qualities; in which operation, women and children are chiefly employed. A final drying is then given, and the tea packed in chests, and divided, according to quality, into parcels of from 100 to 600 chests each. These

parcels are stamped with the name of the district, grower, or manufacturer, exactly as is practised with the wines of Bordeaux and Burgundy, the indigo of Bengal, and many other commodities; and, from this circumstance, get the name of *chops*, the Chinese term for a seal or signet. Some of the leaf-buds of the finest black tea plants are picked early in the spring, before they expand. These constitute pekoe, or black tea of the highest quality; sometimes called "white-blossom" tea, from there being intermixed with it, to give it a higher perfume, a few blossoms of a species of olive (*Olea fragrans*), a native of China. A second crop is taken from the same plants in the beginning of May, a third about the middle of June, and a fourth in August; which last, consisting of large and old leaves, is of very inferior flavour and value. The younger the leaf, the more high flavoured, and consequently the more valuable, is the tea. With some of the congous and souchongs are occasionally mixed a little pekoe, to enhance their flavour; and hence the distinction, among the London tea dealers, of these sorts of tea, into the ordinary kinds and those of "Pekoe flavour." Bohea, or the lowest black tea, is partly composed of the lower grades; that is, of the fourth crop of the teas of Fokien, left unsold in the market of Canton after the season of exportation has passed; and partly of the teas of the district of Woping in Canton. The green teas are grown and selected in the same manner as the black, to which the description now given more particularly refers; and the different qualities arise from the same causes. The gunpowder here stands in the place of the pekoe; being composed of the unopened buds of the spring crop. Imperial, hyson, and young hyson, consist of the second and third crops. The light and inferior leaves, separated from the hyson by a winnowing machine, constitute hyson skin, an article in considerable demand amongst the Americans. The process of drying the green teas differs from that of the black; the first being dried in iron pots or vases over a fire, the operator continually stirring the leaves with his naked hand. The operation is one of considerable nicety, particularly with the finer teas; and is performed by persons who make it their exclusive business.

Tea Trade in China. — The tea merchants commonly receive advances from the principal merchants and other capitalists of Canton; but, with this exception, are altogether independent of them; nor have the latter any exclusive privilege or claim of pre-emption. They are very numerous; those connected with the green tea districts alone being about 400 in number. The black tea merchants are less numerous but more wealthy. The greater part of the tea is brought to Canton by land carriage or inland navigation, but chiefly by the first: it is conveyed by porters; the roads of China, in the southern provinces, not generally admitting of wheel carriages, and beasts of burden being very rare. A small quantity of black tea is brought by sea, but probably smuggled; for this cheaper mode of transportation is discouraged by government, which it deprives of the transit duties levied on inland carriage. The length of land carriage from the principal districts where the green teas are grown to Canton is probably not less than 700 miles; nor that of the black tea, over a mountainous country, less than 200 miles. The tea merchants begin to arrive in Canton about the middle of October, and the busy season continues until the beginning of March; being briskest in November, December, and January. Tea, for the most part, could, previously to the late changes, only be bought from the Hong or licensed merchants; but some of these, the least prosperous in their circumstances, were supported by wealthy *outside* merchants, as they are called; and thus the trade was considerably extended. The prices in the Canton market vary from year to year with the crop, the stock on hand, and the external demand, as in any other article, and in any other market. After the season is over, or when the westerly monsoon sets in, during the month of March, and impedes the regular intercourse of foreigners with China, there is a fall in the price of tea, not only arising from this circumstance, but from a certain depreciation in quality, from the age of the tea; which, like most other vegetable productions, is injured by keeping, particularly in a hot and damp climate.

Foreign Trade in Tea — There seems to be little mystery in the selection and purchase of teas; for the business is both safely and effectively accomplished, not only by the supercargoes of the American ships, but frequently by the masters; and it was ascertained by the sales at the East India House, that there was no difference between the qualities of the teas purchased by the commanders and officers of the Company's ships, without any assistance from the officers of the factory, and those purchased for the Company by the latter. An unusual degree of good faith, indeed, appears to be observed, on the part of the Chinese merchants, with respect to this commodity; for it was proved before the select committee of the House of Commons, in 1830, that it was the regular practice of the Hong merchants to receive back, and return good tea for, any chest or parcel upon which any fraud might have been practised, which sometimes happens in the conveyance of the teas from Canton on board ship. Such restitution has occasionally been made even at the distance of 1 or 2 years. The Company enjoyed no advantage over other purchasers in the Canton market, except that which the largest

purchaser has in every market, viz. a selection of the teas, on the payment of the same prices as others; and this advantage they enjoyed only as respects the black teas; the Americans being the largest purchasers of green teas.

We subjoin a Table for calculating the cost of tea: —

Comparison of the Cost of Tea per Picul (133⅓ lbs. Avoirdupois), with the Rate per Pound and Ton, of 9 Cwt. or 1,008 Pounds per Ton.

Per Picul.	Exchange 4s. per Dol.			Exch. 4s. 3d. per Dol.			Exch. 4s. 4d. per Dol.			Exch. 4s. 5d. per Dol.			Exch. 4s. 6d. per Dol.		
	Per Lb.	Per Ton.		Per Lb.	Per Ton.		Per Lb.	Per Ton.		Per Lb.	Per Ton.		Per Lb.	Per Ton.	
Taels.	*d.*	£ *s.* *d.*		*d.*	£ *s.* *d.*		*d.*	£ *s.* *d.*		*d.*	£ *s.* *d.*		*d.*	£ *s.* *d.*	
20 equal	10	42 0 0		10·625	44 12 6		10·833	45 10 0		11·042	46 7 6		11·250	47 5 0	
21 —	10½	44 2 0		11·156	46 17 1½		11·375	47 15 6		11·594	48 13 10½		11·813	49 12 3	
22 —	11	46 4 0		11·687	49 1 9		11·916	50 1 0		12·146	51 0 3		12·375	51 19 6	
23 —	11½	48 6 0		12·219	51 6 4½		12·458	52 6 6		12·698	53 6 7½		12·936	54 6 0	
24 —	12	50 8 0		12·750	53 11 0		13·000	54 12 0		13·250	55 13 0		13·500	56 14 0	
25 —	12½	52 10 0		13·281	55 15 7½		13·541	56 17 6		13·802	57 19 4½		14·063	59 1 3	
26 —	13	54 12 0		13·812	58 0 3		14·083	59 3 0		14·354	60 5 9		14·625	61 8 6	
27 —	13½	56 14 0		14·344	60 4 10½		14·625	61 8 6		14·906	62 12 1½		15·188	63 15 9	
28 —	14	58 16 0		14·875	62 9 6		15·166	63 14 0		15·458	64 18 6		15·750	66 3 0	
29 —	14½	60 18 0		15·406	64 14 1½		15·708	65 19 6		16·010	67 4 10½		16·313	68 10 3	
30 —	15	63 0 0		15·937	66 18 9		16·250	68 5 0		16·562	69 11 3		16·875	70 17 6	
31 —	15½	65 2 0		16·469	69 3 4½		16·791	70 10 6		17·114	71 17 7½		17·438	73 4 9	
32 —	16	67 4 0		17·000	71 8 0		17·333	72 16 0		17·666	74 4 0		18·000	75 12 0	
33 —	16½	69 6 0		17·531	73 12 7½		17·875	75 1 6		18·218	76 10 4½		18·563	77 19 3	
34 —	17	71 8 0		18·062	75 17 3		18·416	77 7 0		18·770	78 16 9		19·125	80 6 6	
35 —	17½	73 10 0		18·594	78 1 10½		18·958	79 12 6		19·323	81 3 1½		19·688	82 13 9	
36 —	18	75 12 0		19·125	80 6 6		19·500	81 18 0		19·875	83 9 6½		20·250	85 1 0	
37 —	18½	77 14 0		19·656	82 11 1½		20·041	84 3 6		20·427	85 15 10½		20·813	87 8 3	
38 —	19	79 16 0		20·187	84 15 9		20·583	86 9 0		20·979	88 2 3		21·375	89 15 6	
39 —	19½	81 18 0		20·719	87 0 4½		21·125	88 14 6		21·531	90 8 7½		21·938	92 2 9	
40 —	20	84 0 0		21·250	89 5 0		21·666	91 0 0		22·083	92 15 0		22·500	94 10 0	

Thus, 4*s.* 3*d.* per dollar, one tael per picul is equal to ½*d.* per pound.

Usual Nett Weight and Measurement of a Chest of different Descriptions of Tea.

	Weight.	*Sol. Meas.*		*Weight.*	*Sol. Meas.*
Bohea, whole chests	catties 138	feet 8·956	Hyson	catties 48 to 50	feet 4
½ do.	84	— 5·416	Hyson skin	— 48 - 50	— 4·125
¼ do.	46	— 3·374	Twankay, long chests	— 62 - 65	— 4·864
Congou chests	65 to 64	— 4·085	Gunpowder	— 80 - 84	— 4·100
Souchong	— 60 - 62	— 4·025	Imperial	— 70 - 74	— 4·074
Pekoe	— 49 - 50	— 4·333	Young Hyson	— 70 - 72	— 4·220

II. Rise and Progress of the British Tea Trade. — Consumption of Tea.

The late rise and present magnitude of the British tea trade are among the most extraordinary phenomena in the history of commerce. Tea was wholly unknown to the Greeks and Romans, and even to our ancestors previously to the end of the 16th or the beginning of the 17th century. It seems to have been originally imported in small quantities by the Dutch; but was hardly known in this country till after 1650. In 1660, however, it began to be used in coffee houses; for, in an act passed in that year, a duty of 8*d.* is laid on every gallon of "coffee, chocolate, sherbet, and tea," made and sold. But it is abundantly evident that it was then only beginning to be introduced. The following entry appears in the Diary of Mr. Pepys, secretary to the Admiralty: — "September 25. 1661. I sent for a cup of tea (a China drink), of which I had never drunk before." In 1664, the East India Company bought 2 lbs. 2 oz. of tea as a present for his Majesty. In 1667, they issued the first order to import tea, directed to their agent at Bantam, to the effect that he should send home 100 lbs. of the best tea he could get! — (See the reference in *Milburn's Orient. Com.* ii. 530.; *Macpherson's Hist. of Com. with India*, pp. 130—132.) Since then, the consumption seems to have gone on regularly though slowly increasing. In 1689, instead of charging a duty on the decoction made from the leaves, an excise duty of 5*s.* per lb. was laid on the tea itself. The importation of tea from 1710 downwards is exhibited in the following Tables.

The reductions made in the duties on tea in 1745 and 1784, strikingly evince the superior productiveness of low duties on articles in general demand, and are, in that respect, especially worth attention. Previously to 1745, tea was charged with an excise duty of no less than 4*s.* per lb., and with a customs duty of 14 per cent. *ad valorem*: and it appears that at an average of the 5 years ending Midsummer, 1745, the teas entered for consumption amounted to 768,520 lbs. a-year, yielding an average excise and customs revenue of 175,222*l.* a-year. But though the taste for tea was then comparatively little diffused, it was well known that its clandestine importation was extensively carried on, and that its real was much greater than its apparent consumption. To check this illegitimate traffic, which enriched the smuggler at the expense of the revenue and of the fair trader, a bill was carried through parliament in 1745, in pursuance of the recommendation of a Committee of the House of Commons, by which the excise duty on tea was reduced from 4*s.* to 1*s.* per lb. and 25 per cent. *ad valorem*: and as the price of the teas sold at the Company's sales was then about 4*s.* per lb., the 25 per cent. was, in fact, equivalent to 1*s.* per lb. making the new excise duty 2*s.* per lb., being a reduction of 50 per cent. This measure, which had in a great degree the merit of originality, was eminently successful. In the year immediately after the

reduction of the duty, the entries of tea for consumption amounted to about 1,800,000 lbs., being nearly three times as much as they had amounted to in the last year of the high duties; and the increase in the second and third years of the new system was also most striking. But to set the operation of this well-considered measure in the clearest point of view, we subjoin

An Account of the Quantities of Tea entered for Consumption, and of the Produce of the Excise and Customs Duties thereon during each of the Five Years preceding, and subsequent to Midsummer, 1745, when the Excise Duty on Tea was reduced from 4*s.* to 2*s.* per lb. (M'Culloch on Taxation, p. 332.)

Years.	Quantities.	Duties.	Years.	Quantities.	Duties.
	Lbs.	£ *s.*		*Lbs.*	£
1741	880,700	200,799 0	1746	1,800,000	230,400
1742	836,200	190,655 10	1747	2,000,000	256,000
1743	797,200	181,761 10	1748*	2,600,000	358,800
1744	708,500	161,538 0	1749	2,700,000	372,600
1745	620,000	141,360 0	1750†	2,700,000	372,600
Totals.	3,842,600	876,112 0	Totals.	11,800,000	1,590,400
Average of 5 years.	768,520	175,222 8	Average of 5 years.	2,360,000	318,080

But notwithstanding this unanswerable demonstration of the superior productiveness of low duties, they were again increased in 1759; and fluctuated, between that epoch and 1784, from about 65 to 120 per cent. *ad valorem*. The effects which followed this inordinate extension of the duties are equally instructive with those which followed their reduction. The revenue was not increased in anything like a corresponding proportion; and as the use of tea had become comparatively general, smuggling was carried to an infinitely greater extent than at any former period. In the *nine* years preceding 1780, above 118 millions lbs. of tea were exported from China to Europe in ships belonging to the continent, and about 50 millions lbs. in ships belonging to England. But from the best information attainable, it appears that the real consumption was almost exactly the reverse of the quantities imported; and that while the consumption of the British dominions amounted to above 13 millions lbs. a-year, the consumption of the continent did not exceed 5½ millions. If this statement be nearly correct, it follows that an annual supply of about *eight* millions lbs. must have been clandestinely imported into this country, in defiance of the revenue laws. But this was not the worst effect of the high duties; for many of the retail dealers who purchased tea at the East India Company's sales, being in a great measure beaten out of the market, were, that they might put themselves in a condition to stand the competition of the smugglers, tempted to adulterate their teas by mixing them with sloe and ash leaves.‡ At length, in 1784, ministers, having in vain tried every other resource for the suppression of smuggling, resolved to follow the precedent of 1745, and reduced the duty on tea from 119 to 12½ per cent. This measure was as successful as the former: smuggling and the practice of adulteration were immediately put an end to. The following statement shows that the *quantity* of tea sold by the East India Company was about *trebled* in the course of the *two* years immediately following the reduction.

	Lbs.
In 1781 the quantity of tea sold at the East India Company's sales amounted to	5,023,419
1782	6,283,664
1783	5,857,883
1784 (duties reduced)	10,148,257
1785	16,307,433
1786	15,093,952
1787	16,692,426§

While the quantity of tea sold at the Company's sales was thus rapidly augmented, in consequence of the reduction of the duty, the quantity of tea imported into the continent from China, which had, in 1784, amounted to 19,027,300 lbs. declined with still greater rapidity, and, in 1791, was reduced to only 2,291,500 lbs.‖

The duties on tea, at an average of the 5 or 6 years preceding 1784, produced about 700,000*l.* a-year. And, on their being reduced to 12½ per cent, an additional duty, estimated to produce 600,000*l.*, was laid on windows, as a *commutation* tax, to compensate for the deficiency which it was supposed would take place in the revenue derived from tea. But, instead of the duties falling off in the proportion of 119 to 12½, or from 700,000*l.* to 73,000*l.*, they only fell off, in consequence of the increased consumption, in the proportion of about *two* to *one*, or from 700,000*l.* to 340,000*l.* The Commutation Act has been always regarded as one of the most successful financial measures of Mr. Pitt's administration. The plan was generally understood at the time to have been suggested by Mr. Richardson, accountant-general of the East India Company; but the popularity of the measure was so great as to induce several other individuals to claim this honour, and even to occasion some hot disputes on the subject

* In 1748, 5 per cent was added to the customs duty on dry goods; but its influence on tea was nex, to imperceptible.

† In 1752 the entries increased to 3,000,000 lbs.

‡ Macpherson's "Commerce with India," p. 208. Milburn's "Oriental Commerce," vol. ii. p. 540

§ Macpherson's "Commerce with India," p. 416. ‖ Ibid, p. 210

in the House of Commons. In point of fact, however, the merit of originally suggesting the plan neither belonged to Mr. Richardson, nor to any of those who then claimed it; and such of our readers as will take the trouble to look into a pamphlet ascribed to Sir Matthew Deaker ("Serious Considerations on the present High Duties"), published in 1743, will find that the measure adopted in 1784 had been strenuously recommended 40 years before.

But the principle of the Commutation Act, and the striking advantage that had resulted from the reduction of the duty, were soon lost sight of. In 1795 the duty was increased to 25 per cent; and, after successive augmentations in 1797, 1798, 1800, and 1803, it was raised, in 1806, to 96 per cent., *ad valorem*, at which it continued till 1819, when it was raised to 100 per cent. on all teas that brought above 2*s.* per lb. at the Company's sales.

The following statements show the progress of the consumption of tea in this country from a very remote epoch down to the present time: —

Account of the Quantity of Tea retained for Home Consumption in Great Britain from 1789 to 1833, and of the Quantity that paid Duty for Home Consumption in Ireland from 1789 to 1827; specifying the Nett Produce of the Duties in each Country, and the Rates of Duty.

	Great Britain.			Ireland.			
Years.	Quantities retained for Home Consumption.	Nett Amount of Duty.	Rates of Duty.	Quantity charged with Duty for Home Consumption.	Nett Amount of Duty. (*British Currency.*)	Rates of Duty.	
	Lbs.	£ *s.* *d.*		*Lbs.*	£ *s.* *d.*	*Black:*	*Green:*
1789	14,534,601	562,058 14 5	12*l.* 10*s.* per cent.	1,970,898	38,058 14 3	4*d.* per lb.	6*d.* per lb.
1790	14,693,299	547,230 4 8	—	1,736,796	33,132 12 2	ditto	ditto
1791	15,096,840	607,430 8 4	—	1,994,787	43,295 12 4	4½*d.* per lb.	6½*d.* per lb.
1792	15,822,045	616,775 6 9	—	1,844,598	35,110 0 8	ditto	ditto
1793	15,244,951	609,846 5 6	—	2,148,755	39,274 9 6	ditto	ditto
1794	16,647,963	628,081 6 5	—	2,041,290	43,892 6 2	ditto	ditto
1795	18,394,232	695,108 5 9	20*l.* per cent.	2,970,701	64,095 16 10	ditto	ditto
1796	18,009,992	877,042 13 0	—	2,326,506	48,635 14 9	ditto	ditto
1797	16,368,041	1,023,060 9 7	At or above 2*s.* 6*d.* per lb. 30*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	2,492,254	60,817 6 5	ditto	ditto
1798	19,566,934	1,111,898 9 1	At or above 2*s.* 6*d.* per lb. 35*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	2,955,240	103,016 5 5	ditto	ditto
1799	19,906,510	1,176,861 9 9	—	2,875,717	101,727 11 0	5½*d.* per lb.	7*d.* per lb.
1800	20,358,702	1,152,262 0 0	At or above 2*s.* 6*d.* per lb. 40*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	2,926,166	69,824 17 7	ditto	ditto
						All Sorts:	
						Sold at or above 2*s.* 6*d.* per lb.	Sold under 2*s.* 6*d.* per lb.
1801	20,237,753	1,287,808 2 6	At or above 2*s.* 6*d.* per lb. 50*l.* per cent. Under 2*s.* 6*d.* per lb. 20*l.* per ditto.	3,499,801	135,852 3 4	35*l.* per cent. ad val.	20*l.* per cent. ad val.
1802	21,148,245	1,450,252 7 9	—	3,576,775	182,214 17 7	38*l.* 10*s.* —	23*l.* 10*s.* —
1803	21,647,922	1,757,257 18 4	At or above 2*s.* 6*d.* per lb. 95*l.* per cent. Under 2*s.* 6*d.* per lb. 65*l.* per ditto.	3,239,937	172,355 15 6	ditto	ditto
1804	18,501,904	2,348,004 4 8	—	3,337,122	251,734 8 9	84*l.* 14*s.* —	51*l.* 14*s.* —
1805	21,025,380	2,925,298 17 9	At or above 2*s.* 6*d.* per lb. 95*l.* 2*s.* 6*d.* per cent. Under 2*s.* 6*d.* per lb. 65*l.* 2*s.* 6*d.* per ditto.	3,267,712	411,225 1 4	ditto	ditto
1806	20,555,038	3,098,428 15 2	On all teas 96*l.* per cent.	2,611,458	348,242 7 2	ditto	71*l* 14*s.* —
1807	19,230,312	3,045,224 11 3	—	3,555,129	476,949 4 3	ditto	ditto
1808	20,859,929	3,370,610 0 10	—	3,706,771	554,685 1 7	ditto	ditto
1809	19,869,154	3,130,616 14 9	—	3,391,663	462,088 12 3	ditto	ditto
						On all Teas:	
1810	19,095,244	3,212,430 1 1	—	2,922,568	435,307 10 2	95*l.* per cent. ad val.	
1811	20,702,809	3,249,294 0 9	—	3,517,584	502,816 16 11	ditto	
1812	20,018,251	3,258,793 2 9	—	3,758,499	567,186 11 6	ditto	
1813	20,443,226	Customs records destroyed.	—	2,552,294	521,299 12 3	ditto	
1814	19,224,154	3,428,236 8 4	—	3,387,012	529,818 7 11	96*l.* per cent. ad valorem, and henceforth the same as in Great Britain.	
1815	22,378,545	3,526,590 18 3	—	3,462,776	551,500 15 2		
1816	20,246,144	3,956,719 0 5	—	2,990,580	405,777 16 3		
1817	20,822,936	3,005,650 18 7	—	3,141,035	427,713 7 3		
1818	22,660,177	3,562,588 10 1	—	3,562,451	510,105 6 6		
1819	22,631,467	3,256,433 12 10	At or under 2*s.* per lb. 96*l.* per cent. Above 2*s.* per lb. 100*l.* per ditto.	3,238,498	453,371 11 6		
1820	22,452,050	3,128,449 17 0	—	3,150,344	398,742 5 4		
1821	22,892,913	3,275,642 17 6	—	3,493,960	462,819 16 3		
1822	23,911,884	3,434,292 19 10	—	3,816,966	511,299 5 2		
1823	23,762,470	3,407,985 1 8	—	3,567,710	440,139 4 11		
1824	25,784,858	3,420,205 11 11	—	3,387,510	445,271 15 11		
1825	24,830,015	3,527,944 4 11	—	3,889,658	503,074 13 4		
1826	25,238,067	3,291,815 19 5	—	3,807,785	446,229 5 1		
1827	26,043,223	3,263,206 19 3	—	3,887,955	442,382 14 10		
1828	26,790,481	3,177,179 8 0	—				
1829	29,495,199	3,291,722 2 6	—				
1830	34,047,079	3,387,097 18 9	—				
1831	29,997,100	3,544,918 12 9	—				
1832	31,548,409	3,509,834 13 7	—				

Irish Currency. British Currency.

* This amount includes all tea shipped to Ireland for consumption in that country subsequently to the passing of the act 9 Geo. 4. c. 44.

An Account of the Quantities of Tea imported into the U. Kingdom during each of the undermentioned Years ending with 1858; specifying the Quantities re-exported, the Quantities annually retained for Home Consumption, the Rates of Duty, and the annual Produce of the Duties.

Years.	Quantities imported.	Quantities re-exported.	Quantities retained for Consumption.	Amount of Duty received thereon.	Rates of Duty.
	Lbs.	*Lbs.*	*Lbs.*	£	
1833	32,057,832	254,460	31,829,620	3,444,102	If sold at or under 2*s.* per lb., 96*l.* per centum ad valorem. At or above 2*s.* per lb., 100*l.* ditto.
1834	33,640,300	1,181,005	34,969,651	3,589,361	Bohea, 1*s.* 6*d.* per lb.; Congou, Twankay, Hyson Skin, Orange Pekoe, and Campoi, 2*s.* 2*d.* per lb.; all other sorts 3*s.* per lb. (from 22nd April).
1835	44,360,550	2,158,029	36,574,004	3,832,427	— —
1836	49,307,701	4,269,863	49,142,236	4,674,535	All sorts 2*s.* 1*d.* per lb. (from 1st July).
1837	36,973,981	4,716,248	30,625,206	3,225,840	— —
1838	40,113,714	2,577,877	32,351,593	3,362,035	— —
1839	38,158,008	3,518,912	35,127,287	3,658,803	— —
1840	28,021,882	2,383,384	32,252,628	3,472,864	5*l.* per cent. additional from 15th May.
1841	30,787,796	4,490,363	36,675,667	3,975,968	— —
1842	40,742,128	5,710,127	37,355,912	4,088,957	— —
1843	46,612,737	4,584,141	40,295,393	4,407,642	— —
1844	53,147,078	4,828,985	41,363,770	4,524,193	— —
1845	51,056,978	4,055,589	44,193,433	4,835,353	— —
1846	54,767,142	3,535,668	46,740,344	5,112,005	— —
1847	55,624,946	4,718,138	46,314,821	5,066,494	— —
1848	47,774,755	3,551,328	48,734,789	5,329,992	— —
1849	53,459,469	4,845,617	50,021,576	5,471,422	— —
1850	50,512,384	5,015,629	51,172,302	5,596,961	— —
1851	71,466,421	4,524,599	53,965,112	5,962,463	2*s.* per lb. plus 5 per cent.
1852	66,360,535	6,134,743	54,724,613	5,985,484	— —
1853	70,735,135	4,836,009	58,834,087	5,683,791	— —
1854	85,792,052	8,655,955	61,953,041	4,780,149	1*s.* 10*d.* per lb.
1855	83,259,657	13,626,507	63,429,286	5,310,275	1*s.* 6*d.* per lb.
1856	86,200,414	5,718,764	65,278,212	5,536,626	1*s.* 9*d.* per lb.
1857	84,493,989	8,707,971	69,159,843	5,060,032	1*s.* 5*d.* per lb.
1858	75,432,578	7,249,270	73,217,485	5,186,171	1*s.* 5*d.* per lb.

Account of the Quantity of Tea remaining for Home Consumption in Great Britain from 1711 to 1786, obtained by deducting the Quantity exported from the Quantity sold at the Company's Sales.

	Lbs.		*Lbs.*		*Lbs.*		*Lbs.*
1711	141,995	1741	880,700	1765	4,906,546	1782	4,166,854
1720	237,904	1745	620,000	1770	7,725,538	1783	3,087,616
1725	286,494	1750	2,700,000	1775	5,475,498	1784	8,608,473
1730	537,016	1755	2,738,136	1780	5,588,515	1785	13,165,715
1735	1,380,199	1760	2,293,613	1781	3,578,499	1786	13,985,506

N. B.— We have made up this account from the accounts given in *Milburn's Oriental Commerce* (vol. ii. p. 534), and Postlethwayt's Dictionary, Art. *Tea*.

The following table, compiled by the Inspector-General of Imports and Exports, sets the most material circumstances connected with the tea trade in a very clear and striking point of view. The Inspector-General has added to his table two more columns, one showing the annual population of the U. Kingdom, and the other the annual average consumption of tea by each individual of that population. But we have omitted these, inasmuch as the average in question was wholly fallacious. The consumption of tea per individual in Great Britain was formerly a good deal more than double its consumption per individual in Ireland. And though the proportional consumption in the latter has increased since the occurrence of the potatoe rot in 1846, it is still much below the consumption either in England or Scotland. This, indeed, is very clearly exhibited in the table showing the comparative consumption of tea at different epochs in each of the three kingdoms, which has, also, been supplied by the Inspector-General.

An Account showing the Quantity of Tea annually consumed in the U. K., with the average Rate and aggregate Amount of Duty collected thereon; and the average Price, exclusive and inclusive of the Duty, from

Years.	Tea consumed in U. K.	Amount of Duty.	Average Duty per lb.	Average Price per lb. in Bond.	Average Price per lb. inc. Duty.
	Lbs.	£	*s.* *d.*	*s.* *d.*	*s.* *d.*
1838 - - -	32,351,593	3,362,035	2 1	1 7¾	3 8¾
1839 - - -	35,127,287	3,658,803	2 1	1 8½	3 9½
1840 - - -	32,252,628	3,472,864	2 1⅜	2 7¼	4 9
1841 - - -	36,675,667	3,975,668	2 2⅛	2 1⅜	4 3½
1842 - - -	37,355,911	4,088,957	2 2⅛	2 0¾	4 2⅝
1843 - - -	40,295,393	4,407,642	2 2⅛	1 4½	3 6⅛
1844 - - -	41,363,770	4,524,193	2 2⅛	1 2⅝	3 5
1845 - - -	44,193,433	4,835,353	2 2⅛	1 1⅛	3 4
1846 - - -	46,740,344	5,112,005	2 2⅛	1 1	3 3⅛
1847 - - -	46,314,821	5,066,494	2 2⅛	1 1	3 3⅛
1848 - - -	48,734,789	5,329,992	2 2⅛	1 0½	3 2⅝
1849 - - -	50,021,576	5,471,422	2 2⅛	1 1	3 3⅛
1850 - - -	51,172,302	5,596,961	2 2⅛	1 0⅝	3 2¾
1851 - - -	53,949,059	5,900,625	2 2⅛	1 0⅛	3 1⅝
1852 - - -	54,715,034	5,984,172	2 2⅛	1 0⅛	3 1⅝
1853 - - -	58,834,087	5,683,791	1 11½	1 3½	3 1½
1854 - - -	61,953,041	4,780,149	1 6½	1 3½	2 10
1855 - - -	63,429,286	5,310,275	1 8	1 3	2 11
1856 - - -	65,278,212	5,536,626	1 9	1 2⅝	2 11½
1857 - - -	69,159,843	5,060,048	1 5½	1 5 4/10	2 11
1858 - - -	73,217,485	5,186,171	1 5		

Account of the total and average Consumption of Tea by each Individual of the Population in England, Scotland, and Ireland, in 1841 and 1856.

	Total Consumption.		Average Consumption by each Individual.			
	1841.	1856.	1841.		1856.	
	Lbs.	*Lbs.*	*Lbs.*	*oz.*	*Lbs.*	*oz.*
England - - -	28,805,156	47,986,635	1	13	2	8
Scotland - - -	2,385,176	6,583,253	1	2	2	3
Ireland - - -	4,887,335	8,708,344	0	10	1	7
U. Kingdom - - -	36,675,667	63,278,212	1	6	2	4

III. East India Company's Monopoly — Influence of, on the Price of Tea — Conditions under which it was held — Abolition of.

From its origin down to 1834, the trade in tea was monopolised by the East India Company. Considerable quantities of tea were, indeed, at different times, smuggled into the country; but no British subject, not authorised by the Company, was ever allowed openly to import tea. Being thus the *only sellers*, they had it in their power, by limiting the quantity brought to market, to raise its price above its natural elevation, and to realise immense profits at the expense of the public. They might, no doubt, have declined availing themselves of this power; but no such forbearance could be rationally expected from the Company, or from any other body of men. All individuals and associations exert themselves to obtain the highest price for whatever they have to sell: and it is found that those who are protected from the competition of others, or who have obtained a monopoly of any market, invariably raise the price of their commodities to a very high pitch. The East India Company did this, probably, to a less extent than most other bodies that have enjoyed such exclusive privileges. Still, however, it is an undoubted fact, that the teas sold by them during the last years of the monopoly cost the people of Britain upwards of 1,500,000*l.* a year more than they would have cost had they been sold at the price at which teas of equal quality were sold, under a system of free competition, in New York, Hamburg, Amsterdam, &c.! — (For proofs of this statement, see 1st edition of this *Dictionary*, p. 1031.)

The legislature endeavoured, at different periods, to prevent the Company from abusing their monopoly, by enacting regulations as to the sale of tea; and though no longer of any practical importance, it may be worth while briefly to notice some of the more important, and the means by which they were defeated. In 1745, for example, when the great deduction was made from the amount of the tea duties, it was enacted, by a statute passed in that year (18 Geo. 2. c. 26.), in order to prevent the Company from depriving the public of the benefit of this reduction, that in case the tea imported by the East India Company shall not always be sufficient to answer the consumption thereof in Great Britain, and to *keep the price of tea in this country upon an equality with the price thereof in the neighbouring Continent of Europe*, it shall be lawful for the said Company, and their successors, to import into Great Britain such quantities of tea as they shall think necessary from any part of Europe: and by another section of the same statute, it is enacted, that if the East India Company shall, at any time, neglect to keep the British market supplied with a *sufficient quantity of tea at reasonable prices*, it shall be lawful for the Lords of the Treasury to *grant licences to any other person or persons*, body politic or corporate, to import tea into Great Britain from any part of Europe.

Had this statute been enforced, it would certainly have restrained the demands of the Company within reasonable limits; but it was very soon forgotten, and the Company continued, as before, to sell their teas at an enormous advance as compared with their prices in Hamburg and Amsterdam.

The same well-founded jealousy, which dictated the act of 1745, was again displayed in the proceedings at the reduction of the duties in 1784. It was then enacted (24 Geo. 3. c. 38.), that the East India Company should make 4 sales of tea every year, as near as conveniently may be at equal distances of time from each other, and should put up at such sales such quantities of tea as may be judged sufficient to supply the demand; and at each sale the tea to be put up shall be sold without reserve to the highest bidders, provided an advance of 1*d.* per pound be bid upon the price at which the same is put up. By another clause it was enacted, that it should not be lawful for the East India Company "to put up their teas for sale at any price which shall, upon the whole of the teas so put up at any sale, exceed the prime cost thereof, with the freight and charges of importation, together with lawful interest from the time of arrival of such teas in Great Britain, and the common premium of insurance as a compensation for the sea risk incurred thereon." The company were further ordered to keep a stock, equal to at least 1 year's consumption, according to the sales of the preceding year, always beforehand. And they were bound to lay before the Lords of the Treasury copies of the accounts and estimates upon which their orders for importation, prices for sale, and quantities put up to sale, should be grounded.

The object of these conditions is obvious. They were intended to secure a plentiful supply of tea to the public, and to prevent its being sold at an oppressive increase of price. But monopoly and low prices are altogether incompatible. The conditions now referred to were, as to all practicable purposes at least, quite inoperative.

1. In the first place, the Company made various additions to the prime cost, and consequently to the putting-up price of their tea, which they ought not to have made, but which the Lords of the Treasury, had they been so disposed, could hardly disallow. They always, for example, charged the cost of the factory in Canton to the price of tea. This establishment consisted of about 20 persons, and cost at an average about 100,000*l.*

a year! We do not presume to say that it was altogether useless. Undoubtedly, however, it might have been conducted at half the expense. It is a fact, that the whole American business at Canton has been transacted by the captains of the ships; and every one knows that they have had fewer disturbances with the natives than the English.

2. In the second place, it was established by the evidence taken before the select committee of 1830, that the Company had for many years thrown the whole losses arising from their outward investment upon tea, by estimating the value of the tael, or Chinese money in which the accounts are kept, at the price which it cost for the purpose of being vested in tea. This was a complete evasion of the provisions of the statute; but it was one which it was very difficult, if not impossible, to defeat.

3. In the third place, the obligation imposed on the Company, of keeping a year's supply of tea in their warehouses, contributed both to raise its price, and deteriorate its quality. From a return made to an order of the select committee of the House of Commons in 1830 (*First Report*, App. p. 23.), it appears that the shortest time any tea sold by the Company had been in store was 14 months; and that, at an average, all the teas sold during the 3 years ending with 1829 had been 17 months in store. But, according to the evidence of the most respectable American witnesses, the black and coarser kinds of tea are depreciated at least 5 per cent. by being kept a twelvemonth, and are, indeed, hardly saleable after the arrival of fresh teas from China. Adding, therefore, warehouse rent, interest of capital, and insurance for 17 months, to the deterioration in point of quality, we may estimate the loss to the public, by this well-meant but most injudicious interference of the legislature, at 15 per cent. upon the price of all the teas sold.

4. In the fourth place, it is obvious, even supposing the prime cost of the Company's teas had not been improperly enhanced, that the regulation obliging them to be sold at an advance of 1*d.* per lb. if offered, on the putting-up price, could not be otherwise than nugatory. Had the trade been open, private merchants would have undersold each other, until the price of tea, like that of sugar or coffee, had been reduced to the very lowest point that would yield the sellers the customary rate of profit. But the Company was in an entirely different situation. Being the *only sellers*, they invariably *understocked* the market. Instead of bringing forward such quantities of tea as might have occasioned its sale at a small advance upon the upset price, they adjusted the supply so that the price was raised to a much higher elevation. Now, it will be observed, that all this system of management put into the Company's coffers consisted of *extra profit*; for the putting-up price embraced every item that could fairly enter into the cost of the tea, including both *interest* on capital and insurance, and including also, as we have seen, several items that had but little to do with it. To show the extent to which this source of profit was cultivated, we may mention, that at the June sale in 1830, the Company put up congou at 1*s.* 8*d.* and 2*s.* 1*d.* per lb.; the lowest sort, or that put up at 1*s.* 8*d.*, being sold partly at 2*s.* 1½*d.*, being an advance of *twenty-two and half* per cent., and partly at 2*s.* 5*d.*, being an advance of FORTY-FIVE per cent.; while the highest sort, or that put up at 2*s.* 1*d.*, was sold partly at 2*s.* 2*d.*, being an advance of *four* per cent., and partly at 3*s.* 7*d.*, being an advance of no less than SEVENTY-TWO per cent. above the upset price; that is, above a price calculated to yield *ordinary profits*. Mr. Mills, an intelligent tea merchant, in a paper laid before the committee of the House of Lords on East India affairs, showed, that the advance on teas sold at the Company's June sale in 1830, above the putting-up price, amounted to 122,177*l.* 18*s.* 1*d.*; and as there are 4 such sales in the year, the total advance must have been about 500,000*l.*; and this was considerably under what it had been a few years previously.

These statements show generally how the Company defeated the provisions of the act of 1784, and, indeed, turned them to its own advantage. But, as already observed, nothing else could be expected. It is nugatory to attempt to combine monopoly with low prices and good qualities. They never have existed, and it is not possible they ever should exist, together. Monopoly is the parent of dearness and scarcity; freedom, of cheapness and plenty.

Great, however, as was the sacrifice entailed on the people of Britain by the Company's monopoly, it is doubtful whether it yielded any considerable amount of revenue to the Company. Every one, indeed, must be satisfied, on general grounds, that it was impossible for the Company to make anything like the same profits by the privileges conceded to them, that would have been made by private individuals enjoying similar advantages. "The spirit of monopolists," to borrow the just and expressive language of Gibbon, "is narrow, lazy, and oppressive. Their work is more costly and less productive than that of independent artists; and the new improvements so eagerly grasped by the competition of freedom, are admitted with slow and sullen reluctance, in those proud corporations above the fear of a rival, and below the confession of an error." We have no doubt that the directors of the East India Company were disposed to extend

its commerce, and to manage it according to the most approved principles, but they were wholly without the means of giving effect to their wishes. They had to operate through servants; and is it to be imagined that the *employés* of such bodies will ever display that watchful attention to their interests, or conduct the business intrusted to their care with the unsparing economy practised by private merchants trading on their own account, superintending their own concerns, and responsible in their own private fortunes for every error they may commit? The affairs of the Company, notwithstanding the efforts of the directors to introduce activity and economy, have always been managed according to a system of routine. Their captains and mercantile agents were, we doubt not, "all honourable men;" but it were an insult to common sense to suppose that they may be compared for a moment with individuals trading on their own account, in the great requisites of zeal, conduct, and skill.

Several gentlemen of great knowledge and experience, who carefully inquired into the state of the Company's affairs in 1830, expressed their decided conviction that they made nothing by the tea trade!—the increased price at which they sold the article not being more than sufficient to balance the immense expenses incident to the monopoly! Perhaps this statement may be somewhat exaggerated, though we incline to think it is not far from the mark. Taking, however, the accounts laid by the Company before the late committee on Indian affairs, as they stand, it would appear that the profits realised by them during the 3 years ending with 1827-28 amounted to 2,542,569*l.*, being at the rate of 847,523*l.* a year.—(*Appen. to Second Report of Select Committee of* 1830, p. 95.) But we have already seen that the excess of price received by the Company for their teas, over the price of similar teas sold at New York and Hamburg, has been above 1,500,000*l.* a year; so that, according to the Company's own showing, their monopoly occasioned an *absolute loss* of 652,477*l.*, exclusive of its mischievous influence in lessening the consumption of tea, and in confining our trade with China to less than a third of what it will probably amount to under a system giving free scope to the energies of individual enterprise.

The renewal of a monopoly productive of such results was, therefore, wholly out of the question. There was hardly, indeed, in 1833, an individual in the empire out of the pale of the Company who was not anxious for the opening of the trade to China; and the act 3 & 4 Will. 4. c. 85.—(see *antè*, p. 552.)—abolishing the Company's monopoly, and making it lawful for all individuals to import tea, was passed with almost no opposition.

IV. Duties on Tea.—Consumption of Tea in the United Kingdom, the Continent, the United States, etc.

Down to the 22d of April, 1834, the duty on tea was an *ad valorem* one of 96 per cent. on all teas sold under 2*s.* a pound, and of 100 per cent. on all that were sold at or above 2*s.* charged on the prices which they brought at the Company's sales. This was, certainly, a high duty; though, as a large amount of revenue must be raised, we do not know, had the trade been free, that it could have been fairly objected to on that ground. But under the monopoly system, the duty was, in fact, about 200 per cent. *ad valorem!* For, the price of the tea sold by the Company being forced up to nearly double what it would have been under a free system, it followed, inasmuch as the duty varied directly as the price, that it also was doubled when the latter was doubled. The price of congou in Hamburg, for example, varied, during the latter years of the monopoly, from 1*s.* 2*d.* to 1*s.* 4*d.* per lb.; and had the Company supplied our markets with congou at the same rate, it would have cost us, duty included, nearly 2*s.* 4*d.* and 2*s.* 8*d.* per lb. But instead of this, the congou sold by the Company was, at an average, a good deal above 2*s.* per lb.; and, the duty being as much, it invariably cost from 4*s.* to 5*s.* per lb. Hence, though the duty was only 100 per cent. on the Company's price, it was really above 200 per cent. on the price of tea in an open market! The mischief of the monopoly was thus greatly aggravated; inasmuch as every addition made by it to the cost of the article, made an equal addition to the duty on it.

The *ad valorem* duties ceased on the 22d of April, 1834; and, under the act 3 & 4 Will. 4. c. 101. all tea imported into the U. Kingdom for home consumption was charged with a customs duty as follows:—

Bohea	1*s.* 6*d.* per lb.
Congou, twankay, hyson skin, orange pekoe, and campoi	2*s.* 2*d.*
Souchong, flowery pekoe, hyson, young hyson, gunpowder, imperial, and other teas not enumerated	3*s.* 0*d.*

If we compare these duties with the wholesale prices of tea, they will be seen to have been exceedingly heavy, particularly on bohea and congou. Bohea may be sold, exclusive of duty, at or under 10*d.* or 1*s.* per lb.; so that the fixed duty was equivalent to an *ad valorem* duty of 150 per cent. or upwards! But to impose such a duty on an article fitted to enter largely into the consumption of the lower classes, seems to be in the last degree oppres-

sive. It must have gone far to neutralise the beneficial effects that would otherwise have resulted from the abolition of the monopoly; and by confining the consumption of the article within comparatively narrow bounds, have rendered the duty less productive than it would have been had it been lower. In consequence, however, of the complaints of the importers of tea that the discriminating duties were not, and could not be, fairly assessed, and that teas were sometimes charged at 2*s.* 2*d.* or 3*s.* per lb. that should only have paid 1*s.* 6*d.*, the duty was repealed in about two years, by the act 5 & 6 Will. 4. c. 32., which enacted that an equal duty of 2*s.* 1*d.* per lb. (increased in 1840 to 2*s.* 2¼*d.*) should be charged, after the 1st of July, 1836, on all teas entered for consumption in the U. Kingdom.

Considering the very great differences in the qualities and the prices of the different varieties of tea, it would have been extremely desirable, had it been practicable, that the duty on them should have been assessed on an *ad valorem* principle. But after the Company's sales had ceased, and the trade had been fully opened, this was no longer possible; and it was found in the case of tea, as of wine, sugar, and similar articles, that it was better to adopt an unfair principle which could be fairly carried out, than to adopt a principle which, though fair in the abstract, was sure in its practical operation to lead to every species of abuse.

We remarked on this subject in our Treatise on Taxation, as follows: —

"But while we admit that the necessity of the case, or the impossibility of fairly assessing discriminating duties on the different varieties of tea, fully justified their repeal, and the imposition of a single duty in their stead, we contend that nothing can justify the magnitude of this single duty, which is, beyond all question, the most objectionable in our tariff.

"It has, we are aware, been alleged that the duty of 2*s.* 2¼*d.* per lb. is not really so bad as it looks; that it is a mistake to suppose that the lower classes use inferior teas, and that the reduction of the duty on them would not materially increase their consumption! But those who make such statements either know nothing of the facts of the case, or reckon on the ignorance of those to whom they address themselves. It appears from the official returns, that in 1816-17 and 1817-18 the price of bohea sold at the Company's sales was about 2*s.* 6*d.*; so that it must have cost the buyer, duty included, about 5*s.* per lb.; and in these years the consumption amounted, at an average, to 1,784,000 lbs. a year. But in 1830-31 and 1831-32, when the price of bohea to the buyer was reduced to 3*s.* 4*d.* per lb. (1*s.* 8*d.* price and 1*s.* 8*d.* duty), the consumption rose to 6,285,000 lbs.; showing, beyond all dispute, that a fall of 1*s.* 8*d.* in the price of bohea had more than trebled its consumption! And though St. Augustine has said that *nullum mendacium tam impudens est ut teste careat*, we hardly think that any one will venture to affirm in the teeth of an experiment like this, that bohea would not be used, if it could be procured by the poorer classes; or that the demand for it would not be very greatly extended by a reduction of 1*s.* 2*d.* or 1*s.* 3*d.* per lb. in its price.

"Taking the average price of bohea in bond in London at 8*d.*, 10*d.*, or 1*s.* per lb., a duty of the same amount would, of course, be equal to an *ad valorem* duty of 100 per cent., which is certainly high for a duty on a necessary consumed by the poor. But even with a duty of 1*s.* per lb. bohea might be retailed at 2*s.* or 2*s.* 2*d.* per lb.; and at this price there can be no manner of doubt that the consumption would amount to 10 or 12,000,000 of pounds. The reduction of the duty on congou to 1*s.* per lb. would, also, be of the greatest importance to the lower and middle classes; and the powerful stimulus it would give to consumption, and consequently, also, to the demand for sugar, which is indispensable to the use of tea, makes it all but certain, that in no very lengthened period the revenue would lose little by the change.

"We admit, however, that a reduction of the duty to 1*s.* per lb. would occasion at the outset a very considerable loss of revenue, amounting to, perhaps, from 1,000,000*l.* to 1,500,000*l.* a year. But this loss might be advantageously compensated by adding ½ per cent. to the house-tax, and extending it to all houses under 10*l.* a year. A measure of this sort, besides being just and proper in itself, would be in accordance with the precedent set by Mr. Pitt in 1784. And while it would be advantageous to the trade of the country, the occupiers of houses would gain more by the fall in the price of teas than they would lose by the imposition and increase of the house-tax. A duty of 4 per cent. on a house of 10*l.* a year would only amount to 8*s.* And supposing the duty on black teas to be reduced to 1*s.* per lb., a fall of 1*s.* 2¼*d.* per lb. would be effected in the price; so that, supposing the consumption of tea by families occupying 10*l.* houses to amount, at an average, to only 10 lbs. a year, they would save 3*s.* 10½*d.* a year, or nearly half their house-tax, by the commutation.

"Taking the price of bohea and low congou in bond in London at 1*s.* per lb. (and it is usually less), the duty of 2*s.* 2¼*d.*, with which they are at present charged, is equivalent to an *ad valorem* one of considerably more than *two hundred* per cent.; whereas, taking the price of the hyson and other superior teas consumed by the rich at from 3*s.* to 4*s.* per lb., the duty on them does not exceed from about 50 to 67 per cent. *ad valorem*, that is, it does not amount to more than from ⅓ to ¼ part of the duty laid on the teas consumed by the poor! Surely, however, this is neither an age nor a country in which an anomaly of this sort can be safely maintained. The public necessities require that the tea, sugar, and other necessaries of the poor should be taxed; but the obvious principles of justice, also, require that the duties on them should be, if not lower, at all events no higher than those laid on the necessaries or luxuries of the rich. The existing tea duties contradict this plain principle, and are at once unjust and exorbitant. The duty on bohea and the lower congous should not, in fact, exceed 6*d.* or 8*d.* per lb., and means may be found, in the commutation we have ventured to suggest, of reducing it to that amount.

"It has been supposed that such an effectual reduction of the duties on tea would greatly increase our trade with China. But others doubt whether such would be the case, so far, at least, as regards our exports, and we are inclined to agree with them. The demand of the Chinese for opium far exceeds their demand for any other foreign product; and it is at present, and has long been, the most advantageous article of export to China. The presumption, consequently, is, that were increased quantities of tea sent from China, it would lead rather to an increase of the imports of opium than of the cottons or hardware of England; or it might, perhaps, check or lessen the heavy drain for bullion that is now operating on China. But though it might not increase our exports to China, it would not fail to make a corresponding addition to those to India, which furnishes the opium sent to China. Every increase of imports is sure to occasion, directly or indirectly, an equal increase of exports. But whatever may be its immediate or remote influence on the trade with the East, a reduction of the duty on tea is required by other and more pressing considerations, by a regard to the well-being of our own people, and to those principles of equal and impartial justice with which the duty we have suggested is in perfect harmony, and to which the present duty on tea is in direct contradiction." — (*Treatise on Taxation*, 2d. ed. p. 348.)

The plan we ventured to suggest for a commutation of the duty was not adopted,

but we are glad to have to say that its effectual reduction was determined on. All parties appear to have become satisfied that the former duty could no longer be maintained Its reduction formed a prominent feature in the Budget proposed by Mr. Disraeli; and after the rejection of the latter, it formed an equally prominent feature in the Budget introduced by Mr. Gladstone, and was afterwards passed into a law; the duty being regulated as follows, viz.—

To 5th April, 1854.	From 5th April, 1854, to 5th April, 1855.	From 5th April, 1855, to 5th April, 1856.	From and after 5th April, 1856.
1s. 10d. per lb.	1s. 6d. per lb.	1s. 3d. per lb.	1s. 0d. per lb.

But, among its other mischievous effects, the war with Russia made it necessary, not merely to suspend this arrangement, but to raise the duties to 1s. 9d. per lb., at which rate they continued till the 6th April, 1857, when they were reduced to 1s. 5d. per lb.

We beg to subjoin an estimate, which we have submitted to the highest mercantile authorities, showing in detail the different items which enter into the price of tea, and its cost to the public.

Estimate of the Cost to the Public of the Tea retained for Home Consumption in the U. Kingdom, supposing it to amount to 70,000,000 lbs.

	£
Cost of tea free on board in China, all charges inclusive, 70,000,000 lbs. at 1s. per lb.	3,500,000
Freight at 4l. per ton, measuring 50 cubic feet, and averaging about 1000 lbs. of tea to the ton	280,000
Landing charges and dock rates	125 000
Marine insurance and incidental charges, 3 per cent.	105,000
Interest for 6 months on the price of tea in China	87,000
Cost of tea in England	4,097,000
Duty	4,958,000
Outlay, and profits of wholesale and retail dealers, &c.	1,800,000
	£10,855,000

Making the average cost to the consumer very near 3s. 2d. per lb.

We believe that this estimate comes as near the mark as it is possible to do in such inquiries. It sets the oppressiveness of the late duty in a striking point of view. It may be supposed, perhaps, that we have overrated the profits of the dealers; but we do not admit that such is the case. There are above 140,000 retail dealers in tea, and taking their profits at 10l. each at an average, they would exceed 1,400,000l. It should, also, be borne in mind that the profits made by the retail of tea are to be regarded as including the greater part of those made by the retail of sugar, which is sold almost at its cost price. Indeed, very many grocers will not supply customers with sugar unless they also supply them with tea.

The following statements in regard to the deliveries, &c., and prices of tea, are derived from the valuable circular of Messrs. Thompson, of 38. Mincing Lane.

Imports and Deliveries of Tea in the U. Kingdom in 1857 and 1858, with the Stocks on the 31st December in each Year.

Description of Tea.	Imports.		Deliveries.		Stock, 31st December.	
	1857.	1858.	1857.	1858.	1857.	1858.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
Bohea	20,000	- -	5,000	4,000	25,000	21,000
Congou	44,681,000	53,852,000	55,412,000	60,102,000	58,288,000	52,018,000
Pouchong	405,000	38,000	148,000	230,000	291,000	99,000
Caper { plain	115,000	117,000	76,000	145,000	155,000	109,000
Caper { scented	799,000	2,654,000	2,145,000	1,992,000	1,075,000	1,717,000
Souchong, Oolong, &c.	2,372,000	2,957,000	3,846,000	2,661,000	3,473,000	3,769,000
Flowery and black leaf pekoe	708,000	202,000	670,000	570,000	651,000	286,000
Orange pekoe { plain	277,000	173,000	347,000	240,000	310,000	243,000
Orange pekoe { scented	1,531,000	5,082,000	3,128,000	5,506,000	1,659,000	3,235,000
Twankay	669,000	187,000	623,000	482,000	941,000	646,000
Hyson skin	80,000	19,000	111,000	114,000	331,000	236,000
Hyson	1,373,000	865,000	1,125,000	1,152,000	1,633,000	1,346,000
Young hyson	5,996,000	2,502,000	5,965,000	2,797,000	3,962,000	3,467,000
Imperial	594,000	295,000	491,000	379,000	462,000	376,000
Gunpowder	5,264,000	4,353,000	5,537,000	5,682,000	3,917,000	2,673,000
Sorts and Assam tea	1,310,000	946,000	1,136,000	966,000	1,270,000	1,250 000
For exportation only	3,000	- -	1,000	- -	4,000	4,000
Total	64,495,000	74,000,000	78,760,000	81,000,000	78,500,000	71,500,000
Black	51,780,000	65,666,000	66,531,000	69,132,000	66,760,000	61,333,000
Green	12,713,000	8,334,000	12,229,000	11,868,000	11,740,000	10,167,000

	1857. Lbs.	1858. Lbs.
Total delivered	78,760,000	81,000,000
Exported	9,600,000	8,000,000
Home consumption	69,160,000	73,000,000

Prices Current of Teas in London, in Bond, on the 31st December.

	1855.		1856.		1857.		1858.	
	Per lb.		Per lb.		Per lb.		Per lb.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Congou, ordinary	0 8½	to 0 9	0 0	to 0 11	0 10	to 1 0	0 9½	to 0 10½
good ordinary to but middling	0 9¼	0 9½	0 11½	0 11½	1 0½	1 0¾	0 10¾	0 11
but middling	0 0	0 9¾	0 0	0 11½	0 0	1 1	0 11	0 11½
but middling rather coarse to rather strong	0 9½	0 10	0 0	1 0	1 2	1 3	1 0	1 1
but middling blackish leaf, 2nd cl., Ho How and Ning Chow	1 1	1 4	1 3	1 6	1 4	1 5	1 2	1 5
but middling blackish leaf, Sinchukye kind	1 0	1 2	1 3	1 5	1 4	1 7	2	1 4
but middling to middling, Pekoe, Souchong, and Kaisow	1 4	1 8	1 6	1 9	1 8	1 11	1 6	1 11
but middling to middling blackish leaf, pekoe flavour, Moning	1 5	1 6	1 6	1 10	1 6	1 11	1 5	1 10
extra fine, Moning, Oopack, and Kaisow	1 8	2 6	2 0	2 4	2 0	2 8	2 0	2 6
Ning Yong and Oolong, fair to fine	0 10	1 10	0 11½	2 0	1 4	2 4	1 2	2 5
Souchong, ordinary	0 9½	0 10	0 11½	1 0	1 2	1 3	1 0	1 2
fair to good	0 11	1 3	1 2	1 4	1 4	1 8	1 4	1 6
fine to finest	1 5	2 6	1 6	2 6	1 10	2 6	1 8	2 6
Flowery pekoe, fair to good	1 4	1 6	1 10	2 3	2 6	2 8	3 0	3 6
fine to very fine and flowery	1 9	4 0	2 6	4 0	3 0	4 6	4 0	4 6
Caper, scented	1 3	1 11	1 1	1 10	1 4	2 0	1 11	2 6
Orange pekoe, plain, fair to fine	0 0	0 0	1 0	1 4	1 2	1 8	0 7	1 8
scented, common in 10 catty boxes	1 2	1 4	1 2	1 4	0 0	1 10	1 0	1 3
ditto fair to fine ditto	1 6	2 6	1 6	2 4	2 0	3 0	1 6	2 6
Twankay, common	0 5	0 6	0 9	0 10	0 6	0 9	0 8	0 9
fair to good	0 8	0 11	0 11	1 0	0 10	0 11	0 10	0 11
fine to Hyson kind	1 0	1 2	1 1	1 3	1 0	1 2	1 0	1 2
Hyson skin, common	0 5	0 7	0 9	0 10	0 6	0 8	0 6	0 8
good to fine	0 8	1 2	0 11	1 2	0 9	1 0	0 9	1 0
Hyson, ordinary to common	1 2	1 4	1 3	1 4	1 1	1 4	1 1	1 3
fair	1 5	1 6	1 5	1 7	1 6	1 8	1 4	1 5
good to fine	1 7	2 0	1 8	2 0	1 10	2 2	1 8	2 0
fine to superfine	2 0	4 0	2 4	4 0	2 4	3 6	2 6	4 9
Young hyson, Canton	0 6¾	0 10	0 9	0 10	0 7	0 11	0 5	0 8
Twankay	0 9	1 3	0 11	1 3	0 10	1 4	0 8	1 3
Hyson	1 4	2 6	1 4	2 4	1 6	2 4	1 5	2 6
Imperial, Canton	0 11	1 1	1 0	1 1	0 11	1 0	0 10	1 0
Twankay	1 0	1 4	1 1	1 4	1 1	1 4	0 9	1 5
Hyson	1 5	2 4	1 5	2 4	1 5	2 4	1 4	2 2
Gunpowder, Canton fair to fine	0 8	1 6	0 10	1 6	1 1	1 6	0 10	1 4
Twankay	1 1	1 7	1 2	1 6	1 3	1 8	1 1	1 6
Hyson	1 8	4 0	1 8	3 6	1 10	3 6	1 8	3 6
Assam tea	1 6	4 4	1 1	4 4	1 6	4 6	1 6	4 6

Capacity of China to furnish additional Supplies of Tea.—It has been sometimes contended, that were the duties on tea materially reduced, the increased demand of this country could not be supplied, and that the reduction of the duty would not really benefit the British consumer, but the Chinese. Our readers will hardly expect that we should enter at any length into the refutation of so absurd a notion. At the commencement of last century, the entire annual consumption of tea in this country, the Continent, and America, did not certainly amount to 500,000 lbs.; whereas the consumption of Great Britain, the Continent, the U. States, and Australia, amounts at present (1859) to about 130,000,000 or 140,000,000 lbs.; and yet every one acquainted with the history of the trade is aware that, though the consumption has increased more than *two hundred and sixty times*, the prices in all open markets have, with few exceptions, been regularly declining. We may, therefore, rest quite easy upon this point. The production of tea is rapidly extending in China; and its vast extent, its capacities for raising unlimited quantities of tea, and the extent to which it is there used, negative the idea that any conceivable increase of the consumption of this country should have any perceptible or permanent influence on its cost price. But it is, at the same time, very possible that the occurrence of rebellion or extensive commotions in the country may for a while interrupt the usual supply, and occasion a temporary rise of price.

The Quantities of Tea exported by Sea from China in ordinary Years may (1859) be estimated as follows, viz.:—

The United Kingdom	lbs. 80,080,000	India	lbs. 1,000,000
The United States	56,000,000	Other places	5,000,000
Australia	10,000,000		
Holland	4,000,000	Total	136,000,000

The exports of tea to Russia by land amount to 14,000,000 or 15,000,000 lbs. a-year.

Retail Dealers in Tea.—Retailers in tea are obliged to take out a licence, which costs 11*s.* 6½*d.* a-year. In 1858 their numbers were, in Great Britain, 123,328, and in Ireland 10,444.

ADULTERATION OF TEA.—It might have been fairly enough anticipated, from the high price of, and the high duty on tea, and the facility with which it may be mixed up with foreign substances, that it would not escape adulteration: and the records of the courts of justice show that such is the case; several dealers having been convicted of this pernicious practice. The adulteration is usually effected either by the intermixture of sloe or ash leaves with fresh teas; or by mixing the latter with tea that has been already used. The penalties on such offences are stated below; but the best, or rather the only, security on which any reliance can be placed, is to be found in the character and respectability of the parties dealing in tea. Even were he influenced by nothing else, it would be extreme folly in any person carrying on an extensive business to engage in such dishonest practices; for they can hardly fail of being detected; and the ruin of his business, that would follow such exposure, would far more than balance whatever gains he could hope to make by his fraudulent schemes.

Penalties on Adulteration.—If any dealer in or seller of tea dye or fabricate any sloe or other leaves in imitation of tea, or mix or colour leaves of tea with terra Japonica or other ingredient, or vend or expose to sale, or have in possession the same, he shall forfeit for every pound of such adulteration, 10*l.*—(4 *Geo.* 2. *c.* 14. *s.* 11.)

Every person, whether a dealer in or seller of tea, or not, who shall dye or fabricate any sloe leaves, liquorice leaves, or

the leaves of tea that have been used, or the leaves of the ash, elder, or other tree, shrub, or plant, in imitation of tea, or who shall mix or colour such leaves with terra Japonica, copperas, sugar, molasses, clay, logwood, or other ingredient, or who shall sell or expose to sale, or have in custody, any such adulterations in imitation of tea, shall for every pound forfeit, on conviction, by the oath of 1 witness, before 1 justice, 5*l.*; or on non-payment, be committed to the house of correction for not more than 12 nor less than 6 months.—(17 *Geo. 3. c.* 29. *s.* 1.)

Any person having in possession any quantity exceeding 6 pounds of sloe, ash, or elder leaves, or the leaves of any other trees, plant, or shrub, green or manufactured, and shall not prove to the satisfaction of the justice hearing the matter that the same were gathered with the consent of the owner of the trees, &c., and that they were gathered for some other purpose than that of being fabricated in imitation of tea, shall forfeit 5*l.* for every pound in his possession, or, on non-payment, be committed to prison.—Sect. 2.

If an officer of excise, or other person, make oath that he suspects herbs dyed, or otherwise prepared in imitation of tea, are hid or lodged in any place, a justice may issue a warrant for seizing the same by day or night, (in the night in presence of a constable,) together with all wagons, tubs, and packages in which they may be contained; the herbs may be directed to be burnt, and the wagons, &c. sold, and after deducting expenses, the proceeds to be shared, ½ to informer, and ½ to poor of the parish. Obstructing such seizure subjects the offender to a penalty of 50*l.*, or not less than 6 nor more than 12 months imprisonment.—Sect. 3.

Herbs not to be burnt, if owner can prove, within 24 hours, that they were gathered with consent of proprietor of trees, plants, or shrubs, and that they were not intended to be fabricated in imitation of tea.—Sect. 4.

Occupier of premises where herbs are found, liable to the penalties, unless he can prove they were lodged without his consent.—Sect. 5.

Consumption of Tea on the Continent and in the U. States.—Of the Continental states, Russia and Holland are the only ones in which the consumption of tea is considerable. In 1848, the imports of tea into Russia amounted to 253,429 poods, or 9,123,444 lbs., in chests, and 116,249 poods in bricks. The former consists almost entirely of the finest varieties of black tea. The consumption of tea in Holland amounts to about 3,000,000 lbs. a year; the duty on which varies from 1⅛*d.* to 4½*d.* per lb. The consumption of France does not exceed 350,000 lbs. The importations into Hamburg vary between 1,500,000 and 2,000,000 lbs., the greater part of which is forwarded to the interior of Germany.

The consumption of the U. States amounts to from 30,000,000 to 32,000,000 lbs. a year. Duties on tea used to form one of the largest items of American revenue, having in some years produced 650,000*l.* Their magnitude, however, was justly complained of; and it is probably owing to this circumstance that, while the consumption of tea was for several years pretty stationary in the U. States, that of coffee increased with even greater rapidity than in England. The secretary of the treasury of the U. States, in his Report for 1827, observed,—"The use of tea has become so general throughout the U. States, as to rank almost as a necessary of life. When to this we add that there is no rival production at home to be fostered by lessening the amount of its importation, the duty upon it may safely be regarded as too high. Upon some of the varieties of the article it considerably exceeds 100 per cent., and is believed to be generally above the level which a true policy points out. A moderate reduction of the duty will lead to an increased consumption of the article, to an extent that, in all probability, would, in the end, rather benefit than injure the revenue. Its tendency would be to enlarge our trade and exports to China; a trade of progressive value, as our cottons and other articles of home production (aside from specie) are more and more entering into it. It would cause more of the trade in teas to centre in our ports; the present rate of duty driving our tea ships, not unfrequently, to seek their markets in Europe, not in the form of re-exportation, but in the direct voyage from China. It would also serve to diminish the risk of the U. States losing any portion of a trade so valuable, through the policy and regulations of other nations." These judicious suggestions could not fail to command attention; and the flourishing state of the revenue in subsequent years having admitted of a very great reduction of duties, those on tea were wholly repealed. As was to be expected, the consumption has since rapidly increased.

TEAK WOOD, OR INDIAN OAK, the produce of the *Tectona grandis*, a large forest tree, that grows in dry and elevated districts in the south of India, the Burman empire, Pegu, Ava, Siam, Java, &c.

Teak timber is by far the best in the East; it works easily, and, though porous, is strong and durable; it is easily seasoned, and shrinks very little; it is of an oily nature, and, therefore, does not injure iron. Mr. Crawfurd says, that in comparing teak and oak together, the useful qualities of the former will be found to preponderate. "It is equally strong, and somewhat more buoyant. Its durability is more uniform and decided; and to insure that durability it demands less care and preparation; for it may be put in use almost green from the forest, without danger of dry or wet rot. It is fit to endure all climates and alternations of climate."—(See *Tredgold's Principles of Carpentry*, p. 206.; *Crawfurd's East. Archip.*, vol. i. p. 451.; *Rees's Cyclopædia, &c.*)

The teak of Malabar, produced on the high table land of the south of India, is deemed the best of any. It is the closest in its fibre, and contains the largest quantity of oil, being at once the heaviest and the most durable. This species of teak is used for the keel, timbers, and such parts of a ship as are under water: owing to its great weight, it is less suitable for the upper works, and is not at all fit for spars. The teak of Java ranks next to that of Malabar, and is especially suitable for planking. The Rangoon or Burman teak, and that of Siam, is not so close grained or durable as the others. It is, however, the most buoyant, and is, therefore, best fitted for masts and spars. Malabar teak is extensively used in the building-yards of Bombay. Ships built wholly of it are almost indestructible by ordinary wear and tear; and instances are not rare of their having lasted from 80 to 100 years; they are said to sail indifferently; but this is probably owing as much to some defect in their construction, as to the weight of the timber. Calcutta ships are never wholly built of teak; the timbers and framework are always of native wood, and the planking and deck only of teak. The teak of Burma, being conveyed with comparatively little difficulty to the ports of Rangoon and Maulmain, is the cheapest and most abundant of any, and it is mainly owing to the facility with which supplies of it are obtained that ship-building is now carried on so very extensively at Maulmain. It is largely exported to Calcutta and Madras.—(See RANGOON.)—(*Private information.*)

A species of timber called African teak is pretty largely imported into England, from the west coast of Africa. But, in point of fact, it is not teak, and it is destitute of several of its most valuable properties. It is, however, for some purposes, a useful species of timber.

TEASEL, OR FULLERS' THISTLE (Ger. *Weberdistel, Kratzdistel*; Fr. *Chardon à carder*; It. *Cardo da cardare*; Sp. *Cardeucha, Cardo peinador*).

This plant, which is cultivated in the north and west of England, is an article of considerable importance to clothiers, who employ the crooked awns of the heads for raising the nap on woollen cloths; for this purpose they are fixed round the periphery of a large broad wheel, against which the cloth is held while the machine is turned. In choosing teasles, the preference should be given to those with the largest bur, and most pointed, which are generally called *male teasels*. They are mostly used in preparing and dressing stockings and coverlets; the smaller kind, commonly called the fullers' or drapers', and sometimes the *female teasels*, are used in the preparation of the finer stuffs, as cloths, rateens, &c.

THREAD (Ger. *Zwirn*; Du. *Garen*; Fr. *Fil*; It. *Refe*; Sp. *Hilo, Torzal*; Rus. *Nitki*), a small line made up of a number of fibres of some vegetable or animal substance, such as flax, cotton, or silk; whence its names of linen, cotton, or silk thread.

TILES (Ger. *Dachziegel*; Fr. *Tuiles*; It. *Tegole, Embrici*; Sp. *Tejas*; Rus. *Tscherepiza*), a sort of thin bricks, dried in kilns, and used in covering and paving different kinds of buildings. The best brick earth only should be made into tiles.—(See BRICKS AND TILES.)

TIMBER (Ger. *Bauholz, Zimmer*; Du. *Timmerhout*; Fr. *Bois de charpente, Bois à bâtir*; It. *Legname da fabbricare*; Sp. *Madera de construccion*; Rus. *Ströewoi Gess*;

Pol. *Cembrowina*), the term used to express every large tree squared, or capable of being squared, and fit for being employed in house or ship building. In the language of the customs, when a tree is sawn into thin pieces, not above 7 inches broad, it is called batten; when above that breadth, such thin pieces are called deal. Wood is the general term, comprehending under it timber, dye woods, fire wood, &c.

Timber is generally sold by the load.

The following are the contents of the loads of different species of timber, hewn and unhewn:—

A load of timber unhewn	-	40 cubic feet.	
squared timber	-	50	—
1 inch plank	-	600	square feet.
1½ inch plank	-	400	—
2 inch plank	-	300	—
A load of 2½ inch plank	-	240	square feet.
3 inch plank	-	200	—
3½ inch plank	-	170	—
4 inch plank	-	150	—

36⅔	Russian stand. deals	12	feet long,	1½	inch thick,	11	inch broad,	make 1 load timber.
58⅔	Christiana ditto	11	—	1½	—	9	—	1 —
53⅓	Bram ditto	10	—	1½	—	9	—	1 —
3	Riga logs	-	-	-	-	-	-	1

The price of timber has, owing to the reduction of freight and duties, and the greater facility of importation, fallen very materially since the peace of 1815. We subjoin an account of the wholesale prices of the principal species of timber in Liverpool on the 1st of February, 1859: the duties are given in the Tariff.

Articles.		Prices.			
From B. N. America.					
Pine timber:					
Quebec, yellow	- cubic ft	1s. 2d.	to	1s. 7d.	
St. John, N.B., 18 inches	- —	1 7	,,	1 9½	
Miramichi and B. Chaleur	- —	1 1	,,	1 4	
St. Andrew, N. B.	- —	None.			
Richibucto	- —	1 1	,,	1 3	
N. Scotia and P. Ed.'s Island	- —	1 0	,,	1 1	
Quebec, red	- —	1 4	,,	1 8	
N. Bruns. and N. Scotia	- —	1 1	,,	1 3	
Ditto, spruce	- —	1 0	,,	1 2	
Hackmatack	- —	2 2	,,	1 4	
Oak	- —	2 0	,,	2 6	
Elm	- —	1 5	,,	2 0	
Ash	- —	1 1	,,	1 4	
Birch, St. John, &c. N.B.	- —	1 3	,,	1 7	
N. Scotia and P. Ed.'s Island	—	1 1	,,	1 4	
Masts, yel. pine, 1st qual. calliper	—	2 0	,,	2 9	
Red ditto	- —	1 9	,,	2 3	
Poles or spars, N.B. and N.S. spruce		1 3	,,	1 5	
Deals and battens:					
Quebec yel. pine, 1st qual.	- st. hd.	15l. 10	,,	16l. 10	
Ditto, 2nd quality	- —	9 10	,,	10 10	
Ditto, 3rd quality	- —	7 10	,,	8 0	
Ditto, ditto, spruce	- —	8 0	,,	9 0	
New Brunswick spruce	- —	8 5	,,	8 15	
Ditto, pine	- —	8 0	,,	10 0	
Nova Scotia, &c. spruce	- —	7 15	,,	8 0	
Ditto, pine	- —	7 10	,,	7 15	
Boards, pine	- —	9 0	,,	12 0	
Ditto, spruce	- —	8 10	,,	9 0	
Hardwood planks	- ft. of 2 in.	0s. 2½d.	,,	0s. 2¾d.	
Palings, 4½ feet	- m.	65 0	,,	70 0	
Laths, sawn	- —	18 0	,,	21 0	
Staves, Quebec standard:					
1st quality	- stnd. m.	47l. 10s.	,,	52l. 10s.	
mid. and inferior	- —	35 0	,,	40 0	
ditto, W.O. pun.	- —				
1st quality	- m.	18 0	,,	20 0	
mid. and inferior	- —	13 0	,,	14 0	
ditto, R.O. pun.	- —	9 0	,,	10 10	
ditto, W.O. barrel	- —	6 0	,,	8 0	
N.B. and N.S. red oak					
ash and hhd.	- —	8 0	,,	11 0	
Lathwood	- 4 ft. per fa.	5 0	,,	6 10	
Handspikes, hickory	- doz.	18s. 0	,,	25s. 0	
ash and birch	- —	5 0	,,	7 0	
Oars, ash	- run. ft.	0 2½	,,	0 3¼	
fir	- —	0 1½	,,	0 2	
Sleepers, 9x10x5 Hackmatack	each	3 0	,,	3 6	
pine	- —	2 9	,,	3 3	
hemlock	- —	1 9	,,	2 3	
Furniture and Fancywoods.					
Mahogany, St. Domingo	- ft. 1 in.	0 8	,,	1 1	
Cuba	- —	0 7	,,	0 10½	
Honduras	- —	0 6	,,	0 8½	
Mexican	- —	0 5½	,,	0 7½	
Walnut, Canadian	- —	0 2½	,,	0 3½	
Italian and other kinds	- —	0 5	,,	0 7	
Satinwood, St. Domingo	- —	0 10	,,	1 3	
Bahama, &c.	- ton	7l. 0s.	,,	10l. 0s.	
Cedar, Havana, &c.	- ft. 1 in.	0s. 6d.	,,	0s. 6d.	
pencil	- cubic ft.	3 0	,,	4 6	
Maple, bird-eyed	- ft. 1 in.	0 4	,,	0 7	
Rosewood, Rio de Janeiro	- ton	15l. 0s.	,,	20l. 0s.	
Bahia	- —	10 0	,,	15 0	
Honduras	- —	4 0	,,	6 0	
Zebrawood	- —	7 0	,,	10 0	
Lignumvitæ:					
City St. Domingo	- —	5 0	,,	7 0	
Cuba, P. Cabello, &c.	- —	3 0	,,	5 0	
Bahama	- —	3 10	,,	5 0	
Coruswood	- —	4 10	,,	7 0	
Partridge	- —	12 0	,,	14 0	
Tulipwood	- —	18 0	,,	25 0	
Letterwood	- lb.	0s. 4d.	,,	0s. 6d.	
Ebony, black, African	- ton	7l. 0s.	,,	8l. 0s.	
ditto, Ceylon	- —	7 0	,,	11 0	
Boxwood	- —	4 0	,,	15 0	
Lancewood spars:					
1st quality and large	- each	8s. 0d.	,,	10s. 0d.	
Other kinds	—	5 6	,,	7 6	

Articles.		Prices.			
From the U. States, East and West Indies, and Africa.					
Pitch pine logs, Savannah	- cubic ft.	1s. 8d.	to	2s. 0d.	
Charlestown	- —	1 4	,,	1 6	
planks	- ft. 2 in.	0 2½	,,	0 3	
U. States oak logs	- cubic ft.	1 9	,,	2 6	
planks	- ft. 2 in.	0 4	,,	0 5	
African oak logs, Calliper	- cubic ft.	2 6	,,	3 0	
E. India teak logs ditto	- —	4 0	,,	5 0	
planks ditto	- ft. 2 in.	0 7	,,	0 8	
Greenheart ditto	- cubic ft.	3 0	,,	3 6	
Black Morra ditto	- —	2 6	,,	3 0	
Sabicu ditto	- —	3 0	,,	0 0	
Bullet tree ditto	- —	2 6	,,	3 0	
Locust trenails	- m.	5l. 10s.	,,	8l. 0s.	
Staves, W.O. pipe (3 in. thk.)	M. pcs.	100 0	,,	120 0	
Wine pipe	- —	14 0	,,	21 0	
W.O. hhd.	- —	13 0	,,	29 0	
W.O. barrel	- —	6 0	,,	8 0	
From the Baltic, &c.					
Fir timber:					
Riga, red	- cubic ft.	1s. 6d.	,,	1s. 9d.	
Danzig and Memel crown	- —	1 9	,,	1 10	
Ditto, ditto, other kinds	- —	1 4	,,	1 7	
Stettin	- —	0 0	,,	0 0	
Pillau	- —	0 0	,,	0 0	
Swedish	- —	1 2	,,	1 4	
Norway	- —	1 1	,,	1 2	
Oak timber, Danzig, &c.	- cubic ft.	2 0	,,	2 3	
Wainscot logs:					
Riga, 14 feet long	- each	5l. 10s.	,,	6l. 0s.	
Ditto, 7 feet long	- —	1 10	,,	1 15	
Masts, 6⅔ inches and upwards	- cubic ft.	1s. 9d.	,,	1s. 4d.	
Spars, 4 to 6 inches	- —	1 0	,,	1 1	
Deals, Arch. and Onega:	st. hun.				
1st quality, red	- —	13l. 0s.	,,	13l. 10s.	
2d quality	- —	12 0	,,	12 10	
St. Petersburg,					
1st quality	- —	12 10	,,	13 0	
2d quality, &c.	- —	11 10	,,	12 0	
Wyburgh	- —	10 0	,,	11 0	
Pernau	- —	0 0	,,	0 0	
Riga	- —	9 0	,,	10 0	
Memel	- —	9 0	,,	10 0	
Danzig	- —	8 10	,,	9 0	
Bjorneburg and Abo	- —	8 10	,,	9 0	
Russia, white	- —	8 10	,,	9 0	
Gottenburg, red	- —	9 10	,,	10 0	
Norway	- —	7 15	,,	8 10	
Ditto, white	- —	7 10	,,	8 0	
Battens, Arch., St. Petersbg., &c,					
1st quality, red	- —	14l. 0s.	,,	15l. 0s.	
2d quality	- —	13 0	,,	14 0	
Swed. and Norway	- —	7 15	,,	8 10	

N.B.—Deal ends and batten ends are generally sold at two thirds the price of deals and battens respectively. Those of 8 feet long and under being rated as ends.

Deck planks, crown	- ft. 2 in.	None.			
middling	- —	None.			
Staves, Danzig and Memel					
crown pipe	- 1200 pcs.	to 220l.		0s.	
Ditto, brandy pipe	- —	None.			
Ditto, hhd.	- —	None.			
Ditto, hhd., thin	- —	None.			
Ditto, barrel	- in proportion				
Stettin, crown pipe	- —	None.			
Odessa	- —	None.			
Lathwood, Danz. and M. 6 ft.	fa.	9l. 10s.	to	10l. 10s.	
Ditto, 4 ft.	- —	6 0	,,	7 0	
Stettin, 8 ft.	- —	None.			
Ditto, 4 ft.	- —	None.			
Riga and St. Pg. 8 ft.	—	14 0	,,	16 0	
Ditto, 4 ft.	- —	7 0	,,	8 0	
Handspikes, birch	- dozen	5s. 6d.	,,	7s. 0d.	
Sleepers, 9x10x5, fir	- each	3 3	,,	3 9	

Account of the Importation, Consumption, and Stock of Timber, &c., during the 7 Years ending 1st of February, 1859.—(*From the valuable Circular of Mr. Chaloner, of Liverpool.*)

Articles.	Import, ending 1st February.			Consumption, ending 1st Feb.			Stock, on 1st February.		
	Average of the 5 years, 1853-1857.	1858.	1859.	Average of the 5 years, 1853-1857.	1858.	1859.	Average of the 5 years, 1853-1857.	1858.	1859.
British America.									
Pine: Quebec - cubic feet	3,979,763	3,739,995	3,204,800	3,994,463	3,136,495	3,831,800	2,118,200	2,651,000	2,021,000
St. John - —	1,637,509	1,190,055	1,274,793	1,427,904	1,504,455	1,265,293	895,500	690,500	700,000
other ports. - —	258,797	77,551	86,950	199,599	84,551	90,950	142,400	56,000	52,000
Red pine - - —	287,705	188,677	282,508	285,305	212,677	306,508	160,800	183,000	161,700
Oak, Quebec - - —	505,612	379,184	334,148	516,412	402,684	315,648	182,000	142,500	211,000
Elm - - - —	145,750	154,089	111,190	150,350	152,589	148,690	75,700	99,500	62,000
Ash - - - —	20,917	16,991	25,175	19,417	20,451	16,175	15,350	11,000	18,000
Birch - - - —	406,589	505,893	332,998	418,289	430,393	421,998	119,400	177,000	88,000
Fir planks, N.B. and N.S. - standard	55,691	47,194	43,462	50,916	58,151	52,639	27,284	27,002	17,825
Boards - - —	446	799	468	467	523	588	183	335	215
Deals, Quebec - - —	5,515	7,883	11,295	5,675	6,168	11,200	2,764	3,569	3,661
Standard staves - mille	556	417	460	368	405	371	217	218	307
Puncheon - - —	780	490	812	569	623	693	467	125	274
Lathwood - - fathoms	1,157	994	524	1,157	979	732	277	273	65
Sleepers - - pieces	15,832	1,356	- -	32,558	6,068	- -	11,093	654	
Baltic.									
Timber, Dantzig, Memel, Riga, &c. cubic feet	773,354	410,786	626,494	806,354	661,786	688,494	380,100	212,000	150,000
Deals - - standard	1,564	3,470	1,533	1,523	1,835	2,939	970	2,537	931
Battens - - —	426	282	51	390	218	201	497	241	68
Wainscot logs - { whole	254	144	844	398	455	1,743	173	44	145
Wainscot logs - { half	10	75	477	52	128	46	60	- -	16
Deck planks - pieces	8	- -	- -	21					
Staves, pipe, &c, - M.	39	40	19	34	41	27	30	12	5
Lathwood - - fathoms	801	747	412	877	745	617	331	279	104
Sleepers - - pieces	11,587	15,226	20,690	11,219	15,199	18,627	8,544	1,377	7,440
From the United States, East and West Indies, and Africa.									
Mahogany: Honduras logs	5,450	3,956	3,664	5,449	2,412	4,835	817	1,721	550
Mexican - —	- -	2,458	2,935	-	2,423	2,684	- -	34	335
St. Domingo —	16,827	19,780	10,116	16,742	17,892	10,641	2,560	4,113	3,588
Cuba - —	1,911	3,462	2,355	1,926	3,178	2,387	291	288	2 6
Cedar: Havannah, Surinam, & Honduras	756	1,937	1,734	799	1,359	2,211	85	627	1 0
Pencil - - cubic feet	15,221	15,999	16,151	13,461	20,499	17,155	7,674	3,000	1,996
Pitch pine - - —	550,929	1,357,578	344,775	506,029	963,578	822,075	157,700	693,500	216,200
East India teak and African oak - —	93,358	165,132	199,892	135,736	124,732	116,392	44,060	62,500	146,000
Greenheart & Morra —	33,340	142,539	69,797	42,488	83,059	87,297	12,300	67,500	50,000

Cargoes of Timber, &c. from British America and the Baltic, for the last 12 Years.

Year ending 1st Feb.	British America.		Baltic.	
	Vessels.	Tonnage.	Vessels.	Tonnage.
1848	314	172,427	84	26,564
1849	316	190,186	81	26,163
1850	393	225,785	57	14,141
1851	360	209,731	43	11,768
1852	573	242,598	95	26,562
1853	382	253,951	61	18,820
1854	498	337,635	129	40,545
1855	421	311,109	69	19,569
1856	397	307,294	37	10,825
1857	433	321,059	74	24,146
1858	378	269,476	49	19,597
1859	303	240,751	50	16,396

TIMBER TRADE. Having, in separate articles, described those species of timber most in demand in this country, we mean to confine ourselves in this article to a few remarks on the policy of the regulations under which the trade in timber is conducted.

1. *Importance of a cheap Supply of Timber.* — It is surely unnecessary to enter into any lengthened statements on this head. If there be one article more than another with which it is of primary importance that a great commercial and manufacturing nation like England should be abundantly supplied on the lowest terms, that article is timber. Owing to the deficiency of our home supplies, most part of the timber, with the exception of oak, required for building ships and houses; and most part, also, of that employed in the construction of machinery; is imported from abroad. Any individual acquainted with the purposes to which timber is applied, but ignorant of our peculiar policy with respect to it, would never, certainly, imagine that such an article could have been made the subject of oppressive duties, and of still more oppressive preferences. Timber is not to be looked at in the same light as most other commodities. It is against all principle to impose heavy duties on materials intended to be subsequently manufactured; but timber is the raw material of the most important of all manufactures — that of the instruments of production. Suppose it were proposed to lay a heavy duty on ships, waggons, looms, or workshops when completed; would not such a proposal be universally scouted? And yet this is what was really done. The finished articles were not, indeed, directly taxed; but the principal material of which they were made, and without which they could not be constructed, was burdened with an exorbitant duty! To dwell on the impolicy of such a tax would be worse than useless. Of all things essential to the prosperity of manufacturing industry, improved and cheap machinery is the most indispensable.

Most individuals amongst us are ready enough to ridicule the contradictory conduct of the French government, who, at the very moment that they are endeavouring to bolster up a manufacturing interest, lay enormous duties on foreign iron, and thus double or treble the price of some of the most important manufacturing implements. Timber is, however, of quite as much importance in this respect as iron; and our conduct in having burdened it with exorbitant duties partook as largely of the *felo-de-se* character as that of our neighbours! Indeed, as will be immediately seen, it was perhaps less defensible. Some plausible, and probably conclusive, reasonings may be urged in defence of moderate duties on iron and timber, when they are imposed for the sake of revenue: but this apology for financial rapacity cannot be set up in defence of the iron duties of France or the late timber duties of England. The former, however, were the least objectionable; they were imposed, and are still kept up, to encourage the production of iron in France: whereas the duties on timber in England were imposed for the sake, principally, of promoting the lumber trade of Canada, and of forcing the employment of a few thousand additional tons of shipping! We did not sacrifice the goose for the sake of the golden eggs, but for the sake of the offal she had picked up.

2. *Origin and Operation of the discriminating Duty in favour of American Timber.* — The practice of encouraging the importation of the timber of Canada and our other possessions in North America in preference to that of foreign countries, is but of recent growth. It took its rise during the administration of Mr. Vansittart, and bears in every part the impress of his favourite policy. The events that took place in 1808 having seriously affected our previous relations with the Baltic powers, a deficiency in the accustomed supply of timber began to be apprehended; and the ship owners and Canada merchants naturally enough availed themselves of this circumstance, to excite the fears of the ministry, and to induce them to change the fair and liberal system on which the trade in timber had been conducted down to that time, by granting extraordinary encouragement to its importation from Canada. Even as a temporary expedient, applicable to a peculiar emergency, the policy of giving any such encouragement is extremely doubtful. Supposing timber not to have been any longer obtainable from the north of Europe, its price would have risen, and it would, of course, have been imported from Canada, the U. States, or wherever it could be had, without any interference on the part of government. But, in 1809, a large addition was made to the duties previously charged on timber from the north of Europe, at the same time that those previously charged on timber from Canada and our other possessions in America were almost entirely repealed; and in the very next year (1810), the duties thus imposed on Baltic timber were *doubled!* Nor did the increase of duties on such timber stop even here. In 1813, after Napoleon's disastrous campaign in Russia, and when the free navigation of the Baltic had been restored, 25 per cent. was added to the duties on European timber! The expediency of increasing the revenue was, no doubt, pleaded in justification of this measure; but we believe it was really intended to augment the preference in favour of Canada timber; for how could it be supposed that an increase of the duties on an article imported from a particular quarter of the world, that was already taxed up to the very highest point, could add any thing considerable to the revenue, when a convertible article might be imported from another quarter duty free? The various duties laid on European timber amounted, when consolidated by the act 59 Geo. 3. c. 52., to 3*l.* 5*s.* per load.

Admitting, for the moment, that the peculiar and unprecedented aspect of things in 1808 and 1809 warranted the giving of some preference to the importation of timber from Canada, such preference should plainly have ceased in 1813. So long as the communication with the bridge is interrupted, we may be forced to use a boat to cross the river; but when the communication is again opened, and when there is not the remotest chance of its future interruption, it would be a singular absurdity to refuse to resume the use of the bridge, and to continue the costly and inconvenient practice of being ferried over! This, however, is exactly what we did in the case of the Canada trade. Because a fortuitous combination of circumstances obliged us, upon one occasion, to import inferior timber at a comparatively high price, we resolved to continue the practice! The history of commerce affords few such displays of gratuitous folly.

The absurdity of this conduct will appear still more striking, if we reflect for a moment on the peculiar situation of the countries in the north of Europe. The nations round the Baltic have made little progress in manufacturing industry. They abound in valuable raw products; but they are wholly destitute of the finer species of manufactured commodities, and of colonies. Nor have they any real inducement to attempt supplying themselves directly with the former, or to establish the latter. Their iron and copper mines, their vast forests, and their immense tracts of fertile and hitherto unoccupied land, afford far more ready and advantageous investments for their deficient capital, than could be found in manufactures or foreign trade. Russia and Prussia were,

indeed, tempted, by our corn and timber laws, to exclude some species of manufactured goods; but it is not possible that they should succeed in materially limiting our exports to them, provided we do not second their efforts by refusing to admit their products.

Of all the countries in the world, there is obviously none which has so many facilities for carrying on an advantageous trade with the North as Great Britain. We have a surplus of all those products of which Russia, Prussia, Sweden, Denmark, and Norway stand most in need; and, on the other hand, they have a surplus of many of those of which we are comparatively destitute. The immense traffic we carry on with the Baltic does not, therefore, depend, in any considerable degree, on artificial or accidental circumstances. It does not rest on the wretched foundation of Custom-house regulations or discriminating duties, but on the gratification of mutual wants and desires. It has been justly remarked by the Marquis Garnier, the excellent translator of the "Wealth of Nations," that no inconsiderable portion of the increased power and wealth of England may be traced to the growing opulence of Russia. But the Russian empire is yet only in the infancy of civilisation; she must continue for a very long period to advance in the career of improvement; and it will be our own fault if we do not reap still greater advantages from her progress.

Such is the nature of that commerce against which the discriminating duties on timber from the north of Europe aimed a severe blow! In 1809, when this system began, 428,000 tons of British shipping entered inwards from the Baltic. In 1814, the year after the 25 per cent. of additional duty had been imposed on Baltic timber, and when all the ports of that sea were open to our ships, only 242,000 tons of British shipping entered inwards, being little more than the half of what it amounted to when the system began. And notwithstanding the vast increase, in the interval, of population and wealth in the countries round the Baltic, our trade with the different ports on that sea had not recovered, in 1843, from the blows inflicted on it in 1809 and 1813! It is seen, from the statements previously laid before the reader (see art. Elsineur), that in 1842 only 295,435 tons of British shipping left the Baltic for the U. Kingdom.

The following extract from the evidence of Mr. Edward Patzcker, a merchant of Memel, given before the committee of the House of Commons on the foreign trade of the country, in 1821, shows the effect that the increased duties on timber had on the commerce with Prussia:—

"Has there been a great alteration in the timber trade between Memel and this country of late years?"—"Since the war, a great alteration; before the war we used to have 950 to 1,000 English ships in a year, and since the war we have had from 200 to 300 only."

"When you talk of 900 ships, do you mean 900 ships trading between Great Britain and Memel?"—"Yes."

"Do you mean that number of cargoes were loaded in the year for England?"—"Yes."

"How many cargoes were loaded for Great Britain during the last year (1820)?"—"About 270 or 280 cargoes; there have not been more."

"To what cause do you attribute that diminution in the trade?"—"*To the high duties in England*; for formerly the duties were only 16*s.* and some pence; now they are 3*l.* 5*s.* in a British, and 3*l.* 8*s.* in a foreign ship."

"Has that diminished trade in timber produced a great alteration in the circumstances of the people of Prussia?"—"Yes: for it is the only trade which we can carry on; wheat and all the rest of our articles cannot be brought here; *timber* is the only one that can be brought, and the trade from Poland has very much ceased in consequence of the diminished demand for it; the people cannot sell their goods, and we cannot take such quantities of timber as we used to do; and, therefore, they cannot take English goods from us."

"If such an alteration was to take place in the duties on timber in this country, as to give the Prussians a larger share of the trade than they at present enjoy, do you think that would produce increased friendly feelings on the part of the people of your country to the people of this country?"—"It would. *They would certainly take far more goods from hence*, as they could get better rid of them. The Poles, also, would take more of them.—(*Report*, 9th of March, 1821, p. 107.)

The effect that the increased duties had on the trade with Norway and Sweden, aggravated as they in some degree were by the method of charging the duty on deals, was still more striking and extraordinary. These countries had few products, except timber and iron, to exchange for our commodities; and as neither of these could be advantageously imported into England under the new system, the trade with them almost entirely ceased; and they were reluctantly compelled to resort to the markets of France and Holland for the articles they had formerly imported from us. In proof of this, we may mention, that the exports to Sweden, which amounted in 1814 to 511,818*l.*, declined in 1819 to 46,656*l.*, and even in 1842 were only 199,313*l.*; while the exports to Norway, which had, in 1815, amounted to 199,902*l.*, fell in 1819 to 64,741*l.*, and in 1842 had only increased to 134,704*l.*

This extraordinary falling off in so very important a branch of our commerce having been established beyond all question by evidence taken before the committees of Lords and Commons on the foreign trade of the country in 1820, an approach to a better system was made in 1821, when the duty on timber from the north of Europe was reduced from 3*l.* 5*s.* to 2*l.* 15*s.* per load, at the same time that a duty of 10*s.* per load was laid on timber from British America. This, however, was a comparatively inefficient measure. It was stated, to be sure, at the time, that the

2*l.* 5*s.* per load of excess of duty that was thus continued on Baltic timber over that laid on timber imported from Canada, was not more than enough to balance the higher prime cost, the greater freight, and other charges consequent upon the importation of the latter; and that it would, therefore, be in future indifferent to a merchant whether he imported timber from Memel or Miramichi! In point of fact, however, the discriminating duty continued in favour of Canada timber was far too high to allow of this equalisation being effected. So much so was this the case, that there were instances of ships loading with timber in the north of Europe, carrying that timber to Canada, and then bringing it to England as Canada timber; the difference of duty having been about sufficient to indemnify the enormous expense of this round-about voyage! We do not mean to say that this was a common practice; but what are we to think of a commercial regulation that admitted of such an adventure being undertaken with any prospect of success? Admitting, however, that the duty had been adjusted so as to have had the anticipated effect, could any thing be more preposterous and absurd than to impose it on such a principle? There are mines of coal in New Holland; but what should we think, were an attempt made to impose such duties on coals from Newcastle as should render it indifferent to a London dealer whether he imported a cargo of coal from the Tyne or Botany Bay? Now, the case of the timber duties was, in point of principle, precisely the same. We may obtain timber from countries so near at hand that our ships may make 3, 4, 5, and even 6 voyages a year to them*; and we refused to admit it unless loaded with a duty that raised its price to a level with what was brought from the other side of the Atlantic — a voyage which our ships cannot, at most, perform above twice a year!

3. *Comparative Quality of Baltic and Canada Timber.* — Had the timber of Canada been decidedly superior to that of the north of Europe, something might have been found to say in favour of the discriminating duty; for it might have been contended, with some show of reason, that it was of the utmost consequence, considering the application of timber to ship and house building, and other important purposes, to prevent the importation of an inferior species, even though it might be cheaper. But the system we adopted was of a totally different character. We did not attempt to shut out an article which, though cheap, was inferior; but committed the twofold absurdity of shutting out one that was at once *cheap and superior!*

The committee of the House of Lords observe, in their *First Report on the Foreign Trade of the Country*, that "the North American timber is more soft, less durable, and every description of it more liable, though in different degrees, to the dry rot, than timber of the north of Europe. The red pine, however, which bears a small proportion to the other descriptions of timber, and the greater part of which, though imported from Canada, *is the produce of the U. States*, is distinguished from the white pine by its greater durability. On the whole, it is stated by one of the commissioners of his Majesty's navy, most distinguished for practical knowledge, experience, and skill, that the timber of Canada, both oak and fir, *does not possess, for the purpose of ship building, more than half the durability of wood of the same description, the produce of the north of Europe.* The result of its application to other purposes of building is described by timber merchants and carpenters to be nearly similar."—(p. 4.)

We subjoin the following extracts from the evidence of Sir Robert Seppings, the commissioner alluded to by the committee, whose great intelligence and experience render his opinion of the highest authority: —

"Can you state to the committee the result of any observations that you or others in his Majesty's service have made, on the durability of timber, the produce of the North American colonies, or timber imported from the north of Europe, applied to the same purposes?"—"About the year 1796, there were a certain number of frigates built of the fir of the Baltic, and *their average durability was about* EIGHT *years*. About the year 1812, there were a considerable number of frigates built, also of fir of the growth of North America, and their *average durability was not* HALF *that time.*"

"You have stated that Canada timber is peculiarly subject to the dry rot, and the dry rot is known to have prevailed lately to a great degree in the navy; has that prevailed principally since the application of Canada timber to the uses of the navy?"—"I believe *the navy has suffered very considerably from the introduction of Canada timber*, or timber of the growth of North America; and in consequence, from experience, we have *entirely discontinued the use of it*, except for deals and masts." — (p. 56.)

Mr. Copland, an extensive builder and timber merchant, being asked by the committee what was his opinion with respect to the comparative qualities of American and Baltic timber, answered, —"The timber of the Baltic in general, speaking of Norway, Russian, Prussian, and Swedish timber, is of a very superior quality to that imported from America; the bulk of the latter *is very inferior in quality, much softer in its nature, not so durable, and very liable to dry rot*; indeed, it is not allowed by any professional man under government to be used, nor is it ever used in the best buildings in London; it is only speculators that are induced to use it, from the price of it being much lower (in

* According to the evidence of Mr. J. D. Powles, secretary to the London Dock Company, ships can make *six* voyages from Norway, 3 or 4 from Prussia, and 2 from Russia, in a season. —(*Commons' Report*, p. 89.)

consequence of its exemption from duty) than the Baltic timber; if you were to lay two planks of American timber upon each other, in the course of a twelvemonth they would have the dry rot, almost invariably, to a certain extent." — (p. 56.) And many passages to the same effect might be produced, from the evidence of persons of great experience in building.

But though such was the opinion of the best informed parties at the time, and though its correctness is in some respects not to be doubted, still there can be no question that the inferiority of British N. American timber was set in too strong a light in the evidence referred to, and that it is, in fact, better fitted for several important purposes than Baltic timber. Not only is the red American pine of a very superior quality; but the pine and spruce planks of N. Brunswick and Nova Scotia, especially the latter, are universally preferred for the purposes to which they are applied to all other varieties of timber; and their importation, as is seen from the previous statements (p. 1305), has increased, notwithstanding the reduction of the discriminating duty, beyond all precedent. These circumstances were not, however, known to the parties who introduced the discriminating system, which was at the time, and for long after, most injurious to the best interests of the U. Kingdom.

4. *Apologies for the discriminating Duty.* — If any thing ought, more than another, to make legislators pause before enacting a restrictive regulation, it is the difficulty of receding from it. After it has been enforced for a while, a variety of interests usually grow up under its protection, which may be materially injured by its repeal. All, however, that the persons so interested can justly claim, is, that sufficient time, and every possible facility, should be afforded them to prepare for a change of system. Because the interests of a comparatively small portion of the community may be injuriously affected by the abolition of a regulation ascertained to be inimical to the public, is it, therefore, to be contended that we should, at all hazards, continue to enforce the regulation we have so unwisely enacted? To maintain the affirmative, would be to give perpetuity to the worst errors and absurdities; and would be an effectual bar to every sort of improvement. No change, even from a bad to a good system, should be rashly set about: but when once the expediency of an alteration has been clearly established, it ought to be resolutely carried into effect.

It has been objected to the abolition of the discriminating duties on timber, that it would be injurious to Canada and the shipping interest. We believe, however, that the injury would not be nearly so great as has been represented; that it would, in fact, be quite inconsiderable. So far from the *lumber trade* — or the trade of felling wood, squaring it, and floating it down the rivers to the shipping ports — being advantageous to a colony, it is distinctly and completely the reverse. The habits which it generates are quite subversive of that sober, steady spirit of industry, so essential to a settler in a rude country: to such a degree, indeed, is this the case, that lumberers have been described as the pests of a colony, "made and kept vicious by the very trade by which they live." — But, abstracting altogether from the circumstances now alluded to, it has been shown, over and over again, that the abolition of the lumber trade would materially benefit the real interests of the colonies. It is ludicrous, indeed, seeing that not one tree in a hundred is fit for the purposes of being squared for timber, to suppose that the discontinuance of the trade could be any serious loss. But the fact is, that when trees are cut down by lumberers, for export as timber, instead of being burnt down, so great a growth of brushwood takes place, that it actually costs more to clear the ground where the lumberers have been, than where they have not been. Mr. Richards, who was sent out by government to report on the influence of the lumber trade, represented it as most unfavourable; and observed that, "when time or chance shall induce or compel the inhabitants to desist from this employment, agriculture will begin to raise its head." The statements of Captain Moorsom, in his *Letters from Nova Scotia*, are exactly similar. He considers the depression of the timber market, although a severe loss to many individuals, a "decided gain to the colony," from the check it has given to the "lumbering mania." — (p. 53.)

The statements that have been made as to the amount of capital expended on saw mills, and other fixed works for carrying on the lumber trade, have been singularly exaggerated. Mr. P. Thomson (afterwards Lord Sydenham), who had the best means of acquiring accurate information on this point, made the following statement with respect to it in his speech on the 18th of March, 1831: — "From the means I have had of calculating the amount of capital embarked in these saw mills, I believe it is about 300,000*l.*: I am sure I may say that if 500,000*l.* were taken as the amount, it would be a great deal above rather than under the real value; but after all, this description of property is not to be sacrificed by the arrangements proposed, even if they were carried to the fullest extent. I am ready at once to admit that the consequence of the proposed alteration may be, that it will diminish the exports of timber from Canada to England, and affect the productiveness of the capital vested in the mills to which I

have referred; but the committee ought not to lose sight of the fact, that though in this one branch of industry there will be a great falling off, yet the same amount of labour might be applied to much greater advantage on land in the colonies; and the mills, which will be rendered useless for their original purposes, may be converted into useful auxiliaries to the agricultural and other pursuits of the colonists; so that the enormous losses that have been placed in so frightful a point of view, will, as I have shown, be absolutely next to nothing."

The fact is, that in so far as the interests of the colonies are concerned, it is plain they will not really lose by the repeal of the differential duties on foreign timber. For the quality of their timber being now well ascertained, and the prejudice with which it had formerly to contend having subsided, it is found that it is in great part quite able successfully to maintain its ground, under a free system, with the timber of the Baltic or of anywhere else.

Had the imports of timber from British N. America fallen off to the extent that was once anticipated from the reduction or repeal of the discriminating duty, it would, no doubt, have affected the shipping interest. But it could not, under any circumstances, have done this to any very great extent. And it is material, too, to observe, that whatever temporary inconvenience the shipping interest might sustain from the change, its future consequences would be singularly advantageous to it. The high price of timber employed in the building of ships was then, as it still continues to be, though in a much less degree, the heaviest drawback on the British ship-owners; but an equalisation of the duties would reduce this price; and would, consequently, be in so far advantageous to our ship-owners.

Changes proposed in the Timber Duties in 1831, 1835, 1842, *&c.* — Considering the vicious principle on which the duties on timber have been imposed, and their pernicious influence, the tenacity with which they were long supported, and the little opposition made to them, may well excite surprise. In 1831, Lord Althorp moved that the duties on foreign timber should be reduced 6*s.* a load on the 1st of January, 1832; 6*s.* more on the 1st of January, 1833; and 3*s.* on the 1st of January, 1834; making the whole reduction 15*s.* a load, and leaving a protection in favour of Canada timber of 30*s.* a load. The only real objection to this proposal is, that it did not go far enough, that it "scotched the snake without killing it." But, moderate as it was, it was rejected by a large majority, and the project fell to the ground.

In 1835 a committee of the House of Commons, appointed to inquire into the operation of the duties on timber, agreed to the following resolutions: —

1. That it is the opinion of this committee, that the present mode of taking the duties on deals is susceptible of improvement, and that this committee would recommend that a mode be adopted which shall approach more nearly to a payment according to the contents of the deals.
2. That it is the opinion of this committee, that the difference of duty of 45*s.*, now imposed by law upon timber the produce of Europe, as compared with timber the produce of our North American colonies, is too great, and may be reduced.
3. That it is the opinion of this committee, that, having a due regard to the interests which have been created in the British North American colonies by the system hitherto pursued, and to the representations of the shipping interest, a reduction of the protective duty, not exceeding 15*s.* per load, appears to them to be a fair arrangement.
4. That it is the opinion of this committee, that such reduction be made, so far as may be consistent with the interest of the revenue, without any augmentation on the duty on colonial timber.
5. That it is the opinion of this committee, that, in any alteration made, such alteration should not affect the shipments made in the year 1836.
6. That it is the opinion of this committee, that there should be a uniform mode of taking the duty on deals throughout the U. Kingdom.

But no step was taken to give effect to these resolutions. No private member, unless supported by government, could have expected to succeed in an attempt to accomplish any material modification of the timber duties; and government, influenced, perhaps, by a dread of the difficulties in the way of such an attempt, and not, perhaps, having any strong feeling on the subject, did nothing; so that the trade continued on its old footing down to 1842!

The differential duty of 45*s.* a load in favour of Canada timber was, however, reduced, by the Tariff Act of the above year, from the 10th of October, 1843, to 24*s.* a load on timber properly so called, and to 30*s.* on deals. But, though this was a signal improvement on the previous system, it left much to be desired. It was brought about by reducing the previous duties on foreign timber from 55*s.* to 25*s.* and 32*s.* the load, and the previous duty on British colonial timber from 10*s.* to 1*s.* and 2*s.* per load. While, however, every one must admit that the reduction of the duty on foreign timber was most proper, it is not easy to see why any reduction should have been made in the duty on Canadian timber. Had it been allowed to remain as it was, or at 10*s.* a load, the discriminating duty in favour of colonial timber would have amounted to 15*s.* and 22*s.* a load, which certainly was a great deal too much, at the same time that there would have been comparatively little loss of revenue. The precedent thus set was, however, farther followed up, in 1847, when the discriminating duty was reduced to 14*s.*

And it has since been farther followed up by the act of 1851, the 14 & 15 Vict. c. 62., which imposes a duty of 7*s.* 6*d.* per load on squared timber, and of 10*s.* per do. on deals and battens, brought from foreign countries. If the duty is to be maintained, this is as low as it should be, or, perhaps, lower. But there can be no reason why it should not, and there are many why it should be extended to colonial timber. Probably, indeed, it may be supposed that it had better be repealed. But we beg to dissent from this opinion; though it might be as well, perhaps, to allow ships to be built in bond. But except on them the duty, supposing it were extended to colonial timber, is too limited to have any sensible, or, at all events, any prejudicial effect.

TIN (Ger. *Blech, Weissblech*; Fr. *Fer blanc*; It. *Latta, Banda stagnata*; Sp. *Hoja de lata*; Rus. *Blächa, Shest*; Arab. *Resas*; Sans. *Trapu* and *Ranga*), a metal which has a fine white colour like silver; and when fresh, its brilliancy is very great. It has a slightly disagreeable taste, and emits a peculiar smell when rubbed. Its hardness is between that of gold and lead. Its specific gravity is 7·29. It is very malleable; *tin-foil*, or tin leaf, is about $\frac{1}{1000}$th part of an inch thick; and it might be beat out into leaves as thin again, if such were required for the purposes of art. In ductility and tenacity it is very inferior. A tin wire 0·078 inch in diameter is capable of supporting a weight of 34·7 pounds only without breaking. Tin is very flexible, and produces a crackling noise when bent. It may be readily alloyed with copper, zinc, &c., forming very valuable compounds. — (*Thomson's Chemistry.*)

The ores of this metal are found in comparatively few places; the principal, and perhaps the only, ones are Cornwall, Galicia, Erzgebirge in Saxony, Bohemia, the Malay countries, China, and Banca in Asia. They are peculiar to primitive rocks, generally in granite, either in veins or beds, and are often associated with copper and iron pyrites.

Tin is much used as a covering to several other metals: iron is tinned, to prevent its rapid oxidation when exposed to air and moisture; and the same process is applied to copper, to avoid the injurious effects to which those who are in the habit of employing cooking utensils made of this metal are always liable. The solutions of tin in the nitric, muriatic, nitro-sulphuric, and tartaric acids, are much used in dyeing, as giving a degree of permanency and brilliance to several colours, to be obtained by the use of no other mordants with which we are at present acquainted: tin forms the basis of pewter, in the composition of which it is alloyed with lead; when rolled into thin sheets, it is called tin-foil, and is applied, with the addition of mercury, to cover the surface of glass, thus forming looking-glasses, mirrors, &c.; and in combination with sulphur, it constitutes what is called mosaic gold. — (*Joyce's Chem. Min.*)

Tin Plates, known in Scotland by the name of *white iron*, are applicable to a great variety of purposes. They are formed of thin plates of iron dipped into molten tin. The tin not only covers the surface of the iron, but penetrates it completely, and gives the whole a white colour. It is usual to add about 1-10th of copper to the tin, to prevent it from forming too thick a coat upon the iron. — (*Thomson's Chemistry.*)

The demand for tin plates, which has always been considerable, has latterly increased with extraordinary rapidity. The declared value of the exports, in 1857, amounted to 1,500,116*l.*, of which no less than 951,080*l.* went to the U. States. In 1858 the value of the exports amounted to 1,389,858*l.* During 1857, 10,848 tons tin were used in the U. K. in the manufacture of tin plates and otherwise.

Historical Notices of the British Tin Trade. — The tin mines of Cornwall have been worked from a very remote æra. The voyages of the Phœnicians to the Cassiterides, or tin islands, are mentioned by Herodotus (lib. iii. c. 115.), Diodorus Siculus (lib. iv. p. 301. ed. 1604), and Strabo (*Geog.* lib. iii.). Some difference of opinion has, indeed, been entertained as to the particular islands to which the Phœnicians applied the term Cassiterides; but Borlase (*Account of the Scilly Islands*, p. 72.), Larcher (*Herodote*, tome iii. p. 384, ed. 1802), and the ablest critics, agree that they are the Scilly Islands, and the western extremity of Cornwall. After the destruction of Carthage, the British tin trade, which was always reckoned of peculiar importance, was carried on by the merchants of Marseilles, and subsequently by the Romans. Besides Britain, Spain furnished the ancients with considerable quantities of tin. We have no very precise information as to the purposes to which they applied this metal. It has been supposed that the Phœnicians, so famous for their purple dyes, were acquainted with the use of the solution of tin in nitro-muriatic acid in fixing that colour. The best of the ancient mirrors, or *specula*, were also made of a mixture of copper and tin; and tin was used in the coating of copper vessels. — (*Watson's Chemical Essays*, vol. iv.)

In modern times, the tin mines of Cornwall and Devon have been wrought with various degrees of energy and success. Queen Elizabeth brought over some German miners, by whom some of the processes were improved. During the civil wars, the mines were much neglected. At the commencement of last century, however, the business of mining was carried on with renewed vigour; and from 1720 to 1740 the annual produce was about 2,100 tons. The produce went on gradually increasing, till it amounted, in the 10 years from 1790 to 1800, to 3,254 tons a year. During the next 15 years the produce fell off; and for the 5 years ending with 1815 it was always considerably under 3,000 tons a year. But in the last-mentioned year, a considerable increase took place; and since 1816, the produce has been, with the exception of 1820, always above 3,000

tons a year. And latterly it has so increased, that the present (1859) produce of the mines may be taken at about 9,700 tons a year.

The price of British tin, at an average, from 1811 to 1815, inclusive, was about 7*l.* a cwt. Its fall from 1815 to 1820, and its comparative low price thereafter, were owing to a variety of causes: partly to improvements in the art of working the mines, partly to the increased supply of metal obtained from them, and partly and principally to the competition of the tin of Banca and of the Malay countries. Previously to 1814, we had in some measure a monopoly of the market of the world. But since then the Banca mines have been wrought with unusual spirit; and their produce has been so much increased, as not only fully to supply the market of China, to which we formerly exported from 600 to 1,000 tons, but to meet us in every European market. Malay tin is now very extensively imported, for warehousing, into England, at the same time that large quantities are carried direct to Holland, where there are refining houses. But, notwithstanding these circumstances, both our exports of tin and its price have increased considerably of late years.

Duty on British Tin. — All tin produced in Cornwall was subject, from a very remote period down to 1837, to a coinage duty of 4*l.* a ton, payable to the Duke of Cornwall: the tin raised in Devonshire was subject to a similar duty of 1*l.* 13*s.* 4*d.* a ton. This duty produced from 16,000*l.* to 20,000*l.* a year; and was felt to be a serious grievance, not only from its amount, but from the vexatious regulations under which it was collected. Luckily, however, the duty on tin, and all regulations with respect to its coinage, were abolished by 1 & 2 Vict. c. 120. Compensation was made to the duchy of Cornwall for the loss arising from this abolition, by settling on its possessors a perpetual annuity equal to the nett average amount of the duties during the 10 years ending with 1837.

TIN, ORIENTAL (Malay, *Timá*; Hind. *Kalai*; Siamese, *Dibuk*; Burmese, *Kye-p'kyu*, white copper), in commercial language usually called Banca tin. It is found in several provinces of China; but the most extensive and, probably, richest tin district in the world, exists in the Malay countries. This comprehends the whole of the peninsula, from the extreme cape to the latitude of 14° on its western side, and to 11° on its eastern, and comprehends several of the small islands lying in the route between the peninsula and Java, as far as the latitude of 3° south; so that the whole of this tin district has an extreme length of near 1,200 miles. By far the greater number of the mines within these limits are as yet unwrought and unexplored. It was only in the beginning of last century that the mines of Banca, the most productive at present worked, were accidentally discovered. The whole tin of the Malay countries is the produce of alluvial ores, or what is called, in Cornwall, "Stream-work:" and from the abundance in which the mineral has been found by the mere washing of the soil, no attempt has hitherto been made at regular mining, or obtaining the ore from its rocky matrix. Malay tin, consequently, is grain tin, or tin in a very pure state; that being the species which alluvial ore uniformly produces. The mines, or rather excavations, are perpendicular pits of from 15 to 25 feet deep; and when the soil and a superstratum of common clay are removed, the bed containing the ore, consisting of quartz and granitic gravel, is reached. The sand and gravel are separated from the ore by passing a stream of water through the whole materials. The ore so obtained is preserved in heaps, and smelted periodically with charcoal in a blast furnace. The mine or pit is kept clear of water by the Chinese wheel. No cattle are used in any part of the process; human labour being had recourse to throughout the whole of its stages. The most imperfect part of the process is the smelting. The stream ores of Cornwall, which are generally poor, afford from 65 to 75 per cent. of grain tin; whereas, owing to the imperfection of the process, from those of Banca not more than 55 or 60 are usually obtained. The difference in the produce suggested, a few years ago, the practicability of sending the ore to England for the purpose of being smelted; and the experiment was tried; but our customs regulations not allowing the produce to be bonded and re-exported without duty, rendered the scheme abortive.

With very trifling exceptions, the whole tin of the Malay islands is mined and smelted by Chinese settlers; and before their skill and enterprise were applied to its production, the metal seems to have been obtained by the inhabitants of the countries which produced it, by processes hardly more skilful than those by which the precious metals were procured by the native inhabitants of America, prior to the introduction of European skill and machinery. The following estimate has been given of the annual produce of the principal states and places producing tin: —

East coast of the Malay peninsula —	*Piculs.*	West coast of the Malay peninsula and islands —	*Piculs.*
Junk Ceylon	5,000	Sungora and Patani	5,000
Queda	2,000	Tringanu	7,000
Pera	3,000	Pahang	3,000
Salangore	3,000	Singkep	5,000
Malacca	4,000	Banca	35,000
Total	Piculs 17,000	Total	Piculs 55,000

This can be considered only as a rough estimate; but we believe it is not far wide of the truth. The most considerable port of exportation is Batavia; from which there is sent annually, either directly or through orders from the Dutch government or the authorities at Banca, 2,000 tons. From Prince of Wales Island there is also a considerable quantity exported; and a smaller one direct to China in junks, from several of the native ports on the eastern shore of the Malay peninsula. The great marts for the consumption of tin are China, Hindostan, and the continent of Europe. The quality of the different descriptions of Malay tin, although there may be some inconsiderable difference in the quality of the original ores, seems to be derived chiefly from the greater or less skill with which the process of smelting is conducted; and this, again, necessarily depends upon the extent of capital and goodness of the machinery employed. The mining operations of Banca have long been conducted upon a larger scale, and with more skill, than in any other of the Malay countries; and, consequently, the metal produced in this island is superior by from 10 to 12 per cent.: in the market of Canton it is called "old tin," in contradistinction to "new tin," the produce of the other Malay countries. Next, in point of quality, to the produce of Banca, are those of Tringanu and Singkep, which are not more than 5 per cent. inferior to it. The tin of the state of Pera, a considerable part of which is produced by the natives themselves, without Chinese assistance, is the worst, and usually about 15 per cent. below that of Banca. The native tin of China is 10 per cent. inferior to that of Banca, and is probably block tin, like the greater part of that of Cornwall; and, like it, the produce of regular mining operations, and not alluvial. The produce of the Chinese mines is said of late years to have greatly decreased; probably owing to the great increase which has recently taken place in the produce of the Malay countries, and the cheapness and abundance with which it finds its way to China. It should be added, that of late years, and chiefly owing to the very low price and abundance of German spelter (zinc) in the Indian market, this commodity has occasionally been fraudulently mixed with tin. The Chinese brokers of Canton, however, are sufficiently expert to detect the adulteration; and it is believed that this discreditable practice has lately ceased.

The price of tin, taking the market of Singapore as the standard, has fluctuated of late years from 14 to 20 Spanish dollars per picul; equal, at the exchange of 4*s.* per dollar, to 47*s.* and 67*s.* per cwt. At an average of these prices, the annual value of the whole Malay tin will be about 240,000*l.* per annum. — (*Crawfurd's History of the Indian Archipelago; Dr. Horsfield's MS. Statistical View of the Island of Banca; Singapore Chronicle; Canton Register, &c.*)

TOBACCO (Da. *Tobak*; Du. *Tabak*; Fr. *Tabac*; Ger. *Taback*; It. *Tabacco*; Pol. *Tobaka*; Rus. *Tabak*; Sp. *Tabaco*; Arab. *Bujjerbhang*; Hind. *Tumbākū*; Malay,

Tambrăcoo), the dried leaves of the *Nicotiana Tabacum*, a plant indigenous to America, but which succeeds very well, and is extensively cultivated, in most parts of the Old World. The recent leaves possess very little odour or taste; but when dried, their odour is strong, narcotic, and somewhat fœtid; their taste bitter and extremely acrid. When well cured, they are of a yellowish green colour. When distilled, they yield an essential oil, on which their virtue depends, and which is said to be a virulent poison. The leaves are used in various ways; being chewed, smoked, and ground and manufactured into snuff. It is in the last mentioned form that tobacco is principally used in Great Britain; and, though the contrary has been often asserted, its use does not seem to be productive of any perceptible bad consequence.

1. *Historical Sketch of Tobacco.* — The taste for tobacco, though apparently administering only to a frivolous gratification, has given birth to a most extensive commerce, and been a powerful spur to industry. Being a native of the New World, its introduction into Europe dates only from the early part of the 16th century. Seeds of the plant were sent, in 1560, from Portugal, to Catherine de' Medici, by Jean Nicot, the French ambassador in that country, from whom it has received its botanical name. The notion, at one time so general, that the specific appellation tobacco was derived from its having been imported from Tobago, is now universally admitted to be without foundation. Humboldt has shown, that tobacco was the term used in the Haytian language to designate the pipe, or instrument made use of by the natives in smoking the herb; and the term, having been transferred by the Spaniards from the pipe to the herb itself, has been adopted by the other nations of the ancient world. — (*Essai Politique sur la Nouvelle Espagne*, vol. iii. p. 50. 2d. edit.) Tobacco is believed to have been first introduced into England by the settlers who returned, in 1586, from the colony which it had been attempted to found in Virginia, under the auspices of Sir Walter Raleigh, in the preceding year. Harriott, who accompanied this expedition, gives, in his description of Virginia, an account of the tobacco plant, and of the manner in which it was used by the natives; adding, that the English, during the time they were in Virginia, and since their return home, were accustomed to smoke it after the fashion of the Indians, "and found many rare and wonderful experiments of the virtue thereof." — (*Hakluyt*, vol. i. p. 75.)

Raleigh, and other young men of fashion, having adopted the practice of smoking, it spread amongst the English; as it had previously spread amongst the Spaniards, Portuguese, French, and other Continental nations. But it made its greatest progress in this country after the foundation of the colony at James Town in Virginia, in 1607. The soil of the colony being found particularly well fitted for the culture of tobacco, considerable quantities were raised and sent home; and the numerous individuals interested in the colony contributed to introduce that taste for it which was diffused amongst all classes with astonishing rapidity.

James I. attempted, by repeated proclamations and publications, some of them couched in very strong terms, to restrain the use of tobacco. But his efforts had very little effect; and the settlers in Virginia continued to experience a more rapidly increasing and better demand for tobacco than for any other product of the colony.

During the earlier part of the reign of Charles I., the trade in tobacco was monopolised by the Crown. This monopoly was not, however, of long continuance, and totally ceased at the breaking out of the civil war.

Tobacco plants had been early introduced into England, and were found to answer remarkably well. Their cultivation was, indeed, prohibited by James, and afterwards by Charles, but apparently without effect. At length, however, the growing consumption of tobacco having excited the attention of the government financiers, it was seen that, by imposing a duty on its importation, a considerable revenue might be raised; but that, were it allowed to be freely cultivated at home, it would be very difficult to collect a duty upon it. In 1643, the Lords and Commons imposed a moderate duty, for the sake of revenue, on plantation tobacco; but instead of directly prohibiting the use of native tobacco, they burdened it with such a duty as, it was supposed, would occasion its culture to be abandoned. The facility, however, with which the duty was evaded, soon satisfied the republican leaders that more vigorous measures were required to stop its cultivation, and consequently to render its importation a source of revenue. Hence, in 1652, an act was passed, prohibiting the growth of tobacco in England, and appointing commissioners to see its provisions carried into effect. This act was confirmed at the Restoration, by the act Charles 2. c. 34., which ordered that all tobacco plantations should be destroyed. These measures were believed, at the time, to have been principally brought about by the solicitations of the planters; but their real intention was not so much to conciliate or benefit the latter, as to facilitate the collection of a revenue from tobacco; and, considered in this point of view, their policy seems quite unexceptionable.

This act did not, however, extend to Ireland; and of late years, the cultivation of

tobacco made considerable progress in the country. Had this been allowed to continue, there can be no question that, in a few years, the revenue from tobacco, amounting to about 4,500,000*l.* a year, would have been most materially diminished; for it would be quite visionary to suppose that any plan could have been devised for collecting a duty even of 100 per cent. upon tobacco — (see *post*) — supposing it to have been generally cultivated in Ireland. No one, therefore, can question the wisdom of the act prohibiting its growth in that country, and the rigorous enforcement of its provisions. Any advantage Ireland might have gained by its cultivation, would have been but a poor compensation for the sacrifice of revenue it must have occasioned.

In some countries, as England, tobacco is principally, perhaps, used in the form of snuff; in others it is principally chewed; but, in one form or other, it is every where made use of. So early as 1624, Pope Urban VIII. issued a bull, excommunicating those who smoked in churches! The practice of smoking was at one time exceedingly prevalent in this country; but during the reign of George III. it was well nigh superseded, at least amongst the higher and middle classes, by the practice of snuff-taking. Latterly, however, smoking has been extensively revived, though it is yet far from being so generally practised as formerly.

We quote the following statement as to the universality of the use of tobacco from a learned paper on its "Introduction and Use," in the 22d volume (p. 142.) of the *Asiatic Journal*: — "In Spain, France, and Germany, in Holland, Sweden, Denmark, and Russia, the practice of smoking tobacco prevails amongst the rich and poor, the learned and the gay. In the United States of America, smoking is often carried to an excess. It is not uncommon for boys to have a pipe or cigar in the mouth during the greatest part of the day. The death of a child is not unfrequently recorded in American newspapers, with the following remark subjoined: — 'supposed to be occasioned by excessive smoking.' If we pass to the East we shall find the practice almost universal. In Turkey, the pipe is perpetually in the mouth; and the most solemn conferences are generally concluded with a friendly pipe, employed like the *calumet of peace* amongst the Indians. In the East Indies, not merely all classes, but both sexes, inhale the fragrant steam; the only distinction among them consisting in the shape of the instrument employed, and the species of the herb smoked. In China, the habit equally prevails; and a modern traveller in that country (Barrow) states, that every Chinese female, from the age of 8 or 9 years, wears, as an appendage to her dress, a small silken purse or pocket to hold tobacco, and a pipe, with the use of which many of them are not unacquainted at this tender age. This prevalence of the practice, at an early period, amongst the Chinese, is appealed to by M. Pallas as an evidence that 'in Asia, and especially in China, the use of tobacco for smoking is more ancient than the discovery of the New World.' He adds — 'Among the Chinese, and amongst the Mongol tribes who had the most intercourse with them, the custom of smoking is so general, so frequent, and has become so indispensable a luxury; the tobacco purse affixed to their belt so necessary an article of dress; the form of the pipes, from which the Dutch seem to have taken the model of theirs, so original; and, lastly, the preparation of the yellow leaves, which are merely rubbed to pieces and then put into the pipe, so peculiar; that they could not possibly derive all this from America by way of Europe; especially as India, where the practice of smoking is not so general, intervenes between Persia and China.'"

This, however, is a very doubtful proposition. It seems sufficiently established that the tobacco plant was first brought from Brazil to India about the year 1617; and it is most probable that it was thence carried to Siam, China, and other Eastern countries. The names given to it in all the languages of the East are obviously of European, or rather American, origin; a fact which seems completely to negative the idea of its being indigenous to the East.

Sources of Supply. Importation into Great Britain. — Tobacco is now very extensively cultivated in France and other European countries, in the Levant, and in India; but the tobacco of the U. States is still very generally admitted to be decidedly superior to most others. It is much higher flavoured than the tobacco of Europe; a superiority attributable in some degree, perhaps, to a different mode of treatment; but far more, it is believed, to differences of soil and climate.

Previously to the American war, our supplies of tobacco were almost entirely derived from Virginia and Maryland; and they are still principally imported from these states: of 35,166,358 lbs. of unmanufactured tobacco imported in 1850, no fewer than 30,173,444 lbs. came from the U. States. Mr. Jefferson, in his *Notes on Virginia*, has given a very unfavourable view of the effects of the tobacco culture. It was, indeed, well known to be a crop that speedily exhausted all but the very best lands; and in addition to this, Mr. J. says that "it is a culture productive of infinite wretchedness. Those employed in it are in a continued state of exertion, beyond the powers of nature to support. Little food of any kind is raised by them; so that the men and

animals on these farms are badly fed, and the earth is rapidly impoverished."—(English ed. p. 278.)

Tobacco is extensively cultivated in Mexico, but only for home consumption. It might probably, however, were it not for the restrictions under which it is placed, form a considerable article of export from that country. Under the Spanish government, the tobacco monopoly was one of the principal sources of revenue; yielding from 4,000,000 to 4,500,000 dollars, exclusive of the expenses of administration, amounting to about 800,000 dollars. No tobacco was allowed to be cultivated, except in a few specified places. Commissioners, or *guardas de tabaco*, were appointed, whose duty it was to take care that all tobacco plantations without the privileged districts should be destroyed. The government fixed the price at which the cultivators of tobacco were obliged to sell it to its agents. The sale of the manufactured tobacco was farmed out; and *cigars* were not allowed to be sold, except at the royal *estancos*. No one was allowed to use cigars of his own manufacture. This oppressive monopoly was established in 1764. It has been continued, from the difficulty of supplying the revenue which it produces, by the revolutionary governments.—(*Humboldt, Nouvelle Espagne*, iii. 49.; *Poinsett's Notes on Mexico*, note 116. Lond. ed.) In France, Spain, Austria, and some other countries, the trade in tobacco is monopolised by their respective governments, and yields a large revenue.

Cuba is celebrated for its tobacco, particularly its cigars. These consist of the leaves, formed into small rolls, for the purpose of smoking. Formerly their importation into this country was prohibited; but they may now be imported on paying the exorbitant duty of 9*s.* per lb. Havannah cigars are usually reckoned the best. Previously to 1820, the cultivation and sale of tobacco were subjected to the same sort of monopoly in Cuba as in Mexico; but, at the period referred to, the trade was thrown open. In consequence of the freedom thus given to the business, the production and exportation of tobacco are both rapidly increasing, though hardly, perhaps, so much as might have been expected; the culture of sugar and coffee being for a while reckoned more profitable; that, however, is no longer the case. In 1849, the tobacco and cigars exported from Cuba amounted to 6,275,000 lbs.

Consumption of Duty-paid Tobacco in the U. Kingdom. — It appears from the following account, which is not elsewhere to be met with, that the consumption of duty-paid tobacco in Great Britain has increased from about 8,000,000 lbs. in 1789, to 23,944,968 lbs. in 1852; the duty having fluctuated during the same period from 1*s.* 3*d.* to 4*s.* and 3*s.* 1¾*d.* (3*s.* + 5 per cent.) per lb. There are, however, good grounds for thinking that the consumption would have been much greater, perhaps doubled or thereby, had the duty continued at 1*s.* 3*d.* per lb. The subjoined table shows that during the 3 years ending with 1797, when the duty in Ireland was 8*d.* per lb., the annual average consumption of duty-paid tobacco, in that part of the U. K., was 7,455,221 lbs. And the population having increased in the interval from about 4 to 6½ millions, the fair presumption is, had the duty continued the same, that the consumption of tobacco would have increased in the same proportion, or have risen from 7,455,000 lbs. a-year to above 11,000,000 lbs. But, instead of this, the average annual consumption during the 3 years ending with 1852 has only been 4,511,606 lbs., or a little more than a third part of what it might, under the supposed circumstances, have been reasonably expected to be. But the inference thence arising as to the influence of the duty is not, after all, quite so conclusive as it would appear to be from this statement. For it is next to certain that at the first mentioned period duty-paid tobacco would be extensively smuggled from Ireland into England, where the duty was 11*d.* per lb. heavier; and since the equalisation of the duty between the two countries it is probable that some considerable portion of the tobacco used in Ireland, and carried thither by the cross-channel trade, has already paid duty in this country. Apart, however, from all considerations of this sort, there can be no manner of doubt that the consumption both in Britain and Ireland would be very largely increased by reducing the duty to 1*s.* 6*d.* or 1*s.* per lb.

Smuggling. — The price of tobacco in bond varies from 3*d.* and 4*d.* to 6*d.*, 8*d.*, and 10*d* per lb.; so that the duty of 3*s.* amounts to 1,200 per cent. on the inferior, and to 360 per cent. on the superior qualities. But, though quite excessive, this is one of those articles on which a high duty is least objectionable. It is true that the more the wants and desires of man are multiplied the more industrious he becomes; but tobacco is at once a filthy and an offensive luxury, and, with the exception of ardent spirits, there is hardly any article on which the money of the poor had not better be expended. The only good objection to the duty is the stimulus which it gives to smuggling and adulteration. In every other respect it is unexceptionable. The establishment of the coast-guard has, however, materially obstructed the clandestine importation of tobacco, though it is still said that it is introduced in considerable quantities. But no effectual check has been or can be given to adulteration so long as the present duty is maintained. At the same time it would be quite useless to at-

tempt to deal with an evil of this sort except by very decisive measures. Nothing less, we apprehend, than a reduction of the duty from 3*s.* to 1*s.* 6*d.*, or rather 1*s.* per lb., would be of any material service in checking illegal practices. And as a reduction to this extent would certainly be attended with great loss of revenue, the question of the tobacco duties may be properly enough deferred to a more convenient opportunity. When, however, the duties on tea, sugar, and other necessaries have been farther reduced or repealed, and we have a considerable surplus revenue, we may proceed to put the tobacco duty on a different footing. We subjoin an

Account of the Quantities of unmanufactured Tobacco retained for Home Consumption, the Rates of Duty thereon, and the Total Nett Produce of the Duties in Great Britain and Ireland, from 1789 to 1858, both inclusive.

Great Britain.								Ireland.				
Years.	Quantities retained for Home Consumption.	Nett Revenue of Customs.	Total Rates of Duty per lb. on unmanufactured Tobacco.					Quantities entered for Home Consumption.	Nett Revenue of Customs.			Total Rates of Duty per lb. on unmanufactured Tobacco.
			American.		Of the Dominions of Spain and Portugal.							
	Lbs.	£	*s.*	*d.*				*Lbs.*	£	*s.*	*d.*	
1789	8,152,185	408,037	4	1	1*s.* 5*d.*		3*s.* 6*d.*	2,765,441	128,704	8	4	1*s.* Irish currency.
1790	8,960,224	512,583	7	1	- -		- -	2,900,437	135,195	18	10	—
1791	9,510,875	585,966	9	1	- -		- -	2,519,943	117,420	0	2	—
1792	8,979,221	582,096	7	7	- -		- -	1,767,581	80,693	4	5	—
1793	8,617,967	547,217	14	4	- -		- -	3,568,857	125,844	17	1	6*d.* ditto.
1794	9,725,536	666,262	12	10	- -		- -	9,426,211	195,158	10	7	—
1795	10,972,568	659,989	3	4	- -		- -	7,474,409	215,713	0	0	8*d.* ditto.
1796	10,047,843	755,451	15	1	1*s.* 7*d.*		4*s.* 6*d.*	6,045,790	186,759	19	0	—
1797	9,822,439	813,027	16	2	1*s.* 7*d.* 6-20ths.		4*s.* 6*d.* 18-20ths.	8,445,555	267,721	16	4	—
1798	10,286,741	867,502	14	0	1*s.* 7*d.* 12-20ths.		4*s.* 7*d.* 4-20ths.	4,894,121	215,317	12	7	1*s.* ditto.
1799	10,993,113	799,369	14	2	- -		- -	5,876,172	288,028	4	9	1*s.* 7-10ths ditto.
1800	11,796,415	987,110	8	8	- -		- -	6,737,275	327,916	9	0	—
1801	10,514,998	923,855	3	5	1*s.* 7*d.* 6-20ths.		4*s.* 6*d.* 18-20ths.	6,389,754	285,482	6	4	—
1802	12,121,278	928,678	9	1	1*s.* 7*d.* 35-50ths.		4*s.* 7*d.* 15-50ths.	6,527,542	309,758	9	2	1*s.* 7-10ths per lb. and 3*s.* per 100 lbs.
1803	12,589,570	1,028,563	16	1	1*s.* 7$\frac{3}{4}$*d.*		4*s.* 8$\frac{1}{4}$*d.*	5,278,511	265,944	3	4	—
1804	12,254,494	1,060,319	18	0	1*s.* 8$\frac{1}{2}$*d.*		4*s.* 10$\frac{1}{2}$*d.*	5,785,487	314,007	5	8	1*s.*5*d.* Brit. currency.
1805	12,656,471	1,088,821	4	5	1*s.* 8*d.* 13-20ths.		4*s.* 10*d.* 19-20ths	4,158,794	302,516	8	1	—
1806	12,435,035	1,185,330	14	1	2*s.* 2*d.* 13-20ths.		5*s.* 4*d.* 19-20ths.	5,082,186	359,867	6	4	—
1807	12,432,994	1,336,542	17	9	- -		- -	4,934,049	315,411	4	3	—
1808	12,876,119	1,448,396	3	7	- -		- -	5,847,416	405,973	9	8	—
1809	13,054,870	1,325,154	5	7	- -		4*s.* 1*d.* 13-20ths.	6,497,662	451,478	19	11	—
1810	14,108,193	1,599,576	18	9	- -		- -	6,221,646	444,198	5	0	—
1811	14,923,243	1,701,848	8	2	- -		- -	6,455,024	552,082	9	9	—
1812	15,043,535	1,679,912	2	2	2*s.* 4*d.* 13-20ths.		4*s.* 5*d.* 18-20ths.	5,896,702	697,897	9	11	2*s.* 2*d.*,15 20ths ditto.
1813	13,648,245	{ Customs retained / Cords destroyed }			2*s.* 8*d.* 3-16ths.		4*s.* 11*d.* 11-16ths	5,944,817	746,006	5	2	2*s.* 8*d.* 3-16ths ditto.
1814	10,503,917	1,581,684	12	9	-		- -	4,869,304	653,708	12	11	—
1815	13,207,192	1,764,487	7	10	3*s.* 2*d.*		5*s.* 5$\frac{1}{4}$*d.*	4,748,205	740,279	13	1	3*s.* 2*d.* ditto.
1816	12,815,808	2,035,109	2	8	- -		- -	4,732,085	750,510	7	6	—
1817	13,593,089	2,158,500	3	11	- -		- -	4,778,469	757,316	8	3	—
1818	13,688,137	2,173,866	19	2	- -		- -	4,194,041	664,185	9	1	—
1819	12,911,235	2,285,045	2	10	4*s.*		6*s.*	3,466,852	614,989	5	7	4*s.* ditto.
1820	13,016,562	2,610,972	7	9	- -		- -	2,582,198	516,148	2	6	—
1821	12,983,198	2,600,418	7	8	- -		- -	2,614,954	522,168	0	9	—
1822	12,970,566	2,599,155	15	1	- -		- -	3,309,072	664,016	7	4	—
1823	13,418,554	2,695,909	15	0	- -		- -	3,546,126	730,507	12	8	—
			Of British America.		Of the United States.	Dominions of Spain and Portugal.						
1824	15,083,094	2,627,955	12	6	3*s.* 9*d.*	4*s.*	6*s.*	3,749,732	750,589	5	4	—
1825	14,510,555	2,530,617	6	3	2*s.* 9*d.*	5*s.*	5*s.*	4,160,049	728,288	13	11	3*s.* ditto.
			Of the British Possessions in America.				Of other Parts.					
1826	13,784,370	2,077,875	14	7	2*s.* 9*d.*		3*s.*	3,898,647	580,893	11	0	—
1827	14,704,655	2,225,340	18	4	- -		- -	4,041,172	603,037	18	9	—
1828	14,540,368	2,198,142	18	2	- -		- -	4,015,915	595,683	4	3	—
1829	14,760,468	2,236,365	12	5	- -		- -	4,125,296	613,540	15	6	—
1830	15,170,719	2,309,286	17	6	- -		- -	4,129,783	614,977	16	5	—
1831	15,350,018	2,338,106	19	5	- -		- -	4,183,823	626,484	17	5	—
1832	15,802,792	2,428,532	7	7	- -		- -	4,342,676	652,066	5	8	—
1833	16,094,824	2,459,257	3	2	- -		- -	4,552,741	680,827	9	2	—
1834	16,477,287	2,516,370	6	1	- -		- -	4,716,582	707,513	11	0	—
1835	17,069,389	2,607,034	13	0	- -		- -	4,876,299	727,199	0	9	—
1836	17,264,376	2,639,251	11	6	- -		- -	5,045,098	757,850	0	0	—
1837	17,387,875	2,655,169	12	8	- -		- -	5,078,350	762,493	8	6	—
1838	18,234,501	2,795,727	14	10	- -		- -	5,105,435	766,081	1	5	—
1839	17,767,401	2,713,586	7	3	- -		- -	5,209,764	782,100	7	11	—
1840	17,520,826	2,758,612	10	3	2*s.* 9*d.* & 5 per cent.		3*s.* & 5 per cent.	5,555,815	829,599	1	3	3*s.* & 5 per cent.
1841	16,609,852	2,687,343	17	10	- -		- -	5,175,293	863,481	7	3	—
			From all parts.									
1842	16,838,198	2,724,996	19	5	3*s.* & 5 per cent.			5,400,286	852,296	10	8	—
1843	17,746,896	2,880,440	4	0	- -		- -	5,265,730	830,786	17	0	—
1844	19,016,556	3,072,410	16	4	- -		- -	5,579,234	880,009	1	2	—
1845	20,299,970	3,274,980	7	4	- -		- -	5,871,888	927,169	17	5	—
1846	20,910,096	3,379,419	10	9	- -		- -	5,949,691	939,668	3	3	—
1847	21,536,997	3,458,487	4	9	- -		- -	5,101,139	805,215	5	9	—
1848	22,056,053	3,539,208	19	7	- -		- -	5,158,514	811,524	0	1	—
1849	22,815,970	3,659,056	19	9	- -		- -	4,757,267	748,959	15	2	—
1850	22,790,123	3,595,479	1	1	- -		- -	4,597,857	724,163	6	9	—
1851	23,255,731	3,666,774	15	8	- -		- -	4,449,956	700,864	6	8	—
1852	23,751,746	3,744,804	10	3	- -		- -	4,467,111	705,581	7	2	—
1853	24,732,235	3,899,523	16	10	- -		- -	4,616,353	727,079	6	11	—
1854	25,296,480	3,988,979	19	9	- -		- -	4,889,162	770,059	7	9	—
1855	25,313,440	3,991,658	18	1	- -		- -	4,801,290	756,203	12	5	—
1856	27,016,036	4,261,370	4	9	- -		- -	5,147,925	810,801	9	11	—
1857	27,125,790	4,277,610	12	9	- -		- -	5,298,392	834,500	7	10	—
1858	27,984,144	4,414,174	9	9	- -		- -	5,685,789	895,421	5	9	—

Prices of Tobacco in Bond in London, April, 1859.

		s.	d.		s.	d.
Maryland, yellow and good coloured	per lb.	0	7½	to 0	9	
Colory	„	0	7½	„ 0	8½	
Light brown and leafy	„	0	6	„ 0	8	
Brown	„	0	5	„ 0	5½	
Ordinary	„	0	3	„ 0	4½	
Virginia leaf						
Fine Scotch and Irish spinners	„	0	9½	„ 0	9½	
Middling ditto	„	0	9	„ 0	9½	
Leafy	„	0	7½	„ 0	8½	
Fine black and sweet scent	„	0	7½	„ 0	8	
Part ditto	„	0	6	„ 0	7½	
Ordinary ditto	„	0	3½	„ 0	4	
Stripped fine leaf	„	1	0	„ 1	0½	
Middling	„	0	10	„ 0	11	
Ordinary and short	„	0	9	„ 0	9½	
Kentucky, fine	„	0	7	„ 0	8½	
Middling	„	0	6	„ 0	7	
Ordinary	„	0	3½	„ 0	6	
Striped leaf fine	„	0	10	„ 0	10½	
Middling and good	„	0	6½	„ 0	8½	
Ordinary	„	0	3½	„ 0	6	
Negrohead, Cavendish	„	0	7½	„ 1	6	
Havannah	„	1	4	„ 1	6	
Yara	„	1	0	„ 3	6	
Cuba	„					
Columbian leaf and roll	„	0	8½	„ 2	0	
Varinas	„	0	6	„ 0	9	
East India leaf	„	0	2	„ 0	5	
Brazil leaf	„	0	6	„ 0	9	
Amersfoot and German	„	0	5½	„ 1	9	
Turkey and Greek	„	0	2½	„ 0	9½	
Manilla	„	0	6	„ 1	6	
Cigars {Havannah	„	7	6	„ 20	0	
Cigars {Manilla Cheroots	„	4	6	„ 6	0	

Regulations as to Importation.—These are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107. § 44. as follows, viz. —

Not to be imported.—Tobacco stalks stripped from the leaf, whether manufactured or not, and tobacco stalk flour.

Not to be imported except under the following Conditions.—Tobacco and snuff from the East Indies, and tobacco from the Turkish dominions, including Egypt, unless direct from any of those places in packages containing not less than 100 lbs. nett weight each.

Negrohead tobacco, and also snuff being the produce of the U. States of America, unless in hhds., casks, chests, or cases containing not less than 200 lbs. nett weight each, or unless direct from the U. States in packages containing not less than 150 lbs. nett weight each.

Tobacco from Malta, and tobacco the produce of Porto Rico, Mexico, South America, St. Domingo, Cuba, the British possessions in America and the West coast of Africa, unless in hhds., casks, chests, or cases containing not less than 200 lbs. nett weight each, or unless direct from those places or from the U. States of America in packages containing not less than 80 lbs. nett weight each.

Tobacco and snuff, the produce of the Philippine Islands, unless in hhds., casks, chests, or cases containing not less than 200 lbs. nett weight each, or unless such tobacco or snuff be from Manilla direct, in bales or packages containing not less than 200 lbs. nett weight each.

Tobacco and snuff, of or from any country or place not before enumerated, unless in hhds., casks, chests, or cases containing not less than 200 lbs. nett weight each.

Cigars, unless in packages containing not less than 100 lbs. nett weight each.

Cigarillos or cigarettos, unless in packages containing not less than 75 lbs. nett weight each.

Tobacco, not being cigars, cigarillos, or cigarettos, and snuff, separated or divided in any manner within any package in which the same may by the foregoing table be imported, except tobacco from the dominions of the Turkish empire, or from Egypt in outer packages containing not less than 100 lbs. nett weight each.

Tobacco, snuff, cigars, cigarillos, or cigarettos of any kind, or from any country or place whatever, whether hereinbefore enumerated as especially restricted or not, unless in ships of not less than 120 tons burden, and into such ports only as are or may be approved of by the Commissioners of Customs.

The ports which are at present (1858) authorised to import tobacco and snuff are London, Liverpool, Bristol, Lancaster, Cowes, Falmouth, Fleetwood, Hartlepool, Whitehaven, Hull, Glasgow, Port Glasgow, Greenock, Aberdeen, Leith, Newcastle, Plymouth, Southampton, Preston, Swansea, Belfast, Cork, Drogheda, Dublin, Galway, Limerick, Londonderry, Newry, Sligo, Waterford, and Wexford. A rent of *four* shillings is charged upon every hogshead, cask, chest, or case of tobacco, warehoused in every warehouse provided by the Crown; 2*s.* being paid immediately upon depositing the tobacco in the warehouse, and 2*s.* more before the tobacco is taken out for home consumption, or exportation: it may remain for *five* years in the warehouse without any additional charge for rent. No abatement is made from the tobacco duties on account of damage. The duty is to be charged on the quantity found on delivery. The allowance of duty free tobacco for each sailor on board her Majesty's navy, and for each soldier on foreign service, is fixed at 2 lbs. per lunar month.

TON. An English weight containing 20 cwt.

TONNAGE, in commercial navigation, the number of tons burden that a ship will carry.

The mode in which the tonnage of British ships was formerly ascertained may be seen in the Registry Act, 3 & 4 Will. 4. *c.* 55. §§ 16 and 17. This mode, however, led to very inaccurate conclusions; and as most shipping charges depend on the tonnage, it occasioned the building of ships of an improper form for the purposes of navigation, in order that, by measuring less than their real burden, they might evade part of the duties. It was, therefore, long felt to be desirable that some change should be made in the plan of measuring ships; but the practical obstacles in the way of the change were greater than might have been supposed. The accurate estimation of the tonnage of a ship is a difficult problem; and it is indispensable that any system to be adopted in practice be not very complex; for if so, it will either be wholly inapplicable, or it will be sure to be incorrectly applied. In this case, as in most others, *summa virtus est perspicuitas*. At best, therefore, only an approximative measurement can be obtained. A committee of scientific and practical gentlemen having been appointed in 1834 to consider the subject, a bill was introduced into parliament, at their recommendation, embodying a plan for the more correct measurement of ships, and was subsequently passed into a law, the 5 & 6 Will. 4. *c.* 56. The rules it laid down were not so simple or easily applied as those that were previously used; but they gave the tonnage of all ships, however built, with tolerable accuracy, and consequently took away the temptation, that till then existed, to build ships of such a form that they might measure less than their true burden. But these rules have been again considerably modified. Those which at present (1859) exist are embodied in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. *c.* 104, and are subjoined. And whatever may be their merit in other respects, they do not certainly seem to have much of that perspicuity and simplicity which appear to be essential to such rules.

Tonnage Deck; Feet; Decimals.—Throughout the following rules the tonnage deck shall be taken to be the upper deck in ships which have less than three decks, and to be the second deck from below in all other ships; and in carrying such rules into effect all measurements shall be taken in feet and fractions of feet, and all fractions of feet shall be expressed in decimals.—§ 20.

For Ships to be registered of which the Hold is clear.—The tonnage of every ship to be registered, with the exceptions mentioned in the next section, shall previously to her being registered be ascertained by the following rule 1; and the tonnage of every ship to which such rule can be applied, whether she is about to be registered or not, shall be ascertained by the same rule.

(1.) Measure the length of the ship in a straight line along the upper side of the tonnage deck from the inside of the inner plank (average thickness) at the side of the stem to the inside of the midship stern timber or plank there, as the case may be (average thickness), deducting from this length what is due to the rake of the bow in the thickness of the deck, and what is due to the rake of the stern timber in the thickness of the deck, and also what is due to the rake of the stern timber in ⅓rd of the round of the beam; divide the length so taken into the number of equal parts required by the following table, according to the class in such table to which the ship belongs:

TABLE.—Class 1. Ships of which the tonnage deck is according to the above measurement 50 feet long or under, into 4 equal parts:

Class 2. Ships of which the tonnage deck is according to the above measurement above 50 feet long and not exceeding 120, into 6 equal parts:

Class 3. Ships of which the tonnage deck is according to the above measurement above 120 feet long and not exceeding 180 into 8 equal parts:

Class 4. Ships of which the tonnage deck is according to the above measurement above 180 feet long and not exceeding 225, into 10 equal parts:

Class 5. Ships of which the tonnage deck is according to the above measurement above 225 feet long, into 12 equal parts.

(2.) Then, the hold being first sufficiently cleared to admit of the required depths and breadths being properly taken, find the transverse area of such ship at each point of division of the length as follows:—Measure the depth at each point of division, from a point at a distance of ⅛ of the round of the beam below such deck, or, in case of a break, below a line stretched in continuation thereof, to the upper side of the floor timber at the inside of the limber strake, after deducting the average thickness of the ceiling which is between the bilge planks and limber strake: then, if the depth at the midship division of the length do not exceed 16 feet, divide each depth

into four equal parts; then measure the inside horizontal breadth at each of the three points of division, and also at the upper and lower points of the depth, extending each measurement to the average thickness of that part of the ceiling which is between the points of measurement; number these breadths from above (*i. e.* numbering the upper breadth one and so on down to the lowest breadth); multiply the second and fourth by 4, and the third by 2; add these products together, and to the sum add the first breadth and the fifth; multiply the quantity thus obtained by ⅓rd of the common interval between the breadths, and the product shall be deemed the transverse area; but if the midship depth exceed 16 feet, divide each depth into 6 equal parts instead of 4, and measure as before directed the horizontal breadths at the 5 points of division, and also at the upper and lower points of the depth; number them from above as before; multiply the second, fourth, and sixth by 4, and the third and fifth by 2; add these products together, and to the sum add the first breadth and the seventh; multiply the quantity thus obtained by ⅓rd of the common interval between the breadths, and the product shall be deemed the transverse area.

(3.) Having thus ascertained the transverse area at each point of division of the length of the ship as required by the above table, proceed to ascertain the register tonnage of the ship in the following manner:—number the areas successively 1, 2, 3, &c., No. 1, being at the extreme limit of the length at the bow, and the last No. at the extreme limit of the length at the stern; then, whether the length be divided according to the table into 4 or 12 parts as in Classes 1 and 5, or any intermediate number as in Classes 2, 3, and 4, multiply the second and every even numbered area by 4, and the third and every odd numbered area (except the first and last) by 2; add these products together, and to the sum add the first and last if they yield anything; multiply the quantity thus obtained by ⅓d of the common interval between the areas, and the product will be the cubical contents of the space under the tonnage deck; divide this product by 100, and the quotient being the tonnage under the tonnage deck shall be deemed to be the register tonnage of the ship, subject to the additions and deductions herein-after mentioned.

(4.) If there be a break, a poop, or any other permanent closed-in space on the upper deck, available for cargo or stores, or for the berthing or accommodation of passengers or crew, the tonnage of such space shall be ascertained as follows:—measure the internal mean length of such space in feet, and divide it into two equal parts; measure at the middle of its height three inside breadths, namely, one at each end and the other at the middle of the length; then to the sum of the ascertained breadths add 4 times the middle breadth, and multiply the whole sum by ⅓rd of the common interval between the breadths; the product will give the mean horizontal area of such space; then measure the mean height, and multiply by it the mean horizontal area; divide the product by 100, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the tonnage under the tonnage deck, ascertained as aforesaid, subject to the following provisoes; 1st, that nothing shall be added for a closed-in space solely appropriated to the berthing of the crew, unless such space exceeds 1-20th of the remaining tonnage of the ship, and in case of such excess the excess only shall be added; and 2dly, that nothing shall be added in respect of any building erected for the shelter of deck passengers, and approved by the B. of Trade.

(5.) If the ship has a third deck, commonly called a spar deck, the tonnage of the space between it and the tonnage deck shall be ascertained as follows:—measure in feet the inside length of the space at the middle of its height from the plank at the side of the stem to the lining on the timbers at the stern, and divide the length into the same number of equal parts into which the length of the tonnage deck is divided as above directed; measure (also at the middle of its height) the inside breadth of the space at each of the points of division, also the breadth of the stem and the breadth at the stern; number them successively 1, 2, 3, &c., commencing at the stem; multiply the second and all the other even numbered breadths by 4, and the third and all other odd numbered breadths (except the first and last) by 2; to the sum of these products add the first and last breadths; multiply the whole sum by ⅓d of the common interval between the breadths, and the result will give in superficial feet the mean horizontal area of such space; measure the mean height of such space, and multiply by it the mean horizontal area; and the product will be the cubical contents of the space; divide this product by 100, and the quotient shall be deemed to be the tonnage of such space, and shall be added to the other tonnage of the ship ascertained as aforesaid; and if the ship has more than three decks, the tonnage of each space between decks above, the tonnage deck shall be severally ascertained in manner above described, and shall be added to the tonnage of the ship ascertained as aforesaid. — § 21.

Rule for Ships not requiring Registry with Cargo on board.—Ships which, requiring to be measured for any purpose other than registry, have cargo on board, and ships which, requiring to be measured for the purpose of registry, cannot be measured by the rule above given, shall be measured by the following rule II.;

(1). Measure the length on the upper deck from the outside of the outer plank at the stem to the afside of the stern post, deducting therefrom the distance between the afside of the stern post and the rabbet of the stern post at the point where the counter plank crosses it; measure also the greatest breadth of the ship to the outside of the outer planking or wales, and then, having first marked on the outside of the ship on both sides thereof the height of the upper deck at the ship's sides, girt the ship at the greatest breadth in a direction perpendicular to the keel from the height so marked on the outside of the ship on the one side to the height so marked on the other side by passing a chain under the keel; to half the girth thus taken add half the main breadth; square the sum; multiply the result by the length of the ship taken as aforesaid; then multiply this product by the factor ·0018 (18-10,000ths) in the case of ships built of wood, and by ·0021 (21-10,000ths) in the case of ships built of iron, and the product shall be deemed the register tonnage of the ship subject to the additions and deductions herein-after mentioned.

(2.) If there be a break, a poop, or other closed in space on the upper deck, the tonnage of such space shall be ascertained by multiplying together the mean length, breadth, and depth of such space, and dividing the product by 100, and the quotient so obtained shall be deemed to be the tonnage of such space, and shall, subject to the deductions for a closed-in space appropriated to the crew as mentioned in Rule 1., be added to the tonnage of the ship ascertained as aforesaid. —§ 22.

Allowance for Engine Room in Steamers.—In every ship propelled by steam or other power requiring engine room, an allowance shall be made for the space occupied by the propelling power, and the amount so allowed shall be deducted from the gross tonnage of the ship ascertained as aforesaid, and the remainder shall be deemed to be the register tonnage of such ship; and such deduction shall be estimated as follows, viz.:

(*a*). As regards ships propelled by paddle wheels in which the tonnage of the space solely occupied by and necessary for the proper working of the boilers and machinery is above 20 per cent. and under 30 per cent. of the gross tonnage of the ship, such deduction shall be 37-100ths of such gross tonnage; and in ships propelled by screws in which the tonnage of such space is above 13 per cent. and under 20 per cent. of such gross tonnage, such deduction shall be 32-100ths of such gross tonnage:

(*b*). As regards all other ships, the deduction shall, if the commissioners of customs and the owner both agree thereto, be estimated in the same manner; but either they or he may in their or his discretion require the space to be measured and the deduction estimated accordingly; and whenever such measurement is so required the deduction shall consist of the tonnage of the space actually occupied by or required to be inclosed for the proper working of the boilers and machinery, with the addition in the case of ships propelled by paddle wheels of one half, and in the case of ships propelled by screws of three-fourths of the tonnage of such space; and the measurement and use of such space shall be governed by the following rules; viz.

(1.) Measure the mean depth of the space from its crown to the ceiling at the limber strake, measure also three, or, if necessary, more than three breadths of the space at the middle of its depth, taking one of such measurements at each end, and another at the middle of the length; take the mean of such breadths; measure also the mean length of the space between the foremost and aftermost bulkheads or limits of its length, excluding such parts, if any, as are not actually occupied by or required for the proper working of the machinery; multiply together these three dimensions of length, breadth, and depth, and the product will be the cubical contents of the space below the crown; then find the cubical contents of the space or spaces, if any, above the crown aforesaid, which are framed in for the machinery or for the admission of light and air, by multiplying together the length, depth, and breadth thereof; add such contents to the cubical contents of the space below the crown; divide the sum by 100; and the result shall be deemed to be the tonnage of the said space:

(2.) If in any ship in which the space aforesaid is to be measured the engines and boilers are fitted in separate compartments, the contents of each shall be measured severally in like manner, according to the above rules, and the sum of their several results shall be deemed to be the tonnage of the said space:

(3.) In the case of screw steamers in which the space aforesaid is to be measured, the contents of the shaft trunk shall be added to and deemed to form part of such space, and shall be ascertained by multiplying together the main length, breadth, and depth of the trunk, and dividing the product by 100.

(4.) If in any ship in which the space aforesaid is to be measured any alteration to be made in the length or capacity of such space, or if any cabins be fitted in such space, such ship shall be deemed to be a ship not registered until re-measurement:

(5.) If in any ship in which the space aforesaid is to be measured any goods or stores are stowed or carried in such space, the master and owner shall each be liable to a penalty not exceeding 100*l.* — § 25.

Open Ships, how measured.—In ascertaining the tonnage of open ships, the upper edge of the upper strake is to form the boundary line of measurement, and the depths shall be taken from an athwartship line, extending from upper edge to upper edge of the said strake at each division of the length. —§ 24.

Tonnage and Number of Certificate to be carved on Main Beam.—In every registered British ship the number denoting the register tonnage, ascertained as herein-before directed, and the number of her certificate of registry, shall be deeply carved or otherwise permanently marked on her main beam, and shall be so continued; and if it at any time cease to be so continued such ship shall no longer be recognised as a British ship.—§ 25.

Tonnage when once ascertained to be ever after deemed the Tonnage.—Whenever the tonnage of any ship has been ascertained and registered in accordance with the provisions of this act, the same shall thenceforth be deemed to be the tonnage of such ship, and be repeated in every subsequent registry thereof, unless any alteration is made in the form or capacity of such ship, or unless it is discovered that the tonnage of such ship has been erroneously computed; and in either of such cases such ship shall be remeasured, and her tonnage determined and registered according to the rules herein contained.—§ 26.

Remeasurement of Ships already registered.—The rules for the measurement of tonnage herein contained shall not make

it necessary to alter the present registered tonnage of any British ship registered before this act came into operation; but if the owner of any such ship desires to have the same remeasured according to such rules, he may apply to the C. of Customs for the purpose, and such commissioners shall thereupon, and after payment of such reasonable charge for the expenses of remeasurement, not exceeding the sum of 7*s.* 6*d.* for each transverse section, as they may authorise, direct such remeasurement to be made, and such ship shall thereupon be remeasured according to such rules as aforesaid, or according to such of them as may be applicable; and the number denoting the register tonnage shall be altered accordingly.—§ 27.

Power to remeasure Engine Rooms improperly extended.—If it appears to the C. of Customs that in any steam ship measured before this act came into operation store rooms or coal bunkers have been introduced into or thrown across the engine room, so that the deduction from the tonnage on account of the engine room is larger than it ought to be, the said commissioners may, if they think fit, direct such engine room to be measured according to the rules in force before this act comes into operation, excluding the space occupied by such store rooms or coal bunkers, or may, if the owners so desire, cause the ship to be remeasured according to the rules hereinbefore contained, and subject to the conditions contained in the last preceding section; and after remeasurement the said commissioners shall cause the ship to be registered anew, or the registry thereof to be altered, as the case may require. § 28.

Officers may be appointed and Regulations made for Measurement of Ships.—The C. of Customs may, with the sanction of the Treasury, appoint such persons to superintend the survey and admeasurement of ships as they think fit; and may, with the approval of the B. of Trade, make such regulations for that purpose as may be necessary; and also, with the like approval, make such modifications and alterations as from time to time become necessary, in the tonnage rules hereby prescribed, in order to the more accurate and uniform application thereof, and the effectual carrying out of the principle of admeasurement therein adopted.—§ 29.

TOOLS AND MACHINES. Under this designation are comprised all sorts of instruments employed to assist in the performance of any undertaking, from the rudest and simplest to the most improved and complex. But we only mention them here for the purpose of making one or two remarks on the restrictions to which the trade in them has been subjected.

Importation and Exportation of Tools and Machines.—Tools and machines being instruments of production, it is obviously of the utmost importance that they should be as much improved as possible; and hence the expediency of allowing their free importation. Their exclusion, or the exclusion of the articles of which they are made, would obviously lay every branch of industry carried on in a nation less advanced than others in their manufacture, under the most serious disadvantages. And supposing the implements it employed to be superior to those of other countries when the exclusion took place, the absence of foreign competition, and of the emulation which it inspires, would most probably, in a very short time, occasion the loss of this superiority. The injury arising from the prohibition of most other articles is comparatively limited, affecting only the producers and consumers of those that are prohibited. But a prohibition of machines strikes at the root of every species of industry: it is not injurious to one, or a few branches, but to all.

The question whether the exportation of machinery ought to be free, is not so easy of solution. It is the duty of a nation to avail itself of every fair means for its own aggrandisement; and supposing the machinery belonging to any particular people were decidedly superior to that employed by their neighbours, and that they had it in their power to preserve this advantage, their generosity would certainly outrun their sense, were they to communicate their improved machinery to others. We do not, however, believe that it is possible, whatever measures may be adopted in that view, for one country to monopolise, for any considerable period, any material improvement in machinery or the arts: and on this ground we think that the former restraints on the exportation of machinery were wisely abolished. Drawings and models of all sorts of machines used in Manchester, Glasgow, and Birmingham, were always to be found in most parts of the Continent; and at Rouen, Paris, &c., numbers of the best English workmen were employed in the manufacture of prohibited machines. And it did certainly appear not a little preposterous to prevent the exportation of a machine, at the same time that we allowed (it could not, indeed, be prevented) the free egress of the workmen by whom it was made! The effect of this policy was not to secure a monopoly of improved machines for the manufacturers of England, but to occasion the emigration of English artizans to the Continent, and the establishment there of machine manufactories under their superintendence. The prejudice that arose from this state of things to the interests of England, is too obvious to require being pointed out. It is plain, therefore, that sound policy dictated that the exportation of all sorts of machinery should be allowed on payment of a moderate duty. And we are glad to have to announce that this policy was adopted in the act 6 & 7 Victoria, c. 84, which repealed the restraints previously imposed on the exportation of machinery. A policy of this sort affords a much more efficient encouragement to our manufactures than they hitherto enjoyed; for, while it lessens the temptation to our artizans to emigrate, it helps to make England the grand seat of the tool as well as of the cotton manufacture. The total declared value of the machinery and mill-work exported in 1853 amounted to 1,985,536*l.*

TOPAZ (Ger. *Topas*; Fr. *Topase*; It. *Topazio*; Sp. *Topacio*; Rus. *Topas*). The name topaz has been restricted by M. Haüy to the stones called by mineralogists Occidental ruby, topaz, and sapphire; which, agreeing in their crystallisation and most of their properties, were arranged under one species by M. Romé de Lisle.

The word topaz, derived from an island in the Red Sea, where the ancients used to find topazes, was applied by them to a mineral very different from ours. One variety of our topaz they denominated Chrysolite. Colour, wine yellow. From pale wine yellow it passes into yellowish white, greenish white, mountain green, sky blue: from deep wine yellow into flesh red and crimson red. Specific gravity from 3·464 to 3·641. — (*Thomson's Chemistry.*)

"*Yellow Topaz.*—In speaking of the topaz, a gem of a beautiful yellow colour is always understood: it is wine yellow of different degrees of intensity; and the fuller and deeper the tinge, the more the stone is esteemed. In hardness it yields to the spinelle.

"There are few gems more universal favourites than the yellow topaz, when perfect: the rich warm tone of its colour, the vivacity of its lustre (which it retains even by the side of the diamond), and its large size, compared with many others, are characters which deservedly entitle it to distinction; it bears accordingly a high price when of good quality.

"It is chiefly employed for necklaces, ear-drops, bracelets, &c. in suit. No little skill and taste are required in cutting and duly proportioning this gem; the table should be perfectly symmetrical, and not too large; the bizel of sufficient depth, and the collet side should be formed in delicate steps. It works easily on the mill, and the lapidaries are in general tolerably well acquainted with it; yet it is uncommon to meet with one well cut.

"The yellow topaz varies in price according to its beauty and perfection. A superlatively fine stone, perfect in colour and workmanship, sufficiently large for an armlet, or any other ornament, weighing nearly 80 carats, was sold for 100*l.*

"Topazes have become more common since our intercourse with Brazil; consequently they are less in demand, and lower in price. A fine stone of 60 carats may be purchased at from 20*l.* to 35*l.*; and smaller, calculated for ring stones, at from 2*l.* to 5*l.*; but it is not usual to sell them by weight.

"*Pink Topaz.*—This is made from the yellow, which, when of intense colour, is put into the bowl of a tobacco pipe or small crucible, covered with ashes or sand; on the application of a low degree of heat, it changes its colour from a yellow to a beautiful pink. This is performed with little hazard; and if the colour produced happens to be fine, the price is much augmented.

"*Red Topaz.*—This beautiful gem, which very seldom occurs naturally, is of a fine crimson colour, tinged with a rich brown, it is extremely rare, and generally taken to be a variety of ruby, for which I have seen it offered for sale. Its price, from its scarcity, is quite capricious; it has an exquisite pleasing colour, very different from the glare of the artificial pink topaz.

"*Blue Topaz.*—It is also a beautiful gem, of a fine celestial blue colour. It has occurred of considerable magnitude; the finest specimen known, I brought in the rough from Brazil; when cut and polished, it weighed about 1½ oz. Smaller specimens are not uncommon, and when light-coloured, are often taken for aqua-marinas, from which they may always be distinguished by their greater weight and hardness, &c.

"*White Topaz.*—is familiarly called *Minas Nova*. It is a beautiful pellucid gem, and is used for bracelets, necklaces, &c. It possesses greater brilliancy than crystal; and, from its hardness, has been used to cover paste, &c. and to form doublets."—(*Manve on Diamonds, &c.* 2d. ed. p. 108–112.)

TORTOISESHELL (Fr. *Ecaille de Tortue;* It. *Scaglia de Tartaruga;* Ger. *Schilpad;* Malay, *Sisik kurakura*), the brown and yellow scales of the *Testudo imbricata*, or tortoise, a native of the tropical seas. It is extensively used in the manufacture of combs, snuff-boxes, &c., and in inlaying and other ornamental work.

The best tortoiseshell is that of the Indian Archipelago; and the finest of this quarter is obtained on the shores of the Spice Islands and New Guinea. When the finest West Indian tortoiseshell is worth in the London market 46*s.*, the finest East Indian is worth 60*s.* per lb. Under the latter name, however, a great deal of inferior shell is imported, brought from various parts of the East Indies. The goodness of tortoiseshell depends mainly on the thickness and size of the scales, and in a smaller degree on the clearness and brilliancy of the colours. Before the opening of the British intercourse with India, the greater part of the tortoiseshell which eventually found its way to Europe, was first carried to Canton, which then formed the principal mart for the commodity. It is still an article of trade from that city; but the imports and exports are inconsiderable, Singapore being now the chief mart for this article. Its price at the latter varies from 750 and 900 to from 1,000 to 1,600 dollars per picul, according to quality.—(*Crawfurd's Indian Archipelago; Singapore Chronicle; Canton Register.*)

The imports of tortoiseshell in 1852 amounted to 46,204, and the re-exports to 23,752 lbs. Duty repealed in 1846.

TOYS (Ger. *Spielzeug, Speilsachen;* Du. *Speelgöed;* Fr. *Jouets, Bimbelots;* It. *Trastulli;* Sp. *Dijes, Juguetes de ninnos;* Rus. *Igrushki*), include every trifling article made expressly for the amusement of children.

How frivolous soever these articles may appear in the estimation of superficial observers, their manufacture employs hundreds of hands, and gives bread to many families, in London, Birmingham, &c. The greatness of the demand for th m may be inferred, from the fact, that a manufacturer of glass beads, and articles of that description, has received a s ngle order for 500*l.* worth of dolls' eyes!—(*Fourth Report, Artisans and Machinery*, p. 314.) Considerable quantities are also imported from Holland; which supplies us with several sorts of wooden toys on more reasonable terms than we can afford to produce them. But of late years, these have been made in greater abundance in England than formerly.

In 1852, the value of the foreign toys entered for consumption amounted to 39,617*l.* In 1853 the duty of 10 per cent. *ad valorem* was repealed; for new duty see TARIFF.

TRAGACANTH, a species of gum, the produce of the *Astragalus Tragacantha*, a thorny shrub growing in Persia, Crete, and the islands of the Levant.

It exudes about the end of June from the stem and larger branches, and soon dies in the sun. It is inodorous; impressing a very slightly bitter taste as it softens in the mouth. It has a whitish colour; is semitransparent; and in very thin, wrinkled, vermiform pieces; it is brittle, but not easily pulverised, except in frosty weather, or in a warmed mortar. It should be chosen in long twisted pieces, white, very clear, and free from all other colours; the brown, and particularly the black pieces, should be wholly rejected.—(*Thomson's Chemistry; Dr. A. T. Thomson's Dispensatory; Milburn's Orient. Com.*) In 1852. 1152 cwt. tragacanth were imported, and 167 ditto re-exported. Duty repealed in 1846.

TREATIES (COMMERCIAL). By a commercial treaty is meant a treaty between two independent nations, for facilitating, and most commonly, also, regulating the commerce carried on between them.

Origin, Objects, and Policy of modern Commercial Treaties.—During the middle ages, and down, indeed, to a comparatively recent period, foreigners resident in a country, whether for commercial or other purposes, were, for the most part, subject to very harsh treatment. At one time, it was usual in England to make aliens liable for the debts and crimes of each other; and the practice, formerly so common, of laying heavier duties on the goods imported and exported by aliens than by British subjects, is not even yet, we grieve to say, altogether abandoned. In France, and some other countries, during the 14th and 15th centuries, a stranger was incapable of bequeathing property by will; and the whole of his personal as well as real estate, fell, at his death, to the king or the lord of the barony. This barbarous law was known by the name of *Droit d'Aubaine*, and was not completely abolished in France till a very late period.—(*Robertson's Charles V.* vol. i. note 29.) Previously to last century, the laws with respect to shipwreck, though infinitely more humane than they had been at a more remote period, were calculated rather to promote the interest of the sovereign of the country, or the feudal lords on whose territories shipwrecked vessels might be thrown, than those of the unfortunate owners or survivors.—(See WRECK.*) The most serious obstacles were then, also, opposed, by the prevalent insecurity, and the arbitrary nature of the tolls which the lords were in the habit of exacting, to the transit of commodities through the territories of one state to those of another.

Under such circumstances, it became of much importance for commercial states to endeavour to obtain, by means of treaties, that protection and security for the persons and properties of their subjects, when abroad, against unjust treatment and vexatious exactions, which they could not have obtained from the laws of the countries in which they might happen to reside. Thus, it was stipulated by Edward II., in 1325, that the merchants and mariners of Venice should have power to come to England for 10 years, with liberty to sell their merchandise and to return home in safety, "*without having either their persons or goods stopped on account of other people's crimes or debts.*"—(*Anderson, anno* 1325.) The commercial treaties negotiated during the 15th, 16th, and 17th centuries, are full of similar conditions; and there can be no doubt that by

* The practice of confiscating shipwrecked property continued in France till 1681, when it was abolished by an edict of Louis XIV. It was at one time common in Germany, to use the words of M. Bouchaud, "pour les prédicateurs de prier Dieu en chaire, *qu'il se fasse bien des naufrages sur leurs côtes!*"—(*Théorie des Traités de Commerce*, p. 118.) And the fact, that the celebrated jurist Thomasius wrote a dissertation in defence of such prayers, affords, if possible, a still more striking proof of the spirit of the period.

providing for the security of merchants and seamen when abroad, and suspending, with respect to them, the barbarous laws and practices then in force, they contributed materially to accelerate the progress of commerce and civilisation.

Commercial treaties were also negotiated at a very early period for the regulation of neutral commerce during war; and for defining the articles that should be deemed contraband, or which it should not be lawful for neutral ships to convey or carry to either belligerent. These are obviously points that can only be decided by express stipulations.*

Instead, however, of confining commercial treaties to their legitimate and proper purposes — the security of merchants and navigators, and the facility of commercial transactions — they very soon began to be employed as engines for promoting the commerce of one country at the expense of another. For more than 2 centuries, those engaged in framing commercial treaties have principally applied themselves to secure, either by force or address, some exclusive advantage in favour of the ships and products of their particular countries. Hence these compacts are full of regulations as to the duties to be charged on certain articles, and the privileges to be enjoyed by certain ships, according as they were either produced by or belonged to particular countries. It was in the adjustment of these duties and regulations that the skill of the negotiator was chiefly put to the test. It was expected that he should be thoroughly acquainted with the state of every branch of industry, both in his own country and in the country with which he was negotiating; and he was to endeavour so to adjust the tariff of duties, that those branches in which his own country was deficient might be benefited, and those in which the other was superior might be depressed! The idea of conducting a negotiation of this sort on a fair principle of reciprocity is of very late origin: success in circumventing, in over-reaching, or in extorting from fear or ignorance some oppressive, but at the same time worthless privilege, was long esteemed the only proof of superior talent in negotiators.

In an able tract, attributed to Mr. Eden, afterwards Lord Auckland, published in 1787 (*Historical and Political Remarks on the Tariff of the French Treaty*), there is the following outline of the qualifications necessary to the negotiator of a commercial treaty: — "Besides a general knowledge of the trade and reciprocal interests of the contracting parties, he ought to be precisely acquainted with their several kinds of industry and skill; to discover their wants, to calculate their resources, and to weigh with nicety the state of their finances, and the proportionate interest of their money: nay, further, he should be able to ascertain the comparative population and strength of each country, together with the price and quality both of first materials, and also of the labour bestowed upon them: for this purpose he should inquire into the operations of every class of merchants and manufacturers concerned in the trade; should consult their expectations on each of its several branches; and collect their hopes and fears on the effect of such a commercial revolution, on the competition of rival nations. A good treaty of commerce, independent of the art of negotiation, is pronounced, by one who well knew the extent and difficulty of the subject, to be a '*masterpiece of skill.*'" — (p. 10.)

Had Mr. Eden concluded by stating, that no individual, or number of individuals, ever possessed, or ever would possess, the various qualifications which in his estimation were required in negotiating a "good commercial treaty," he would only have affirmed what is most certainly true. We believe, however, that he had formed a totally false estimate, not only of the qualifications of a negotiator, but of the objects he ought to have in view. It was the opinion of the Abbé Mably — (*Droit Publique de l'Europe*, tome ii. p. 561.), — an opinion in which we are disposed, with very little modification, to concur, — that when a few general rules are agreed upon for the effectual security of trade and navigation, including the importation and exportation of all commodities not prohibited by law; the speedy adjustment of disputes; the regulations of pilotage, harbour and light-house duties; the protection of the property and effects of merchants in the event of a rupture, &c.; all is done that ought to be attempted in a commercial treaty. It may, indeed, be properly stipulated that the goods of the contracting powers shall be admitted into each other's ports on the same terms as "those of the most favoured nations," — that is, that no higher duties shall be charged upon them than on those of others. But here stipulation ought to cease. It is an abuse and a perversion of commercial treaties, to make them instruments for regulating duties or prescribing Custom-house regulations.

We admit, indeed, that occasions may occur, in which it may be expedient to stipulate for a reduction of duties or an abolition of prohibitions on the one side, in return for similar concessions on the other. But all arrangements of this sort should be determined by a convention limited to that particular object; and a fixed and not very distant term should be specified, when the obligation in the convention should expire, and

* There is a good collection of treaties as to this point, in the Appendix to the excellent work of Lampredi, *Del Commercio de' Popoli Neutrali*. — (See CONTRABAND.)

both parties be at liberty to continue or abandon the regulations agreed upon. Generally speaking, all treaties which determine what the duties on importation or exportation shall be, or which stipulate for preferences, are radically objectionable. Nations ought to regulate their tariffs in whatever mode they judge best for the promotion of their own interests, without being shackled by engagements with others. If foreign powers be all treated alike, none of them has just grounds of complaint; and it can rarely be for the interest of any people to show preferences to one over another. Those, for example, by whom *we* may be most advantageously supplied with foreign products, require no preferences; and if we exclude them, or give a preference to others, we incontestably injure ourselves: and yet 19 out of 20 of the regulations as to duties in commercial treaties have been founded on this preposterous principle. They have been employed to divert trade into channels, where it would not naturally flow; that is, to render it less secure and less profitable than it would otherwise have been.

A great deal of stress has usually been laid upon the advantages supposed to be derived from the privileges sometimes conceded in commercial treaties. But we believe that those who inquire into the subject will find that such concessions have, in every case, been not only injurious to the party making them, but also to the party in whose favour they have been made. The famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, was almost universally regarded, for a very long period, as admirably calculated to promote the interests of this country; but it is now generally admitted, by every one who has reflected upon such subjects, that few transactions have taken place by which these interests have been more deeply injured. It stipulated for the free admission of British woollens into Portugal, from which they happened, at the time, to be excluded; but in return for this concession—a concession far more advantageous to the Portuguese than to us—we bound ourselves "for ever hereafter" to admit wines of the growth of Portugal into Great Britain at ⅔ds of the duty payable on the wines of France! Thus, in order to open an access for our woollens to the limited market of Portugal, we consented, in all time to come, to drink inferior wine, bought at a comparatively high price!—(See WINE.) This, however, was not all: by excluding one of the principal equivalents the French had to offer for our commodities, we necessarily lessened their ability to deal with us; at the same time that we provoked them to adopt retaliatory measures against our trade. It is owing more to the stipulations in the Methuen treaty than to any thing else, that the trade between England and France—a trade that would naturally be of vast extent and importance—has so long been confined within comparatively narrow limits.

It is visionary to imagine that any nation will ever continue to grant to another any exclusive advantage in her markets, unless she obtain what she reckons an equivalent advantage in the markets of the other. And if a commercial treaty stipulating for an exclusive privilege be really and *bonâ fide* observed by the country granting the privilege, we may be sure that the concessions made by the country in whose favour it is granted are sufficient fully to countervail it. Those who grasp at exclusive privileges in matters of this sort, or who attempt to extort valuable concessions from the weakness or ignorance of their neighbours, are uniformly defeated in their object. All really beneficial commercial transactions are bottomed on a fair principal of reciprocity; and that nation will always flourish most, and have the foundations of her prosperity best secured, who is a universal merchant, and deals with all the world on the same fair and liberal principles.

The justness of these principles, we are glad to observe, is now beginning to be very generally admitted. Stipulations as to duties and Custom-house regulations are disappearing from commercial treaties; and it is to be hoped that, at no distant period, every trace of them may have vanished.

A good work on the principles, style, and history of commercial treaties is a desideratum. The best we have seen are Mascovius *De Fœderibus Commerciorum*, 4to. Leipsic, 1735; and Bouchaud, *Théorie des Traités de Commerce*, 12mo. Paris, 1777. But these are principally works of erudition, and were written before the sound principles of commercial policy had been unfolded. There is no good collection of commercial treaties in the English language; but Mr. Hertslet's work is valuable, as containing the recent treaties in an accessible form.

We subjoin copies of the principal commercial treaties and conventions existing at this moment (January 1844) between Great Britain and other powers.

AUSTRIA.

Treaty of Commerce and Navigation between her Britannic Majesty and the Emperor of Austria, signed at Vienna, July 3. 1838.

Article 1. From the date of the ratification of this present treaty, British vessels arriving in or departing from the ports of his Majesty the Emperor of Austria, and Austrian vessels arriving in or departing from the ports of the United Kingdom of Great Britain and Ireland, and those of all the possessions of her Britannic Majesty, shall be subject to no other or higher duties or charges, of whatsoever nature they may be, than those which are actually or may hereafter be imposed on national vessels, on their entering into or departing from such ports respectively.

2. All productions of the soil, industry, and art of the states and possessions of his Majesty, the Emperor of Austria, including the said productions which may be exported through the northern outlet of the

Elbe, and the eastern outlet of the Danube, and which may be imported into the ports of the United Kingdom and the possessions of her Britannic Majesty; and also all the productions of the soil, industry and art of the United Kingdom and possessions of her Britannic Majesty, which may be imported into the ports of his Majesty the Emperor of Austria, shall enjoy reciprocally, in all respects, the same privileges and immunities, and may be imported and exported exactly in the same manner, in vessels of the one as in vessels of the other of the high contracting parties.

3. All commodities which are not the productions of the soil, industry, and art of the two respective states or their possessions, and which may be legally imported from the ports of Austria, including those of the Danube, into the ports of the United Kingdom of Great Britain and Ireland, of Malta, and Gibraltar, and other possessions of her Britannic Majesty, in Austrian vessels, shall be subject to the same duties only which would be paid on the same articles, if they were imported in British vessels.

Her Britannic Majesty extends by this treaty to Austrian navigation and trade, the full benefits of the two British acts of parliament passed on the 28th of August, 1833, regulating the trade and navigation of the United Kingdom and British possessions, as well as all other privileges of commerce and navigation now enjoyed, or to be hereafter granted, by existing laws, by orders in council, or by treaties, to the most favoured nations.

4. All Austrian vessels arriving from the ports of the Danube, as far as Galacz inclusively, shall, together with their cargoes, be admitted into the ports of the United Kingdom of Great Britain and Ireland and of all the possessions of her Britannic Majesty, exactly in the same manner as if such vessels came direct from Austrian ports, with all the privileges and immunities stipulated by the present treaty of navigation and commerce. In like manner, all British vessels, with their cargoes, shall continue to be placed upon the same footing as Austrian vessels, whenever such British vessels shall enter into or depart from the same ports.

5. In consideration of British vessels, arriving direct from other countries than those belonging to the high contracting parties, being admitted with their cargoes into Austrian ports, without paying any other duties whatever than those paid by Austrian vessels, so also the productions of the soil and industry of the parts of Asia or Africa situated within the Straits of Gibraltar, which shall have been brought into the ports of Austria, may be re-exported from thence in Austrian vessels directly into British ports, in the same manner, and with the same privileges, as to all manner of duties and immunities, as if these productions were imported from Austrian ports in British vessels.

6. All commodities and articles of commerce which, according to the stipulations of the present treaty, or by the existing laws and ordinances of the respective states, may be legally imported into or exported from the states and possessions of the two high contracting parties, whether under the British or the Austrian flag, shall in like manner be subject to the same duties, whether imported by national vessels or by those of the other state; and upon all commodities and articles of commerce which may be legally exported from ports of either state, the same premiums, drawbacks, and advantages shall be accorded, whether they are exported by the vessels of the one or by those of the other state.

7. All commodities and articles of commerce, which shall be imported, placed in depôt, or warehoused in the ports of the states and possessions of the two high contracting parties, so long as they shall remain in depôt or warehouse, and shall not be used for internal consumption, shall be subject, upon re-exportation to the same treatment and duties, whether that re-exportation shall be made in the vessels of the one or in those of the other state.

8. No priority or preference shall be given, directly or indirectly, by the government of either country, or by any company or corporation, or agent acting on its behalf or under its authority, in the purchase of any article the production of the soil, industry, or art of either of the two states and their possessions, imported into the ports of the other, on account of the nationality of the vessel in which such articles may be imported; it being the true intent and meaning of the high contracting parties, that no difference or distinction whatever shall be made in this respect.

9. In regard to the commerce to be carried on in Austrian vessels with the British possessions in the East Indies, her Britannic Majesty consents to grant the same facilities and privileges to the subjects of his Imperial and Royal Apostolic Majesty, as are or may be enjoyed under any treaty or act of parliament, by the subjects or citizens of the most favoured nations; subject to the laws, rules, regulations, and restrictions, which are or may become applicable to the vessels and subjects of any other foreign country enjoying the like advantages and privileges of trading with the said possessions.

10. The present treaty does not include the navigation and carrying trade between one port and another, situated in the dominions of one contracting party, by the vessels of the other, as far as regards the carrying of passengers, commodities, and articles of commerce; this navigation and transport being reserved to national vessels.

11. The vessels and subjects of the high contracting parties shall, by the present treaty, enjoy reciprocally all the advantages, immunities, and privileges, within the ports of their respective states and possessions, which are now enjoyed by the navigation and commerce of the most favoured nations: the effect hereof being to secure, in the United Kingdom and British possessions, to Austrian vessels and subjects, the full and entire advantages of navigation and commerce allowed by the Navigation Act passed in London on the 28th of August, 1833, and by another act of the same date, regulating the trade of the British possessions abroad; or which may be accorded by orders in council or by treaty to other powers: and in like manner British vessels and subjects shall enjoy, in the ports of the states and possessions of his Imperial and Royal Apostolic Majesty, the full and entire advantages of navigation and commerce granted by existing laws, regulations, and ordinances, or by treaty, to foreign powers: and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Imperial and Royal Apostolic Majesty, engage reciprocally not to grant any favours, privileges, or immunities whatsoever, in matters of commerce and navigation, to the subjects of any other state, which shall not be also at the same time extended to the subjects of the one or of the other of the high contracting parties, gratuitously, if the concession in favour of the other state shall have been gratuitous, or upon giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

12. The clause of Article VII. of the convention concluded at Paris the 5th November, 1815, between the courts of Great Britain, Austria, Prussia, and Russia, relative to the commerce between the states of his Imperial and Royal Apostolic Majesty and the United States of the Ionian Islands, shall remain in force.

13. The present treaty, after being signed and ratified, shall replace the convention of navigation and commerce concluded the 21st December, 1829, in London, between the governments of his Britannic Majesty and of his Imperial and Royal Apostolic Majesty; and shall continue in force until the 31st of December, 1848; and further, until the expiration of 12 months after one of the high contracting parties shall have notified to the other the intention to terminate its duration. It is further agreed, that in 12 months after one of the high contracting parties has received from the other such notification, this treaty, and all the stipulations it contains, shall cease to be obligatory upon either party.

14. The present treaty shall be ratified, and the ratifications exchanged at Vienna, in the space of one month, or sooner if possible.

In witness whereof, &c. plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Vienna the 3d day of July, in the year of our Lord 1838.

FREDERIC JAMES LAMB.
METTERNICH.

Declaration signed by the respective Plenipotentiaries on the conclusion of the preceding Treaty.

With a view to prevent beforehand all doubt which might hereafter arise with regard to the true sense of the expressions contained in the treaty of commerce and navigation, signed this day between the plenipotentiaries of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and of his Majesty the Emperor of Austria, King of Hungary and Bohemia, the high contracting parties have agreed, by common consent, that the French text of the said treaty shall be considered by the Austrian government as the original text.

In witness whereof, the present declaration has been done in duplicate, and signed by the respective plenipotentiaries.

Vienna, 3d July, 1838.

FREDERIC JAMES LAMB.
METTERNICH.

Declaration made by the Plenipotentiary of her Britannic Majesty, on the Exchange of the Ratifications of the preceding Treaty.

In proceeding to the exchange of the ratifications of the treaty of commerce and navigation, between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the Emperor of Austria, King of Hungary and Bohemia, concluded and signed at Vienna on the 3d of July, 1838, the undersigned plenipotentiary of her Britannic Majesty is commanded by her Majesty to explain and declare: —

1. That in the preamble of the said treaty, the words "the commercial relations of their respective states and possessions" shall be understood to mean "the commercial relations between their respective states and possessions," the latter form of words being that adopted in the preamble of the convention of commerce between Great Britain and Austria, signed at London, December 21. 1829.

2. That the stipulations of the third article of the aforesaid treaty of the 3d of July, 1838, relating to goods not the produce of the respective states, shall be understood to be mutual.

3. That by the seventh article of the aforesaid treaty of the 3d of July, 1838, it is understood that goods placed in warehouse shall not be liable to duty unless entered for consumption; and may be exported on the same terms in the ships of the one as in those of the other country.

Her Britannic Majesty's ratification of the aforesaid treaty of commerce and navigation is exchanged under the explicit declarations and understandings above mentioned.

Done at Milan, the 14th day of September, 1838.

FREDERIC JAMES LAMB.

Counter Declaration made by the Austrian Plenipotentiary.

In consequence of the declaration presented this day by his Excellency, Sir Frederic Lamb, Ambassador of her Britannic Majesty to his Imperial and Royal Apostolic Majesty, on the occasion of the exchange of the ratifications of the treaty of commerce and navigation, concluded and signed at Vienna on the 3d of July, between the plenipotentiaries of his Imperial and Royal Apostolic Majesty, and of her Britannic Majesty, which declaration is conceived in the following terms: —

1. That in the preamble of the said treaty the words "the commercial relations of their respective states and possessions" shall be understood to mean "the commercial relations between their respective states and possessions," the latter form of words being that adopted in the preamble of the convention of commerce signed at London on the 21st of December, 1829, between Austria and Great Britain.

2. That the stipulations of the 3d article of the aforesaid treaty of the 3d of July, 1838, relating to goods not the produce of the respective states, shall be understood to be mutual.

3. That by the 7th article of the treaty of the 3d of July, 1838, it is understood that goods placed in warehouse, shall not be liable to duty, unless entered for consumption; and may be exported on the same terms in the ships of the one as in those of the other country.

The undersigned, chancellor of court and state, is authorised by his Majesty the Emperor, his august master, to accede, in every particular, to this declaration presented by his Excellency the Ambassador of her Britannic Majesty.

Done at Milan, the 14th of September, 1838.

METTERNICH.

CHINA.

Treaty between Her Majesty and the Emperor of China, signed, in the English and Chinese Languages, at Nanking, August 29. 1842. Ratifications exchanged at Hong-Kong, 26th June, 1843.

Article I. There shall henceforward be peace and friendship between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the Emperor of China, and between their respective subjects, who shall enjoy full security and protection for their persons and property within the dominions of the other.

2. His Majesty the Emperor of China agrees, that British subjects, with their families and establishments, shall be allowed to reside, for the purpose of carrying on their mercantile pursuits, without molestation or restraint, at the cities and towns of Canton, Amoy, Foo-chow-foo, Ningpo, and Shanghai; and her Majesty the Queen of Great Britain, &c. will appoint superintendents, or consular officers, to reside at each of the above-named cities or towns, to be the medium of communication between the Chinese authorities and the said merchants, and to see that the just duties and other dues of the Chinese government, as hereafter provided for, are duly discharged by her Britannic Majesty's subjects.

3. It being obviously necessary and desirable that British subjects should have some port whereat they may careen and refit their ships when required, and keep stores for that purpose, his Majesty the Emperor of China cedes to her Majesty the Queen of Great Britain, &c. the island of Hong-Kong, to be possessed in perpetuity by her Britannic Majesty, her heirs and successors, and to be governed by such laws and regulations as her Majesty the Queen of Great Britain, &c. shall see fit to direct.

4. The Emperor of China agrees to pay the sum of six millions of dollars, as the value of the opium which was delivered up at Canton in the month of March, 1839, as a ransom for the lives of her Britannic Majesty's superintendent and subjects who had been imprisoned and threatened with death by the Chinese high officers.

5. The government of China having compelled the British merchants trading at Canton to deal exclusively with certain Chinese merchants, called Hong merchants (or Co-Hong), who had been licensed by the Chinese government for that purpose, the Emperor of China agrees to abolish that practice in future at all ports where British merchants may reside, and to permit them to carry on their mercantile transactions with whatever persons they please; and his Imperial Majesty further agrees to pay to the British government the sum of three millions of dollars, on account of debts due to British subjects by some of the said Hong merchants, or Co-Hong, who have become insolvent, and who owe very large sums of money to subjects of her Britannic Majesty.

6. The government of her Britannic Majesty having been obliged to send out an expedition to demand and obtain redress for the violent and unjust proceedings of the Chinese high authorities towards her Britannic Majesty's officer and subjects, the Emperor of China agrees to pay the sum of twelve millions of dollars, on account of the expenses incurred; and her Britannic Majesty's plenipotentiary voluntarily agrees, on behalf of her Majesty, to deduct from the said amount of twelve millions of dollars, any sums which may have been received by her Majesty's combined forces, as ransom for cities and towns in China subsequent to the 1st day of August, 1841.

7. It is agreed, that the total amount of twenty-one millions of dollars, described in the three preceding articles, shall be paid as follows:—

Six millions immediately.

Six millions in 1843; that is, three millions on or before the 30th of the month of June, and three millions on or before the 31st of December.

Five millions in 1844; that is, two millions and a half on or before the 30th of June, and two millions and a half on or before the 31st of December.

Four millions in 1845; that is, two millions on or before the 30th of June, and two millions on or before the 31st of December.

And it is further stipulated, that interest, at the rate of 5 per cent. per annum, shall be paid by the government of China on any portion of the above sums that are not punctually discharged at the periods fixed.

8. The Emperor of China agrees to release, unconditionally, all subjects of her Britannic Majesty (whether natives of Europe or India), who may be in confinement at this moment in any part of the Chinese empire.

9. The Emperor of China agrees to publish and promulgate, under his imperial sign manual and seal, a full and entire amnesty and act of indemnity to all subjects of China, on account of their having resided under, or having had dealings and intercourse with, or having entered the service of, her Britannic Majesty, or of her Majesty's officers; and his Imperial Majesty further engages to release all Chinese subjects who may be at this moment in confinement for similar reasons.

10. The Emperor of China agrees to establish at all the ports which are, by the second article of this treaty, to be thrown open for the resort of British merchants, a fair and regular tariff of export and import customs and other dues, which tariff shall be publicly notified and promulgated for general information; and the Emperor further engages, that, when British merchandise shall have once paid at any of the said ports the regulated customs and dues, agreeable to the tariff to be hereafter fixed, such merchandise may be conveyed by Chinese merchants to any province or city in the interior of the empire of China, on paying a further amount as transit duties, which shall not exceed per cent. on the tariff value of such goods.—(See, for Tariff, art. CANTON.)

11. It is agreed that her Britannic Majesty's chief high officer in China shall correspond with the Chinese high officers, both at the capital and in the provinces, under the term "communication;" the subordinate British officers and Chinese high officers in the provinces, under the term "statement," on the part of the former, and on the part of the latter, "declaration;" and the subordinates of both countries on a footing of perfect equality: merchants and others not holding official situations, and therefore not included in the above, on both sides, to use the term "representation" in all papers addressed to, or intended for the notice of, the respective governments.

12. On the assent of the Emperor of China to this treaty being received, and the discharge of the first instalment of money, her Britannic Majesty's forces will retire from Nanking and the Grand Canal, and will no longer molest or stop the trade of China. The military post at Chinhae will also be withdrawn; but the islands of Koolangsoo, and that of Chusan, will continue to be held by her Majesty's forces until the money payments, and the arrangements for opening the ports to British merchants, be completed.

13. The ratification of this treaty by her Majesty the Queen of Great Britain, &c. and his Majesty the Emperor of China, shall be exchanged as soon as the great distance which separates England from China will admit; but, in the meantime, counterpart copies of it, signed and sealed by the plenipotentiaries on behalf of their respective sovereigns, shall be mutually delivered, and all its provisions and arrangements shall take effect.

Done at Nanking, and signed and sealed by the plenipotentiaries on board her Britannic Majesty's ship "Cornwallis," this 29th day of August, 1842; corresponding with the Chinese date, twenty-fourth day of the seventh month, in the twenty-second year of Taoukwang.

HENRY POTTINGER,
Her Majesty's Plenipotentiary,

And signed by the seals of four Chinese commissioners.

DENMARK.

Convention of Commerce between Great Britain and Denmark, signed at London, the 16th of June, 1824.

Article 1. From and after the 1st day of July next, Danish vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering or departing from the ports of his Danish Majesty's dominions, shall not be subject to any other or higher duties or charges whatever, than are or shall be levied on national vessels entering or departing from such ports respectively.

1. All articles of the growth, produce, or manufacture of any of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom and of Denmark respectively, in vessels of the one country, shall, in like manner, be imported into and exported from those ports in vessels of the other.

3. All articles not of the growth, produce, or manufacture of the dominions of his Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland into the ports and dominions of the King of Denmark, in British ships, shall be subject only to the same duties as are payable upon the like articles, if imported in Danish ships; and the same reciprocity shall be observed with regard to Danish vessels in the ports of the said United Kingdom of Great Britain and Ireland, in respect to all articles not the growth, produce, or manufacture of the dominions of his Danish Majesty, which can legally be imported into the ports of the United Kingdom in Danish ships.

4. All goods which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in vessels of the other country, or in national vessels; and all goods which can be legally exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the other country, or in national vessels.

5. No priority or preference shall be given, directly or indirectly, by the government of either country, or by any company, corporation, or agent, acting on its behalf or under its authority, in the purchase of any article the growth, produce, or manufacture of either country imported into the other, on account of or in reference to the character of the vessel in which such article was imported: it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. The high contracting parties having mutually determined not to include in the present convention their respective colonies, in which are comprehended, on the part of Denmark, Greenland, Iceland, and the islands of Ferroe; it is expressly agreed that the intercourse which may at present legally be carried on by the subjects or ships of either of the said high contracting parties with the colonies of the other, shall remain upon the same footing as if this convention had never been concluded.

7. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

8. The present convention shall be ratified, and the ratifications shall be exchanged at London, within one month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 16th of June, 1824,

GEORGE CANNING.
W. HUSKISSON.
C. E. MOLTKE.

Separate Article.

The high contracting parties reserve to themselves to enter upon additional stipulations for the purpose of facilitating and extending, even beyond what is comprehended in the convention of this date, the commercial regulations of their respective subjects and dominions, upon the principle either of reciprocal or equivalent advantages, as the case may be. And in the event of any articles or article being concluded between the said high contracting parties, for giving effect to such stipulations, it is hereby agreed, that the article or articles which may hereafter be so concluded shall be considered as forming part of the aforesaid convention.

Additional Article.

Their Britannic and Danish Majesties mutually agree, that no higher or other duties shall be levied in either of their dominions (their respective colonies being excepted from the convention of this date), upon any personal property of their respective subjects, on the removal of same from the dominions of their said Majesties reciprocally, either upon the inheritance of such property, or otherwise, than are or shall be payable in each state, upon the like property, when removed by a subject of such state respectively.

FRANCE.

Convention of Commerce between His Britannic Majesty and the Most Christian King, together with two additional Articles thereunto annexed, signed at London, January 26. 1826.

Article 1. French vessels coming from or departing for the ports of France, or, if in ballast, coming from or departing for any place, shall not be subject, in the ports of the United Kingdom, either on entering into or departing from the same, to any higher duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, than those to which British vessels, in respect of the same voyages, are or may be subject, on entering into or departing from such ports; and, reciprocally, from and after the same period, British vessels coming from or departing for the ports of the U. Kingdom, or, if in ballast, coming from or departing for any place, shall not be subject, in the ports of France, either in entering into or departing from the same, to any higher duties of tonnage, harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, than those to which French vessels, in respect of the same voyages, are or may be subject, on entering into or departing from such ports; whether such duties are collected separately, or are consolidated in one and the same duty; — his Most Christian Majesty reserving to himself to regulate the amount of such duty or duties in France, according to the rate at which they are or may be established in the U. Kingdom: at the same time, with a view of diminishing the burdens imposed upon the navigation of the two countries, his Most Christian Majesty will always be disposed to reduce the amount of the said burdens in France, in proportion to any reduction which may hereafter be made of those now levied in the ports of the U. Kingdom.

2. Goods which can or may be legally imported into the ports of the U. Kingdom, from the ports of France, if so imported in French vessels, shall be subject to no higher duties than if imported in British vessels; and, reciprocally, goods which can or may be legally imported into the ports of France, from the ports of the U. Kingdom, if so imported in British vessels, shall be subject to no higher duties than if imported in French vessels. The produce of Asia, Africa, and America, not being allowed to be imported from the said countries, nor from any other, in French vessels, nor from France in French, British, or any other vessels, into the ports of the U. Kingdom, for home consumption, but only for warehousing and re-exportation, his Most Christian Majesty reserves to himself to direct that, in like manner, the produce of Asia, Africa, and America, shall not be imported from the said countries, nor from any other, in British vessels, nor from the United Kingdom in British, French, or any other vessels, into the ports of France, for the consumption of that kingdom, but only for warehousing, and re-exportation.

With regard to the productions of the countries of Europe, it is understood between the high contracting parties, that such productions shall not be imported, in British ships, into France, for the consumption of that kingdom, unless such ships shall have been laden therewith in some port of the United Kingdom; and that his Britannic Majesty may adopt, if he shall think fit, some corresponding restrictive measure, with regard to the productions of the countries of Europe imported into the ports of the United Kingdom in French vessels: the high contracting parties reserving, however, to themselves the power of making, by mutual consent, such relaxations in the strict execution of the present article, as they may think useful to the respective interests of the 2 countries upon the principal of mutual concessions, affording each to the other reciprocal or equivalent advantages.

3. All goods which can or may be legally exported from the ports of either of the 2 countries, shall, on their export, pay the same duties of exportation, whether the exportation of such goods be made in British or in French vessels, provided the said vessels proceed, respectively, direct from the ports of the one country to those of the other. And all the said goods so exported in British or French vessels, shall be reciprocally entitled to the same bounties, drawbacks, and other allowances of the same nature, which are granted by the regulations of each country, respectively.

4. It is mutually agreed between the high contracting parties, that in the intercourse of navigation between their 2 countries, the vessels of any third power shall in no case obtain more favourable conditions than those stipulated, in the present convention, in favour of British and French vessels.

5. The fishing-boats of either of the 2 countries, which may be forced by stress of weather to seek shelter in the ports or on the coast of the other country, shall not be subject to any duties or port charges of any description whatsoever; provided the said boats, when so driven in by stress of weather, shall not discharge or receive on board any cargo, or portion of cargo, in the ports or on the parts of the coast where they shall have sought shelter.

6. It is agreed that the provisions of the present convention between the high contracting parties shall be reciprocally extended and in force, in all the possessions subject to their respective dominions in Europe.

7. The present convention shall be in force for the term of 10 years, from the 5th of April of the present year; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate its operation; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years: and it is agreed between them, that, at the end of 12 months' extension agreed to on both sides, this convention, and all the stipulations thereof, shall altogether cease and determine.

8. The present convention shall be ratified, and the ratifications shall be exchanged in London, within the space of 1 month, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 26th day of January, in the year of our Lord 1826,

GEORGE CANNING.
WILLIAM HUSKISSON.
LE PRINCE DE POLIGNAC.

Additional Articles.

Article 1. French vessels shall be allowed to sail from any port whatever of the countries under the dominion of his Most Christian Majesty, to all the colonies of the United Kingdom (except those possessed by the East India Company), and to import into the said colonies all kinds of merchandise (being productions the growth or manufacture of France, or of any country under the dominion of France), with the exception of such as are prohibited to be imported into the said colonies, or are permitted to be imported only from countries under the British dominion; and the said French vessels, as well as the merchandise imported in the same, shall not be subject, in the colonies of the United Kingdom, to other or higher duties than those to which British vessels may be subject, on importing the same merchandise from any foreign country, or which are imposed upon the merchandise itself.

The same facilities shall be granted, reciprocally, in the colonies of France, with regard to the importation in British vessels of all kinds of merchandise, (being productions the growth and manufacture of the United Kingdom, or any country under the British dominion,) with the exception of such as are prohibited to be imported into the said colonies, or are permitted to be imported only from countries under the dominion of France. And whereas all goods, the produce of any foreign country, may now be imported into the colonies of the United Kingdom, in the ships of that country, with the exception of a limited list of specified articles, which can only be imported into the said colonies in British ships, his Majesty the King of the United Kingdom reserves to himself the power of adding to the said list of excepted articles any other, the produce of the French dominions, the addition whereof may appear to his Majesty to be necessary for placing the commerce and navigation to be permitted to the subjects of each of the high contracting parties with the colonies of the other, upon a footing of fair reciprocity.

2 French vessels shall be allowed to export from all the colonies of the United Kingdom (except those possessed by the East India Company) all kinds of merchandise which are not prohibited to be exported from such colonies in vessels other than those of Great Britain; and the said vessels, as well as the merchandise exported in the same, shall not be subject to other or higher duties than those to which British vessels may be subject, on exporting the said merchandise, or which are imposed upon the merchandise itself; and they shall be entitled to the same bounties, drawbacks, and other allowances of the same nature, to which British vessels would be entitled, on such exportation.

The same facilities and privileges shall be granted, reciprocally, in all the colonies of France, for the exportation in British vessels, of all kinds of merchandise, which are not prohibited to be exported from such colonies in vessels other than those of France.

These 2 additional articles shall have the same force and validity as if they were inserted, word for word, in the convention signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, Jan. 26. 1826.

GEORGE CANNING. LE PRINCE DE POLIGNAC.
WILLIAM HUSKISSON.

A Treasury letter, dated 28th of March, 1826, directs that French vessels, and their cargoes legally imported or exported on board the same, according to the terms of the convention in the preceding pages, are, from the 5th of April, 1826, to be charged with such and the like duties only, of whatever kind they may be, that are charged on British vessels, and similar cargoes laden on board thereof; and in like manner the same bounties, drawbacks, and allowances are to be paid on articles exported in French vessels, that are paid, granted, or allowed on similar articles exported in British vessels. And the necessary instructions are to be transmitted to the officers in the colonies for carrying into effect the stipulations contained in the 2 additional articles of the said convention, respecting French vessels and their cargoes, from the 1st of October, 1826.

A convention regulating the respective limits of the British and French oyster and other fisheries was signed at Paris, on the 2nd of August, 1839.

HANSE TOWNS.

Convention of Commerce between His Britannic Majesty, and the Free Hanseatic Republics of Lubeck, Bremen, and Hamburg, signed at London, Sept. 29. 1825.

Article 1. From and after the date hereof, British vessels entering or departing from the ports of the free Hanseatic republics of Lubeck; Bremen, or Hamburg; and Lubeck, Bremen, or Hamburg vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, shall not be subject to any other or higher ship duties or charges than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All goods, whether the production of the territories of the free Hanseatic republics of Lubeck, Bremen, or Hamburg, or of any other country, which may be legally imported from any of the ports of the said republics into the United Kingdom of Great Britain and Ireland in British vessels, shall, in like manner, be permitted to be imported in Lubeck, Bremen, or Hamburg vessels; and all goods, whether the productions of any of the dominions of his Britannic Majesty, or of any other country, which may be legally exported from the ports of the United Kingdom in British vessels, shall, in like manner, be permitted to be exported from the said ports in Lubeck, Bremen, or Hamburg vessels. And all goods, which may be legally imported into or exported from the ports of Lubeck, Bremen, or Hamburg, in national vessels, shall, in like manner, be permitted to be imported into or exported from the ports of Lubeck, Bremen, or Hamburg, in British vessels.

3. All goods which can be legally imported into the ports of the United Kingdom directly from the ports of Lubeck, Bremen, or Hamburg, or either of them, shall be admitted at the same rate of duty, whether imported in British vessels, or in vessels belonging to either of the said republics; and all goods which can be legally exported from the United Kingdom, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in British or Hanseatic vessels. And the like reciprocity shall be observed, in the ports of the said republics, in respect to all goods which can be legally imported into or exported from any or either of the said ports in vessels belonging to the United Kingdom.

4. No priority or preference shall be given, directly or indirectly, by any or either of the contracting parties, nor by any company, corporation, or agent, acting on their behalf or under their authority, in the purchase of any article, the growth, produce, or manufacture of their states respectively, imported into the other, on account of or in reference to the character of the vessel in which such article was imported; it being the true intent and meaning of the high contracting parties that no distinction or difference whatever shall be made in this respect.

5. In consideration of the limited extent of the territories belonging to the republics of Lubeck, Bremen, and Hamburg, and the intimate connection of trade and navigation subsisting between these republics, it is hereby stipulated and agreed, that any vessel which shall have been built in any or either of the ports of the said republics, and which shall be owned exclusively by a citizen or citizens of any or either of them, and of which the master shall also be a citizen of either of them, and provided 3-4ths of the crew shall be subjects or citizens of any or either of the said republics, or of any or either of the states comprised in the Germanic Confederation, such vessel, so built, owned, and navigated, shall, for all the purposes of this convention, be taken to be and be considered as a vessel belonging to Lubeck, Bremen, or Hamburg.

6. Any vessel, together with her cargo, belonging to either of the three free Hanseatic republics of Lubeck, Bremen, or Hamburg, and coming from either of the said ports to the United Kingdom, shall,

for all the purposes of this convention, be deemed to come from the country to which such vessel belongs; and any British vessel and her cargo trading to the ports of Lubeck, Bremen, or Hamburg, directly or in succession, shall, for the like purposes, be on the footing of a Hanseatic vessel and her cargo making the same voyage.

7. It is further mutually agreed that no higher or other duties shall be levied, in any or either of the states of the high contracting parties, upon any personal property of the subjects and citizens of each respectively, on the removal of the same from the dominions or territory of such states, (either upon inheritance of such property, or otherwise,) than are or shall be payable, in each state, upon the like property when removed by a subject or citizen of such state respectively.

8. The high contracting parties reserve to themselves to enter upon additional stipulations for the purpose of facilitating and extending, even beyond what is comprehended in the convention of this date, the commercial relations of their respective subjects and dominions, citizens and territories, upon the principle either of reciprocal or equivalent advantages, as the case may be; and, in the event of any article or articles being concluded between the said high contracting parties, for giving effect to such stipulations, it is hereby agreed that the article or articles which may hereafter be so concluded shall be considered as forming part of the present convention.

9. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after the King of the United Kingdom of Great Britain and Ireland, on the one part, or the governments of the free Hanseatic republics of Lubeck, Bremen, or Hamburg, or either of them, on the other part, shall have given notice of their intention to terminate the same; each of the said high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years; and it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either of the parties from the other, this convention, and all the provisions thereof, shall altogether cease and determine, as far as regards the states giving and receiving such notice; it being always understood and agreed, that, if one or more of the Hanseatic republics aforesaid shall, at the expiration of 10 years from the date hereof, give or receive notice of the proposed termination of this convention, such convention shall, nevertheless, remain in full force and operation as far as regards the remaining Hanseatic republics or republic which may not have given or received such notice.

10. The present convention shall be ratified, and the ratifications shall be exchanged at London, within one month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, Sept. 29. 1825.

GEORGE CANNING.
W. HUSKISSON.
JAMES COLQUHOUN.

Supplementary Convention to the Treaty of Commerce and Navigation of the 29th of September, 1825, between the Senates of the Free Hanseatic Cities of Lubeck, Bremen, and Hamburg, and her Majesty the Queen of Great Britain and Ireland; signed at London, the 3d of August, 1841.

Art. 1. The senate of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, hereby agree that British vessels coming from countries not being part of the dominions of her Britannic Majesty, shall henceforward, together with their cargoes, be admitted into the ports of Lubeck, Bremen, and Hamburg, and all vessels shall on their admission pay dues not higher nor other than those which shall be paid in similar circumstances by vessels belonging to Lubeck, Bremen, or Hamburg, and the duties to be paid upon the cargoes of such British vessels shall not be higher nor other than if such cargoes had been imported in vessels belonging to Lubeck, Bremen, or Hamburg. And in consideration thereof, her Britannic Majesty agrees that from and after the date of the exchange of the ratification of this present convention, the vessels of the said free Hanseatic republics of Lubeck, Bremen, and Hamburg, when coming from Hanseatic ports, shall, together with their cargoes, be admitted into the ports of all her Britannic Majesty's possessions; and such vessels shall, on their admission, pay dues not higher nor other than those which shall be paid in similar circumstances by British vessels; and the duties to be paid upon the cargoes of such Hanseatic vessels shall not be higher nor other than if such cargoes had been imported in British vessels.

2. In consideration of the privileges extended to British trade and navigation by the first article of the present convention, her Britannic Majesty further agrees that all goods, being the produce of the states of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, or of the other states of the Germanic Confederation, or of the states comprised in the Germanic Union of Customs, and which may be imported in any foreign vessels from the ports of Lubeck, Bremen, and Hamburg, or from any port situated on the Elbe or Weser, into the ports of the British possessions abroad, including Gibraltar and Malta, shall also be permitted to be imported from the said ports of the free cities of Lubeck, Bremen, and Hamburg, into the ports of the said British possessions abroad, including Gibraltar and Malta, in vessels belonging to Lubeck, Bremen, and Hamburg, built, owned, and navigated as stipulated in the fifth article of the convention of commerce and navigation, concluded on the 29th of September, 1825, between Great Britain on the one part, and the free Hanseatic cities of Lubeck, Bremen, and Hamburg on the other part; and such goods, wares, and merchandise being the produce of the free Hanseatic republics, or of the other states of the German Confederation, or of the states of the Germanic Union of Customs, and so imported in Hanseatic vessels into the ports of the said British possessions abroad, including Gibraltar and Malta; and all goods, wares, and merchandise exported in Hanseatic vessels, built, owned, and navigated as aforesaid, from the ports of the British possessions abroad, including Gibraltar and Malta, to any foreign country whatever, shall pay no other or higher duties than if the same were imported or exported in British vessels.

3. The present convention, which shall be considered as supplementary to the convention concluded between Great Britain and the free Hanseatic republics on the 29th of September, 1825, shall be ratified, and the ratifications shall be exchanged at London as soon as possible within the space of six weeks.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed the seals of their arms.

Done at London, on the 3d day of August, in the year of our Lord 1841.

PALMERSTON.
BANKS.

By an order in council dated September 14. 1841, her Majesty is pleased to order that all goods being the produce of the states of the free Hanseatic cities of Lubeck, Bremen, and Hamburg, or of the other states of the Germanic Confederation, or of the states comprised in the Germanic Union of Customs, and which may be imported in any foreign vessels from the ports of Lubeck, Bremen, and Hamburg, or from any port situated on the Elbe or Weser into the ports of the British possessions abroad, including Gibraltar and Malta, shall also be permitted to be imported from the said ports of the free cities of Lubeck, Bremen, and Hamburg, into the ports of the said British possessions abroad (including Gibraltar and Malta) in vessels belonging to Lubeck, Bremen, and Hamburg, built, owned, and navigated as stipulated in the fifth article of the convention of commerce and navigation, concluded on the 29th of September, 1825, between Great Britain on the one part, and the free Hanseatic cities of Lubeck, Bremen, and Hamburg on the other part; and such goods, being the produce of the free Hanseatic republics, or of the other states of the Germanic Confederation, or of the states of the Germanic Union of Customs, and so imported in Hanseatic vessels into the ports of the said British possessions abroad

(including Gibraltar and Malta), and all goods exported in Hanseatic vessels, built, owned, and navigated as aforesaid, from the ports of the British possessions abroad (including Gibraltar and Malta) to any foreign country whatever, shall pay no other or higher duties than if the same were imported or exported in British vessels.

GREECE.

Convention of Commerce and Navigation between her Britannic Majesty and the King of Greece, signed at London, October 4th, 1837.

Art. 1. From and after the exchange of the ratifications of the present convention, Greek vessels entering into or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering into or departing from the ports of the kingdom of Greece, shall not be subject to any other or higher duties or charges whatever, than are or shall be levied on national vessels entering into or departing from such ports, respectively.

2. All articles, the growth, produce, or manufacture of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom of Great Britain and Ireland, and of the kingdom of Greece, respectively, in vessels of the one country, shall, in like manner, be permitted to be imported into and exported from those ports, in vessels of the other country.

3. All articles not the growth, produce, or manufacture of the dominions of her Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland into the ports of the kingdom of Greece in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Greek vessels. And, reciprocally, a similar rule shall be observed in the ports of the United Kingdom, in respect of all articles not the growth, produce, or manufacture of the dominions of his Majesty the King of Greece, which can legally be imported into the ports of the United Kingdom in Greek vessels.

4. All goods, wares, and merchandise, which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in national vessels or in vessels of the other country; and all goods, wares, and merchandise which can legally be exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the one country or in those of the other.

5. Neither of the two governments, and no company, corporation, or agent, acting on behalf of or under the authority of either government, shall, in the purchase of any article which is the growth, produce, or manufacture of one country, and is imported into the other, give, either directly or indirectly, any priority or preference on account of or in reference to the national character of the vessel in which such article may be imported; it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. In order to avoid any misunderstanding with regard to the regulations which may determine the conditions which constitute a British or Greek vessel, it is hereby agreed that all vessels built in the dominions of her Britannic Majesty, and all vessels which, having been captured from an enemy by her Majesty's ships of war, or by the subjects of her said Majesty, furnished with letters of marque by the lords commissioners of the Admiralty, shall have been regularly condemned in one of her said Majesty's prize courts as lawful prize; and all vessels which shall have been condemned in any competent court for a breach of the laws made for the prevention of the slave trade; and which shall be owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels: and that all vessels built in the territories of Greece, or which shall have been captured from an enemy by the ships of war of the Greek government, or by Greek subjects furnished with letters of marque, and shall have been regularly condemned in one of the prize courts of the kingdom of Greece as a lawful prize, and which shall be wholly owned by any subject or subjects of Greece, and whereof the master and three-fourths of the crew are subjects of Greece, shall be considered as Greek vessels.

7. If any ships of war or merchantmen of the one nation should be wrecked on the coasts of the other, all such parts of the said ships of war or merchantmen, or of the furniture or appurtenances thereof, as also all goods and merchandise which shall be saved, or the produce thereof, and likewise the papers found on board the vessel, shall be carefully preserved until they are claimed by the proprietors, or their agents duly authorised, or by the respective consuls in whose district such wreck may have taken place, if such claim be preferred within the period fixed by the laws in force in the states of the high contracting parties; and such consul, proprietor, or agent shall pay only the expenses incurred in the preservation of the property, and the rate of salvage which would have been payable, in the like case, upon a national vessel; and the said goods and merchandise saved from the wreck shall not be liable to pay duties, unless cleared for local consumption.

8. Her Britannic Majesty and his Majesty the King of Greece have agreed, that each of the high contracting parties shall have the right to nominate and appoint consuls-general, consuls, and vice-consuls, in all the ports of the dominions of the other contracting party wherein such consular officers are or may be necessary for the advancement of commerce and for the protection of the trade of the subjects of either crown; and it is expressly stipulated that such consuls, of whatever class, shall, in the country in which they are stationed, be placed upon the footing of the consuls of the most favoured nation.

9. Her Britannic Majesty consents to grant to the subjects of his Majesty the King of Greece, the same facilities and privileges, with respect to the commerce to be carried on in Greek vessels with the British dominions in the East Indies, as are or may be enjoyed under any treaty or act of parliament by the subjects or citizens of the most favoured nation; it being always understood that the laws, rules, regulations, and restrictions, which are or may be applicable to the ships and subjects of any other foreign country, enjoying the like facilities and privileges of trading with the said dominions, shall be equally applicable to the subjects of the king of Greece.

10 All subjects of her Britannic Majesty shall, within the dominions of the King of Greece, be as free as native Greeks to manage their own affairs themselves, or to commit the management of those affairs to any other person whom they may please to appoint as broker, factor, agent, or interpreter; nor shall British subjects be restrained in their choice of persons to act in such capacities, nor be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall also be allowed, in all cases, to the buyer and seller to bargain together, and to fix as to them may seem meet, the price of any goods, wares, or merchandise imported into, or to be exported from, the dominions of the King of Greece, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the subjects of his Majesty the King of Greece, under the same conditions.

11. In all that relates to the police of ports, to the lading and unlading of vessels, and to the safety of merchandise, goods, and effects, the local laws and police regulations of each country shall be applied to the subjects of both, without discrimination or distinction; and, throughout the whole extent of the territories of each contracting party, the subjects of both shall enjoy full and entire protection for their persons and property. They shall have free and easy access to the courts of justice in the prosecution and defence of their rights, and shall be at liberty to employ the lawyers, attorneys, or agents, of whatever denomination, whom they may deem the best qualified to maintain and defend their interests: it being understood that they shall conform, in this respect, to the obligations imposed upon native subjects by the laws of the country. In all that concerns the administration of justice, they shall enjoy the same privileges, rights, and franchises, that belong to natives; and in none of these respects shall they be subject to any other duty or tax than is imposed upon natives. They shall be exempted from all com-

pulsory military service, either by sea or by land; no forced loan shall be imposed upon them; and their property shall be subject to no other charge, requisition, or tax, than those to which the property of natives shall be liable.

12. Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of Greece, agree that the subjects of the respective countries shall enjoy, within the dominions of the other, the full benefit of the complete toleration and protection for the professors of all religious opinions, which at present exists in both countries by law.

13. It shall be free for the subjects of her Britannic Majesty residing in the dominions of the King of Greece, and for the subjects of his Majesty the King of Greece residing in the dominions of her Britannic Majesty, to dispose of their property, of every description, by will or testament, as they may judge fit; and if any British subject shall die in the territories of the King of Greece, or any Greek subject shall die in the territories of the Queen of Great Britain, without will or testament, the respective consuls or vice-consuls shall exercise the right of administering to the property of subjects of their nation so dying intestate, for the benefit of the legitimate heirs to such property, and of the creditors upon the estate, so far as the laws of the respective countries shall admit.

14. The high contracting parties agree that the stipulations of the present convention shall be applicable to Gibraltar and to the island of Malta.

15. The present convention shall be in force for 10 years from the date of the exchange of the ratifications thereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the 10 years abovementioned, or at any other period after that time; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

16. The present convention shall be ratified, and the ratifications shall be exchanged at London, within 3 months from the date hereof.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 4th day of October, in the year of our Lord 1837.

PALMERSTON.
TRICOUPI.

An order in council, dated July 5th, 1838, directs that Greek vessels, entering or departing from the ports of the United Kingdom of Great Britain and Ireland, together with the cargoes on board the same (such cargoes consisting of articles which may be legally imported or exported), shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports, or on similar articles, when imported into or exported from such ports in such vessels; and also, such articles, when exported from the said ports in Greek vessels, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

MEXICO.

Treaty of Amity, Commerce, and Navigation, between Great Britain and Mexico, signed at London, December 26. 1826.

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, and the United States of Mexico, and their citizens.

2. There shall be, between all the territories of his Britannic Majesty in Europe and the territories of Mexico, a reciprocal freedom of commerce. The inhabitants of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places and rivers in the territories aforesaid, saving only such particular ports to which other foreigners shall not be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce.

In like manner, the respective ships of war and post-office packets of the 2 countries shall have liberty freely and securely to come to all harbours, rivers, and places, saving only such particular ports (if any) to which other foreign ships of war and packets shall not be permitted to come, to enter into the same, to anchor, and to remain there and refit; subject always to the laws and statutes of the two countries respectively.

By the right of entering the places, ports, and rivers, mentioned in this article, the privilege of carrying on the coasting trade is not understood, in which national vessels only are permitted to engage.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that the inhabitants of Mexico shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the dominions of his Britannic Majesty, of any article of the growth, produce, or manufacture of Mexico, and no higher or other duties shall be imposed on the importation into the territories of Mexico, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation of any articles, the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of Mexico, to or from the said dominions of his Britannic Majesty, or to or from the said territories of Mexico, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of Mexico, on British vessels, than those payable in the same ports by Mexican vessels*; nor, in the ports of his Britannic Majesty's territories, on Mexican vessels, than shall be payable, in the same ports, on British vessels.

6. The same duties shall be paid on the importation into the territories of Mexico, of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Mexican * or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of Mexico, whether such importation shall be in British or in Mexican vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to Mexico of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Mexican or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of Mexico, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Mexican vessels.

* See additional articles at the end of this treaty.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Mexican vessel, it is hereby agreed that all vessels built in the dominions of his Britannic Majesty, or vessels which shall have been captured from an enemy by his Britannic Majesty's ships of war, or by subjects of his said Majesty furnished with letters of marque by the Lords Commissioners of the Admiralty and regularly condemned in one of his said Majesty's prize courts as a lawful prize, or which shall have been condemned in any competent court for the breach of the laws made for the prevention of the slave trade, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built in the territories of Mexico, or captured from the enemy by the ships of Mexico, and condemned under similar circumstances, and which shall be owned by any citizen or citizens thereof, and whereof the master and 3-4ths of the mariners are citizens of Mexico, excepting where the laws provide for any extreme cases, shall be considered as Mexican vessels.

And it is further agreed, that every vessel, qualified to trade as above described under the provisions of this treaty, shall be furnished with a register, passport, or sea letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of Mexico, as the case may be; and that he or they is or are the sole owner or owners, in the proportion to be specified: together with the name, burden, and description of the vessel as to build and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of Mexico, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes than those employed by Mexicans, nor to pay them any other salary or remuneration than such as is paid, in like cases, by Mexican citizens; and absolute freedom shall be allowed, in all cases, to the buyer and seller, to bargain and fix the price of any goods, imported into or exported from Mexico, as they shall see good, observing the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of Mexico, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries, respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

9. In whatever relates to the succession to personal estates, by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the 2 contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects; and shall not be charged, in any of these respects, with any higher imposts or duties than those which are paid, or may be paid, by the native subjects or citizens of the power in whose dominions or territories they may be resident.

10. In all that relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the subjects of his Britannic Majesty, and the citizens of Mexico, respectively, shall be subject to the local laws and regulations of the dominions and territories in which they may reside. They shall be exempted from all compulsory military service, whether by sea or land. No forced loans shall be levied upon them; nor shall their property be subject to any other charges, requisitions, or taxes, than such as are paid by the native subjects or citizens of the contracting parties in their respective dominions.

11. It shall be free for each of the 2 contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but, before any consul shall act as such, he shall, in the usual form, be approved and admitted by the government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted. The Mexican diplomatic agents and consuls shall enjoy, in the dominions of his Britannic Majesty, whatever privileges, exceptions, and immunities are or shall be granted to agents of the same rank belonging to the most favoured nation; and, in like manner, the diplomatic agents and consuls of his Britannic Majesty in the Mexican territories shall enjoy, according to the strictest reciprocity, whatever privileges, exceptions, and immunities are or may be granted to the Mexican diplomatic agents and consuls in the dominions of his Britannic Majesty.

12. For the better security of commerce between the subjects of his Britannic Majesty and the citizens of the Mexican States, it is agreed that if, at any time, any interruption of friendly intercourse, or any rupture, should unfortunately take place between the 2 contracting parties, the merchants residing upon the coasts shall be allowed 6 months, and those of the interior a whole year, to wind up their accounts, and dispose of their property: and a safe-conduct shall be given them to embark at the port which they shall themselves select. All those who are established in the respective dominions and territories of the 2 contracting parties, in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws: and their goods and effects, of whatever description they may be, shall not be liable to seizure or sequestration, or to any other charges or demands than those which may be made upon the like effects or property belonging to the native subjects or citizens of the respective dominions or territories in which such subjects or citizens may reside. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestrated, or detained.

13. The subjects of his Britannic Majesty residing in the Mexican territories shall enjoy, in their houses, persons, and properties, the protection of the government; and continuing in possession of what they now enjoy, they shall not be disturbed, molested, or annoyed, in any manner, on account of their religion, provided they respect that of the nation in which they reside, as well as the constitution, laws, and customs of the country. They shall continue to enjoy, to the full, the privilege already granted to them of burying, in the places already assigned for that purpose, such subjects of his Britannic Majesty as may die within the Mexican territories; nor shall the funerals and sepulchres of the dead be disturbed in any way, or upon any account. The citizens of Mexico shall enjoy, in all the dominions of his Britannic Majesty, the same protection, and shall be allowed the free exercise of their religion, in public or private, either within their own houses, or in the chapels and places of worship set apart for that purpose.

14. The subjects of his Britannic Majesty shall on no account or pretext whatsoever be disturbed or molested in the peaceable possession and exercise of whatever rights, privileges, and immunities they have at any time enjoyed within the limits described and laid down in a convention signed between his said Majesty and the King of Spain, on the 14th of July, 1786; whether such rights, privileges, and immunities shall be derived from the stipulations of the said convention, or from any other concession which may at any time have been made by the King of Spain, or his predecessors, to British subjects and settlers residing and following their lawful occupations within the limits aforesaid: the 2 contracting parties reserving, however, for some more fitting opportunity, the further arrangements on this article.

15. The government of Mexico engages to co-operate with his Britannic Majesty for the total abolition

of the slave trade, and to prohibit all persons inhabiting within the territories of Mexico, in the most effectual manner, from taking any share in such trade.

16. The 2 contracting parties reserve to themselves the right of treating and agreeing hereafter, from time to time, upon such other articles as may appear to them to contribute still further to the improvement of their mutual intercourse, and the advancement of the general interests of their respective subjects and citizens; and such articles as may be so agreed upon, shall, when duly ratified, be regarded as forming a part of the present treaty, and shall have the same force as those now contained in it.

17. The present treaty shall be ratified, and the ratifications shall be exchanged at London within the space of 6 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of December, in the year of our Lord 1826.

WILLIAM HUSKISSON. SEBASTIAN CAMACHO.
JAMES J. MORIER.

Additional Articles.

1. Whereas, in the present state of Mexican shipping, it would not be possible for Mexico to receive the full advantage of the reciprocity established by the articles 5, 6, 7. of the treaty signed this day, if that part of the 7th article which stipulates that, in order to be considered as a Mexican ship, a ship shall actually have been *built* in Mexico, should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of 10 years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, *wheresoever built*, being *bonâ fide* the property of and wholly owned by one or more citizens of Mexico, and whereof the master and 3-4ths of the mariners, at least, are also natural-born citizens of Mexico, or persons domiciliated in Mexico, by act of the government, as lawful subjects of Mexico, to be certified according to the laws of that country, shall be considered as Mexican ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of 10 years, to claim the principle of reciprocal restriction stipulated for in the article 7. above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity, in favour of Mexican shipping.

2. It is further agreed that, for the like term of 10 years, the stipulations contained in articles 5. and 6. of the present treaty shall be suspended; and in lieu thereof, it is hereby agreed that, until the expiration of the said term of 10 years, British ships entering into the ports of Mexico from the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles the growth, produce, or manufacture of the United Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and, reciprocally, it is agreed, that Mexican ships entering into the ports of the United Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the States of Mexico, and all articles the growth, produce, or manufacture of the said States, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of 10 years, the stipulations of the said 5th and 6th articles shall, from thenceforward, be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of December, in the year of our Lord 1826.

WILLIAM HUSKISSON. SEBASTIAN CAMACHO.
JAMES J. MORIER.

An order in council, dated September 3. 1827, orders, that vessels of the United States of Mexico, entering the ports of the United Kingdom of Great Britain and Ireland in ballast, or laden direct from any of the ports of Mexico, or departing from the ports of the said United Kingdom, together with the cargoes on board the same, such cargoes consisting of articles which may be legally imported or exported, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports, or on similar articles when imported into or exported from such ports in British vessels: and also such articles, when exported from the said ports in vessels of the United States of Mexico respectively, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

N.B.—Treaties similar to the above have been negotiated with Colombia, Buenos Ayres, &c.

NETHERLANDS.

Treaty of Commerce and Navigation between her Majesty and the King of the Netherlands, signed at the Hague, October 27th, 1837.

Article 1. There shall be reciprocal liberty of commerce and navigation between and amongst the subjects of the two high contracting parties; and the subjects of the two sovereigns respectively shall not pay in the ports, harbours, roads, cities, towns, or places whatsoever in either kingdom, any other or higher duties, taxes, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects of the most favoured nation: and the subjects of each of the high contracting parties shall enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, that are granted, or may hereafter be granted, in either kingdom, to the subjects of the most favoured nation. No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation, by sea or by land, from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of or imported from any other country; and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of the Netherlands, do hereby bind and engage themselves, not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects of any other state, which shall not be also, and at the same time, extended to the subjects of the other high contracting party, gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

2. No duties of tonnage, harbour, lighthouses, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the two countries, if laden, or in respect of any voyage if in ballast, which shall not be equally imposed, in the like cases, on national vessels; and in neither country shall any duty, charge, restriction, or prohibition be imposed upon, nor any drawback, bounty, or allowance be withheld from, any goods imported from or exported to the other country, in

the vessel of that other country, which shall not be equally imposed upon or withheld from such goods when so imported or exported in national vessels.

3. In order to avoid any misunderstanding with regard to the regulations that determine the conditions which constitute a British or a Dutch vessel, it is hereby agreed, that all vessels built in the dominions of her Britannic Majesty, and all vessels which, having been captured from an enemy by her Majesty's ships of war, or by the subjects of her said Majesty, furnished by the lords commissioners of the Admiralty with letters of marque, shall have been regularly condemned in one of her said Majesty's prize courts as a lawful prize; and all vessels which shall have been condemned in any competent court, for a breach of the laws made for the prevention of the slave trade; shall, provided they are owned, navigated, and registered according to the laws of Great Britain, be considered as British vessels; and that all vessels built in the territories of the King of the Netherlands, or which, having been captured from an enemy by his Majesty's ships of war, or by the subjects of his said Majesty furnished with letters of marque, shall have been regularly condemned in one of the prize courts of the kingdom of the Netherlands as a lawful prize; and all vessels which shall have been condemned in any competent court, for a breach of the laws made for the prevention of the slave trade, shall, provided they are wholly owned by any subject or subjects of the King of the Netherlands, and provided that the master and three-fourths of the crew are Netherlands subjects, be considered as Netherland vessels.

4. It is further agreed, that in all cases where, in either kingdom, the duty to be levied upon any goods imported, shall be, not a fixed rate, but a proportion of the value of the goods, such *ad valorem* duty shall be ascertained and secured in the following manner; that is to say, the importer shall, on making his entry for the payment of duty at the custom-house of either country, sign a declaration, stating the value of the goods at such amount as he shall deem proper; and in case the officers of customs should be of opinion that such valuation is insufficient, he or they shall be at liberty to take the goods, on paying to the importer the value according to his declaration, together with the addition of 10 per cent., and on returning the duty paid.

The amount of these sums to be paid by the officers on the delivery of the goods to them, which must be within 15 days from the first detention of the goods.

5. Forasmuch as all merchandise, of whatever origin, whether admissible for home consumption or not, may be received and warehoused in all the ports of the United Kingdom of Great Britain and Ireland, which are by law appointed to be warehousing ports for such articles, pending the entry of the same either for home consumption or for re-exportation, as the case may be, under the regulations appointed for this purpose, and without such articles being liable, in the meantime, to the payment of any of the duties with which they would be charged, if upon arrival they were entered for consumption within the United Kingdom; in like manner, the King of the Netherlands consents and agrees, that all the ports of his Netherland Majesty's dominions, which are now or which shall hereafter become warehousing ports by law, shall be free ports for the reception and warehousing of all merchandise imported in British ships, and of all articles whatever, the produce or manufacture of the British dominions, in whatever ships imported, either for home consumption or for re-exportation, as the case may be; and the articles thus received and warehoused, subject to due regulations, shall not be liable, in the meantime, to any of the duties with which they would be charged, if they were entered for consumption on their arrival in the Netherlands.

6. If any ships of war or merchant vessels should be wrecked on the coasts of either of the high contracting parties, such ships or vessels, or all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the proprietors, upon being claimed by them or by their duly authorised factors; and if there are no such proprietors or factors on the spot, then the said goods and merchandise, or the proceeds thereof, as well as all the papers found on board such wrecked vessels, shall be delivered to the British or Netherland consul in whose district the wreck may have taken place; and such consul, proprietors, or factors shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel; and the goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for home consumption.

7. The present treaty shall be in force for the term of 10 years from the date hereof, and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years.

And it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

8. The present treaty shall be ratified, and the ratifications shall be exchanged at the Hague within one month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at the Hague, this 27th day of October, in the year of our Lord 1837.

VERSTOLK DE SOELEN. EDWARD CROMWELL DISBROWE.

Declaration made by the Plenipotentiary of her Britannic Majesty, on the exchange of the Ratification of the preceding Treaty.

In proceeding to the exchange of the ratifications of the treaty of commerce and navigation between her Majesty the Queen of the United Kingdom of Great Britain and Ireland and his Majesty the King of the Netherlands, concluded and signed at the Hague on the 27th of October, 1837, the undersigned, plenipotentiary of her Britannic Majesty, is commanded by her Majesty to explain and declare that her Majesty has ratified the said treaty, notwithstanding that the preamble contains the words "in Europe," which her Majesty's government had objected to as redundant; but that her Majesty considers those words to be without meaning, so far as her Majesty's dominions are concerned; because those words appear to establish a distinction between a kingdom in Europe and a kingdom out of Europe, whereas, by the word "kingdom," in the said treaty, her Majesty, as far as regards her own territories, means only the United Kingdom of Great Britain and Ireland, which is well known to be in Europe, and does not mean any of the possessions of her Majesty's crown beyond sea. Her Majesty's ratification of the said treaty is exchanged under the explicit declaration and understanding above-mentioned.

Done at the Hague, the 22d day of November, 1837.

EDWARD CROMWELL DISBROWE.

Counter-Declaration of the Plenipotentiary of his Majesty the King of the Netherlands.

The plenipotentiary of her Britannic Majesty having, previously to the exchange of the ratifications of the treaty of commerce and navigation, concluded on the 27th of October 1837, between his Majesty the King of the Netherlands and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, delivered to the undersigned, plenipotentiary of his Majesty the King of the Netherlands, a declaration stating that her Britannic Majesty had not in view in the said treaty the possessions of her crown beyond sea; the undersigned is charged by his Majesty the King of the Netherlands to declare that his said Majesty accepts the above-mentioned declaration, and that he likewise, on his part, has not meant to comprise in the said treaty the possessions of his crown beyond sea.

With regard to the observations made as to the use of the words "in Europe," the cabinet of the

Hague is of opinion, that their interpretation is to be found in the circumstance, that the phrase "in Europe" applies to the word "ports," and not to the word "kingdom."

The Hague, the 22d of November, 1837.

VERSTOLK DE SOELEN.

Treaty between his Britannic Majesty and the King of the Netherlands, respecting Territories and Commerce in the East Indies, signed at London, March 17. 1824.

Article 1. The high contracting parties engage to admit the subjects of each other to trade with their respective possessions in the Eastern Archipelago, and on the continent of India and in Ceylon, upon the footing of the most favoured nation; their respective subjects conforming themselves to the local regulations of each settlement.

2. The subjects and vessels of one nation shall not pay, upon importation or exportation, at the ports of the other in the Eastern seas, any duty at a rate beyond the double of that at which the subjects and vessels of the nation to which the port belongs are charged.

The duties paid on exports or imports at a British port, on the continent of India, or in Ceylon, on Dutch bottoms, shall be arranged so as in no case to be charged at more than double the amount of the duties paid by British subjects, and on British bottoms.

In regard to any article upon which no duty is imposed, when imported or exported by the subjects or on the vessels of the nation to which the port belongs, the duty charged upon the subjects or vessels of the other shall in no case exceed 6 per cent.

3. The high contracting parties engage, that no treaty hereafter made by either, with any native power in the Eastern seas, shall contain any article tending, either expressly, or by the imposition of unequal duties, to exclude the trade of the other party from the ports of such native power; and that if, in any treaty now existing on either part, any article to that effect has been admitted, such article shall be abrogated upon the conclusion of the present treaty.

It is understood that, before the conclusion of the present treaty, communication has been made by each of the contracting parties to the other, of all treaties or engagements subsisting between each of them, respectively, and any native powers in the Eastern seas; and that the like communication shall be made of all such treaties concluded by them, respectively, hereafter.

4. Their Britannic and Netherland Majesties engage to give strict orders, as well to their civil and military authorities, as to their ships of war, to respect the freedom of trade, established by articles 1, 2, and 3.; and in no case to impede a free communication of the natives in the Eastern Archipelago, with the ports of the 2 governments, respectively, or of the subjects of the 2 governments with the ports belonging to native powers.

5. Their Britannic and Netherland Majesties, in like manner, engage to concur effectually in repressing piracy in those seas: they will not grant either asylum or protection to vessels engaged in piracy, and they will in no case permit the ships or merchandise captured by such vessels, to be introduced, deposited, or sold, in any of their possessions.

6. It is agreed that orders shall be given by the 2 governments, to their officers and agents in the East, not to form any new settlement on any of the islands in the Eastern seas, without previous authority from their respective governments in Europe.

7. The Molucca Islands, and especially Amboyna, Banda, Ternate, and their immediate dependencies, are excepted from the operation of the 1st, 2d, 3d, and 4th articles, until the Netherland government shall think fit to abandon the monopoly of spices; but if the said government shall, at any time previous to such abandonment of the monopoly, allow the subjects of any power, other than the Asiatic native power, to carry on any commercial intercourse with the said islands, the subjects of his Britannic Majesty shall be admitted to such intercourse, upon a footing precisely similar.

8. His Netherland Majesty cedes to his Britannic Majesty all his establishment on the continent of India; and renounces all privileges and exemptions enjoyed or claimed in virtue of those establishments.

9. The factory of Fort Marlborough, and all the English possessions on the island of Sumatra, are hereby ceded to his Netherland Majesty: and his Britannic Majesty further engages that no British settlement shall be formed on that island, nor any treaty concluded by British authority, with any native prince, chief, or state therein.

10. The town and fort of Malacca, and its dependencies, are hereby ceded to his Britannic Majesty; and his Netherland Majesty engages, for himself and his subjects, never to form any establishment on any part of the peninsula of Malacca, or to conclude any treaty with any native prince, chief, or state therein.

13. All the colonies, possessions, and establishments which are ceded by the preceding articles, shall be delivered up to the officers of the respective sovereigns on the 1st of March, 1825. The fortifications shall remain in the state in which they shall be at the period of the notification of this treaty in India; but no claim shall be made, on either side, for ordnance, or stores of any description, either left or removed by the ceding power, nor for any arrears of revenue, or any charge of administration whatever.

16. It is agreed that all accounts and reclamations, arising out of the restoration of Java, and other possessions, to the officers of his Netherland Majesty in the East Indies,—as well those which were the subject of a convention made at Java on the 24th of June, 1817, between the commissioners of the 2 nations, as all others,—shall be finally and completely closed and satisfied, on the payment of the sum of 100,000*l.*, sterling money, to be made in London on the part of the Netherlands, before the expiration of the year 1825.

17. The present treaty shall be ratified, and the ratifications exchanged at London, within 3 months from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and affixed thereunto the seals of their arms.

Done at London, the 17th day of March, in the year of our Lord 1824.

GEORGE CANNING. CHARLES WATKINS WILLIAMS WYNN. H. FAGEL. A. R. FALCK.

PERSIA.

Treaty of Commerce between Her Majesty and the Shah of Persia, signed at Tehran, October 28. 1841.

Article 1. The merchants of the two mighty states are reciprocally permitted and allowed to carry into each other's territories their goods and manufactures of every description, and to sell or exchange them in any part of their respective countries; and on the goods which they import or export, custom duties shall be levied; that is to say, on entering the country the same amount of custom duties shall be levied, once for all, that is levied on merchandise imported by the merchants of the most favoured European nations; and at the time of going out of the country, the same amount of custom duties which is levied on the merchandise of merchants of the most favoured European nations shall be levied from the merchants, subjects of the high contracting parties; and except this, no claim shall be made upon the merchants of the two states in each other's dominions on any pretext or under any denomination; and the merchants or persons connected with or dependent upon the high contracting parties in each other's dominions, mutually, shall receive the same aid and support, and the same respect, which are received by the subjects of the most favoured nations.

2. As it is necessary, for the purpose of attending to the affairs of the merchants of the two parties respectively, that from both governments commercial agents should be appointed to reside in stated places; it is therefore arranged that two commercial agents on the part of the British government shall reside, one

in the capital, and one in Tabreez, and in those places only, and on this condition, that he who shall reside at Tabreez, and he alone, shall be honoured with the privileges of consul-general; and as for a series of years a resident of the British government has resided at Bushire, the Persian government grants permission that the said resident shall reside there as heretofore. And, in like manner, two commercial agents shall reside on the part of the Persian government, one in the capital of London, and one in the port of Bombay, and shall enjoy the same rank and privileges which the commercial agents of the British government shall enjoy in Persia.

3. This commercial treaty, we, the plenipotentiaries of the high contracting parties, have agreed to; and in witness thereof, have set thereunto our hands and seals, at the capital city of Tehran, this twenty-eighth day of October, in the year of our Lord 1841, corresponding to the 12th day of the month Ramazan, in the year of the Hejjira 1257.

JOHN M'NEILL.
MEERZA ABUL HASSAN KHAN.

PERU-BOLIVIAN CONFEDERATION.

Treaty of Amity, Commerce, and Navigation between His Majesty and the Peru-Bolivian Confederation, together with 2 additional Articles thereunto annexed.

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, his heirs and successors, and the Peru-Bolivian confederation and its citizens.

2. There shall be, between all the territories of his Britannic Majesty in Europe, and the territories of the Peru-Bolivian confederation, a reciprocal freedom of commerce. The subjects and citizens of the two countries respectively shall have liberty freely and securely to come with their ships and cargoes to all places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purpose of their commerce; and, generally, the merchants and traders of each nation, respectively, shall enjoy the most complete protection and security for their commerce; subject always to the laws and statutes of the two countries respectively.

In like manner, the respective ships of war and post-office packets of the 2 countries shall have liberty freely and securely to come to all harbours, rivers, and places to which other foreign ships of war and packets are or may be permitted to come, to enter into the same, to anchor, and to remain there and refit; subject always to the laws and statutes of the two countries respectively.

By the right of entering the places, ports, and rivers mentioned in this article, the privilege of carrying on the coasting trade is not understood, in which national vessels only are permitted to engage.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that the inhabitants of the Peru-Bolivian confederation shall have the like liberty of commerce and navigation stipulated for in the preceding article, in all his dominions situated out of Europe, to the full extent in which the same is permitted at present, or may be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the dominions of His Britannic Majesty of any article of the growth, produce, or manufacture of the Peru-Bolivian confederation, and no higher or other duties shall be imposed on the importation into the territories of the Peru-Bolivian confederation of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories or dominions of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any article, the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said territories of the Peru-Bolivian confederation, to or from the said dominions of his Britannic Majesty, or to or from the said territories of the Peru-Bolivian confederation, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed in any of the ports of the Peru-Bolivian confederation, on British vessels, than those payable, in the same ports, by Peru-Bolivian vessels; nor in the ports of his Britannic Majesty's territories, on Peru-Bolivian vessels, than shall be payable in the same ports on British vessels.

6. The same duties shall be paid on the importation into the territories of the Peru-Bolivian confederation of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in Peru-Bolivian or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty, of any article the growth, produce, or manufacture of the territories of the Peru-Bolivian confederation, whether such importation shall be in British or in Peru-Bolivian vessels. The same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation to the ports of the Peru-Bolivian confederation of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such exportation shall be in Peru-Bolivian or British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on the exportation of any articles the growth, produce, or manufacture of the Peru-Bolivian confederation, to his Britannic Majesty's dominions, whether such exportation shall be in British or in Peru-Bolivian vessels.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British or Peru-Bolivian vessel, it is hereby agreed that no ship shall be admitted to be a ship of either country, unless she shall be of the built of such country, or have been made prize of war to such country, and condemned as such; or have been forfeited to such country under any law of the same made for the prevention of the slave trade, and condemned in any competent court as forfeiture for a breach of such law; nor unless she be navigated by a master who is a subject of such country, and by a crew of whom $\frac{3}{4}$ at least are subjects of such country; nor unless she be wholly owned by subjects of such country, usually residing therein, or under the dominion thereof; excepting where the laws provide for any extreme cases. And it is further agreed, that no ship, admitted to be a ship of either country, shall be qualified to trade as above described, under the provisions of this treaty, unless furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries, (the form of which shall be communicated), certifying the name, occupation, and residence of the owner or owners, in the dominions of his Britannic Majesty, or in the territories of the Peru-Bolivian confederation, as the case may be; and that he or they is or are the sole owner or owners, in the proportion to be specified; together with the name, burden, and description of the vessel, as to built and measurement, and the several particulars constituting the national character of the vessel, as the case may be.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have full liberty, in all the territories of the Peru-Bolivian confederation, to manage their own affairs, themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes than those employed by Peru-Bolivians, nor to pay them any other salary or remuneration than such as is paid, in like cases, by Peru-Bolivian citizens; and absolute freedom shall be allowed, in all cases, to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into or exported from, the Peru-Bolivian confederation, as they shall see good, observing the laws and established customs of the country.

The same privileges shall be enjoyed in the dominions of his Britannic Majesty, by the citizens of the Peru-Bolivian confederation, under the same conditions.

The citizens and subjects of the contracting parties, in the territories of each other, shall receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attorneys, or agents, of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

9. In whatever relates to the police of the ports, the lading and unlading of ships, the safety of merchandise, goods, and effects, the succession to personal estates by will or otherwise, and the disposal of personal property of every sort and denomination, by sale, donation, exchange, or testament, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions and territories, the same privileges, liberties, and rights, as native subjects; and shall not be charged, in any of these respects, with any higher imposts or duties than those which are paid, or may be paid, by the native subjects or citizens of the power in whose dominions or territories they may be resident, subject of course to the local laws and regulations of such dominions or territories. In the event of any subject or citizen of either of the two contracting parties dying without will or testament, in the dominions or territories of the said contracting parties, the consul-general or consul of the said nation, or, in his absence, his representative, shall have the right to nominate curators, to take charge of the property of the deceased, so far as the laws of each country will permit, for the benefit of his lawful heirs and creditors, without interference, giving convenient notice thereof to the authorities of the country.

10. The subjects of his Britannic Majesty residing in the Peru-Bolivian confederation, and the natives and citizens of the confederation residing in the dominions of his Britannic Majesty, shall be exempted from all compulsory military service whatsoever, whether by sea or land; and from all forced loans or military exactions or requisitions; neither shall they be compelled, under any pretext whatsoever, to pay any other ordinary charges, requisitions, or taxes, greater than those that are paid by native subjects or citizens of the territories of the contracting parties, respectively.

11. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be excepted. The diplomatic agents and consuls of the Peru-Bolivian confederation shall enjoy, in the dominions of his Britannic Majesty, whatever privileges, exceptions, and immunities are or shall be granted to agents of the same rank belonging to the most favoured nation; and in like manner, the diplomatic agents and consuls of his Britannic Majesty in the territories of the Peru-Bolivian confederation shall enjoy, according to the strictest reciprocity, whatever privileges, exceptions, and immunities are or may be granted to the diplomatic agents and consuls of the most favoured nation in the territories of the Peru-Bolivian confederation.

12. For the better security of commerce between the subjects of his Britannic Majesty and the citizens of the Peru-Bolivian confederation, it is agreed that if, at any time, any interruption of friendly intercourse or any rupture should unfortunately take place between the two contracting parties, the subjects or citizens of either of the two contracting parties residing upon the coasts shall be allowed six months, and those residing in the interior a whole year, to wind up their accounts and dispose of their property; and a safe conduct shall be given them to embark at the port which they shall themselves select. All such subjects or citizens of either of the two contracting parties, who are established in the dominions or territories of the other in the exercise of any trade or special employment, shall have the privilege of remaining and continuing such trade and employment therein without any manner of interruption, in full enjoyment of their liberty and property, as long as they behave peaceably, and commit no offence against the laws; and their goods and effects, of whatever description they may be, whether in their own custody, or intrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other charges or demands, than those which may be made upon the like effects or property belonging to the native subjects or citizens of the dominions or territories in which such subjects or citizens may reside. In the same case, debts between individuals, public funds, and the shares of companies, shall never be confiscated, sequestrated, or detained.

13. The subjects of his Britannic Majesty, and the citizens of the Peru-Bolivian confederation, respectively, shall enjoy, in their houses, persons, and properties, the protection of the government, and continue in possession of the privileges which they now enjoy. And the subjects of his Britannic Majesty residing in the territories of the Peru-Bolivian confederation shall furthermore enjoy the most perfect and entire security of conscience, without being annoyed, prevented, or disturbed on account of their religious belief. Neither shall they be annoyed, molested, or disturbed in the proper exercise of their religion, provided that this take place in private houses, and with the decorum due to divine worship, with due respect to the laws, usages, and customs of the country. In the like manner the citizens of the Peru-Bolivian confederation shall enjoy, within all the dominions of his Britannic Majesty, a perfect and unrestrained liberty of conscience, and of exercising their religion publicly or privately, within their own dwelling-houses, or in the chapels and places of worship appointed for that purpose, agreeably to the system of toleration established in the dominions of his said Majesty. Liberty shall also be granted to bury the subjects or citizens of either of the two contracting parties, who may die in the dominions or territories of the other, in burial-places of their own, which, in the same manner, they may freely establish and maintain; nor shall the funerals or sepulchres of the dead be disturbed in any way or upon any account.

14. The government of the Peru-Bolivian confederation engages to co-operate with his Britannic Majesty for the total abolition of the slave trade, and to prohibit all persons inhabiting within the territories of the Peru-Bolivian confederation, or subject to their jurisdiction, in the most effectual manner, and by the most solemn laws, from taking any share in such trade.

15. The two contracting parties reserve to themselves the right of treating and of agreeing hereafter, from time to time, upon such other articles as may appear to them to contribute still further to the improvement of their mutual intercourse, and to the advancement of the general interests of their respective subjects and citizens; and such articles as may be so agreed upon shall, when duly ratified, be regarded as forming a part of the present treaty, and shall have the same force as those now contained in it.

16. The present treaty shall be ratified, and the ratification shall be exchanged in London or at Lima, within the space of twenty months or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at Lima this 5th day of June, in the year of our Lord 1837.

BELFORD HINTON WILSON.
LORENZO BAZO.

Additional Articles.

Article I. Whereas, in the present state of Peru-Bolivian shipping, it would not be possible for the said confederation to receive the full advantage of the reciprocity established by the articles 5, 6, and 7. of the treaty signed this day, if that part of the 7th article which stipulates that, in order to be considered as a Peru-Bolivian ship, a ship shall actually have been built in the Peru-Bolivian confederation,

should be strictly and literally observed, and immediately brought into operation; it is agreed that, for the space of 15 years, to be reckoned from the date of the exchange of the ratifications of this treaty, any ships, wheresoever built, being *bonâ fide* the property of and wholly owned by one or more citizens of the Peru-Bolivian confederation, and whereof the masters and three-fourths of the mariners, at least, are also natural-born citizens of the Peru-Bolivian confederation, or persons domiciliated in the Peru-Bolivian confederation by act of the government, as lawful subjects of the Peru-Bolivian confederation, to be certified according to the laws of that country, shall be considered as Peru-Bolivian ships; his Majesty the King of the United Kingdom of Great Britain and Ireland reserving to himself the right, at the end of the said term of 15 years, to claim the principle of reciprocal restriction stipulated for in the article 7. above referred to, if the interests of British navigation shall be found to be prejudiced by the present exception to that reciprocity in favour of Peru-Bolivian shipping.

2. It is further agreed that, for the like term of 15 years, the stipulations contained in the articles 5. and 6. of the present treaty shall be suspended: and, in lieu thereof, it is hereby agreed that, until the expiration of the said term of fifteen years, British ships entering into the ports of the Peru-Bolivian confederation, from the U. Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, and all articles, the growth, produce, or manufacture of the U. Kingdom, or of any of the said dominions, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods the growth, produce, or manufacture of the most favoured nation; and reciprocally, it is agreed that Peru-Bolivian ships entering into the ports of the U. Kingdom of Great Britain and Ireland, or any other of his Britannic Majesty's dominions, from any port of the Peru-Bolivian confederation, and all articles, the growth, produce, or manufacture of the said confederation, imported in such ships, shall pay no other or higher duties than are or may hereafter be payable, in the said ports, by the ships, and the like goods, the growth, produce, or manufacture of the most favoured nation; and that no higher duties shall be paid, or bounties or drawbacks allowed, on the exportation of any article, the growth, produce, or manufacture of the dominions of either country, in the ships of the other, than upon the exportation of the like articles in the ships of any other foreign country.

It being understood that, at the end of the said term of 15 years, the stipulations of the said 5th and 6th articles shall from thenceforward be in full force between the two countries.

The present additional articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratification shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at Lima, 5th June, 1837.

BELFORD HINTON WILSON.
LORENZO BAZO.

PORTUGAL.

Treaty of Commerce between Great Britain and Portugal; signed at Lisbon, December 27. 1703.

Article 1. His Sacred Royal Majesty of Portugal promises, both in his own name and that of his successors, to admit, for ever hereafter, into Portugal, the woollen cloths, and the rest of the woollen manufactures of the Britons, as was accustomed till they were prohibited by the laws; nevertheless, upon this condition;

2. That is to say, that her Sacred Royal Majesty of Great Britain shall, in her own name and that of her successors, be obliged for ever hereafter to admit the wines of the growth of Portugal into Britain; so that at no time, whether there shall be peace or war between the kingdoms of Britain and France, any thing more shall be demanded for these wines, by the name of custom or duty, or by whatsoever other title, directly or indirectly, whether they shall be imported into Great Britain in pipes or hogsheads, or other casks, than what shall be demanded from the like quantity or measure of French wine, deducting or abating a third part of the custom or duty: but if at any time this deduction or abatement of customs, which is to be made as aforesaid, shall in any manner be attempted and prejudiced, it shall be just and lawful for his Sacred Royal Majesty of Portugal again to prohibit the woollen cloths, and the rest of the British woollen manufactures.

3. The most excellent Lords the plenipotentiaries promise, and take upon themselves, that their above named masters shall ratify this treaty, and that within the space of 2 months the ratifications shall be exchanged.

Given at Lisbon, the 27th of December, 1703.

JOHN METHUEN. MARCHIS ALEGRETENSIS.

Treaty of Commerce and Navigation between her Majesty and the Queen of Portugal, signed at Lisbon, July 3. 1842.

Article 1. The subjects of each of the high contracting parties shall, in the dominions of the other, enjoy all the privileges, immunities, and protection enjoyed by the subjects of the most favoured nation. They shall be entitled to travel, to reside, to occupy dwellings and warehouses, and to dispose of their personal, leasehold, and all other property lawfully held by them, by sale, gift, exchange, or will, or in any other way whatever, without the smallest let, and without any hindrance whatever.

They shall be exempt from forced loans, or any other extraordinary contributions not general, or not by law established, and from all military service by sea or by land. Their dwellings, warehouses, and every thing belonging thereto, shall be respected, and shall not be subjected to any arbitrary visit or search. No examination or inspection shall be made of their books, papers, or accounts, without the legal sentence of a competent court or judge.

The assessment of the amount to be paid by the British subjects in Portugal and its dominions for *mancio* or *decima industrial*, and from which they have hitherto enjoyed special exemption, shall in all cases in future be made, if so claimed by them, according to the rate to be given by *informadores*, of whom two shall be Portuguese and two British merchants, to be named by the *Concelho de Districto*; and in case any objection should be made by the parties assessed to the amount of the said assessment (which shall in all cases bear a just proportion to the rate at which the native subjects of Portugal are assessed), they shall have a right to appeal to the tribunal of the treasury, and to appear in person, or to be heard by counsel, before the said tribunal; and in the meantime no execution shall be made on their property, until an ultimate decision shall have been pronounced by the said tribunal.

It is, however, understood that British subjects resident in Portugal and its dominions, not carrying on trade, or exercising any branch of industry therein, but deriving their incomes from other sources, shall, in like manner with Portuguese subjects, be wholly exempt from the operation of the said *mancio* or *decima industrial* tax.

The subjects of each of the high contracting parties shall also, within the dominions of the other, be allowed the free use and exercise of their religion, without being in any manner disturbed on account of their religious opinions: they shall be allowed to assemble together for the purposes of public worship, and to celebrate the rites of their religion in their own dwelling-houses, or in the chapels or places of worship appointed for that purpose, without any the smallest hindrance or interruption whatever, either now or hereafter; and her Most Faithful Majesty does now and for ever graciously grant to the subjects of her Britannic Majesty permission to build and maintain such chapels and places of worship within her dominions. It being always understood that the said chapels and places of worship are not to have steeples and bells.

Her Britannic Majesty's subjects shall likewise have full liberty to bury their dead, after the manner

and with the ceremonies usual in their respective countries, and in the grounds and cemeteries which they shall have purchased and prepared for that purpose; and the sepulchres of the dead, in conformity to ancient and existing practice, shall in no way or on any account be disturbed.

2. The subjects of either of the contracting parties may freely dispose by will of the personal effects which they shall possess in the territories of the other; and their heirs, though subjects of the other contracting party, may succeed to their personal effects, either by will or *ab intestato*, and may obtain possession of the same in due course of law, either in person, or by other persons appointed by them to act on their behalf. In the event of the absence of heirs, or of persons duly appointed to act for them, the consul may be authorised to take charge, in due course of law, of the said effects, until the owner shall have made the necessary arrangements for obtaining possession of the property. If disputes shall arise between several claimants with respect to the title which each may have to the property, such disputes shall be decided by the courts of the country in which the property is situated; and if hereafter any favour as regards the possession or inheritance of landed or funded property (*biens fonds*) shall be granted, in the dominions of either of the high contracting parties, to the subjects of any other nation, the same favour shall extend reciprocally to their respective subjects, as the case may be, either in Portugal or Great Britain.

3. The subjects of either contracting party residing within the dominions of the other, shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, agent, or interpreter; nor shall any such British subjects be restrained in their choice of persons to act in such capacities, nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall be given, in all cases, to the buyer and seller to bargain together, and to fix the price of any goods, wares, or merchandise, imported into, or to be exported from, the dominions of either contracting party, the laws and established customs of the country being duly observed.

The subjects of either of the high contracting parties residing within the dominions of the other shall be at liberty to open retail stores and shops, under the same municipal and police regulations as native subjects; and they shall not, in this respect, be liable to any other or higher taxes or imposts than those which are or may be paid by native subjects.

4. There shall be reciprocal liberty of commerce and navigation between the subjects of the two high contracting parties; and the subjects of the two sovereigns respectively shall not pay, in the ports, harbours, roads, cities, towns, or places whatsoever in either kingdom, any other or higher duties, taxes, rates, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods, the produce of the one country, upon importation by sea or by land from that country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of and imported from any other country; and no duty, restriction, or prohibition shall be imposed upon the importation and exportation from one country to the other, of the goods and produce of each, which shall not be imposed upon goods of the same kind, when imported from or exported to any other country: and her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and her Majesty the Queen of Portugal, do hereby bind and engage themselves, their heirs and successors, not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects or citizens of any other state, which shall not also and at the same time be extended to the subjects of the other high contracting party, gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving, as nearly as possible, the same compensation or equivalent, if the concession shall have been conditional.

5. No duties of tonnage, and no harbour, light-house, pilotage, quarantine, or other similar or corresponding duties, of whatever nature, or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the two countries, if laden; or in respect of any voyage, if in ballast, which shall not be equally imposed, in the like cases, on national vessels.

6. All goods, the growth, produce, or manufacture of their respective possessions, which can legally be imported into either country from the other, in ships of that other country, shall, when so imported, be subject to the same duties, whether they be imported in ships of the one country or in ships of the other; and in like manner, all goods which can legally be exported from either country to the other, in ships of that other country, shall, when so exported, be subject to the same duties, and be entitled to the same drawbacks, bounties, and allowances, whether they be exported in ships of the one country or in ships of the other.

7. In order to promote and encourage the commercial intercourse between the dominions of the high contracting parties, for the mutual benefit of their respective subjects, her Britannic Majesty and her Most Faithful Majesty agree to take into consideration the duties now levied upon articles the produce or manufacture of either country, with a view to make such reductions in those duties as may be consistent with the interest of the high contracting parties respectively.

This matter shall without delay be made the subject of a special negotiation between the two governments.

8. British ships shall be allowed to proceed direct from any port of her Britannic Majesty's dominions to any colony of her Most Faithful Majesty, and to import into such colony any goods the growth, produce, or manufacture of the United Kingdom, or of any of the British dominions, except such goods as are prohibited to be imported into such colony, or which are admitted into it only from the dominions of her Most Faithful Majesty; and such British ships, and such goods so imported in them, shall be liable in such colony of her Most Faithful Majesty to no higher or other duties and charges, than would be there payable on Portuguese ships importing the like sort of goods, or on the like goods, the growth, produce, or manufacture of any foreign country, and allowed to be imported into the said colony in Portuguese ships.

In like manner, Portuguese ships shall be allowed to proceed direct from any port of her Most Faithful Majesty's dominions to any colony of her Britannic Majesty, and to import into such colony any goods the growth, produce, or manufacture of Portugal, or of any of the Portuguese dominions, except such goods as are prohibited to be imported into such colony, or which are admitted into it only from the dominions of her Britannic Majesty; and such Portuguese ships, and such goods so imported in them, shall be liable, in such colony of her Britannic Majesty, to no higher or other duties and charges, than would be there payable on British ships importing the like sort of goods, or on the like goods, the growth, produce, or manufacture of any foreign country, and allowed to be imported into the said colony in British ships.

9. British ships shall be allowed to export from any colony of her Most Faithful Majesty to any place not under the dominion of her said Majesty, any goods not generally prohibited to be exported from such colony; and such British ships, and such goods so exported in them, shall be liable, in such colony, to no other or higher charges than would be payable by, and shall be entitled to the same drawbacks or bounties as would be there allowable on, Portuguese ships exporting such goods, or on such goods exported in Portuguese ships.

In like manner Portuguese ships shall be allowed to export from any colony of her Britannic Majesty to any place not under the dominion of her said Majesty, any goods not generally prohibited to be exported from such colony; and such Portuguese ships, and such goods so exported in them, shall be liable in such colony to no other or higher charges than would be payable by, and shall be entitled to the same drawbacks or bounties as would be there allowable on, British ships exporting such goods, or on such goods exported in British ships.

10. It is hereby declared that the stipulations of the present treaty are not to be understood as applying

to the navigation and carrying trade between one port and another, situated in the dominions of either contracting party, if such navigation and trade should in those dominions be reserved by law exclusively to national vessels. Vessels of either country shall, however, be permitted to discharge part of their cargoes at one port in the dominions of either of the high contracting parties, and then to proceed, with the remainder of their cargo, to any other port or ports in the same dominions, without paying any higher or other duties in such cases, than national vessels would pay in like circumstances; and they shall be permitted to lade, in like manner, at different ports in the same voyage outwards.

11. The reciprocal liberty of commerce and navigation declared and stipulated for by the present treaty, shall not extend to contraband of war, or to articles the property of the enemies of either party.

The power granted by former treaties to carry, in the ships of either country, goods and merchandise of any description whatever, the property of the enemies of the other country, is now mutually renounced.

12. In all cases in which, in either kingdom, the duty to be levied upon any goods imported from the other kingdom shall be not a fixed rate, but a proportion of the value of the goods, such *ad valorem* duty shall be ascertained and secured in the following manner; that is to say, the importer shall, on making his entry for the payment of duty at the custom-house, sign a declaration, stating the description and value of the goods at such amount as he shall deem proper; and in case the officer or officers of the customs shall be of opinion that such valuation is insufficient, he or they shall be at liberty to take the goods, on paying to the importer the value thereof according to the declaration of the importer, together with an addition of 10 per cent.; and the custom-house officer shall, at the same time, return to the importer any duty which the importer may have paid upon such goods; and the amount of these sums shall be paid to the importer on the delivery of the goods to the said officer or officers, which must not be later than 15 days from the first detention of the goods.

13. Inasmuch as all merchandise, of whatever origin, whether admissible for home consumption or not, may be received and warehoused in all those ports of the United Kingdom of Great Britain and Ireland which are by law appointed to be warehousing ports for such articles, pending the entry of the same, either for home consumption or for re-exportation, as the case may be, under the regulations appointed for this purpose, and without such articles being liable, in the meantime, to the payment of any of the duties with which they would be charged, if upon arrival they were entered for consumption within the United Kingdom;—in like manner the Queen of Portugal consents and agrees that the ports of Her Most Faithful Majesty's dominions, which now are, or which shall hereafter become by law, warehousing ports, shall be free ports for receiving and warehousing, either for home consumption or for re-exportation, as the case may be, all merchandise imported in British ships, and all articles whatever, the produce or manufacture of the British dominions, imported by Portuguese ships; and the articles thus received and warehoused, subject to due regulations, shall not be liable, in the meantime, to any of the duties with which they would be charged, if they were entered for consumption on their arrival in the dominions of Her Most Faithful Majesty.

14. All goods or merchandise found on board of, or which shall have formed the cargo or part of the cargo of a vessel of the one country, which shall be wrecked, or left derelict, on or near the coast of the other country, unless the importation of such goods or merchandise shall be absolutely prohibited by law, shall be admitted for home consumption in the country on or near the coast of which such vessel shall be wrecked, or left derelict, or such goods or merchandise may be found, on payment of the same duty, as if the said goods or merchandise had been imported in a national vessel, even though such goods or merchandise could not by law be imported into the said country in any other than national vessels; and in fixing the amount of duty to be paid on such goods or merchandise, regard shall be had to any damage which the said goods or merchandise may have sustained.

To prevent frauds, the Board of Customs of each nation shall exercise their judgment as to the causes of wrecks; and when they are satisfied that the said wrecks were the result of accident or misfortune, and free from suspicion of collusion, they shall authorise, at the option of the proprietor or agent, if present, or otherwise of the consul, the transhipment, or the sale for home consumption, of the goods or merchandise, provided that such goods and merchandise could have been legally imported by the ships of the one country into the ports of the other country.

If any ships of war or merchant vessels should be wrecked on the coasts of either of the high contracting parties, such ships or vessels, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods or merchandise which shall be saved therefrom, or the produce thereof if sold, shall be faithfully restored to the proprietors, upon being duly claimed by them, or by their agents duly authorised; or if there are no such proprietors or agents on the spot, by the respective consuls of the nation to which the proprietors of the said ships, vessels, or goods may belong, and in whose district such wreck may have taken place, provided such claim be preferred within a year and a day from the time of such wreck; and such consul, proprietor, or agent shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel; and the goods and merchandise saved from the wreck shall not be subject to duties, unless cleared for local consumption.

15. If any merchant vessel of either country should be driven into the ports of the other by stress of weather, for the purpose of effecting necessary repairs, every facility shall be afforded to such vessel for obtaining the assistance it may be in need of.

The strictest reciprocity shall be observed, in the most favourable sense, as to the relief to be afforded to such vessel from the duties, charges, and expenses in the ports of either nation, to which vessels, entering solely for the purposes of trade, are subjected. Sufficient time shall be allowed for the completion of repairs; and while the vessel shall be undergoing repair, its cargo shall not unnecessarily be required to be landed, either in whole or in part; and any difference of opinion which may arise between the custom-house authorities and the masters of the said vessels, as to the necessity of landing all or any part of the cargo, shall be referred to two sworn or public surveyors, one to be named by the chief custom-house authority of the port, and the other by the consul of the nation to which the vessel belongs.

Her Majesty the Queen of Portugal engages that the commerce of British subjects within the Portuguese dominions shall not be restrained, interrupted, or otherwise affected by the operation of any monopoly, contract, or exclusive privilege of sale or purchase whatsoever; but that the subjects of the United Kingdom shall have free and unrestrained permission to buy from and sell to whomsoever they please, and in whatever form and manner may be agreed upon between the purchaser and seller, without being obliged to give any preference or favour in consequence of any such monopoly, contract, or exclusive privilege of sale and purchase. And her Britannic Majesty engages that a like exemption from restraint, in respect to purchases or sales, shall be enjoyed by the subjects of her Most Faithful Majesty trading to or residing in the United Kingdom. But it is distinctly to be understood, that the present article shall not be interpreted as affecting the special regulations now in force, or which may hereafter be enacted, with a view solely to the encouragement and amelioration of the Douro wine trade, (it being always understood that British subjects shall in respect of the said trade be placed on the same footing as Portuguese subjects,) or with regard to the exportation of the salt of St. Ubes.

This article does not invalidate the exclusive right possessed by the crown of Portugal, within its own dominions, to the farm for the sale of ivory, urzela, gold dust, soap, gunpowder, and tobacco for home consumption: provided, however, that should the above-mentioned articles, generally or separately, ever become articles of free commerce within the dominions of her Most Faithful Majesty, the subjects of her Britannic Majesty shall be permitted to traffic in them as freely and on the same footing as the subjects or citizens of the most favoured nation.

16. It is agreed and covenanted that neither of the high contracting parties shall knowingly receive into, or retain in its service, any subjects of the other party who have deserted from the naval or military service of that other party; but that, on the contrary, each of the contracting parties shall respectively discharge from its service any such deserters, upon being required by the other party to do so.

It is further agreed and declared, that if either of the high contracting parties shall grant to any state any new favour or facility, with respect to the recovery of deserters, such favour or facility shall be considered as granted also to the other contracting party, in the same manner as if the said favour or facility had been expressly stipulated by the present treaty.

And it is further agreed, that if any apprentices or sailors shall desert from vessels belonging to the subjects of either of the high contracting parties, while such vessels are within any port in the territory of the other party, the magistrates of such port and territory shall be bound to give every assistance in their power for the apprehension of such deserters, on application to that effect being made by the consul of the party concerned, or by the deputy or representative of the consul; and no public body, civil or religious, shall protect or harbour such deserters.

17. Her Britannic Majesty, on the representation of her Most Faithful Majesty, and in contemplation of the improving system of law and justice in Portugal, hereby consents to give up the exercise of the rights connected witht he Conservatorial Court, so soon and so long as British subjects are admitted in Portugal to the benefit of securities similar or equivalent to those enjoyed by the subjects of her Most Faithful Majesty in Great Britain, as regards trial by jury, protection from arrest without a warrant from a magistrate, and examination within 24 hours after apprehension *in flagrante delicto*, and admission to bail. It being always understood, that in other respects the subjects of her Britannic Majesty in Portugal shall be placed on the same footing as Portuguese subjects, in all causes, whether civil or criminal; and that they shall not, except in cases *flagrantis delicti*, be liable to imprisonment without formal commitment (*culpa formada*) under a warrant signed by a legal authority.

18. It is hereby agreed that her Britannic Majesty, relying upon the guarantees which are or may be afforded to British subjects by the law of Portugal under the present constitutional system, henceforward claims for British subjects in Portugal no privileges which are not enjoyed by Portuguese subjects in the Portuguese or British dominions. It being, however, understood, that her Britannic Majesty will be entitled, in the event (which God forbid) of political troubles affecting the operation of the above mentioned guarantees, to claim the re-establishment and observance of the privileges surrendered by the present and preceding article.

19. The present treaty shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years, or at any subsequent time.

And it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

It is agreed, nevertheless, that either of the two high contracting parties shall have the right, at the end of 5 years, to require a revision of any articles not affecting the principle of the treaty, on giving 6 months' notice of a desire to make such revision: provided, however, that it be distinctly understood that the power of giving such notice shall not extend beyond, nor be recognised after, the termination of the fifth year.

The present treaty shall be ratified, and the ratifications shall be exchanged at Lisbon at the expiration of two months from the date of its signature, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at Lisbon, the 3d of July, in the year of our Lord 1842.

HOWARD DE WALDEN.
DUQUE DE PALMELLA.

True Intent and Spirit of certain Points of Treaty.

Lisbon, July 3. 1843.

The undersigned, her Britannic Majesty's plenipotentiary for the negotiation of a treaty of commerce and navigation between Great Britain and Portugal, has the honour to declare to his Excellency the Duke of Palmella, that with reference to article 5. all vessels built in the territory of her Most Faithful Majesty, or which shall be British built, or which shall have been captured from the enemy by the ships of the Portuguese government, and shall have vessels condemned under similar circumstances, and which shall be wholly owned by any subject or subjects of her Most Faithful Majesty, and whereof the master and three-fourths of the mariners are subjects of her Most Faithful Majesty, will be considered as Portuguese, and will be entitled to be placed on the footing of national vessels, and to be treated on an equality with the vessels of the most favoured nation, in the ports of her Britannic Majesty, *i. e.*, in Great Britain and Ireland and the colonies hereinafter enumerated.

With reference to article 8., in the words "growth, produce, and manufacture," the wines and brandies of Portugal are comprehended.

With reference to article 14., the jurisdiction of the Cinque Ports does not interfere with the stipulations of this article.

With reference to article 17., in respect to the declaration of her Britannic Majesty regarding the conditional surrender of the rights connected with the Conservatorial Court, whenever the Portuguese government shall have officially communicated to her Majesty's government any law or laws establishing the guarantees in question, her Majesty will recognise the right of the Portuguese government to declare the further jurisdiction and authority of the British Conservatorial Court to have ceased by consent of her Majesty.

The colonies referred to are Canada, Newfoundland, Nova Scotia, Cape Breton, New Brunswick, Prince Edward Island, and all other British possessions in North America, British West Indies, including the islands and possessions on the continent of South America, Cape of Good Hope, and other possessions in Africa; the Mauritius, the Island of Ceylon, Van Diemen's Land, New South Wales, New Zealand.

Howard de Walden. Lisbon, July 3. 1843.

The undersigned, her Most Faithful Majesty's plenipotentiary, has the honour to declare, by order of the government, to Lord Howard de Walden, in reference to the article 1. of the treaty of commerce and navigation, by both concluded and signed to-day, between Portugal and Great Britain, that the maximo that can be collected from any British subject for *mancio* or *decima industrial*, will be 20 per cent. upon the rent of their shops, dwellings, and warehouses, which will serve as an invariable rule to the tribunal of the treasury, for deciding the appeals made by British subjects.

Duke of Palmella. Lisbon, July 3. 1842.

PRUSSIA.

Convention of Commerce between his Britannic Majesty and the King of Prussia, signed at London, April 2. 1824.

Article 1. From and after the 1st day of May next, Prussian vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, and British vessels entering or departing from the ports of his Prussian Majesty's dominions, shall not be subject to any other or higher duties or

charges whatever, than are or shall be levied on national vessels entering or departing from such ports respectively.

2. All articles of the growth, produce, or manufacture of any of the dominions of either of the high contracting parties, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom and of Prussia, respectively, in vessels of the one country, shall, in like manner, be permitted to be imported into and exported from those ports in vessels of the other.

3. All articles not of the growth, produce, or manufacture of the dominions of his Britannic Majesty, which can legally be imported from the United Kingdom of Great Britain and Ireland, into the ports of Prussia, in British ships, shall be subject only to the same duties as are payable upon the like articles if imported in Prussian ships; and the same reciprocity shall be observed in the ports of the United Kingdom, in respect to all articles not the growth, produce, or manufacture of the dominions of his Prussian Majesty, which can legally be imported into the ports of the United Kingdom in Prussian ships.

4. All goods, which can legally be imported into the ports of either country, shall be admitted at the same rate of duty, whether imported in vessels of the other country, or in national vessels; and all goods which can be legally exported from the ports of either country, shall be entitled to the same bounties, drawbacks, and allowances, whether exported in vessels of the other country, or in national vessels.

5. No priority or preference shall be given, directly or indirectly, by the government of either country, or by any company, corporation, or agent, acting on its behalf or under its authority, in the purchase of any article, the growth, produce, or manufacture of either country, imported into the other, on account of or in reference to the character of the vessel in which such article was imported; it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

6. The present convention shall be in force for the term of 10 years from the date hereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other, at the end of the said term of 10 years: and it is hereby agreed between them, that, at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

7. The present convention shall be ratified, and the ratifications shall be exchanged at London, within 1 month from the date hereof, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 2d day of April, in the year of our Lord 1824.

GEORGE CANNING. W. HUSKISSON. WERTHER.

An order in council, dated May 25. 1824, directs that, from May 1. 1824, Prussian vessels entering or departing from the ports of the United Kingdom of Great Britain and Ireland, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports; that all articles of the growth, produce, or manufacture of any of the dominions of his Prussian Majesty, which are or shall be permitted to be imported into or exported from the ports of the United Kingdom of Great Britain and Ireland in British vessels, shall, in like manner, be permitted to be imported into and exported from the said ports in Prussian vessels; that all articles not of the growth, produce, or manufacture of the dominions of his Prussian Majesty, which can legally be imported from Prussia into the ports of the United Kingdom in Prussian vessels, shall be subject only to the same duties as are payable upon the like articles if imported in British ships; that all goods which can legally be imported into the ports of the United Kingdom shall be admitted at the same rate of duty, when imported in Prussian vessels, that is charged on similar articles imported in British vessels; and that all goods which can be legally exported from the ports of the United Kingdom, shall be entitled to the same bounties, drawbacks, and allowances, when exported in Prussian vessels, that are granted, paid, or allowed on similar articles when exported in British vessels

A Treasury letter, dated October 13. 1824, directs, that with respect to pilotage and all other duties charged on vessels belonging to Prussia, Sweden, and Norway, Denmark, Hanover, and Hamburg, which have entered or which may enter the ports of the United Kingdom, either from stress of weather or from any other causes, it was the intention of the Lords of the Committee of Privy Council for Trade, that such dues should not be higher than are charged upon British vessels, and that it is only to the case of goods imported into this country, and not brought direct from the country to which the vessel belongs, that the equality of duty does not apply.

An order in council, dated May 3. 1823, states, that his Majesty is pleased to declare, that the ships of and belonging to the dominions of his Majesty the King of Prussia are entitled to the privileges granted by the law of navigation, and may import from the dominions of his Majesty the King of Prussia, into any of the British possessions abroad, goods the produce of such dominions, and may export goods from such British possessions abroad, to be carried to any foreign country whatever.

PRUSSIA, BAVARIA, &c.

Convention of Commerce and Navigation between Great Britain, on the one part; and Prussia, Bavaria, Saxony, Wurtemberg, Baden, the Electorate of Hesse, the Grand Duchy of Hesse, the States forming the Commercial Union of Thuringia, Nassau, and Frankfort, on the other part.

Article 1. In consideration of the circumstance that British vessels are admitted, together with their cargoes, to entry in the ports of Prussia, and of the other states of the aforenamed Union of Customs, when coming from the ports of all countries, and in consideration of the concessions stipulated in this present convention for British trade with all the states of this Union of Customs; in consideration also of the facility which the application of steam power to inland navigation affords for the conveyance of produce and merchandise of all kinds up and down rivers; and in consideration of the new opening which may by these means be given to the trade and navigation between the U. Kingdom and the British possessions abroad on the one hand, and the states now composing the Union of Customs, on the other; some of which states use as the natural outlet of their commerce ports not within their own dominions; it is agreed that, from and after the date of the exchange of the ratifications of this present convention, Prussian vessels, and the vessels of the other states forming the said Union of Customs, together with their cargoes, consisting of all such goods as can be legally imported into the U. Kingdom and the British possessions abroad, by the said vessels from the ports of the countries to which they respectively belong, shall, when coming from the mouths of the Meuse, of the Ems, of the Weser, and of the Elbe, or from the mouths of any navigable river lying between the Elbe and the Meuse, and forming the means of communication between the sea and the territory of any of the German states which are parties to this treaty, be admitted into the ports of the U. Kingdom, and of the British possessions abroad, in as full and ample a manner, as if the ports from which such vessels may have come, as aforesaid, were within the dominions of Prussia, or of any other of the states aforesaid; and such vessels shall be permitted to import the goods above mentioned upon the same terms on which the said goods might be imported if coming from the national ports of such vessels; and also that, in like manner, such vessels proceeding from Great Britain and her colonial possessions abroad to the places thus referred to, shall be treated as if returning to a Prussian Baltic port: — it being understood that these privileges are to extend to the vessels of Prussia and of the states aforesaid, and to their cargoes, only in respect to each of the said ports in which British vessels and their cargoes shall, upon their arrival thereat, and depar-

ture therefrom, continue to be placed on the same footing as the vessels of Prussia and of the other states of the union.

2. The King of Prussia, in his own name, and in the name of the states aforesaid, agrees to place, always and in every way, the trade and navigation of the subjects of Her Britannic Majesty, in respect to the importation of sugar and rice, upon the same footing as that of the most favoured nation.

3. In the event of other German states joining the Germanic Union of Customs, it is hereby agreed that such other states shall be included in all the stipulations of the present convention.

4. The present convention shall be in force until the 1st of January, 1842, and further for the term of 6 years, provided neither of the high contracting parties shall have given to the other 6 months' previous notice that the same shall cease to be in force on the said 1st of January, 1842; and if neither party shall have given to the other six months' previous notice that the present convention shall cease on the 1st day of January, 1848, then the present convention shall further remain in force until the 1st of January, 1854, and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same, each of the high contracting parties reserving to itself the right of giving such notice to the other; and it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this convention, and all the provisions thereof, shall altogether cease and determine.

The present convention shall be ratified, and the ratifications thereof shall be exchanged at London, at the expiration of 2 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 2d day of March, in the year of our Lord 1841.

PALMERSTON.
H. LABOUCHERE.

By an order in council, dated August 28. 1841, it is ordered, that Prussian vessels, and the vessels of the other states forming the German Union of Customs, together with their cargoes, consisting of all such goods as can be legally imported into the U. Kingdom and the British possessions abroad, by the said vessels, from the ports of the countries to which they respectively belong, shall, when coming from the mouths of the Meuse, of the Ems, of the Weser, and of the Elbe, or from the mouths of any navigable river, lying between the Elbe and the Meuse, and forming the means of communication between the sea and the territory of any of the German states, which are parties to this treaty, be admitted into the ports of the U. Kingdom and of the British possessions abroad, in as full and ample a manner as if ports from which such vessels may have come as aforesaid, and such vessels shall be permitted to import the goods above-mentioned upon the same terms on which the said goods might be imported if coming from the national ports of such vessels; and also that in like manner such vessels proceeding from Great Britain and her colonial possessions abroad, to the ports or places thus referred to, shall be treated as if returning to a Prussian Baltic port; it being understood that these privileges are to extend to the vessels of Prussia and of the states aforesaid, and to their cargoes only in respect to each of the said states, which British vessels and their cargoes shall, upon their arrival thereat and departure therefrom, continue to be placed upon the same footing as the vessels of Prussia and of the other states of the union.

RIO DE LA PLATA (THE STATES OF).

Treaty of Amity, Commerce, and Navigation, between his Majesty and the United Provinces of Rio de La Plata.

Article 1. There shall be perpetual amity between the dominions and subjects of his Majesty the King of the United Kingdom of Great Britain and Ireland, and the United Provinces of Rio de la Plata and their inhabitants.

2. There shall be, between all the territories of his Britannic Majesty in Europe and the territories of the United Provinces of Rio de la Plata, a reciprocal freedom of commerce; the inhabitants of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all such places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and generally, the merchants and traders of each nation respectively shall enjoy the most complete protection and security for their commerce, subject always to the laws and statutes of the two countries respectively.

3. His Majesty the King of the United Kingdom of Great Britain and Ireland engages further, that in all his dominions situated out of Europe, the inhabitants of the United Provinces of Rio de la Plata shall have the like liberty of commerce and navigation stipulated for in the preceding article, to the full extent in which the same is permitted at present, or shall be permitted hereafter, to any other nation.

4. No higher or other duties shall be imposed on the importation into the territories of his Britannic Majesty, of any articles of the growth, produce, or manufacture of the United Provinces of Rio de la Plata, and no higher or other duties shall be imposed on the importation into the said United Provinces, of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any other or higher duties or charges be imposed, in the territories or dominions of either of the contracting parties, on the exportation of any articles to the territories or dominions of the other, than such as are or may be payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any articles the growth, produce, or manufacture of his Britannic Majesty's dominions, or of the said United Provinces, which shall not equally extend to all other nations.

5. No higher or other duties or charges on account of tonnage, light, or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges, shall be imposed, in any of the ports of the said United Provinces, on British vessels of the burden of above 120 tons, than those payable in the same ports by vessels of the said United Provinces of the same burden, nor in the ports of any of his Britannic Majesty's territories on the vessels of the United Provinces of above 120 tons, than shall be payable, in the same ports, on British vessels of the same burden.

6. The same duties shall be paid on the importation into the said United Provinces of any article the growth, produce, or manufacture of his Britannic Majesty's dominions, whether such importation shall be in vessels of the said United Provinces, or in British vessels; and the same duties shall be paid on the importation into the dominions of his Britannic Majesty of any article the growth, produce, or manufacture of the said United Provinces, whether such importation shall be in British vessels, or in vessels of the said United Provinces; the same duties shall be paid, and the same drawbacks and bounties allowed on the exportation of any articles of the growth, produce, or manufacture of his Britannic Majesty's dominions to the said United Provinces, whether such exportation shall be in vessels of the said United Provinces, or in British vessels; and the same duties shall be paid, and the same drawbacks and bounties allowed on the exportation of any articles the growth, produce, or manufacture of the said United Provinces to his Britannic Majesty's dominions, whether such exportation shall be in British vessels or in vessels of the said United Provinces.

7. In order to avoid any misunderstanding with respect to the regulations which may respectively constitute a British vessel or a vessel of the said United Provinces, it is hereby agreed, that all vessels built in the dominions of his Britannic Majesty, and owned, navigated, and registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built in the territories of the

said United Provinces, properly registered, and owned by the citizens thereof, or any of them, and whereof the master and three-fourths of the mariners, at least, are citizens of the said United Provinces, shall be considered as vessels of the United Provinces.

8. All merchants, commanders of ships, and others, the subjects of his Britannic Majesty, shall have the same liberty in all the territories of the said United Provinces as the natives thereof, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; nor shall they be obliged to employ any other persons for those purposes, nor to pay them any salary or remuneration, unless they shall choose to employ them; and absolute freedom shall be allowed in all cases to the buyer and seller to bargain and fix the price of any goods imported into or exported from the said United Provinces, as they shall see good.

9. In whatever relates to the lading and unlading of ships, the safety of merchandise, goods, and effects, the disposal of property of every sort and denomination, by sale, donation, or exchange, or in any other manner whatsoever, as also the administration of justice, the subjects and citizens of the two contracting parties shall enjoy, in their respective dominions, the same privileges, liberties, and rights as the most favoured nation, and shall not be charged in any of these respects with any other duties or imposts than those which are paid or may be paid by the native subjects or citizens of the power in whose dominions they may be resident. They shall be exempted from all compulsory military service whatsoever, whether by sea or land, and from all forced loans, or military exactions or requisitions; neither shall they be compelled to pay any ordinary taxes, under any pretext whatsoever, greater than those that are paid by native subjects or citizens.

10. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall, in the usual form, be approved and admitted by the government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as either of them may judge fit to be so excepted.

11. For the better security of commerce between the subjects of his Britannic Majesty and the inhabitants of the United Provinces of Rio de la Plata, it is agreed, that if at any time any interruption of friendly commercial intercourse, or any rupture, should unfortunately take place between the two contracting parties, the subjects or citizens of either of the two contracting parties residing in the dominions of the other shall have the privilege of remaining and continuing their trade therein without any manner of interruption, so long as they behave peaceably and commit no offence against the laws; and their effects and property, whether intrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other demands than those which may be made upon the like effects or property belonging to the native inhabitants of the state in which such subjects or citizens may reside.

12. The subjects of his Britannic Majesty residing in the United Provinces of Rio de la Plata shall not be disturbed, persecuted, or annoyed on account of their religion, but they shall have perfect liberty of conscience therein, and to celebrate divine service either within their own private houses, or in their own particular churches or chapels, which they shall be at liberty to build and maintain in convenient places, approved of by the government of the said United Provinces: liberty shall also be granted to bury the subjects of his Britannic Majesty who may die in the territories of the said United Provinces in their own burial places, which, in the same manner, they may freely establish and maintain. In the like manner, the citizens of the said United Provinces shall enjoy, within all the dominions of his Britannic Majesty, a perfect and unrestrained liberty of conscience, and of exercising their religion publicly or privately, within their own dwelling houses, or in the chapels and places of worship appointed for that purpose, agreeably to the system of toleration established in the dominions of his said Majesty.

13. It shall be free for the subjects of his Britannic Majesty residing in the United Provinces of Rio de la Plata, to dispose of their property, of every description, by will or testament, as they may judge fit; and in the event of any British subject dying without such will or testament in the territories of the United Provinces, the British consul-general, or, in his absence, his representative, shall have the right to nominate curators to take charge of the property of the deceased for the benefit of his lawful heirs and creditors, without interference, giving convenient notice thereof to the authorities of the country; and reciprocally.

14. His Britannic Majesty being extremely desirous of totally abolishing the slave trade, the United Provinces of Rio de la Plata engage to co-operate with his Britannic Majesty for the completion of so beneficent a work, and to prohibit all persons inhabiting within the said United Provinces, or subject to their jurisdiction, in the most effectual manner, and by the most solemn laws, from taking any share in such trade.

15. The present treaty shall be ratified, and the ratifications shall be exchanged in London within 4 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed their seals thereunto.

Done at Buenos Ayres, 2d day of February, in the year of our Lord 1825.

WOODBINE PARISH, H.M. Consul-General.
MANL. J. GARCIA.

An order in council, dated 3d September, 1827, orders that vessels of the United Provinces of Rio de la Plata entering the ports of the United Kingdom of Great Britain and Ireland, in ballast, or laden direct from any of the ports of Rio de la Plata, or departing from the ports of the said United Kingdom, together with the cargoes on board the same, such cargoes consisting of articles which may be legally imported or exported, shall not be subject to any other or higher duties or charges whatever than are or shall be levied on British vessels entering or departing from such ports; or on similar articles when imported into or exported from such ports in British vessels; and also such articles, when exported from the said ports in vessels of the United Provinces of Rio de la Plata, respectively, shall be entitled to the same bounties, drawbacks, and allowances that are granted on similar articles when exported in British vessels.

Local Dues.—Provided nevertheless, that nothing herein shall extend to any duties or charges on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any other local charges to which any vessels of the United Provinces of Rio de la Plata, of the burden of 120 tons, or of any less burden, are now by law liable in the ports of any of his Majesty's dominions; it appearing to his Majesty and his privy council, that British vessels of the burden of 120 tons, or of any less burden, are subject in the ports of the said United Provinces to higher duties and charges than are levied in those ports on vessels of the said United Provinces of the burden of 120 tons, or of any less burden.

RUSSIA.

Treaty of Commerce and Navigation between Her Majesty and the Emperor of all the Russias; with three Separate Articles thereunto annexed, signed at St. Petersburg January 12, 1859.

Article 1. There shall be between all the dominions and possessions of the two high contracting parties, reciprocal freedom of commerce and navigation. The subjects of each of the two contracting parties, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the dominions and possessions of the other, to which other foreigners are or may be permitted to come; and shall, throughout the whole extent of the dominions and possessions of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions in matters of commerce and navigation, which are or may be enjoyed by native subjects generally.

It is understood, however, that the preceding stipulations in no wise affect the laws, decrees, and spe-

cial regulations regarding commerce, industry, and police, in vigour in each of the two countries, and generally applicable to all foreigners.

2. No other or higher duties shall be imposed on the importation into the dominions and possessions of Her Britannic Majesty, of any article the growth, produce, or manufacture of the dominions and possessions of His Majesty the Emperor of all the Russias, from whatever place arriving, and no other or higher duties shall be imposed on the importation into the dominions and possessions of His Majesty the Emperor of all the Russias, of any article the growth, produce, or manufacture of Her Britannic Majesty's dominions and possessions, from whatever place arriving, than are or shall be payable on the like article, the growth, produce, or manufacture of any other foreign country; nor shall any prohibition be imposed on the importation of any article the growth, produce, or manufacture of the dominions and possessions of either of the two contracting parties into the dominions and possessions of the other, which shall not equally extend to the importation of the like articles being the growth, produce, or manufacture of any other country.

3. No other or higher duties or charges shall be imposed in the dominions and possessions of either of the contracting parties, on the exportation of any article to the dominions and possessions of the other, than such as are, or may be, payable on the exportation of the like article to any other foreign country; nor shall any prohibition be imposed on the exportation of any article from the dominions and possessions of either of the two contracting parties to the dominions and possessions of the other, which shall not equally extend to the exportation of the like article to any other country.

4. The same reciprocal equality of treatment shall take effect in regard to warehousing, and to the transit trade, and also in regard to bounties, facilities, and drawbacks, which are or may be hereafter granted by the legislation of either country.

5. All merchandise and articles of commerce, the produce or manufacture either of the dominions and possessions of His Majesty the Emperor of all the Russias, or of any other country, which are or may be legally importable into the ports of the United Kingdom of Great Britain and Ireland, its dominions and possessions, in British vessels, may likewise be imported into those ports in Russian vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise and articles were imported in British vessels; and reciprocally, all merchandise and articles of commerce, the produce or manufacture either of the United Kingdom of Great Britain and Ireland, its dominions and possessions, or of any other country, which are or may be legally importable into the ports of the dominions and possessions of His Majesty the Emperor of all the Russias, in Russian vessels, may likewise be imported into those ports in British vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise and articles were imported in Russian vessels. Such reciprocal equality of treatment shall take effect without distinction whether such merchandise and articles come directly from the place of origin, or from any other place.

In the same manner, there shall be perfect equality of treatment in regard to exportation, so that the same export duties shall be paid, and the same bounties and drawbacks allowed, in the dominions and possessions of either of the high contracting parties, on the exportation of any article which is or may be legally exportable therefrom, without distinction, whether such exportation shall take place in Russian or in British vessels, and whatever may be the place of destination, whether a port of the other contracting party, or of any third power.

6. No duties of tonnage, harbour, pilotage, lighthouse, quarantine, or other similar or corresponding duties of whatever nature, or under whatever denomination, levied in the name or for the profit of government, public functionaries, private individuals, corporations, or establishments of any kind, shall be imposed in the ports of either country upon the vessels of the other country, which shall not equally and under the same conditions be imposed in the like cases on national vessels in general; the intention of the two high contracting parties being that, save certain exemptions which the shipping of some ports of the United Kingdom of Great Britain and Ireland enjoys from old times, in this respect there shall not exist in their respective dominions and possessions, in regard to the above-mentioned duties, any privilege or preference whatever favouring the national flag to the prejudice of the flag of the other party. Such equality of treatment shall apply reciprocally to the respective vessels, from whatever port or place they may arrive, and whatever may be their place of destination.

7. In all that regards the stationing, loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the two countries, no privilege shall be granted to national vessels which shall not be equally granted to vessels of the other country; the intention of the contracting parties being that in this respect also the respective vessels shall be treated on the footing of perfect equality.

8. The stipulations of the preceding articles shall not apply to the coasting trade, which each of the high contracting parties shall regulate according to its own laws.

The vessels of each of the two contracting parties shall, however, be at liberty, according as the captain, proprietor, or other person duly authorised to act as agent for the vessel or cargo, shall consider advisable, to proceed from one port of one of the two States to one or several ports of the same State, in order to discharge the whole or part of their cargo brought from abroad, or in order to take in or complete their cargo, without paying other duties than those to which national vessels are, or may hereafter be liable in similar cases.

9. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of the Empire of Russia are to be deemed Russian vessels, shall for the purposes of this treaty be deemed British and Russian vessels respectively.

10. Her Britannic Majesty engages that in all matters relating to commerce and navigation, the subjects of His Majesty the Emperor of all the Russias shall, in the British dominions, be entitled to every privilege, favour, and immunity which is actually granted, or may hereafter be granted, by Her Britannic Majesty to the subjects or citizens of any other power; and His Majesty the Emperor of all the Russias, actuated by a desire to foster and extend the commercial relations of the two countries, engages that any privilege, favour, or immunity whatever, in regard to commerce and navigation which His Imperial Majesty has actually granted, or may hereafter grant, to the subjects or citizens of any other State, shall be extended to the subjects of Her Britannic Majesty.

11. The subjects of either of the two high contracting parties, conforming themselves to the laws of the country, shall have—

(1.) Full liberty, with their families, to enter, travel, or reside in any part of the dominions and possessions of the other contracting party.

(2.) They shall be permitted, in the towns and ports, to hire or possess the houses, warehouses, shops, and premises, which may be necessary for them.

(3.) They may carry on their commerce, either in person or by any agents whom they may think fit to employ.

(4.) They shall not be subject, in respect of their persons or property, or in respect of passports, licences for residence or establishment, nor in respect of their commerce or industry, to any taxes, whether general or local, nor to imposts or obligations of any kind whatever, other or greater than those which are or may be imposed upon native subjects.

12. The dwellings and warehouses of the subjects of either of the two high contracting parties in the dominions and possessions of the other, and all premises appertaining thereto, destined for purposes of residence or commerce, shall be respected. If there should be occasion to make a search of, or a domiciliatory visit to, such dwellings and premises, or to examine or inspect books, papers or accounts, such measure shall be executed only in conformity with the legal warrant or order in writing of a tribunal, or of the competent authority.

The subjects of either of the two contracting parties in the dominions and possessions of the other shall have free access to the courts of justice for the prosecution and defence of their rights. They shall enjoy in this respect the same rights and privileges as subjects of the country, and shall, like them, be at liberty to employ, in all causes, their advocates, attorneys, or agents from among the persons admitted to the exercise of those professions according to the laws of the country.

13. The subjects of either of the two contracting parties in the dominions and possessions of the other shall be at full liberty to acquire, possess, and dispose of every description of property which the laws of the country may permit any foreigners, of whatsoever nation, to acquire and possess. They may acquire and dispose of the same, whether by purchase, sale, donation, exchange, marriage, testament, succession *ab intestato*, or in any other manner, under the same conditions as are established by the laws of the country for all foreigners. Their heirs and representatives may succeed to and take possession of such property, either in person or by agents acting on their behalf, in the same manner and in the same legal forms as subjects of the country. In the absence of heirs and representatives the property shall be treated in the same manner as the like property belonging to a subject of the country under similar circumstances.

In none of these respects shall they pay upon the value of such property any other or higher impost, duty, or charge, than is payable by subjects of the country. In every case the subjects of the contracting parties shall be permitted to export their property, or the proceeds thereof if sold, freely, and without being subjected on such exportation to pay any duty as foreigners, or any other or higher duties than those to which subjects of the country are liable under similar circumstances.

14. The subjects of either of the two high contracting parties in the dominions and possessions of the other, shall be exempted from all compulsory military service whatever, whether in the army, navy, or national guard or militia. They shall be equally exempted from all judicial and municipal charges and functions whatever, as well as from all contributions, whether pecuniary or in kind, imposed as a compensation for personal service; and, finally, from forced loans and military exactions or requisitions.

In regard, however, to judicial and municipal charges and functions, those shall be excepted which are consequent upon the possession of real property or of a lease; and in regard to military exactions and requisitions, those which all subjects of the country may be required to furnish as landed proprietors or as farmers.

15. It shall be free for each of the two high contracting parties to appoint consuls-general, consuls, vice-consuls, and consular agents, to reside in the towns and ports of the dominions and possessions of the other. Such consuls-general, consuls, vice-consuls, and consular agents, however, shall not enter upon their functions until after they shall have been approved and admitted in the usual form by the government to which they are sent. They shall exercise whatever functions, and enjoy whatever privileges, exemptions, and immunities are or shall be granted there to consuls of the most favoured nation.

16. Any ship of war or merchant-vessel of either of the high contracting parties which may be compelled by stress of weather or by accident to take shelter in a port of the other, shall be at liberty to refit therein, to procure all necessary stores, and to put to sea again, without paying any dues other than such as would be payable in a similar case by a national vessel. In case, however, the master of a merchant-vessel should be under the necessity of disposing of a part of his merchandise in order to defray his expenses, he shall be bound to conform to the regulations and tariffs of the place to which he may have come.

If any ship of war or merchant vessel of one of the high contracting parties should run aground or be wrecked upon the coasts of the other, such ship or vessel, and all parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise saved therefrom, including any which may have been cast into the sea, or the proceeds thereof if sold, as well as all papers found on board such stranded or wrecked ship or vessel, shall be given up to the owners or their agents when claimed by them. If there are no such owners or agents on the spot, then the same shall be delivered to the British or Russian consul-general, consul, or vice-consul in whose district the wreck or stranding may have taken place, upon being claimed by him within the period fixed by the laws of the country; and such consuls, owners, or agents, shall pay only the expenses incurred in the preservation of the property, together with the salvage, or other expenses, which would have been payable in the like case of a wreck of a national vessel.

The goods and merchandise saved from the wreck shall be exempt from all duties of custom, unless cleared for consumption, in which case they shall pay the same rate of duty as if they had been imported in a national vessel.

In the case either of a vessel being driven in by stress of weather, run aground, or wrecked, the respective consuls-general, consuls, vice consuls, and consular agents shall, if the owner or master or other agent of the owner is not present, or is present and requires it, be authorised to interpose in order to afford the necessary assistance to their fellow-countrymen.

17. The consuls-general, consuls, vice-consuls, and consular agents of either of the high contracting parties, residing in the dominions and possessions of the other, shall receive from the local authorities such assistance as can by law be given to them for the recovery of deserters from ships of war or merchant vessels of their respective countries.

18. The Ionian Islands being under the protection of Her Britannic Majesty, the subjects and vessels of those Islands shall enjoy, in the dominions and possessions of His Majesty the Emperor of Russia, all the advantages which are granted by the present treaty to the subjects and vessels of Great Britain, as soon as the government of the Ionian Islands shall have agreed to grant the same reciprocal advantages in those Islands to Russian subjects and vessels; it being understood that, in order to prevent abuses, every Ionian vessel claiming the benefits of the present treaty shall be furnished with a patent signed by the lord high commissioner or his representative.

19. The stipulations of the present treaty shall be applicable to all vessels navigating under the Russian flag, without any distinction between the Russian Mercantile Marine, properly so called, and that which belongs more particularly to the Grand Duchy of Finland, which forms an integral part of the Empire of Russia.

In regard to commerce and navigation in the Russian possessions on the N.-W. coast of America, the convention concluded at St. Petersburg on the $\frac{16}{28}$th of February, 1825, shall continue in force.

20. The high contracting parties being desirous to secure, each within its own dominions, complete and effectual protection against fraud for the manufactures of the other, have agreed that any piracy or fraudulent imitation in one of the two countries of the manufacturers' or tradesmen's marks originally affixed, *bonâ fide*, to goods produced in the other, in attestation of their origin and quality, shall be strictly prohibited and repressed. Her Britannic Majesty engages to recommend to her parliament to adopt such measures as may be required to enable her to give the more complete execution to the stipulations of this article.

21. The high contracting parties reserve to themselves to determine hereafter, by a special convention, the means of reciprocally protecting copyright in works of literature and of the fine arts, within their respective dominions.

22. The present treaty of commerce and navigation shall remain in force for ten years from the date of the exchange of the ratifications; and further, until the expiration of twelve months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the high contracting parties reserving to itself the right of giving such notice to the other at the expiration of the first nine years, or at any time afterwards.

The present treaty shall be ratified, and the ratifications shall be exchanged at London in six weeks or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seal of their arms.

Done at St. Petersburg, this twelfth day of January / thirty-first day of December in the year of our Lord one thousand eight hundred and fifty / eight.

JOHN F. CRAMPTON.
PRINCE A. GORTCHACOW.

Separate Articles.

I. The commercial intercourse of Russia with the kingdoms of Sweden and Norway being regulated by special stipulations, which may hereafter be renewed, and which do not form part of the regulations applicable to foreign commerce in general, the two high contracting parties, being desirous of removing from their commercial relations every kind of doubt or cause for discussion, have agreed that those special stipulations granted in favour of the commerce of Sweden and Norway, in consideration of equivalent advantages granted in those countries to the commerce of the Grand Duchy of Finland, shall in no case apply to the relations of commerce and navigation established between the two high contracting parties by the present treaty.

II. It is equally understood that the exemptions, immunities, and privileges hereinafter mentioned, shall not be considered as at variance with the principle of reciprocity which forms the basis of the treaty of this date, that is to say:—

1. The exemption from navigation dues during the first three years, which is enjoyed by vessels built in Russia, and belonging to Russian subjects;

2. The permission granted to the inhabitants of the coast of the government of Archangel, to import duty free, or on payment of moderate duties, into the ports of the said government, dried or salted fish, as likewise certain kinds of furs, and to export therefrom, in the same manner, corn, rope and cordage, pitch and ravensduck;

3. The privilege of the Russian American Company;

4. The immunities granted in Russia to certain English and Netherland Companies, called "Yacht Clubs."

III. The present separate articles shall have the same force and validity as if they were inserted, word for word, in the treaty signed this day. They shall be ratified, and the ratifications thereof exchanged at the same time.

In witness whereof, &c.

Sardinia.

Treaty of Navigation between her Majesty and the King of Sardinia, signed at Turin, September 6. 1841.

Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and his Majesty the King of Sardinia, desiring to ameliorate, enlarge, and regulate the commercial relations between their respective kingdoms, and to furnish every sort of facility and encouragement to their respective subjects engaged in commercial operations with each other, and being persuaded that nothing can contribute more to the attainment of this desirable object than a reciprocal abrogation of all differential duties of navigation, of whatever nature, with regard to vessels of one of the two nations in the ports of the other, have named plenipotentiaries to conclude a treaty to this effect.

Article 1. British vessels which shall arrive laden in the ports of the kingdom of Sardinia, coming from the ports of the United Kingdom of Great Britain and Ireland; and reciprocally, Sardinian vessels which shall arrive laden in the ports of the U. Kingdom of Great Britain and Ireland, coming from the ports of Sardinia; as well as British or Sardinian vessels which shall arrive in ballast, in respect of any voyage whatever, in the ports of one or the other of these kingdoms, shall be treated on their entry, during their stay, and on their departure, on the same footing as national vessels, with respect to duties of tonnage, harbour, light-houses, pilotage, quarantine, wharfage, beaconage, signals, and any other duties of navigation whatever, which affect vessels, and are levied in the name and for the profit of government, public functionaries, communes, or establishments of whatever kind.

2. In order to avoid all misunderstanding with regard to the regulations according to which are fixed the conditions which establish the nationality of vessels, it is agreed that all vessels shall be considered as British vessels which are built in the dominions of her Britannic Majesty; and all those which, having been captured from an enemy by her Majesty's ships of war, or by her subjects furnished with letters of marque by the lords commissioners of the Admiralty, shall have been regularly declared a lawful prize by one of the prize courts of her Britannic Majesty; as well as all vessels which shall have been condemned by any competent court for a breach of the laws made for the prevention of the slave trade; provided that they are owned, navigated, and registered according to the laws of Great Britain; that they are the entire property of one or more of the subjects of her Majesty the Queen of Great Britain and Ireland; and that the master and three fourths of the crew are British subjects.

In the same manner, all vessels shall be considered as Sardinian vessels which are built in the dominions of his Sardinian Majesty; and all those which, having been captured from an enemy by his Majesty's ships of war, or by his subjects furnished with letters of marque, shall have been regularly declared a lawful prize by one of the prize courts of the kingdom of Sardinia; as well as all vessels which shall have been condemned by any competent court for a breach of the laws made for the prevention of the slave trade: provided that they are owned, navigated, and registered according to the laws of the said kingdom; that they are the entire property of one or more subjects of his Sardinian Majesty; and that the master and three-fourths of the crew are Sardinian subjects.

3. In all that regards the stationing of vessels, their loading and unloading in the ports, basins, roadsteads, and harbours, of one of the two countries, no privilege shall be accorded to national vessels which shall not be equally acceded to the vessels of the other country; the desire of the contracting parties being that in this respect likewise vessels shall be treated on a footing of perfect equality.

4. Vessels of the two countries shall be at liberty to discharge the whole or part of their cargo in the ports of the dominions of either of the high contracting parties, according as the captain or the proprietor, or whoever is duly authorised to act in the port as agent for the vessel or cargo shall consider advisable; and then proceed with the remainder of their cargo to the other ports of the same country.

5. Should any ships of war or mercantile vessels of one of the two countries be wrecked upon the coast of the other, such ships or vessels, or any part thereof, their rigging, and all the appurtenances thereof, as well as all effects and merchandise which shall be saved therefrom, or the proceeds of the sale thereof, shall be faithfully restored to the proprietors, or their duly authorised factors, upon being claimed by them. In the event of such proprietors or factors not being on the spot, the said appurtenances, merchandise, or the proceeds thereof, shall be delivered, together with all papers found on board such vessels, to the British or Sardinian consul in whose district the wreck may have taken place; and such consul, proprietor, or factor shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage which would have been payable in the like case of a wreck of a national vessel. The merchandise and goods saved from the wreck shall not be subject to the established duties, unless cleared for consumption.

6. It is expressly understood that the preceding articles are not applicable to the navigation of the coast, or coasting trade of each of the two countries which is exclusively reserved to each of the high contracting parties.

7. British vessels arriving from Gibraltar or from Malta shall enjoy, in the ports of his Majesty the King of Sardinia, the same advantages as are accorded to British vessels arriving from the ports of the United Kingdom of Great Britain and Ireland; and reciprocally, Sardinian vessels, which shall enter the ports of the Island of Malta or of Gibraltar, shall enjoy all the advantages which are assured to them by the present treaty, when entering the ports of the United Kingdom of Great Britain and Ireland.

8. The present treaty shall be in force for the term of 10 years from the date of the exchange of the ratifications thereof, and further until the expiration of 12 months after one of the contracting parties shall have announced to the other the intention to terminate the same, each of the said high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years.

The ratifications of the present treaty shall be exchanged at Turin, within the space of 2 months from the date of the signature thereof, or sooner if possible.

In witness whereof, we have signed the same in double original, and have affixed thereto the seal of our arms.

Done at Turin, the 6th of September, 1841.

RALPH ABERCROMBY.
SOLAR DE LA MARGUERITE.

The Two Sicilies.

Treaty of Commerce and Navigation between His Britannic Majesty and the King of the Two Sicilies, signed at London, September 26. 1816.

Article 1. His Britannic Majesty consents, that all the privileges and exemptions which his subjects, their commerce and shipping, have enjoyed, and do enjoy, in the dominions, ports, and domains of his Sicilian Majesty, in virtue of the treaty of peace and commerce concluded at Madrid on the 10th of May (23d of May), 1667, between Great Britain and Spain; of the treaties of commerce between the same powers, signed at Utrecht, the 9th of December, 1713, and at Madrid, the 13th of December, 1715; and of the convention concluded at Utrecht, the 8th of March, 1712-1713, between Great Britain and the kingdom of Sicily, shall be *abolished*; and it is agreed upon in consequence, between their said Britannic and Sicilian Majesties, their heirs and successors, that the said privileges and exemptions, whether of persons, or of flags and shipping, are and shall continue for ever abolished.

2. His Sicilian Majesty engages not to continue, nor hereafter to grant, to the subjects of any other power whatever, the privileges and exemptions abolished by the present convention.

3. His Sicilian Majesty promises that the subjects of his Britannic Majesty shall not be subjected, within

his dominions, to a more rigorous system of examination and search by the officers of customs than that to which the subjects of his said Sicilian Majesty are liable.

4. His Majesty the King of the Two Sicilies promises that British commerce in general, and the British subjects who carry it on, shall be treated throughout his dominions upon the same footing as the most favoured nations, not only with respect to the persons and property of the said British subjects, but also with regard to every species of article in which they may traffic, and the taxes or other charges payable on the said articles, or on the shipping in which the importation shall be made.

5. With respect to the personal privileges to be enjoyed by the subjects of his Britannic Majesty, in the kingdom of the Two Sicilies, his Sicilian Majesty promises that they shall have a free and undoubted right to travel, and to reside in the territories and dominions of his said Majesty, subject to the same precautions of police which are practised towards the most favoured nations. They shall be entitled to occupy dwellings and warehouses, and to dispose of their personal property of every kind and description, by sale, gift, exchange, or will, and in any other way whatever, without the smallest loss or hindrance being given them on that head. They shall not be obliged to pay, under any pretence whatever, other taxes or rates than those which are paid, or that hereafter may be paid, by the most favoured nations in the dominions of his said Sicilian Majesty. They shall be exempt from all military service, whether by land or sea; their dwellings, warehouses, and every thing belonging or appertaining thereto for objects of commerce or residence, shall be respected. They shall not be subjected to any vexatious search or visits. No arbitrary examination or inspection of their books, papers, or accounts, shall be made under the pretence of the supreme authority of the state, but these shall alone be executed by the legal sentence of the competent tribunals. His Sicilian Majesty engages on all these occasions to guarantee to the subjects of his Britannic Majesty who shall reside in his states and dominions, the preservation of their property and personal security, in the same manner as those are guaranteed to his subjects and to all foreigners belonging to the most favoured and most highly privileged nations.

6. According to the tenor of the articles 1. and 2. of this treaty, his Sicilian Majesty engages not to declare null and void the privileges and exemptions which actually exist in favour of British commerce within his dominions, till the same day, and except by the same act, by which the privileges and exemptions, whatsoever they are, of all other nations, shall be declared null and void within the same.

7. His Sicilian Majesty promises, from the date when the general abolition of the privileges according to the articles 1, 2. and 6. shall take place, to make a reduction of 10 per cent. upon the amount of the duties payable according to the tariff in force the 1st of January, 1816, upon the total of the merchandise or production of the United Kingdom of Great Britain and Ireland, her colonies, possessions, and dependencies, imported into the states of his said Sicilian Majesty, according to the tenor of article 4. of the present convention; it being understood that nothing in this article shall be construed to prevent the King of the Two Sicilies from granting, if he shall think proper, the same reduction of duty to other foreign nations.

8. The subjects of the Ionian Islands shall, in consequence of their being actually under the immediate protection of his Britannic Majesty, enjoy all the advantages which are granted to the commerce and to the subjects of Great Britain by the present treaty; it being well understood, that to prevent all abuses, and to prove its identity, every Ionian vessel shall be furnished with a patent, signed by the Lord High Commissioner or his representative.

9. The present convention shall be ratified, and the ratifications thereof exchanged in London, within the space of 6 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed it, and thereunto affixed the seal of their arms.

Done at London, the 26th of September, 1816.

CASTLEREAGH. CASTELCICALA.

Separate and Additional Article.

In order to avoid all doubt respecting the reduction upon the duties in favour of British commerce which his Sicilian Majesty has promised in the 7th article of the convention signed this day between his Britannic Majesty and his Sicilian Majesty, it is declared, by this present separate and additional article, that by the concession of 10 per cent. of diminution, it is understood that in case the amount of the duty should be 20 per cent. upon the value of the merchandise, the effect of the reduction of 10 per cent. is to reduce the duty from 20 to 18; and so for other cases in proportion. And that for the articles which are not taxed *ad valorem* in the tariff, the reduction of the duty shall be proportionate; that is to say, a deduction of a tenth part upon the amount of the sum payable shall be granted.

The present separate and additional article shall have the same force and validity as if it had been inserted word for word in the convention of this day: it shall be ratified and the ratification thereof shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed it, and have thereunto affixed the seal of their arms.

Done at London, the 26th of September, 1816.

CASTLEREAGH. CASTELCICALA.

Treaty of Commerce and Navigation between Her Majesty and the King of the Kingdom of the Two Sicilies, signed at Naples, April 29. 1845.

Article I. Her Britannic Majesty confirms the abolition agreed upon by the first article of the convention of Commerce and Navigation between Great Britain and the Kingdom of the Two Sicilies, signed at London on the 26th of September, 1816, of all the privileges and exemptions which her subjects, their commerce and merchant ships, did enjoy within the dominions, states, and ports of his Sicilian Majesty, in virtue of the treaty of peace and commerce between Great Britain and Spain, concluded at Madrid on the $\frac{13}{23}$ May, 1667; of the treaties of commerce between the same powers, signed at Utrecht the $\frac{28\text{ November}}{9\text{ December}}$, 1713, and at Madrid the $\frac{3}{14}$ December, 1715; and of the convention between Great Britain and the Kingdom of Sicily, concluded at Utrecht the $\frac{25\text{ February, 1712}}{8\text{ March, 1713}}$; and it is agreed in consequence, between their said Britannic and Sicilian Majesties, their heirs and successors, that the said privileges and exemptions, whether of persons, flags, or shipping, are and shall continue for ever abolished, even when the present treaty shall cease to be in force.

2. His Sicilian Majesty, on his part, confirms in like manner the engagement contained in the second article of the said convention of the 26th of September, 1816, not to grant for the future, to the subjects of any other power whatever, the privileges and exemptions abolished by that convention, and to which the preceding article refers.

3. With respect to the personal privileges to be enjoyed by the subjects of her Britannic Majesty in the Kingdom of the Two Sicilies, his Sicilian Majesty engages that they shall have a free and undoubted right to travel and to reside in the territories and dominions of his said Majesty, subject to the same precautions of police which are practised towards the subjects or citizens of the most favoured nations.

They shall be entitled to occupy dwellings and warehouses, and to dispose of all their personal property, of every kind and description, by sale, gift, exchange, will, or in any other way whatever, without

the smallest hindrance or obstacle. They shall not be obliged to pay, under any pretence whatever, any taxes or impositions other or greater than those which are paid, or may hereafter be paid, by the subjects or citizens of the most favoured nations in the dominions of his said Sicilian Majesty. They shall be exempt from all military service, whether by land or sea; from forced loans, and from every extraordinary contribution, not general or by law established. Their dwellings, warehouses, and all premises appertaining thereto, destined for purposes of residence or commerce, shall be respected. No arbitrary search of or visit to the houses of British subjects, and no arbitrary examination or inspection whatever of the books, papers, or accounts of their trade shall be made; but such measures shall be executed only in conformity with the legal sentence of a competent tribunal. And generally, his Sicilian Majesty engages that the subjects of her Britannic Majesty residing in his states or dominions shall enjoy their property and personal security in as full and ample manner as his own subjects, and as the subjects or citizens of the most favoured nations.

Her Britannic Majesty, on her part, engages to insure the enjoyment of the like privileges to the subjects of his Sicilian Majesty within her dominions.

4. The subjects of her Britannic Majesty within the dominions of his Sicilian Majesty, shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, or agent; nor shall such British subjects be restrained in their choice of persons to act in such capacities; nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ. Absolute freedom shall be given in all cases, to the buyer and seller to bargain together, and to fix the price of any goods or merchandise imported into or to be exported from the dominions of his Sicilian Majesty, save and except generally such cases wherein the laws and usages of the country may require the intervention of any special agents in the dominions of his Sicilian Majesty.

The same privileges shall be enjoyed in the dominions of her Britannic Majesty, by the subjects of his Sicilian Majesty, and upon the same conditions.

5. The subjects of her Britannic Majesty shall not be liable, within the dominions of his Sicilian Majesty, to a more rigorous system of examination and search by the officers of the customs, than the subjects of his Sicilian Majesty. And in like manner, the subjects of his Sicilian Majesty shall not be liable, within the dominions of her Britannic Majesty, to a more rigorous system of examination and search than British subjects.

6. There shall be reciprocal liberty of commerce and navigation between the U. Kingdom of Great Britain and Ireland and the Kingdom of the Two Sicilies. No duty of customs or other impost shall be charged upon any goods the produce or manufacture of one country, upon importation by sea or by land from such country into the other, other or higher than the duty or impost charged upon goods of the same kind the produce or manufacture of, or imported from, any other country; and her Majesty the Queen of the U. Kingdom of Great Britain and Ireland, and his Majesty the King of the Two Sicilies, do hereby engage that the subjects or citizens of any other state shall not enjoy any favour, privilege, or immunity whatever in matters of commerce and navigation, which shall not also and at the same time be extended to the subjects of the other high contracting party; gratuitously, if the concession in favour of that other state shall have been gratuitous, and in return for a compensation as nearly as possible of proportionate value and effect, to be adjusted by mutual agreement, if the concession shall have been conditional.

7. All articles of the produce or manufacture of either country, and of their respective dominions, which can legally be imported into either country from the other, in ships of that other country, shall, when so imported, be subject to the same duties and enjoy the same privileges, whether imported in ships of the one country or in ships of the other; and in like manner all goods which can legally be exported or re-exported from either country to the other, in ships of that other country, shall, when so exported or re-exported, be subject to the same duties, and be entitled to the same privileges, drawbacks, bounties, and allowances, whether exported in ships of the one country or in ships of the other.

8. No duties of tonnage, harbour, lighthouses, pilotage, quarantine, or other similar duties, of whatever nature or under whatever denomination, shall be imposed in either country upon the vessels of the other, in respect of voyages between the U. Kingdom of Great Britain and Ireland, or any of the British possessions in Europe, and the kingdom of the Two Sicilies, if laden, or in respect of any voyage if in ballast, which shall not be equally imposed in the like cases on national vessels.

9. In all cases in which, in either kingdom, the duty to be levied upon any goods imported from the other kingdom shall be not a fixed rate but a proportion of the value of the goods, such *ad valorem* duty shall be ascertained and secured in the following manner; that is to say, the importer shall, on making his entry for the payment of duty at the custom-house, sign a declaration stating the value of the goods at such amount as he shall deem proper; and in case the officer or officers of the customs shall be of opinion that such valuation is insufficient, he or they shall be at liberty to take the goods, on paying to the importer the value thereof according to the declaration of the importer, together with an addition of 10 per cent.; and the custom-house officer shall at the same time return to the importer any duty which the importer may have paid upon such goods.

10. It is hereby declared, that the stipulations of the present treaty are not to be understood as applying to the navigation and carrying trade between one port and another situated in the dominions of either contracting party; such navigation and trade being reserved exclusively to national vessels.

Vessels of either country shall, however, be permitted to load or unload part of their cargoes at one port in the dominions of either of the high contracting parties, and then to proceed to complete the said loading or unloading, to any other port or ports in the same dominions.

11. Neither of the two governments, nor any corporation or agent acting in behalf or under the authority of either government, shall in the purchase of any article which, being the growth, produce, or manufacture of the one country, shall be imported into the other, give, directly or indirectly, any priority or preference on account of or in reference to the national character of the vessel in which such article shall have been imported; it being the true intent and meaning of the high contracting parties, that no distinction or difference whatever shall be made in this respect.

12. Her Britannic Majesty declares that the commerce of Sicilian subjects within the U. Kingdom of Great Britain and Ireland is not restrained, interrupted, or in any manner affected by the operation of any monopoly, contract, or exclusive privilege of sale or purchase whatsoever; but that the subjects of his Sicilian Majesty within the U. Kingdom of Great Britain and Ireland, have unrestrained permission to buy from and sell to whomsoever they please, and in any form and manner which may be agreed upon between the purchaser and seller, and without being obliged to give any preference or favour in consequence of any such monopoly, contract, or exclusive privilege of sale or purchase; and her Britannic Majesty engages that no change shall in this respect be made in regard to the trade of the subjects of his Sicilian Majesty. His Sicilian Majesty engages on his part, that a like liberty in respect to purchases or sales shall be enjoyed by her Britannic Majesty's subjects trading to or residing in the Kingdom of the Two Sicilies: the royal Sicilian monopolies of tobacco, salt, playing cards, gunpowder, and nitre, being excepted.

It being understood that nothing agreed upon in the present treaty is opposed to the right of his Majesty the King of the Kingdom of the Two Sicilies to grant, whether to the authors or others, patents for inventions or improvements.

13. If any ships of war or merchant-vessels be wrecked on the coasts of either of the high contracting parties, such ships or vessels, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, or the produce thereof, if sold,

shall be faithfully restored, with the least possible delay, to the proprietors, upon being claimed by them or by their duly authorised factors; and if there are no such proprietors or factors on the spot, then the said goods and merchandise, or the proceeds thereof, as well as all the papers found on board such wrecked ships or vessels, shall be delivered to the British or Sicilian consul or vice-consul in whose district the wreck may have taken place; and such consul, vice-consul, proprietors, or factors, shall pay only the expenses incurred in the preservation of the property, together with the rate of salvage and expenses of quarantine which would have been payable in the like case of a wreck of a national vessel; and the goods and merchandise saved from the wreck shall not be subject to duties unless cleared for consumption; it being understood that in case of any legal claim upon such wreck, goods, or merchandise, the same shall be referred for decision to the competent tribunals of the country.

14. Her Britannic Majesty consents that as soon as the present treaty shall be carried into effect, she will give up for ever the privilege of the reduction of 10 per cent. stipulated in favour of the trade of her subjects, by the 7th Article of the Convention signed at London on the 26th of September, 1816. And his Sicilian Majesty engages on his part, that, so long as this treaty shall last, the subjects of her Britannic Majesty shall continue to enjoy a reduction of 10 per cent. upon the duties payable according to the customs' tariff, upon the total of the merchandise or productions of the U. Kingdom of Great Britain and Ireland, her colonies, possessions, and dependencies, imported by them into his Majesty's dominions; and further, the subjects of her Britannic Majesty shall not pay any higher duties than those which upon the like merchandise or productions shall be paid by the subjects or citizens of any other nation, conformably always to the terms of the 6th Article of the present treaty, and the principles laid down in that article.

It is, however, understood, that nothing contained in this article shall prevent or restrict the right of his Majesty the King of the Kingdom of the Two Sicilies to continue to his own subjects the enjoyment of a like reduction of 10 per cent. on the custom-house duties, or to grant it, if he shall think proper, to other nations, and thus to place them in this respect on the same footing with Great Britain; and to make at any time such changes as his Majesty shall deem fit in the tariffs of his royal dominions.

15. The Ionian Islands being under the protection of her Britannic Majesty, the subjects and vessels of those islands shall enjoy, in the Sicilian dominions, all the advantages which are granted by the present treaty to the subjects and vessels of Great Britain, as soon as the government of the Ionian Islands shall have agreed to grant the same reciprocal advantages in those islands to the subjects and vessels of his Sicilian Majesty; it being understood that to prevent abuses, every Ionian vessel claiming the benefits of this treaty shall be furnished with a patent signed by the Lord High Commissioner, or by his representative.

16. The commerce and navigation between the dominions of his Sicilian Majesty and Gibraltar and Malta, shall enjoy all the advantages granted to the subjects and vessels of the U. Kingdom of Great Britain and Ireland, and the Kingdom of the Two Sicilies, by the present treaty.

17. As soon as the ratifications of the present treaty shall have been exchanged, the stipulations contained in the Convention of Commerce and Navigation between Great Britain and the Kingdom of the Two Sicilies, signed at London on the 26th of September, 1816, as well as in the Additional Articles of the same date, shall be, without distinction and for ever, considered as null and void.

18. The present treaty shall be in force for the term of 10 years from the date of the exchange of the ratifications thereof, and further until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same; each of the said high contracting parties reserving to itself the right of giving such notice at the end of the said term of 10 years, or at any subsequent time.

19. The present treaty shall be ratified, and the ratifications shall be exchanged at Naples at the expiration of 3 months from the date of its signature, or sooner if possible.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at Naples, the 29th day of April, 1845.

WILLIAM TEMPLE.
WOODBINE PARISH.
CAVR. GIUSTINO FORTUNATO.
PRINCIPE DI COMITINI.
ANTONIO SPINELLI.

TURKEY.

Capitulations and Articles of Peace between Great Britain and the Ottoman Empire, as agreed upon, augmented, and altered, at different Periods, and, finally, confirmed by the Treaty of Peace concluded at the Dardanelles, in 1809.

SULTAN MEHEMED,

MAY HE LIVE FOR EVER.

"*Let every thing be done in conformity to these capitulations, and contrary thereto let nothing be done.*"

1. The English nation and merchants, and all other merchants sailing under the English flag, with their vessels and merchandise of all descriptions, may pass safely by sea, and go and come into our dominions, without any the least prejudice or molestation being given to their persons, property, or effects, by any person whatsoever, but they shall be left in the undisturbed enjoyment of their privileges, and be at liberty to attend to their affairs.

2. If any of the English coming into our dominions by land be molested or detained, such persons shall be instantly released, without any further obstruction being given to them.

3. English vessels entering the ports and harbours of our dominions shall and may at all times safely and securely abide and remain therein, and at their free will and pleasure depart therefrom, without any opposition or hindrance from any one.

4. If it shall happen that any of their ships suffer by stress of weather, and not be provided with necessary stores and requisites, they shall be assisted by all who happen to be present, whether the crews of our Imperial ships, or others, both by sea and land.

5. Being come into the ports and harbours of our dominions, they shall and may be at liberty to purchase at their pleasure, with their own money, provisions and all other necessary articles, and to provide themselves with water, without interruption or hindrance from any one.

6. If any of their ships be wrecked upon any of the coasts of our dominions, all beys, cadis, governors, commandants, and others our servants, who may be near or present, shall give them all help, protection, and assistance, and restore to them whatsoever goods and effects may be driven ashore; and in the event

of any plunder being committed, they shall make diligent search and inquiry to find out the property, which, when recovered, shall be wholly restored by them.

7. The merchants, interpreters, bankers, and others of the said nation, shall and may, both by sea and land, come into our dominions, and there trade with the most perfect security; and in coming and going, neither they nor their attendants shall receive any the least obstruction, molestation, or injury, either in their persons or property, from the beys, cadis, sea captains, soldiers, and others our slaves.

17. Our ships and galleys, and all other vessels, which may fall in with any English ships in the seas of our dominions, shall not give them any molestation, nor detain them by demanding any thing, but shall show good and mutual friendship the one to the other, without occasioning them any prejudice.

19. If the corsairs or galliots of the Levant be found to have taken any English vessels, or robbed or plundered them of their goods and effects, also if any one shall have forcibly taken any thing from the English, all possible diligence and exertion shall be used and employed for the discovery of the property, and inflicting condign punishment on those who may have committed such depredations; and their ships, goods, and effects shall be restored to them without delay or intrigue.

21. Duties shall not be demanded or taken of the English, or of the merchants sailing under the flag of that nation, on any piastres and sequins they may import into our sacred dominions, or on those they may transport to any other place.

26. English merchants, and all others sailing under their flag, may, freely and unrestrictedly, trade and purchase all sorts of merchandise (prohibited commodities alone excepted), and convey them, either by land or sea, or by way of the river Tanais, to the countries of Muscovy or Russia, and bring back thence other merchandise into our sacred dominions, for the purposes of traffic, and also transport others to Persia and other conquered countries.

38. Should the ships bound for Constantinople be forced by contrary winds to put into Caffa, or any other place of those parts, and not be disposed to buy or sell any thing, no one shall presume forcibly to take out or seize any part of their merchandise, or give to the ships or crews any molestation, or obstruct the vessels that are bound to these ports.

40. On their ships arriving at any port, and landing their goods, they may, after having paid their duties, safely and securely depart, without experiencing any molestation.

41. English ships bound to Constantinople, Alexandria, Tripoli of Syria, Scanderoon, or other ports of our sacred dominions, shall in future be bound to pay duties, according to custom, on such goods only as they shall, of their own free will, land with a view to sale; and for such merchandise as they shall not discharge, no duty shall be demanded, neither shall the least molestation or hindrance be given to them.

44. English and other merchants navigating under their flags, who trade to Aleppo, shall pay such duties on the silks, brought and laden by them on board their ships, as are paid by the French and Venetians, and not one asper more.

55. The Imperial fleet, galleys, and other vessels, departing from our sacred dominions, and falling in with English ships at sea, shall in no-wise molest or detain them, nor take from them any thing whatsoever. English ships shall no longer be liable to any further search, or exaction at sea under colour of search or examination.

70. English ships coming to the ports of Constantinople, Alexandria, Smyrna, Cyprus, and other ports of our sacred dominions, shall pay 300 aspers for anchorage duty, without an asper more being demanded of them.

72. No molestation shall be given to any of the aforesaid nation buying camlets, mohairs, or grogram yarn, at Angora and Beghbazar, and desirous of exporting the same from thence, after having paid the duty of 3 per cent., by any demand of customs for the exportation thereof, neither shall one asper more be demanded of them.

75. That it being represented to us that English merchants have been accustomed hitherto to pay no custom or scale duty, either on the silks bought by them at Brussa and Constantinople, or on those which come from Persia and Georgia, and are purchased by them at Smyrna from the Armenians; if such usage or custom really exists, and the same be not prejudicial to the empire, such duty shall not be paid in future.

(*N. B.* — These capitulations may be found entire in *Hertslet's Treaties;* and in *Chitty's Commercial Law*, vol. ii. pp. 290—511. Appen.)

Treaty between Great Britain and the Sublime Porte, concluded at the Dardanelles, the 5th of January, 1809.

1. From the moment of signing the present treaty, every act of hostility between England and Turkey shall cease.

5. In return for the indulgence and good treatment afforded by the Sublime Porte to English merchants, with respect to their goods and property, as well as in all matters tending to facilitate their commerce, England shall reciprocally extend every indulgence and friendly treatment to the flags, subjects, and merchants of the Sublime Porte, which may hereafter frequent the dominions of his Britannic Majesty for the purpose of commerce.

6. The last Custom-house tariff established at Constantinople, at the ancient rate of 3 per cent., and particularly the article relating to the interior commerce, shall continue to be observed, as they are at present regulated, and to which England promises to conform.

10. English patents of protection shall not be granted to dependants, or merchants who are subjects of the Sublime Porte, nor shall any passport be delivered to such persons, on the part of ambassadors or consuls, without permission previously obtained from the Sublime Porte.

Done near the Castles of the Dardanelles, the 5th of January, 1809, which corresponds with the year of the Hégira 1223, the 19th day of the moon Zilkaade.

SEYD MEHEMMED EMIN VAAID EFFENDI.
ROBERT ADAIR.

Convention of Commerce and Navigation between Her Majesty and the Sultan of the Ottoman Empire, with two additional Articles thereunto annexed.

Art. 1. — All rights, privileges, and immunities which have been conferred on the subjects or ships of Great Britain by the existing capitulations and treaties are confirmed now and for ever, except in as far as they may be specifically altered by the present convention: and it is, moreover, expressly stipulated that all rights, privileges, or immunities which the Sublime Porte now grants, or may hereafter grant, to the ships and subjects of any other foreign power, or which it may suffer the ships and subjects of any other foreign power to enjoy, shall be equally granted to, and exercised and enjoyed by, the subjects and ships of Great Britain.

Art. 2. — The subjects of Her Britannic Majesty, or their agents, shall be permitted to purchase at all places in the Ottoman dominions (whether for the purposes of internal trade or exportation) all articles, without any exception whatsoever, the produce, growth, or manufacture of the said dominions; and the Sublime Porte formally engages to abolish all monopolies of agricultural produce, or of any other articles whatsoever, as well as all permits from the local governors, either for the purchase of any article or for its removal from one place to another when purchased; and any attempt to compel the subjects of Her Britannic Majesty to receive such permits from the local governors shall be considered as an infraction of treaties, and the Sublime Porte shall immediately punish with severity any vizirs and other officers who shall have been guilty of such misconduct, and render full justice to British subjects for all injuries or losses which they may duly prove themselves to have suffered.

Art. 3. — If any article of Turkish produce, growth, or manufacture be purchased by the British mer-

chant or his agent, for the purpose of selling the same for internal consumption in Turkey, the British merchant or his agent shall pay, at the purchase and sale of such articles, and in any manner of trade therein, the same duties that are paid, in similar circumstances, by the most favoured class of Turkish subjects engaged in the internal trade of Turkey, whether Mussulmans or Rayahs.

Art. 4. — If any article of Turkish produce, growth, or manufacture be purchased for exportation, the same shall be conveyed by the British merchant or his agent, free of any kind of charge or duty whatsoever, to a convenient place of shipment, on its entry into which it shall be liable to one fixed duty of 9 per cent. *ad valorem*, in lieu of all other interior duties.

Subsequently, on exportation, the duty of 3 per cent., as established and existing at present, shall be paid. But all articles bought in the shipping ports for exportation, and which have already paid the interior duty at entering into the same, will only pay the 3 per cent. export duty.

Art. 5. — The regulations under which firmans are issued to British merchant vessels for passing the Dardanelles and the Bosphorus, shall be so framed as to occasion to such vessels the least possible delay.

Art. 6. — It is agreed by the Turkish government that the regulations established in the present convention shall be general throughout the Turkish empire, whether in Turkey in Europe, in Turkey in Asia, in Egypt, or other African possessions belonging to the Sublime Porte, and shall be applicable to all the subjects, whatever their description, of the Ottoman dominions; and the Turkish government also agrees not to object to other foreign powers settling their trade upon the basis of this present convention.

Art. 7. — It having been the custom of Great Britain and the Sublime Porte, with a view to prevent all difficulties and delay in estimating the value of articles imported into the Turkish dominions, or exported therefrom, by British subjects, to appoint at intervals of fourteen years, a commission of men well acquainted with the traffic of both countries, who have fixed by a tariff the sum of money in the coin of the Grand Signior which should be paid as duty on each article; and the term of fourteen years, during which the last adjustment of the said tariff was to remain in force, having expired, the high contracting parties have agreed to name conjointly fresh commissioners to fix and determine the amount in money which is to be paid by British subjects, as the duty of 3 per cent. upon the value of all commodities imported and exported by them; and the said commissioners shall establish an equitable arrangement for estimating the interior duties which, by the present treaty, are established on Turkish goods to be exported, and shall also determine on the places of shipment where it may be most convenient that such duties should be levied.

The new tariff thus established to be in force for 7 years after it has been fixed, at the end of which time it shall be in the power of either of the parties to demand a revision of that tariff; but if no such demand be made on either side within the 6 months after the end of the first 7 years, then the tariff shall remain in force for 7 years more, reckoned from the end of the preceding 7 years; and so it shall be at the end of each successive period of 7 years.

Art. 8. — The present convention shall be ratified, and the ratifications shall be exchanged at Constantinople within the space of 4 months.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed their seals thereunto.

Done at Balta-Liman, near Constantinople, the 16th day of August, 1838.

PONSONBY.

(Signed in the Turkish original)

MUSTAPHA RESCHID, &c.

Additional Articles.

Certain difficulties having arisen between the ambassador of her Britannic Majesty and the plenipotentiaries of the Sublime Porte, in fixing the new conditions which should regulate the commerce in British goods imported into the Turkish dominions, or passing through the same in transit, it is agreed between his Excellency the British ambassador and the plenipotentiaries of the Sublime Porte, that the present convention should receive their signatures, without the articles which have reference to the above-mentioned subjects forming part of the body of the said convention.

But at the same time it is also agreed — the following articles having been consented to by the Turkish government — that they shall be submitted to the approbation of her Majesty's government, and, should they be approved and accepted by her Majesty's government, they shall then form an integral part of the treaty now concluded.

The articles in question are the following: —

Art. 1. — All articles being the growth, produce, or manufacture of the U. Kingdom of Great Britain and Ireland and its dependencies, and all merchandise, of whatsoever description, embarked in British vessels, and being the property of British subjects, or being brought overland, or by sea, from other countries by the same, shall be admitted, as heretofore, into all ports of the Ottoman dominions, without exception, on the payment of 3 per cent. duty, calculated upon the value of such articles.

And in lieu of all other and interior duties, whether levied on the purchaser or seller, to which these articles are at present subject, it is agreed that the importer, after receiving his goods, shall pay, if he sells them at the place of reception, or if he send them thence to be sold elsewhere in the interior of the Turkish empire, one fixed duty of 2 per cent.; after which such goods may be sold and resold in the interior, or exported, without any further duty whatsoever being levied or demanded on them.

But all goods that have paid the 3 per cent. import duty at one port shall be sent to another free of any further duty, and it is only when sold there, or transmitted thence into the interior, that the second duty shall be paid.

It is always understood that Her Majesty's government do not pretend, either by this article or any other in the present treaty, to stipulate for more than the plain and fair construction of the terms employed; nor to preclude in any manner the Ottoman government from the exercise of its rights of internal administration, where the exercise of those rights does not evidently infringe upon the privileges accorded by ancient treaties, or the present treaty, to British merchandise or British subjects.

Art. 2. — All foreign goods brought into Turkey from other countries shall be freely purchased and traded in, in any manner, by the subjects of Her Britannic Majesty, or the agents of the same, at any place in the Ottoman dominions; and if such foreign goods have paid no other duty than the duty paid on importation, then the British subject or his agent shall be able to purchase such foreign goods on paying the extra duty of 2 per cent., which he will have to pay on the sale of his own imported goods, or on their transmission for sale into the interior; and after that such foreign goods shall be resold in the interior, or exported, without further duty; or, should such foreign goods have already paid the amount of the two duties (*i. e.* the import duty and the one fixed interior duty), then they shall be purchased by the British subject or his agent, and afterwards resold or exported, without being ever submitted to any further duty.

Act. 3. — No charge whatsoever shall be made upon British goods (such being the growth, produce, or manufacture of the U. Kingdom or its dependencies, or the growth, produce, or manufacture of any foreign country, and charged in British vessels, and belonging to British subjects) passing through the straits of the Dardanelles, of the Bosphorus, and of the Black Sea, whether such goods shall pass through those straits in the ships that brought them, or are transhipped in those straits, or, destined to be sold elsewhere, are landed with a view to their being transferred to other vessels (and thus to proceed on their voyage) within a reasonable time.

All merchandise imported into Turkey for the purpose of being transmitted to other countries, or

which, remaining in the hands of the importer, shall be transmitted by him for sale to other countries shall only pay the duty of 3 per cent. paid on importation, and no other duty whatsoever.

Done at Balta-Liman, near Constantinople, the 16th day of August, 1838.

PONSONBY.

(Signed in the Turkish original)

MUSTAHPA RESCHID, &c.

Official Note delivered to Lord Ponsonby by his Excellency Nouree Effendi, on the 27th of August, 1838, relative to the 2d Article of the preceding Convention.

(*Translation.*)

It is stipulated by the 2d article of the treaty of commerce concluded between the Sublime Porte and the British government on the 25th Djémaziulevel, 1254 (August 16. 1838), that English merchants are at liberty to purchase all kinds of merchandise in the Ottoman empire.

But in order that the right of English merchants to sell within the Ottoman empire, or to export the merchandise which they may purchase, may not be liable to misconception, the embassy of Her Britannic Majesty has desired that an explanation should be given on this point, either in the treaty itself, or in a special note.

The meaning of the passage of which an elucidation is requested is clear, from the relation which the subsequent points in the 2d article bear to each other. But we nevertheless repeat, that English merchants may, in virtue of the treaty, purchase within the Ottoman empire all kinds of merchandise; may, if they think proper, send the same abroad after having paid the duty thereon stipulated by the treaty; or may, if they think fit, resell the same within the Ottoman empire on conforming to the arrangements established by the said treaty with reference to internal commerce.

Such are the arrangements of the treaty; and we give this explanation to the ambassador, renewing to his Excellency the assurances of our sincere and perfect friendship.

The 7th Djémaziul-akir, 1254 (August 27. 1838.)

Convention between Great Britain, Austria, France, Prussia, Russia, and Turkey, respecting the Straits of the Dardanelles and of the Bosphorus. Signed at London, July 13. 1841.

Article 1. His Highness the Sultan, on the one part, declares that he is firmly resolved to maintain for the future the principle invariably established as the ancient rule of his empire, and in virtue of which it has at all times been prohibited for the ships of war of foreign powers to enter the straits of the Dardanelles and of the Bosphorus; and that, so long as the Porte is at peace, his Highness will admit no foreign ship of war into the said straits.

And their Majesties the Queen of the United Kingdom of Great Britain and Ireland, the Emperor of Austria, King of Hungary and Bohemia, the King of the French, the King of Prussia, and the Emperor of all the Russias, on the other part, engage to respect this determination of the Sultan, and to conform themselves to the principle above declared.

2. It is understood that in recording the inviolability of the ancient rule of the Ottoman empire mentioned in the preceding article, the Sultan reserves to himself, as in past times, to deliver firmans of passage for light vessels under flag of war, which shall be employed, as is usual, in the service of the missions of foreign powers.

3. His Highness the Sultan reserves to himself to communicate the present convention to all the powers with whom the Sublime Porte is in relations of friendship, inviting them to accede thereto.

The present convention shall be ratified, and the ratifications thereof shall be exchanged at London, at the expiration of 2 months, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 13th day of July, in the year of our Lord 1841.

PALMERSTON. CHEKIB.
ESTERHAZY.
NEUMANN.
BOURQUENEY.
BULOW.
BRUNNOW.

UNITED STATES.

Convention of Commerce between Great Britain and the U. States of America, signed at London, the 3d *of July*, 1815.

Article 1. There shall be between all the territories of his Britannic Majesty in Europe, and the territories of the U. States, a reciprocal liberty of commerce. The inhabitants of the 2 countries respectively shall have liberty freely and securely to come with their ships and cargoes to all such places, ports, and rivers in the territories aforesaid, to which other foreigners are permitted to come, to enter into the same, and to remain and reside in any part of the said territories respectively; and also to hire and occupy houses and warehouses for the purpose of their commerce; and generally the merchants and traders of each nation respectively shall enjoy the most complete protection and security for their commerce; but subject always to the laws and statutes of the 2 countries respectively.

2. No higher or other duties shall be imposed on the importation into the territories of his Britannic Majesty in Europe, of any articles, the growth, produce, or manufacture of the U. States, and no higher or other duties shall be imposed on the importation into the U. States, of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, than are or shall be payable on the like articles, being the growth, produce, or manufacture of any other foreign country; nor shall any higher or other duties or charges be imposed in either of the two countries on the exportation of any articles to his Britannic Majesty's territories in Europe, or to the U. States, respectively, than such as are payable on the exportation of the like articles to any other foreign country; nor shall any prohibition be imposed upon the exportation or importation of any articles, the growth, produce, or manufacture of the U. States, or of his Britannic Majesty's territories in Europe, to or from the said territories of his Britannic Majesty in Europe, or to or from the said U. States, which shall not equally extend to all other nations.

No higher or other duties or charges shall be imposed in any of the ports of the U. States on British vessels, than those payable in the same ports by vessels of the U. States; nor in the ports of any of his Britannic Majesty's territories in Europe on the vessels of the U. States, than shall be payable in the same ports on British vessels.

The same duties shall be paid on the importation into the U. States of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, whether such importation shall be in the vessels of the U. States, or in British vessels; and the same duties shall be paid on the importation into the ports of any of his Britannic Majesty's territories in Europe of any articles, the growth, produce, or manufacture of the U. States, whether such importation shall be in British vessels, or in vessels of the U. States.

The same duties shall be paid, and the same bounties allowed, on the exportation of any articles, the growth, produce, or manufacture of his Britannic Majesty's territories in Europe, to the U. States, whether such exportation shall be in vessels of the U. States, or in British vessels; and the same duties shall be paid, and the same bounties allowed, on the exportation of any articles, the growth, pro-

duce, or manufacture of the U. States, to his Britannic Majesty's territories in Europe, whether such exportation shall be in British vessels, or in vessels of the U. States.

It is further agreed, that in all cases where drawbacks are or may be allowed upon the re-exportation of any goods, the growth, produce or manufacture of either country respectively, the amount of the said drawbacks shall be the same, whether the said goods shall have been originally imported in a British or American vessel; but when such re-exportation shall take place from the U. States in a British vessel, or from the territories of his Britannic Majesty in Europe in an American vessel, to any other foreign nation, the 2 contracting parties reserve to themselves, respectively, the right of regulating or diminishing, in such case, the amount of the said drawback.

The intercourse between the U. States and his Britannic Majesty's possessions in the West Indies, and on the continent of North America, shall not be affected by any of the provisions of this article, but each party shall remain in the complete possession of its rights, with respect to such an intercourse.

3. His Britannic Majesty agrees that the vessels of the U. States of America shall be admitted and hospitably received at the principal settlements of the British dominions in the East Indies, viz. *Calcutta*, *Madras*, *Bombay*, and *Prince of Wales' Island*, and that the citizens of the said U. States may freely carry on trade between the said principal settlements and the said U. States, in all articles of which the importation and exportation respectively, to and from the said territories, shall not be entirely prohibited; provided only, that it shall not be lawful for them, in any time of war between the British government and any state or power whatever, to export from the said territories, without the special permission of the British government, any military stores, or naval stores, or rice. The citizens of the U. States shall pay for their vessels, when admitted, no higher or other duty or charge than shall be payable on the vessels of the most favoured European nations, and they shall pay no higher or other duties or charges on the importation or exportation of the cargoes of the said vessels, than shall be payable on the same articles when imported or exported in the vessels of the most favoured European nations.

But it is expressly agreed, that the vessels of the U. States shall not carry any articles from the said principal settlements to any port or place, except to some port or place in the U. States of America, where the same shall be unladen.

It is also understood, that the permission granted by this article is not to extend to allow the vessels of the U. States to carry on any part of the coasting trade of the said British territories; but the vessels of the U. States, having in the first instance proceeded to one of the said principal settlements of the British dominions in the East Indies, and then going with their original cargoes, or any part thereof, from one of the said principal settlements to another, shall not be considered as carrying on the coasting trade. The vessels of the U. States may also touch for refreshments, but not for commerce, in the course of their voyage to or from the British territories in India, or to or from the dominions of the Emperor of China, at the Cape of Good Hope, the island of St. Helena, or such other places as may be in the possession of Great Britain, in the African or Indian seas; it being well understood, that in all that regards this article, the citizens of the U. States shall be subject in all respects to the laws and regulations of the British government from time to time established.

4. It shall be free for each of the 2 contracting parties respectively to appoint consuls, for the protection of trade, to reside in the dominions and territories of the other party; but before any consul shall act as such, he shall in the usual form be approved and admitted by the government to which he is sent; and it is hereby declared, that in case of illegal and improper conduct towards the laws or government of the country to which he is sent, such consul may either be punished according to law, if the laws will reach the case, or be sent back, the offended government assigning to the other the reasons for the same.

It is hereby declared, that either of the contracting parties may except from the residence of consuls such particular places as such party shall judge fit to be so excepted.

5. This convention, when the same shall have been duly ratified by his Britannic Majesty and by the President of the U. States, by and with the advice and consent of their Senate, and the respective ratifications mutually exchanged, shall be binding and obligatory on his Majesty and on the said U. States for 4 years from the date of its signature; and the ratifications shall be exchanged in 6 months from this time, or sooner if possible.

Done at London, the 3d of July, 1815.

FRED. J. ROBINSON. JOHN Q. ADAMS.
HENRY GOULBURN. H. CLAY.
WILLIAM ADAMS. ALBERT GALATIN.

This convention was subsequently prolonged by conventions for that purpose in 1818 and 1827.

Convention between Great Britain and the United States of America, signed at London, the 20th October. 1818.

Art. 1.—Whereas differences have arisen respecting the liberty claimed by the U. States for the inhabitants thereof, to take, dry, and cure fish, on certain coasts, bays, harbours, and creeks of his Britannic Majesty's dominions in America, it is agreed between the high contracting parties, that the inhabitants of the said United States shall have for ever, in common with the subjects of his Britannic Majesty, the liberty to take fish of every kind on that part of the coast of Newfoundland which extends from Cape Ray to the Rameau Islands, on the western and northern coasts of Newfoundland, from the said Cape Ray to the Quirpon Islands, on the shores of the Magdalen Islands, and also on the coasts, bays, harbours, and creeks, from Mount Joly, on the southern coast of Labrador, to and through the Straits of Belleisle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson Bay Company: and that the American fishermen shall also have liberty, for ever, to dry and cure fish in any of the unsettled bays, harbours, and creeks of the southern part of the coast of Newfoundland, and of the coast of Labrador; but so soon as the same, or any portion thereof, shall be settled, it shall not be lawful for the said fishermen to dry or cure fish, without previous agreement for such purpose with the inhabitants, proprietors, or possessors of the ground. And the U. States hereby renounce for ever any liberty heretofore enjoyed or claimed by the inhabitants thereof to take, dry, or cure fish on or within three marine miles of any of the coasts, bays, creeks, or harbours of his Britannic Majesty's dominions in America, not included within the above-mentioned limits; provided, however, that the American fishermen shall be admitted to enter such bays or harbours for the purpose of shelter and of repairing damages therein, of purchasing wood, and of obtaining water, and for no other purpose whatever: but they shall be under such restrictions as may be necessary to prevent their taking, drying, or curing fish therein, or in any other manner abusing the privileges hereby reserved to them.

2. It is agreed that a line drawn from the most north-western point of the Lake of the Woods, along the 49th parallel of north latitude, or if the said point shall not be in the 49th parallel of north latitude, then that a line drawn from the said point due north or south, as the case may be, until the said line shall intersect the said parallel of north latititude, and from the point of such intersection due west along and with the said parallel, shall be the line of demarcation between the territories of the U. States and those of his Britannic Majesty, and that the said line shall form the northern boundary of the said territories of the U. States, and the southern boundary of the territories of his Britannic Majesty, from the Lake of Woods to the Stony Mountains.

3. It is agreed that any country that may be claimed by either party on the north-west coast of America, westward of the Stony Mountains, shall, together with its harbours, bays, and creeks, and the navigation of all rivers within the same, be free and open, for the term of 10 years from the date of the signature of the present convention, to the vessels, citizens, and subjects of the two powers: it being well

understood, that this agreement is not to be construed to the prejudice of any claim which either of the two high contracting parties may have to any part of the said country, nor shall it be taken to affect the claims of any other power or state to any part of the said country, the only object of the high contracting parties, in that respect, being to prevent disputes and differences among themselves.

4. All the provisions of the convention to "regulate the commerce between the territories of the U. States and of his Britannic Majesty, concluded at London," on the 3d of July, in the year of our Lord 1815, with the exception of the clause which limited its duration to 4 years, and excepting, also, so far as the same was affected by the declaration of his Majesty respecting the island of St. Helena, are hereby extended and continued in force for the term of 10 years from the date of the signature of the present convention, in the same manner as if all the provisions of the said convention were herein specially recited.

5. Whereas it was agreed by the first article of the treaty of Ghent, that "all territory, places, and possessions whatever, taken by either party from the other during the war, or which may be taken after the signing of this treaty, excepting only the islands hereinafter mentioned, shall be restored without delay, and without causing any destruction, or carrying away any of the artillery, or other public property originally captured in the said forts or places, which shall remain therein upon the exchange of the ratifications of this treaty, or any slaves, or other private property;" and whereas, under the aforesaid article, the United States claim for their citizens, and as their private property, the restitution of, or full compensation for, all slaves who at the date of the exchange of the ratifications of the said treaty were in any territory, place, or possessions whatsoever, directed by the said treaty to be restored to the U. States, but then still occupied by the British forces, whether such slaves were, at the date aforesaid, on shore, or on board any British vessel lying in waters within the territory or jurisdiction of the U. States; and whereas differences have arisen whether, by the true intent and meaning of the aforesaid article of the treaty of Ghent, the U. States are entitled to the restoration of, or full compensation for, all or any slaves as above described, the high contracting parties hereby agree to refer the said differences to some friendly sovereign or state to be named for that purpose: and the high contracting parties further engage to consider the decision of such friendly sovereign or state to be final and conclusive on all the matters referred.

6. This convention, when the same shall have been duly ratified by the President of the U. States, by and with the advice and consent of their senate, and by his Britannic Majesty, and the respective ratifications mutually exchanged, shall be binding and obligatory on the said U. States and on his Majesty; and the ratifications shall be exchanged in six months from this date, or sooner if possible.

In witness whereof, the respective plenipotentiaries have signed the same, and have thereunto affixed the seal of their arms.

Done at London, the 20th October, 1818.

ALBERT GALATIN.
RICHARD RUSH.
FREDERICK JOHN ROBINSON.
HENRY GOULBURN.

Treaty between Her Majesty and the U. States of America, relative to Fisheries, Commerce, and Navigation, signed at Washington, June 5, 1854.

Article 1. It is agreed by the high contracting parties, that in addition to the liberty secured to the United States' fishermen by the above-mentioned Convention of October 20, 1818, of taking, curing, and drying fish on certain coasts of the British North American Colonies therein defined, the inhabitants of the United States shall have, in common with the subjects of her Britannic Majesty, the liberty to take fish of every kind, except shell-fish, on the sea-coasts and shores, and in the bays, harbours, and creeks of Canada, New Brunswick, Nova Scotia, Prince Edward's Island, and of the several islands thereunto adjacent, without being restricted to any distance from the shore; with permission to land upon the coasts and shores of those colonies and the islands thereof, and also upon the Magdalen Islands, for the purpose of drying their nets and curing their fish: provided that in so doing they do not interfere with the rights of private property, or with British fishermen in the peaceable use of any part of the said coast in their occupancy for the same purpose.

It is understood that the above-mentioned liberty applies solely to the sea fishery, and that the salmon and shad fisheries, and all fisheries in rivers and the mouths of rivers, are hereby reserved exclusively for British fishermen.

And it is further agreed that in order to prevent or settle any disputes as to the places to which the reservation of exclusive right to British fishermen contained in this article, and that of fishermen of the United States contained in the next succeeding article, apply, each of the high contracting parties, on the application of either to the other, shall, within six months thereafter, appoint a commissioner. The said commissioners, before proceeding to any business, shall make and subscribe a solemn declaration that they will impartially and carefully examine and decide, to the best of their judgment, and according to justice and equity, without fear, favour, or affection to their own country, upon all such places as are intended to be reserved and excluded from the common liberty of fishing under this and the next succeeding article; and such declaration shall be entered on the record of their proceedings. The commissioners shall name some third person to act as an arbitrator or umpire in any case or cases on which they may themselves differ in opinion. If they should not be able to agree upon the name of such third person, they shall each name a person, and it shall be determined by lot which of the two persons so named shall be the arbitrator or umpire in cases of difference or disagreement between the commissioners. The person so to be chosen to be arbitrator or umpire shall, before proceeding to act as such in any case, make and subscribe a solemn declaration in a form similar to that which shall already have been made and subscribed by the commissioners, which shall be entered on the record of their proceedings. In the event of the death, absence, or incapacity of either of the commissioners or of the arbitrator or umpire, or of their or his omitting, declining, or ceasing to act as such commissioner, arbitrator, or umpire another and different person shall be appointed or named as aforesaid, to act as such commissioner, arbitrator, or umpire, in the place and stead of the person so originally appointed or named as aforesaid, and shall make and subscribe such declaration as aforesaid.

Such commissioners shall proceed to examine the coasts of the North-American provinces and of the United States embraced within the provisions of the first and second articles of this treaty, and shall designate the places reserved by the said articles from the common right of fishing therein.

The decision of the commissioners and of the arbitrator or umpire shall be given in writing in each case, and shall be signed by them respectively.

The high contracting parties hereby solemnly engage to consider the decision of the commissioners conjointly, or of the arbitrator or umpire, as the case may be, as absolutely final and conclusive in each case decided upon by them or him respectively.

2. It is agreed by the high contracting parties that British subjects shall have, in common with the citizens of the United States, the liberty to take fish of every kind, except shell-fish, on the eastern sea coasts and shores of the United States north of the 36th parallel of north latitude, and on the shores of the several islands thereunto adjacent, and in the bays, harbours, and creeks of the said sea-coasts and shores of the United States and of the said islands, without being restricted to any distance from the shore; with permission to land upon the said coasts of the United States and of the islands aforesaid for the purpose of drying their nets and curing their fish, provided that in so doing they do not interfere with the rights of private property, or with the fishermen of the United States in the peaceable use of any part of the said coasts in their occupancy for the same purpose.

It is understood that the above-mentioned liberty applies solely to the sea fishery, and that salmon and shad fisheries, and all fisheries in rivers and mouths of rivers, are hereby reserved exclusively for fishermen of the United States.

3. It is agreed that the articles enumerated in the Schedule hereunto annexed, being the growth and produce of the aforesaid British colonies, or of the United States, shall be admitted into each country respectively free of duty:

Schedule.

Grain, flour, and bread-stuffs of all kinds. Animals of all kinds. Fresh, smoked, and salted meats. Cotton-wool, seeds, and vegetables. Undried fruits; dried fruits. Fish of all kinds. Products of fish and of all other creatures living in the water. Poultry. Eggs. Hides, furs, skins or tails undressed. Stone or marble in its crude or unwrought state. Slate. Butter, cheese, tallow. Lard, horns, manures. Ores of metals of all kinds. Coal. Pitch, tar, turpentine, ashes. Timber and lumber of all kinds, round, hewed, and sawed, unmanufactured in whole or in part. Fire-wood. Plants, shrubs, and trees. Pelts, wool. Fish-oil. Rice, broom-corn, and bark. Gypsum, ground or unground. Hewn, or wrought or unwrought burr or grindstones. Dye stuffs. Flax, hemp, and tow, unmanufactured. Unmanufactured tobacco. Rags.

4. It is agreed that the citizens and inhabitants of the United States shall have the right to navigate the river St. Lawrence and the canals in Canada used as the means of communicating between the Great Lakes and the Atlantic Ocean, with their vessels, boats, and crafts, as fully and freely as the subjects of her Britannic Majesty, subject only to the same tolls and other assessments as now are or may hereafter be exacted of her Majesty's said subjects; it being understood, however, that the British government retains the right of suspending this privilege, on giving due notice thereof to the government of the United States.

It is further agreed, that if at any time the British government should exercise the said reserved right, the government of the United States shall have the right of suspending, if it think fit, the operation of article 3 of the present treaty, in so far as the province of Canada is effected thereby, for so long as the suspension of the free navigation of the river St. Lawrence or the canals may continue.

It is further agreed, that British subjects shall have the right freely to navigate Lake Michigan with their vessels, boats, and crafts, so long as the privilege of navigating the river St. Lawrence secured to American citizens by the above clause of the present article shall continue; and the government of the United States further engages to urge upon the State governments to secure to the subjects of her Britannic Majesty the use of the several State canals on terms of equality with the inhabitants of the United States.

And it is further agreed, that no export duty or other duty shall be levied on lumber or timber of any kind cut on that portion of the American territory in the State of Maine watered by the River St. John and its tributaries and floated down that river to the sea, when the same is shipped to the United States from the province of New Brunswick.

5. The present treaty shall take effect as soon as the laws required to carry it into operation shall have been passed by the Imperial Parliament of Great Britain and by the Provincial Parliaments of those of the British North American Colonies which are affected by this treaty on the one hand, and by the Congress of the United States on the other. Such assent having been given, the treaty shall remain in force for ten years from the date at which it may come into operation, and further, until the expiration of twelve months after either of the high contracting parties shall give notice to the other of its wish to terminate the same; each of the high contracting parties being at liberty to give such notice to the other at the end of the said term of ten years, or at any time afterwards.

It is clearly understood, however, that this stipulation is not intended to affect the reservation made by article 4 of the present treaty with regard to the right of temporarily suspending the operation of articles 3 and 4 thereof.

6. And it is hereby further agreed, that the provisions and stipulations of the foregoing articles shall extend to the Island of Newfoundland, so far as they are applicable to that colony. But if the Imperial Parliament, the Provincial Parliament of Newfoundland, or the Congress of the United States, shall not embrace, in their laws enacted for carrying this treaty into effect, the colony of Newfoundland, then this article shall be of no effect; but the omission to make provision by law to give it effect by either of the legislative bodies aforesaid, shall not in any way impair the remaining articles of this treaty.

7. The present treaty shall be duly ratified, and the mutual exchange of ratification shall take place in Washington, within six months from the date hereof, or earlier if possible.

In faith whereof, we, the respective plenipotentiaries, have signed this treaty, and have hereunto affixed our seals.

Done, in triplicate, at *Washington*, the fifth day of June, Anno Domini one thousand eight hundred and fifty-four.

ELGIN AND KINCARDINE. W. L. MARCY.

URUGUAY.

Treaty of Amity, Commerce, and Navigation, between her Majesty and the Oriental Republic of the Uruguay, signed at London, August 26, 1842.

Article 1. There shall be perpetual peace and amity between the dominions and subjects of her Majesty the Queen of the United Kingdom of Great Britain and Ireland, her heirs and successors, and the Oriental Republic of the Uruguay and its citizens.

2. There shall be between all the territories of her Britannic Majesty in Europe, and the territories of the Oriental Republic of the Uruguay, a reciprocal freedom of commerce. The subjects and citizens of the two countries, respectively, shall have liberty freely and securely to come, with their ships and cargoes, to all places, ports, and rivers in the territories aforesaid, to which other foreigners are or may be permitted to come; to enter into the same, and to remain and reside in any part of the said territories respectively; also to hire and occupy houses and warehouses for the purposes of their commerce; and, generally, the merchants and traders of each nation shall enjoy, within the territories of the other, the most complete protection and security for their commerce; subject always to the laws and statutes of the land.

In like manner the respective ships of war and post-office packets of the two countries shall have liberty freely and securely to come to all harbours, rivers, and places, in either country, to which other foreign ships of war and packets are or may be permitted to come; and they shall be allowed to enter into the same, to anchor and to remain there and refit; subject always to the laws and statutes of the two countries respectively.

It is hereby declared, that the stipulations of the present article are not to be understood as applying to the navigation and carrying trade between one port and another, situated in the dominions of either contracting party; such navigation and trade being reserved exclusively to national vessels.

3. There shall be reciprocal liberty of commerce and navigation between and amongst the subjects and citizens of the two high contracting parties; and the subjects and citizens of the two countries respectively shall not pay in the ports, harbours, roads, cities, towns, or places whatsoever in either country, any other or higher duties, taxes, or imposts, under whatsoever names designated or included, than those which are there paid by the subjects or citizens of the most favoured nation; and the subjects and citizens of each of the high contracting parties shall enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce and navigation, that are granted or may hereafter be granted in either country to the subjects or citizens of the most favoured nation.

No duty of customs or other impost shall be charged upon any goods the produce of one country, upon importation by sea or by land from such country into the other, higher than the duty or impost charged upon goods of the same kind, the produce of or imported from any other country. And her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, do hereby bind and engage themselves not to grant any favour, privilege, or immunity, in matters of commerce and navigation, to the subjects or citizens of any other state, which shall not be also and at the same time extended to the subjects or citizens of the other high contracting party; gratuitously, if the concession in favour of that other state shall have been gratuitous; and on giving as nearly as possible the same compensation or equivalent, in case the concession shall have been conditional.

4. No higher or other duties or payments on account of tonnage, light or harbour dues, pilotage, salvage in case of damage or shipwreck, or any local charges, shall be imposed in any of the ports of the one country upon the vessels of the other, than are payable in those ports upon national vessels.

5. The same duties shall be paid on all articles the growth, produce, or manufacture of her Britannic Majesty's dominions, when imported into the territories of the Oriental Republic of the Uruguay, whether such article be imported in vessels of the said republic, or in British vessels; and the same duties shall be paid on all articles the growth, produce, or manufacture of the said republic, when imported into the dominions of her Britannic Majesty, whether such articles be imported in British vessels or in vessels of the said republic. The same duties shall be paid, and the same bounties and drawbacks allowed, on all articles the growth, produce, or manufacture of her Britannic Majesty's dominions, when exported to the said republic of the Uruguay, whether such articles be exported in vessels of the said republic, or in British vessels; and the same duties shall be paid, and the same bounties and drawbacks allowed, on all articles the growth, produce, or manufacture of the said republic, when exported

to the dominions of her Britannic Majesty, whether such articles be exported in British vessels, or in vessels of the said republic.

6. In order to avoid any misunderstanding with respect to the regulations which may respectively determine what shall be considered a British vessel, or a vessel of the Oriental Republic of the Uruguay, when engaged in commerce between the two countries; it is hereby agreed, that all vessels built in the dominions of her Britannic Majesty, or having been made prize of war and condemned as such, or having been forfeited under any law made for the prevention of the slave trade, and condemned in any competent court for a breach of such law, and which shall be owned and navigated by subjects of her Majesty, and whereof the master and three-fourths at least of the mariners shall be subjects of her Britannic Majesty, and which shall be registered according to the laws of Great Britain, shall be considered as British vessels; and that all vessels built within the territory of the said Oriental Republic of the Uruguay, or having been made prize of war and condemned as such, or having been forfeited under any law made for the prevention of the slave trade, and condemned in any competent court for a breach of such law, or being of *bonâ fide* British construction, built in any port of her Britannic Majesty's dominions, and acquired by purchase; and which shall be owned and navigated by citizens of the said republic, and whereof the master and three-fourths at least of the mariners shall be citizens of the said republic, or matriculated subjects of her Britannic Majesty, and which shall be registered according to the laws of the said republic, shall be considered as vessels of the said Oriental Republic of the Uruguay, so far as shall relate to any commercial rights or privileges in the several ports of her Britannic Majesty's dominions.

And it is further agreed, that no ship considered as being the ship of either country shall be qualified to trade as above described under the provisions of this treaty, unless she be furnished with a register, passport, or sea-letter, under the signature of the proper person authorised to grant the same, according to the laws of the respective countries, and in a form to be reciprocally communicated by the two governments to each other. Such register, passport, or sea-letter shall certify the name, occupation, and residence of the owner or owners in the dominions of her Britannic Majesty, or in the territories of the Oriental Republic of the Uruguay, as the case may be; shall declare that he or they is or are the sole owner of the ship, or owners in the proportion to be specified; and shall state the name, burden, and description of the vessel, as to build and measurement; and if the vessel is of foreign build, of what country, and, as far as may be possible, when and from whom purchased; and all other particulars constituting the national character of the vessel, as the case may be.

7. The subjects of her Britannic Majesty shall have full liberty, in all the territories of the Oriental Republic of the Uruguay, to manage their own affairs themselves, or to commit them to the management of whomsoever they please, as broker, factor, agent, or interpreter; and they shall not be obliged to employ any other persons in those capacities, than those employed by the citizens of the Oriental Republic of the Uruguay; and they shall not be restrained in their choice of persons to act in such capacities, nor be obliged to pay them any other salary or remuneration, than such as is paid in like cases by the citizens of the said republic; and absolute freedom shall be allowed in all cases to the buyer and seller to bargain and fix the price of any goods, wares, or merchandise imported into and exported from the Oriental Republic of the Uruguay, as they shall see fit, provided they observe the laws and established customs of the country. The same privileges shall be enjoyed in the dominions of her Britannic Majesty by the citizens of the Oriental Republic of the Uruguay, under the same conditions.

The subjects and citizens of each of the contracting parties respectively shall, in the territories of the other, receive and enjoy full and perfect protection for their persons and property, and shall have free and open access to the courts of justice in the said countries respectively, for the prosecution and defence of their just rights; and they shall be at liberty to employ, in all causes, the advocates, attornies, or agents of whatever description, whom they may think proper; and they shall enjoy, in this respect, the same rights and privileges therein as native citizens.

8. In whatever relates to the police of ports; the lading and unlading of ships; the safety of merchandise, goods, and effects; the succession to personal estates by will or otherwise; and the disposal of personal property of every sort and denomination by sale, donation, exchange, or in any other manner whatsoever; and to the administration of justice; the subjects and citizens of each of the two contracting parties shall enjoy, in the dominions and territories of the other, the same privileges, liberties, and rights, as native subjects or citizens; and they shall not be charged in any of these respects with any higher imposts or duties than those which are or may be paid by natives; conforming of course to the local laws and regulations of such dominions or territories.

And it is further agreed, that the subjects and citizens of the two contracting parties shall have and enjoy, in all the dominions or territories of each other, the most full and perfect liberty to devise or dispose of their property and effects of every kind and denomination, and wheresoever situate, by will or testament, to such person or persons, and in such proportions, as their own free will may dictate.

If any subject or citizen of either of the two contracting parties should die without will or testament in the dominions or territories of the other, the consul-general or consul, or, in his absence, the representative of such consul-general or consul, shall have the right to nominate curators to take charge of the property of the deceased, so far as the laws of the country will permit, for the benefit of the lawful heirs and creditors of the deceased, without being interfered with by the authorities of the country, but giving to those authorities due and proper notice.

9. The subjects of her Britannic Majesty residing in the territories of the Oriental Republic of the Uruguay, and the citizens of the said republic residing in the dominions of her Britannic Majesty, shall be exempted from all compulsory military service whatsoever, either by sea or land, and from all forced loans or military exactions or requisitions.

Neither shall they be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native subjects or citizens of the territories in which they reside.

10. It shall be free for each of the two contracting parties to appoint consuls for the protection of trade, to reside in the dominions and territories of the other party; but no consul shall act as such until he shall in the usual form be approved and admitted by the government to which he is sent; and either of the contracting parties may except from the residence of consuls such particular places as they may judge fit to be excepted. The diplomatic agents and consuls of the Oriental Republic of the Uruguay, in the dominions of her Britannic Majesty, shall enjoy whatever privileges, exemptions, and immunities are or may there be granted to agents of the same rank belonging to the most favoured nation; and in like manner the diplomatic agents and consuls of her Britannic Majesty, in the territories of the Oriental Republic of the Uruguay, shall enjoy, according to the strictest reciprocity, whatever privileges, exemptions, and immunities are or may there be granted to the diplomatic agents and consuls of the most favoured nation.

11. For the better security of commerce between the subjects of her Britannic Majesty and the citizens of the Oriental Republic of the Uruguay, it is agreed, that if at any time any interruption of friendly intercourse or any rupture should unfortunately take place between the two countries, the subjects or citizens of either of the two contracting parties who may be within the territories of the other, shall, if residing upon the coasts, be allowed 4 months, and if residing in the interior, 9 months, to wind up their accounts and to dispose of their property; and a safe conduct shall be given to all such of the aforesaid persons as may choose to quit the country, to enable them to embark unmolested at the port which the government of the country shall select. It is, moreover, further agreed, that all subjects or citizens of either of the two contracting parties who, at the time of any such interruption of friendly relations between the two countries, shall be established in the exercise of any trade or special employment in the dominions

or territories of the other, shall have the privilege of remaining and of continuing such trade and employment therein, without any manner of interruption, in full enjoyment of their liberty and property, so long as they conduct themselves peaceably, and commit no offence against the laws; and their goods and effects, of whatever description, whether in their own custody or intrusted to individuals or to the state, shall not be liable to seizure or sequestration, or to any other charges or demands than those to which like effects or property belonging to native subjects or citizens may be liable. Debts between individuals, property in the public funds, and shares of companies, shall never be confiscated, sequestrated, or detained.

12. The subjects of her Britannic Majesty, and the citizens of the Oriental Republic of the Uruguay, respectively, residing in the territories of the other party, shall enjoy, in their houses, persons, and properties, the protection of the government, and continue in possession of the privileges which they now legally enjoy. They shall not be disturbed, molested, or annoyed in any manner on account of their religion, but they shall have perfect liberty of conscience, provided they respect the religion of the country in which they reside, as well as the constitution, laws, and customs of the land. They shall also have permission to celebrate divine service, according to the rites and ceremonies of their own church, either within their own private houses, or in their own particular churches or chapels, which they shall be at liberty to build and maintain in convenient places, approved of by the government. Liberty shall also be granted to the subjects or citizens of either of the two contracting parties resident in the territories of the other, to bury, in burial places of their own, such of their fellow-subjects or fellow-citizens who may die in such territories. Such burial places may be freely established and maintained; and the funerals and sepulchres of the dead shall not be disturbed in any way, or upon any account.

13. The present treaty shall be in force for the term of 10 years from the date thereof; and further, until the end of 12 months after either of the high contracting parties shall have given notice to the other of its intention to terminate the same: each of the high contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 10 years, or at any subsequent time.

And it is hereby agreed between them, that at the expiration of 12 months after such notice shall have been received by either party from the other, this treaty, and all the provisions thereof, shall altogether cease and determine.

14. The present treaty shall be ratified, and the ratifications shall be exchanged at London, as soon as possible within the period of 18 months from the date thereof.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of August, in the year of our Lord 1842.

ABERDEEN.
RIPON.
JOSE ELLAURI.

Additional Article.

Whereas by Art. 9. of the treaty of amity, commerce, and navigation, concluded and signed this day between her Britannic Majesty and the Oriental Republic of the Uruguay, it is stipulated that the subjects of her Britannic Majesty residing in the said republic shall not be compelled, under any pretext whatsoever, to pay any charges, requisitions, or taxes, greater than those which are or may be paid by native citizens; and whereas, by a law of the Oriental Republic of the Uruguay, a foreigner pays for the licence to open a shop, or other establishment included in the provisions of the said law, a sum greater than that which is paid by a native citizen; her Britannic Majesty engages, notwithstanding the provisions of the above-mentioned article, not to insist upon the abolition of this distinction, so long as it exists impartially with regard to the subjects or citizens of every other foreign nation.

And his Excellency the President of the Oriental Republic of the Uruguay engages, on his part, that if at any future time the amount payable by British subjects for such licence should be increased, a corresponding increase shall at the same time be made in the sum payable by native citizens of the republic; so that the proportion between the sum payable by British subjects and the sum payable by citizens of the Oriental Republic of the Uruguay, respectively, shall never be altered to the prejudice of British subjects.

The present additional article shall have the same force and validity as if it were inserted, word for word, in the treaty signed this day. It shall be ratified, and the ratifications shall be exchanged at the same time.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto their respective seals.

Done at London, the 26th day of August, in the year of our Lord 1842.

ABERDEEN.
RIPON.
JOSE ELLAURI.

Second Additional Article.

Whereas a strict and immediate execution of that part of article 6. of the treaty of amity, commerce, and navigation, signed at London on the 26th of August, 1842, between her Majesty the Queen of the U. Kingdom of Great Britain and Ireland, and the Oriental Republic of the Uruguay, which stipulates that a ship must have been actually built within the territory of the Oriental Republic of the Uruguay, to be considered a ship of that republic, would, in the present state of Uruguay shipping, deprive the republic of the full advantage of the reciprocity intended to be established by the treaty; it is agreed that, for the space of 7 years from the date of the exchange of the ratifications of the said treaty, any ships, wheresoever built, being owned, navigated, and registered in conformity with the provisions of article 6. of the treaty, shall be considered as ships of the Oriental Republic of the Uruguay: her Majesty the Queen of the U. Kingdom of Great Britain and Ireland reserving to herself the right to claim, at the end of the said term of 7 years, the strict enforcement of all the stipulations contained in the said article of the treaty, relative to the conditions which are to determine the national character of vessels of the Oriental Republic of the Uruguay.

The present additional article shall have the same force and validity as if it had been inserted, word for word, in the aforesaid treaty of the 26th of August, 1842. It shall be ratified, and the ratifications shall be exchanged at the same time and place as those of the treaty.

In witness whereof, the undersigned, plenipotentiaries of her Britannic Majesty, and of the Oriental Republic of the Uruguay, have signed the same, and have affixed thereto the seals of their arms.

Done at Montevideo, the 8th day of March, in the year of our Lord 1843.

J. H. MANDEVILLE.
SANTIAGO VASQUEZ.

TREBISOND, anciently Trapezus, from its resemblance to a trapezium, a town of Asia Minor, on the south-east coast of the Black Sea, lat. 40° 1′ N., lon. 39° 44′ 52″ E. Population variously estimated at from 15,000 to 30,000. The town is built on the declivity of a hill rising gently from the sea. It is a place of great antiquity; and from the year 1203 to the final subversion of the Eastern empire by Mahommed II.,

in the 15th century was the seat of a dukedom, or, as it was sometimes called, an empire, comprising the country between the Phasis and the Halys. Its fortifications are still of considerable strength, at least for a Turkish city. The space included within the walls is of great extent; but it is principally filled with gardens and groves. The houses are mean in their outward appearance, and comfortless within.—(*Tournefort, Voyage du Levant*, tome ii. pp. 231—239.; *Kinneir's Journey through Asia Minor, &c.* p. 338.)

Such is the account of this city given by two of the highest authorities on all matters relating to the countries which they visited. But the increase in the commerce of Trebisond, in consequence of its becoming the *entrepôt* for the transit trade with Persia, as well as for the trade with the adjacent countries, led to its extension and improvement; and the stimulus so given was greatly increased by circumstances growing out of the late war with Russia. There is still, no doubt, a great deal of misery and occasional destitution in the town and its vicinity. "But," says the consul, "the three years' war threw a great quantity of gold into the place, and several of the chief traders have been benefited. Buildings are daily rising, the town assumes a remarkable extension, the natives are better clothed and live better, and although the poor have been thinned by suffering and privation, strangers from all parts fill up the gap. Some 4 or 5 years back, the population of the city and suburbs was reckoned at 50,000 souls; it is now calculated, and I think without exaggeration, at 70,000."

Harbour.—Trebisond has two ports, one on the W. and one on the E. side of a small peninsula, or point of land, projecting a short way into the sea. That on the east is the best sheltered, and is the place of anchorage for the largest ships. It is, however, exposed to all but the southerly gales; but it does not appear that, with ordinary precaution, any danger need be apprehended. The ground, from ½ to ¾ a mile E. from the point, is clean, and holds extremely well. Ships moor with open hawse to the N., and a good hawser and stream anchor on shore, as a stern-fast. At night, the wind always comes off the land. Captain Middleton says that the only bad weather is from the N. W.; but that, though the swell be considerable, it does not cause any heavy strain upon the cables.—(*Nautical Magazine*, vol. ii. p. 181.)—At Platana, near Trebisond, and quite as exposed, Turkish vessels have from time immemorial rode in safety the whole winter; a satisfactory proof that the danger supposed to be incident to the roads along the coast are wholly visionary.—(*Ibid.* p. 214.)

Trade.—In antiquity, and in more modern times, previously to the conquest of Constantinople by the Turks, and the exclusion of all foreign vessels from the Black Sea, Trebisond was the seat of an extensive trade. Any one, indeed, who casts his eye over a map of W. Asia, must be satisfied that this city is the natural emporium of all the countries to the S. E. of the Black Sea, from Kars on the east, round by Diarbeker to Amasia on the west. Erzeroum, the principal city of Armenia, is only about 135 miles S.E. from Trebisond. Its merchants are distinguished by their superior attainments, and by their enterprise and activity. For a lengthened period they derived most part of their supplies of European commodities by way of Smyrna or Constantinople: nothing, however, but the impossibility of obtaining them at so convenient a port as Trebisond, could have made them resort to such distant markets as those now mentioned; and it may well excite surprise, considering the period during which the Black Sea has been open, that efforts were not sooner made to establish an intercourse with Armenia, Georgia, and the north-western parts of Persia, through this channel. We are glad, however, to have to state, that within these few years this has been done; and, notwithstanding the difficulties that necessarily attach to every attempt to open new channels of commerce with semi-civilised nations, the experiment has proved more than ordinarily successful.

Besides the transit trade with Persia, and the supply of the surrounding country, Trebisond has an extensive trade with Redout Kalé, and other Russian ports on the Black Sea; and sometimes, when the crops in the adjacent territory are deficient, it imports large quantities of corn from the Danube and Odessa. The imports from England principally consist of cotton stuffs and twist; iron, hardware, machinery, and coal; tin and tin-plates; sugar, and other articles of colonial produce, &c. We annex a statement of the

Shipping Trade of Trebisond in 1858.

Flag.	Imports.					Exports.				
	No. of Vessels.	Sailing.	Steamers.	Tonnage.	Value of Cargoes, Francs.	No. of Vessels.	Sailing.	Steamers.	Tonnage.	Value of Cargoes, Francs.
British -	19	11	8	8,798	12,862,300	19	11	8	8,790	460,450
Austrian -	45	4	41	30,920	29,300,975	45	4	41	30,920	8,800,402
French -	51	- -	51	15,240	17,097,009	50	- -	50	15,320	6,681,177
Russian -	63	47	16	10,675	593,200	63	47	16	10,675	1,150,997
Turkish -	89	49	40	27,030	26,017,575	89	49	40	27,030	9,375,000
Il-hami Pasha	14	- -	14	5,242	5,035,300	14	- -	14	5,242	1,539,525
Greek - -	34	34	- -	6,034	880,300	34	34	- -	6,013	125,150
Dutch - -	2	2	- -	736	1,507,525	2	2	- -	736	5,000
Prussian -	1	1	- -	555	554,750	1	1	- -	555	
Wallachian -	3	3	- -	340	- -	3	3	- -	340	
Total -	321	151	170	106,070	93,743,225	320	151	169	105,740	28,138,001

Passengers arrived and departed by sea during the year, 50,500.

Of the exports, silk is by far the most important; and next to it are nuts, saffron, tobacco, copper, wax, shawls, beans, galls, leeches, &c. Their total value was estimated in 1846 at 479,874*l.*, of which silk made nearly a half, or 210,080*l.*

Money, Weights, and Measures, same as at CONSTANTINOPLE; which see.

Port Regulations.—When a vessel arrives at Trebisond, the master comes ashore to the Health Office, to exhibit his bill of health, and, after undergoing a short interrogation, is admitted to pratique, unless his bill of health happens to be a foul one. Sometimes the Health Office sends a boat off to the vessel, and thus saves the master the trouble.

Mode of Landing Cargo.—After a vessel receives pratique, the master may begin to discharge, at his pleasure, into lighters provided by the consignees of the goods at their expense. Each of these lighters takes from 6 to 7 tons goods.

Custom-House.—There are no forms to undergo at the custom-house prior to discharging, nor even after the vessel has landed her cargo. The goods from the vessel are taken to the custom-house, and claimed from thence by the owners, the captain's consignee sending a person to superintend the delivery.

Ballast, consisting of sand and shingle, may be had, on application to the harbour master, for about 10 shillings (50 piastres) the lighter of 6 or 7 tons. The captain may, however, send his own boat to the beach, abreast of his ship, and, by the aid of his crew, load his own ballast, without paying any fee for it.

Water is to be obtained from the Mariamana river, E. of the anchorage. Masters of vessels may send their own boat and men for it; but it is advisable to employ a native boat, the latter being better acquainted with the entrance of the river, and better adapted to the service. English boats are liable to be swamped if there be any swell at the mouth of the stream. The expense of a native boat is moderate, say 5*s.* to 7*s.* 6*d.*

Labourers may be hired to assist at the loading or discharge of vessels at 2*s.* (10 piastres) per diem each.

Provisions are abundant, and moderate in price. The following are about the average rates of the articles generally required by shipping:—

Bread - -	1 piastre or	2½*d.* per oke.
Beef - -	1 —	2½*d.* —
Mutton - -	1½ —	3¾*d.* +
Vegetables -	½ —	1¼*d.* —
Wine - -	2 —	4¾*d.* @ 5*d.* per oke.
Eggs - -	1½ —	3¾*d.* per dozen.
Tobacco - -	12 —	2*s.* 6*d.* per oke.

Weights and Measures.—Everything excepting linen, silken, and cotton stuffs, is sold by weight. Stuffs are sold by measure. The following will serve as a guide to the shipmaster:—

1 kintal,	44 okes	= 121 lbs.
1 batman,	6 —	= 16½ —
1 oke	-	= 2¾ —

The measure of length is called a pike, and is equal to 26 inches English.

Quarantine Dues.—A fee, not exceeding 2 dollars (9*s.* 6*d.*), is exacted by the Health Office for every bill of health granted to a vessel; but its cost depends upon the tonnage of the vessel.

No light dues or port dues are exacted; but the harbour master, who, on seeing the vessel approaching the port, goes off and pilots her to her anchorage, is entitled to 20 piastres=1*s* (*Private Information.*)

TRIESTE, a city and sea-port of the Austrian dominions, the capital of a district of Illyria, situated near the N. E. extremity of the Gulph of Venice, lat. of lighthouse 45° 38′ 6″ N., lon. 13° 46′ 5″ E. Population, in 1850-51, of the city only 60,000 (?), and including the district comprised within the limits of the free port 82,596. It is divided into the old and new towns. The former is built upon elevated ground; the latter, which is lower down, is laid out with greater regularity, and is partly intersected by a canal, into which vessels not drawing more than 9 or 10 feet water enter to load and unload.

Harbour.—The harbour of Trieste, though rather limited in size, is easy of access and convenient. It is protected from southerly gales by the *Molo Teresiano*, so called from the Empress Maria Theresa, at the extremity of which the new lighthouse, mentioned below, has been constructed. The port, with the mole, forms a crescent 1⅛ mile in length, being a continued quay, faced with hewn stones, with stairs and jetties for the convenience of embarkation. On the north side of the port is a dock or harbour, appropriated exclusively for vessels performing quarantine. It is walled round; and is furnished with hotels, warehouses, and every sort of accommodation required for the use of passengers and goods. Ships under 300 tons burden lie close to the quays; those of greater size mooring a little further out.

The principal defects of the port are, its limited size, and its being exposed to the N. W. winds, which sometimes blow with much violence, and throw in a heavy sea. The gales, however, are seldom of long continuance; and the holding ground being good, when the anchors are backed and proper precautions taken, no accident occurs. The tide at Trieste is scarcely perceptible; but the depth of water is influenced by the wind, being increased by a long continued sirocco or S. E. wind, and diminished by the prevalence of the E. N. E. wind, known by the name of *Boro*. The access to the port is not obstructed by any bar or shallow; and there is good anchorage in the roads, in from 6 to 7 and 10 fathoms water. A good sailing vessel may beat in by night or by day, except it blow hard from the N. E. or E. N. E., when she had better anchor in the Bay of Roses, or Pirano, where she will ride in perfect safety.

Pilots.—Ships bound for Trieste are under no obligation to take pilots; but those entering the port for the first time would do well to take one on making the coast of Istria. Boats are always hovering off Rovigno; they are not manned by regular pilots, but by fishermen, who, though unfit to be trusted with the management of the ship, know the bearings of the places and the depth of water. The fee usually paid them for pilotage is 20 dollars; in addition to which, they are supported at the ship's expense during the performance of quarantine.

Lighthouses.—The lighthouse at the extremity of the Theresian mole is 106 feet (Eng.) high. The light is intermittent; and may be seen, supposing the eye of the observer to be elevated 12 feet above the level of the sea, about 12 nautical miles, or from Pirano on the side of Istria, and the shoals of Grado on the Italian coast. A lighthouse has also been erected on the point of Salvore, bearing from Trieste W. by S., distant about 18 miles. The lantern is elevated about 103 feet above the level of the sea. From this point Pirano Bay opens, where vessels may anchor in safety in all sorts of weather.

Money.—Mercantile accounts are usually kept at Trieste in what is commonly called *convention* money, from an agreement entered into with respect to it by some of the German princes, in 1763. The current coins that are legal tender are dollars, ½ dollars or florins, and zwanzigers, or pieces of 20 kreutzers. Ten dollars are coined out of the Cologne marc (3,608 gr. Eng.) of pure silver, so that the value of the dollar is 4*s.* 3*d.* sterling.

The florin, or ½ dollar = 2*s.* 1½*d.* sterling; zwanzigers, or pieces of 20 kreutzers (60 to the marc), = 8½*d.* sterling. Hence it follows that 1*s.* sterling = 28⅝ kreutzers (60 to a florin); and the pound sterling=9 fl. 24½ kr., or, as it is commonly taken, 9 fl. 25 kr. All contracts are either expressly declared, or are understood, to be in silver money; gold coins, not being legal tender, pass only as merchandise.

Weights and Measures.—Those chiefly in use at Trieste are those of Vienna and Venice. The commercial pound contains 4 quarters, 16 ounces, or 32 loths: it is=8.639 English grains. Thus, 100 lbs. at Trieste=123·6 lbs. avoirdupois; or 90½ lbs. of Trieste=112 lbs. avoirdupois.

The principal dry measure is the stajo or staro=2·34 Winch. bushels. The Vienna metzen, which is sometimes used,=1·723 Winch. bushel. The polonick=0·861 Winch. bushel.

The principal liquid measure is the orna or eimer = 40 boccali = 15 wine or 12¼ Imperial gallons very nearly. The barile=173⅓ English wine gallons.

The orna of oil contains 5⅓ caffisi, and weighs about 107 commercial pounds. It is = 17 wine or 14·16 Imperial gallons.

The ell woollen measure 26·6 English inches. The ell for silk = 25·2 English inches.

Trade.—Trieste has no command of internal navigation; but being the most convenient, or rather the only sea-port, not merely of the Illyrian provinces, but of the duchy of Austria, and the greater part of Hungary, she possesses an extensive commerce. This has been increased by the facilities afforded to all sorts of mercantile transactions by the privilege of *porto franco* conferred on the town, and a considerable extent of contiguous country. Under this franchise, all goods, with but very few exceptions, may be imported into and exported from the city free of all duties whatever. Foreign products, when taken for consumption into the interior, are subject to the duties mentioned under the head *Tariff*, in a subsequent part of this article.

Exports.—These are very various, consisting partly of the raw and partly of the manufactured products of Austria Proper, Illyria, Dalmatia, Hungary, and Italy; with foreign articles imported and warehoused. Among the principal articles of raw produce may be specified, corn, chiefly wheat and maize, with rice, wine, oil, shumac, tobacco, wax, &c.; silk, silk rags and waste, hemp, wool, flax, linen rags, hides, furs, skins, &c.; the produce of the mines makes an important item, consisting of quicksilver, cinnabar, iron, lead, copper, brass, litharge, alum, vitriol, &c.; the forests of Carniola furnish timber, for ship building and other purposes, of excellent quality and in great abundance, with staves, cork-wood, box, hoops, &c.; marble also ranks under this head. Of manufactured articles, the most important are, thrown silk, silk stuffs, printed cottons from Austria and Switzerland, coarse and fine linens, and all sorts of

leather; under this head are also ranked soap, Venetian treacle, liqueurs, &c., with jewellery, tools and utensils of all sorts, glass ware and mirrors, Venetian beads, refined sugar, and a host of other articles. Of foreign articles imported and re-shipped, the most important are sugar, coffee, and dye stuffs. Trieste is also a considerable *depôt* for all sorts of produce from the Black Sea, Turkey, and Egypt.

It is not possible to obtain any accurate account of the quantity and value of the exports; but Mr. Money, the late British consul at Trieste, who carefully inquired into the subject, supposed that they might amount, in 1833, exclusive of those shipped for Venice, Fiume, and other Austrian ports, to about 1,800,000*l.* a year, which he divided as follows:—

	£
Raw Produce, viz. — Grain, rice, oil, honey, wax, shumac, tobacco, &c.	350,000
Silk, hemp, wool, rags, hides and skins	380,800
Metals, mineral and other products; as, quicksilver, iron, lead, copper, brass, zinc, litharge, argol, antimony, arsenic, alum, vitriol, potash, turpentine, marbles, &c.	230,000
Timber, plank, boards, &c.	180,000
Manufactures, viz. — Of silk, cotton, wool, linen, leather, &c.	225,000
Soap, candles, Venetian treacle, and medicines	80,000
Tools, machinery, arms, &c.	25,000
Household furniture, musical instruments, glass and glass wares, porcelain, &c.	20,000
Foreign Articles re-shipped for exportation, exclusive of those for Lombardy and the Papal States	300,000
Total	£1,800,000

Mr. Money further supposed that these articles were distributed amongst the countries trading with Trieste, as follows:—

	£
To Turkey and the Levant	380,000
Egypt	300,000
Greece, the Ionian Islands, and Malta	130,000
the Kingdom of the Two Sicilies	550,000
Ports in France, Sardinia, and Tuscany	100,000
Spain, Portugal, and Barbary	120,000
Great Britain	220,000
Ports in the North of Germany	150,000
the United States of America	30,000
South America and the West Indies	20,000
Total exports	£1,800,000

There has, however, been a considerable increase in the interval; and we have been assured by high mercantile authority, that the entire value of the exports from Trieste to foreign countries may be at present (1859) estimated at 2,500,000*l.* a year. We subjoin

An Account of the Total Number and Tonnage of Vessels, of each Nation, entered and cleared at the Port of Trieste in 1856 and 1857.

Nationality of Vessels.	1856.				1857.			
	Entered.		Cleared.		Entered.		Cleared.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
British	121	44,121	119	42,673	95	41,675	101	43,172
Ionian	60	5,184	63	5,811	64	5,687	65	5,139
Austrian	725	166,507	594	147,850	585	162,298	578	163,669
American	62	38,854	60	40,983	45	25,283	47	30,285
Belgian	1	180	1	180	2	389	2	428
Danish	17	2,644	10	1,938	18	3,151	19	4,310
Dutch	69	12,019	71	13,306	54	10,567	63	12,996
French	24	3,760	25	4,284	20	3,081	20	3,809
Greek	227	35,892	224	38,050	226	36,917	221	39,416
Hanoverian	8	1,199	9	1,502	2	359	2	336
Hanseatic	15	3,198	16	3,624	6	1,268	7	2,059
Mecklenburgh	2	575	1	234	2	502	5	1,019
Neapolitan	529	44,294	510	39,445	517	40,387	538	37,312
Oldenburgh	8	1,397	7	1,321	3	425	4	785
Papal States	530	30,275	531	29,247	393	22,868	394	23,556
Peruvian	1	198	1	232				
Portuguese	3	541	3	531	1	410	1	410
Prussian	5	1,399	3	782	8	1,845	8	2,753
Russian			1	188				
Sardinian	23	3,910	27	4,653	42	5,966	38	5,699
Spanish	18	3,625	19	4,848	17	4,561	16	5,247
Swedish	42	9,782	38	10,606	40	10,138	41	12,345
Turkish	47	4,230	54	5,520	70	5,876	66	6,082
Tuscan	5	837	4	676	5	1,061	5	961
Total	2,542	415,627	2,588	398,734	2,215	382,692	2,239	399,796

Imports.— There is a great difference between the imports into and the exports from Trieste; the value of the former being certainly not less than 4,000,000*l.* sterling. The excess of imports is explained partly by the fact that large quantities of foreign goods imported into Trieste are subsequently transhipped by coasting vessels to Venice, Fiume, and other ports, partly by the residence of English and other foreigners at Vienna, and partly by their being an excess of exports as compared with imports from other parts of the empire. The great articles of import are sugar, cotton goods and raw cotton, oil, coffee, wheat, silks, indigo and other dye stuffs, valonia, &c.

Trieste being a free port, goods destined for its consumption, and that of the adjoining territory, pay no duties whatever, and are exported and imported without notice by the customs. Goods brought from the interior for export at Trieste are charged an export duty on passing the custom-house line. Goods imported at Trieste, to be conveyed through the Austrian dominions to those of any other power, are charged a small transit duty.

Gunpowder, salt, and tobacco, being articles monopolised by government, are not allowed to be imported into Trieste except for sale to the government or its contractors. Vessels arriving with gunpowder on board deliver it at the arsenal, and on their clearing out it is returned to them free of expense. The utmost vigilance is exerted to prevent the introduction of tobacco; but with very little effect. The only articles the exportation of which from the Austrian dominions is at present prohibited are gold and silver in bars, and silk cocoons.

Shipping. — Since the loss of Flanders, the mercantile navy of Austria has been confined wholly to the ports on the Adriatic. But it is, notwithstanding, very considerable; and engrosses at this moment a large share of the trade of the Mediterranean and the Black Sea. The oak timber of Carniola and the Dalmatian coast is reckoned about the very best in the world, so that the Austrian ships, being built of it, are very strong, at the same time that they are particularly handsome. They are also well manned and provided. The seamen are expert, temperate, and orderly; and Mr. Money says that the laws for the regulation of the merchant service are excellent. Altogether the mercantile navy of Austria engaged in foreign trade is at present (1858) estimated to comprise about 680 ships of about 252,000 tons burden. But exclusive of the above 452 vessels, of about 100 tons, are engaged in the coasting trade, with many smaller coasters, fishing boats, and about 60 steamers. There arrived at Trieste in 1857, 2,215 ships, ex small coasting vessels, of the aggregate burden of 582,692 tons.

By far the greater number of vessels of large burden belong to Trieste. The rest belong to Venice, Fiume, Ragusa, and the Bocche di Cattaro. On the other hand, the smaller vessels employed in the coasting trade, which is very considerable, are more equally divided; Venice having, probably, as many as Trieste, while a good number belong to the ports of Istria, Hungary, and Dalmatia.

The foreign trade of this port comprises all voyages beyond the limits of the Adriatic; and may be divided as follows: —

1. The Levant trade, including the Ionian Islands, Greece, Constantinople, Smyrna, Odessa, &c., the ports in Syria, Cyprus, Candia, and Egypt, more especially Alexandria.
2. The *ponente* or Mediterranean trade, in the west, comprising the coast of Barbary, Spain, France, and Italy; being principally carried on with Marseilles, Genoa, and Leghorn.
3. The commerce on the ocean, which the Austrian merchants have attempted with considerable success. Several ships sail for Brazil, the U. States, England, Hamburg, &c.

Customs Regulations. — The Custom-house at Trieste has nothing whatever to do with the entry, reporting, &c. of vessels. When a ship arrives, she is reported to the Health Office; which publishes a list of arrivals and departures, with a statement of their cargoes, as they ap, ear in the manifests. Ships are cleared by the same office; the masters being assisted by the consuls of the country to which they belong. As soon as a vessel has performed quarantine, she loads or unloads without any interference or inspection by the customs officers, or by any one else. Goods unsusceptible of contagion may be landed during quarantine.

Being a free port, the bonding and warehousing system is, of course, unknown at Trieste.

Port Charges. — These are paid at the office of the harbour master on clearing out. They are the same, whatever may be the ship's stay; and are, perhaps, the most moderate of any in Europe.

Port Charges paid by Austrian and Foreign Ships.

Austrian, and foreign privileged ships:	*Fl.*	*kr.*
Anchorage, per ton admeasurement	0	4
Lighthouse	0	3
Cargo duty, per ton weight of goods	0	3
N.B.—If grain, per 20 staja.		

Foreign ships not privileged:	*Fl.*	*kr.*
Anchorage, lighthouse, and cargo as above, per ton admeasurement, and per ton weight of goods	0	10
New tonnage duty, per ton admeasurement	0	16
Abboraggio, payable by ships departing in ballast, or with less than half a cargo	0	9

Comparative Statement of the Port Charges paid at Trieste, respectively, by a native and privileged foreign Ship, and a foreign Ship not privileged, each of 300 Tons Burden, with mixed Cargoes.

Native and privileged.	*Fl.*	*kr.*
Anchorage and light, as above, 300 tons, at 7 kreutzers per ton admeasurement	55	0
Cargo duty, 300 tons, at 3 kreutzers	15	0
Total	50	0

or about 4*l.* 18*s.* sterling.

Foreign, not privileged:	*Fl.*	*kr.*
Anchorage, light and cargo duty, as above	50	0
Tonnage duty, 300 tons, at 16 kreutzers	80	0
	150	0

or about 12*l.* 10*s.* sterling.

If the ship depart in ballast, or with less than ½ a cargo, there is a further charge of 9 kreutzers per ton, or 45 florins; making in all 175 florins.

Quarantine is strictly enforced at Trieste, and the establishments for facilitating its performance are complete and efficient. The Board of Health at this port is the central or principal one for the Austrian States; and maintains an active correspondence with all the principal ports, both in the Mediterranean and elsewhere. There are 2 lazarettos, — that called St. Teresa, or Lazaretto *Nuovo*, is appropriated to vessels from the Levant and Egypt, which are, for the most part, subjected to the long or full quarantine of 40 days. It is spacious, and properly guarded; having a sufficient number of military and medical officers and assistants; with extensive quays and magazines for housing and airing goods, dwelling houses and apartments for resident officers and passengers, &c. It is, in fact, one of the most perfect establishments of the kind in existence. The other, or old (*Vecchio*) lazaretto, contiguous to the great mole, is appropriated to ships and passengers performing a quarantine of not more than 28 days; and, though inferior to the former, is sufficiently capacious and convenient. The sanitary officers, including that of harbour master, are near the centre of the port; where also are moored vessels under observation for a term not exceeding 8 days. Here also are facilities for communicating *vivâ voce* with persons under quarantine; and spacious warehouses, with adequate guards and other officers. But, notwithstanding these conveniences, if a vessel arrive having an infectious malady on board, she is not allowed to enter either lazaretto at Trieste, but is sent to an island near Venice, fitted out for the purpose, where assistance may be afforded with less risk of propagating infection.

Quarantine Dues payable on Goods. — Non-susceptible goods pay *ad valorem* at the rate of 6 kreutzers per 100 florins or 1 mille. Susceptible goods pay an extra charge, according to tariff, or to circumstances. Besides the above *ad valorem* duty, goods not susceptible pay 4 kreutzers (1½*d.*) per every 1,000 lbs. weight of Vienna. Grain is subject to an extra charge of about ½ per cent.

Brokers, Commission Merchants, Brokerage, &c.—There are a few exceptions to the freedom generally enjoyed of settling and exercising any trade at Trieste. Brokers, for example, are limited in number, and appointed by the Chamber of Commerce. They are obliged to give security, are under various regulations, and may not themselves trade as principals. They are of 3 classes: 1st, brokers for the sale and purchase of merchandise, who are again subdivided into particular classes, according to the articles they are conversant with, as grain, oil, cotton, drugs, hides and leather, colonial produce, manufactures, &c.; 2nd, bill brokers, or exchange agents; and, 3rd, ship and insurance brokers. Such authorised brokers are alone allowed to extend contracts, certificates, surveys, or other documents; and they are considered as public functionaries, whose depositions are received as legal evidence.

Any one may be a commission merchant or factor, but he may not issue printed circulars or lists of prices; nor will his books, however regularly kept, be considered as evidence in a court of justice, unless he is *matriculated*, for which the possession of a certain amount of capital is required. This, however, is little more than mere form, and a great deal of business is done by persons acting both as merchants and brokers, without being duly authorised.

The usual rate of a merchant's or factor's commission on the purchase of goods is 2 per cent.; on sales, ½ per cent. *del credere* is sometimes added.

A merchant's commission for collecting freight, and doing other shipping business, is 2 per cent. on the inward cargo; and by custom of the place, the house to which a ship is consigned or recommended by the charterers, is entitled to a commission of 2 per cent. on the outward cargo, whether it has or has not been instrumental in procuring the goods that are laden outwards.

A broker's commission for freighting a ship, or procuring a charter, is 2 per cent. This does not include the charge for writing charter, or for any other services performed in the clearance. In case of general cargoes, when the broker has to collect goods from different merchants, he charges 3 per cent. commission. A bill broker's commission (courtage) is sometimes 1 per mille, more commonly ¼ per mille. Brokerage for the sale or purchase of merchandise varies from ¼ per cent. to 1 per cent., according to circumstances, and the nature of the article.

Insurance.—The insurance of ships is carried on to a considerable extent at Trieste. The security is unexceptionable, the terms more moderate than in England, and losses are said to be adjusted promptly and liberally. The oppressive duties on policies of insurance in England have been the cause that most insurances on ships for the Adriatic, that were formerly effected in London, Liverpool, &c., are now effected at Trieste. The insurance of houses is universal; and that of lives is also, of late years, practised to a considerable extent. House insurance is carried on by joint companies, of limited responsibility.

Bankruptcy is not of very frequent occurrence at Trieste. The laws with respect to it do not differ much from those in force in most other countries. Frauds are punishable by imprisonment; but here, as elsewhere, they are very difficult to detect. Honest bankrupts are discharged, on making a complete disclosure of their affairs, and a surrender of their assets. Property settled on a wife is not affected by the debts of the husband; a regulation which, it is evident, must lead to fraud.

Communications by Land. — The intercourse between Trieste and Austria, Hungary, &c., is necessarily all carried on by land. The roads leading to the Austrian and Hungarian towns, particularly the first, are kept in good repair, and the tolls are moderate; but owing to the rugged nature of the country, the ascent is in some places very considerable. The draught horses employed on the roads are excellent; but, in some of the mountainous districts, bullocks are used.

Despite the difficulties in the way, a railway has been constructed between Vienna and Trieste, a distance of more than 340 miles, and is now (1859) in full operation. This was a very great undertaking, and its completion reflects great credit on the Austrian government and engineers.

Careening, Stores, &c. — Timber at Trieste is excellent, workmen good, and their wages moderate; so that it is a very favourable place for careening and repairing. Water is very good, but rather scarce; so that, if a large supply be required, due notice must be given. Ships are served in regular rotation. Beef is very good, but rather high priced. Butter and cheese are dear; and fuel is excessively so. On the whole, therefore, Trieste cannot be considered as a favourable place for the provisioning of a ship.

Banking. — There are no public banks at Trieste. The bank of Vienna has an office here, but it is merely for the exchange of its notes for cash, or, more frequently, of large notes for small ones. These notes, being guaranteed by government, are legal tender, and in general circulation, but no other company is allowed to issue notes to be used as a circulating medium. There is not, however, any deficiency of currency. Banking business is transacted by private companies, or by individuals, who are subject to certain regulations, and are obliged to lay before competent authority an attested statement of the capital embarked in their concerns. Their business principally consists in procuring bills of exchange from other places for the use of the merchants of Trieste, or in discounting, (in which latter operation they have many private competitors,) at the rate of from 4 to 6 per cent. per annum, according to the nature of the paper offered, and in proportion to the scarcity or abundance of cash.

The principal bankers of Trieste are of undoubted solidity, and do not indulge in dangerous speculations; and notwithstanding the apparent want of great banking establishments, the business of buying and selling, and of making payments and remittances, whether in bills or specie, is transacted at this port with great facility; and there seldom arises any distress, pressure, or stagnation, from want of money or credit.

It is not usual for respectable bankers to give interest on deposits. The partners in joint-stock companies, banks, &c., are, in general, responsible only to the extent of their declared capital; and the individuals composing them are only liable each to the extent of their share. The same individual is frequently a general merchant, a partner in a banking house, and a member of an insurance company. All these businesses may at present be said to be prosperous.

Credit.—Goods imported into Trieste are sometimes sold for ready money, a discount being usually understood, and allowed in such case, of 2 or 2½ per cent. But they are commonly sold at 3 months' credit, that is, by bills of that date; occasionally, but rarely, they are sold at six months.

Bills thus obtained, though offering no other guarantee than the signature of the drawer or acceptor, may be discounted or insured at a moderate rate by companies who dedicate themselves to this branch of business, and who, from their extensive dealings, are good judges of the risk. The practice has become almost universal; and it not only facilitates sales, but has a tendency to prevent bankruptcies, as it is difficult for a house long to conceal its insolvency; and its credit is, by this mode of trial, soon ascertained.

Tares. — Real tare is allowed on most articles of export; and on all articles of import, except cotton and sugar. The tare on Brazil sugar in chests depends on their length and size, but in general it amounts to from 15 to 18 per cent.; on Brazil sugar in bags the tare is 3 per cent.; on Havannah sugar a tare is allowed of 62 lbs. English per box, being from 13 to 14 per cent.; on Jamaica sugar the tare is 14 per cent. Tare on American cotton, 4 per cent.

Trade of Austria with the U. Kingdom. —The direct trade carried on with Austria by the ports on the Adriatic is not so great as might, perhaps, be expected; but it has in-

creased rapidly of late years; the value of the exports of British produce to Austria having risen from 637,353*l.* in 1853, to no less than 1,297,355*l.* in 1858. And in addition to this, our indirect trade, or that carried on with Austria by means of the Elbe and other inlets to her land frontier, though it cannot be exactly ascertained, is known to be much greater; and there is every prospect of its future increase. We have already noticed (PRUSSIAN OR GERMAN COMMERCIAL UNION) the reductions that were made in the tariff of Austria, and the liberal commercial treaty she negociated in 1853 with Prussia.

Account of the Quantities and Values of the Principal Articles imported into the U. K. (directly) from the Austrian Territories during the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Argol - - - cwts.	2,901	755	196	768	13,054	2,564	686	2,752
Bones of animals and fish (except whalefins) - - tons	1,684	1,607	1,968	1,117	8,841	10,124	10,086	6,925
Brimstone - - cwts.	9,108	32,881	8,437	12,324	2,362	8,854	2,450	5,142
Bugles and glass beads - lbs.	1,133,074	1,032,815	1,493,452	2,587,402	129,831	105,435	74,675	119,370
Corn: wheat - qrs.	72,963	65,781	86,654	5,342	262,685	231,529	277,228	14,649
maize or Indian corn - "	4,761	69,845	80,776	35,079	9,525	154,551	129,241	62,584
other kinds - - "	6,317	3,429	8,515	6,972	9,827	7,244	17,052	12,520
Cotton, raw - - cwts.	888	1,125	166	756	2,375	3,216	504	2,785
Cream of tartar - - "	3,025	2,553	2,657	3,405	17,469	15,405	14,304	17,752
Currants - - - "	5,775	24,346	25,777	25,915	10,103	74,580	65,784	45,128
Gum, arabic - - "	220	652	1,050	2,151	1,107	962	1,288	2,571
Hemp, undressed - - "	39,297	114,459	32,640	24,776	92,954	242,956	59,415	41,386
Oil, olive - - - tuns	154	265	101	193	8,509	14,145	5,201	10,102
Seeds: clover - - cwts.	3,151	448	5,313	11,510	8,179	1,523	20,544	41,148
grass - - "	1,200	5,356	5,807	5,669	3,920	10,067	17,421	17,007
Shumac - - - tons	2,641	1,650	2,092	2,167	18,487	12,705	16,736	16,523
Silk, waste, knubs, and husks - cwts.	2,057	1,052	765	921	8,640	5,892	13,321	17,085
Skins, lamb, undressed - no.	258,551	75,840	225,319	154,085	12,927	3,273	12,958	7,094
Sponge - - - lbs.	41,901	19,787	10,153	15,218	13,094	8,409	5,576	6,829
Tallow - - - cwts.	13,645	6,071	867	6,781	42,982	13,557	2,058	19,551
Valonia - - - tons	458	520	179	248	5,954	5,785	1,969	2,827
Wool, sheep and lambs' - lbs.	785,655	191,766	1,133,860	902,450	57,645	8,590	53,150	46,867
Total value of the above and of all other articles - - -	- -	- -	- -	- -	846,202	1,019,028	902,455	648,813

Account of the Quantities and Values of the Principal Articles of British Produce exported from the U. K. to the Austrian Territories, in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apparel, slops, and haberdashery value	- -	- -	- -	- -	3,157	3,520	5,037	7,157
Coals, cinders, and culm - tons	63,082	55,259	69,819	111,907	31,628	26,820	35,444	54,024
Copper, wrought and unwrought cwts.	1,553	703	5,004	10,285	8,802	4,052	16,129	59,295
Cottons: entered by the yard - yards	14,147,057	18,287,228	21,091,516	19,455,484	182,226	232,901	272,483	246,170
at value - value	- -	- -	- -	- -	7,141	9,895	8,295	8,765
Cotton yarn - - - lbs.	4,145,229	6,797,630	8,058,964	4,786,973	133,781	208,408	246,296	161,097
Earthenware and porcelain - value	- -	- -	- -	- -	3,698	2,166	5,396	5,648
Fish: herrings - barrels	9,876	11,601	23,270	20,224	9,912	11,601	23,280	20,224
" pilchards - hhds.	6,469	1,800	15,417	12,454	15,544	5,400	45,061	30,139
Hardwares and cutlery - - cwts.	1,526	1,513	2,052	2,976	8,583	7,144	10,292	18,620
Iron, wrought and unwrought, including unwrought steel - tons	15,545	8,195	12,054	21,962	126,245	75,547	112,858	178,515
Linens: entered by the yard - yards	228,006	205,473	265,286	459,261	9,654	7,175	10,828	18,995
at value - value	- -	- -	- -	- -	1,420	924	1,842	3,136
Linen yarn - - - lbs.	62,719	49,928	72,403	73,458	5,172	2,392	5,458	4,015
Machinery: steam engines - value	- -	- -	- -	- -	4,589	8,678	6,052	109,724
all other sorts - "	- -	- -	- -	- -	5,178	2,535	4,416	14,493
Oil, Linseed - - - gallons	35,491	63,856	84,592	29,278	4,805	10,261	11,671	5,770
Silk manufactures - - value	- -	- -	- -	- -	5,499	6,551	9,022	9,340
Soda - - - - cwts.	21,023	22,587	27,124	33,646	8,589	9,509	15,088	18,580
Tin plates - - - value	- -	- -	- -	- -	6,202	11,175	18,019	20,218
Woollens: entered by the piece - pieces	10,092	9,664	12,942	16,331	13,862	10,895	17,714	25,421
by the yard - yards	408,959	626,027	758,346	670,279	17,121	18,714	26,621	30,665
at value - value	- -	- -	- -	- -	1,996	5,858	6,325	7,510
Total value of the above and of all other articles - - -	- -	- -	- -	- -	635,951	717,715	968,145	1,112,559

Account of the Quantities and Values of the Principal Articles of Foreign and Colonial Produce and Manufacture exported from the U. K. to the Austrian Territories in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Cochineal - - - cwts.	195	95	122	85	£4,272	£2,100	£2,657	£1,857
Coffee - - - lbs.	1,355,233	1,332,445	1,327,181	207,249	30,104	32,966	34,451	5,706
Cotton, raw - - cwts.	42,963	44,504	73,859	71,014	78,142	91,141	178,543	205,385
Hides, not tanned - - —	5,243	4,626	7,712	5,936	15,205	15,906	35,197	29,828
Indigo - - - —	405	169	253	367	9,639	4,606	7,635	11,755
Oil, cocoa nut - - - —	1,905	2,543	877	2,563	4,667	5,595	1,842	6,055
Pepper - - - lbs.	542,681	26,465	75,884	57,695	11,306	551	1,581	1,202
Saltpetre - - - —	1,080	3,660	7,254	4,630	1,485	5,246	12,660	9,222
Spirits, rum - proof gallons	74,681	125,707	149,899	37,212	11,432	17,257	18,217	5,228
Sugar, unrefined - - cwts.	9,846	-	61,941	11,083	11,199	-	95,219	20,919
Wax, bees' - - - —	173	217	786	1,655	1,260	1,546	5,591	12,851
Total value of the above and of all other articles - - -	- -	- -	- -	- -	228,562	223,120	462,801	347,508

Account of the Quantities and Values of the Principal Articles exported from the Austrian Empire (ex Dalmatia), in 1853, 1854, and 1855.

Articles.		1853.		1854.		1855.	
		Quantities.	Value.	Quantities.	Value.	Quantities.	Value.
			Florins.		Florins.		Florins.
Fruit: southern and orchard	value		604,462		5,805		41,545
Tobacco: leaves	centners	71,399	1,070,985	24,669	370,035	6,814	102,660
manufactured	—	10,127	1,012,700	7,467	746,700	7,915	791,500
Cattle: oxen and bulls	no.	38,125	2,287,500	24,450	1,467,000	29,429	1,765,740
cows and calves above two years	—	29,812	1,192,480	21,642	865,680	18,998	759,920
calves under two years	—	60,891	608,910	12,648	126,480	10,341	103,410
swine and pigs	—	125,256	1,752,703	107,030	1,376,970	90,828	1,148,192
horses and foals	—	10,553	738,710	5,703	399,210	8,233	576,310
Cheese	centners	37,509	1,875,450	22,282	1,114,100	26,520	1,326,000
Wine	—	95,603	935,574	142,726	1,427,260	180,961	1,835,025
Fire wood and timber, common	value		12,679,152		9,501,149		9,039,267
Bed feathers	centners	20,682	1,341,530	19,620	1,275,300	25,319	1,645,735
Steel	—	42,504	764,939	72,886	1,311,948	59,645	1,073,610
Coins and medals of precious metal	value		3,834,766		4,144,500		3,589,500
Precious stones, diamonds, rubies, &c.	—		14,100,000		6,576,000		4,688,000
Flax, hemp, and tow	centners	22,771	455,420	51,088	1,021,760	63,163	1,263,260
Wool, sheeps'	—	204,339	22,477,290	157,648	17,341,910	201,009	22,441,080
Silk, raw	—	62,991	48,271,660	65,525	69,480,740	51,068	58,083,510
Cotton manufactures	—	6,957	1,654,475	8,805	1,945,700	13,150	3,148,230
Linen	—	70,110	8,961,910	56,348	6,481,630	61,188	7,849,015
Woollen	—	29,588	10,589,250	41,526	9,061,680	43,579	10,174,440
Silk	—	7,832	9,300,800	7,916	6,153,800	9,621	7,353,450
Leather	—	10,151	1,059,220	6,017	646,360	9,781	978,100
manufactures	—	5,230	3,040,050	6,844	3,605,300	8,360	5,615,900
Apparel and millinery	value		7,105,510		8,333,610		8,366,980
Paper, all sorts	centners	56,770	2,010,769	53,197	1,926,326	69,689	2,958,913
Wooden wares	value		2,393,058		3,369,427		3,597,223
Glass and glass wares	centners	157,912	6,227,934	152,003	10,686,166	158,169	10,882,388
Iron manufactures, all sorts	—	92,318	3,688,875	68,897	2,674,153	103,628	4,585,018
Small wares, of precious or plated metals	value		8,657,814		7,995,000		7,995,000
Musical and other instruments	—		1,328,180		1,736,500		1,431,500
Books, prints, maps, and paintings	—		2,582,646		2,014,721		2,555,111
Salt	centners	1,017,401	907,435	945,920	864,492	1,086,691	973,206
Ships and boats	value		3,086,600		643,020		1,065,340

Account of the Total Value of the Imports and Exports of the Austrian Empire (ex Dalmatia), in each of the 6 Years ending with 1855.

Years.		Imports.		Exports.	
Ended 31st October	1850	Fl. 158,955,431	£15,895,543	Fl. 104,847,458	£10,484,746
	1851	150,547,298	15,054,730	130,023,756	13,002,375
	1852	199,361,761	19,936,176	186,490,312	18,649,031
	1853	197,392,533	19,739,253	217,561,184	21,756,118
Ended 31st December	1854	208,728,588	20,872,859	218,025,687	21,802,568
	1855	236,164,912	23,616,491	232,508,707	23,250,870

The great drawback under which Austria labours, is the situation of by far the larger portion of her provinces in the central parts of Europe; and separated from the great markets for their produce, either by a wide tract of intervening country, or by high mountain ridges, Austria is naturally an agricultural country; and, unless compelled by circumstances to devote a portion of her energies to manufactures, will, no doubt, continue such for a lengthened period: and hence, as the products of agricultural industry are at once heavy and bulky in proportion to their value, the advantage of opening improved channels of communication with other countries. In this respect, the free navigation of the Danube is of much importance, though a great deal more stress has been laid upon it in this country than it deserves. The expense of carrying corn and timber from Hungary to the Black Sea, and thence to the ports of Western Europe, will, we apprehend, always be found too heavy to admit of England or France ever supplying themselves, at least to any considerable extent, with the corn, flax, or timber of Hungary or Transylvania. The cost of conveying produce from the interior of the continent to the nearest shipping ports is a most important element, which is too generally lost sight of in this country. To show its influence we may mention that on various occasions where wheat has sold at Lemberg, one of the principal markets of Galicia, for 15*s.* or 16*s.* a quarter, its price at Dantzic at the same time has been 40*s.* and upwards; the difference being occasioned by the difficulty and expense of conveying corn down the Vistula from Lemberg to Dantzic.

The Austrian government and people have long been alive to the many advantages that would result from opening a communication between Hungary and Fiume, and other ports on the Adriatic. And notwithstanding the obstacles opposed by the interposition of the Julian Alps, and other mountain ridges, an excellent road has been carried from Carlstadt to Fiume. Still, however, the expenses of the carriage of bulky products are too great to make this route sufficiently available; and the advantage of further improving and cheapening the communication is too obvious to need being pointed out.

One Vienna pound=1·235 lb. avoirdupois; hence the centner of 100 Vienna pounds=123·5 or 123¼ lbs. avoirdupois.

The Austrian florin of the standard of 20 to the Cologne marc, is almost exactly 2 shillings sterling.
In the Lombardo-Venetian kingdom, the centner of 100 kilogrammes is still the weight used in levying the duty, the difference between 100 kilogrammes=78·8 lbs. of Austria being allowed.

TRINITY HOUSE. This society was incorporated by Henry VIII., in 1515, for the promotion of commerce and navigation by licensing and regulating pilots, and ordering and erecting beacons, lighthouses, buoys, &c. A similar society, for the like purposes, was afterwards established at Hull; and also another at Newcastle-upon-Tyne in 1537; which 3 establishments, says Hakluyt, were in imitation of that founded by the Emperor Charles V. at Seville, in Spain; who, observing the numerous shipwrecks in the voyages to and from the West Indies, occasioned by the ignorance of seamen, established, at the *Casa de Contratacion*, lectures on navigation, and a pilot-major for the examination of other pilots and mariners; having also directed books to be published on that subject for the use of navigators.

Henry VIII., by his charter, confirmed to the Deptford Trinity House Society all the ancient rights, privileges, &c., of the shipmen and mariners of England, and their several possessions at Deptford, from which it is plain that the Society had existed long previously. The corporation was confirmed, in 1658, in the enjoyment of its privileges and possessions, by letters patent of the 1st James II. by the name of the Master, Wardens, and Assistants of the Guild or Fraternity of the most glorious and undivided Trinity and of St. Clement's in the parish of Deptford Strond, in the County of Kent. At first, the corporation appears to have consisted of seamen only; but since the charter of James II., noblemen and gentlemen have been enrolled among its elder brethren. It is governed by 31 elder brothers, of whom 1 is master, 4 wardens, and 8 assistants: but the inferior members of the fraternity, named younger brethren, are not limited in point of number; every master or mate, expert in navigation, being admissible as such. Besides the power of erecting lighthouses, and other sea-marks, on the several coasts of the kingdom, for the security of navigation—(see LIGHTHOUSES),—the master, wardens, assistants, and elder brethren are invested by charter with the following powers; viz. the examination of the mathematical scholars of Christ's Hospital; the appointment of pilots to conduct ships into and out of the Thames; the settling the several rates of pilotage; and the granting licences to poor seamen, not free of the city or past going to sea, to row on the river Thames for their support. They formerly, also, enjoyed several other powers, which have since fallen into disuse or been vested in other hands. To this company belongs the Ballast Office, for clearing and deepening the Thames, by taking up a sufficient quantity of ballast for the supply of all ships that sail out of the river, for which they pay certain rates.—(See BALLAST.) The corporation is authorised to receive voluntary subscriptions, benefactions, &c.; and to purchase, in mortmain, lands, tenements, &c. to the amount of 500*l.* per annum. The ancient Hall of the Trinity House at Deptford, where the meetings of the brethren were formerly held, was pulled down long ago. They now meet in an elegant building erected for the purpose in London, near the Tower.

The revenue under the management of the Trinity House, which arose from dues payable to the corporation on account of lighthouses, buoyage, and beaconage, and ballastage, and from the interest of money in the funds, the rent of freehold property, has been principally expended on pensions to poor disabled seamen, and on the maintenance of their widows, orphans, &c. and it is admitted that it was both judiciously and economically administered. It is henceforth, however, under the provisions of the 16 & 17 Vict. c. 131., to form part of the "Mercantile Marine Fund." The act provides that payments now chargeable on the "fund" for pensions, &c., may be commuted. The expenses of lighthouses, ballastage, and beaconage, are also to be charged on the "fund," and the rates of toll are to be revised and fixed by H. M. in council. The ballastage rates under the Trinity House, being a charge peculiar to the Thames, are to be made peculiarly applicable to services performed for the safety and convenience of the shipping frequenting that river.—(See BALLAST.)

TRIPANG, OR SEA SLUG (*Biche de Mer*), a species of fish of the genus *Holuthuria*, found chiefly on coral reefs in the Eastern seas, and highly esteemed in China, into which it is imported in large quantities. It is an unseemly looking substance, of a dirty brown colour, hard, rigid, scarcely possessing any power of locomotion, or appearance of animation. Sometimes the slug is as much as 2 feet in length, and from 7 to 8 inches in circumference. A span in length, and 2 or 3 inches in girth, is, however, the ordinary size. The quality and value of the fish, however, do not by any means depend upon its size, but upon properties in it neither obvious to nor discernible by those who have not been long and extensively engaged in the trade. In shallow water the animal is taken out by the hand, but in deeper water it is sometimes speared. When taken it is gutted, dried in the sun, and smoked over a wood fire; this being the only preparation it receives.

The fishery is carried on from the western shores of New Guinea, and the southern shores of Australia, to Ceylon inclusive. Indeed, within the last few years it has been successfully prosecuted on the shores of the Mauritius. The whole produce goes to China. In the market of Macassar, the great staple of this fishery, not less than *thirty* varieties are distinguished, varying in price from 5 Spanish dollars a *picul* (133⅓ lbs.) to 14 times that price, each variety being distinguished by well-known names! The quantity of tripang sent annually to China from Macassar is about 7,000 piculs, or 8,333 cwt.; the price usually varying from 8 dollars a picul to 110 and 115, according to quality. — (*Crawfurd's Indian Archipelago*, vol. iii. p. 441.) There is also a considerable export of tripang from Manilla to Canton.

Besides tripang, *fish-maws* and *sharks' fins* are exported to China from every maritime country of India.

TROY WEIGHT, one of the most ancient of the different kinds used in Britain. The pound English Troy contains 12 ounces, or 5,760 grains. It is used in the weighing of gold, silver, and jewels; the compounding of medicines; in experiments in natural philosophy; in comparing different weights with each other; and is now (by 5 Geo. 4. c. 74.) made the standard of weight.

TROY WEIGHT, *Scotch*, was established by James VI. in the year 1618, who enacted that only one weight should be used in Scotland, viz. the French Troy stone of 16 pounds, and 16 ounces to the pound. The pound contains 7,609 grains, and is equal to 17 oz. 6 dr. avoirdupois. The cwt. or 112 lbs. avoirdupois, contains only 103 lbs. 2½ oz. of this weight, though generally reckoned equal to 104 lbs. This weight is very nearly identical with that formerly used at Paris and Amsterdam; and is generally known by the name of Dutch weight. Though prohibited by the articles of Union, it has been used in most parts of Scotland in weighing iron, hemp, flax, and other Dutch and Baltic goods, meal, butcher's meat, lead, &c. — (See WEIGHTS AND MEASURES.)

TRUCK SYSTEM, a name given to a practice that has prevailed, particularly in the mining and manufacturing districts, of paying the wages of workmen in goods instead of money. The plan has been, for the masters to establish warehouses or shops; and the workmen in their employment have either got their wages accounted for to them by supplies of goods from such *depôts*, without receiving any money; or they have got the money, with a tacit or express understanding that they were to resort to the warehouses or shops of their master for such articles as they were furnished with.

Advantages and Disadvantages of the Truck System. — A great deal of contradictory evidence has been given, and very opposite opinions have been held, as to the practical operation and real effect of this system on the workmen. Nor is this to be wondered at, seeing that every thing depends on the mode in which it is administered, and that it may be either highly advantageous or highly injurious to the labourer. If a manufacturer of character establish a shop supplied with the principal articles required for the use of the workmen in his employment, and give them free liberty to resort to it or not as they please, it can, at all events, do them no harm, and will, most likely, render them material service. The manufacturer, having the command of capital, may, in general, lay in his goods to greater advantage than they can be laid in by the greater number of retail tradesmen in moderate-sized towns; and not being dependent on the profits of his shop for support, he is, even though he had no advantage in their purchase, able to sell his goods at a cheaper rate than they can be afforded by the majority of shopkeepers. Some times, also, a factory is established in a district where shops either do not exist at all, or are very deficient; and in such cases the master consults the interest and convenience of those dependent on him when he provides a supply of the principal articles required for their subsistence. It is easy, therefore, to see that the keeping of shops by masters for the use of their workmen may be very beneficial to the latter. But to insure its being so, it is indispensable that the masters should be above taking an advantage when it is within their reach, and that their conduct towards the workmen should not be in any degree influenced by the circumstance of the latter dealing or not dealing with their shops.

Such disinterestedness is, however, a great deal more than could be rationally expected from the generality of men; and hence, though many instances may be specified in which the truck system was advantageous to the workmen, those of a contrary description were unfortunately, far more numerous. It is obvious, indeed, that a practice of this sort affords very great facilities for fraudulent dealings. Under the old law, a manufacturer who had a shop, had means, supposing he were inclined to use them, not possessed by any ordinary shopkeeper as respects his customers, for forcing upon his workmen inferior goods at an exorbitant price. They are at first supplied on liberal terms, and are readily accommodated with goods in anticipation of wages, till they get considerably into debt. The pernicious influence of this deceitful system then begins fully to disclose itself. The workmen cease to be free agents; they are compelled to take such goods and at such prices as the master pleases; for, were they to attempt to emancipate themselves from this state of thraldom by leaving their employment, they would be exposed to the risk of prosecution and imprisonment for the debts they had incurred. It is not easy to imagine the extent to which these facilities for defrauding the labouring class were taken advantage of in various districts of the country. In many instances, indeed, the profits made by the shops exceeded those made by the business to which they were contingent; and thousands of workmen, whose wages were nominally 30*s.* a week, did not really receive, owing to the bad quality and high price of the goods supplied to them, more than 20*s.*, and often not so much.

Abolition of the Truck System. — A system of dealing with the labouring classes, so very susceptible of abuse, and which, in point of fact, was very extensively abused, was loudly and justly complained of. A bill was in consequence introduced for its suppression by Mr. Littleton (now Lord Hatherton), which, after a great deal of opposition and discussion, was passed into a law, 1 & 2 Will. 4. c. 32. — (*See abstract subjoined.*)

Those who opposed this act did so on two grounds; — 1st, that it was improper to interfere at all in a matter of this sort; and, 2d, that the interference would not be effective. The first of these objections does not appear entitled to any weight. In suppressing the truck system, the legislature did nothing that could in anywise regulate or fetter the fair employment of capital: it interfered merely to put down abuse; to carry, in fact, the contract of wages into full effect, by preventing the workman from being defrauded of a portion of the wages he had stipulated for. The presumption no doubt is, in questions between workmen and their employers, that government had better abstain from all interference, and leave it to the parties to adjust their disputes on the principle of mutual interest and compromised advantage. Still, however, this is merely a presumption; and must not be viewed as an absolute rule. Instances have repeatedly occurred where the interference of the legislature to prevent or suppress abuse, on occasions of the sort now alluded to, has been imperiously required, and been highly advantageous. Those who claim its interposition are, indeed, bound to show clearly that it is called for to obviate some gross abuse, or that it will materially redound to the public advantage; and this, we think, was done in the completest manner, by the opponents of the truck system. Regard for the interests of the more respectable part of the masters, as well as for those of the workmen, required its abolition; for, while it continued, those who despised taking an advantage of their dependants were less favourably situated than those who did. It is ludicrous, therefore, in a case of this sort, to set up a cuckoo cry about the "freedom of industry." The good incident to the truck system was in practice found to be vastly overbalanced by the abuses that grew out of it; and as these could not, under the existing law of debtor and creditor, be separately destroyed, the legislature did right in attempting to suppress it altogether.

It was said, indeed, that this would be found to be impracticable; and the manufacturers would enter underhand into partnerships with the keepers of shops, and that the system would really be continued, in another and, perhaps, more objectionable form. This anticipation has, we believe, been in some degree realised; but the system has notwithstanding been in many places abandoned, and is nowhere practised to any thing like the extent to which it was carried previously to the passing of Lord Hatherton's act. It will not, however, be completely rooted out, till all small debts, however they originate, be put beyond the pale of the law. We have already vindicated the expediency of this measure on other grounds — (see CREDIT); and the influence it would have in effectually destroying whatever is most pernicious in the truck system, is a weighty additional recommendation in its favour. Were all right of action upon debts for less than 50*l.* or 100*l.* taken away, no master would think of acquiring a control over the free agency of his workmen, by getting them in debt to him; and no workman would, under such circumstances, submit to be directed in his choice of shops or goods. The case of the Scotch colliers affords a curious illustration of what is now stated. Down to 1775, these persons were really *adscripti glebæ*, or prædial slaves; that is, they and their descendants were bound to perpetual service at the works to which they belonged, — a right to their labour being acquired by any new proprietor to whom the works were sold! The 15 Geo. 3. c. 28. was passed for the emancipation of the colliers from this state of bondage. It, however, failed of practically accomplishing its object; for the masters speedily contrived, by making them advances in anticipation of their wages, to retain them as completely as ever under their control! To obviate this abuse, the 39 Geo. 3. c. 56. was passed; which most properly took from the masters all title to pursue the colliers for loans, unless advanced for the support of the collier and his family during sickness. This act had the desired effect; and the colliers have since been as free as any other class of labourers. — (See edition of the *Wealth of Nations* by the author of this work, p. 172.) In fact, were small debts put beyond the pale of the law, it would not be necessary to interfere directly with the truck system; for it would not then be possible to pervert it to any very injurious purpose.

The following are the principal clauses in the act 1 & 2 Will. 4. c. 37., entitled, "An Act to prohibit the Payment in certain Trades, of Wages in Goods, or otherwise than in the Current Coin of the Realm:" —

1. In all contracts hereafter to be made for the hiring of any artificer in any of the trades herein-after enumerated, or for the performance by any artificer of any labour in any of the said trades, the wages of such artificer shall be made payable only in the current coin of this realm, and not otherwise; any contract to the contrary being illegal, null, and void.
2. If such contract contain any stipulations as to the manner in which the wages shall be expended, it is void.
3. Wages must be paid to the workman in coin only. Payment in goods illegal and void.
4. Artificers may recover wages, if not paid in the current coin.
5. In an action brought for wages, no set-off shall be allowed for goods supplied by the employer, or by any shop in which he is interested
6. No employer shall have any action or suit in equity against his artificer, for goods supplied to him on account of wages, or supplied by any shop in which he has an interest.
7. If the artificer, or his wife or children, become chargeable

to the parish, the overseers may recover any wages earned within the 3 preceding months, and not paid in cash.

8. Nothing in this act is to invalidate the payment of wages in bank notes or drafts on any bankers within 15 miles, if artificer consents.

9. Any employer of any artificer in any of the trades hereinafter enumerated, who shall, by himself or by the agency of any other person, directly or indirectly enter into any contract, or make any payment hereby declared illegal, shall for the first offence forfeit a sum not exceeding 10*l.* nor less than 5*l.*, and for the second offence any sum not exceeding 20*l.* nor less than 10*l.*, and for a third offence he shall be guilty of a misdemeanour, and be punished by fine only, at the discretion of the court, so that the fines shall not in any case exceed 100*l.*

10. Offences shall be inquired of and fines recovered before 2 justices, and the amount of the fines shall be in the discretion of such justices, or in cases of misdemeanour, of the court before which the offence may be tried; and in case of a second offence, it shall be sufficient evidence of the previous conviction, if a certificate, signed by the officer having the custody of the record, be produced, stating in a compendious form the general nature of the offence. But a second or third offence shall only be punished as a first or second offence, if committed within 10 days after the prior conviction; and a fourth or any subsequent offence shall be punished as a third offence. But no second or third offence shall be prosecuted after more than 2 years from the commission of the next preceding offence.

11. Justices may compel the attendance of witnesses, on the request of the parties. Penalty for non-attendance without excuse, and after proof of due service of summons at the usual place of abode for such persons, 24 hours at the least before the time appointed for appearance, a commitment to some prison within the jurisdiction of the justices, without bail or mainprize, for not exceeding 14 days, or until such person shall submit to be examined.

Section from 12. to 18. inclusive, regulate proceedings.

19. Act only to apply to the following trades: — Making, casting, converting, or manufacturing of iron or steel, or any parts, branches, or processes thereof; working any mines of coal, ironstone, limestone, salt rock; or working or getting stone, slate, or clay; or making or preparing salt, bricks, tiles, or quarries; or making or manufacturing any kinds of nails, chains, rivets, anvils, &c., keys, &c., or any other articles or hardwares made of iron or steel, or of iron and steel combined, or of any plated articles of cutlery, or of any goods or wares made of brass, tin, lead, pewter, or other metal, or of any japanned goods or wares whatsoever; or making, spinning, throwing, doubling, winding, weaving, combing, knitting, bleaching, dyeing, printing, or otherwise preparing any kinds of woollen, worsted, yarn, stuff, kersey, linen, fustian, cloth, serge, cotton, leather, fur, hemp, flax, mohair, or silk manufacturer whatsoever, or any manufactures whatsoever made of the said last mentioned materials, whether the same be or be not mixed one with another; or making or otherwise preparing, ornamenting, or finishing any glass, porcelain, china, or earthenware whatsoever, or any parts, branches, or processes thereof, or any materials used in any of such last mentioned trades; or making or preparing of bone, thread, silk, or cotton lace, or of lace made of any mixed materials.

20. Not to extend to any domestic servant, or servant in husbandry.

21. No one engaged in any of the trades or occupations enumerated, or his father, son, or brother, shall act as a justice.

22. County magistrates to act in cases where those of towns are disqualified as above.

23. Not to prevent any employer from supplying or contracting to supply to any artificer any medicine or medical attendance, or any fuel, or any materials, tools, or implements to be by such artificer employed in his trade or occupation, if such artificers be employed in mining, or any hay, corn, or other provender to be consumed by any horse or other beast of burden employed by any such artificer in his trade and occupation; nor from demising to any artificer employed in any of the trades or occupations enumerated the whole or any part of any tenement at any rent; nor from supplying or contracting to supply to any such artificer any victuals dressed or prepared under the roof of any such employer, and there consumed by such artificer; nor from making or contracting to make any deduction from the wages of any artificer for any such rent, or medicine or medical attendance, or fuel, materials, tools, implements, hay, corn, or provender, or such victuals, or for any money advanced to each artificer for any such purpose; but such deduction shall not exceed the true value of such fuel, materials, tools, implements, hay, corn, and provender, and shall not be in any case made from the wages of such artificer unless the agreement for such deduction shall be in writing and signed by such artificer.

24. Not to prevent any such employer from advancing to any such artificer any money to be by him contributed to any friendly society or bank for savings, or for his relief in sickness, or for the education of any child of such artificer, nor from deducting or contracting to deduct any money from the wages of such artificers for the education of any such child, provided the agreement for such deduction shall be in writing and signed by such artificer.

25. Workmen, labourers, and other persons in any manner engaged in any employment or operation, in or about the several trades and occupations aforesaid, shall be deemed "artificers;" and all masters, bailiffs, foremen, managers, clerks, and other persons engaged in the hiring, employment, or superintendence of the labour of any such artificers shall be deemed to be "employers;" and any money or other thing had or contracted to be paid, or given as a remuneration for any labour done or to be done, whether within a certain time or to a certain amount, or for a time or an amount uncertain, shall be deemed to be the "wages" of such labour; and any agreement, understanding, device, contrivance, collusion, or arrangement whatsoever on the subject of wages, whether written or oral, whether direct or indirect, to which the employer and artificer are parties, or are assenting, or by which they are mutually bound to each other, or whereby either of them shall have endeavoured to impose an obligation on the other of them, shall be deemed a "contract."

TRUFFLES, a sort of vegetable production, like a mushroom, formed under ground. A few have been found in Northamptonshire; they are pretty abundant in Italy, the south of France, and several other countries. They are reckoned a great delicacy. The *pâtés au truffes d'Angoulême* are highly esteemed, and are sent as presents to very distant places. — (*Rees's Cyclopædia.*)

TUNIS, the capital of the regency of the same name, on the northern coast of Africa, the Goletta fort being in lat. 36° 48′ 30″ N., lon. 10° 25′ 45″ E. The bay of Tunis is somewhat in the form of a horseshoe. Its western extremity, Cape Carthage, is situated about 4 miles N.E. from the Goletta; and its eastern extremity, Cape Zafran, bears from Cape Carthage E. by S., distant about 13 miles. The bay is about 16 miles deep, and has good anchorage all over, in from 10 to 4 fathoms water. It is exposed to the N. and N. E. gales; but they seldom occasion any damage. Tunis lies on the west side of the bay, being separated from it by a large lagoon, having, where deepest, about 7 feet water. The port is at the Goletta, or channel, passing through the narrow belt of land separating the lagoon from the sea; the entrance to it is by a canal, in which there is at all times 15 feet water; and ships may use it on paying a fee of 3 dollars a day. It is not, however, much resorted to; all vessels of considerable burden loading and unloading from their moorings in the bay, by means of lighters. The population of Tunis has been variously estimated; and may probably amount to 100,000, being the most populous of any African city after Cairo. The streets are narrow, unpaved, and filthy. The buildings, though of stone, are mean and poor; and the inhabitants present the picture of poverty and oppression. There is a fort at the Goletta, of considerable strength.

Trade. — Notwithstanding the various drawbacks arising out of the nature of the government, and the ignorance and prejudices of the people, commerce and industry are in a more advanced state in Tunis than in any other part of Northern Africa, Egypt excepted. Though subject to droughts, the climate is, on the whole, excellent. The soil still preserves that exuberant fertility for which it was famous in antiquity.

Non quicquid Libycis terit
Fervens area messibus. — (*Senec. in Thyest.*)

It seldom receives any other manure than that of sometimes burning the weeds and stubble; and yet, in despite of its slovenly culture, the crops are luxuriant; and there is generally a considerable excess of wheat and barley for exportation. Corn is principally shipped at Biserta, about 50 miles W. of Tunis. Olive oil is one of the principal articles of export. It is of various qualities; some good, and some very indifferent. Susa is said to be the best place for its shipment. Soap of an excellent quality is largely manufactured in the regency. It may be had either soft or in wedges. The soft is made of barilla and pure oil, and is much esteemed. The hard soap is made from the lees of oil, and is reckoned

very strong. The principal soap-works are at Susa. Little, however, is prepared on a speculative anticipation of a demand for exportation; but any quantity may be had by contracting for it a few months before the period when it is wanted. A sort of woollen scull-caps are largely exported. They are in extensive demand all over the Levant, and are nowhere made in such perfection as here. Ivory and gold dust, hides, wax, morocco leather, sponge, barilla, coral, dates, ostrich feathers, &c. are among the articles of export.

The imports from Europe consist of woollens, coarse German and Irish linens, cotton stuffs, hardware, sugar, coffee, spices, tin plates, lead, alum, dye stuffs, wine, silk, Spanish wool, &c. There is very little direct trade between Tunis and England; but a good deal is indirectly carried on, through the intervention of Malta and Gibraltar. Marseilles has probably the largest share of the trade with the regency. In 1830, there entered the different ports of Tunis 194 ships, of the burden of 20,747 tons, exclusive of those engaged in the trade with the other African states and Turkey.

Exclusive of the trade by sea, a considerable trade is carried on between Tunis and the interior of Africa, by means of caravans. These import slaves, gold dust, ivory, feathers, drugs, &c. They carry back cotton stuffs, linens, hardware, spices, cochineal, &c.

Naval and military stores imported into Tunis pay no duty. Other articles pay a duty of 3 per cent. *ad valorem* on a rated tariff. Obstructions arising out of monopolies, &c. are occasionally thrown in the way of exportation; and in general it is necessary, before proceeding to ship, to obtain a *tiskery*, or licence to that effect, from the bey. That, however, may be, for the most part, procured without much difficulty.

Money. — Accounts are kept in piastres of 16 carobas or 52 aspers. The piastre is worth about 1*s.* 1*d.* sterling. The asper is an imaginary money. The value of foreign coins depends on the state of the exchange.

Weights. — Gold, silver, and pearls are weighed by the ounce of 8 meticals; 16 of these ounces make the Tunis pound = 7,773·5 Eng. grs. The principal commercial weight is the cantaro, containing 100 lbs., or rottoli, being equivalent to 111·05 lbs. avoird., or 50·36 kilog.

Measures. — The principal corn measure is the cafiz, divided into 16 whibas; and the whiba into 12 sahas. One cafiz = 14¼ Imperial bushels.

The wine measure is the millerolle of Marseilles = 14·1 Imp. gallons, or 64·33 litres. It is divid.d into 6½ mitres. The principal oil measure is the metal or mettar = 5·125 wine gallons, or 19·39 litres; but it is of different dimensions in different parts of the country; and is larger at Susa, whence most of the oil is exported, than at Tunis.

The pic, or principal long measure, is of 3 sorts; viz. the pic woollen measure = 26·5 Eng. inches; the pic silk measure = 24·8 do.; and the pic linen measure = 18·6 do.

For further particulars, see that chapter of *Shaw's Travels in Barbary, &c.* (one of the most learned and excellent works of the kind in the English language), that treats of the kingdom of *Tunis*; *Macgill's Account of Tunis*, passim; *Jackson's Commerce of the Mediterranean*, pp. 55—96.; *Kelly's Cambist, &c.*

RUINS OF CARTHAGE. — The famous city of Carthage, one of the greatest emporiums of the ancient world, long the mistress of the sea, and the most formidable enemy of Rome, was situated near the cape which still bears her name, about 10 miles N.E. from Tunis. Such, however, have been the alterations on the coast, that the port of the city, within whose ample expanse whole navies used to ride, is now wholly filled up: antiquaries differ as to its situation; and the sea has in some places receded from 2 to 3 miles from the ruins of the buildings by which it was formerly skirted. The common sewers are still in a very perfect state, as are several cisterns, public reservoirs, and other remains of that sort, with the fragment of a noble aqueduct that supplied the city with water. But besides these and a very few Punic inscriptions that have been dug up, there is nothing left to attest the ancient grandeur and magnificence of the city, or to identify it with the illustrious people by whom it was founded and occupied till its destruction by Scipio Nasica. There are no temples, no triumphal arches, no granite columns or obelisks covered with Phœnician characters, and no ancient entablatures. These have all fallen a sacrifice to hostile attacks, or to the destroying hand of time.

> Nunc passim, vix reliquias, vix nomina servans,
> Obruitur, propriis non agnoscenda ruinis.

Such mutilated fragments of buildings as still remain are evidently the work of a later age; of those who occupied the city between the period when a colony was sent to it by Augustus, and its final subversion by the Saracens in the 7th century.

TURBITH, OR TURPETH, the cortical part of the root of a species of *Convolvulus*, brought from different parts of the East Indies. It is a longish root about the thickness of the finger, resinous, heavy, of a brownish hue without and whitish within. It is imported cloven in the middle, lengthwise, and the heart or woody matter taken out The best is ponderous, not wrinkled, easy to break, and discovers to the eye a large quantity of resinous matter. At first it makes an impression of sweetness on the taste; but, when chewed for some time, betrays a nauseous acrimony. It is used in medicine, but only to a small extent. — (*Lewis's Mat. Med.*)

TURBITH (MINERAL), the name given by chemists to the subsulphate of mercury.

TURBOT (*Pleuronectes maximus*), a well-known and highly esteemed species of fish. Very considerable quantities of turbot are now taken on various parts of our coasts, from the Orkneys to the Land's End, yet a preference is given in the London markets to those caught by the Dutch. The latter are said to have sometimes drawn as much as 80,000*l.* in a single year, for turbots sold in London.

Fresh turbots, however taken, or in whatever ship imported, may be imported free of duty. — (See FISH.)

TURMERIC, the root of the *Curcuma longa*. It is externally greyish, and internally of a deep lively yellow or saffron colour; very hard; and not unlike, either in figure or size, to ginger. That should be preferred which is large, new, resinous, difficult to break, and heavy. It is imported from Bengal, Java, China, &c. Small quantities of it have also been grown in England. It has a somewhat aromatic, and not very agreeable smell; and a bitterish, slightly acrid, but rather warm taste. It used to be in con-

siderable estimation as a medicine; and is extensively used in India for culinary purposes, entering into the composition of curry powder and other articles: in Europe, it is only used as a dye. It yields a beautiful bright yellow colour; which, however, is extremely fugitive, and no means have hitherto been discovered of fixing it. It is sometimes employed to heighten the yellows made with weld, and to give an orange tint to scarlet; but the shade imparted by the turmeric soon disappears. — (*Lewis's Mat. Med.*; *Bancroft on Colours*, vol. i. p. 276.)

The duties on turmeric, after being reduced in 1842, were wholly repealed in 1845. The imports, which have been very largely augmented within the last 3 years, amounted in 1852 to 1252 tons; the re-exports during the same year being 683 tons. The price of turmeric in London in October, 1853, varied from 6*s.* to 14*s.* per cwt. The Madras brings the lowest, and the Chinese the highest price.

TURPENTINE (Ger. *Turpentin*; Fr. *Térébenthine*; It. *Trementina*; Rus. *Skipidar*; Pol. *Terpentyna*). There are several species of turpentine, but all of them possess the same general and chemical properties.

1. *Common Turpentine*, is a resinous juice which exudes from the Scotch fir or wild pine (*Pinus sylvestris*). The trees which are most exposed to the sun, and have the thickest barks, yield it in the greatest abundance. They begin to produce it when about 40 years old. The bark of the tree is wounded and the turpentine flows out in drops, which fall into a hole, or sort of cup, previously dug at the foot of the tree, holding about 1½ pint. It is purified by being exposed to liquefy in the sun's rays, in barrels perforated in the bottom, through which it filters. In the U. States, the collection of turpentine is confided chiefly to negroes, each of whom has the charge of from 3,000 to 4,000 trees. The process lasts all the year, although the incisions are not made in the trees till the middle of March, and the flow of the turpentine generally ceases about the end of October. The boxes are emptied 5 or 6 times during the year; and it is estimated that 250 boxes will produce a barrel weighing 320 lbs. Turpentine has a strong, somewhat fragrant odour, and a bitter, disagreeable taste; its consistence is greater than that of honey; its colour dirty yellow; and it is more opaque than the other sorts. We import it almost entirely from the U. States.

2. *Venice Turpentine*, is the produce of the larch (*Pinus Larix*). It is obtained by boring a hole into the heart of the tree about 2 feet from the ground, and fitting into it a small tube through which the turpentine flows into vessels prepared for its reception. It is purified by straining through cloths, or hair sieves. It is more fluid, having the consistence of new honey, a yellowish colour, and is less unpleasant to the smell and taste, than the common turpentine. Genuine Venetian turpentine is principally obtained from the forests of Baye, in Provence; but much of that to be found in the shops comes from America, and is, perhaps, obtained from a different species of fir.

3. *Canadian Balsam*, or *Turpentine*, is obtained from incisions in the bark of the *Pinus Balsamea*, a native of the coldest regions of North America. It is imported in casks, each containing about 1 cwt. It has a strong, not disagreeable odour, and a bitterish taste; is transparent, whitish, and has the consistence of copaiva balsam. — (See BALSAM.)

4. *Chian*, or *Cyprus Turpentine*, is obtained from the *Pistacia Terebinthus*, a native of the north of Africa and the south of Europe, and cultivated in Chios and Cyprus. It flows out of incisions made in the bark of the tree in the month of July; and is subsequently strained and purified. It has a fragrant odour, a moderately warm taste, devoid of acrimony or bitterness, and a white or very pale yellow colour; it is about as consistent as thick honey, is clear, transparent, and tenacious. From its comparative high price, Chian turpentine is seldom procured genuine, being for the most part adulterated either with Venetian or common turpentine. The different species of turpentine may be dissolved in rectified spirit, or pure alcohol; and, by distillation, they all give similar oils, which, from their being distilled (and not from any resemblance to alcohol, or spirits properly so called), are vulgarly termed spirit of turpentine. If the distillation be performed with water, the produce is an essential oil, the common spirit of turpentine; and if the distillation be carried on in a *retort*, without water, the product is more volatile and pungent, — a concentrated oil, as it were, — and is called the ethereal spirit of turpentine. The residuum that is left, in both cases, is a brownish resinous mass, brittle, capable of being melted, highly inflammable, insoluble in water, but mixing freely with oils: it is the common rosin of commerce. — (*Lib. of Entert. Knowledge, Vegetable Substances*; *Thomson's Dispensatory.*)

In 1852 the imports and exports of common turpentine were respectively 481,616, and 729 cwts. It is entirely imported from the U. States.

TURPENTINE, OIL OF (Ger. *Terpentinöl*; Fr. *Eau de raze*, *Huile de térébenthine*; It. *Acqua di rasa*; Sp. *Aguarras*), the essential oil drawn from turpentine by distillation. There are two sorts of this oil: the best, red; and the second, white. It is very extensively used by house painters, and in the manufacture of varnish, &c. The distillers have been charged with using it in the preparation of gin. Oil of turpentine is very often adulterated.

TURQUOISE (Ger. *Türkiss*; Fr. *Turquoise*; It. *Turchina*; Sp. *Turquesa*), a precious stone in considerable estimation.

Its colour, which is its principal recommendation, is a beautiful celestial blue, which migrates into pale blue, and is sometimes tinged with green. Specific gravity, 3·127. It is destitute of lustre, opaque, and does not admit of a very high polish. It is much worn in necklaces, and every part of ornamental jewellery, from the size of a pin's head to that of an almond: it contrasts beautifully with brilliants, or pearls, set in fine gold, and appears to most advantage when cut spheroidal.—(*Mawe on Diamonds*, 2d ed. p. 129.)

Real turquoises are exclusively furnished by Persia. The mines whence they are obtained are situated near Nishapore. They are the property of the Crown, and are farmed to the highest bidder. They bring a rent of from 2,000*l.* to 2,700*l.* a year.—(*Fraser's Travels on the Shores of the Caspian*, pp. 343—347.)

TUTENAGUE, the name given in commercial language to the zinc or spelter of China.—(See ZINC.)

But it is improperly applied; for the article to which the Portuguese originally gave the name of *tutenag*, is, in fact, the gong metal of the Chinese, that is, an alloy of copper and tin. It is harder than zinc, though less so than iron, sonorous, compact, and has some malleability. The fresh fracture is brilliant, but soon tarnishes. It is made by melting 100 catties of the mineral called *hung-tung* or red copper, with 25 catties of tin, and running it, when intended for gongs, into a thin plate. The sonorous quality of these instruments is owing chiefly to long continued and expert hammering, and their price depends in great measure upon the sound. Other instruments are also made of this alloy, as well as wash-basins, dishes, and small bells. Notwithstanding the prohibition which formerly existed against exporting unwrought metals from China, it is supposed that previously to 1820 about 2,500 tons tutenague were annually sent to India and the Malay countries. But this exportation has been superseded by the supplies of zinc which India, &c., now get from Europe, and which is better fitted for the purposes to which tutenague was applied. European zinc is, also, finding its way to China. The export price of tutenague varies from 14 to 40 dols. per picul. Large gongs sell at from 40 to 50 cts. a catty. Small ones at half that price.—(*Chinese Commercial Guide*, p. 199.)

TYRE, the principal city of Phœnicia, and the most celebrated emporium of the ancient world. This famous city was situated on the S. E. coast of the Mediterranean, where the inconsiderable town of Tsour now stands, in lat. 33° 17′ N., lon. 35° 14′ 35″ E. The trade that is at present carried on at Tsour is too trifling to deserve notice; but as this work is intended to give some account, however imperfect, of the revolutions in the channels of commercial enterprise, we may, perhaps, be excused for submitting a few statements with respect to the commerce carried on by so renowned a people as the Tyrians.

Tyre was founded by a colony from Sidon, the most ancient of the Phœnician cities. The date of this event is not certainly known, but Larcher supposes it to have been 1,690 years before the Christian æra.—(*Chronologie d'Hérodote*, cap. ii. p. 131.) It is singular, that while Homer mentions Sidon, he takes no notice of Tyre, whose glory speedily eclipsed that of the mother city; but this is no conclusive proof that the latter was not then a considerable emporium. The prophets Isaiah, Jeremiah, and Ezekiel, who flourished from 700 to 600 years before Christ, represent Tyre as a city of unrivalled wealth, whose "merchants were princes, and her traffickers the honourable of the earth." Originally, the city was built on the main land: but having been besieged for a lengthened period by the Babylonian monarch Nebuchadnezzar, the inhabitants conveyed themselves and their goods to an island at a little distance, where a new city was founded, which enjoyed an increased degree of celebrity and commercial prosperity. The old city was, on that account, entitled Palætyre, and the other simply Tyre. The new city continued to flourish, extending its colonies and its commerce on all sides, till it was attacked by Alexander the Great. The resistance made by the Tyrians to that conqueror showed that they had not been enervated by luxury, and that their martial virtues were nowise inferior to their commercial skill and enterprise. The overthrow of the Persian empire was effected with less difficulty than the capture of this single city. The victor had not magnanimity to treat the vanquished as their heroic conduct deserved. In despite, however, of the cruelties inflicted on the city, she rose again to considerable eminence. But the foundation of Alexandria, by diverting the commerce that had formerly centered at Tyre into a new channel, gave her an irreparable blow; and she gradually declined till, consistently with the denunciation of the prophet, her palaces have been levelled with the dust, and she has become "a place for the spreading of nets in the midst of the sea."

Commerce, Colonies, &c. of Tyre.—Phœnicia was one of the smallest countries of antiquity. It occupied that part of the Syrian coast which stretches from Aradus (the modern Rouad) on the north, to a little below Tyre on the south, a distance of about 50 leagues. Its breadth was much less considerable, being for the most part bounded by Mount Libanus to the east, and Mount Carmel on the south. The surface of this narrow tract was generally rugged and mountainous; and the soil in the valleys, though moderately fertile, did not afford sufficient supplies of food to feed the population. Libanus and its dependent ridges were, however, covered with timber suitable for ship building; and besides Tyre and Sidon, Phœnicia possessed the ports of Tripoli, Byblos, Berytus, &c. In this situation, occupying a country unable to supply them with sufficient quantities of corn, hemmed in by mountains, and by powerful and warlike neighbours, on the one hand, and having, on the other, the wide expanse of the Mediterranean, studded with islands, and surrounded by fertile countries, to invite the

enterprise of her citizens, they were naturally led to engage in maritime and commercial adventures; and became the boldest and most experienced mariners, and the greatest discoverers, of ancient times.

From the remotest antiquity, a considerable trade seems to have been carried on between the Eastern and Western worlds. The spices, drugs, precious stones, and other valuable products of Arabia and India, have always been highly esteemed in Europe, and have been exchanged for the gold and silver, the tin, wines, &c. of the latter. At the first dawn of authentic history, we find Phœnicia the principal centre of this commerce. Her inhabitants are designated in the early sacred writings by the name of Canaanites, —a term which, in the language of the East, means merchants. The products of Arabia, India, Persia, &c. were originally conveyed to her by companies of travelling merchants, or caravans; which seem to have been constituted in the same way, and to have performed exactly the same part in the commerce of the East, in the days of Jacob, that they do at present.—(*Gen.* xxxvii. 25, &c.) At a later period, however, in the reigns of David and Solomon, the Phœnicians, having formed an alliance with the Hebrews, acquired the ports of Elath and Ezion-geber, at the north-east extremity of the Red Sea. Here they fitted out fleets, which traded with the ports on that sea, and probably with those of southern Arabia, the west coast of India, and Ethiopia. The ships are said to have visited Ophir; and a great deal of erudition has been expended in attempting to determine the exact situation of that emporium or country. We agree, however, with Heeren, in thinking that it was not the name of any particular place; but that it was a sort of general designation given to the coasts of Arabia, India, and Africa, bordering on the Indian Ocean; somewhat in the same loose way as we now use the terms East and West Indies.—(See the chapter on the *Navigation and Commerce of the Phœnicians*, in the translation of Heeren's work.)

The distance of the Red Sea from Tyre being very considerable, the conveyance of goods from the one to the other by land must have been tedious and expensive. To lessen this inconvenience, the Tyrians, shortly after they got possession of Elath and Ezion-geber, seized upon Rhinoculura, the port in the Mediterranean nearest to the Red Sea. The products of Arabia, India, &c., being carried hither by the most compendious route, were then put on board ships, and conveyed by a brief and easy voyage to Tyre. If we except the transit by Egypt, this was the shortest and most direct, and for that reason, no doubt, the cheapest, channel by which the commerce between Southern Asia and Europe could then be conducted. But it is not believed that the Phœnicians possessed any permanent footing on the Red Sea after the death of Solomon. The want of it does not, however, seem to have sensibly affected their trade; and Tyre continued, till the foundation of Alexandria, to be the grand emporium for Eastern products, with which it was abundantly supplied by caravans from Arabia, the bottom of the Persian Gulph, and from Babylon, by way of Palmyra.

The commerce of the Phœnicians with the countries bordering on the Mediterranean was still more extensive and valuable. At an early period, they established settlements in Cyprus and Rhodes. The former was a very valuable acquisition, from its proximity, the number of its ports, its fertility, and the variety of its vegetable and mineral productions. Having passed successively into Greece, Italy, and Sardinia, they proceeded to explore the southern shores of France and Spain, and the northern shores of Africa. They afterwards adventured upon the Atlantic; and were the first people whose flag was displayed beyond the pillars of Hercules.*

Of the colonies of Tyre, Gades, now Cadiz, was one of the most ancient and important. It is supposed by M. de St. Croix to have originally been distinguished by the name of Tartessus or Tarshish, mentioned in the sacred writings.—(*De l'Etat et du Sort des Anciennes Colonies*, p. 14.) Heeren, on the other hand, contends, as in the case of Ophir, that by Tarshish is to be understood the whole southern part of Spain, which was early occupied and settled by Phœnician colonists.—(See also *Huet, Commerce des Anciens*, cap. 8.) At all events, however, it is certain that Cadiz early became the centre of a commerce that extended all along the coasts of Europe as far as Britain, and perhaps the Baltic. There can be no doubt that by the Cassiterides, or Tin Islands, visited by the Phœnicians, are to be understood the Scilly Islands and Cornwall.—(See TIN.) The navigation of the Phœnicians, probably, also, extended a considerable way along the western coast of Africa; of this, however, no details have reached us.

But, of all the colonies founded by Tyre, Carthage has been by far the most celebrated. It was at first only a simple factory; but was materially increased by the arrival of a large body of colonists, forced by dissensions at home to leave their native land, about 883 years before Christ.—(*St. Croix*, p. 20.) Imbued with the enterprising mercantile spirit of their ancestors, the Carthaginians rose, in no very long period, to the highest eminence as a naval and commercial state. The settlements founded by the Phœnicians in Africa, Spain, Sicily, &c. gradually fell into their hands; and after

* Mons Calpe and Mons Abyla, the Gibraltar and Ceuta of modern times.

the destruction of Tyre by Alexander, Carthage engrossed a large share of the commerce of which it had previously been the centre. The subsequent history of Carthage, and the misfortunes by which she was overwhelmed, are well known. We shall only, therefore, observe, that commerce, instead of being, as some shallow theorists have imagined, the cause of her decline, was the real source of her power and greatness; the means by which she was enabled to wage a lengthened, doubtful, and desperate contest with Rome herself for the empire of the world.

The commerce and navigation of Tyre probably attained their maximum from 650 to 550 years before Christ. At that period the Tyrians were the factors and merchants of the civilised world; and they enjoyed an undisputed pre-eminence in maritime affairs. The prophet Ezekiel (chap. xxvii.) has described in magnificent terms the glory of Tyre; and has enumerated several of the most valuable productions found in her markets, and the countries whence they were brought. The fir trees of Senir (Hermon), the cedars of Lebanon, the oaks of Bashan (the country to the east of Galilee), the ivory of the Indies, the fine linen of Egypt, and the purple and hyacinth of the isles of Elishah (Peloponnesus), are specified among the articles used for her ships. The inhabitants of Sidon, Arvad (Aradus), Gebel (Byblos), served her as mariners and carpenters. Gold, silver, lead, tin, iron, and vessels of brass; slaves, horses, mules, sheep, and goats; pearls, precious stones, and coral; wheat, balm, honey, oil, spices, and gums; wine, wool, and silk; are mentioned as being brought into the port of Tyre by sea, or to its markets by land, from Syria, Arabia, Damascus, Greece, Tarshish, and other places, the exact site of which it is difficult to determine.*

Such, according to the inspired writer, was Tyre, the "Queen of the waters" before she was besieged by Nebuchadnezzar. But, as has been already remarked, the result of that siege did not affect her trade, which was as successfully and advantageously carried on from the new city as from the old. Inasmuch, however, as Carthage soon after began to rival her as a maritime and mercantile state, this may, perhaps, be considered as the æra of her greatest celebrity.

It would not be easy to over-rate the beneficial influence of that extensive commerce from which the Phœnicians derived such immense wealth. It inspired the people with whom they traded with new wants and desires, at the same time that it gave them the means of gratifying them. It everywhere gave fresh life to industry, and a new and powerful stimulus to invention. The rude uncivilised inhabitants of Greece, Spain, and Northern Africa acquired some knowledge of the arts and sciences practised by the Phœnicians; and the advantages of which they were found to be productive secured their gradual though slow advancement.

Nor were the Phœnicians celebrated only for their wealth, and the extent of their commerce and navigation. Their fame, and their right to be classed amongst those who have conferred the greatest benefits on mankind, rest on a still more unassailable foundation. Antiquity is unanimous in ascribing to them the invention and practice of all those arts, sciences, and contrivances that facilitate the prosecution of commercial undertakings. They are held to be the inventors of arithmetic, weights and measures, of money, of the art of keeping accounts, and, in short, of every thing that belongs to the business of a counting-house. They were also famous for the invention of ship building and navigation; for the discovery of glass—(See Glass); for their manufactures of fine linen and tapestry; for their skill in architecture, and in the art of working metals and ivory; and still more for the incomparable splendour and beauty of their purple dye.—(See the learned and invaluable work of the President de Goguet, *Sur L'Origine des Loix, &c.* Eng. trans. vol. i. p. 296., and vol. ii. pp. 95—100.; see also the chapter of Heeren on the *Manufactures and Land Commerce of the Phœnicians.*)

But the invention and dissemination of these highly useful arts form but a part of what the people of Europe owe to the Phœnicians. It is not possible to say in what degree the religion of the Greeks was borrowed from theirs; but that it was to a pretty large extent seems abundantly certain. Hercules, under the name of Melcarthus, was the tutelar deity of Tyre; and his expeditions along the shores of the Mediterranean, and to the straits connecting it with the ocean, seem to be merely a poetical representation of the progress of the Phœnician navigators, who introduced arts and civilisation, and established the worship of Hercules, wherever they went. The temple erected in honour of the god at Gades was long regarded with peculiar veneration.

The Greeks were, however, indebted to the Phœnicians, not merely for the rudiments of civilisation, but for the great instrument of its future progress—the gift of letters. No fact in ancient history is better established than that a knowledge of alpha-

* There is, in Dr. Vincent's *Commerce and Navigation of the Ancients in the Indian Ocean* (vol. ii. pp. 624—652.), an elaborate and (like the other parts of that work) prolix commentary on this chapter of Ezekiel, in which most of the names of the things and places mentioned are satisfactorily explained.—(See also *Heeren on the Phœnicians*, cap. iv.)

betic writing was first carried to Greece by Phœnician adventurers: and it may be safely affirmed, that this was the greatest boon any people ever received at the hands of another.

Before quitting this subject, we may briefly advert to the statement of Herodotus with respect to the circumnavigation of Africa by Phœnician sailors. The venerable Father of History mentions, that a fleet fitted out by Necho king of Egypt, but manned and commanded by Phœnicians, took its departure from a port on the Red Sea, at an epoch which is believed to correspond with the year 604 before the Christian æra, and that, keeping always to the right, they doubled the southern promontory of Africa; and returned, after a voyage of 3 years, to Egypt, by the Pillars of Hercules.—(*Herod.* lib. iv. § 42.) Herodotus further mentions, that they related that, in sailing round Africa, they had the sun on their right hand, or to the north,—a circumstance which he frankly acknowledges seemed incredible to him, but which, as every one is now aware, must have been the case if the voyage was actually performed.

Many learned and able writers, and particularly Gosselin (*Récherches sur la Géographie Systématique et Positive des Anciens*, tome i. pp. 204—217.), have treated this account as fabulous. But the objections of Gosselin have been successfully answered in an elaborate note by Larcher (*Hérodote*, tome iii. pp. 458—464. ed. 1802; and Major Rennell has sufficiently demonstrated the practicability of the voyage (*Geography of Herodotus*, p. 682, &c.). Without entering upon this discussion, we may observe, that not one of those who question the authenticity of the account given by Herodotus, presumes to doubt that the Phœnicians braved the boisterous seas on the coasts of Spain, Gaul, and Britain; and that they had, partially at least, explored the Indian Ocean. But the ships and seamen that did this much, might, undoubtedly, under favourable circumstances, double the Cape of Good Hope. The relation of Herodotus has, besides, such an appearance of good faith; and the circumstance, which he doubts, of the navigators having the sun on the right, affords so strong a confirmation of its truth, that there really seems no reasonable ground for doubting that the Phœnicians preceded, by 2,000 years, Vasco de Gama in his perilous enterprise.

Present State of Syria. — The principal modern ports on the coast of Syria are Alexandretta, Latakia, Tripoli, Beyrout, Seyde, and Acre. The commerce which they carry on is but inconsiderable compared with the extent and fertility of the countries of which they are the inlets. This, however, is not owing to the badness of the ports, the unsuitableness of the country, or to any natural cause, but wholly to long continued oppression and misgovernment. There is a passage in the dedication to Sandys's *Travels* that describes the state of Syria, Asia Minor, Egypt, &c., about 250 years ago, with a force and eloquence which it is not very likely will soon be surpassed: —

"Those countries, once so glorious and famous for their happy estate, are now, through vice and ingratitude, become the most deplored spectacles of extreme misery; the wild beasts of mankinde having broken in upon them and rooted out all civilitie, and the pride of a sterne and barbarous tyrant possessing the thrones of ancient and just dominion; who, ayming onely at the height of greatnesse and sensualitie, hath in tract of time reduced so great and goodly a part of the world, to that lamentable distresse and servitude under which (to the astonishment of the understanding beholders) it now faints and groneth. Those rich lands at this present remain waste and overgrowne with bushes, receptacles of wild beasts, of theeves and murderers; large territories dispeopled or thinly inhabited; goodly cities made desolate; sumptuous buildings become ruines; glorious temples either subverted, or prostituted to impietie; true religion discountenanced and oppressed; all nobilitie extinguished; no light of learning permitted, nor vertue cherished: violence and rapine insulting over all, and leaving no securitie save to an abject mind and unlookt on povertie."

Those who compare this beautiful passage with the authentic statements of Volney — incomparably the best of the modern travellers who have visited the countries referred to — will find that it continued down to a comparatively late period to be as accurate as it is eloquent. Latterly, however, thanks to the decay of the Turkish power, some improvement has taken place. And the trade of Beyrout, and the other ports referred to above, has considerably increased.

U. V.

VALONIA, a species of acorn, forming a very considerable article of export from the Morea and the Levant. The more substance there is in the husk, or cup of the acorn, the better. It is of a bright drab colour, which it preserves so long as it is kept dry: any dampness injures it; as it then turns black, and loses both its strength and value. It is principally used by tanners, and is always in demand. Though a very bulky article, it is uniformly bought and sold by weight. A ship can only take a small proportion of her registered tonnage of valonia, so that its freight per ton is always high.

Of 24,023 tons of valonia imported in 1857, 23,161 tons were brought from Turkey, and the residue from Greece and Italy. The duty, after being reduced in 1842 from 20*s.* to 5*s.* a ton, was wholly repealed in 1845. The price of valonia in the London market in 1857 varied from 11*l.* to 15*l.* a ton.

VALPARAISO, the principal sea-port of Chili, lat. (Fort St. Antonio), 33° 1′ 9″ S., lon. 71° 41′ 5″ W. Population perhaps 28,000 or 30,000. The water in the bay is deep, and it affords secure anchorage, except during northerly gales, to the violence of which it is exposed; but as the holding ground is good, and the pull of the anchor against a steep hill, accidents seldom occur to ships properly found in anchors and cables. There is no mole or jetty; but the water close to the shore is so deep, that it is customary for the smaller class of vessels to carry out an anchor to the northward, and to moor the ship with the stern ashore by another cable made fast to the shore. Large ships lie a little further off, and load and unload by means of lighters. The best shelter is in that part called the Fisherman's Bay, lying between the castle and Fort St. Antonio, where, close to a clear shingle beach, there is 9 fathoms water. In the very worst weather, a landing may be effected in this part of the bay. — (See *Miers's Chili and La Plata*, i. 440., where there is a plan of Valparaiso.)

The harbours of Valdivia and Concepcion are much superior to that of Valparaiso; the former being, indeed, not only the best in Chili, but second to few in any part of the world. But Valparaiso, being near the capital, Santiago, and being the central *dépôt* for the resources of the province, is most frequented. The town is conveniently situated, at the extremity of a mountainous ridge; most part of the houses being built either upon its acclivity or in its breaches. Large quantities of corn and other articles of provision are shipped here for Callao and other ports along the Peruvian coast: the exports for San Francisco have nearly ceased. The principal articles of export are the precious metals, copper in bars and ores, tallow and hides, wheat and flour, wool, saltpetre, sarsaparilla, &c. The productiveness of the Chilian mines of gold and silver has increased during the last few years, and their average produce may now be taken at about 4,000,000 dollars, or 800,000*l.* a year. But the increase in the production of copper has been much more considerable, having fully trebled since 1845. In 1855 the entire value of the mineral products exported from Chili was estimated at 9,805,498 dollars. The import and export trade of the republic have more than doubled since 1848, when their agg. amount was 16,954,952 dollars. The following were the principal articles of export, with their values, in 1856.

Coal	$195,080	Copper and silver ore	$513,470
Barley	279,118	Wool	226,235
Dried beef	65,341	Silver in bars	2,589,563
Copper, in bars	3,000,173	Silver ore	1,076,780
Copper, in pigs	3,314,179	Flour	1,423,387
Copper ore	1,840,532	Wheat	936,319
Gold and silver coin	528,941		

Total value of the exports during the same year 18,159,522 dollars, of which, native produce amounted to 17,062,731 dollars, and re-exports to 1,087,781 dollars. The total imports in 1856 were valued at 19,804,045 dollars. Of these by far the largest portion is supplied by the U. K., the U. States, France, the Hanse Towns, Brazil, Peru, &c.

The exports from the U. Kingdom to Chili amounted, *in* 1857, to 1,520,678*l.* Among other items they comprised, cottons worth 588,707*l.*, woollens 273,108*l.*, linens 78,165*l.*, hardware and cutlery 105,262*l.*, iron and steel 89,020*l.*, apparel and slops 23,707*l.*, coal 45,419*l.*, &c. Exclusive of gold and silver, we import from Chili considerable quantities of copper ore and copper, saltpetre, hides, and tallow, wool, &c.

Chilian Port Regulations. Export Duties.—Chile Guano, 1½ cents per 1,000 lbs.; 5 per cent. on the following articles: Bar silver, on valuation of $9 per marc; unsmelted silver (pina), do.; old plate (chafalonia), do.; copper, in bars, on valuation of $14 per 100 lbs.; do. retalla do., $9 do.; do regutus ores, calcined ores, silver ores, mixed ores, and tailings not capable of amalgamation, and tailings, pay 5 per cent. on proceeds of account sales when received from place of destination.

The provincial contribution on export of copper ores is abolished.

Port Charges.—Tonnage dues, 25 cents per ton; light dues, 3½ cents per ton; role and captain of the port's fees, $1; harbour master's fees, $8. Whale ships, vessels in distress or in ballast, or discharging under 20 packages, are exempt from tonnage and light dues. Tonnage dues paid at one port are not levied in another.

The lading charges which are on account of the owner of the goods, may be calculated at from $125 to $150 per ton, according to the description of merchandise. Consignee's charge generally 5 per cent. commission for sales, and 2½ guaranties.

Foreign Flags.—The only ports of entry for foreign flags are Ancud, Valdivia, Talcahuano, Concepcion, Valparaiso, Coquimbo, and Caldera, and Lota and Coronel in ballast; and vessels from abroad entering any other port are liable to seizure. Coasting trade is prohibited to foreign flags, but they may discharge portions of their original cargoes in one or more ports, and load Chilian produce for a foreign port.

All communication with the shore is prohibited until after the visit of the port and revenue officer, who will require a general manifest of the cargo, or the bill of lading, and a list of stores. 24 hours are allowed for correction of errors or omissions. For any mistake discovered afterward, the captain is subjected to fines or seizure. Passengers' luggage free.

In 1856, the mercantile marine of Chili comprised 265 ships of the agg. burden of 62,005 tons. In 1855 the ports of Chili were entered by 515 foreign ships, of which 278 bore the flag of England, 110 that of the U. States, 25 that of France, &c.

Perhaps no part of S. America has profited more than Chili by the establishment of independence. The contrast between her present state and that in which she was found by M. de la Perouse is most striking. "The influence of the government," said that accomplished navigator, "is in constant opposition to that of the climate. The system of prohibition exists at Chili in its fullest extent. This kingdom, of which the productions would, if increased to their maximum, supply all Europe; whose wool would be sufficient for the manufactures of France and England; and whose herds, converted into salt provisions, would yield a vast produce;—this kingdom, alas! has no commerce. Four or five small vessels bring, every year, from Lima, tobacco, sugar, and some articles of European manufacture, which the miserable inhabitants can obtain only at second or third hand, after they have been charged with heavy customs duties at Cadiz, at Lima, and lastly, at their arrival at Chili; in exchange they give their tallow, hides, some deals, and their wheat, which, however, is *at so low* a price, that the cultivator has no inducement to extend his tillage. Thus Chili, with all its gold, and articles of exchange, can scarcely procure sugars, tobacco, snuffs, linens, cambrics, and hardware, necessary to the ordinary wants of life." —(*Perouse's Voyage*, vol. i. p. 50. Eng. ed.)

Instead, however, of 4 or 5 small ships from Lima, Valparaiso only is now annually visited by hundreds of ships of all nations, exclusive of those visiting the other ports!

All sorts of European goods are carried direct to Chili, and are admitted at reasonable duties. The advantages resulting from this extensive intercourse with foreigners, and from the settlement of English and American adventurers in the country, have been already immense, and will every day become more visible. It was impossible, considering the ignorance of the mass of the people, that the old system of tyranny and superstition could be pulled to pieces without a good deal of violence and mischief; but the foundations of a better order of things have been laid, and Chili is becoming an opulent and a flourishing country.

The population is believed to amount to about 1,500,000, ex Indians. And Rosalis states in his excellent work on Chili (*Essai sur Le Chile*, Hambourg, 1857), that in 1855 the consumption of sugar amounted to 32,785,250 lbs., being nearly 22 lbs. to each individual, (p. 428.) As a farther evidence of its prosperity, we may mention that the public revenue, which in 1817 amounted to 1,752,127 doll., had in 1846 increased to 3,623,918 doll., and in 1855 to 6,287,526 doll.!

Monies, Weights, and Measures of Chili are the same as those of Spain; for which, see CADIZ. The quintal of 4 arrobas, or 100 lbs.,=101·44 lbs. avoirdupois. The fanega, or principal corn measure, contains 3,439 English cubic inches, and is therefore = 1·599 Winch. bushels. Hence 5 fanegas = 1 Winch. quarter very nearly. The yara, or measure of length,=33·384 Eng. inches.

VAN DIEMEN'S LAND, OR TASMANIA, a large island belonging to Great Britain, forming part of Australia, lying between 41° 20′ and 43° 30′ S. lat., and 144° 40′ and 148° 20′ W. lon. It is supposed to contain about 27,000 square miles. — (See the *Mercator's Chart* prefixed to this work.)

This land was discovered by the Dutch navigator Tasman, in 1642, and was named in honour of Anthony Van Diemen, at that time governor-general of the Dutch possessions in the East Indies; but it is now usually called Tasmania, from its discoverer. Previously to 1798, it was supposed to form part of New Holland, but it was then ascertained to be an island. It was taken possession of by the British in 1803; and in 1804 Hobart Town, the capital, was founded.

The surface is generally hilly and mountainous; but, though none of the land be of the first quality, there are several moderately fertile plains, and a good deal of the hilly ground is susceptible of being cultivated. On the whole, however, it is not supposed that more than about a third part of the entire surface of the island can be considered arable: but about a third more may be advantageously used as sheep pasture. As compared with New Holland, it is well watered. The climate, though variable, is generally speaking, good, and suitable for European constitutions; and it is not exposed to the tremendous droughts that occasion so much mischief in New South Wales. Wheat is raised in considerable quantities; though wool is at present the staple produce of the colony.

Van Diemen's Land, like New South Wales, was originally intended to serve as a penal colony, and it received between 1823 and 1850 no fewer than 58,243 convicts. It has also received, especially of late years, large numbers of free settlers. In 1857 the total population of the island (ex aborigines, who, perhaps, do not exceed 3,000 or 4,000, and military), amounted to 80,802. Of these, 3,008 were convicts.

For some considerable time great dissatisfaction was felt by the colonists at the continued importation of convicts; and previously to 1850 very vigorous measures were taken to effect its suppression. It was finally abandoned in 1853. In truth, after the discovery of the gold fields in the adjoining continent, it could no longer be continued. The convicts landed in Van Diemen's Land very speedily escaped to Victoria or N. S. Wales; where a large proportion of them recommenced the same career which had led to their ejection from their mother country. A nuisance of this sort could not be tolerated. And however our criminal population may be disposed of, it is no longer to be permitted to contaminate and brutalise the Australian continent.

Hobart Town or Hobarton, as it is usually termed, is situated in the southern part of the island, on the west side of the river Derwent, near its junction with Storm Bay, lat. (Fort Mulgrave) 42° 53′ 5″ S., lon. 147° 21′ 5″ E. The water is deep, and the anchorage good. A jetty has been constructed, accessible to the largest ships. The situation appears to have been very well chosen; and the town has been judiciously laid out. In 1848, the district of Hobarton contained 21,467 inhabitants, of whom 5,265 were convicts. The houses are supposed to be worth, at an average, 50*l.* a year. There are several printing establishments in the town, and various newspapers, some of them very well conducted. There is also a Book Society, a Mechanics' Institute, and several respectable schools and academies. The Van Diemen's Land Banking Company, the Australasian Bank, the Union Bank, the Commercial Bank, &c., have offices in Hobarton. They are joint-stock companies. A lighthouse, with a fixed light 70 ft. in height, has been erected on Cape Direction, on a small island about 6 miles S. from Hobarton.

Launceston, the second town in the island, is situated in the northern part, at the head of the navigable river Tamar, which falls into Port Dalrymple. Its population may amount to about 10,000. It has a considerable trade with Sydney and Hobarton, and with England.

Trade of Van Diemen's Land.—Haberdashery, apparel, cotton and linen goods, hardware, woollens, malt liquor, spirits, sugar, wine, &c., form the principal articles of import.

Here, as in New South Wales, wool forms by far the most important article of export; next to it are flour and oats, live stock, timber, whale oil, potatoes, mimosa bark, and various less important articles. The usual excess of the imports over the exports is accounted for by the remittances to defray the cost of the convict establishment.

We subjoin accounts of the principal articles imported into, and exported from, Tasmania in 1854, 1855, and 1856.

Account of the Quantities and Values of the Principal Articles imported into Tasmania in each of the Years 1854, 1855, and 1856.

Principal Articles.	Quantities.				Values.		
		1854.	1855.	1856.	1854.	1855.	1856.
Apparel and slops	packages	3,507	2,021	2,316	£120,742	£59,285	£71,636
Beef and provisions	,,	14,189	. .	7,958	66,033	40,770	46,117
	cwts.	217	. .	187			
Cottons and linens	packages	2,263	515	771	92,303	20,653	29,660
Drapery	,,	5,812	2,689	2,930	293,812	132,098	158,517
Haberdashery and hosiery	,,	2,617	1,459	181	140,964	71,364	7,166
Ironmongery and hardware	,,	17,010	. .	11,173	186,649	140,328	103,717
	cwts.	21,047	. .	15,809			
Live stock: cattle	number	6,681	6,943	7,755	84,638	85,560	75,385
sheep	,,	39,369	58,822	81,256	37,251	55,599	76,954
Malt liquor	cases	2,519	. .	285	104,060	41,951	36,103
	casks	3,029	. .	2,554			
	dozens	76,018	. .	26,491			
	gallons	343,637	. .	144,230			
Oilman's stores	packages	35,884	. .	2,203	81,846	53,417	59,968
	cwts.	238	. .	. .			
Sugar, raw	packages	9	. .	. .	90,044	76,951	88,469
	cwts.	75,129	66,014	55,117			

Account of the Quantities and Values of the Principal Articles exported from Tasmania in each of the Years 1854, 1855, and 1856.

Principal Articles.	Quantities.				Values.		
		1854.	1855.	1856.	1854.	1855.	1856.
Flour	tons	5,462	5,540	6,474	£147,311	£225,585	£143,388
	barrels	1,283	. .	. .			
	bushels	529	. .	. .			
	packages	1,529	. .	cases 7,863			
Fruit and preserves	tons	9	. .	. .	50,076	36,003	42,455
	baskets	69,876	. .	bushels 72,212			
Gold ore	ozs.	17,411	. .	5,391	65,030	13,411	21,025
Grain, oats	bags	523	. .	. .	88,604	119,565	118,425
	bushels	164,699	. .	298,726			
Horses	number	544	206	535	56,390	12,835	37,325
Oil, sperm	tons	170	. .	866	22,330	44,110	53,640
	casks	10	. .	gallons 9			
Potatoes	tons	2,168	6,094	4,569	49,767	101,105	19,581
Timber of all kinds	. .	. .	. .	. .	306,857	98,546	112,753
Wool	bales	9,694	. .	. .	325,584	378,822	319,961
	lbs.	4,419,276	5,858,458	4,599,674			

Of the imports, about two-thirds are from the U. K., and more than three-fourths of the residue from India and other British possessions. About one-third of the exports are destined for the U. K., and mostly all the rest for our colonies and possessions.

Number and Tonnage of Vessels entered and cleared, with Cargoes and in Ballast, at each Port of Tasmania in 1856.

Ports.	Entered.						Cleared.					
	With Cargoes.		In Ballast.		Total.		With Cargoes.		In Ballast.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels	Tons.
Hobart Town	464	91,526	67	11,653	531	103,179	397	70,443	135	32,374	532	102,817
Launceston	265	42,969	29	2,968	294	45,937	278	40,174	28	5,173	306	45,347
Circular Head	27	2,119	45	2,862	72	4,981	66	4,503	5	308	71	4,811
Port Frederick	. .	. .	37	3,729	37	3,729	56	3,421	. .	. .	56	3,421
Total	756	136,614	178	21,212	934	157,826	777	118,541	168	37,855	945	156,396

The discovery of the gold fields in Victoria and N. S. Wales had an instantaneous and powerful effect on Tasmania. All sorts of industrious undertakings were paralysed. The emigration from the colony was sudden and excessive; and many farmers were all but totally deserted by their labourers. But, though exposed for a while to great difficulties, a revulsion soon began to take effect in favour of the Tasmanian colonists. An unlimited market, at greatly advanced prices, was opened in the adjoining continent for their grain, potatoes, timber, and other products. Hence many of the better class of labourers again returned to the colony, some with considerable sums of money. And the emigration had the effect of ridding the island of the worst portion of the convicts, who were found carrying on their depredations at the "diggings," on the roads, and in the towns of Victoria and N. S. Wales.—(See the valuable work of Westgarth, entitled *Victoria, its Gold Mines, &c.*, cap. vi.)

Tariff.—The legislature of Van Diemen's Land, after advising with the other Australian colonies, passed an act, which came into operation in February, 1853, simplifying and reducing the tariff. It proceeds on the principle of imposing duties on a few articles in extensive demand, and more especially on those belonging to the class of stimulants, and exempting the others. Hence ardent spirits have attracted the marked attention of the Tasmanian financiers. But we see no reason for their apparent dislike to brandy, or for their charging it with a duty of 12*s.* a gallon, while they admit rum, hollands, &c. at 9*s.* The duties are as follows, viz.—

	£	s.	d.
Brandy, per gallon	0	12	0
Hollands, rum, gin, and all other spirits, per do.	0	9	0
Wine, in wood	0	1	0
in bottle	0	2	0
Tobacco, per lb.	0	2	0
Sugar, raw, per cwt.	0	3	0
refined	0	6	0

	£	s.	d.
Tea, per lb.	0	0	3
Coffee, per lb.	0	0	1½
Beer, in wood, per gallon	0	0	2
in bottle	0	0	6
Dried fruits, per lb.	0	0	1
Hops, per lb.	0	0	2

Rates of Pilotage, Harbour Dues, &c.

	£	s.	d.
Wharfage.—On landing each cask, bale, or package	0	0	9
On landing iron, per ton	0	9	0
On landing salt, per ton	0	3	0
On landing timber, per 1,000 feet	0	2	0
On shipping each cask, bale, or package	0	0	3
On shipping iron, per ton	0	3	0
On shipping salt, per ton	0	1	0

Colonial produce, when landed or shipped, is not subjected to any charge, except for a sufferance.

	£	s.	d.
Fees.—A sufferance to land or ship goods	0	1	0
A warrant to remove goods from under bond	0	1	0
On landing each cask or package of spirits or wine	0	0	6
On the registry of vessels not exceeding 40 tons	2	0	0
On the registry of vessels above 40 tons, per ton	0	1	0
To the chief clerk, on the registry of vessels	0	10	0
On indorsing change of master	0	10	0

Rates of Pilotage at the Derwent.

Draught of water.	Into. £	s.	d.	Out. £	s.	d.
10 feet and under	3	0	11½	2	7	4⅝
11 ditto	3	3	4½	2	9	3½
12 ditto	3	8	3	2	15	1½
13 ditto	3	15	6⅜	9	18	9½
14 ditto	4	5	5½	2	6	4

Draught of water.	Into. £	s.	d.	Out. £	s.	d.
15 feet and under	4	19	11½	3	17	8½
16 ditto	5	17	0	4	11	0
17 ditto	7	1	4½	5	9	11
18 ditto	8	13	0½	6	14	7½
19 ditto	10	14	6	8	6	10
20 ditto	13	3	3	10	4	9

At Port Dalrymple.

Proceeding above Whirlpool Reach.	£	s.	d.	Remaining below Whirlpool Reach. £	s.	d.
7 feet and under	2	5	6	1	10	4
Above 7 feet, per foot	0	6	6	0	4	4

If the pilot does not board the vessel outside the middle ground at the Heads at George Town, or, the weather not permitting his going outside, if he be not ready to show the channel by keeping his boat in the fair way until the ship can be boarded, he shall forfeit half the pilotage inwards.

For every number of inches below 6, no charge is to be made; for ½ a foot and upwards, one foot is to be charged.

Colonial vessels are exempted from the payment of pilotage, unless the master shall make the signal for a pilot and accept his service.

These details have been principally derived from the *Statistics of the Colony*, published at Hobart Town: and partly from Mr. Westgarth's book, and different *Parliamentary Papers*.

VANILLA, the fruit of the *Epidendrum Vanilla*, a species of vine extensively cultivated in Mexico.

It has a trailing stem, not unlike the common ivy, but not so woody, which attaches itself to any tree that grows near it. The Indians propagate it by planting cuttings at the foot of trees selected for that purpose. It rises to the height of 18 or 20 feet; the flowers are of a greenish yellow colour, mixed with white; the fruit is about 8 or 10 inches long, of a yellow colour when gathered, but dark brown or black when imported into Europe; it is wrinkled on the outside, and full of a vast number of seeds like grains of sand, having, when properly prepared, a peculiar and delicious fragrance. It is principally used for mixing with and perfuming chocolate; and is, on that account, largely imported into Spain; but as chocolate, owing to oppressive duties, is little used in England, vanilla is not much known in this country.

Vanilla is principally gathered in the intendancy of Vera Cruz, in Mexico, at Misantla, Colipa, Vacuatla, and other places. It is collected by the Indians who sell it to the whites (*gente de razon*), who prepare it for market. They spread it to dry in the sun for some hours, then wrap it in woollen cloths to sweat. Like pepper it changes its colour in this operation — becoming almost black. It is finally dried by exposing it to the sun for a day. There are four varieties of vanilla, all differing in price and excellence; viz. the *vanilla fina*, the *xacate*, the *rezacate*, and the *vasura*. The best comes from the forests surrounding the village of Zentilla, in the intendancy of Oaxaca. According to Humboldt, the mean exportation of vanilla from Vera Cruz may amount to from 900 to 1,000 millares, worth at Vera Cruz from 30,000 to 40,000 dollars.—Vanilla is also imported from Brazil, but it is very inferior. The finest Mexican vanilla is extremely high priced. The duty of 5*s* 3*d*. per lb. formerly charged on vanilla was repealed in 1853. — (See *Humboldt, Nouvelle Espagne*, 2d edit. tome iii. pp. 37, 46.; *Poinsett's Notes on Mexico*, p. 194. &c.)

VEGETABLE WAX. The produce of the berry of a tree (*Rhus succedaneum*) growing in Japan. The tree, which is well known to botanists, is said to be abundant; it varies in height from 15 to 25 feet, and the berries which it produces are found in clusters, not unlike bunches of grapes.

The native method of preparing the wax is of a very primitive description. The berries having been gathered, are washed and bruised after a rude fashion; and being then slowly boiled, the wax is extracted and thrown to the surface. Having been skimmed off, it is moulded into cakes of about 30 lbs. each, which, being dried in the sun, are fit for use.

This beautiful wax, one parcel of which varies but little from another, has a bright cream colour, is nearly of the consistence of bees' wax, bears without softening a high degree of atmospheric heat; and as it contains a large percentage of stearine, it is highly suitable for the manufacture of candles, particularly of those known as "composite," as well as for other purposes.

Little is as yet known in this country of this valuable commodity. Small lots of it have occasionally been indirectly imported, but the first cargo brought hither direct, was imported into London in April this year, by the American ship "Florence," from Nangasacki, the principal seaport of Japan. It has been partially disposed of at 70*s*. per cwt., at which the remainder is now (June, 1859) held; but it has not sold readily at that price. At anything near the price of Petersburg Y.C. tallow, at present worth 57*s*. per cwt., it would go off freely. The cargo of the "Florence" consisted, besides some trifling articles, of 8,696 cases of this wax, averaging about 1¼ cwt. nett each.

VELLUM, a species of fine parchment. (See PARCHMENT.)

VENICE, a famous city of Austrian Italy, formerly the capital of the republic of that name, on a cluster of small islands towards the northern extremity of the Adriatic, in lat. 45° 25′ 53″ N., lon. 12° 20′ 31″ E. Population about 112,000. The commerce of Venice, once the most extensive of any European city, is now comparatively trifling; and the population is gradually diminishing both in numbers and wealth.

Her imports consist of wheat and other sorts of grain, from the adjoining provinces of Lombardy and the Black Sea; olive oil, principally from the Ionian Islands; cotton stuffs and hardware from England; sugar, coffee, and other colonial products from England, the United States, Brazil, &c.; dried fish, dye stuffs, &c. The exports principally consist of grain, raw and wrought silk, paper, woollen manufactures, fruits, cheese, &c., the products of the adjoining provinces of Italy, and of her own industry; but her manufactures, so famous in the middle ages, are now much decayed.

Port. — The islands on which Venice is built lie within a line of long, low, narrow islands, running N. and S., and enclosing what is termed the lagoon, or shallows, that surround the city, and separate it from the main land. The principal entrance from the sea to the lagoon is at Malamocco, about 1½ league S. from the city; but there are other, though less frequented, entrances, both to the S. and the N. of this one. There is a bar outside Malamocco, on which there are not more than 10 feet at high water at spring tides; but there is a channel between the western point of the bar and the village of San Pietro, which has 16 feet water at springs, and 14 at neaps. Merchant vessels usually moor off the ducal palace; but sometimes they come into the grand canal which intersects the city, and sometimes they moor in the wider channel of the Giudecca. Vessels coming from the south for the most part make Pirano or Rovigno on the coast of Istria, where they take on board pilots, who carry them to the bar opposite to Malamocco. But the employment of Istrian pilots is quite optional with the master, and is not, as is sometimes represented, a compulsory regulation. When one is taken, the usual fee from Pirano or Rovigno to the bar is 20 Austrian dollars, or about 4*l.* On arriving at the bar, ships are conducted across it and into port by pilots, whose duty it is to meet them outside, or on the bar, and of whose services they must avail themselves. — (For the charges on account of pilotage, see *post.*)

Money. — Formerly there were various methods of accounting here; but now accounts are kept, as at Genoa, in lire Italiane, divided into centesimi, or 100th parts. The lira is supposed to be of the same weight, fineness, and, consequently, value as the franc. But the coins *actually in circulation*, denominated lire, are respectively equal in sterling value to about 5*d.* and 4½*d.* The latter are coined by the Austrian government.

Weights and Measures. — The commercial weights are here, as at Genoa, of two sorts; the *peso sottile* and the *peso grosso*. The French kilogramme, called the libra Italiana, is also sometimes introduced.

100 lbs. peso grosso =	105·186 lbs. avoirdupois.	100 lbs. peso sottile =	66·428 lbs. avoirdupois.
—	127·830 lbs. Troy.	—	80·728 lbs. Troy.
—	47·698 kilogrammes.	—	30·123 kilogrammes.
—	98·485 lbs. of Hamburg.	—	62·196 lbs. of Hamburg.
—	96·569 lbs. of Amsterdam.	—	60·986 lbs. of Amsterdam.

The moggio, or measure for corn, is divided into 4 staje, 16 quarte, or 64 quartaroli. The staja = 2·27 Winch. bushels.

The measure for wine, anfora = 4 bigonzi, or 8 mastelli, or 48 sechii, or 192 bozze, or 768 quartuzzi. It contains 137 English wine gallons.

The botta = 5 bigonzi. Oil is sold by weight or measure. The botta contains 2 migliaje, or 80 miri of 25 lbs. peso grosso. The miro = 4·028 English wine gallons.

The braccio, or long measure, for woollen = 26·6 English inches; the braccio for silks = 24·8 do. The foot of Venice = 13·68 English inches. — (*Nelkenbrecher*, and *Kelly.*)

Historical Notice. — Venice was the earliest, and for a lengthened period the most considerable, commercial city of modern Europe. Her origin dates from the invasion of Italy by Attila in 452. A number of the inhabitants of Aquileia, and the neighbouring territory, flying from the ravages of the barbarians, found a poor but secure asylum in the cluster of small islands opposite the mouth of the Brenta, near the head of the Adriatic Gulph. In this situation they were forced to cultivate commerce and its subsidiary arts, as the only means by which they could maintain themselves. At a very early period they began to trade with Constantinople and the Levant; and notwithstanding the competition of the Genoese and Pisans, they continued to engross the principal trade in Eastern products, till the discovery of a route to India by the Cape of Good Hope turned this traffic into a totally new channel. The crusades contributed to increase the wealth and to extend the commerce and the possessions of Venice. Towards the middle of the 15th century, when the Turkish sultan, Mahomet II., entered Constantinople sword in hand, and placed himself on the throne of Constantine and Justinian, the power of the Venetians had attained its maximum. At that period, besides several extensive, populous, and well cultivated provinces in Lombardy, the republic was mistress of Crete and Cyprus, of the greater part of the Morea, and most of the isles in the Egean Sea. She had secured a chain of forts and factories that extended along the coasts of Greece from the Morea to Dalmatia; while she monopolised almost the whole foreign trade of Egypt. The preservation of this monopoly, of the absolute dominion she had early usurped over the Adriatic, and of the dependence of her colonies and distant establishments, were amongst the principal objects of the Venetian government; and the measures it adopted in that view were skilfully devised, and prosecuted with inflexible constancy. With the single exception of Rome, Venice, in the 15th century, was by far the richest and most magnificent of European cities; and her singular situation in the midst of the sea, on which she seems to float, contributed to impress those who visited her with still higher notions of her wealth and grandeur. Sannazarius is not the only one who has preferred Venice to the ancient capital of the world; but none have so beautifully expressed their preference.

Viderat Adriacis Venetam Neptunus in undis,
Stare urbem, et toto ponere jura mari.
Nunc mihi Tarpeias quantumvis, Jupiter, arces
Objice, et illa tua mœnia Martis, ait:
Si Tiberim pelago præfers, urbem aspice utramque,
Illam homines dicas, hanc posuisse Deos.

Though justly regarded as one of the principal bulwarks of Christendom against the Turks, Venice had to contend, in the early part of the 16th century, against a combination of the European powers. The famous league of Cambray, of which Pope Julius II. was the real author, was formed for the avowed purpose of effecting the entire subjugation of the Venetians, and the partition of their territories. The emperor and the kings of France and Spain joined this powerful confederacy. But, owing less to the valour of the Venetians, than to dissensions amongst their enemies, the league was speedily dissolved without materially weakening the power of the republic. From that period the policy of Venice was comparatively pacific and cautious. But notwithstanding her efforts to keep on good terms with the Turks, the latter invaded Cyprus in 1570; and conquered it, after a gallant resistance, continued for 11 years. The Venetians had the principal share in the decisive victory gained over the Turks at Lepanto in 1571: but owing to the discordant views of the confederates, it was not properly followed up, and could not prevent the fall of Cyprus.

The war with the Turks in Candia commenced in 1645, and continued till 1670. The Venetians exerted all their energies in defence of this valuable island; and its acquisition cost the Turks above 200,000 men. The loss of Candia, and the rapid decline of the commerce of the republic, now almost wholly turned into other channels, reduced Venice, at the close of the 17th century, to a state of great exhaustion. She may be said, indeed, to have owed the last 100 years of her existence more to the forbearance and jealousies of others than to any strength of her own. Nothing, however, could avert that fate she had seen overwhelm so many once powerful states. In 1797, the "maiden city" submitted to the yoke of the conqueror; and the last surviving witness of antiquity — the link that united the ancient to the modern world — stripped of independence, of commerce, and of wealth, is now slowly sinking into the waves whence she arose.

The foundation of Venice is described by Gibbon, c. 35.; and in his 60th chapter he has eloquently depicted her prosperity in the year 1200. Mr. Hallam, in his work on the *Middle Ages* (vol. i. pp. 470—487.), has given a brief account of the changes of the Venetian government. Her history occupies a considerable space in the voluminous work of M. Sismondi on the *Italian Republics*; but his details as to her trade and commercial policy are singularly meagre and uninteresting. All previous histories of Venice have, however, been thrown into the shade by the valuable work of M. Daru (*Histoire de la République de Vénise*, 2d ed. 8 vols. 8vo. Paris, 1821.) Having had access to genuine sources of information, inaccessible to all his predecessors, M. Daru's work is as superior to theirs in accuracy, as it is in most other qualities required in a history.

Trade, Navigation, and Manufactures of the Venetians in the 15th Century. — The Venetian ships of the largest class were denominated galeasses, and were fitted out for the double purpose of war and commerce. Some of them carried 50 pieces of cannon, and crews of 600 men. These vessels were sometimes, also, called argosers or argosies. They had early an intercourse with England; and argosies used to be common in our ports. In 1325, Edward II. entered into a commercial treaty with Venice, in which full liberty is given to the Venetians, for 10 years, to sell their merchandise in England, and to return home in safety, without being made answerable, as was the practice in those days, for the crimes or debts of other strangers. — (*Anderson's Chron. Deduction, Anno* 1325.) Sir William Monson mentions, that the last argosie that sailed from Venice for England was lost, with a rich cargo and many passengers, on the coast of the Isle of Wight, in 1587.

In the beginning of the 15th century, the annual value of the goods exported from Venice by sea, exclusive of those exported to the states adjoining her provinces in Lombardy, was estimated, by contemporary writers, at 10,000,000 ducats; the profits of the out and home voyage, including freight, being estimated at 4,000,000 ducats. At the period in question, the Venetian shipping consisted of 3,000 vessels of from 100 to 200 tons burden, carrying 17,000 sailors; 300 ships with 8,000 sailors; and 45 galleys of various size, kept afloat by the republic for the protection of her trade, &c., having 11,000 men on board. In the dock-yard, 16,000 labourers were usually employed.* The trade to Syria and Egypt seems to have been conducted principally by ready money; for 500,000 ducats are said to have been annually exported to these countries; 100,000 were sent to England. — (*Daru*, tome ii. p. 189, &c.) The vessels of Venice visited every port of the Mediterranean, and every coast of Europe; and her maritime commerce was, probably, not much inferior to that of all the rest of Christendom. So late as 1518, 5 Venetian galeasses arrived at Antwerp, laden with spices, drugs, silks, &c. for the fair at that city.

The Venetians did not, however, confine themselves to the supply of Europe with the

* This is the statement of the native authorities; but there can be no doubt that it is greatly exaggerated; — 1,600 would be a more reasonable number.

commodities of the East, and to the extension and improvement of navigation. They attempted new arts, and prosecuted them with vigour and success, at a period when they were entirely unknown in other European countries. The glass manufacture of Venice was the first, and for a long time the most celebrated, of any in Europe; and her manufactures of silk, cloth of gold, leather, refined sugar, &c. were deservedly esteemed. The jealousy of the government, and their intolerance of any thing like free discussion, was unfavourable to the production of great literary works. Every scholar is, however, aware of the fame which Venice early acquired by the perfection to which she carried the art of printing. The classics that issued from the Aldine presses are still universally and justly admired for their beauty and correctness. The Bank of Venice was established in the 12th century. It continued throughout a bank of deposit merely, and was skilfully conducted.

But the policy of government, though favourable to the introduction and establishment of manufactures, was fatal to their progressive advancement. The importation of foreign manufactured commodities into the territories of the republic for domestic consumption was forbidden under the severest penalties. The processes to be followed in the manufacture of most articles were regulated by law. — "*Dès l'année* 1172, *un tribunal avoit été crée pour la police des arts et métiers, la qualité et la quantité des matières furent soigneusement déterminées.*" — (*Daru*, iii. 153.) Having, in this way, little to fear from foreign competition, and being tied down to a system of routine, there was nothing left to stimulate invention and discovery; and during the last century the manufactures of Venice were chiefly remarkable as evincing the extraordinary perfection to which they had early arrived, and the absence of all recent improvements. An unexceptionable judge, M. Berthollet, employed by the French government to report on the state of the arts of Venice, observed, "*Que l'industrie des Vénitiens, comme celle des Chinois, avoit été précoce, mais étoit restée stationnaire.*"— (*Daru*, tome iii. p. 161.)

M. Daru has given the following extract from an article in the statutes of the State Inquisition, which strikingly displays the real character of the Venetian government, and their jealousy of foreigners: — "If any workman or artisan carry his art to a foreign country, to the prejudice of the republic, he shall be ordered to return; if he do not obey, his nearest relations shall be imprisoned, that his regard for them may induce him to come back. If he return, the past shall be forgiven, and employment shall be provided for him in Venice. If, in despite of the imprisonment of his relations, he persevere in his absence, an *emissary shall be employed to despatch him*; and after his death his relations shall be set at liberty!"— (Tom. iii. p. 150.)

The 19th book of M. Daru's history contains a comprehensive and well-digested account of the commerce, manufactures, and navigation of Venice. But it was not possible, in a work on the general history of the republic, to enter so fully into the details as to these subjects as their importance would have justified. The *Storia Civile e Politica del Commercio de' Veneziani*, di Carlo Antonio Marin, in 8 vols. 8vo., published at Venice at different periods, from 1798 to 1808, is unworthy of the title. It contains, indeed, a great many curious statements; but it is exceedingly prolix; and while the most unimportant and trivial subjects are frequently discussed at extreme length, many of great interest are either entirely omitted, or are treated in a very brief and unsatisfactory manner. The commercial history of Venice remains to be written; and were it well executed, it would be a most valuable acquisition.

Present Trade and Manufactures of Venice. — From the period when Venice came into the possession of Austria, down to 1830, it seems to have been the policy of the government to encourage Trieste in preference to Venice; and the circumstance of the former being a free port, gave her a very decided advantage over the latter. Latterly, however, a more equitable policy has prevailed. In 1830, Venice was made a free port, and has since fully participated in every privilege conferred on Trieste. But, notwithstanding this circumstance, the latter still continues to preserve the ascendancy; and the revival of trade that has taken place at Venice has not been so great as might have been anticipated. The truth is, that except in so far as she is the *entrepôt* of the adjoining provinces of Lombardy, Venice has no considerable natural advantage as a trading city; and her extraordinary prosperity during the middle ages is more to be ascribed to the comparative security enjoyed by the inhabitants, and to their success in engrossing the principal share of the commerce of the Levant, than to any other circumstance. Still, however, her trade is far from inconsiderable. But, unfortunately, there are no means by which to ascertain its precise amount. The great articles of import are sugar, coffee, and other colonial products: indigo and other dye stuffs, olive oil, salted fish, various descriptions of cotton, woollen, and other manufactured goods; wheat and other grain, from the Black Sea; tin plates and hardware, raw cotton, &c.; amounting, in all, to the value probably of 1,500,000*l.* or 1,600,000*l.* The exports principally consist of silk and silk goods, wheat and other grain, paper, jewellery, glass, and glass wares, Venetian treacle, books, with a great variety of other articles, including portions of most of those that are imported. It should, however, be observed, that by far the greater part both of the import and export trade of the city is carried on through Trieste by coasting vessels, that are every day passing between the two cities. The smuggling of prohibited and overtaxed articles into Austrian Lombardy is practised to a great extent. It is believed that fully two thirds of the coffee made use of in Lombardy is clandestinely introduced; and sugar, British cottons, and hardware, with a variety of other articles, are supplied through illegitimate channels. The facilities for smuggling, owing to the nature of the frontier, and the ease with which the officers are corrupted, are such, that the articles passing through the hands of the fair trader afford no test of the real extent of the business done. It is to be hoped that the Austrian government may take an enlightened view of this important matter. It cannot but be anxious for the suppression of smuggling; and it may be assured that this is not practicable otherwise than

by a reduction of duties. The regulations as to the payment of the duties on goods destined for the interior, the clearing of ships, &c., are the same at Venice as at Trieste; which see.

The manufactures of Venice are very various, and more extensive than is generally supposed. The glassworks, which produce magnificent mirrors, with every variety of artificial pearls and gems, coloured beads, &c., situated on the island of Murano, employ, in all, about 4,000 hands, including the women and children employed in arranging the beads.—(*Bowring.*) Jewellery, including gold chains, is also extensively produced; as are gold and silver stuffs, velvets, silks, laces, and other expensive goods; and treacle, soap, earthenware, wax-lights, &c., to a greater or less extent. Printing is more extensively carried on in this than in any other city of Italy, and books form a considerable article of export. Ship-building is also carried on to some extent, both here and at Chiozza. In 1836, the first steam-engine seen in Venice was set up for a sugar refinery.

From the circumstance of Venice being situated nearly opposite the mouths of the Brenta, which bring down large quantities of mud, the probability is that the lagoon, by which she is surrounded, will ultimately be filled up. Under the republic this was a subject of great apprehension, and every device was resorted to that seemed likely to avert a result so pregnant with danger to the independence of the city. But now that there is no particular motive for hindering the mud from accumulating in the lagoon, it is probable that, in the course of time, the shallow will be converted into terra firma, and Venice lose her insular position.

Railway to Venice.—But whether the lagoon should, or should not, be filled up, Venice will very speedily be connected with the mainland by artificial means. A railway is now in the course of being constructed, which is to extend from the city to Padua, and thence to Verona, &c. That part of this important work which passes through the lagoon is to be supported on arches, the construction of which is already far advanced. It may be expected that the formation of this new and easy channel of communication with some of the most fertile districts of Lombardy, will be of considerable service to Venice; and will tend, in some degree, to revive her decaying energies.

There belong to the city, exclusive of fishing-boats, about 30,000 tons of shipping, of which a large proportion is employed in the coasting trade. Many of the inhabitants depend for their subsistence on fishing in the lagoon, and the contiguous portion of the Adriatic.—(Exclusive of the authorities already referred to, see *Bowring's Report on the Statistics of Italy; Geog. Dict.; Commercial Circulars, &c.*)

A steam-packet has been established between Venice and Trieste.

Shipping Charges in the Port of Venice on Ships of different Nations, of the Burden of 300 Tons.

Description of Charge.	If Austrian, or of a Nation having a Treaty of Reciprocity with Austria.		If of a Nation not having a Treaty of Reciprocity with Austria.	
	Austrian Livres.	£ s. d.	*Austrian Livres.*	£ s. d.
Pilotage.				
From the bar to the place of finally mooring	61 57	2 1 0½	61 57	2 1 0½
Out of the port of departure	61 57	2 1 0½	61 57	2 1 0½
Tonnage Duty.				
One Austrian livre (8*d.* sterling) per ton (Originally levied on all ships not Austrian.)	Free.	- - -	300 0	10 0 0
Clearing Charges.				
If to a port out of the Gulph of Venice (but if to a port in the Gulph, 1*s.* 5½*d.* less in all cases)	2 30	0 1 6½	16 78	0 11 2½
Quarantine Charges.				
If performing 7 days, being the usual time for vessels from England	39 27	1 6 2	53 38	1 15 7
Total of ordinary charges	164 71	5 9 9½	493 20	16 8 10½
If in long quarantine, all ships pay extra	25 74	0 17 2	25 74	0 17 2
If departing in ballast, or with less than ¼ a cargo, all ships, not Austrian, or not under treaty to be charged as such, pay extra tonnage duty, 45 cents (about 2½*d.* sterling) per ton, being, on a 300 ton ship	Free.	- -	135 0	4 10 0
Total of extreme charges	190 45	6 6 11½	653 94	21 16 0½

Banking Establishments.—The old bank of Venice was founded so far back as 1171, being the most ancient establishment of the kind in Europe. It was a bank of deposit; and such was the estimation in which it was held, that its paper continued to bear an agio as compared with coin down to 1797, when the bank fell with the government by which it had been guaranteed. At present there are no corporate banking establishments in the city; and no bank notes are in circulation. There are, however, several private banking houses, which buy, sell, and discount bills; and make advances on land and other securities. They are under no legal regulations of any sort, except formally declaring the amount of their capital to the authorities when they commence business. The legal and usual rate of interest and discount is 6 per cent. It is not the practice to allow interest on deposits. Bills on London are usually drawn at 3 months, and on Trieste at 1 month.

Brokers, Commission, &c.—The number of brokers is limited, and they are licensed by government; but the business of commission merchant and factor is open to every one. Before, however, commencing any trade or profession at Venice, a petition must be presented for leave to the authorities: but this is more a matter of form than any thing else; its prayer being rarely, if ever, refused.

The usual rate of commission and factorage on the purchase or sale of colonial produce is 2 per cent., and on manufactured goods 3 per cent., inclusive of broker's commission, 1 per cent. A ship broker's commission on the freight of a whole cargo is 2 per cent., and on a general cargo 4 per cent. By the custom of the place, merchants charge 2 per cent. on the inward and 2 per cent. on the outward freight of all ships consigned to them; and this, though they had done no more than recommend the master to a broker! A bill broker's commission is ¼ per mille. Merchants and bankers charge a commission on internal bills of ¼ per cent., and on foreign do. of 1 per cent.

Insurances are effected by companies and individuals. The government charges no duty on the policies.

Communications with Lombardy are effected by flat-bottomed vessels, which, passing through the lagoon, enter the canals and rivers, and make their way through most part of the country watered by the Po and its tributaries. The freight of goods from Milan to Venice, distant about 170 miles, is about 1*l.* per ton. The principal products they bring down are grain, silk, hemp, and flax, cheese, rhubarb, &c. The country to the north of Venice affords large quantities of deals, which are shipped for Malta, Sicily, and the Levant.

Quarantine is enforced here the same as at Trieste. Ships coming from without the Straits of Gibraltar, provided there be no infectious disease on board, are admitted to *pratique* on performing a short quarantine of 7 days in a part of the lagoon, about a mile from the city. Long quarantine is performed a little farther off. The lazaretto, and establishments for passengers, &c. performing quarantine, are among the best in Europe. Ships having foul bills, or coming from suspicious places, are sent thither from Trieste.—(For the quarantine charges, see *ante*.)

Provisions, Ships' Stores, &c.—These articles may all be had at Venice of excellent quality, but not

cheap, with, perhaps, the exception of bread. Water is conveyed to the city by lighters, and is, consequently, pretty dear; fuel is very scarce, and very high priced.

Tares. — On goods leaving the free port of Venice for the interior of the Austrian states, the Custom-house allows no tares; but cases, casks, and other coverings go into the scale with their contents, and the duty is levied on the gross weight. Wine, spirits, &c. consumed in this city, being liable to an excise duty to cover the municipal expenses, have an allowance, if in iron-bound casks, of 18 per cent. on the weight; and if not in iron-bound casks, of 12 per cent. The tares allowed between merchants are as follow:—

Cotton wool, Pernambuco and Bahia	2 per cent.
East India, &c.	4
Sugar, Brazil	15 to 18 per cent.
Jamaica, muscovado	14
Bourbon, brown and yellow, and East India of all colours	5
refined, crushed	12
Brimstone	10
Italian hemp	2
Madder root	4
Hungary potash	10

On other articles, real tares are usually taken.

VERA CRUZ, the principal sea-port on the western coast of Mexico; lat 19° 11′ 52″ N., lon. 96° 8′ 45″ W. Population (supposed) 16,000. Opposite the town, at the distance of about 400 fathoms, is a small island on which is built the strong castle of St. Juan d'Ulloa, which commands the town. The harbour lies between the town and the castle, and is exceedingly insecure; the anchorage being so very bad, that no vessel is considered safe unless made fast to rings fixed for the purpose in the castle wall: nor is this always a sufficient protection from the fury of the northerly winds (*los nortes*), which sometimes blow with tremendous violence. Humboldt mentions, in proof of what is now stated, that a ship of the line, moored by 9 cables to the castle, tore, during a tempest, the brass rings from the wall, and was dashed to pieces on the opposite shore. — (*Nouvelle Espagne*, ed. 2de, iv. 59.) Its extreme unhealthiness is, however, a more serious drawback upon Vera Cruz, than the badness of its port. It is said to be the original seat of the yellow fever. The city is well built, and the streets clean; but it is surrounded by sand hills and ponds of stagnant water, which, within the tropics, are quite enough to generate disease. The inhabitants, and those accustomed to the climate, are not subject to this formidable disorder; but all strangers, even those from the Havannah and the West India Islands, are liable to the infection. No precautions can prevent its attack; and many have died at Xalapa, on the road to Mexico, who merely passed through this pestilential spot. During the period that the foreign trade of Mexico was carried on exclusively by the *flota*, which sailed periodically from Cadiz, Vera Cruz was celebrated for its fair, held at the arrival of the ships. It was then crowded with dealers from Mexico and most parts of Spanish America; but the abolition of the system of regular fleets in 1778 proved fatal to this fair, as well as to the still more celebrated fair of Portobello.

A light-house has been erected on the N.W. angle of the castle of St. Juan. The light, which is a revolving one of great power and brilliancy, is elevated 79 feet above the level of the sea.

Commerce. — An individual, looking at a map of the world, would be apt to conclude that Mexico is one of the most favourably situated countries for commerce; and, in some respects, this is true. But her trade labours, notwithstanding, under some serious disadvantages. Though washed by the Atlantic and Pacific Oceans, neither of her coasts is accessible for several months of the year. On the E. coast, or that bordering the Gulph of Mexico, there is not a single good harbour; and during the season when the coasts are accessible, they are extremely unhealthy. Owing also to the rapid ascent from the shores to the interior, the construction of roads, and the transport of commodities to and from the inner provinces, is alike difficult and expensive. No doubt, however, an efficient government and an industrious people would speedily, in a great measure, overcome these obstacles to an extensive intercourse with the foreigner. But Mexico has neither the one nor the other; and, at present, her trade is confined within the narrowest limits. Down to 1778, when the Spanish government relaxed the old prohibitive system, the foreign goods legally imported into Mexico comprised only a few Chinese and European manufactures; the former brought annually in *one* galleon of about 1,400 tons, and the latter sent *once in three years* exclusively in ships chartered by government from Seville or Cadiz! On the opening of the trade in 1779, private capitalists engaged in it; and after that period, at an average of 12 years before and after, the returns for exports alone rose from 11,000,000 to 19,000,000 of dollars, the difference being chiefly in the quantity of specie. How much greater would the increase have been, if the trade had not been fettered with vexatious duties, first on articles of Spanish produce in the markets of Seville and Cadiz; 2. on shipping for Mexico; 3. at Vera Cruz; and, 4. with an *alcavala*, or transfer duty, at every step, from the merchant to the consumer? On the breaking out of the civil war, the ports of Tampico, Mazatlan, and San Blas were opened by the new government; and soon afterwards foreign vessels were admitted into all the ports on the same terms as Spaniards. The Spanish capitalists retired to Cuba or Spain; and their places were supplied by British and American merchants, who established themselves in the interior, and supplied the inhabs. in return for dollars with manufactured goods, the superior quality and cheapness of which has, no doubt, had some influence in depressing native manufactures. The jealousy of the natives, however, and the absurd threats of the

government against foreign artificers and traders, tended to prevent their settling in the country, and engaging in any considerable undertaking, other than the mines; and the depressed state of the latter, which have always furnished the principal article of export, has tended still further to depress and paralyse commerce. The roads, too, instead of being improved, have been suffered to fall into a state of almost irreparable decay. In this respect, the following extract from one of the letters of M. Chevalier is decisive. "The splendid road which, during the domination of the Spaniards, was constructed across deserts and precipices, by the merchants of Vera Cruz, to the summit of the upper country, is a melancholy instance of the carelessness with which the public interests of the country are directed. During the war of independence, this road was cut up in various points; and, down to this day, the enfranchised Mexicans have not replaced a single stone, or filled up a single trench, nor even cut down one of the trees, which, in the absence of any considerable traffic, and under the influence of a tropical sun, are rapidly growing up to a magnificent size in the very middle of the road. In the upper country nothing would be more easy than to open noble means of communication. The soil is naturally level: the basaltic rocks, particularly adapted for the construction of roads, are found in great abundance. But even where there are roads, the Mexicans make little use of them. They carry to a yet more extravagant length the inconceivable predilection of the Spanish race in favour of transporting their goods on the backs of animals. You expect to meet with carts and waggons: no such thing: everything is conveyed on the backs of mules or Indians. Troops of little consumptive donkeys bring into the city, in parcels not much bigger than a man's two fists, the charcoal required for the culinary operations of the inhabitants. The price of every bulky article is thus increased to an enormous degree. The interior districts are as inaccessible as if they were cut off by an enemy's army, and famine frequently ensues."

In consequence of this wretched state of the roads, of the insecurity consequent to the prevalence of revolutions, and the torpor and indolence of the inhabitants (occasioned partly and principally by physical, but partly, also, by moral causes), industry of all kinds is at an extremely low ebb; and the commerce of the republic is far from being commensurate either with her population, or the number and value of her exportable products.

For a considerable period after the town of Vera Cruz had thrown off the Spanish yoke, the castle of St. Juan d'Ulloa continued in possession of the Spaniards. During this interval, the commerce of Vera Cruz was almost entirely transferred to the port of Alvarado, 12 leagues to the south-east. Alvarado is built upon the left bank of a river of the same name. The bar at the mouth of the river, about 1⅛ mile below the town, renders it inaccessible for vessels drawing above 10 or 12 feet water. Large ships are obliged to anchor in the roads, where they are exposed to all the violence of the north winds, loading and unloading by means of lighters. Alvarado is supposed, but probably without much foundation, to be a little healthier than Vera Cruz. The trade has now mostly reverted to its old channel.

But within these few years, Tampico has risen to considerable importance as a commercial sea-port. It is situated about 60 leagues N. N. W. of Vera Cruz, in lat. 20° 15′ 30″ N., lon. 97° 52′ W., being about 104 leagues from Mexico. Hitherto it is said to have been free from fever. The shifting of the bar at the mouth of the river, and the shallowness of the water on it, which is sometimes under 8, and rarely above 15 feet, are serious obstacles to the growth of the port. Vessels coming in sight are boarded by pilots, who conduct them, provided they do not draw too much water, over the bar. Those that cannot enter the port load and unload by means of lighters; mooring so that they may get readily to sea in the event of a gale coming on from the north.

Exports and Imports.— The precious metals have always formed the principal article of export from Mexico. During the 10 years ending with 1801, the average annual produce of the Mexican mines amounted, according to M. Humboldt, to 23,000,000 dollars — (*Nouvelle Espagne*, iv. 137.); and in 1805 the produce was 27,165,888 dollars. — (*Id.* iv. 83.) But during the revolutionary war, the old Spanish capitalists, to whom most of the mines belonged, being proscribed, emigrated with all the property they could scrape together: and this withdrawal of capital from the mines, added to the injury several of them sustained by the destruction of their works during the contest, the interruption of all regular pursuits which it occasioned, and the insecurity and anarchy that afterwards prevailed, caused an extraordinary falling off in the produce of the mines. Within these few years, however, a considerable improvement has taken place. The efforts, and the lavish expenditure, of a few of the companies formed in this country for working the mines, assisted in bringing them into good order. Latterly, also, they have been conducted with greater skill and economy, and a considerable increase of produce has taken place. The coinage of gold and silver at the different Mexican mints in 1855, was as follows, viz.: —

	Gold.	Silver.	Total.		Gold.	Silver.	Total.
Culiacan .	$144,208	$737,968	$882,176	Guaçalajara .	$10,368	$652,662	$644,030
Chihuahua .	17,536	475,500	93,036	San Luis Potosi .	. .	1,849,795	1,849,795
Durango .	75,647	609,171	682,818	Zacatecas .	. .	3,619,000	3,619,000
Mexico .	155,263	4,013,359	4,168,622				
Guanajuanto .	555,200	4,698,800	5,254,000	Total .	. .	. .	$17,593,477

But to this may be added from 8,000,000 to 10,000,000 dollars for those raised and exported without being brought to the mints, and for bullion assayed at the mints, and exported in bars.

And but for the prevalence of insecurity, a large increase of this produce might be expected.

Besides the precious metals, cochineal, flour, indigo, provisions, leather, sarsaparilla, vanilla, jalap, soap, logwood, and pimento are the principal articles exported from Vera Cruz.

The imports consist principally of cotton, woollen, linen, and silk goods, paper, brandy, quicksilver, iron, steel, wine, wax, &c.

According to Humboldt, the imports at Vera Cruz, before the revolutionary struggles, might be estimated, at an average, at about 15,000,000 dollars, and the exports at about 22,000,000 do.

It must, however, be observed that this statement refers only to the *registered* articles, or to those that paid the duties on importation and exportation. And exclusive of these, the value of the articles clandestinely imported by the ports on the Gulph, previously to the revolution, was estimated at 4,500,000 dollars a year; and 2,500,000 dollars were supposed to be annually smuggled out of the country in plate and bars, and ingots of gold and silver. A regular contraband trade used to be carried on between Vera Cruz and Jamaica; and notwithstanding all the efforts of government for their exclusion and the excessive severity of its laws against smuggling, the shops of Mexico were always pretty well supplied with the products of England and Germany. — (*Humboldt, Nouvelle Espagne*, iv. 125.; *Poinsett's Notes on Mexico*, p. 133.)

Humboldt states that the total population of Mexico, exclusive of Guatemala, may be estimated at about 7,000,000. Of this number about ⅗ are Indians, the rest being descendants of Europeans, and mixed races. But notwithstanding this large amount of population, the indolence and want of industry of the mass of the people is such that the trade we carry on with them is quite inconsiderable compared with what might be expected. We subjoin in illustration of this remark an

Account of the Trade between the U. K. and Mexico.

Account of the Quantities and Values of the Principal Articles, ex bullion, imported into the U. K. from Mexico, in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Brazil wood . . tons.	1,320	131	1,419	1,810	46,212	6,571	78,045	108,600
Cochineal . . cwts.	3,491	5,778	1,724	2,389	72,494	124,226	36,634	49,353
Copper, wrought and part wrought . . tons.	21	93	55	71	2,677	10,472	5,542	7,613
Jalap . . lbs.	55,407	57,260	58,917	27,000	6,003	6,112	6,028	3,058
Logwood . . tons.	5,978	7,134	4,961	5,556	48,571	51,127	41,300	41,509
Mahogany . . ,,	256	810	1,343	4,905	2,730	8,181	15,094	48,049
Nicaragua wood . . ,,	1,723	552	471	980	21,322	7,077	7,071	17,199
Vanelloes . . . lbs.	2,572	496	2,780	6,812	5,144	1,215	11,884	29,803
Total value of the above and of all other articles, . . .	. .	. .	. .	. .	220,605	230,791	222,193	342,583

Account of the Quantities and Values of the Principal Articles of British Produce exported from the U. K. to Mexico during each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Apparel, slops, and haberdashery . . value	. .	. .	. .	. .	5,109	7,063	11,631	11,204
Brass manufactures . cwts.	118	65	44	155	1,051	355	461	1,290
Coals, cinders, and culm . tons	2,838	3,626	3,107	2,856	1,148	1,701	1,622	1,595
Cottons, entered by the yard . . . yards	3,748,028	17,459,586	33,074,015	15,969,428	176,682	305,383	551,847	288,755
Cottons, entered at value . value	. .	. .	. .	. .	12,051	17,426	26,769	18,580
Cotton yarn . . lbs.	46,620	67,270	348,556	105,590	2,063	2,799	14,793	6,111
Earthenware and porcelain value	. .	. .	. .	. .	3,000	5,130	5,181	9,119
Glass manufactures . ,,	. .	. .	. .	. .	1,033	562	955	1,292
Hardwares and cutlery . cwts.	3,121	3,899	4,610	5,878	20,851	26,043	30,185	31,237
Iron, wrought and unwrought, including unwrought steel . . tons	421	720	1,239	1,200	6,354	9,519	14,390	15,290
Linens, entered by the yard yards	3,007,298	3,200,088	4,171,490	1,865,826	112,954	116,527	142,687	70,052
Machinery, steam engines value	. .	. .	. .	. .	1,700	1,995	80	11,108
,, of all other sorts ,,	. .	. .	. .	. .	6,210	20,452	9,699	8,315
Plate, plated ware, jewellery, and watches . ,,	. .	. .	. .	. .	442	1,458	1,517	1,735
Silk manufactures . ,,	. .	. .	. .	. .	11,014	11,559	11,754	17,971
Tin plates . . ,,	. .	. .	. .	. .	2,387	5,014	2,275	3,128
Woollens, entered by the piece . . pieces	20,385	15,714	15,860	15,354	39,485	33,456	32,627	30,769
Woollens, entered by the yard . . . yards	422,604	246,502	300,986	396,939	12,385	10,487	16,730	19,510
Total value of the above and of all other articles .	. .	. .	. .	. .	430,956	585,898	887,862	567,311

It should, however, be observed, that the imports of British goods at second hand into Mexico and Columbia from the West Indies is still far from inconsiderable; and a pretty large proportion of the British goods sent to Chili are conveyed thence to Acapulco and other Mexican ports on the Pacific. Formerly the imports into Mexico supplied most part of the demand of Peru and the W. coast of S. America.

The Mexican government has issued a revised tariff, which came into operation on the 1st October, 1853. It does credit to those by whom it was prepared. Some of the more oppressive duties have been largely reduced; and, on the whole, it must be considered as a great advance towards a liberal system of commercial policy. But much depends on the way in which it may be carried out. In a government so fluctuating as that of Mexico, a policy or tariff in favour to-day may be repudiated to-morrow.

VERDIGRIS (Ger. *Grünspan;* Fr. *Vert-de-gris, Verdet;* It. *Verderame;* Sp. *Cardenillo, Verdete, Verde-gris;* Rus. *Jar*), a kind of rust of copper, of a beautiful blueish-green colour, formed from the corrosion of copper by fermented vegetables.

Its specific gravity is 1·78. Its taste is disagreeably metallic: and, like all the compounds into which copper enters, it is poisonous. It was known to the ancients, and various ways of preparing it are described by Pliny. It is very extensively used by painters, and in dyeing; it is also used to some extent in medicine. The best verdigris is made at Montpelier; the wines of Languedoc being particularly well suited for corroding copper, and forming this substance. It is generally exported in cakes of about 25 lbs. weight each. It is also manufactured in this country, by means of the refuse of cider, &c. The goodness of verdigris is judged of from the deepness and brightness of its colour, its dryness, and its forming, when rubbed on the hand with a little water or saliva, smooth paste, free from grittiness.—(*Thomson's Chemistry; Rees's Cyclopædia.*) In 1852 the imports and exports of verdigris were respectively 469 and 72 cwt. In 1853 the *ad valorem* duty of 10 per cent., with which it was previously burdened, was repealed.

VERJUICE (Ger. *Agrest;* Fr. *Verjus;* It. *Agresto;* Sp. *Agraz*), a kind of harsh, austere vinegar, made of the expressed juice of the wild apple, or crab. The French give this name to unripe grapes, and to the sour liquor obtained from them.

VERMICELLI (Ger. *Nudeln;* Du. *Meelneepen, Proppen;* Fr. *Vermicelli;* It. *Vermicelli, Tagliolini;* Sp. *Aletrias*), a species of wheaten paste formed into long, slender, hollow tubes, or threads, used amongst us in soups, broths, &c.—(See MACCARONI.)

VERMILION. See CINNABAR.

VINEGAR (Ger. *Essig*; Du. *Azyn*; Fr. *Vinaigre*; It. *Aceto*; Sp. and Port. *Vinagre*; Rus. *Uhzus*; Lat. *Acetum.*) — (See ACID (ACETIC), for a description of vinegar.) A duty of 2*d.* a gallon being formerly imposed on vinegar, its manufacture was placed under the control of the excise. A licence, costing 5*l.*, and renewable annually, has to be taken out by every maker of vinegar, or acetous acid. In 1842, the duty on vinegar produced 23,842*l.*, showing that 2,861,040 gallons had been brought to the charge. The manufacture is almost confined to England; the quantities produced in Scotland and Ireland being quite inconsiderable. The duty was repealed in 1844.

VITRIOL. See COPPERAS.

VITRIOL, OIL OF. See ACID (SULPHURIC).

ULTRAMARINE (Ger. *Ultramarin*; Fr. *Bleu d'outremer*; It. *Oltramarino*; Sp. *Ultramar*; Rus. *Ultramarin*), a very fine blue powder made from the blue parts of *lapis lazuli*. It has the valuable property of neither fading, nor becoming tarnished, on exposure to the air, or a moderate heat; and on this account is highly prized by painters. Owing to its great price, it is very apt to be adulterated. It was introduced about the end of the fifteenth century.

USANCE, a period of *one*, *two*, or *three* months, or of so many days, after the date of a bill of exchange, according to the custom of different places, before the bill becomes due. Double or treble usance is double or treble the usual time; and ½ usance is ½ the time. When a month is divided, the ½ usance, notwithstanding the differences in the lengths of the months, is uniformly 15 days. Usances are calculated exclusively of the date of the bill. Bills of exchange drawn at usance are allowed the usual days of grace, and on the last of the 3 days the bill should be presented for payment. — (See EXCHANGE.)

USURY. See INTEREST AND ANNUITIES.

W.

WALNUTS, the fruit of the *Juglans*, or walnut-tree, of which there are several varieties. The walnut is a large handsome tree, with strong spreading branches. The fruit is a pretty large smooth, ovate nut, containing an oily kernel, divided into four lobes. The nut has been always held in high estimation; it was called by the Romans *Jovis glans*, the acorn or mast of Jove, and hence the name of the tree.

The walnut tree is indigenous to Persia and the countries bordering on the Caspian Sea. It has long been introduced into Great Britain; but the fruit seldom ripens in the more northerly parts of the island. Previously to the very general introduction of mahogany, the wood of the walnut tree was extensively used among us in making of furniture; and it continues to be largely employed for that purpose in many parts of the Continent. It is much used by turners; and is superior to every other sort of wood for the mounting of guns; a circumstance which caused great devastation among our walnut plantations during the latter years of the war. Great numbers of walnut trees are annually consumed in the Haute Vienne and other departments of France, in the manufacture of the wooden shoes or clogs used by the peasantry. The nuts are either gathered when ripe, being served up at desserts without any preparation; or they are plucked green and pickled. — (*Poiret, Histoire Philosophique des Plantes*, tome vii. p. 213.; *Rees's Cyclopædia*, &c.)

In 1852, 32,531 bushels of walnuts were admitted to home consumption at a duty of 2*s.* 1⅛*d.* per bushel. This duty was reduced in 1853 to 1*s.* a bushel.

WANGHEES, sometimes called JAPAN CANES, a species of cane imported from China. They should be chosen pliable, tough, round, and taper; the knots at regular distances from each other; and the heavier the better. Such as are dark-coloured, badly glazed, and light, should be rejected. — (*Milburn's Orient. Com.*)

WAREHOUSING SYSTEM. By this system is meant the provisions made for lodging imported articles in public warehouses, at a reasonable rent, without payment of the duties on importation till they be withdrawn for home consumption. If re-exported, no duty is ever paid.

1. *Expediency and Origin of the Warehousing System.* — It is laid down by Dr. Smith in one of his justly celebrated maxims on the subject of taxation, that "Every tax ought to be levied at the time and in the manner that is most likely to be convenient for the contributor to pay it."—(*Wealth of Nations*, p. 371.) No one can doubt the soundness of this maxim; and yet it was very strangely neglected, down to 1803, in the management of the customs. Previously to this period, the duties on most goods imported had either to be paid at the moment of their importation, or a *bond*, with sufficient security for their future payment, had to be given to the revenue officers. The hardship and inconvenience of such a system is obvious. It was often very difficult to find sureties; and the merchant, in order to raise funds to pay the duties, was frequently reduced to the ruinous necessity of selling his goods immediately on their arrival, when, perhaps, the market was already glutted. Neither was this the only inconvenience that grew out of this system; for the duties having to be paid all at once, and not by degrees as the goods were sold for consumption, their price was raised by the amount of the profit on the capital

advanced in payment of the duties; competition, too, was diminished in consequence of the greater command of funds required to carry on trade under such disadvantages; and a few rich individuals were enabled to monopolise the importation of those commodities on which heavy duties were payable. The system had, besides, an obvious tendency to discourage the carrying trade. It prevented this country from becoming the *entrepôt* for foreign products, by hindering the importation of such as were not immediately wanted for home consumption; and thus tended to lessen the resort of foreigners to our markets, inasmuch as it rendered it difficult, or rather impossible, for them to complete an assorted cargo. And in addition to all these circumstances, the difficulty of granting a really equivalent drawback to the exporters of such commodities as had paid duty, opened a door for the commission of every species of fraud.

But these disadvantages and drawbacks, obvious as they may now appear, did not attract the public attention till a comparatively late period. Sir Robert Walpole seems to have been one of the first who had a clear perception of their injurious influence; and it was the principal object of the famous *Excise Scheme*, proposed by him in 1733, to oblige the importers of tobacco and wine to deposit them in public warehouses; relieving them, however, from the necessity of paying the duties chargeable on them till they were withdrawn for home consumption.

No doubt can now remain in the mind of any one, that the adoption of this scheme would have been of the greatest advantage to the commerce and industry of the country. But so powerful was the delusion generated in the public mind with respect to it, that its proposal well nigh caused a rebellion. Most of the merchants of the day had availed themselves of the facilities which the existing system afforded of defrauding the revenue; and they dexterously endeavoured to thwart the success of a scheme which would have given a serious check to such practices, by making the public believe that it would be fatal to the commercial prosperity of the country. The efforts of the merchants were powerfully seconded by the spirit of party, which then ran very high. The political opponents of the ministry anxious for an opportunity to prejudice them in the public estimation, contended that the scheme was only the first step towards the introduction of such a universal system of excise as would inevitably prove alike subversive of the comfort and liberty of the people. In consequence of these artful misrepresentations, the most violent clamours were everywhere excited against the scheme. On one occasion Sir Robert Walpole narrowly escaped falling a sacrifice to the ungovernable fury of the mob, which beset all the avenues to the House of Commons; and, after many violent and lengthened debates, the scheme was ultimately abandoned.

The disadvantages of the old plan, and the benefits to be derived from the establishment of a voluntary warehousing system, were most ably pointed out by Dean Tucker, in his "Essay on the Comparative Advantages and Disadvantages of Great Britain and France with respect to Trade," published in 1750. But so powerful was the impression made by the violent opposition to Sir Robert Walpole's scheme, and such is the force of prejudice, that this obvious and signal improvement — the greatest, perhaps, that has been made in our commercial and financial system — could not be safely adopted till 1803.

Regulations as to Warehousing.—The statute of 43 Geo. 3. c. 132. laid the foundation of the system; but it was much improved and extended by subsequent statutes.

The existing regulations as to warehousing are embodied in the Customs Consolidation Act, the 16 & 17 Vict. c. 107. It empowers the Commissioners of the Customs, under the authority and direction of the Lords of the Treasury, to nominate the ports at which goods may be warehoused without payment of duty, and the warehouses in which particular descriptions of goods may be deposited. It also fixes the time during which goods may be deposited. It also fixes the time during which goods are allowed to remain in the warehouse, the remission of the duties in case of loss by accident, the allowances for waste, &c. But being of much importance we have given a full abstract of the statute, (see *antè*, p. 698.)

Warehousing Ports, &c.—Certain ports only are warehousing ports; nor may all sorts of goods be warehoused in every warehousing port. We subjoin a list of the warehousing ports in Great Britain and Ireland. Goods of all sorts may, speaking generally, be warehoused in the principal ports; but the regulations as to those that may be warehoused in the lesser ports are perpetually varying.

ENGLAND.

Aberystwith	Carnarvon	Fowey	Lynn	Preston	Swansea
Alnmouth	Chepstow	Gainsborough	Margate	Ramsgate	Topsham
Arundel	Chester	Gloucester	Maldon	Rochester	Truro
Barnstaple	Colchester	Goole	Manchester	Rye	Teignmouth
Berwick	Cowes	Grimsby	Maryport	Scarborough	Weymouth
Bideford	Dartmouth	Hartlepool	Milford	North Shields	Whitby
Boston	Deal	Hull	Newcastle	Shoreham	Whitehaven
Bridgewater	Dover	Ipswich	Newhaven	Southampton	Wisbech
Bridport	Exeter	Kingston	Newport	South Shields and	Woodbridge
Bristol	Faversham	Lancaster	Penzance	Tynemouth	Workington
Cardiff	Falmouth	Liverpool	Plymouth	Stockton	Yarmouth
Cardigan	Fleetwood	London	Pool	Sunderland	
Carlisle	Folkstone	Lyme	Portsmouth		

SCOTLAND.

Aberdeen	Banff	Glasgow	Inverness	Montrose	Port Glasgow
Alloa	Borrowstoness	Grangemouth	Kirkcaldy	Perth	Wick
Arbroath	Dumfries	Greenock	Leith	Peterhead	
Ayr	Dundee				

IRELAND.

Ballina	Coleraine	Galway	Newry	Sligo	Westport
Baltimore	Drogheda	Limerick	Ross	Tralee	Wexford
Belfast	Dublin	Londonderry	Skibbereen	Waterford	Youghall
Cork	Dundalk				

WAREHOUSE RENT.

Rates for warehouse rent on goods deposited in the Queen's warehouses.

Articles.		Per Week. £	s.	d.
Firkins of butter - -	per firk.	0	0	1
Packages of baggage, and small packages of presents, such as boxes, kegs, jars, &c., empty casks, samples, and wines, spirits, or other liquids, not exceeding 1 gallon -	per pack.	0	0	2
Packages of wine, spirits, or other liquids, exceeding 1 gall. and not exceeding 20 galls. - -	—	0	0	4
Exceeding 20 galls. - -	—	0	0	6
Cheese, loose - - -	per ton	0	2	0
All other packages and goods, not exceeding 60 cubic feet, each, or when loose - -	per parcel	0	0	4
Exceeding 60 and not exceeding 80 cubic feet each, or when loose -	—	0	0	8
Exceeding 80, and not exceeding 100 cubic feet, each, or when loose -	—	0	1	0
And for every 10 cubic feet in addition thereto -	—	0	0	6

On large cases and vats containing toys or other merchandise, and packages of wine and other liquids, per week, 6*d.* each.

The baggage of passengers and surplus stores are allowed to remain a week, and other goods 3 days, free of rent, to give the parties time for their examination and clearance. Tobacco deposited in the Queen's warehouse at London pays 2*s.* per hogshead per week; and every hogshead taken out of the same pays 2*s.* Every hogshead of tobacco warehoused in the Queen's warehouse at the outports pays 1½*d.* per week.

WATCHES (Ger. *Uhren, Taschenuhren;* Fr. *Montres;* It. *Oriuoli da tasca, o da succoccia;* Sp. *Relojes de faltriquera;* Rus. *Karmannüe tschasü*), portable machines, generally of a small size and round flat shape, that measure and indicate the successive portions of time; having, for the most part, their motions regulated by a spiral spring. When constructed on the most approved principles, and executed in the best manner, a watch is not only an exceedingly useful, but a most admirable piece of mechanism. It has exercised the genius and invention of the most skilful mechanics, as well as of some of the ablest mathematicians, for nearly 3 centuries. And, considering the smallness of its size, its capacity of being carried about uninjured in every variety of position, the number and complexity of its movements, and the extraordinary accuracy with which it represents the successive portions of time as determined by the rotation of the earth on its axis, we need not wonder at Dr. Paley having referred to it as a striking specimen of human ingenuity.

Spring watches are constructed nearly on the same principle as pendulum clocks. Instead of the pendulum in the latter, a spring is used in the former, the isochronism of the vibrations of which corrects the unequal motions of the balance.

Historical Notice. — The invention of spring watches dates from about the middle of the 16th century, and has been warmly contested for Huygens and Hooke. The English writers generally incline in favour of the latter. Dr. Hutton says — (*Mathematical Dictionary*, art. *Watch*), that the words "Rob. Hooke invenit, 1658," were inscribed on the dial plate of a watch presented to Charles II. in 1675. But Montucla affirms (*Histoire des Mathématiques*, tom. ii. p. 413. ed. 1800), that Huygens made this "*belle découverte*" in 1656, and presented a spring watch to the States of Holland in 1657. Comparing these statements, it certainly appears that the claim of Huygens to the priority of the discovery is the better established of the two. We do not, however, believe that either of those distinguished persons owed, in this respect, any thing to the other. The probability seems to be, that the happy idea of employing a spring to regulate the motion of watches occurred to them both nearly at the same time.

Improvement of Watches. — Owing to the facility with which the longitude may be determined by the aid of accurately going watches, it is of great importance to have them made as perfect as possible. In this view, liberal premiums have been given to the makers of the best marine watches, or chronometers, by the governments of England, France, Spain, &c. In the reign of Queen Anne, parliament offered a reward of 20,000*l.* to any one who should make a watch, or other instrument, capable of determining the longitude at sea, within certain limits. This magnificent premium was awarded, in 1764, to the celebrated John Harrison, for a marine watch, which, being tried in a voyage to Barbadoes, determined its longitude with even more than the required accuracy. Other premiums, though of inferior amount, were subsequently given to Messrs. Mudge, Arnold, Earnshaw, &c. Since 1822, 2 prizes, one of 300*l.* and one of 200*l.*, have been annually given to the makers of the 2 chronometers adjudged to be the best, after having been submitted to a twelvemonth's trial at the Royal Observatory at Greenwich. And to such perfection has the manufacture attained, that some of the chronometers employed by navigators, though carried into the most opposite climates, have not varied to the extent of 2 seconds in their mean rate of going throughout the year.

Watch Manufacture. — The watch-making business, though latterly a good deal depressed, is largely carried on in London; the artists of which have attained to a high degree of excellence in this department. There may be about 14,000 gold and 85,000 silver watches annually assayed at Goldsmiths' Hall, London — (*Jacob on the Precious Metals*, vol. ii. p. 413.) — the aggregate value of which is, probably, not much under 600,000*l.* The manufacture is also carried on to a considerable extent at Liverpool, Coventry, Edinburgh, &c. Watch movements used to be extensively manufactured at Prescot in Lancashire; but latterly, we believe, the manufacturers have been withdrawing to Liverpool.

On the Continent, watches are principally manufactured in Paris, Geneva, and in Neufchâtel. Some of the French and Swiss watches, particularly the latter, are excellent; but, generally speaking, they are slight, and inferior to those made in London. Paris and Geneva watches are largely exported to foreign countries; and are everywhere in high estimation, particularly among the ladies.

Watches impressed with any mark or stamp, appearing to be or to represent any legal British assay mark or stamp, or purporting by any mark or appearance to be of the manufacture of the U. Kingdom, or not having the name and place of abode of some foreign maker abroad visible on the frame and also on the face, or not being in a complete state, with all the parts properly fixed in the case, may not be imported into the U. Kingdom, even for the purpose of being warehoused. — (3 & 4 *Will.* 4. c. 52. § 58.)

Watches in China. — Pretty considerable numbers of European watches are imported into China; and it may be worth mentioning, as a curious instance of the diversity of tastes, that the Chinese, as well as most other Eastern nations, who can afford it, uniformly *wear watches in pairs!* This sort of extravagance is not, however, confined to watches, but extends to a variety of other articles. Shawls, for example, are invariably worn in India in pairs of exactly the same pattern; and it is hardly possible, indeed, to find a native dealer who will sell a single shawl.

WATER. It may be thought unnecessary, perhaps, to say any thing in a work of this sort with respect to a fluid so well known and so abundant. But, besides being an indispensable necessary of life, water is, in most large cities, an *important commercial article.* It is in the latter point of view, principally, that we mean to consider it. — Inasmuch, however, as the mode of supplying different places with water, and its price, necessarily vary in every possible way, we shall limit our remarks on these subjects to the metropolis only. The few remarks we intend to offer of a general nature will apply indifferently to any populous place, the supply of which with water occasions a considerable expense.

1. *Quality of Water.* — Dr. Ure has made the following statements with respect to the quality of water: — "Water," says he, "is a very transparent fluid, possessing a moderate degree of activity with regard to organised substances, which renders it friendly to animal and vegetable life, for both which it is, indeed, indispensably necessary. Hence it acts but slightly on the organs of sense, and is therefore said to have neither taste nor smell. It appears to possess considerable elasticity, and yields in a perceptible degree to the pressure of air in the condensing machine.

"Native water is seldom, if ever, found perfectly pure. The waters that flow within or upon the surface of the earth contain various earthy, saline, metallic, vegetable, or animal particles, according to the substances over or through which they pass. Rain and snow waters are much purer than these, although they also contain whatever floats in the air, or has been exhaled along with the watery vapours.

" The purity of water may be known by the following marks or properties of pure water : —
" 1. Pure water is lighter than water that is not pure.
" 2. Pure water is more fluid than water that is not pure.
" 3. It has no colour, smell, or taste.
" 4. It wets more easily than the waters containing metallic and earthy salts, called hard waters, and feels softer when touched.
" 5. Soap, or a solution of soap in alcohol, mixes easily and perfectly with it.
" 6. It is not rendered turbid by adding to it a solution of gold in aqua regia; or a solution of silver, or of lead, or of mercury, in nitric acid; or a solution of acetate of lead in water.
" Water was, till modern times, considered as an elementary or simple substance; but it is now ascertained to be a compound of oxygen and hydrogen."

2. *Supply of Water.* — London was very ill supplied with water previously to the early part of the 17th century, when the New River water was introduced into the city. This exceedingly useful work was planned and carried into effect by the famous Sir Hugh Middleton, who expended his whole fortune on the project; having, like many other public benefactors, entailed poverty on himself and his posterity by embarking in an undertaking productive of vast wealth to others, and of great public utility. The New River has its principal source near Chadwell, between Hertford and Ware, about 20 miles from London; but the artificial channel in which the water is conveyed is about 40 miles in length. Sir Hugh Middleton encountered innumerable difficulties during the progress of the undertaking, which it is probable would have been abandoned, at least for a time, but for the aid afforded by James I. The New River Company was incorporated in 1619, 6 years after the water had been brought to the reservoir at Islington. The undertaking yielded very little profit for a considerable number of years; but it has since become extremely profitable; so much so, that an original 500*l.* share has been sold for 16,000*l.*!

The Chelsea Water-Works Company was formed in 1723, and (with the aid of 3 smaller companies, none of which are now in existence) it, and the New River, supplied all that part of the metropolis north of the Thames with water, down to the year 1810. In that year, however, 3 new companies, the East London, West Middlesex, and Grand Junction, were established, under the authority of different acts of parliament. At this moment the metropolis is supplied with water by the following companies: —

New River,	Grand Junction,
Chelsea,	Lambeth,
East London,	Vauxhall, or South London, and
West Middlesex,	Southwark Water Works.

The following statements with respect to these companies are taken from Mr. Wade's treatise on the police of the metropolis. The Report of the commissioners appointed by government in 1827, to inquire into the state of the supply of water in the metropolis, is the principal authority on which they are founded.

" *The New River Company* get their supply from the spring at Chadwell, between Hertford and Ware. It comes in an open channel, of about 40 miles in length, to reservoirs at Clerkenwell. There are 2 reservoirs, having between them a surface of about 5 acres, and an average depth of 10 feet. These reservoirs are 84½ feet above low water mark in the Thames; and, by means of steam engines and a stand-pipe, an additional height of 60 feet can be given to the water, so that all the mains belonging to this Company are kept full by a considerable pressure of water. The highest service given by the New River is the cistern on the top of Covent Garden Theatre. The aqueduct by which the water is brought has only a fall of 2 inches per mile; thus it wastes, by evaporation, during the drought of summer, and is impeded by frost in the winter. At these times the Company pump an additional supply from the Thames, at Broken Wharf, between Blackfriars and Southwark Bridges. To this, however, they seldom have recourse; and their engine, erected since the works at London Bridge were broken down, has worked only 176 hours in the year. The New River Company supply 66,000 houses with water, at an annual average of about 1,100 hogsheads each, or, in all, about 75,000,000 hogsheads annually.

" *The East London Water Works* are situated at Old Ford, on the river Lea, about 3 miles from the Thames, and a little below the point to which the tide flows up the Lea. By the act of parliament, this Company must take its water when the tide runs up and the mills below have ceased working. The water is pumped into reservoirs and allowed to settle; and a supply of 6,000,000 gallons is daily distributed to about 42,000 houses. This Company supply no water at a greater elevation than 30 feet, and the usual height at which the delivery is made to the tenants is 6 feet above the pavement; they have 200 miles of iron pipes, which, in some places, cost them 7 guineas a yard. This and the New River are the only companies which do not draw their supply of water entirely from the Thames.

" *The West Middlesex* derive their supply of water from the Thames, at the upper end of Hammersmith, about 9½ miles above London Bridge, and where the bed of the Thames is gravel. The water is forced by engines to a reservoir at Kensington, 309 feet long, 123 wide, and 20 deep, paved and lined with bricks, and elevated about 120 feet above low water in the Thames. They have another reservoir on Little Primrose Hill, about 70 feet higher, and containing 88,000 hogsheads of water, under the pressure of which the drains are kept charged, in case of fires. They serve about 15,000 tenants, and the average daily supply is about 2,250,000 gallons.

" *The Chelsea Water Works* derive their supply from the Thames, about ¼ of a mile east of Chelsea Hospital; and they have 2 reservoirs — one in the Green Park and another in Hyde Park — the former having an elevation of 44 feet, and the latter of 70. These reservoirs, till within these few months, had never been cleaned, nor had there been any preparation made for that purpose in their construction. About ⅛ of the water served out by this Company is allowed to settle in these reservoirs, and the remaining ⅞ are sent directly from the Thames. Latterly, the Company have been making preparations for filtering the water; and also for allowing it to settle in reservoirs, at Chelsea, before it is delivered into the mains. The Chelsea Company serve about 12,400 houses, and the average daily supply is 1,760,000 gallons.

" *The Grand Junction Company* derive the whole of their supply from the Thames, immediately adjoining Chelsea Hospital; thence it is pumped, without any filtration or settling, into 3 reservoirs at Paddington. These reservoirs are about 71, 86, and 92 feet above high water mark in the Thames; their

united contents are 19,355,840 gallons; and by means of a stand-pipe, the water is forced to the height of 147 feet, or about 61 feet above the average height in the reservoir. The number of houses supplied by the Grand Junction Company is 7,700, and the average daily supply is about 2,800,000 gallons.

"*The Lambeth Company* take their supply from the Thames, between Westminster and Waterloo Bridges. It is drawn from the bed of the river by a suction pipe, and delivered to the tenants without being allowed to subside; there being only a cistern of 400 barrels at the works, as a temporary supply, until the engines can be started. The greatest height to which the Company force water is about 40 feet; the number of houses that they supply is 16,000, and the average service is 1,244,000 gallons daily.

"*The South London, or Vauxhall Company*, take their supply from the river Thames by a tunnel, which is laid 6 feet below low water mark, and as far into the river as the third arch of Vauxhall Bridge. At that particular place, the bed of the Thames is described as being always clean, and without any of those depositions of mud and more offensive substances that are found in many other places. Besides the greater purity of the bed of the Thames here than where any other Company on the south side take their supply, the Company allow the water to settle in reservoirs. The Vauxhall Company supply about 10,000 houses with about 1,000,000 gallons of water daily.

"*The Southwark Water Works* (the property of an individual) are supplied from the middle of the Thames, below Southwark and London Bridges; and the water thus taken is sent out to the tenants without standing to settle, or any filtration further than it receives from passing through wire grates and small holes in metallic plates. The number of houses supplied by these works is about 7,000, and the average daily supply about 720,000 gallons."

The results for 1827 may be collected into a Table, as follows: —

Companies.	Services.	Average per Day, Gallons.	Gallons Annually.	Average per House, Gallons.
1. New River	67,000	13,000,000	4,056,000,000	182
2. East London	42,000	6,000,000	1,872,000,000	143
3. West Middlesex	15,000	2,250,000	702,000,000	150
4. Chelsea	12,400	1,750,000	549,120,000	142
5. Grand Junction	7,700	2,800,000	873,600,000	363
6. Lambeth	16,000	1,244,000	388,128,000	77
7. South London	10,000	1,000,000	312,000,000	100
8. Southwark	7,000	720,000	224,540,000	102
Total	183,100	28,774,000	8,977,388,000	157

Monopoly of the Water Companies. — The sanction of parliament was given to the 3 new companies formed in 1810, not so much in the view of increasing the actual supply of water, as of checking monopoly, and reducing the rates by their competition. But these expectations have not been realised. For a while, indeed, the competition of the several companies was exceedingly injurious to their interests, and occasioned the total destruction of some of the inferior ones; but no sooner had this happened, than the others discovered that their interests were in reality the same, and that the true way to promote them was to concert measures together. In furtherance of this object, the 5 companies for the supply of that part of the metropolis north of the river proceeded to divide the town into as many districts, binding themselves, under heavy penalties, *not to encroach on each other's estates:* and having in this way gone far to secure themselves against any new competitors, their next measure was to add *five and twenty* per cent. to the rates established in 1810; and these have, in several instances, been still further augmented! The peculiar benefits that were expected to result from their multiplication have, therefore, proved quite imaginary, and though the supply of water has been increased, it might have been more abundant and cheaper under a different system.

We borrow from the evidence taken before the committee of the House of Commons in 1851, on the Metropolis Water Bill, the following table relative to the supply of water in 1850: —

Account of the Capital, &c. of the different Metropolitan Water Companies, the Working Expenses of each, the Quantity of Water supplied by each, &c.

Water Companies.	Assumed Capital of each Company. Total Expenditure on Works.	Interest on Capital calculated 5 per cent.	Working Expenses, including Interest upon Debts.	Working Expenses, and Interest calculated 5 per cent. on assumed Capital.	Imperial Gallons supplied annually.	Water Rents per Annum.	Cost per Million Gallons to the Company.	Charge per Million Gallons.
	£	£ s.	£	£ s.		£ s. d.	£ s. d.	£ s. d.
New River	1,421,717	71,085 17	55,582	126,667 17	5,634,000,000	129,433 17 5	22 8 3	22 19 5
Chelsea	420,712	21,035 12	28,078	49,114 12	1,438,458,000	35,947 9 3	34 3 1	25 0 9
Grand Junction	522,295	26,114 15	19,245	45,359 15	1,289,184,930	43,387 8 9	34 16 1½	33 6 8
Southwark and Vauxhall	435,247	21,762 7	12,000	33,762 7	2,195,006,370	56,399 16 0	15 7 7	16 11 7
Lambeth	307,352	15,367 12	16,877	32,244 12	1,123,200,000	22,446 17 9	28 14 0	19 19 7
East London	745,781	37,289 1	17,379	54,668 1	3,222,755,876	70,585 14 6	16 19 4	21 18 0
Kent	202,104	10,105 4	6,854	16,959 4	525,948,750	14,442 13 3	43 2 9	36 13 2
West Middlesex	648,560	32,428 0	14,095	46,523 0	1,216,929,512	65,415 8 6	38 5 4	53 15 0
Hampstead	81,231	4,061 11	3,476	7,537 0	156,013,000	7,009 12 10	48 6 4	44 18 4
Total	4,784,999	239,249 19	173,587	412,836 8	16,669,494,238	425,035 17 9		

Note. — 272,000 houses, daily supplied with 150 gallons of water, would annually require 14,892,000,000 imperial gallons, which is about the quantity said to be delivered to the houses.

The striking discrepancies that appear in this Table tend to confirm the principle we endeavoured to enforce in the article COMPANIES, that certain restrictions should, in almost all cases, be imposed on companies for the supply of water to a large city. These are not undertakings that can be safely trusted to the free principles that may generally be relied upon. If there be only one set of springs adjacent to a town, or if there be certain springs more conveniently situated for supplying it with water than any other, a company acquiring a right to such springs, and incorporated for the purpose of conveying the water to town, thereby gain an *exclusive advantage;* and if no limits be set to its dividends, its partners may make an enormous profit at the expense of the public, without its being possible materially to reduce them by means of competition. What has happened in the case of the New River Company sufficiently evinces the truth of what has now been stated. Had its dividends been limited to anything like a reasonable profit, the water that is at present supplied by its means might have been furnished for a small part of what it actually costs. But in cases of this sort, priority of occupation, even without any other peculiar advantage, goes far to exclude all regular

and wholesome competition. A company that has got pipes laid down in the streets may, if threatened by the competition of another company, lower its rates so as to make the latter withdraw from the field; and as soon as this is done, it may revert to its old, or even to higher charges. It is not, in fact, possible in cumbrous concerns of this sort, to have anything like competition, in the ordinary sense of the term; and experience shows that whenever it is attempted, it only continues for a limited period, and is sure to be in the end effectually suppressed. We are, therefore, clearly of opinion, that no company should ever be formed for the conveyance of water into a large city, without a maximum being set both to the rates and the dividends; giving the company an option, in the event of the maximum rate yielding more than the maximum dividend, either to reduce the rate, or to apply the surplus to the purchase of the company's stock; so that ultimately the charge on account of the dividends may be got rid of.

We are glad to have to add, that we are supported in what is now stated by the *Report* of the Select Committee of the House of Commons on the supply of water for the metropolis, printed in 1821. It is there said—"The public is at present without any protection even against a further indefinite extension of demand. In cases of dispute there is no tribunal but the Boards of the companies themselves, to which individuals can appeal; there are no regulations but such as the companies may have voluntarily imposed upon themselves, and may therefore at any time revoke, for the continuance of the supply in its present state, or for defining the cases in which it may be withdrawn from the householder. All these points, and some others of the same nature, indispensably require legislative regulation, where the subject matter is an article of the first necessity, and the supply has, from peculiar circumstances, got into such a course that it is not under the operation of those principles which govern supply and demand in other cases.

"The principle of the acts under which these companies were instituted, was to encourage competition; and certainly in this, as in other cases, it is only from competition, or the expectation of competition, that a perfect security can be had for a good supply. But your committee are satisfied, that, from the peculiar nature of these undertakings, the principle of competition requires to be guarded by particular checks and limits in its application to them, in order to render it effectual, without the risk of destruction to the competing parties, and thereby, ultimately, of a serious injury to the public." And the committee proceeds to remark—"The submission of their accounts annually to parliament, for a few years, would necessarily throw light on this part of the question."

We think that it would be highly expedient to adopt the suggestions of the committee, by calling upon the companies to lay annually detailed statements of their affairs before parliament. They should be obliged in these statements to give an account of the rates charged by them, and to make a special report as to every case in which they have withdrawn water from a householder. It is to no purpose to repeat in opposition to this proposal, the common-places about competition securing for the citizens a sufficient supply of water at the lowest prices, in the same way that the competition of bakers and butchers secures them supplies of beef and bread! The statements already made show that there is no analogy whatever in the circumstances under which these articles are supplied. If a man be dissatisfied with any particular butcher or baker, he may go to another, but *it is not possible for him to change his water merchant*, unless he also change the place of his residence. No water company will encroach upon the district assigned to another; and supposing an individual unlucky enough to quarrel with those who have the absolute *monopoly* of the supply of the district in which he resides, he must either migrate to another, or be without water, unless he can get a supply upon his own premises! Such being the actual state of things, it is quite ludicrous to talk about competition affording any real security against extortion and abuse. Even the publication of the proceedings of the companies would be a very inadequate check on their conduct; but such as it is, it is perhaps the only one that can now be resorted to; and as it would have considerable influence, it ought not to be neglected.

3. *Quality of the London Water.* — All the companies, with the exception of the New River and East London Companies, derive their supplies of water from the Thames; and in consequence of their taking it up within the limits to which the tide flows, and of the discharge of the sewerage of Oxford, Reading, and other towns on its banks into the river, the water taken from it is necessarily, in the first instance, loaded with many impurities. But the reports that were formerly so very prevalent, with respect to the deleterious quality of the London water, have been shown to have been grossly exaggerated. By far the greater part of the impurities complained of are mechanically suspended in, and not chemically combined with, it; and they may be separated from it by filtration, or by merely allowing it to stand at rest. Most of the companies have recently made very considerable efforts to improve their water; and though they have not done in this respect as much, perhaps, as they might and should have done, a great improvement has, on the whole, been effected: and notwithstanding all that has been said to the contrary, it is quite certain that, though not so pure as it might be, there is not the slightest foundation for the notion that its impurities have been such as to affect, in any degree, the health of the inhabitants.

4. *Water for Ships.* — Various improvements have been made in the art of preserving water on board ships. Of these, the principal are the charring the inside of the casks in which the water is kept, and the substitution of iron tanks for casks. The latter being made of the required shape, may be conveniently stowed into any part of the ship. In men-of-war, the iron tanks serve as ballast; the water being brought up by a forcing pump. Water is found to preserve better in them than in any other sort of vessel. Drip-stones may be employed with much advantage in the purification of water. When water is taken on board from a river into which the tide flows, it should, of course, be raised at low ebb.

But it is necessary to observe, that these remarks apply exclusively to 1850, and since that epoch the different water companies, prompted, perhaps, at least in part, by the outcry that was made against them, have made the most vigorous efforts to increase and improve their supplies of water, and have spared no expense that was at all likely to promote these objects. And we are glad to be able to add, that these efforts have been in a high degree successful. We doubt, indeed, whether there be at this moment any considerable town in the empire, or, indeed, in Europe, better supplied with excellent water than London.

We borrow from an official Report to the Board of Health the following statements with regard to the metropolitan supply of water in 1856: —

Account of the most prominent Particulars connected with the Works of the different Companies for the Supply of the Metropolis with Water in 1856.

List of Metropolis Water Companies.	Sources of Supply.	No. of Houses supplied.	Gross Quantity supplied per Day.	Aggregate nominal Steam Power.	Length of Mains and Branches.	Area of Subsiding Reservoirs.	Area of Filter Beds.	Area of open Reservoirs for filtered Water.	Area of covered Reservoirs for filtered Water.	Cost of Works as per former Return.	Cost of Alterations and of New Works.
New River -	River Lea, Chalk springs, &c. -	95,083	*Gallons.* 25,000,000	*Horses* 1,442	*Miles.* 400 to 500 say 450	*Acres.* 66·00	*Acres.* 9·00	*Acres.* None.	*Acres.* 3·76	£ 1,421,717	£ 566,084
East London -	River Lea - -	70,000	16,000,000	840	331	None.	12·00	None.	2·50	745,781	205,000
Southwark and Vauxhall -	River Thames, at Hampton -	41,529	10,331,122	1,065	432	7·88	4·40	None.	None.	435,247	214,910
Lambeth -	River Thames, at Thames Ditton -	28,541	6,109,000	680	206	None.	0·73	1·25	3·00	307,352	301,633
West Middlesex	River Thames, at Hampton - -	25,732	6,895,368	480	178	16·00	4·50	None.	1·75	648,560	157,399
Chelsea - -	River Thames, at Seething Wells -	25,030	5,323,000	700	198½	3·50	2·00	None.	2·50	455,712	472,324
Grand Junction	River Thames, at Hampton - -	17,921	6,714,292	1,440	117	7·69	5·17	None.	1·07	522,295	211,128
Kent - -	River Ravensbourne	16,077	3,500,000	500	124	5·20	2·65	1·55	None.	202,104	27,022
Hampstead -	Ponds and chalk well - -	6,348	603,060	72	33½	35·00	0·14	None.	None.	81,231	33,224
Plumstead and Woolwich.	Chalk well - -	3,000	550,000	35	16	0·19	None.	None.	0·32	None.	50,000
	Totals -	328,561	81,025,842	7,254	2,086	141·46	40 59	2·80	11·90	4,819,999	2,282,824

"According to the return furnished by the several water companies in 1850, it appeared that 270,581 houses were then supplied with water, the gross daily quantity delivered having been 44,383,332 gallons. It will be observed from the preceding table that the supply of water to the metropolis has now reached the enormous quantity of upwards of 81 million gallons per day, *it having been nearly doubled in the short space of six years.* It is furnished to 328,561 of the 340,000 houses which now form the aggregate within the Registrar General's district. Thus, the average daily supply of water for all purposes which in 1850 was 164 gallons per house, is now, in 1856, 246 gallons per house. The total engine power employed and in reserve is equal to 7,324 horses. The mains and branch pipes for bringing the water from the several sources, and distributing it in the districts, exclusive of the private service pipes, form a total length of 2,086 miles. The filter beds cover an area of upwards of 40 acres. Before the passing of the Metropolis Water Act of 1852, considerably more than half the supply was not filtered; subsiding reservoirs were in such case the only means of clearing the water of impurities in suspension; these are now for the most part employed as well as the filter beds, the total area of subsiding reservoirs in use being upwards of 141 acres in extent. The filtered water is stored in fourteen covered reservoirs comprising an area of nearly 15 acres, and in four uncovered reservoirs, of not quite 3 acres, which are beyond five miles distance from St. Paul's. The cost of the new works executed under the Metropolis Water Act, 1852, and the recent Acts of the several companies, has amounted to 2,282,824*l.*, making with the former expenditure, as shown by the returns of 1850, the cost of the entire water works of the metropolis *upwards of seven millions sterling.* Even this amount, however, will fall short of the total expenditure; for the intermediate outlays between the former returns and the passing of the new Acts, and the cost of many works in hand, but not yet complete, are not included in this sum."

The learned Dr. Strang, of Glasgow, has given, in a paper on the Supply of Water to great Towns, read in 1858 before the British Association for the Advancement of Science, the following Table: —

Water Supply to Great Towns.—Summary of Results.

Towns.	Population within Bounds of Supply.	Daily Supply.	Daily Supply for each Inhabitant.	Cost of Undertaking.	Daily Supply for every £ expended.	Prospective Supply daily in addition.
		Gallons.	*Gallons.*	£	*Gallons.*	*Gallons.*
London - - -	2,666,917	81,025,842	30·3	7,102,823	11·4	
Paris - - -	1,100,000	26,550,000	24·	800,000*	33·	20,000,000
Hamburg - - -	160,000	5,000,000	31·25	170,000	29·50	
New York - - -	715,000	28,600,000	39·27	1,800,000	15·5	
Manchester - - -	540,000	11,000,000	22·	1,300,000	8·5	14,000,000
Liverpool - - -	500,000	11,000,000	22·	1,640,800	7·	
Leeds - - -	153,000	1,850,000	12·	283,871	7·	
Edinburgh - - -	215,000	4,800,000	22·3	456,000	10·5	2,000,000
Aberdeen - - -	65,000	1,200,000	18·4	50,000	24·	
Dundee - - -	96,000	1,750,000	18·2	139,000	12·5	
Greenock - - -	40,000	2,112,500	52·8	90,000	23·4	
Paisley - - -	48,450	1,021,452	21·	60,000	17·	
Glasgow - - -	420,000	16,710,000	39·8	651,199	26·	20,000,000

* Independent of the cost of Canal de l'Ourcque.

This is a very valuable Table, and condenses a great deal of information within the narrowest compass. The magnificent project, now nearly completed, for conveying the surplus water of Loch Katrine to Glasgow is described by Dr. Strang as follows: —

"The idea of supplying Glasgow from the waters of a Highland lake, free of all contamination, 37 miles distant, was first broached in 1848; but it was reserved for the genius of Mr. J. F. Bateman, the engineer of the Manchester Waterworks, to put the idea into execution. Amid surrounding mountains of micaceous schist, subjected to a great rainfall, and isolated from all population, he found ready prepared a great natural reservoir, almost free of cost, and without danger. The superficial area of this reservoir extends to 114,940,000 square feet, and has a catchment basin of more than 35 square miles, to receive an annual rainfall of about 65 inches, and where the evaporation is so small a minimum product of 60 inches. By slightly raising the exit of Loch Katrine, and with a power of draining down the surface to 3 feet under its ordinary level, a reserve of 5,028 millions of gallons are obtained, which secures a service of 20 millions of gallons per day for 250 days of drought. The water is to be conveyed by mined tunnels, built tunnels, aqueducts, and pipes. The service reservoir is placed about six miles from Glasgow; and from the reservoir the water is conveyed by two lines of pipes, 36 inches in diameter. The surface of Loch Katrine is 360 feet above the level of the sea. The mean level of the ground on which the greater part of Glasgow is built is under 50 feet of that level. The average height of the houses may be taken at 50 feet. The extreme height of the ground at various points within the range of the distribution of water is 225 feet above high water, making the extreme height at which the water has to be delivered 275 feet above the level of the sea. The tunnels and conduits for conducting the water from Loch Katrine to Glasgow are capable of carrying 40 millions of gallons a day, but the pipes are at present only laid for 20 millions; but when more water is required, the addition of the pipeage portion only will require to be doubled. The cost of these works is estimated at about 700,000*l.*, and, limiting the supply to 20 millions of gallons, shows that for every pound sterling expended there will be a daily supply of 28½ gallons. As these works are now fast advancing, it is almost certain that the whole will be completed early in 1860. When that occurs the daily water supply will be as follows:—

From the Clyde	13,000,000
„ Gorbals	4,000,000
„ Loch Katrine	20,000,000
In all	37,000,000

but dispensing, as is proposed, with the Clyde supply, and thus getting rid of the expense of pumping, there will still remain 24 millions of gallons per day, with a power of increasing it by gravitation to 44 millions. With such a mighty store, it seems almost absurd to suppose that under any circumstances the supply should not be able to meet the demand; but when we recollect the wonderful increase of population which has taken place in Glasgow since the commencement of the century—an increase from 70,000 to 420,000—and the still more wonderful increase in the ratio of the consumption to the population, we do not think it at all improbable that Glasgow may feel ere many years, as New York does now, that she has not a gallon to spare."

Dr. Strang appears to have underrated the supply of water to each inhabitant in London. A considerable portion of the immense population within the bills of mortality derive their supplies of water from other sources than those specified above.

WAX, BEES. (Ger. *Wachs*; Fr. *Cire*; It. and Sp. *Cera*; Rus. *Wosk*), a vegetable product. Several plants contain wax in such abundance as to make it worth while to extract it from them. But all that was known in commerce, down to a comparatively recent period, consisted of bees' wax. The honey is first pressed from the comb, and the wax is then melted into cakes. It has a slight odour of honey, is insipid, and of a bright yellow hue. It is brittle, yet soft, and somewhat unctuous to the touch. It is often adulterated with earth, pea meal, resin, &c. The presence of the former may be suspected when the cake is very brittle, or when its colour inclines more to grey than to yellow; and the presence of resin may be suspected when the fracture appears smooth and shining, instead of being granulated. Wax, when bleached or purified, is white, perfectly insipid, inodorous, and somewhat translucent; it is harder, less unctuous to the touch, heavier, and less fusible than yellow wax. It is sometimes adulterated with the white oxide of lead to increase its weight, with white tallow, and with potato starch. The first is detected by melting the wax in water, when the oxide falls to the bottom; the presence of tallow is indicated by the wax being of a dull opaque white, and wanting the transparency which distinguishes pure wax; and starch may be detected by applying sulphuric acid to the suspected wax, as the acid carbonises the starch, without acting on the wax. — (*Thomson's Chemistry*, and *Dr. A. T. Thomson's Dispensatory.*)

Notwithstanding the large supply of wax produced at home, a large quantity is also imported from abroad. The duties on wax, which were formerly quite oppressive, after being greatly reduced in 1842, were wholly repealed in 1845. In 1833 the foreign wax retained for consumption amounted to 1,310 cwt. In 1857 the imports and re-exports of wax were respectively 12,639 and 1,118 cwt. Of

10,447 cwt. wax imported in 1851, 3,520 cwt. came from the Cape of Good Hope, 1,290 do. from the W. coast of Africa, 1,977 do. from the U. States, 1,817 from British India, &c.

WEIGHTS AND MEASURES. Weights are used to ascertain the gravity of bodies, — a quality depending partly on their magnitude, and partly on their density. Measures are used to determine the magnitude of bodies, or the space which they occupy.

(For an account of the weights and measures used in foreign countries, and their equivalents in English weights and measures, see the notices of the great sea-port towns dispersed throughout this work. Thus, for the Russian weights and measures, see PETERSBURG; for those of China, see CANTON; &c.)

Neither the magnitude nor the weight of any one body can be determined, unless by comparing it with some other body selected as a standard. It is impossible, indeed, to form any idea in respect of magnitude or weight, except in relation to some definite space or weight with which we are acquainted. We say that one article weighs 1 pound, another 2 pounds, a third 3, and so on; meaning not only that these weights are to each other as 1, 2, 3, &c., but also that the weight or specific gravity of the first is equal to the known and determinate weight denominated a pound, that the second is equal to 2 pounds, and so on.

Standards of Weight and Measure. — Standards of lineal measure must have been fixed upon at the earliest period, and appear to have consisted principally of parts of the human body, — as the cubit, or length of the arm from the elbow to the tip of the middle finger: the foot; the *ulna*, arm, or yard; the span; the digit, or finger; the fathom, or space from the extremity of one hand to that of the other, when they are both extended in opposite directions; the pace, &c. Large spaces were estimated by measures formed out of multiples of the smaller ones; and sometimes in day's journeys, or by the space which it was supposed an ordinary man might travel in a day, using a reasonable degree of diligence.

But lineal measures can only be used to determine the magnitude of solid bodies; the magnitude of bodies in a liquid or fluid state has to be determined by what are called measures of capacity. It is probable that, in the infancy of society, shells, or other hollow instruments afforded by nature, were used as standards. But the inaccuracy of the conclusions drawn from referring to them must soon have become obvious; and it early occurred, that to obtain an accurate measure of liquids nothing more was necessary than to constitute an artificial one, the dimensions, and consequently the capacity, of which should be determined by the lineal measures previously adopted.

The determination of the gravity or weight of different bodies supposes the invention of the balance. Nothing is known of the steps which led to its introduction; but it was used in the remotest antiquity. It seems probable that, at first, cubes of some common lineal measure, as a foot, or the fraction of a foot, formed of copper, iron, or some other metal, were used as standards of weight. When the standard was selected, if it was desired to ascertain the specific gravity or weight of any given article, all that was necessary was to put it into one of the scales of the balance, and as many cubes or parts of cubes on the other as might be necessary to counterpoise it.

Weights have, however, been frequently derived from grains of corn. Hence, in this, and in some other European countries, the lowest denomination of weight is a *grain*; and 32 of these grains are directed, by the ancient statute called *Compositio Mensurarum* to compose a pennyweight, whereof 20 make an ounce, 12 ounces a pound, and so upwards.

In every country in which commercial transactions are extensively carried on, the importance of having weights and measures determined by some fixed standard becomes obvious to every one. But as the size of different parts of the human body differ in different individuals, it is necessary to select some durable article, — a metallic rod, for example, — of the length of an ordinary cubit, foot, &c., and to make it a standard with which all the other cubits, feet, &c. used in mensuration shall correspond. These standards have always been preserved with the greatest care: at Rome, they were kept in the temple of Jupiter; and among the Jews, their custody was intrusted to the family of Aaron. — (*Paucton, Métrologie*, p. 223.)

The principal standards used in the ancient world, were, the cubit of the Jews, from which their other measures of length, capacity, and weight were derived; and the foot of the Greeks and Romans.

In England, our ancient historians tell us that a new, or rather a revived, standard of lineal measure was introduced by Henry I., who ordered that the ulna, or ancient ell, which corresponds to the modern yard, should be made of the exact length of his own arm, and that the other measures of length should be raised upon it. This standard has been maintained, without any sensible variation. In 1742, the Royal Society had a yard made, from a very careful comparison of the standard ells or yards of the reigns of Henry VII. and Elizabeth kept at the Exchequer. In 1758, an exact copy was

made of the Royal Society's yard; and this copy having been examined by a committee of the House of Commons, and reported by them to be equal to the standard yard, it was marked as such; and this identical yard is declared, by the act 5 Geo. 4. c. 74., to be the standard of lineal measure in Great Britain. The clause in the act is as follows: —

"From and after the 1st of May, 1825 (subsequently extended to the 1st of January, 1826), the straight line or distance between the centres of the 2 points in the gold studs in the straight brass rod, now in the custody of the clerk of the House of Commons, whereon the words and figures 'STANDARD YARD, 1760,' are engraved, shall be the original and genuine standard of that measure of length or lineal extension called a yard; and the same straight line or distance between the centres of the said 2 points in the said gold studs in the said brass rod, the brass being at the temperature of 62° by Fahrenheit's thermometer, shall be and is hereby denominated the 'IMPERIAL STANDARD YARD,' and shall be and is hereby declared to be the unit or only standard measure of extension, wherefrom or whereby all other measures of extension whatsoever, whether the same be lineal, superficial, or solid, shall be derived, computed, and ascertained; and that all measures of length shall be taken in parts or multiples or certain proportions of the said standard yard; and that 1-3d part of the said standard yard shall be a foot, and the 12th part of such foot shall be an inch; and that the pole or perch in length shall contain 5½ such yards, the furlong 220 such yards, and the mile 1,760 such yards."— § 1.

The superficial measures are formed on the basis of the square of this standard; it being enacted, that

"The rood of land shall contain 1,210 square yards, according to the said standard yard; and that the acre of land shall contain 4,840 such square yards, being 160 square perches, poles, or rods."— § 2.

Uniformity of Weights and Measures. — The confusion and inconvenience attending the use of weights and measures of the same denomination, but of different magnitudes, was early remarked; and there is hardly a country in which efforts have not been made to reduce them to the same uniform system. Numerous acts of parliament have been passed, having this object in view, and enjoining the use of the same weights and measures, under very severe penalties. But, owing to the inveteracy of ancient customs, and the difficulty of enforcing new regulations, these statutes have always had a very limited influence, and the greatest diversity has continued to prevail, except in lineal measures. But the statute of 5 Geo. 4. c. 74. seems to have, at length, effected what former statutes failed of accomplishing. It is, perhaps, indebted for its success in this respect to the moderate nature of the changes which it introduced. We have already seen that it made no alteration in the lineal measures previously in use. Neither did it affect the previously existing system of weights: both the Troy and the Avoirdupois weights having been preserved.

"The Troy weight," says Mr. Davies Gilbert, late President of the Royal Society, "appeared to us (the commissioners of weights and measures) to be the ancient weight of this kingdom, having, as we have reason to suppose, existed in the same state from the time of St. Edward the Confessor; and there are reasons, moreover, to believe that the word Troy has no reference to any town in France, but rather to the monkish name given to London, of Troy Novant, founded on the legend of Brute. Troy weight, therefore, according to this etymology, is, in fact, London weight. We were induced, moreover, to preserve the Troy weight, because all the coinage has been uniformly regulated by it; and all medical prescriptions or formulæ now are, and always have been, estimated by Troy weight, under a peculiar subdivision which the College of Physicians have expressed themselves most anxious to preserve."

It was resolved, therefore, to continue the use of Troy weight; and also, on account of the accuracy of the Troy standard, to raise the Avoirdupois weight from this basis.

"We found," said Mr. Davies Gilbert, "the Avoirdupois weight, by which all heavy goods have been for a long time weighed (probably derived from Avoirs (Averia), the ancient name for goods or chattels, and Poids, weight), to be universally used throughout the kingdom. This weight, however, seems not to have been preserved with such scrupulous accuracy as Troy weight, by which more precious articles have been weighed; but we had reason to believe that the pound cannot differ by more than 1, 2, or 3 grains, from 7,000 grains Troy; some being in excess, and others, though in a less degree, in defect, but in no case amounting to above 1, 2, or 3 grains. It therefore occurred to us, that we should be offering no violence to this system of weights, if we declared that 7,000 grains Troy should be hereafter considered as the pound Avoirdupois."

In accordance with these views, it was enacted, — "That from and after the 1st day of May, 1825, the standard brass weight of 1 pound Troy weight, made in the year 1758, now in the custody of the clerk of the House of Commons, shall be, and the same is hereby declared to be, the original and genuine standard measure of weight, and that such brass weight shall be, and is hereby denominated, the Imperial Standard Troy pound, and shall be, and the same is hereby declared to be, the unit or only standard measure of weight, from which all other weights shall be derived, computed, and ascertained; and that 1-12th part of the said Troy pound shall be an ounce; and that 1-20th part of such ounce shall be a pennyweight; and that 1-24th part of such pennyweight shall be a grain; so that 5,760 such grains shall be a Troy pound; and that 7,000 such grains shall be, and they are hereby declared to be, a pound Avoirdupois, and that 1-16th part of the said pound Avoirdupois shall be an ounce Avoirdupois, and that 1-16th part of such ounce shall be a dram."

The measures of capacity were found to be, at the period of passing the late statute, in the greatest confusion; and a considerable change has consequently been made in them. The wine gallon formerly amounted to 231 cubic inches, the corn gallon to 268·8, and the ale gallon to 282. But these are superseded by the Imperial gallon, which contains 277·274 cubic inches, or 277¼ very nearly. It is deduced as follows: —

"The standard measure of capacity, as well for liquids as for dry goods not measured by heaped measure, shall be the GALLON, containing 10 lbs. avoirdupois weight of distilled water weighed in air, at the temperature of 62° of Fahrenheit's thermometer, the barometer being at 30 inches; and a measure shall be forthwith made of brass, of such contents as aforesaid, under the directions of the Lord High Treasurer or the commissioners of his Majesty's treasury; and such brass measure shall be, and is hereby declared to be, the Imperial standard gallon, and shall be, and is hereby declared to be, the unit and only standard measure of capacity, from which all other measures of capacity to be used, as well fo-

wine, beer, ale, spirits, and all sorts of liquids, as for dry goods not measured by heaped measure, shall be derived, computed, and ascertained; and all measures shall be taken in parts or multiples or certain proportions of the said Imperial standard gallon; and the quart shall be $\frac{1}{4}$th part of such standard gallon, and the pint shall be $\frac{1}{8}$th of such standard gallon, and 2 such gallons shall be a peck, and 8 such gallons shall be a bushel, and 8 such bushels a quarter of corn or other dry goods, not measured by heaped measure."— § 6.

We subjoin a Table showing the contents of the different gallons, both in measure and weight.

	Cubic Inches.	Avoirdupois Weight.	Troy Weight.
		Lbs. oz. dr.	*Lbs. oz. dwt. grs.*
Imperial gallon	277·274	10 0 0	12 1 16 16
Corn gallon	268·8	9 10 13¾	11 9 7 12
Wine gallon	231	8 5 6¾	10 1 9 22
Ale gallon	262	10 2 11¾	12 4 6 8

Heaped Measures. — The greatest blemish, by far, in the act 5 Geo. 4. c. 74. was the continuance and legitimation of the practice of selling by heaped measure. This practice has since, however, been abolished, along with the use of all local and customary measures, by the act 5 & 6 Will. 4. c. 63., which contains several important provisions.

This act sets out with repealing the 4 & 5 of Will. 4. c. 49., and the provisions in the acts 5 Geo. 4. c. 74. and 6 Geo. 4. c. 12., which require that all weights and measures shall be exact models or copies in shape or form of the standards deposited in the exchequer; and those allowing the use of weights and measures, not in conformity with the Imperial standard, established by said acts; or that allow goods or merchandise to be bought or sold by weights or measures established by local custom, or founded on special agreement. It then goes on to enact as follows: —

Weights and Measures stamped at the Exchequer declared legal. — Weights and measures verified and stamped at the exchequer as copies of standard weights and measures, shall be taken to be legal weights and measures, to be used for comparison as copies of the Imperial standard weights and measures, although not similar in shape to those required under the provisions of the said acts; and the comptroller-general, or other duly authorised officer of the exchequer, may compare and verify, and stamp as correct, standard measures of a yard, standard weights and standard measures of capacity, any weights and measures which correspond in length, weight, and capacity with the standards, or parts or multiples thereof, deposited in the exchequer, under the 5 Geo. 4. c. 74., although such weights and measures may not be models or copies in shape or form of the standards so deposited. — § 4.

Copies of the Standard Weights and Measures worn to be re-verified. — All copies of the Imperial standard weights and measures which have become defective, or have been mended, in consequence of wear or accident, shall forthwith be sent to the exchequer, for the purpose of being again compared and verified, and shall be stamped as re-verified copies of such standard weights and measures, provided the comptroller-general, or other officer appointed for such verification, deem them fit for the purposes of standards; and every new comparison and verification shall be indorsed upon the original indenture of verification; and such weights and measures shall be stamped upon payment of fees of verification only; and the comptroller-general, or other officer, shall keep an account of all copies of the Imperial standard weights and measures verified at the exchequer. — § 5.

Local and Customary Measures abolished. — From and after the passing of this act, the Winchester bushel, the Scotch ell, and all *local or customary* measures, shall be abolished; and every person who shall sell by any measure other than one of the Imperial measures, or some multiple or aliquot part thereof, shall be liable to a penalty not exceeding 40*s.* for every such sale: but nothing therein shall prevent the sale of any articles in any vessel, where such vessel is not represented as containing any amount of Imperial measure, or of any fixed, local, or customary measure heretofore in use. — § 6.

Heaped Measure abolished. — From and after the passing of this act, so much of the said acts as relates to heaped measure is hereby repealed, and the use of heaped measure shall be abolished, and all bargains, sales, and contracts made after the passing of this act, by heaped measure, shall be null and void; and every person who shall sell any articles by heaped measure shall be liable to a penalty not exceeding 40*s.* for every such sale. — § 7.

Articles sold by Heaped Measure, how to be sold. — Whereas some articles heretofore sold by heaped measure are incapable of being stricken, and may not be conveniently sold by weight; it is enacted, that all such articles may henceforth be sold by a bushel measure, corresponding in shape with the bushel prescribed by the 5 Geo. 4. c. 74. for the sale of heaped measure, or by any multiple or aliquot part thereof, filled in all parts as nearly to the level of the brim as the size and shape of the articles will admit; but nothing herein shall prevent the sale by weight of any article heretofore sold by heaped measure. — § 8.

Coals to be sold by Weight. — From and after the 1st of January, 1836, all coals, slack, culm, and cannel of every description shall be sold by weight, and not by measure, under a penalty of 40*s.* for every sale. — § 9.

All Articles to be sold by Avoirdupois, except, &c. — From and after the passing of this act, all articles sold by weight shall be sold by avoirdupois weight, except gold, silver, platina, diamonds, or other precious stones, which may be sold by troy weight; and drugs, which, *when sold by retail*, may be sold by apothecaries' weight. — § 10.

The Stone, Hundred Weight, &c. — From and after the passing of this act, the weight denominated a stone shall, in all cases, consist of 14 standard pounds avoirdupois, the hundred weight of 8 such stones, and the ton of 20 such hundred weights; but nothing herein shall prevent any bargain, sale, or contract being made by any multiple or aliquot part of the pound weight. — § 11.

Contents of Weights and Measures to be stamped on them. — All weights made after the passing of this act of the weight of one pound avoirdupois, or more, shall have the number of pounds contained in them stamped or cast on the top or side thereof in legible figures and letters; and all measures of capacity made after the passing of this act, shall have their contents stamped or marked on the outside thereof in legible figures and letters. — § 12.

Weights of Lead or Pewter not to be stamped. — The stamping of weights of lead or pewter, or of any mixture thereof, is prohibited after the 1st of January, 1836; but nothing herein shall prevent the use of lead or pewter, or any mixture thereof, in the manufacture of weights wholly and substantially cased with brass, copper, or iron, and legibly stamped or marked "cased," or prevent the insertion of such a plug of lead or pewter into weights as shall be *bonâ fide* necessary for adjusting them and affixing the stamp thereon. — § 13.

Conversion of Rents, Tolls, &c. — Clause 14. and 15. regulate the proceedings that are to take place in England, Ireland, and Scotland, for the conversion of rents, tolls, &c. payable in weights or measures now abolished into Imperial standard weights and measures.

Fiar Prices. — In Scotland, from and after the passing of this act, the fiar prices of all grain in every county shall be struck by the Imperial quarter, and all other returns of the prices of grain shall be set forth by the same, without any reference to any other measure whatsoever; and any sheriff clerk, clerk of a market, or other person offending against this provision, shall forfeit not exceeding 5*l.* — § 16.

Copies of Standards, Inspectors, &c. — Clauses 17, 18, 19, and 20. prescribe the mode in which copies of the standard weights and measures shall be provided in counties, cities, boroughs, &c., the appointment of inspectors of weights and measures, &c. Clause 22. orders, that the expense of providing copies of standard weights, with the remuneration to inspectors, be defrayed out of the county rate. Clause 23. prohibits any maker or seller of weights or measures from being appointed inspector, and orders all inspectors to enter into a bond of 200*l.* for the due performance of the duties of their office, and the safe custody of the stamps and standard weights and measures committed to their care. Clause 24. orders inspectors to attend at market towns when ordered by justices. The following clauses are of general importance.

Magistrates to procure Stamps for Inspectors for stamping all Weights, &c. — In England, the justices in general or quarter sessions assembled, and in Scotland the justices and magistrates at a meeting called by the sheriff, and in Ireland the grand juries, shall provide the inspectors with good and sufficient stamps for stamping or sealing weights and measures; and all weights and measures whatsoever, except as herein excepted, used for buying and selling, or for the collecting of any tolls or duties, or for the making of any charges on the conveyance of any goods or merchandise, shall be examined and compared with one or more copies of the Imperial standard weights and measures provided under authority of this act for such inspectors, who shall stamp, so as best to prevent fraud, such weights and measures, if they be found to correspond with the said copies; and the fees for such examination, comparison, and stamping shall be those in the schedule at the end of this act; and every person using any weight or measure other than those authorised by this act, or some aliquot part thereof, or which has not been stamped as aforesaid, except as herein excepted, or which shall be found light or otherwise unjust, shall forfeit not exceeding 5*l.*; and any contract, bargain, or sale made by such weights or measures shall be wholly null and void; and every light or unjust weight and measure shall, on being discovered by any inspector, be seized, and, on conviction, forfeited; but nothing herein shall require any single weight above 56 lbs. to be inspected and stamped, nor any wooden or wicker measure used in the sale of lime, or other articles of the like nature, or any glass or earthenware jug or drinking cup, though represented as containing the amount of any Imperial measure, or of any multiple thereof; but any person buying by any vessel represented as containing the amount of an Imperial measure, or of any multiple thereof, is authorised to require the contents of such vessel to be ascertained by comparison with a stamped measure, such measure to be provided by the person using such wooden or wicker measure, glass, jug, or drinking cup; and in case the person using such last-mentioned measure or vessel refuse to make such comparison, or if, upon comparison being made, it be found to be deficient in quantity, the person using the same shall be subject to the forfeitures and penalties imposed on those using light or unjust weights or measures. — § 21.

Weights and Measures once stamped need not be re-stamped. — No weight or measure duly stamped by any inspector appointed under the 4 & 5 Will. 4. c. 49., or this act, or by any person or persons authorised to examine and stamp weights or measures, shall be liable to be re-stamped, although the same be used in any other place than that at which it was originally stamped, but shall be considered as a legal weight or measure throughout the U. K., unless found to be defective or unjust — § 27.

Power to Justices, &c. to enter Shops and inspect Weights and Measures. — Justices, sheriffs, magistrates, and inspectors are authorised to examine weights and measures, and to order such as are light or otherwise unjust to be seized and forfeited; those using such weights and measures are subjected to a penalty of not more than 5*l.*; and a like penalty is imposed on those refusing to produce such weights and measures, or obstructing the magistrates. — § 28.

Penalties on Inspectors counterfeiting Stamps, &c. — Inspectors or other persons authorised to inspect weights or measures, who shall stamp any weight or measure without verifying the same, or who shall otherwise misconduct themselves in their office, shall for every such offence forfeit not more than 5*l.*; persons forging or counterfeiting any stamp or mark used for stamping or marking weights or measures, forfeit for every offence not more than 50*l.* and not less than 10*l.*; and persons knowingly using weights or measures marked with such counterfeit stamps, forfeit for every offence not more than 10*l.* nor less than 2*l.* — §§ 29, 30.

Penalty on Price Lists, &c. — From and after the 1st of January, 1836, any person printing, or clerk of any market or other person making any return, price list, price current, or any journal or other paper containing price list or price current, in which the weights and measures quoted or referred to denote or imply a greater or less weight or measure than is denoted or implied by the same denomination of Imperial weights and measures under the provisions of this act, shall forfeit and pay not exceeding 10*s.* for *every copy* of every such return, price list, price current, journal, or other paper which they publish. — § 31.

The remaining clauses relate to the recovery of penalties; and save the rights of the Founders' Company, and of the Universities of Oxford and Cambridge.

Schedule of fees to be taken by all inspectors of weights and measures appointed under the authority of this act: —

For examining, comparing, and stamping all brass weights, within their respective jurisdictions, —

	s.	*d.*
Each half hundred weight	0	9
Each quarter of a hundred weight	0	6
Each stone	0	4
Each weight under a stone to a pound inclusiv	0	1
Each weight under a pound	0	0½
Each set of weights of a pound and under	0	2

For examining, comparing, and stamping all iron weights, or weights of other descriptions, not made of brass, within their respective jurisdictions, —

	s.	
Each half hundred weight	0	
Each quarter of a hundred weight	0	2
Each stone	0	1
Each weight under a stone	0	0½
Each set of weights of a pound and under	0	2

For examining, comparing, and stamping all wooden measures, within their respective jurisdictions, —

	s.	*d.*
Each bushel	0	3
Each half bushel	0	2
Each peck, and all under	0	1
Each yard	0	0½

For examining, comparing, and stamping all measures of capacity of liquids, made of copper or other metal, within their respective jurisdictions, —

	s.	*d.*
Each five gallon	1	0
Each four gallon	0	9
Each three gallon	0	6
Each two gallon	0	4
Each gallon	0	2
Each half gallon	0	1
Each quarter and under	0	0½

Invariable or Natural Standards. — As the standards adopted in most countries have been in a great degree arbitrary, it has long been the opinion of scientific men, that, to construct a more perfect system of weights and measures, some natural and unchangeable basis should be adopted. It has, indeed, been contended by Paucton and Bailly, that the measures of the ancients were deduced from a basis of this sort; and that the *stadium* always formed an aliquot part of the earth's circumference, that part differing amongst different nations and authors. But no learning or ingenuity can induce any one to believe what is so obviously incredible. The ancients had no means of determining the earth's circumference with any thing like the accuracy required to render it the great unit of a system of measures; and, what is equally decisive, no ancient author ever makes the slightest allusion to any such standard.

In more modern times, however, the idea of seeking for a unit of weight and measure in some unchanging natural object has been practically carried into effect. The standards that have been usually proposed for this object, have been some aliquot part of the quadrant of the meridian, or the length of a pendulum vibrating seconds in some given latitude. The latter has been in so far adopted into the existing system of weights and measures established by the act of 1823, that the length of the standard yard, as compared with that of a pendulum vibrating seconds in the latitude of London, is specified in the act as follows:—

"Whereas it has been ascertained by the commissioners appointed by his Majesty to inquire into the subject of weights and measures, that the said yard hereby declared to be the Imperial standard yard, when compared with a pendulum vibrating seconds of mean time in the latitude of London, in a vacuum at the level of the sea, is in the proportion of 36 inches to 39 inches and 1,393 ten-thousandth parts of an inch; be it therefore enacted and declared, that if at any time hereafter the said Imperial standard yard shall be lost, or shall be in any manner destroyed, defaced, or otherwise injured, it shall and may be restored by making, under the direction of the Lord High Treasurer, or the commissioners of his Majesty's treasury of the United Kingdom of Great Britain and Ireland, or any 3 of them for the time being, a new standard yard, bearing the same proportion to such pendulum as aforesaid, as the said Imperial standard yard bears to such pendulum."

TABLES OF ENGLISH WEIGHTS AND MEASURES, ACCORDING TO THE NEW OR IMPERIAL MEASURE.

IMPERIAL TROY WEIGHT.

The standard pound containing 5,760 grs.

			French Grammes.
	1 Grain	=	0·0648
24 Grains	1 Pennyweight	=	1·5552
20 Pennyweights	1 Ounce	=	31·1027
12 Ounces	1 Pound	=	373·2330

Troy weight is used in the weighing of gold, silver, jewels, &c. It is also used in ascertaining the strength of spirituous liquors; in philosophical experiments; and in comparing different weights with each other.

APOTHECARIES' WEIGHT.

			Fr. Gram.
	1 Grain	=	0·0648
20 Grains	1 Scruple	=	1·296
3 Scruples	1 Dram	=	3·888
8 Drams	1 Ounce	=	31·102
12 Ounces	1 Pound	=	373·233

This weight is essentially the same as Troy weight, but differently divided. It is chiefly used for medical prescriptions; but drugs are mostly bought and sold by avoirdupois weight.

DIAMOND WEIGHT.—Diamonds and other precious stones are weighed by carats, the carat being divided into 4 grains, and the grain into 16 parts. The diamond carat weighs $3\frac{1}{5}$ grains Troy: thus,

Diamond Weight.		Troy Weight. Decigrammes.
16 Parts	1 Grain	$0\frac{8}{10}$ Grains = $51\frac{1}{2}$
4 Grains	1 Carat	$3\frac{1}{5}$ — = $205\frac{1}{2}$

IMPERIAL AVOIRDUPOIS WEIGHT.

			Fr. Gram.
	1 Dram	=	1·771
16 Drams	1 Ounce	=	28·346
16 Ounces	1 Pound	=	453·544
28 Pounds	1 Quarter	=	12·699 kil.
4 Quarters	1 Hundred wt.	=	50·796 —
20 Hundred wt.	1 Ton	=	1015·920 —

The dram is subdivided into 3 scruples, and each scruple into 10 grains; the pound, or 7,680 grains avoirdupois, equals 7,000 grains Troy, and hence 1 grain Troy equals 1·097 grains avoirdupois.

Hence also 144 lbs. avoirdupois = 175 lbs. Troy.
and 192 oz. ditto = 175 oz. ditto.

The stone is generally 14 lbs. avoirdupois weight, but for butcher's meat or fish it is 8 lbs. Hence, the hundred weight (cwt.) equals 8 stone of 14 lbs. or 14 stone of 8 lbs.

A stone of glass is 5 lbs. A seam of glass 24 stone, or 120 lbs.

Hay and straw are sold by the load of 36 trusses. The truss of hay weighs 56 lbs. and of straw 36 lbs. The truss of new hay is 60 lbs. until the 1st of September.

The custom of allowing more than 16 ounces to the pound of butter used to be very general in several parts of the country.

CHEESE AND BUTTER.

8 Pounds	=	1 Clove.
32 Cloves	=	1 Wey in Essex.
42 do.	=	1 do. in Suffolk.
56 Pounds	=	1 Firkin of Butter.

IMPERIAL LONG MEASURE.

			Fr. Metres.
12 Inches	1 Foot	=	0·3048
3 Feet	1 Yard	=	0·9144
$5\frac{1}{2}$ Yards	1 Pole or Rod	=	5·0291
40 Poles	1 Furlong	=	201·1632
8 Furlongs	1 Mile	=	1609·3059
3 Miles	1 League	=	4827·9179
60 Geographical or $69\frac{1}{6}$ Eng. Miles	1 Degree	=	111120·7442

Besides the above, there are the palm, which equals 3 inches; the hand, 4 inches; the span, 9 inches; and the fathom, 6 feet.

IMPERIAL SUPERFICIAL MEASURE.

			Fr. Sq. Metres.
144 Inches	1 Square foot	=	0·0929
9 Square feet	1 Square yard	=	0·8316
$30\frac{1}{4}$ Square yards	1 Square pole	=	25·2961
40 Square poles	1 Rood	=	1011·6662
4 Roods	1 Acre	=	4046·6648

The inch is generally divided, on scales, into 10ths, or decimal parts; but in squaring the dimensions of artificers' work, the duodecimal system is adopted; the inch being divided into 12 parts or lines, each part into 12 seconds, and each second into 12 thirds.

Land is usually measured by a chain of 4 poles, or 22 yards, which is divided into 100 links. Ten chains in length and 1 in breadth make an acre, which equals 160 square perches, or 4,840 square yards.

CUBIC OR SOLID MEASURE.

			Fr. Cubic Metres.
1,728 Cubic inches	1 Cubic foot	=	·0283
27 Cubic feet	1 Cubic yard	=	·7654
40 Feet of rough timber, or 50 Feet hewn do.	1 Load or Ton	=	1·1326 to 1·4157
12 Cubic feet	1 Ton of shipping	=	1·1892

By cubic measure, marble, stone, timber, masonry, and all artificers' works of length, breadth, and thickness, are measured, and also the contents of all measures of capacity, both liquid and dry.

IMPERIAL LIQUID AND DRY MEASURE.

Deduced from the Standard Gallon, containing 10 lbs. weight of distilled water, temperature 62°, barometer 30 inches.

Weight of Water	Cubic Feet.	Cubic Inches	Gills.	Pints.	Quarts.	Pottles.	Gallons.	Pecks.	Bushels.	Coomb.	Quarter.
5 oz.		8·665	1								
1 lbs. 1½		34·659	4	1							
2½		69·318	8	2	1						
5		138·637	16	4	2	1					
10		277·274	32	8	4	2	1				
20		554·548	64	16	16	4	2	1			
80	1.2837	2218·191	256	64	32	16	8	4	1		
320	5·1347	8872·763	1,024	256	128	64	32	16	4	1	
640	10·2694	17745·526	2,048	512	256	128	64	32	8	2	1

The dimensions of the Imperial standard bushel are as follows: — The outer diameter 19½ inches, and the inner diameter 18½. The depth is 8¼, and the height of the cone, for heaped measure, is 6 inches. The contents of the Imperial heaped bushel were 2815·4887 cubic inches. The subdivisions and multiples are in the same proportion.

WOOL WEIGHT.

Like all other bulky articles, wool is weighed by Avoirdupois weight, but the divisions differ; thus,

7 Pounds	=	1 Clove.	6½ Tods	=	1 Wey.
2 Cloves	=	1 Stone.	2 Weys	=	1 Sack.
2 Stone	=	1 Tod.	12 Sacks	=	1 Last.

A pack of wool contains 240 lbs.

OLD MEASURES SUPERSEDED BY THE IMPERIAL SYSTEM.

OLD WINE MEASURE.

		Cub. In.		Fr. Litres.
	1 Pint	28·875	=	0·4731
2 Pints	1 Quart	57·75	=	0·9463
4 Quarts	1 Gallon	231	=	3·3785
42 Gallons	1 Tierce	5·614 feet	=	158·9673
2 Tierces	1 Puncheon	11·228 —	=	317·9345
63 Gallons	1 Hogshead	8·421 —	=	238·4509
2 Hogshds.	1 Pipe or Butt	16·842 —	=	476·9018
2 Pipes	1 Tun	33·684 —	=	953·8036

The pint is subdivided into halves and quarters; the latter is called a gill. A rundlet is 18 gallons, and an anker 9.

Conversion of Old Wine Measure into Imperial Measure. — The old wine gallon contains 231 cubic inches, and the Imperial gallon 277·274 ditto. Hence to convert wine gallons into Imperial gallons, multiply by $\frac{231}{277\cdot274}$, or by ·83311; and to convert Imperial gallons into wine gallons, multiply by the reciprocal fraction $\frac{277\cdot274}{231}$, or by 1·20032. But for most practical purposes, wine measure multiplied by 5 and divided by 6 will give Imperial measure with sufficient accuracy, and conversely.

N.B. — The multipliers and divisors employed to reduce old wine, ale, &c. measures to Imperial measure, serve also to reduce prices by the former to the latter.

We subjoin, from the very complete and valuable work of Mr. Buchanan, of Edinburgh, on Weights and Measures, a

Table of English Wine Gallons, from 1 to 100, with their Equivalents in Imperial Gallons.

Wine Gallons.	Equivalents in Imperial Galls.	Wine Gallons.	Equivalents in Imperial Galls.	Wine Gallons.	Equivalents in Imperial Galls.	Wine Gallons.	Equivalents in Imperial Galls.
1	0·83311	26	21·66088	51	42·48866	76	63·31643
2	1·66622	27	22·49399	52	43·32177	77	64·14954
3	2·49933	28	23·32711	53	44·15489	78	64·98265
4	3·33244	29	24·16022	54	44·98799	79	65·81576
5	4·16555	30	24·99333	55	45·82140	80	66·64887
6	4·99867	31	25·826444	56	46.65421	81	67·48198
7	5·83178	32	26·65955	57	47·48732	82	68·31509
8	6·66489	33	27·49266	58	48·32043	83	69·14820
9	7·49800	34	28·32577	59	49·16354	84	69·98132
10	8·33111	35	29·15888	60	49·99665	85	70·81443
11	9·16422	36	29·99199	61	50·11976	86	71·64754
12	9·99733	37	30·82510	62	51·65288	87	72·48065
13	10·83044	38	31·65821	63	52·48599	88	73·31376
14	11·66355	39	32·49133	64	53·31910	89	74·14687
15	12·49666	40	33·32444	65	44·15221	90	74·97998
16	13·42977	41	34·15755	66	54·98532	91	75·81309
17	14·16289	42	34·99066	67	55·81843	92	76·64620
18	14·99600	43	35·82377	68	56·65145	93	77·47931
19	15·82910	44	56·65688	69	57·48465	94	78·31242
20	16·66222	45	37·48999	70	58·31776	95	79·14554
21	17·49533	46	38·32310	71	59·15087	96	79·97865
22	18·32844	47	39·16626	72	59·98398	97	80·81176
23	19·16155	48	39·99932	73	60·81710	98	81·64487
24	19·99466	49	40·82243	74	61·65021	99	82·47798
25	20·82777	50	41·65555	75	62·48332	100	83·31109

Hence, supposing the former denominations to be preserved, a tierce of wine = 35 Imperial gallons very nearly; a puncheon = 70 ditto very nearly; a hogshead = 52½ ditto very nearly; a pipe or butt = 105 ditto very nearly; and a tun = 210 ditto very nearly.

OLD ALE AND BEER MEASURE.

		Cub. In.		Fr. Litres.
	1 Pint	35·25	=	0·5776
2 Pints	1 Quart	70·5	=	1·1552
4 Quarts	1 Gallon	282	=	4·6208
8 Gallons	1 Firkin ale	1·305 feet	=	36·9669
9 Gallons	1 ditto beer	1·468 —	=	41·5872
2 Firkins	1 Kilderkin	2·937 —	=	83·1744
2 Kilderkins	1 Barrel	5·875 —	=	166·3488
1½ Barrel	1 Hogshead	8·812 —	=	249·5232
2 Barrels	1 Puncheon	10·750 —	=	332·6876
2 Hogsheads	1 Butt	17·624 —	=	499·0464
2 Butts	1 Tun	35·248 —	=	998·0928

Conversion of Old Ale and Beer Measure into Imperial Measure. — The old ale gallon contains 282 cubic inches, and the Imperial standard gallon 277·274 ditto. Hence, to convert ale gallons into Imperial gallons, multiply by $\frac{282}{277\cdot274}$, or by 1·0170445; and to convert Imperial gallons into ale gallons, multiply by the reciprocal fraction $\frac{277\cdot274}{282}$ or by ·9832411. Unless extreme accuracy be required, the first 3 decimals need only be used. And for most practical purposes, ale measure multiplied by 59 and divided by 60 will give Imperial measure with sufficient accuracy, and conversely.

Table of English Ale Gallons, from 1 to 100, with their Equivalents in Imperial Gallons.

Ale Gallons.	Equivalents in Imperial Galls.	Ale Gallons.	Equivalents in Imperial Galls.	Ale Gallons.	Equivalents in Imperial Galls.	Ale Gallons.	Equivalents in Imperial Galls.
1	1·01704	26	26·44316	51	51·86927	76	77·29538
2	2·03409	27	27·46020	52	52·88631	77	78·31243
3	3·05113	28	28·47725	53	53·90336	78	79·32947
4	4·06818	29	29·49429	54	54·92040	79	80·34652
5	5·08522	30	30·51134	55	55·93745	80	81·36356
6	6·10227	31	31·52838	56	56·95449	81	82·38060
7	7·11931	32	32·54542	57	57·97154	82	83·39765
8	8·13636	33	33·56247	58	58·98858	83	84·41469
9	9·15340	34	34·57951	59	60·00563	84	85·43174
10	10·17045	35	35·59656	60	61·02267	85	86·44878
11	11·18749	36	36·61360	61	62·03971	86	87·46583
12	12·20453	37	37·63065	62	63·05676	87	88·48287
13	13·22158	38	38·64769	63	64·07380	88	89·49992
14	14·23862	39	39·66474	64	65·09085	89	90·51696
15	15·25567	40	40·68178	65	66·10789	90	91·53401
16	16·27271	41	41·69882	66	67·12494	91	92·55105
17	17·28976	42	42·71587	67	68·14198	92	93·56809
18	18·30680	43	43·73291	68	69·15903	93	94·58514
19	19·32385	44	44·74996	69	70·17607	94	95·60218
20	20·34089	45	45·76709	70	71·19312	95	96·61923
21	21·35793	46	46·78407	71	72·21016	96	97·63627
22	22·37498	47	47·80109	72	73·22720	97	98·65332
23	23·39202	48	48·81814	73	74·24425	98	99·67036
24	24·40907	49	49·83518	74	75·26129	99	100·68741
25	25·42611	50	50·85223	75	76·27834	100	101·70445

OLD DRY OR WINCHESTER MEASURE.

		Cub. In.		Fr. Litres.
4 Gills	1 Pint	33·6	=	0·55053
2 Pints	1 Quart	67·2	=	1·10107
2 Quarts	1 Pottle	134·4	=	2·20214
2 Pottles	1 Gallon	268·8	=	4·40428
2 Gallons	1 Peck	537·6	=	8·80856
4 Pecks	1 Bushel	2150·42	=	35·23430
4 Bushel	1 Coom	4·977 feet	=	140·93721
2 Cooms	1 Quarter	9·954 —	=	281·87443
5 Quarters	1 Wey or Load	49·770 —	=	1409·37216
2 Weys	1 Last	99·540 —	=	2818·74432

The Winchester bushel is 18½ inches wide, and 8 inches deep. Corn and seeds are measured by striking the bushel from the brim, with a round piece of light wood, about 2 inches in diameter, and of equal thickness from one end to the other. All other dry goods are heaped.

Conversion of Winchester Bushels into Imperial Bushels. — The Winchester bushel contains 2150·42 cubic inches, and the Imperial standard bushel 2218·192 ditto. Hence, to convert Winchester bushels into Imperial bushels, multiply by $\frac{2150\cdot42}{2218\cdot192}$, or by ·969447; and to convert Imperial bushels into Winchester bushels, multiply by the reciprocal fraction $\frac{2218\cdot192}{2150\cdot42}$, or 1·0315157. For practical purposes, multiply Winchester measure by 31 and divide by 32 for Imperial measure, and the contrary.

In some markets, corn is sold by weight, which is the fairest mode of dealing, though not the most convenient in practice. Even where measures are used, it is customary to weigh certain quantities or proportions, and to regulate the prices accordingly. The average bushel of wheat is generally reckoned at 60 lbs. — of barley 47 lbs. — of oats 38 lbs. — peas 64, beans 63, clover 68, rye and canary 53, and rape 48 lbs. In some places, a load of corn, for a man, is reckoned 5 bushels, and a cart load 40 bushels.

Table of Winchester Quarters, from 1 to 100, with their Equivalents in Imperial Quarters.

Winchester Quarters.	Equivalents in Imperial Qrs.	Winchester Quarters.	Equivalents in Imperial Qrs.	Winchester Quarters.	Equivalents in Imperial Qrs	Quarters.	Equivalents in Imperial Qrs.
1	0·96945	26	25·20562	51	49·44180	76	73·67797
2	1·93889	27	26·17507	52	50·41124	77	74·64742
3	2·90834	28	27·14452	53	51·38069	78	75·61687
4	3·87779	29	28·11396	54	52·35014	79	76.58631
5	4·84724	30	29·08341	55	53·31959	80	77·55576
6	5·81668	31	30·05286	56	54·28903	81	78·52521
7	6·78613	32	31·02230	57	55·25848	82	79·49465
8	7·75558	33	31·99175	58	56·22793	83	80·46410
9	8·72503	34	32·96120	59	57·19737	84	81·43355
10	9·69447	35	33·93065	60	58·16682	85	82·40300
11	10·66392	36	34·90009	61	59·13627	86	83·37244
12	11·63336	37	35·86954	62	60·10571	87	84·34189
13	12·60281	38	36·83899	63	61·07516	88	85·31134
14	13·57226	39	37·80843	64	62·04461	89	86·28078
15	14·54171	40	38·77788	65	63·01406	90	87·25023
16	15·51115	41	39·74733	66	63·98350	91	88·21968
17	16·48060	42	40·71677	67	64·95295	92	89·18912
18	17·45005	43	41·68622	68	65·92240	93	90·15857
19	18·41949	44	42·65567	69	66·89184	94	91·12802
20	19·38894	45	43·62512	70	67·86129	95	92·09747
21	20·35839	46	44·59456	71	68·83074	96	93·06691
22	21·32783	47	45·56401	72	69·80018	97	94·03637
23	22·29728	48	46·53346	73	70·76963	98	95·00581
24	23·26673	49	47·50290	74	71·73908	99	95·97525
25	24·23618	50	48·47235	75	72·70853	100	96·94470

COAL MEASURE.

Coals were formerly sold by the chaldron, which bears a certain proportion to Winchester measure.

4 Pecks - = 1 Bushel.
3 Bushels - = 1 Sack.
3 Sacks - = 1 Vat.
4 Vats - = 1 Chaldron.
21 Chaldrons - = 1 Score.

The coal bushel holds 1 Winchester quart more than the Winchester bushel; its contents being 2217·62 cubic inches. It is 19½ inches wide from outside to outside, and 8 inches deep. In measuring coals it was heaped up in the form of a cone, to the height of at least 6 inches above the brim (according to a regulation passed at Guildhall in 1806), the outside of the bushel being the extremity of the cone, so that the bushel should contain at least 2814·9 cubic inches, nearly equal to the Imperial heaped bushel. Hence the chaldron should measure 58·64 cubic feet.

But the sale of coals by measure has, in consequence of the frauds to which it led — (see *ante*, p. 361), — been abolished; and they are now sold by weight.

Of Wood Fuel, English Measure. — Wood fuel is assized into shids, billets, faggots, fall wood, and cord wood. A shid is to be 4 feet long, and, according as they are marked and notched, their proportion must be in the girth; viz. if they have but 1 notch, they must be 16 inches in the girth; if 2 notches, 23 inches; if 3 notches, 28 inches; if 4 notches, 33 inches; and if 5 notches, 38 inches about. Billets are to be 3 feet long, of which there should be 3 sorts; viz. a single cask, and a cask of 2; the 1st is 7 inches, the 2d 10 inches, and the 3d 14 inches about: they are sold by the 100 of 5 score. Faggots are to be 3 feet long, and at the band 24 inches about, besides the knot of such faggots; 50 go to the load. Bavins and spray wood are sold by the 100, which are accounted a load. Cord wood is the bigger sort of fire wood, and it is measured by a cord, or line, whereof there are 2 measures; that of 14 feet in length, 3 feet in breadth, and 3 feet in height. The other is 8 feet in length, 4 feet in height, and 4 feet in breadth.

MEASURES OF WOOD.

1,000 Billets of wood - = 1 Cord.
10 cwt. of ditto - = 1 Cord.
1 Cord of wood - = ½ Chaldron of coals.
100 lbs. of wood - = 1 Quintal of wood.

French System of Weights and Measures. — The new metrical system established in France subsequently to the Revolution, is founded on the measurement of the quadrant of the meridian, or of the distance from the pole to the equator. This distance having been determined with the greatest care, its ten-millionth part was assumed as the *mètre*, or unit of length, all the other lineal measures being multiples or submultiples of it, in decimal proportion. The mètre corresponds pretty nearly to the ancient French *aune*, or yard, being equal to 3·07844 French feet, or 3·281 English feet, or 39·3708 English inches.

The unit of weight is the *gramme*, which is a cubic centimètre, or the 100th part of a mètre of distilled water of the temperature of melting ice; it weighs 15·434 English Troy grains.

In order to express the decimal proportion, the following vocabulary of names has been adopted, in which the terms for multiplying are Greek, and those for dividing Latin.

For multipliers, the word
Deca prefixed means - 10 times.
Hecto - - - 100 —
Kilo - - - 1,000 —
Myria - - - 10,000 —

On the contrary, for divisors, the word *Deci* expresses the 10th part.
Centi - - 100th —
Milli - - 1,000th —

Thus, *Decamètre* means 10 mètres.
Decimètre — the 10th part of a mètre.
Kilogramme — 1,000 grammes, &c.

The *are* is the element of square measure, being a square decamètre, equal to 3·955 English perches.

The *stère* is the element of cubic measure, and contains 35·317 cubic feet English.

The *litre* is the element of all measures of capacity. It is a cubic decimètre, and equals 2·1135 English pints. 100 litres make the hectolitre, which equals 26·419 wine gallons, or 2·838 Winchester bushels.

SYSTEME USUEL, OR BINARY SYSTEM. — This new system has the metrical standards for its basis, but their divisions are binary, that is, by 2, 4, 8, &c; and instead of the new vocabulary, the names of the *ancient* weights and measures are used, annexing the term *usuel* to each. Thus the half kilogramme is called the livre usuelle, and the double mètre, the toise usuelle.

The following Tables show the proportions between the new or metrical French system and the English system: —

Comparison of FRENCH and ENGLISH WEIGHTS and MEASURES, containing the New or Metrical Weights and Measures of France, with their Proportion to those of England, both according to the Decimal System and the Système usuel.

DECIMAL SYSTEM.

Long Measures.

French.		English.
Millimètre	=	0·03937 inches.
Centimètre	=	0·39371 —
Decimètre	=	3·93710 —
Mètre	=	39·37100 —
Decamètre	=	32·80916 feet.
Hectomètre	=	328·09167 —
Kilomètre	=	1093·63890 yards.
Myriamètre	=	10936·38900 —
		or 6 miles 1 furlong 28 poles.

Solid Measures.

Décistère	=	3·5317 cubic feet.
Stère (a cubic mètre)	=	35·3174 —
Décastère	=	353·1741 —

Measures of Capacity.

Militre	= 0·06103 cubic inches.
Centilitre	= 0·61028 —
Décilitre	= 6·10280 —
Litre (a cubic decimètre)	= 61·02803 — or 2·1135 wine pints.
Décalitre	= 610·28028 cubic inches, or 2·642 wine gallons.
Hectolitre	= 3·5317 cubic feet, or 26·419 wine gallons, 22 Imperial gallons, or 2·839 Winchester bushels.
Kilolitre	= 35·3171 cubic feet, or 1 tun and 12 wine gallons.
Myrialitre	= 353·17146 cubic feet.

Superficial Measures.

Centiare	= 1·1960 sq. yards.
Are (a square decamètre)	= 119·6046 —
Décare	= 1196·0460 —
Hectare	= 11960·4604 — or 2 acres 1 rood 35 perches.

Weights.

Miligramme	= 0·0154 grains.
Centigramme	= 0·1543 —
Décigramme	= 1·5434 —
Gramme	= 15·4340 —
Décagramme	= 154·3402 — or 5·64 drams avoirdupois
Hectogramme	= 3·2154 oz. Troy, or 3·527 oz. avoirdupois.
Kilogramme	= 2 lbs. 8 oz. 3 dwt. 2 grs. Troy, or 2 lbs. 3 oz. 4·652 drams avoirdupois
Myriagramme	= 26·795 lbs. Troy, or 22·0485 lbs. avoirdupois.
Quintal	= 1 cwt. 3 qrs. 25 lbs. nearly.
Millier, or Bar	= 9 tons 16 cwt. 3 qrs. 12 lbs.

SYSTEME USUEL.

Comparison of Weight.

	Grammes.	Troy Weight. Lbs.	oz.	dwt.	gr.	Avoirdupois. Lbs.	oz.	dr.
Kilogramme	1,000	= 2	8	3	2	2	3	4½
Livre usuelle	500	= 1	4	1	13	1	1	10½
Half	250	=	8	0	18·5		8	13¼
Quarter	125	=	4	0	9·25		4	6½
Eighth	62·5	=	2	0	4·5		2	3¼
Once	31·3	=	1	0	2·25		1	1⅝
Half	15·6	=		10	1·125			8¼
Quarter	7·8	=		5	0·5			4⅛
Gros	3·9	=		2	12·25			2⅛

Comparison of Linear Measure.

Mesures usuelles	Mètres.	English Measure. Feet.	Inch.	Parts.
Toise usuelle	2	= 6	6	9
Pied, or foot	$0\frac{1}{2}$	= 1	1	$1\frac{1}{2}$
Inch	$0\frac{1}{36}$	= 0	1	$1\frac{1}{2}$
Aune	$1\frac{1}{3}$	= 3	11	3
Half	$0\frac{2}{3}$	= 1	11	$7\frac{1}{2}$
Quarter	$0\frac{3}{10}$	= 0	11	$9\frac{3}{4}$
Eighth	$0\frac{3}{20}$	= 0	5	$10\frac{7}{8}$
Sixteenth	$0\frac{3}{40}$	= 0	2	$11\frac{13}{16}$
One third of an aune	$0\frac{2}{3}$	= 1	3	9
Sixth	$0\frac{1}{5}$	= 0	7	$10\frac{1}{2}$
Twelfth	$0\frac{1}{10}$	= 0	3	$11\frac{1}{4}$

Comparison of Measures of Capacity.

	Litres.	Eng. Winch. Bush.
Boisseau usuel	12·5	= 0·35474

With halves and quarters in proportion.

	Paris Pinte.	English Pint.
Litron usuel	1·074	$2\frac{1}{9}$

With halves and quarters in proportion.

Ancient Weights and Measures. — This subject is involved in considerable difficulty; and to enter fully into it would be quite inconsistent with our objects and limits. But the following details, abstracted from the best authorities, may be useful to such of our readers as have occasion to look into the ancient authors.

TABLE OF VARIOUS ANCIENT WEIGHTS (*according to different Authorities*).

	English Troy Grains.	
Attic obolus	8·2	Christiani.
	9·1	Arbuthnot.
Attic drachma	51·9	Chr.
	54·6	Arb.
	69	Paucton.
Lesser Mina	3,892	Chr.
Greater Mina	5,189	Chr.
	5,464	Arb.
	6,900	Pauc.
Medial Mina	6,994 gr. Arb.	
Talent = 60 minæ =	½ cwt. English.	
Old Greek drachm	146·5 Eng. Troy gr. Arb.	
	62·5 = Roman denarius, Arb.	
Old Greek mina	6,425	Do.
Egyptian mina	8,326	Do.
Ptolemaic mina of Cleopatra	8,985	Do.
Alexandrian mina of Dioscorides	9,992	Do.
Roman denarius	51·9 = ⅓ Rom. oz.	Chr.
	62·5 = ¼ Rom. oz.	Arb.
Denarius of Nero	54	Pauc.
Papyrius	61·7	Do.
Ounce	415·1	Chr.
	437·2	Arb.
	431·2	Pauc.
Pound of 10 oz.	4,150	Chr.
12 oz.	4,981½	Chr.
	5,246	Arb.
	5,174·4	Pauc.

SCRIPTURE MEASURES OF LENGTH. — (*Arbuthnot and Hutton.*)

	Inches.
Digit	0·7425
Palm	2·97
Span	8·91
	Eng. Feet.
Lesser cubit	1·485
Sacred cubit	1·7325
	Yards.
Fathom	2·31
Ezekiel's reed	3·465
Arabian pole	4·62
Schœnus	46·2
Stadium	231
Sabbath day's journey	1,155
	Miles.
Eastern mile	1·886
Parasang	4·158
Day's journey	33·264

GRECIAN MEASURES OF LENGTH. — (*Arbuthnot and Hutton.*)

	Inches.
Dactylos	0·75546
Doron, Dochme	3·02187
Dichas	7·55468
Orthodoron	83·1015
Spithame	9·06562
Pous	12·0875
	Eng. Feet.
Pous	1·00729
Pygme	1·13203
Pygon	1·25911
Pechys	1·51093
	Eng. Paces.
Orgya	1·00729
Stadios, Dulos	100·72916
Milion	805·8333

ROMAN MEASURES OF LENGTH. — (*Arbuthnot and Hutton.*)

	Eng. Inches.
Digitus transversus	0·72525
Uncia, the ounce	0·967
Palmus minor	2·901
Pes, the foot	11·604
	Eng. Feet.
Palmipes	1·20875
Cubitus	1·4505
Gradus	2·4175
	Paces.
Passus	0·967
Stadium	120·875
Miliare	967

ROMAN DRY MEASURES. — (*Arbuthnot and Hutton.*)

	Eng. Pints.
Hemina	0·5074
Sextarius	1·0148
	Eng. Peck.
Modius	1·0141

ATTIC DRY MEASURES.

	Eng. Pints.
Xestes	0·9903
Chenix	1·486
	Winch. Bush.
Medimnus	1·0906

JEWISH DRY MEASURES (*according to Josephus*).

	Eng. Pints.
Gachal	0·1949
Cab	3·874
Gomer	7·0152
	Eng. Peck.
Seah	1·4615
	Winch. Bush.
Ephah	1·0961
Latech	5·4807
	Quarter.
Corom } Chomer }	1·3702

ROMAN MEASURES FOR LIQUIDS.—(*Arbuthnot and Hutton.*)

	Eng. Pints.
Hemina	0·59759
Sextarius	1·19518
Congius	7·1712
	Wine Gall.
Urna	3·5857
Amphora	7·1712
	Hhds.
Culeus	2·2766

ATTIC MEASURES FOR LIQUIDS.

	Eng. Pints.
Cotylus	0·5742
Xestes	1·1483
Chous	6·8900
	Wine Gall.
Meteotes	10·3350

JEWISH MEASURES FOR LIQUIDS.

	Eng. Pints.
Caph	0·8612
Log	1·1483
Cab	4·5933
	Wine Gall.
Hin	1·7225
Seah	3·4450
Bath	10·3350
	Hhds.
Coron	1·6405

WELD, OR DYER'S WEED (Ger. *Wau;* Du. *Wouw, Wouwe;* Fr. *Gaude;* It. *Guadarella;* Lat. *Luteola*), is an imperfect biennial, with small fusiform roots, and a leafy stem from 1 to 3 feet in height. It is a native of Britain, Italy, and various parts of Europe; and is cultivated for the sake of its stalk, flowers, and leaves, which are employed in the dyeing of yellow, whence its botanical name *Reseda luteola.* Weld requires the growth of nearly 2 summers before it comes to maturity; and the crop is liable to fail from so many causes, and is besides so exhausting, that its cultivation is by no means profitable, and is only carried on, in this country at least, to a small extent, principally in Essex. Weld is preferred to all other substances in giving the lively green lemon yellow. It is, however, expensive; and it is found, when employed in topical dyeing, to degrade and interfere with madder colours more than other yellows, and to stain the parts wanted to be kept white. Hence quercitron bark is now employed in calico printing, to the almost total exclusion of weld. It is still, however, employed in dyeing silk a golden yellow, and in paper staining.—(*Loudon's Ency. of Agriculture; Bancroft on Colours,* vol. ii. pp. 95—100.; *Rees's Cyclopædia.*)

WHALEBONE, a substance of the nature of horn, adhering in thin parallel laminæ to the upper jaw of the whale. These vary in size from 3 to 12 feet in length; the breadth of the largest at the thick end, where they are attached to the jaw, is about a foot. They are extremely elastic. All above 6 feet in length is called *size bone.*

Whalebone bore anciently a very high price, when the rigid stays and the expanded hoops of our grandmothers produced an extensive demand for this commodity. The Dutch have occasionally obtained 700*l.* per ton, and were accustomed to draw 100,000*l.* annually from England for this article. Even in 1763, it brought 500*l.*; but soon after fell, and has never risen again to the same value. During the present century the price has varied between 60*l.* and 300*l.*; seldom falling to the lowest rate, and rarely exceeding 150*l.* Mr. Scoresby reckoned the price, in the 5 years ending with 1818, at 90*l.*: in 1834 it amounted to from 130*l.* to 145*l.*; and at present (1844) it varies from 280*l.* for Southern to 350*l.* for Northern. This is for what is called *size bone,* or such pieces as measure 6 feet or upwards in length; those below this standard are usually sold at half price. It may appear singular that whalebone should rise, while oil has been so decidedly lowered; but the one change, it is obvious, causes the other. Oil, being the main product of the fishery, regulates its extent; which being diminished by the low price, the quantity of whalebone is lessened, while the demand for it continuing as great as before, the value consequently rises. It is, however, probable that the present high price of bone may, in some degree, tend to revive the fishery

It may be worth while to remark, as evincing the ignorance that at one time prevailed with respect to the whale, that, by an old feudal law, the *tail* of all whales belonged to the queen, as a perquisite, to furnish her Majesty's wardrobe with whalebone!—(*Blackstone,* vol. i. p. 233.)

WHALE (COMMON), the *Balæna mysticetus* of Linnæus, a marine animal of the cetaceous species, and the largest of all those with which men are acquainted. The whale has sometimes, it is affirmed, been found 160 feet in length; but this is most probably an exaggeration. In the Northern seas, it is at present seldom found above 60 feet long: being now, however, generally killed before it arrives at its full growth, this is no proof that the animal may not formerly have attained to a much larger size. The bodies of whales are covered, immediately under the skin, with a layer of fat or *blubber,* which, in a large fish, is from 12 to 18 inches thick. In young whales, this fatty matter resembles hog's lard; but in old ones it is of a reddish colour. This is the valuable part of the whale; and the desire to possess it has prompted man to attempt the capture of this mighty animal. The blubber yields, by expression, nearly its own weight of a

thick viscid oil (train oil). The common whale is now rarely found, except within the Arctic circle; but at a former period it was not unfrequently met with on our coasts. There is a good account of the common whale, and of the manner in which the fishery is carried on, in Mr. John Laing's "Voyage to Spitzbergen;" one of the shortest, cheapest, and best of the innumerable books published on this hacknied subject.

The *Physeter macrocephalus*, or black-headed spermaceti whale, is chiefly found in the Southern Ocean. It usually measures about 60 feet in length, and 30 in circumference at the thickest part. The valuable part of the fish is the spongy, oily mass dug from the cavity of the head; this is crude spermaceti; and of it an ordinary sized whale will yield about 12 large barrels.

WHALE FISHERY (NORTHERN). We do not propose entering, in this article, into any details as to the mode in which the fishery is carried on; but mean to confine ourselves to a brief sketch of its history, and value in a commercial point of view.

It is probably true, as has been sometimes contended, that the Norwegians occasionally captured the whale before any other European nation engaged in so perilous an enterprise. But the early efforts of the Norwegians were not conducted on any systematic plan, and should be regarded only in the same point of view as the fishing expeditions of the Esquimaux. The Biscayans were certainly the first people who prosecuted the whale fishery as a regular commercial pursuit. They carried it on with vigour and success in the 12th, 13th, and 14th centuries. In 1388, Edward III. relinquished to Peter de Puyanne a duty of 6*l.* sterling a whale, laid on those brought into the port of Biarritz, to indemnify him for the extraordinary expenses he had incurred in fitting out a fleet for the service of his Majesty. This fact proves beyond dispute that the fishery carried on from Biarritz at the period referred to must have been very considerable indeed; and it was also prosecuted to a greater or less extent from Cibourre, Vieux Boucan, and subsequently from Rochelle and other places.*

The whales captured by the Biscayans were not so large as those that are taken in the Polar seas, and are supposed to have been attracted southward in pursuit of herrings. They were not very productive of oil, but their flesh was used as an article of food, and the whalebone was applied to a variety of useful purposes, and brought a very high price.

This branch of industry ceased long since, and from the same cause that has occasioned the cessation of the whale fishery in many other places—the want of fish. Whether it were that the whales, from a sense of the dangers to which they exposed themselves in coming southwards, no longer left the Icy Sea, or that the breed had been nearly destroyed, certain it is, that they gradually became less numerous in the Bay of Biscay, and at length ceased almost entirely to frequent that sea; and the fishers being obliged to pursue their prey upon the banks of Newfoundland and the coasts of Iceland, the French fishery rapidly fell off.

The voyages of the Dutch and English to the Northern Ocean, in order, if possible, to discover a passage through it to India, though they failed of their main object, laid open the haunts of the whale. The companions of Barentz, who discovered Spitzbergen in 1596, and of Hudson, who soon after explored the same seas, represented to their countrymen the amazing number of whales with which they were crowded. Vessels were in consequence fitted out for the Northern whale fishery by the English and Dutch, the harpooners and a part of the crew being Biscayans. They did not, however, confine their efforts to a fair competition with each other as fishers. The Muscovy Company obtained a royal charter, prohibiting the ships of all other nations from fishing in the seas round Spitzbergen, on pretext of its having been first discovered by Sir Hugh Willoughby. There can, however, be no doubt that Barentz, and not Sir Hugh, was its original discoverer; though, supposing that the fact had been otherwise, the attempt to exclude other nations from the surrounding seas, on such a ground, was not one that could be tolerated. The Dutch, who were at the time prompt to embark in every commercial pursuit that gave any hopes of success, eagerly entered on this new career, and sent out ships fitted equally for the purposes of fishing, and of defence against the attacks of others. The Muscovy Company having attempted to vindicate its pretensions by force, several encounters took place between their ships and those of the Dutch. The conviction at length became general, that there was room enough for all parties in the Northern seas; and in order to avoid the chance of coming into collision with each other, they parcelled Spitzbergen and the adjacent ocean into districts, which were respectively assigned to the English, Dutch, Hamburghers, French, Danes, &c.

The Dutch, being thus left to prosecute the fishery without having their attention diverted by hostile attacks, speedily acquired a decided superiority over all their competitors.

When the Europeans first began to prosecute the fishery on the coast of Spitzbergen, whales were everywhere found in vast numbers. Ignorant of the strength and strata-

* See *Mémoire sur l'Antiquité de la Pêche de la Baleine, par Noel*, 12mo. Paris, 1795.

gems of the formidable foe by whom they were now assailed, instead of betraying any symptoms of fear, they surrounded the ships and crowded all the bays. Their capture was in consequence a comparatively easy task, and many were killed which it was afterwards necessary to abandon, from the ships being already full.

While fish were thus easily obtained, it was the practice to boil the blubber on shore in the North, and to fetch home only the oil and whalebone. And, perhaps, nothing can give a more vivid idea of the extent and importance of the Dutch fishery in the middle of the 17th century, than the fact, that they constructed a considerable village, the houses of which were all previously prepared in Holland, on the Isle of Amsterdam, on the northern shore of Spitzbergen, to which they gave the appropriate name of *Smeerenberg* (from *smeeren*, to melt, and *berg*, a mountain). This was the grand rendezvous of the Dutch whale ships, and was amply provided with boilers, tanks, and every sort of apparatus required for preparing the oil and the bone. But this was not all. The whale fleets were attended with a number of provision ships, the cargoes of which were landed at Smeerenberg; which abounded during the busy season with well-furnished shops, good inns, &c.; so that many of the conveniences and enjoyments of Amsterdam were found within about 11 degrees of the Pole! It is particularly mentioned, that the sailors and others were every morning supplied with what a Dutchman regards as a very great luxury — *hot rolls* for breakfast. Batavia and Smeerenberg were founded nearly at the same period, and it was for a considerable time doubted whether the latter was not the more important establishment. — (*De Reste Histoire des Pêches, &c.* tome i. p. 42.)

During the flourishing period of the Dutch fishery, the quantity of oil made in the North was so great that it could not be carried home by the whale ships; and every year vessels were sent out in ballast to assist in importing the produce of the fishery.

But the same cause that had destroyed the fishery of the Biscayans, ruined that which was carried on in the immediate neighbourhood of Spitzbergen. Whales became gradually less common, and more and more timid and difficult to catch. They retreated first to the open seas, and then to the great banks of ice on the eastern coast of Greenland. When the site of the fishery had been thus removed to a very great distance from Spitzbergen, it was found most economical to send the blubber direct to Holland. Smeerenberg was in consequence totally deserted, and its position is now with difficulty discoverable.

But though very extensive, the Dutch whale fishery was not, during the first 30 years of its existence, very profitable. This arose from the circumstance of the right to carry it on having been conceded, in 1614, to an exclusive company. The expense inseparable from such great associations, the wastefulness and unfaithfulness of their servants, who were much more intent upon advancing their own interests than those of the company, increased the outlays so much, that the returns, great as they were, proved little more than adequate to defray them, and the fishery was confined within far narrower limits than it would otherwise have reached. But after various prolongations of the charter of the first company, and the formation of some new ones, the trade was finally thrown open in 1642. The effects of this measure were most salutary, and afford one of the most striking examples to be met with of the advantages of free competition. Within a few years the fishery was vastly extended; and though it became progressively more and more difficult from the growing scarcity of fish, it proved, notwithstanding these disadvantages, more profitable to the private adventurers than it had ever been to the company; and continued for above a century to be prosecuted with equal energy and success. The famous John de Witt has alluded as follows to this change in the mode of conducting the trade: —

"In this respect," says he, "it is worthy of observation, that the authorised Greenland Company made heretofore little profit by their fishery, because of the great charge of setting out their ships; and that the train oil, blubber, and whale fins were not well made, handled, or cured; and being brought hither and put into warehouses, were not sold soon enough, nor to the Company's best advantage. Whereas now that every one equips their vessels at the cheapest rate, follow their fishing diligently, and manage all carefully, the blubber, train oil, and whale fins are employed for so many uses in several countries, that they can sell them with that conveniency, that though *there are now 15 ships for 1 that formerly sailed out of Holland on that account*, and consequently each of them could not take so many whales as heretofore, and notwithstanding the new prohibition of France and other countries to import these commodities, and though there is greater plenty of them imported by our fishers — yet those commodities are so much raised in the value above what they were whilst there was a company, that the common inhabitants do exercise that fishery with profit, to the much greater benefit of our country than when it was (under the management of a company) carried on but by a few."—(*True Interest of Holland*, p. 63. 8vo. ed. London, 1746.)

The private ships sent by the Dutch to the whale fishery were fitted out on a principle that secured the utmost economy and vigilance on the part of every one connected with them. The hull of a vessel was furnished by an individual, who commonly took upon himself the office of captain; a sail-maker supplied the sails, a cooper the casks, &c. The parties engaged as adventurers in the undertaking. The cargo being brought to Holland and disposed of, each person shared in the produce according to his proportion of the outfit. The crew was hired on the same principle; so that every one had a motive to exert himself, to see that all unnecessary expenses were avoided, and that those that were necessary were confined within the narrowest limits. This practice has been imitated to some extent in this and some other countries, but in none has it been carried so far as in Holland. It appears to us, that it might be advantageously introduced into other adventures.

When in its most flourishing state, towards the year 1680, the Dutch whale fishery employed about 260 ships, and 14,000 sailors.

The English whale fishery, like that of Holland, was originally carried on by an exclusive association. The Muscovy Company was, indeed, speedily driven from the field; but it was immediately succeeded by others, that did not prove more fortunate. In 1725, the South Sea Company embarked largely in the trade, and prosecuted it for 8 years; at the end of which, having lost a large sum, they gave it up. But the legislature, having resolved to support the trade, granted, in 1732, a bounty of 20*s.* a ton to every ship of more than 200 tons burden engaged in it; but this premium being insufficient, it was raised, in 1749, to 40*s.* a ton, when a number of ships were fitted out, as much certainly in the intention of catching the bounty as of catching fish. Deceived by the prosperous appearance of the fishery, parliament imagined that it was firmly established, and in 1777 the bounty was reduced to 30*s.* The effects of this reduction showed the factitious nature of the trade, the vessels engaged in it having fallen off in the course of the next 5 years from 105 to 39! To arrest this alarming decline, the bounty was raised to its old level in 1781, and of course the trade was soon restored to its previous state of apparent prosperity. The hostilities occasioned by the American war reduced the Dutch fishery to less than half its previous amount, and gave a proportional extension to that of England. The bounty, which had in consequence become very heavy, was reduced, in 1787, to 30*s.* a ton; in 1792 in was further reduced to 25*s.*; and in 1785 it was reduced to 20*s.*, at which sum it continued till 1824, when it ceased.

It appears from accounts given in Macpherson's *Annals of Commerce* (vol. iii. p. 511., vol. iv. p. 130.), that the total bounties paid for the encouragement of the whale fishery, in the interval between 1750 and 1788, amounted to no less than 1,577,935*l.* It will be seen from the official account which follows, that there are no means of furnishing any accurate account of the sums paid as bounties from the year 1789 to 1813 inclusive; but it is, notwithstanding, abundantly certain that the total bounties paid during the period from 1789 to 1824 considerably exceeded 1,000,000*l.* Here, then, we have a sum upwards of TWO MILLIONS AND A HALF laid out since 1750 in promoting the whale fishery. Now we believe that if we estimate the entire average value of the *gross* produce of the Northern whale fishery (and it is to it only that the preceding statements apply) during the last 3 or 4 years, at 100,000*l.* a year, we shall be considerably beyond the mark. But had the 2,500,000*l.* expended in bolstering up this branch of industry been laid out as capital in any ordinary employment, it would have produced 125,000*l.* a year of *nett* profit; being 25,000*l.* a year more than the total value of the produce of the fishery, without allowing anything for the capital wasted, and ships lost in carrying it on. Whatever, therefore, may be the value of the whale fishery as a nursery for seamen, it is absurd to regard it as contributing anything to the public wealth. The remark of Dr. Franklin, that he who draws a fish out of the sea draws out a piece of silver, is ever in the mouths of those who are clamouring for bounties and protection against competition. But we apprehend that even Franklin himself, sagacious as he was, would have found it rather difficult to show how the wealth of those is to be increased, who, in fishing up one piece of silver, are obliged to throw another of greater value into the sea. We subjoin

An Account of the Number of Ships annually fitted out in Great Britain for the Northern Whale Fishery, of the Tonnage and Crews of such Ships, and of the Bounties paid on their Account, from 1789 to 1814.

Years.	Ships.	Tons.	Men.	Bounties paid.
1789	161	46,599		The documents from which the amount of bounties paid in the years 1789 to 1806 could be shown, were destroyed in the fire at the late Custom-house.
1790	116	35,252	4,482	
1791	116	33,906	4,520	
1792	93	26,983	4,667	
1793	82	23,487	3,210	
1794	60	16,586	2,250	
1795	44	11,748	1,601	
1796	51	15,833	1,910	
1797	60	16,371	2,265	
1798	66	18,754	2,653	
1799	67	19,360	2,683	
1800	61	17,729	2,459	
1801	64	18,568	2,544	
1802	79	23,539	3,129	
1803	95	28,608	3,806	
1804	92	28,034	3,597	
1805	91	27,570	3,636	
1806	91	27,697	3,715	
1807 to 1813	There are no documents by which the accounts for these years can be rendered.			
1814	112	36,576	4,708	£ 43,799 s. 11 d. 0

It is not even certain whether the expenditure of 2,500,000*l.* upon bounties would really have had the effect of making the whale fishery be carried on upon a considerable scale, but for the occupation of Holland by the French, and the consequent hostilities in which she was involved with this country. These did more to promote and consolidate the British fishery than anything else. The war entirely annihilated that of the Dutch: and our government having wisely offered to the fishers of Holland all the immunities enjoyed by the citizens of Great Britain in the event of their settling amongst us, many availed themselves of the invitation, bringing with them their capital, industry, and skill. In consequence of this signal encouragement, the whale fishery of England was prosecuted with greater success than at any previous period; and at the termination of the late war, in 1815, there were nearly 150 valuable ships and about 6,000 seamen engaged in the Northern fishery, and about 30 ships and 800 men in that to the South.

After peace was restored, the English capitalists and others became apprehensive lest the Dutch should engage anew with their ancient vigour and success in the whale fishery. But these apprehensions were without any real foundation. The Hollanders, during the 30 years they had been excluded from the sea, had lost all that practical acquaintance with the details of the fishery, for which they had long been so famous, and which is so essential to its success. The government attempted to rouse their dormant energies by the offer of considerable premiums and other advantages to those who embarked in the trade. Three companies were in consequence formed for carrying it on; 1 at Rotterdam, 1 at Harlingen, and 1 in South Holland. But their efforts were limited, and altogether unfortunate. In 1826, the company of South Holland was dissolved, while that of Harlingen despatched 4 ships, and that of Rotterdam 2. In 1827, Rotterdam sent only 1 ship, and Harlingen 2. In 1828, 1 solitary ship sailed from Holland — a feeble and last effort of the company of Harlingen! and since then a ship or two has been occasionally fitted out by private adventurers, but generally without success.

Such has been the fate of the Dutch whale fishery. The attempts to revive it failed, not because the ships sent out were ill calculated for the service, but because they were manned by unskilful seamen, and fish were deficient. In the early ages of the fishery, the former difficulty would have been got over, because, owing to the fewness of competitors, and the scanty supply of oil and whalebone, even a small cargo brought a high price; but at present, when the fishery is prosecuted on a very large scale and at a very low rate of profit by the English, Americans, and Hamburghers, no new competitor coming into the field could expect to maintain himself unless he had nearly equal advantages. The Dutch have, therefore, done wisely in withdrawing from the trade. Any attempt to establish it by the aid of bounties and other artificial encouragements would be one of which the ultimate success must be very doubtful, and which could lead to no really useful result. During the 20 years preceding the late French war, the fishery of Holland was gradually declining, and had, in a great measure, ceased to be profitable. It would be folly to endeavour to raise anew, and at a great expense, a branch of industry that had become unproductive at a former period, when there is no ground for supposing that it would be more productive at this moment.

We have already noticed several changes of the localities in which the whale fishery has been carried on at different periods; and within these few years others of the same kind have taken place. The Dutch fishers first began to frequent Davis's Straits in 1719; and as the whales had not hitherto been pursued into this vast recess, they were found in greater numbers than in the seas round Spitzbergen. From about this period it was usually resorted to by about 3-10ths of the Dutch ships. It was not till a comparatively late period that Davis's Straits began to be frequented by English whalers; and down to 1820, when Captain Scoresby published his elaborate and valuable work on the whale fishery, that carried on in the Greenland seas was by far the most considerable. But it will be seen from the subjoined account, that from 1826 down to 1837 the Greenland seas were nearly abandoned. This was principally a consequence of the greater abundance of whales in Davis's Straits, but it was, also, in part owing to the various discoveries made by the expeditions fitted out by government for exploring the seas and inlets to the westward of Davis's Straits and Baffin's Bay having made the fishers acquainted with several new and advantageous situations for the prosecution of their business. Since 1837, however, the few ships that have been sent out have gone mostly to the Greenland seas.

The sea in Davis's Straits is less incommoded with field ice than the Greenland and Spitzbergen seas, but it abounds with icebergs; and the fishery, when carried on in Baffin's Bay and Lancaster Sound, is more dangerous, perhaps, than any that has hitherto been attempted.

The Northern fishery declined rapidly down to 1842, from which period it continued nearly stationary down to 1846, when it revived a little.

It should, however, be observed that the fishery is now rather for seals than for whales; the value of the produce obtained from the former considerably exceeding the value of that obtained from the latter.

During 1857, we imported 5,410 tuns spermaceti oil, which were almost wholly retained for consumption. During the same year the imports and exports of train oil were respectively 15,765 and 2,754 tuns.

For a long time past the whale fishery has been more allied to a gambling than to an industrious pursuit, so that its decline is not really to be regretted. The extensive use of gas, and the increased imports of vegetable oils, occasioned by the reduction of the oppressive duties with which they were formerly affected, have prevented the diminution in the supply of whale oil from having any bad effect. Subjoined is

An Account of the Number and Tonnage of the Vessels that cleared out for the Whale Fishery in 1830 and 1857, specifying, also, the Ports from which the Vessels were sent, and the Number sent from each.

Ports.	1830.		1857.	
	Vessels.	Tons.	Vessels.	Tons.
Peterhead	15	5,720	30	8,597
Fraserburg	-	-	5	1,245
Aberdeen	10	3,035	6	1,482
Dundee	9	3,033	4	1,594
Kirkcaldy	5	1,597	3	1,068
Borrowstoness	-	-	1	357
Hull	53	11,009	11	2,805
Whitby	2	686		
Newcastle	3	1,103		
Berwick	1	310		
London	2	642		
Montrose	4	1,302		
Burntisland	1	280		
Leith	7	2,426		
Greenock	1	316		
Total	91	29,460	60	16,738

It is seen from this table, that there has been a singular change in the ports from which the Northern fishery has been carried on. In London were undertaken all the discoveries which led to its establishment; and the great companies formed in that city enjoyed for a lengthened period nearly a complete monopoly of the business. So late as 1780 and 1790, the metropolis sent out 4 times the number of vessels that sailed from any other port; but it was observed that her fishery was, on the whole, less fortunate than that of the new rivals which had sprung up; and her merchants were so much discouraged, that in Mr. Scoresby's time they equipped only 17 or 18 vessels. They have wholly abandoned the trade, and have not sent out a single ship since 1836.

Hull early became a rival to London, having sent out vessels at the very commencement of the fishery. Though checked at first by the monopoly of the great companies, as soon as the trade became free she prosecuted it with distinguished success. Towards the end of last century, she attained, and preserved down to 1837, the character of the first whale-fishing port in Great Britain. In 1819 she sent out 65 ships, and her imports of oil amounted in 1820 to 8,086 tuns. But such and so rapid was the decline of the fishery in the interval, that from 1838 to 1845 she only sent out a solitary ship! In 1846, however, the business took a start; and from that year down to the present time Hull has sent from 10 to 13 or 14 ships. But she is not supposed to have made anything by this pursuit.—(See Docks—Hull, p. 528.) At present, as seen above, Peterhead is the principal seat of the fishery.

WHALE FISHERY (SOUTHERN).—This consists of three distinct branches; viz., 1st, the catch of the spermaceti whale, which furnishes the valuable substance called spermaceti (see the term); 2d, that of the common black whale of the Southern seas; and, 3d, that of the sea elephant, or southern walrus.

The spermaceti whale (*Physeter macrocephalus*) is found in all tropical climates, and especially on the coasts of New Zealand and the adjoining seas. The ordinary duration of the voyage of a ship from England, employed in this department of the fishery, is about 3 years.

The common black whale of the Southern seas (*Physeter microps*) is met with in various places, but principally on the coast of Brazil; in the bays on the west coast of Africa; and in some of the bays of New South Wales, Van Diemen's Land, &c.

Sea elephants (intermediate between the walrus of the Northern seas and the seal) are principally met with in the seas round the Islands of Desolation, South Georgia, and South Shetland, the coast of California, &c. Vast numbers of these animals are annually captured; vessels frequently load entirely with them; and they are believed to furnish more oil than the common South Sea whale. The oil of the black whale and that of the sea elephant are both known in the market by the name of southern oil,

and they are so very similar that those most versed in the trade can with difficulty distinguish the one from the other. Hence ships commonly engage indifferently in either fishing as opportunity offers. The usual duration of the voyage of a ship from England in either of the last two departments, or in the two combined, varies from 12 to 18 months.

The South Sea fishery was not prosecuted by the English till about the beginning of the American war; and as the Americans had already entered on it with vigour and success, 4 American harpooners were sent out in each vessel. In 1791, 75 whale ships were sent to the South Sea; but the number has not been so great since; and latterly it has been unprosperous and declining, in consequence partly of the competition of the colonists in Australia, who are incomparably better situated for the prosecution of this branch of industry, and partly of that of the Americans. The *Macrocephalus*, or spermaceti whale, is particularly abundant in the neighbourhood of the Spice Islands; and Mr. Crawfurd, in his valuable work on the *Eastern Archipelago* (iii. 447.), entered into some details to show that the fishery carried on there was of greater importance than the spice trade. Unluckily, however, the statements on which Mr. Crawfurd founded his comparisons were entirely erroneous, neither the ships nor the men employed amounting to more than 1-5th or 1-6th part of what he represented. And the trade has now become quite insignificant. It is sufficient to mention, in proof of this statement, that in 1857 the Southern fishery supplied us with only 291 tuns oil!

American Whale Fishery. — For a lengthened period, the Americans have prosecuted the whale fishery with greater vigour and success than, perhaps, any other people. They commenced it in 1690, and for about 50 years found an ample supply of fish on their own shores. But the whale having abandoned them, the American navigators entered with extraordinary ardour into the fisheries carried on in the Northern and Southern Oceans. From 1758 to 1775, Massachusetts employed annually 183 vessels, carrying 13,820 tons, in the former; and 121 vessels, carrying 14,026 tons, in the latter. Mr. Burke, in his famous speech on American affairs in 1774, adverted to this wonderful display of daring enterprise as follows :—

"As to the wealth," said he, "which the colonies have drawn from the sea by their fisheries, you had all that matter fully opened at your bar. You surely thought these acquisitions of value, for they seemed to excite your envy; and yet the spirit by which that enterprising employment has been exercised ought rather, in my opinion, to have raised esteem and admiration. . And pray, Sir, what in the world is equal to it? Pass by the other parts, and look at the manner in which the New England people carry on the whale fishery. While we follow them among the trembling mountains of ice, and behold them penetrating into the deepest frozen recesses of Hudson's Bay and Davis's Straits; while we are looking for them beneath the Arctic circle, we hear that they have pierced into the opposite region of polar cold; that they are at the antipodes, and engaged under the frozen serpent of the South. Falkland Island, which seemed too remote and too romantic an object for the grasp of national ambition, is but a stage and resting-place for their victorious industry. Nor is the equinoctial heat more discouraging to them than the accumulated winter of both poles. We learn, that while some of them draw the line or strike the harpoon on the coast of Africa, others run the longitude and pursue their gigantic game along the coast of Brazil. No sea, but what is vexed with their fisheries; no climate that is not witness of their toils. Neither the perseverance of Holland, nor the activity of France, nor the dexterous and firm sagacity of English enterprise, ever carried this most perilous mode of hardy industry to the extent to which it has been pursued by this recent people; a people who are still in the gristle, and not hardened into manhood."

The unfortunate war that broke out soon after this speech was delivered, checked for a while the progress of the fishery; but it was resumed with renewed vigour as soon as peace was restored. The American fishery has been principally carried on from Nantucket and New Bedford in Massachusetts; and for a considerable time past the ships have mostly resorted to the Southern Seas. "Although," says Mr. Pitkin, "Great Britain has, at various times, given large bounties to her ships employed in this fishery, yet the whalemen of Nantucket and New Bedford, unprotected and unsupported by anything but their own industry and enterprise, have generally been able to meet their competitors in a foreign market."—(*Commerce of the U. States*, 2d. ed. p. 46.)

At present (1858) the American whale fishery is of very great extent and importance. It employs about 600 ships, of the aggregate burden (30th June 1858) of 198,593 tons, principally belonging to New Bedford, Nantucket, and other ports in Massachusetts, Rhode Island, and Connecticut. A very large portion of this immense fleet is employed in the Pacific; and the facilities which the possession of San Francisco

affords for the fitting out and repair of ships for this branch of the business, have given it an additional stimulus. On the whole, however, it appears more than probable that the American whale fishery has attained to, or rather, passed its zenith. The same cause that led to the cessation of the Biscay fisheries, and to those round Spitzbergen, is operating throughout the wide extent of the Pacific. The supply of whales is everywhere becoming exhausted. And the risks and losses that have always attended the trade, and given to it so much of a gambling character, are being constantly increased. Hence the probability seems to be that, despite its present magnitude, the fishery of the U. States will eventually experience the fate of that of Holland and England. The Sandwich Islands are at present the great resort of the ships engaged in the Southern fishery. And the accounts from thence confirm its decline. There is as much enterprise and energy as ever, but the "gigantic game" is deficient.

Account of the Value of the Exports of the Whale Fishery of the United States during each of the 4 Years ending June 30, 1857.

Articles.	1854.	1855.	1856.	1857.
Whale and other fish oil - - -	$490,426	$485,505	$526,338	$363,665
Spermaceti oil - - -	1,105,907	45,411	977,005	1,216,898
Whalebone - - -	817,817	781,680	1,056,647	1,307,322
Spermaceti and sperm candles - - -	77,991	136,463	64,857	70,038
Total - - -	2,492,141	1,449,059	2,604,847	2,957,913

Account of the Imports of Whale Oil and Whalebone into the United States during each of the 8 Years ending with 1857.

Years.	Sperm Oil.	Whale Oil.	Whalebone.
	Barrels.	*Barrels.*	*Lbs.*
1850 - - -	92,892	200,608	2,869,200
1851 - - -	99,691	928,485	3,916,500
1852 - - -	78,872	84,211	1,259,900
1853 - - -	103,077	260,114	5,652,300
1854 - - -	76,696	319,837	3,445,200
1855 - - -	72,619	184,015	2,707,500
1856 - - -	80,941	197,890	2,592,700
1857 - - -	78,440	230,941	2,058,380

French Whale Fishery. — France, which preceded the other nations of Europe in the whale fishery can hardly be said, for many years past, to have had much share in it. In 1784, Louis XVI. endeavoured to revive the fishery. With this view he fitted out 6 ships at Dunkirk on his own account, which were furnished with harpooners and a number of experienced seamen brought at a great expense from Nantucket. The adventure was more successful than could have been reasonably expected, considering the auspices under which it was carried on. Several private individuals followed the example of his Majesty, and in 1790 France had about 40 ships employed in the fishery. The revolutionary war destroyed every vestige of this rising trade. But since the peace, government has made great efforts for its renewal; and high bounties have been granted to all vessels fitted out for the whale fisheries, but especially to those engaged in the sperm fishery. These, however, have not been so successful in forcing ships into this trade as might have been anticipated; for it appears from the official accounts that, in 1857, only 4 ships, of the aggregate burden of 1,867 tons, arrived in the ports of France from the whale fishery, bringing with them 933,388 kilog. of oil. (*Administration des Douanes*, 1857, p. 348.)

WHARF, a sort of quay, constructed of wood or stone, on the margin of a roadstead or harbour, alongside of which ships or lighters are brought for the sake of being conveniently loaded or unloaded.

There are 2 denominations of wharfs, viz., *legal quays* and *sufferance wharfs*. The former are certain wharfs in all sea-ports, at which all goods are required by the 1 Eliz. c. 11., to be landed and shipped, and they were set out for that purpose by commission from the Court of Exchequer, in the reign of Charles II. and subsequent sovereigns. Many others have been legalised by act of parliament. In some ports, as Chepstow, Gloucester, &c., certain wharfs are deemed legal quays by immemorial practice, though not set out by commission, or legalised by act of parliament.

Sufferance wharfs are places where certain goods may be landed and shipped, such as hemp, flax, coal, and other bulky goods, by special sufferance granted by the Crown for that purpose.

The goods that may be landed at the different wharfs are specified by the Commissioners of Customs, and depend partly on their situation, and partly on the character and capability of the warehouses connected with them.

WHARFAGE, the fee paid for landing goods on a wharf, or for shipping them off.

The stat. 22 Chas. 2. c. 11., after providing for the establishment of wharfs and quays, makes it lawful for any person to lade or unlade goods, on paying wharfage and cranage at the rates appointed by the king in council.

WHEAT (Ger. *Weitzen*; Du. *Tarw*; Da. *Hvede*; Sw. *Hvete*; Fr. *Froment, Bled, Blé*; It. *Grano, Formento*; Sp. and Port. *Trigo*; Rus. *Pschenzia*; Pol. *Pszenica*), a species of bread corn (*Triticum* Lin.), by far the most important of any cultivated in Europe. We are totally ignorant of the country whence this valuable grain was first derived; but it was very early cultivated in Sicily. It is raised in almost every part of the temperate zones, and in some places as high as 2,000 feet above the level of the sea.

The kinds of wheat sown are numerous, but they may be classed under 4 heads: viz. cone or bearded wheat, which, however, is now little cultivated; white wheat, of which there are innumerable varieties, the *white Dantzic* being considered one of the best; red wheat, which is seldom sown where the climate is good and early, and the land in proper condition; and spring wheat. A greater number of people are nourished by rice than by wheat; but owing to the greater quantity of gluten which the latter contains, it makes by far the best bread. Rye comes nearer to wheat in its bread-making qualities than any other sort of grain; still, however, it is very inferior to it. The finest samples of wheat are small in the berry, thin skinned, fresh, plump, and bright, slipping readily through the fingers.

Being very extensively cultivated on soils of very various qualities, and frequently with very imperfect preparation, the produce of wheat crops in Great Britain varies from about 12 to 56 bushels per acre.

The counties most distinguished for the quantity and quality of their wheat are, Kent, Essex, Suffolk, Rutland, Hertfordshire, Berkshire, Hampshire, and Herefordshire, in England; and Berwickshire, and the Lothians, in Scotland. In the northern counties it is, speaking generally, of an inferior quality; being cold to the feel, dark coloured, thick skinned, and yielding comparatively little flour. In the best wheat counties, and in good years, the weight of a Winchester bushel of wheat is from 60 to 62 lbs. In the Isle of Sheppey, in Kent (where, perhaps, the best samples of wheat sent to the London market are produced), this grain, in some favourable seasons, weighs 64 lbs. a bushel. Where the climate is colder, wetter, or more backward, or in bad seasons, the weight of the bushel of wheat is not more than 56 or 57 lbs. It is calculated that the average weight of the bushel of good English wheat is 58½ lbs.; and that the average yield of flour is 13 lbs. of flour to 14 lbs. of grain. — (See Mr. Stevenson's very valuable article on *England*, in *Brewster's Encyclopædia*, vol. viii. p. 720.; *Loudon's Ency. of Agriculture, &c.*)

For a view of the regulations with respect to the importation and exportation of wheat, &c., see Corn Laws and Corn Trade.

WHISKY, a spirit obtained by distillation from corn, sugar, or molasses, though generally from the former. Whisky is the *national spirit*, if we may so term it, of Scotland and Ireland; but that distilled in the former is generally reckoned superior to that of the latter. — (See Spirits.)

WINE (Ger. *Wein*; Fr. *Vin*; It. and Sp. *Vino*; Port. *Vinho*; Rus. *Wino, Winogradnoe winoe*; Lat. *Vinum*; Gr. Οινος; Arab. *Khumr*), the fermented juice of the grape, or berries of the vine (*Vitis vinifera*).

The vine is indigenous to Persia and the Levant; but it is now found in most temperate regions. The limits within which its cultivated in the northern hemisphere of the Old World vary from about 15° to 48° and 52°; but in North America it is not cultivated farther north than 38° or 40°. It is rarely grown at a greater altitude than 3,000 feet. From Asia the vine was introduced into Greece, and thence into Italy. The Phoceans, who founded Marseilles, carried the vine to the south of France; but it is doubtful whether it was introduced into Burgundy till the age of the Antonines.* The species of *Vitis* indigenous to North America is very different from the *Vitis vinifera*. In favourable seasons, the vine ripens in the open air in England; and in the eleventh and twelfth centuries, considerable quantities of inferior wine were made from native grapes. Vineyards are now, however, unknown in this country; but the grapes raised in hot-houses, and used in desserts, are excellent.

The vine grows in every sort of soil; but that which is light and gravelly seems best suited for the production of fine wines. It succeeds extremely well in volcanic countries. The best wines of Italy are produced in the neighbourhood of Vesuvius: the famous Tokay wine is also made in a volcanic district, as are several of the best French wines; many parts of the south of France bearing evident marks of extinct volcanoes. Hermitage

* The ancient writers give the most contradictory accounts with respect to the introduction of the vine into Gaul. — (See the learned and excellent work of Le Grand d'Aussy, *Vie Privée des Français*, tome ii. pp. 329—333.) The statement given above seems the most probable.

is grown among the *débris* of granite rocks. The most favourable situation for a vineyard is upon a rising ground or hill facing the south-east, and the situation should not be too confined;

——————apertos
Bacchus amat colles.

The art of expressing and fermenting the juice of the grape appears to have been practised from the remotest antiquity. The sacred writings tell us that Noah planted a vineyard soon after the deluge — (*Gen.* ix. 20.); and a modern Latin poet ingeniously represents the vine as a gift from Heaven, to console mankind for the miseries entailed upon them by that grand catastrophe!

Omnia vastatis ergo quum cerneret arvis
Desolata Deus, nobis felicia vini
Dona dedit; tristes hominum quo munere fovit
Reliquias, mundi solatus vite ruinam!
Vanierii Præd. Rusticum, lib. xi.

Species of Wine. — There are many varieties of vines; and this circumstance, combined with differences of soil, climate, mode of preparation, &c., occasions an extreme variety in the species of wine. But between places immediately contiguous to each other, and where even a careful observer would hardly remark any difference, the qualities of the wines, though produced by the same species of grape, and treated in the same way, are often very different. A great deal evidently depends upon the aspect of the vineyard; and it is probable that a good deal depends on peculiarities of soil. But whatever may be the cause, it is certain that there are wines raised in a few limited districts, such as Tokay, Johannisberger, Constantia, the best Burgundy, Champagne, claret, &c., that no art or care has hitherto succeeded in producing of equal goodness in other places.

Ancient Wines. — The wines of Lesbos and Chios among the Greeks, and the Falernian and Cecuban among the Romans, have acquired an immortality of renown. Great uncertainty, however, prevails as to the nature of these wines. Dr. Henderson thinks that the most celebrated of them all, the Falernian, approached, in its most essential characters, near to Madeira. In preparing their wines, the ancients often inspissated them till they became of the consistence of honey, or even thicker. These were diluted with water previously to their being drunk; and, indeed, the habit of mixing wine with water seems to have prevailed much more in antiquity than in modern times.

Modern Wines. — The principal wines made use of in this country are port, sherry, claret, Champagne, Madeira, hock, Marsala, Cape, &c.

Port, the after-dinner wine most commonly used in England, is produced in the province of Upper Douro, in Portugal; and is shipped at Oporto, whence its name. When it arrives in this country, it is of a dark purple or inky colour; has a full, rough body, with an astringent bitter-sweet taste, and a strong flavour and odour of brandy. After it has remained some years longer in the wood, the sweetness, roughness, and astringency of the flavour abate; but it is only after it has been kept 10 or 15 years in bottle, that the odour of the brandy is completely subdued, and the genuine aroma of the wine developed. When kept to too great an age, it becomes tawny, and loses its peculiar flavour. During the process of melioration, a considerable portion of the extractive and colouring matter is precipitated on the sides of the vessels in the form of crust. In some wines this change occurs much earlier than in others.

A large quantity of brandy is always mixed with the wine shipped from Oporto for England. Genuine unmixed port wine is very rarely met with in this country. We have been so long accustomed to the compounded article, that, were it possible to procure it unmixed, it is doubtful whether it would be at all suited to our taste. According to Mr. Brande's analysis, on which, however, owing to the differences in the quality of the wine, no great stress can be laid, port, as used in England, contains about 23 per cent. of alcohol. In 1852, 2,489,350 gallons of port were retained for consumption in the U. Kingdom.

Oporto Wine Company.—The quality of the wine shipped from Oporto has been materially injured by the monopoly so long enjoyed by the Oporto Wine Company. This company was originally founded in 1756, during the administration of the Marquis Pombal. A certain extent of territory was marked out by its charter as the only district on the Douro in which wine could be raised for exportation: the absolute disposal of the wines raised in this district was placed in the hands of the Company, who were further authorised to fix the prices to be paid for them to the cultivators, to prepare them for exportation, and to fix the price at which they should be sold to foreigners! It is obvious that a company with such powers could not be any thing else than an intolerable nuisance. What could be more arbitrary and unjust than to interdict the export of all wines raised out of the limits of the Company's territory? But even in its own district, its proceedings were oppressive and injurious. The Company annually fixed, by a fiat of their own, 2 rates of prices — one for the *vinho de feitoria*, or wine for exportation, the other for *vinho de ramo*, or wine for home consumption — at which the cultivators were to be paid, *whatever might be the quality of their wines!* They had, therefore, no motive to exert superior skill and ingenuity; but contented themselves with endeavouring to raise, at the least possible expense, the greatest supply of *vinho de feitoria*, for which the Company allowed the highest price. All emulation was thus effectually extinguished, and the proprietors who possessed vineyards of a superior quality adulterated their wines with

inferior growths, so as to reduce them to the average standard. "In this way," says Dr. Henderson, "the finer products of the Douro vintages have remained in great measure unknown to us; and port wine has come to be considered as a single liquor, if I may use the expression, of nearly uniform flavour and strength; varying, it is true, to a certain extent in quality, but still always approaching to a definite standard, and admitting of few degrees of excellence. The manipulations, the admixtures — in one word, the *adulterations* — to which the best wines of the Cimo do Douro are subjected, have much the same effect as if all the growths of Burgundy were to be mingled in one immense vat, and sent into the world as the only true Burgundian wine. The delicious produce of Romanée, Chambertin, and the Clos Vougéot, would disappear, and in their places we should find nothing better than a second-rate Beaune or Macon wine."—(*History of Ancient and Modern Wines*, p. 210.)

Not only, however, did the Oporto Wine Company deteriorate the quality, but they also raised the price of their wines to an enormous height. Secured against the competition of their countrymen, and enjoying down to 1831 a nearly absolute monopoly of the British markets for red wines by means of the high duties on those of France, they filled their pockets at our expense. At the very moment when the Company were shipping wine for England at 40*l.* a pipe, they frequently shipped the same wine to other countries at 20*l.*!—(*Fleetwood Williams on the Wine Trade.*) And the authentic Tables published by Balbi show that the price of wine was trebled or quadrupled under the management of this corporation.—(*Essai Statistique sur le Royaume de Portugal*, tome i. p. 157.)

It is long since the injurious influence of the Company on the commerce of this country was distinctly perceived and pointed out. So far back as 1767, the Board of Trade laid a memorial before his Majesty in council, in which they state, "With respect to many particular regulations of the Oporto Company, which we think justly objected to by the merchants as highly grievous and oppressive, we have not thought it necessary to enter into a minute description of them, being of opinion that one general and fatal objection lies against them all; viz.—that *they all contribute to establish in the Company a monopoly against your Majesty's subjects from which by treaty they have a right to be exempted.*"

But notwithstanding this authoritative exposition of the injury done to the English by this monopoly, and the experience which every subsequent year afforded of its mischievous influence, such was the inveteracy of ancient prejudice, that it was not till 1831 that we took that step which, had it been taken a century before, would have rid ourselves of its evils as well as a host of others, by equalising the duties on French and Portuguese wines, and putting an end to the injurious preference given to the latter by the Methuen treaty.

In 1833, Don Pedro, whose daughter had been raised to the Portuguese throne mainly by the intervention of the English, issued a decree abolishing the Old Oporto Company. And it might have been supposed that once abated, the nuisance would not have been again revived. But such was not the case. A new wine company was subsequently established with privileges little less oppressive than those of the old company. And as the taste for French wine had made little progress amongst us in the interval, we suffered from the monopoly and adulterations practised and sanctioned by the new company as we had done from those of its predecessor. Its mischievous influence being farther aggravated by a heavy export duty on wine shipped to any port in Europe*, was latterly so intolerable, that to defeat it considerable quantities of port were imported by the circuitous route of the U. States. Happily, however, the firm remonstrances of the British government, and the growing dissatisfaction of the Portuguese themselves, have at length succeeded in establishing a more equitable and less illiberal system. In October 1852, the new company was abolished, equal duties (about 14*s.* a pipe), were imposed on all wines exported, and considerable, though not entire, freedom was given to the trade.—(For farther details see art. OPORTO.)

Sherry is of a deep amber colour; when good, it has a fine aromatic odour; its taste is warm, with some degree of the agreeable bitterness of the peach kernel. When new, it tastes harsh and fiery; it is mellowed by being allowed to remain 4 or 5 years or longer in the wood; but it does not attain to its full flavour and perfection until it be kept for 15 or 20 years. It is a very strong wine, containing about 19 per cent. of alcohol. It is principally produced in the vicinity of Xeres, not far from Cadiz, in Spain. It is very extensively used in this country as a dinner wine. Dry sherry, or *amontillado*, when genuine and old, fetches a very high price. Perhaps no wine is so much adulterated as sherry. With the exception of Marsala, the consumption of sherry has been far more influenced than that of any other wine by the reduction of the duties in 1825. In 1852, the quantity retained for home consumption amounted to 2,606,857 gallons, being 458,000 gallons *more than double* the quantity retained for consumption at an average of 1823 and 1824!—(See *post.*)

The province of Valencia, in Spain, produces a great variety of wines. Large quantities of a strong, sweetish red wine, called Benicarlo, from the port whence it is shipped, is exported to Cette. It is thence conveyed, by the canal of Languedoc, to Bordeaux, where it is mixed up with the poorer sorts of the wines of the Gironde, to which it gives colour, body, and durability.

The *Val de Peñas*, a pleasant red wine of La Mancha, said by Swinburne to be "the most drinkable, for common use, of any in Spain,"—(*Travels in Spain*, p. 319, 4to ed.)—has probably been commended beyond its deserts.† But in whatever estimation it may be held in its native province, we doubt whether it is ever likely to be acceptable to foreigners. When carried to the coast it is conveyed in goat skins, smeared with pitch. This gives it the *olor de bota*, by which it is disagreeably distinguished.

Claret,—the term generally used in England, though not in France, to designate the red wines, the produce of the Gironde. Of these, Lafitte, Latour, Château-Margaux, and Haut-Brion, are so generally and deservedly esteemed, that they always sell at from 20 to 30 per cent. higher than any others of the department. The first mentioned is the most choice and delicate, and is characterised by its silky softness on the palate, and its charming perfume, which partakes of that of the violet and the raspberry. The Latour has a fuller body, and at the same time a considerable aroma, but wants the softness of the Lafitte. The Château-Margaux, on the other hand, is lighter, and possesses all the delicate qualities of the Lafitte, except that it has not quite so high a flavour. The Haut-Brion, again, has more spirit and body than any of the preceding, but is rough when new, and requires to be kept 6 or 7 years in the wood; while the others become fit for bottling in much less time.

* This was, in reality, a peculiar tax of 3*l.* 10*s.* a pipe on the wine sent to England, the shipments for other places in Europe being quite inconsiderable.

† It was reckoned among the best Spanish wines, in 1542, by Lobera de Avila, physician to Charles V.—(*Don Quixote, por Pellicer*, iv. 130, 8vo. 1788.)

Among the second-rate wines, that of Rozan, in the parish of St. Margaux, approaches in some respects to the growth of the Château-Margaux; Gorce, in the same territory, is little inferior to Latour; and the vineyards of Leoville, Larose, Bran-Mouton, Pichon-Longueville, and Calon in the canton of Pauillac, afford wines of good flavour, which, in favourable years, have much of the excellence of the finer growths, from which, indeed, some of the best can with difficulty be distinguished. Among the third and fourth class wines are those of Pauillac, St. Julien de Regnac, St. Estephe, Canon, St. Emilion, the wines of Haut Medoc, &c. These have each some distinguishing peculiarity; but it requires a *connoisseur* to discriminate between the cognate varieties. In good years the quality is very superior. The aroma of the first growths is seldom fully developed till after they have been kept 8 or 9 years: but the secondary qualities come to perfection a year or two sooner. The colour often grows darker as the wine advances in age, in consequence of the deposition of a portion of its tartar: but, when well made, and thoroughly fined, it seldom deposits any crust.

(See the valuable work of Dr. Henderson, *on Ancient and Modern Wines*, p. 184., and *Jullien, Topographie de Vignobles*, pp. 202—212.)

Bordeaux wines are very rarely exported in a state of purity. We have given in the article BORDEAUX some account of the treatment to which those shipped for England are subjected, and to it we beg to refer the reader.

There is generally a very good supply of claret in bond in the docks in London. Its price varies from about 12*l.* per hogshead for the inferior to 50*l.* and 60*l.* per hogshead for the superior growths. What are called cargo or shipping clarets may be bought at from 5*l.* to 10*l.* per hogshead. The finest case claret sells in bond at about 50*s.* per dozen; but parcels of very well flavoured wine may be bought in bond at 15*s.* or 16*s.*

Champagne,—so called from the province of France of which it is the produce,—is one of the most deservedly esteemed of the French wines. The wines of Champagne are divided into the 2 grand classes of white and red wines; and each of these again into still and sparkling: but there is a great variety in the flavour of the produce of different vineyards. Sillery is universally allowed to be the best of the still wines. It is dry, of a light amber colour, has considerable body, and a charming aroma. "Le corps," (says M. Jullien) "le spiritueux, le charmant bouquet, et les vertus toniques dont il est pourvu, lui assurent la priorité sur tous les autres."—(*Topographie de tous les Vignobles*, p. 30.) Dr. Henderson agrees with Jullien, in considering it as one of the wholesomest of the Champagne wines. The sparkling wines are, however, the most popular, at least in this country. Of these, the wine of Ay, 5 leagues south from Rheims, is, perhaps, the best. It is lighter and sweeter than Sillery, and has an exquisite flavour and aroma. That which merely creams on the surface (*demi-mousseux*) is preferred to the full frothing wine (*grand-mousseux*). Being bright, clear, and sparkling, it is as pleasing to the eye as it is grateful to the palate.

"Cernis micanti concolor ut vitro
Latex in auras, gemmeus aspici,
Scintillet exultim; utque dulces
Naribus illecebras propinet
"Succi latentis proditor halitus!
Ut spuma motu lactea turbido
Crystallinum lætis referre
Mox oculis properet nitorem."

Hautvilliers, about 4 leagues from Rheims and 1 from Epernay, used formerly to produce wine that equalled, and sometimes surpassed, the wine of Ay. But it is no longer cultivated with the same care; so that, though still very good, it now only ranks in the 2d class.

The best of the red wines of Champagne are those of Verzy, Verzenay, Maily, Bouzy, and St. Basle. "Ils ont une belle couleur, du corps, du spiritueux, et surtout beaucoup de finesse, de sève, et de bouquet."—(*Jullien*, p. 27.) The Clos St. Thierry, in the vicinity of Rheims, produces wine which, according to Jullien, unites the colour and the aroma of Burgundy to the lightness of Champagne.

The province of Champagne produces altogether about 1,100,000 hectolitres of wine; of which, however, the finest growths make but a small part. The principal trade in wine is carried on at Rheims, Avise, and Epernay. The vaults in which the vintages are stored are excavated in a rock of calcareous tufa to the depth of 30 or 40 feet. Those of M. Moet, at Epernay, are the most extensive, and few travellers pass through the place without going to see them. The briskest wines (*grands-mousseux*) keep the worst.—(*Jullien*, p. 34.)

Burgundy.—The best wines of this province, though not so popular in England as those of Champagne, probably because they are very apt to be injured by a sea-voyage, enjoy the highest reputation. "In richness of flavour and perfume, and all the more delicate qualities of the juice of the grape, they unquestionably rank as the first in the world; and it was not without reason that the dukes of Burgundy, in former times, were designated as the *princes des vons vins*."—(*Henderson*, p. 161.) M. Jullien is not less decided:—"Les vins des premiers crus, lorsqu'ils proviennent d'une bonne année, réunissent, dans de justes proportions, *toutes les qualités qui constituent les vins parfaits*; ils n'ont besoin d'aucun mélange, d'aucune préparation pour attendre leur plus haut degré de perfection. Ces opérations, que l'on qualifie dans certains pays de *soins qui aident* à la qualité, sont toujours nuisibles aux vins de Bourgogne."—(p. 104.)

Romané-Conti, Chambertin, the Clos Vougeôt, and Richebourg are the most cele

brated of the RED wines of Burgundy. Chambertin was the favourite wine of Louis XIV. and of Napoleon. It is the produce of a vineyard of that name, situated 7 miles south from Dijon, and furnishing each year from 130 to 150 puncheons, from an extent of about 65 acres. It has a fuller body and colour, and greater durability, than the Romané, with an aroma nearly as fragrant.

The white wines of Burgundy are less numerous, and, consequently, less generally known, than the others; but they maintain the highest rank among French white wines, and are not inferior to the red either in aroma or flavour.

The entire annual produce of wine in Burgundy and Beaujolais may at present be estimated, at an average, at nearly 3,500,000 hectolitres, of which about 750,000 suffice for the consumption of the inhabitants. Since the Revolution, the cultivation of the vine has been greatly extended in the province. Many of the new vineyards having necessarily been planted in comparatively unfavourable situations, a notion has been gaining ground that the wines of Burgundy are degenerating. This, however, is not the case. On the contrary, the quantity of *bons crus*, instead of being diminished, has increased considerably; though, as the supply of inferior wines has increased in a still greater degree, the fine wines bear a less proportion to the whole than they did previously to the Revolution. — (*Jullien*, p. 90.)

The principal trade in Burgundy is carried on at Dijon, Gevrey, Châlons-sur-Saône, &c.

Besides the above, France has a great variety of other excellent wines. Hermitage, Sauterne, St. Péry, &c. are well known in England; and deservedly enjoy, particularly the first, a high degree of reputation.

Account of the Quantities and Value of the Wines exported from France in 1852; distinguishing between those of the Gironde and those of other Departments, and between those exported in Casks and Bottles; and specifying the Quantities of those sent to each Country and their total Value.—(*Administration des Douanes* for 1852, p. 241.)

Countries to which exported.	Wine in Casks.				Wine in Bottles.			
	Of the Gironde.		Of other Departments.		Of the Gironde.		Of other Departments.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Hecto-litres.	*Francs.*	*Hecto-litres.*	*Francs.*	*Hecto-litres.*	*Francs.*	*Hecto-litres.*	*Francs.*
Russia	22,840		18,549		814		7,324	
Sweden	1,237		4,643		162		560	
Norway	2,314		2,003		-		-	
Denmark	8,586		7,720		154		-	
German League	31,640		9,485		384		5,599	
Holland	78,192		14,013		642		-	
Belgium	68,365		32,362		459		10,990	
Hanse Towns	88,536		65,111		2,727		2,900	
Hanover	14,908		-		-		-	
Mecklenburg Schwerin	2,535		-		-		-	
England	10,174		16,416		4,970		10,555	
Spain	-		2,746		486		815	
Austria	-		9,212		218		420	
Sardinian States	-		527,058		-		1,653	
The Two Sicilies	-		-		-		577	
Tuscany	-		89,789		-		438	
Roman States	-		7,579		-		506	
Switzerland	-		126,299		-		652	
Turkey	-		3,593		-		993	
Egypt	-		7,450		-		563	
Algeria	2,307		407,836		371		517	
Mauritius	51,942		-		581		-	
India, English	3,145	29,682,064	2,886	38,564,132	2,925	8,072,610	422	19,284,658
Dutch	3,014		-		1,080		-	
French	1 642		-		-		-	
United States of America	161,970		66,204		24,365		19,101	
Hayti	-		3,789		-		657	
Cuba and Porto Rico	3,139		2,940		1,812		1,660	
St. Thomas	-		-		295		876	
Brazil	6,207		42,510		-		694	
Mexico	2,639		-		4,036		578	
Venezuela	1,359		-		529		521	
New Granada	-		-		-		417	
Peru	3,139		-		3,200		910	
Chili	5,574		-		3,092		779	
Rio de la Plata	17,157		26,639		676		-	
Uruguay	25,566		14,755		1,062		409	
Guadaloupe	8,233		9,535		-		-	
Martinique	7,429		26,904		285		-	
Bourbon	36,016		17,943		201		-	
Senegal	10,216		-		-		-	
Cayenne	2,794		9,348		-		-	
Fisheries	1,503		4,189		-		-	
Guatemala	-		-		-		534	
Other places	6,379		19,021		1,033		1,972	
Totals	600,867	29,682,064	1,598,565	38,564,132	56,060	8,072,610	74,172	19,284,658

This makes a total export of 2,419,604 hectolitres, worth 95,403,464 fr., or 3,816,000*l*. About ten years ago the exports did not exceed 1,500,000 hectolitres, so that there has been a large increase in the interval. And were France to adopt a liberal commercial policy, it is not easy to say to how great an extent her exports of wine, in the production of which she is immeasurably superior to every other country, might be increased.

Exclusive of the above, there were exported from France, in the same year, 18,96[illegible] hectolitres of *vins de liqueurs*, valued at 2,001,836 francs.

The total produce of the vineyards of France is estimated at about 35,000,000 hectolitres (770,000,000 Imp. gallons), worth 540,000,000 francs (21,600,000*l.*). We beg to refer the reader to the article BORDEAUX, for an account of the influence of the French system of commercial policy on this great department of industry.

Dispute as to the comparative Merit of Champagne and Burgundy. — The question, whether the wines of Champagne or Burgundy were entitled to the preference, was agitated during the reign of Louis XIV. with extraordinary keenness. The celebrated Charles Coffin, rector of the University of Beauvais, published, during this controversy, the classical ode, partly quoted above, in which Champagne is eulogised, and its superiority vindicated, with a spirit, vivacity, and delicacy worthy of the theme. The citizens of Rheims were not ungrateful to the poet; but liberally rewarded him with an appropriate and munificent donation of the wine he had so happily panegyrised. Gréneau wrote an ode in praise of Burgundy; but, unlike its subject, it was flat and insipid, and failed to procure any recompence to its author. The different pieces in this amusing controversy were collected and published in octavo, at Paris, in 1712.— (See *Le Grand d'Aussy, Vie Privée des Français*, tom. iii. p. 39., and the *Biographie Universelle*, tom. ix. art. *Coffin* (*Charles*).) Erasmus attributes the restoration of his health to his having drunk liberally of Burgundy; and has eulogised it in the most extravagant terms. An epistle of his, quoted by Le Grand d'Aussy, shows that Falstaff and he would have spent an evening together more agreeably than might have been supposed: — "Le premier qui enseigna l'art de faire ce vin (Bourgogne), ou qui en fit present, ne doit-il point passer plutôt pour nous avoir donné la vie que pour nous avoir gratifié d'une liqueur." — (*Vie Privée des Francaise*, tom. iii. p. 9.)

Consumption of French Wine in England. Discriminating Duties. — Owing to the intimate connection subsisting between England and France for several centuries after the Conquest, the wines of the latter were long in almost exclusive possession of the English market: but the extension of commerce gradually led to the introduction of other species; and in the reigns of Elizabeth and James I. the dry white wines of Spain seem to have been held in the highest estimation. This, however, was only a temporary preference. Subsequently to the Restoration, the wines of France regained their former ascendancy. In 1687 their importation amounted to 15,518; in 1688, to 14,218; and in 1689, to 11,106 tuns. It is exceedingly doubtful whether so much as a single pipe of port had ever found its way to England previously to this period. — (*Henderson*, p. 313.); and it is most probable that the wines of France would have continued to preserve their ascendancy in our markets, had not their importation been artificially checked.

The trade with France had occasionally been prohibited previously to the accession of William III.; but it was not until 1693 that any distinction was made between the duties payable on French and other wines. But Louis XIV. having espoused the cause of the exiled family of Stuart, the British government in the irritation of the moment, and without reflecting that the blow aimed at the French would infallibly recoil upon themselves, imposed, at the period above mentioned, a discriminating duty of 8*l.* a tun on French wines, and in 1697 increased it to 33*l.*! In consequence of this enormous augmentation of duty on French wines, the merchants began to import red wine from Oporto as a substitute for the red wines of Bordeaux, excluded by the high duties. It is probable, however, that these discriminating duties would have been repealed as soon as the excitement which produced them had subsided, and that the trade would have returned to its old channels, had not the stipulations in the famous commercial treaty with Portugal, negotiated by Mr. Methuen in 1703, given them permanence. Such, however, was unluckily the case: for, according to this treaty, we bound ourselves to charge in future 33⅓ per cent. higher duties on the wines of France than on those of Portugal; the Portuguese, by way of compensation, binding themselves to admit our woollens into their markets in preference to those of other countries, at a fixed and invariable rate of duty.

Though very generally regarded at the time as the highest effort of diplomatic skill and address, the Methuen treaty was certainly founded on the narrowest views of national interest, and proved, in no common degree, injurious to both parties, but especially to England. By binding ourselves to receive Portuguese wines for *two thirds* of the duty payable on those of France, we, in effect, gave the Portuguese growers a monopoly of the British market, and thereby attracted too great a proportion of the deficient capital of Portugal to the production of wine; while, on the other hand, we not only excluded one of the principal equivalents the French had to offer for our commodities, and proclaimed to the world that we considered it better to deal with *two* millions of poor beggarly customers, than with *thirty* millions of rich ones, but we also provoked the retaliation of the French, who forthwith excluded most part of our articles from their markets!

The injurious effect of the regulations in the Methuen treaty was distinctly pointed

out by Dr. Davenant and Mr. Hume. The latter, in his *Essay on the Balance of Trade*, published in 1752, says, "Our jealousy and hatred of France are without bounds. These passions have occasioned innumerable barriers and obstructions on commerce, where we are commonly accused of being the aggressors. But what have we gained by the bargain? *We lost the French market for our woollen manufactures*, and transferred the commerce of wine to Spain and Portugal, *where we buy much worse liquor at a much higher price!* There are few Englishmen who would not think their country absolutely ruined were French wine sold in England so cheap, and in such abundance, as to supplant ale and other home-brewed liquors. But, would we lay aside prejudice, it would not be difficult to prove that nothing could be more innocent; perhaps more advantageous. Each new acre of vineyard planted in France, in order to supply England with wine, would make it requisite for the French to take an equivalent in English goods, by the sale of which we should be equally benefited."

In consequence of the preference so unwisely given to the wines of Portugal over those of France.—a preference continued, in defiance of every principle of sound policy and common sense, down to 1831,—the imports of French wine were for many years reduced to a mere trifle; and notwithstanding their increased consumption, occasioned by the reduction of the duties in 1825, the quantity of all sorts retained for consumption in 1852 did not exceed 475,948 gallons; while the consumption of Portuguese wines amounted in the same year to 2,489,350 gallons! This is the most striking example, perhaps in the history of commerce, of the influence of customs duties in diverting trade into new channels, and altering the taste of a people. All but the most opulent classes having been compelled, for a long series of years, either to renounce red wine, or to use port, the taste for the latter has become firmly rooted; the beverage that was originally forced upon us by necessity having become congenial from habit. It was expected when the discriminating duty in favour of port was abolished in 1831 that the excellence of the French wines would speedily regain for them a large portion of that favour in the English market which they formerly enjoyed. But though apparently reasonable, this expectation has not been realised. (See *post.*)

Madeira—so called from the island of that name—is a wine that has long been in high estimation in this and other countries. Plants of the vine were conveyed from Crete to Madeira in 1421, and have succeeded extremely well. There is a considerable difference in the flavour and other qualities of the wines of Madeira: the best are produced on the south side of the island. Though naturally strong, they receive an addition of brandy when racked from the vessels in which they have been fermented, and another portion is thrown in previously to their exportation. This is said to be required to sustain the wine in the high temperature to which it is subjected in its passage to and from India and China, to which large quantities of it are sent; it being found that it is mellowed, and its flavour materially improved, by the voyage. It does not, however, necessarily follow that the wines which have made the longest voyages are always the best. Much must obviously depend on the original quality of the wine; and many of the parcels selected to be sent to India are so inferior, that the wine, when brought to London, does not rank so high as that which has been imported direct. But when the parcel sent out has been well chosen, it is very much matured and improved by the voyage; and it not only fetches a higher price, but is in all respects superior to the direct importations. Most of the adventitious spirit is dissipated in the course of the Indian voyage.

Madeira wines may be kept for a very long period. "Like the ancient vintages of the Surrentine hills, they are truly *firmissima vina*, retaining their qualities unimpaired in both extremes of climate, suffering no decay, and constantly improving as they advance in age. Indeed, they cannot be pronounced in condition until they have been kept for 10 years in the wood, and afterwards allowed to mellow nearly twice that time in bottle; and even then they will hardly have reached the utmost perfection of which they are susceptible. When of good quality, and matured as above described, they lose all their original harshness, and acquire that agreeable pungency, that bitter sweetishness, which was so highly prized in the choicest wines of antiquity; uniting great strength and richness of flavour with an exceedingly fragrant and diffusible aroma. The nutty taste, which is often very marked, is not communicated, as some have imagined, by means of bitter almonds, but is inherent in the wine."—(*Henderson*, p. 253.)

The wines of Madeira have latterly fallen into disrepute in England. The growth of the island, when greatest, was very limited—not exceeding 20,000 pipes, of which a considerable quantity went to the West Indies and America. Hence, when Madeira was a fashionable wine in England, every sort of deception was practised with respect to it, and large quantities of spurious trash was disposed of for the genuine vintage of the island. This naturally brought the wine into discredit; so that sherry has been for several years the fashionable white wine. It is difficult, however, to imagine that adulteration was ever practised to a greater extent upon Madeira than it is now practised upon sherry. It is not, therefore, improbable, that a reaction may take place in favour of Madeira. The quantity entered for home consumption in 1827 amounted to

308,295 gallons, whereas the quantity entered for home consumption in 1852 amounted to only 69,730 gallons.

Malmsey, a very rich luscious species of Madeira, is made from grapes grown on rocky grounds exposed to the full influence of the sun's rays, and allowed to remain on the vine till they are over-ripe.

The trade in Madeira wine is carried on at Funchal, the capital of the island, in lat. 32° 37′ N., lon. 17° 6′ W. *Weights and measures* same as at Lisbon. Madeira is said to have suffered very severely from the disease that has recently attacked the vine.

Teneriffe wine — so called from the island of that name — resembles Madeira, and is not unfrequently substituted in its stead; but it wants the full body and rich flavour of the best growths of Madeira.

German Wines. — The wines of Germany imported into England are principally produced on the banks of the Rhine and Moselle. The Rhine wines constitute a distinct order by themselves. They are drier than the French white wines, and are characterised by a delicate flavour and aroma, called in the country *gāre*, which is quite peculiar to them, and of which it would, therefore, be in vain to attempt the description. A notion prevails, that they are naturally acid; and the inferior kinds no doubt are so; but this is not the constant character of the Rhine wines, which in good years have no perceptible acidity to the taste, at least not more than is common to them with the growths of warmer regions. Their chief distinction is their extreme durability. The wines made in warm dry years are always in great demand, and fetch very high prices.

The Johannisberger stands at the head of the Rhine wines. It has a very choice flavour and perfume, and is characterised by an almost total want of acidity. The vineyard is the property of Prince Metternich. The Steinberger ranks next to the Johannisberger. It is the strongest of all the Rhenish wines, and in favourable years has much flavour and delicacy.

The produce of certain vineyards on the banks of the Moselle is of superior quality. The better sorts are clear and dry, with a light pleasant flavour and high aroma; but they sometimes contract a slaty taste from the strata on which they grow. They arrive at maturity in 5 or 6 years; though, when made in a favourable season, they will keep twice that time, without experiencing any deterioration. — (*Henderson*, p. 226.)

Tokay — so called from a town in Hungary, near which it is produced, on the Theiss, 44 m. N. N. W. Debreczin. It is the finest of all the liqueur wines. It consists of three varieties, viz. the *Essence*, flowing spontaneously from the ripest grapes, and corresponding with the *Mustum sponte defluens antequam calcentur uvæ* of the ancients; the *Ausbruch*, obtained by pressing the grapes with the hand, a small quantity of good new wine, or must, being at the same time poured over them; and the *Maslas*, or inferior variety, produced by pouring a larger quantity of less choice must over the same berries, and subjecting them to the action of the press. Of these varieties the first, which is made only in very small quantities, is in the highest degree sweet and luscious, and is more sought for as a rarity, than as being pleasant to the palate. It is on the Ausbruch that the reputation of Tokay depends. Mr Paget says, "It is sweet, rich, but not cloying; strong, full-bodied, but mild, bright, and clear; and has a peculiar flavour of most exquisite delicacy. I never tasted it in perfection but at private tables, and that only twice; I could then have willingly confessed it the finest wine in the world." The Maslas, or inferior variety, is a much thinner wine, rather sweet, with a preponderating flavour of the dried grape. Mr. Paget estimates the entire produce of the Tokay vineyards in ordinary years at about 250,000 eimers, of about 16 bottles each. The best Ausbruch is very dear; and but little that is genuine is seen in England. (*Paget's Travels in Hungary*, i. 481.; *Henderson*, p. 228.; *Jullien*, p. 446.)

Italian Wines. — The Sicilian white wine called Marsala, from the town (the ancient Lilybœum) whence it is shipped, and near which it is made, is now pretty largely consumed in England; the entries for home consumption having increased from 79,686 gallons in 1823, to 387,750 in 1852; an extraordinary increase, particularly when it is considered that during the same period the consumption of most sorts of wine has been nearly stationary. Latterly, however, it has been rather declining. Marsala is a dry wine: the best qualities closely resembling the lighter sorts of Madeira; but the increased demand for it seems to have been owing as much to its cheapness as to any peculiarity of quality. It is, however, when good, an agreeable dinner wine. Marsala has been brought to its present state of perfection and repute by the care and exertions of 2 Englishmen, the Messrs. Woodhouse, established in Sicily, who have an extensive factory in the neighbourhood of Marsala. The wine is shipped in large quantities for America; whence a considerable quantity is again conveyed to the West Indies, where it is not unfrequently disposed of as real Madeira.

With the exception of Marsala, very little wine either of Sicily or Italy is imported into England. The wines of those countries are, indeed, without, perhaps, a single ex-

ception, very inferior to those of France. The natives bestow no care upon the culture of the vine; and their ignorance, obstinacy, and want of skill in the preparation of wine, are said to be almost incredible. In some districts, as in Tuscany and parts of Naples, the art is, no doubt, better understood and practised than in others; the *Montepulciano* of the former, said, by Redi (*Bacco in Toscana*) to be *d' ogni vino il re*, and the *Lacrima Christi* of the latter, being the most celebrated varieties. But the lacrima is better known by name than in reality, it being made in small quantities, and mostly reserved for the royal cellars. (*Henderson*, p. 239.) And, despite the superior quality of those now mentioned, had not the Falernian, Cecuban, and other famous ancient wines, been incomparably better than the best of those that are at present produced, they never would have elicited the glowing panegyrics of Horace.

Wines of Greece and Cyprus. — The soil in most parts of Greece and of the Grecian islands is admirably fitted for the growth of the vine; and, in antiquity, they produced some of the choicest wines. But the rapacity of the Turks, and the insecurity of person and property that has always prevailed under their miserable government, has effectually prevented the careful cultivation of the vine; and has occasioned, in many places, its total abandonment. It may, however, be fairly presumed, now that Greece has emancipated herself from the iron yoke of her oppressors, that the culture of the vine will attract some portion of that attention to which it is justly entitled; and that, at no distant period, wine will form an important article of export from Greece.

Nowhere, perhaps, has the destructive influence of Turkish barbarism and misgovernment been so apparent as in Candia and Cyprus. While these 2 renowned and noble islands were possessed by the Venetians, they supplied all Europe with the choicest dessert wines. Bacci affirms, that towards the end of the 16th century, Candia sent annually 200,000 casks of malmsey to the Adriatic; whereas at present it hardly produces sufficient to supply the wants of its few impoverished inhabitants. — (*Henderson*, p. 243.) The wines of Cyprus, particularly those produced from the vineyard called the Commandery, from its having belonged to the Knights of Malta, were still more highly esteemed than those of Crete. In the earlier part of last century, the total produce of the vintage of the island was supposed to amount to above 2,000,000 gallons, of which nearly $\frac{1}{3}$ was exported; but now the wine grown and exported does not amount to $\frac{1}{10}$th part of these quantities! The oppression of which they have been the victims has reduced the peasantry to the extreme of indigence. The present population of the island is not supposed to exceed 60,000,—a number insufficient to have peopled one of its many ancient cities; and small as this number is, it is constantly diminishing by the inhabitants availing themselves of every opportunity of emigrating.—(See *Geog. Dict.* art. *Cyprus.*)

Cape Wines. — Of the remaining wines imported into England those of the Cape of Good Hope form the largest portion; the quantity retained for home consumption in 1852 being 242,619 Imperial gallons. But the consumption of Cape wine was formerly much more considerable, having amounted in 1827, when it was less heavily taxed in comparison with other wines than at present, to 698,434 galls. The famous Constantia wine is the produce of 2 contiguous farms of that name, at the base of Table Mountain, between 8 and 9 miles from Cape Town. The wine is very rich and luscious; though, according to Henderson, it yields in point of flavour and aroma to the muscadine wines of Languedoc and Roussillon. But, with this exception, most part of the Cape wines brought to England have an earthy disagreeable taste, are often acid, want flavour and aroma, and are, in fact, altogether execrable. And yet this trash, being the produce of a British possession, enjoys peculiar advantages in our markets; for while the duty on Cape wine is only 2*s.* 11*d.* a gallon, that on all other wines is 5*s.* 9*d.* The consequences of this unjust preference are doubly mischievous: in the first place, it forces the importation of an article of which little is directly consumed, but which is extensively employed as a convenient menstruum for adulterating and degrading sherry, Madeira, and other good wines; and, in the second place, it prevents the improvement of the wine; for, while the legislature thinks fit to give a bounty on the importation of so inferior an article, is it to be supposed that the colonists should exert themselves to produce any thing better? It is not easy to imagine a more preposterous and absurd regulation. The act enforcing it should be entitled, an act for the adulteration of wines in Great Britain, and for encouraging the growth of bad wine in the Cape colony.

Consumption of Wine in Great Britain. Duties. — We have repeatedly had occasion, in the course of this work, to call the reader's attention to the injurious operation of unequal and exorbitant duties. Perhaps, however, the trade in wine has suffered more from this cause than any other department of commerce. We have already endeavoured to point out some of the effects resulting from the inequality of the duties, or from the preference so long given to the inferior wines of Portugal and Spain over the superior wines of France. But the exorbitancy of the duties was, if possible, still more objectionable than the partial principle on which they were imposed. It appears from the subjoined Table, that during the 9 years ending with 1794, when the duty on French wines was 4*s.* 10*d.*, and on Portuguese 3*s.* 1$\frac{3}{4}$*d.* per imp. gallon, the consumption in Great Britain amounted, at an average, to 7,021,770 gallons a year, producing 900,000*l.* of revenue. It is probable, had the increase taken place *gradually*, that these duties might have been greatly increased without any material diminution of con-

sumption. But in 1795 and 1796 they were raised to 10*s.* 6*d.* per gallon on French and 6*s.* 1*d.* per gallon on Portuguese and Spanish wine; and the consequence of this sudden and inordinate increase, as exhibited in the Table, was, that the consumption fell from above 7,000,000 gallons in 1795 to 4,189,710 gallons in 1796, and to 5,449,710 in 1797! But this unanswerable demonstration of the ruinous effect of heavy and sudden additions to the duties did not prevent them being raised, in 1804, to 13*s.* 9*d.* on French, and to 8*s.* 10*d.* on Portuguese and Spanish wine. They continued at this rate till 1825; and such was their influence, that notwithstanding the vast increase of wealth and population since 1790, and the general improvement in the style of living, the total consumption of wine, during the 3 years ending with 1824, amounted, at an average, to only 4,827,383 gallons a year, being 697,507 gallons under the annual consumption of the 9 years ending with 1794! It may, therefore be truly said, making allowance for the increase of population, that the consumption of wine in Great Britain fell off full fifty per cent. between 1790 and 1824.

On Mr. Robinson (now Lord Ripon) becoming Chancellor of Exchequer, he resolved upon the effectual reduction of the wine duties; and took, in 1825, nearly 50 per cent. from their amount; and notwithstanding the spirit duties were at the same time reduced in a still greater degree, the consumption of wine in Great Britain has been increased in ordinary years from about 4,500,000 to about 6,300,000 Imperial gallons, while there has been no loss of revenue. We are, therefore, justified in affirming that this measure has been very successful, and that it affords a valuable example of the superior productiveness of low duties.*

The duties, as reduced by Mr. Robinson, were 7*s.* 3*d.* per Imperial gallon on French wines, 4*s.* 10*d.* per do. on all other foreign wines, and 2*s.* 5*d.* on those of the Cape of Good Hope. They continued on this footing till the equalisation act (1 & 2 Will. 4. c. 30.), which imposed a duty of 5*s.* 6*d.* per Imperial gallon on all foreign wines, and 2*s.* 9*d.* on those of the Cape, to which 5 per cent. was added in 1840.

But the equalisation effected by this act should not have been brought about by adding any thing to the duties on port, sherry, &c., but by reducing those on French wines to their level. The subjoined Tables show that the consumption of wine in the U. Kingdom was about stationary from 1826 to 1831; and the addition of 8*d.* a gallon, that was then made to the duties on all sorts of foreign wine except French, from which 1*s.* 9*d.* was deducted, appears to have sensibly affected the consumption of 1832. Considering, indeed, the increasing wealth and population of the U. Kingdom, and the more generally diffused use of wine, the stationary amount of the quantities retained for consumption is not a little surprising. A good deal is, we believe, ascribable to adulteration, and more, probably, to a change of habits. The duties are, also, perhaps, too high. But they are more objectionable from the mode in which they are assessed than from their amount. It is against all principle to impose the same duty on inferior and cheap wines, worth only 10*l.* a hogshead, as on the choicest Burgundy and Champagne, worth 60*l.* or 70*l.* a hogshead. Its injustice would not be exceeded, were the same duty charged on small beer that is charged on gin! The effect of this apparently equal, but really *most unequal* duty, is to exclude low priced wines from the English markets. Commercially speaking, Bordeaux is nearer London than Paris: and but for this system, the cheap wines of the Gironde, Languedoc, and Provence might be bought here at a less price than in most parts of France. But, how desirable soever, it would be all but impossible to assess an *ad valorem* duty on wine. It is frequently no easy matter to distinguish between different descriptions of wine, and it is still more difficult to distinguish between different varieties of the same wine, though they may differ greatly in value. There can, in truth, be little doubt that any attempt to lay an *ad valorem* duty on wine would occasion such an amount of fraud as would greatly overbalance any advantage of which it might be productive.

A proposal has recently been made, which has met with considerable support, for reducing the duty on all wines to 1*s.* a gallon. It is contended that a reduction of this extent would not occasion any permanent loss of revenue, inasmuch as it would have the effect, in no very lengthened period, of increasing the consumption to five or six times its present amount! But we greatly doubt whether such would be the case. A reduction of the duty to the extent supposed would not have any considerable influence in reducing the price of the finer descriptions of wine; and it is very questionable whether the inferior and low priced wines that are now excluded, would, though there were no duty, be very generally introduced into this country. The better opinion seems to be that beer would continue, as at present, to be preferred by the bulk of the population; and if so, the measure would have little other influence than to occasion a reduction of revenue.

Besides, if the wine duties were reduced to 1*s.* a gallon, and the consumption to

* An article in the Edinburgh Review, No. 80., contributed to bring about this measure. See also an excellent tract on the *Wine Trade*, by Mr. Warre, published in 1824.

increase to the extent that has been anticipated, there would certainly be a serious decline in the consumption of malt and spirits, and, consequently, in the revenue derived from them. And to do justice to all parties, to the growers of barley and the distillers, as well as the importers of wine, it would be necessary to make a corresponding reduction in the duties on malt and spirits. Unless this were done, a reduction of the wine duties to 1*s.* a gallon would be really equivalent to a bounty or premium on the consumption of wine. But there should be no favouritism in taxation; and, however desirable, the substitution of one sort of stimulus for another is not to be effected by encroaching on that equality of taxation which should be a fundamental principle in every sound system of finance.

Unless, therefore, some means be discovered of fairly and easily assessing the wine duties on an *ad valorem* principle, little probably would be gained by disturbing the present arrangement. A reduction of the duties to 3*s.* a gallon, that is, to about 6*d.* a bottle, has been suggested; and if they are to be interfered with, this would seem to be the most judicious plan. A duty of this amount would not be felt on the superior wines; and while it would be no great check to the consumption of the secondary growths, it would not give an undue stimulus to the use of wine.

Consumption of Wine in Ireland. Duties.—In 1790, the duties on wine consumed in Ireland were considerably below the level of those imposed in Great Britain, and the average annual quantity of all sorts retained for home consumption in that country amounted to about 1,160,000 Imperial gallons, producing about 138,000*l.* a year revenue. Had those to whom the government of Ireland was intrusted possessed any knowledge of the merest elements of finance, or of the condition of the Irish people, they would not have attempted to add to the public revenue by augmenting the duties on wine. Owing to the limited number of the middle classes in Ireland, an increase of duty could not be expected to be productive; and though it had yielded 50,000*l.*, or even 100,000*l.* a year additional revenue, that would have been no compensation for the injury it was sure to do in checking the diffusion of that taste for luxuries and enjoyments so essential to the improvement of the people. But those who had to administer the affairs of Ireland were insensible to such considerations; and never doubted that 2 and 2 make 4 in the arithmetic of the customs as well as of Cocker! Such, indeed, was their almost incredible rapacity, that in the interval between 1791 and 1814, they raised the duty on French wine from 33*l.* 7*s.* a tun to 144*l.* 7*s.* 6*d.*; and that on port from 22*l.* 4*s.* 8*d.* to 95*l.* 11*s.*! This was a much more rapid increase than had taken place in England; and as the country was far less able to bear even the same increase, the consequences were proportionally mischievous. In 1815, the quantity of wine retained for home consumption in Ireland had declined, notwithstanding the population had doubled, to 608,000 Imperial gallons, or to about *half* the quantity consumed in 1790; and in 1824, the consumption had fallen to 467,000 gallons, while the revenue only amounted to 185,000*l.*!

The reduction of the duties in 1825 nearly *doubled* the consumption of wine directly imported into Ireland, and added considerably to the revenue; but since 1814, when the duties on wine in Great Britain and Ireland were equalised, it has not been possible to state the consumption of wine in either with accuracy, on account of the transhipments from the former to the latter. It is, however, quite certain that the consumption of wine in Ireland, partly in consequence of the high duties, and partly of a change in the mode of living, does not now (1853) amount, as compared with the population, to half its amount in 1790.

Adulteration of Wine.— We have already alluded to this practice. It was prosecuted to a very great extent previously to the reduction of the duties in 1825, and is still very far from being suppressed. It has been affirmed, but we are inclined to suspect the statement of exaggeration, that at this moment more than *a third* part of all the sherry consumed in London is the produce of the *home presses!* Indeed wines are every day offered for sale at prices at which every one conversant with the trade knows they, could not be afforded were they genuine. Mr. Fleetwood Williams has given, in his pamphlet on the *Wine Trade* (1824), some curious details on this subject.

The increase of the duties in the reigns of William and Anne first gave birth to this discreditable fraternity — (see a paper by Addison in the *Tatler*, No. 131.) But though adulteration be promoted by, it does not wholly depend on the duties; but will continue so long as the materials used in adulteration are cheaper than the wine, or article adulterated.

The only security against being imposed upon, is to deal with respectable houses largely engaged in the trade; to whom a reputation for selling good wine is of ten times more importance than any thing they could expect to make by adulteration.

Measures.— According to the system of wine measures that prevailed down to 1826, the gallon contained 231 cubic inches: the tierce, 42 gallons; the puncheon, 84 gallons; the hogshead, 63 gallons; the pipe or butt, 126 gallons; and the tun, 252 gallons. But in the new system of measures introduced by the act 5 Geo. 4. c. 74., the Imperial standard gallon contains 277,274 cubic inches; so that the tierce = 35 (very nearly) Imperial gallons; the puncheon = 70 (very nearly) do.; the hogshead = 52½ (very nearly) do.; the pipe or butt = 105 (very nearly) do.; and the tun = 210 (very nearly) do.—(See WEIGHTS AND MEASURES.)

A very great quantity of wine is sold to the consumer in dozens; much more, indeed, than is sold in any other way; and yet there is no regulation as to the size of bottles,—a defect which has occasioned a great deal of abuse. No one doubts the propriety of making all gallons, bushels, &c. of the same capacity; and why should not similar regulations be enforced in the case of measures so universally used as bottles?

No abatement of duties made on account of any damage received by wine.—(16 & 17 Vict. c. 107. § 110.)

Wine from a British possession must be accompanied by a certificate of its origin.— (16 & 17 Vict. c. 107. § 84.)

Wine for Officers of Navy.— For the quantity of duty-free wine to be allowed to officers of the navy, and the regulations under which it is to be allowed, see *antè*, p. 707.

Regulations as to mixing, bottling, &c. in Warehouses.— It shall be lawful with the sanction of the commissioners of customs, and after notice given by the respective importers or proprietors, to draw off any wine or any spirits into reputed quart or pint bottles for exportation only; and to draw off and mix brandy with any wine, not exceeding the proportion of 10 gallons brandy to 100 gallons wine; and also to fill up any casks of wine or spirits from any other casks of the same respectively secured in the same warehouse; and also to rack off any wine from the lees, and mix any wines of the same sort, erasing from the cask all import brands, unless the whole of the wine so mixed be of the same brand; and also to take such samples as may be allowed by the commissioners of customs, with or without entry, and with or without payment of duty, except as the same may eventually become payable as on a deficiency of the original quantity.— (16 & 17 Vict. c. 107. § 105.) Geropiga may be mixed with other wines under the same regulations, and in the same proportions as brandy.

We have borrowed the first part of the following comprehensive table from the valuable Circular of Thomas George Shaw, Esq., wine merchant. The latter years are taken from Parliamentary papers.

Account of the Quantities of the different Descriptions of Wine entered for Consumption from 1784 down to 1852, specifying the Rates of Duty levied on each, the Total Amount of Duty, &c.

Year.	Years.	Portuguese.		Spanish.		Madeira.		Teneriffe.		Sicilian.		Cape.		French.		Rhenish.		Total Gallons.	Revenue.
		Gallons.	Duty.	Gallons.	Duty.	Gallons.	Duty.	Gallons.	Duty.	Gallons.	Duty.	Gallons.	Duty.	Gallons.	Duty.	Gallons.	Duty.		
From 1784 to 1785	av. 2	2,602,110	4s. 8d.	619,920	4s. 10d.	-	-	-	-	-	-	-	-	97,230	9s. 2d.	31,080	5s. 2½d.	-	£625,454 0 0
— 1786 — 1794	— 9	4,180,890	3 1⅜	921,270	3 1⅜	196,140	3s. 1⅞d.	20,370	3s. 1⅞d.	5,460	3s. 1⅞d.	-	-	179,970	4 10	20,790	-	5,524,890	889,031 0 0
— 1795	-	5,161,170	5 0¼	1,610,280	5 0¼	122,430	5 0¼	27,950	5 0¼	2,750	6 5	-	-	96,180	7 8½	1,050	7 1¼	7,021,770	1,430,722 0 0
— 1796	-	2,909,970	6 11	1,123,290	6 11	78,350	6 11⅝	25,410	6 11	18,270	8 3	-	-	51,020	10 6¾	420	9 0¼	4,189,710	1,159,523 0 0
— 1797 to 1802	av. 6	4,136,580	-	1,058,820	-	167,790	-	22,050	-	-	-	-	-	53,760	-	10,710	-	5,449,710	1,723,339 0 0
— 1803	-	5,616,540	8 4	1,519,010	8 4	311,220	8 4	25,310	8 4	34,860	-	-	-	135,450	12 7½	7,770	10 2	7,447,860	2,141,356 0 0
1804	-	1,821,640	8 10	1,287,510	8 10	186,690	8 10	24,630	8 10	-	-	-	-	16,170	13 9	1,260	10 11	3,347,920	2,814,514 0 0
— 1805 to 1814	av. 10	3,773,070	9 1	1,461,120	9 1	354,050	9 2½	200,340	9 1	123,690	9 1	-	-	90,930	-	9,050	11 3	6,015,050	1,974,102 0 0
— 1815 — 1820	— 6	2,525,460	-	828,540	-	353,940	-	175,770	-	55,020	-	441,650	3s. 0d.	156,480	-	21,420	-	4,564,140	1,931,865 0 0
1821	1	2,343,509	-	959,854	-	400,476	-	160,350	-	69,102	-	572,151	-	159,462	-	21,991	-	4,686,885	1,797,491 0 0
1822	-	2,375,210	-	967,149	-	341,976	-	129,620	-	66,025	-	538,847	-	168,752	-	19,500	-	4,606,999	1,791,013 0 0
1823	-	2,494,212	-	1,078,922	-	323,754	-	123,056	-	79,686	-	545,119	-	171,681	-	25,670	-	4,845,060	1,907,466 0 0
1824	-	2,512,315	-	1,217,054	-	297,479	-	117,428	-	77,085	-	595,299	-	187,477	-	25,976	-	5,030,091	1,967,953 0 0
1825	-	4,200,719	4 10	1,850,975	4 10	372,524	4 10	167,108	4 10	134,009	4 10	670,659	2 5	525,579	7 3	107,299	4 10	8,009,542	2,815,055 0 0
1826	-	2,853,688	-	1,622,580	-	286,275	-	134,445	-	140,518	-	650,436	-	343,707	-	66,994	-	6,058,443	1,270,118 0 0
1827	-	3,222,192	-	1,908,331	-	300,295	-	152,958	-	156,721	-	698,434	-	311,289	-	76,161	-	6,826,361	1,426,550 0 0
1828	-	3,307,021	-	2,097,628	-	272,977	-	137,553	-	186,537	-	652,286	-	421,469	-	86,905	-	7,162,376	1,506,122 0 0
1829	-	2,682,081	-	1,964,162	-	229,322	-	101,699	-	219,172	-	579,744	-	365,336	-	76,396	-	6,217,652	1,292,402 0 0
1830	-	2,869,608	-	2,081,423	-	217,138	-	101,892	-	252,513	-	535,255	-	508,294	-	63,322	-	6,434,445	1,351,607 0 0
1831	-	2,707,734	5 6	2,089,532	5 6	209,127	5 6	94,803	5 6	259,918	5 6	539,534	2 9	254,366	5 6	57,888	5 6	6,212,264	1,336,206 0 0
1832	-	2,617,405	-	2,080,099	-	159,898	-	72,803	-	254,251	-	514,262	-	314,197	-	38,197	-	5,965,542	1,319,643 0 0
1833	-	2,596,550	-	2,246,085	-	161,012	-	69,621	-	312,993	-	545,191	-	232,550	-	43,758	-	6,207,770	1,629,219 0 0
1834	-	2,780,303	-	2,279,854	-	150,369	-	62,186	-	372,744	-	524,081	-	260,650	-	50,377	-	6,180,514	1,705,520 0 0
1835	-	2,780,024	-	2,230,187	-	139,422	-	52,862	-	374,549	-	522,941	-	271,661	-	48,696	-	6,420,342	1,691,522 0 0
1836	-	2,878,359	-	2,588,413	-	135,873	-	54,584	-	403,155	-	541,511	-	352,065	-	59,454	-	6,811,212	1,793,965 0 0
1837	-	2,373,157	-	2,297,070	-	119,873	-	42,146	-	373,458	-	500,727	-	440,322	-	44,807	-	6,391,560	1,687,097 0 0
1838	-	2,300,457	-	2,497,533	-	110,294	-	37,079	-	370,610	-	538,528	-	417,281	-	57,584	-	6,990,371	1,846,206 0 0
1839	-	2,921,422	-	2,578,997	-	118,715	-	35,178	-	369,417	-	534,182	-	378,636	-	55,937	-	7,000,486	1,849,699 0 0
1840	-	2,668,536	5 9	2,500,760	5 9	112,555	5 9	29,489	5 9	383,774	5 9	456,773	2 11	341,841	5 9	60,056	5 9	6,553,992	1,872,799* 0 0
1841	-	2,387,017	-	2,412,821	-	107,701	-	25,772	-	401,439	-	441,238	-	353,740	-	55,242	-	6,184,960	1,800,127 0 0
1842	-	1,288,953	-	2,261,786	-	65,209	-	21,169	-	393,028	-	370,800	-	360,692	-	53,585	-	4,185,222	1,409,205 0 0
1843	-	2,517,709	-	2,511,639	-	95,589	-	20,597	-	416,643	-	532,369	-	326,498	-	49,913	-	6,068,957	1,704,431 0 0
1844	-	2,887,501	-	2,478,360	-	111,577	-	20,650	-	463,685	-	519,257	-	473,789	-	53,865	-	6,858,684	1,960,758 0 0
1845	-	2,688,084	-	2,544,877	-	102,745	-	20,260	-	506,525	-	537,793	-	415,350	-	62,519	-	6,736,151	1,747,560 0 0
1846	-	2,669,798	-	2,602,490	-	94,580	-	25,312	-	508,295	-	365,867	-	449,506	-	64,748	-	6,740,316	1,887,516 0 0
1847	-	2,360,851	-	2,372,178	-	81,549	-	22,921	-	470,429	-	295,016	-	397,329	-	55,774	-	6,055,847	1,700,195 0 0
1848	-	2,446,813	-	2,435,427	-	76,938	-	20,511	-	488,683	-	267,922	-	355,802	-	41,651	-	6,136,547	1,727,409 0 0
1849	-	2,648,242	-	2,448,107	-	71,097	-	19,955	-	444,541	-	241,845	-	331,690	-	46,405	-	6,251,862	1,767,516 0 0
1850	-	2,814,979	-	2,469,0 8	-	70,560	-	16,241	-	425,056	-	246,132	-	340,748	-	54,668	-	6,437,242	1,824,457 0 0
1851	-	2,524,775	-	2,533,384	-	71,025	-	16,039	-	394,225	-	234,772	-	447,556	-	58,957	-	6,280,653	1,776,246 13 0
1852	-	2,489,350	-	2,606,857	-	69,750	-	15,271	-	387,750	-	242,619	-	475,948	-	58,535	-	6,346,061	1,795,012 19 9

Rates of Duty per Gallon on all Wines, since 1671, and differential Duty per Cent. on French and Foreign Wines.

Years.	French.	Portuguese.	Spanish.	Rhenish.	Differential Duty per Cent. on French and Portugal Wines.
	Duty.	Duty.	Duty.	Duty.	
1671	0s. 4d.	0s. 4d.	No account	No account	Equal.
1678	0 8	0 8	No account	No account	Equal.
1688	1 4	1 8	1s. 8d.	1s. 8d.	French 20 per cent. less.
1693	2 1	1 8	1 8	1 8	— 25 — more.
1697	4 10	2 0	2 1	2 5	— 156 — —
1707	5 3	2 5	2 5	2 11	— 115 — —
1745	6 0	2 9	2 9	3 4	— 113 — —
1782	9 2	4 8½	4 10	5 2	— 109 — —
1786	4 10	3 1	3 1	5 2	— 55 — —
1824	13 9	9 1	9 1	11 3	— 50 — —
1825	7 3	4 10	4 10	4 10	— 50 — —
1851	5 6	5 6	5 6	5 6	Equal.
1840	5 9	5 9	5 9	5 9	Eq a'.

Until 1814, duties were charged per tun, in accordance with which our calculations have been made, and the rate per tun, and per old gallon, reduced to the rate per Imperial gallon, throughout; and, although differing at the earlier periods from other statements, will, we believe, be found perfectly correct.

The official documents of the years 1784 and 1785 are evidently so imperfect that we do not state the "total gallons."

Average Annual Revenue from Wine, with the Number of Gallons consumed, the Population, and the Consumption per Individual, in the U. K. during the 65 years ending with 1849.

Period.	Average of Years.	Average of Gallons.	Average of Revenue.	Average of Population.	Bottles per Individual per An.	Duty on Port.		Duty on French.	
						Per Gall.	Per Pipe 115 Gall.	Per Gall.	Per Pipe 115 Gall.
			£			s. d. s. d.	£ £	s. d. s. d.	£ £
1787 to 1790	4	5,933,180	861,950	12,500,000	2 9-10ths	3 6 to 3 0	20 to 17	6 2 to 4 8	35 to 26
1791 to 1800	10	6,515,019	1,112,920	14,500,000	2 5-10ths	4 10 to 6 11	23 to 40	7 1 to 9 1	41 to 59
1801 to 1810	10	6,514,085	2,469,239	16,580,994	2 2-10ths	6 9 to 9 1	35 to 52	10 2 to 13 8	58 to 78
1811 to 1820	10	4,921,139	1,974,095	19,754,618	1 5-10ths	9 1	52	19 8 to 13 9	113 to 59
1821 to 1830	10	5,987,785	1,688,896	22,940,950	1 6-10ths	9 1 to 4 10	52 to 28	13 9 to 7 3	59 to 41
1831 to 1840	10	6,503,188	1,724,873	25,345,775	1 5-10ths	5 5 to 5 9	32 to 33	5 6 to 5 9	32 to 33
1841 to 1845	5	6,128,796	1,716,514	27,959,860	1 3-10ths	5 9	33	5 9	33
1816 to 1848	3	6 310,270	1,776,268	29,059,870	1 3-10ths	5 9	33	5 9	33
1849	1	6,251,862	1,767,516	29,105,822	1 2-10ths	5 9	33	5 9	33

Prior to 1821 the quantities are calculated from the annual importations, deducting the exportations; after, and including 1821, from the custom returns of "quantities retained for home consumption."

The great apparent increase in "French" in the years 1850-6 7-8, is owing to the large quantity of Masdeu (a wine resembling Port) introduced in those years.

Account of the Quantities of the different Varieties of Wine imported and retained for Home Consumption in the U. Kingdom, in 1857.

From	Imports.			Entries for Consumption.		
	White Wine.	Red Wine.	Total.	White Wine.	Red Wine.	Total.
	Gallons.	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*	*Gallons.*
Produce of British possessions: —						
British possessions in S. Africa	479,371	308,382	787,753	251,853	204,361	456,214
Other British possessions	850	659	1,509	1,092	585	1,677
Produce of foreign countries: —						
France	281,712	515,048	796,760	225,159	397,304	622,443
Portugal	87,092	2,876,941	2,964,033	61,006	2,243,880	2,304,886
Spain	4,259,298	369,492	4,628,790	2,725,600	53,364	2,776,964
Madeira	69,256	200	69,156	54,959	546	55,505
Holland	111,009	10,348	121,357	87,958	4,178	92,116
The Canary Islands	12,850	8	12,858	5,986	8	5,994
The Azores	4	12	16	4	12	16
Naples and Sicily	311,501	19,182	330,683	229,098	1,476	230,574
Other parts	293,772	299,858	595,630	124,595	120,736	245,331
Total import	5,936,715	4,400,130	10,336,845			
Wine, the produce of foreign countries, mixed in bond with other wine of the same sort, but not in all cases imported directly from the same country				117,904	152,418	270,322
Quantities delivered for home consumption				3,863,174	3,178,868	7,042,042
Quantities retained for consumption				3,620,720	2,980,970	6,601,690

Price of Wines in London. — The following is an account of the price of wine in bond in London, in February, 1858, from the Circular of the eminent brokers Messrs. Matthew Clark and Sons.

	£	s.	£	s.		£	s.	£	s.
Port, very superior old — per pipe	55	0	to 65	0	Masdeu — per pipe	35	0	to 36	0
good old —	48	0	— 52	0	French, red —	20	0	— 22	0
fair useful —	40	0	— 45	0	Champagne, 1st quality — per doz.	2	4	— 2	10
common —	34	0	— 36	0	other qualities —	1	0	— 1	18
1853's and 1854's —	47	0	— 52	0	Sauterne 1st quality —	2	4	— 2	14
Red wines, from Oporto —	0	0	— 0	0	Barsac } other qualities —	1	2	— 1	14
Lisbon, white dry —	32	0	— 0	0	Hock, superior — per aum	40	0	— 50	0
red —	33	0	— 34	0	other qualities —	20	0	— 35	0
Bucellas —	38	0	— 42	0	Moselle, 1st quality —	20	0	— 25	0
Carcavellos —	38	0	— 42	0	2nd quality —	10	0	— 16	0
Figuera —	0	0	— 0	0	Madeira, East India, 1st quality per pipe	80	0	— 95	0
Sherry, very superior — per butt	70	0	— 80	0	West India, 1st quality —	75	0	— 85	0
1st class —	50	0	— 60	0	direct —	55	0	— 65	0
2nd and 3rd ditto —	40	0	— 47	0	Sicilian, red —	0	0	— 0	0
fair usable qualities —	34	0	— 38	0	white —	0	0	— 0	0
common —	27	0	— 32	0	Marsala —	23	0	— 24	0
Mountain, London particular — per pipe	0	0	— 0	0	Cape, white, good —	15	0	— 16	0
2nd quality —	25	0	— 30	0	ordinary young —	13	0	— 14	0
lower do. —	20	0	— 22	0	Cape, red, good —	20	0	— 22	0
Spanish, red (fine) —	18	0	— 25	0	ordinary young —	18	0	— 19	0
common and fair — per tun	16	0	— 25	0	Teneriffe, London particular —	40	0	— 42	0
Clarets, 1st growths 54's — per hhd.	60	0	— 70	0	2nd quality —	0	0	— 0	0
2nd do. —	40	0	— 50	0	cargo —	0	0	— 0	0
other qualities —	20	0	— 35	0	Fayal, white, good —	0	0	— 0	0
cargo —	10	0	— 15	0	cargo —	0	0	— 0	0
Hermitage, red & white (1st grth.)	40	0	— 44	0	Unenumerated red —	20	0	— 24	0
2nd quality —	20	0	— 30	0					
3rd do. —	0	0	— 0	0					

WOAD (Ger. *Waid*; Du. *Weede*; Fr. *Pastel, Guéde, Vouéde*; It. *Guadone, Guado, Glastro*; Sp. *Pastel, Glasto*), the *Isatis tinctoria* of botanists, a biennial plant, with a fusiform fibrous root, and smooth branchy stem, rising from 3 to 5 feet in height. Woad is indigenous to most parts of Europe; and was extensively used from a very remote period, down to the general introduction of indigo, in the dyeing of blue. It is still cultivated to a considerable extent in France; but in this country its cultivation is chiefly restricted to a few districts in Lincolnshire. After being bruised by machinery, to express the watery part, it is formed into balls, which ferment and fall into a dry powder, which is sold to the dyer. Woad is now seldom employed without a mixture of indigo. By itself, it is incapable of giving a bright and deep blue colour; but the colour which it does give is very durable. The best methods of conducting the fermentation and preparation of woad are still so very ill understood, that the goodness of any parcel of it can never be ascertained till it be actually used; so that it has the disadvantage of being purchased under the greatest uncertainty as to its true value. At the proper age, indigo plants yield about 30 times as much colouring matter, and of a far superior quality, as an equal weight of woad; so that there is no prospect that any improvement that may be made in its preparation will ever render it, either in goodness or cheapness, a rival of the former. — (*Loudon's Ency. of Agriculture; Bancroft on Colours*, vol. i. p. 167.) We have previously — (see INDIGO) — given some account of the efforts made by the woad growers to prevent the use of indigo.

WOOD. See TIMBER.

WOOL (Ger. *Wolle*; Du. *Wol*; Da. *Uld*; Sw. *Ull*; Fr. *Laine*; It. and Sp. *Lana*; Port. *Lã Láa*; Rus. *Wolna, Scherst*; Pol. *Welna*; Lat. *Lana*), a kind of soft hair or down. The term is not very well defined. It is applied both to the fine hair of animals, as sheep, rabbits, some species of goats, the vicuna, &c.; and to fine vegetable fibres, as cotton. In this article, however, we refer only to the wool of sheep, — an article which has continued, from the earliest period down to the present day, to be of primary importance, having always formed the principal part of the clothing of mankind in most temperate regions.

Species of Wool. — It has been customary in this country to divide wool into 2 great

classes — long and short wools; and these again into subordinate classes, according to the fineness of the fibre.

Short wool is used in the cloth manufacture; and is, therefore, frequently called clothing wool. It may vary in length from 1 to 3 or 4 inches; if it be longer, it requires to be cut or broken to prepare it for the manufacture.

The *felting* property of wool is known to every one. The process of hat making, for example, depends entirely upon it. The wool of which hats are made is neither spun nor woven; but locks of it, being thoroughly intermixed and compressed in warm water, cohere and form a solid tenacious substance.

Cloth and woollen goods are made from wool possessing this property; the wool is carded, spun, woven, and then, being put into the fulling mill, the process of felting takes place. The strokes of the mill make the fibres cohere; the piece subjected to the operation contracts in length and breadth, and its texture becomes more compact and uniform. This process is essential to the beauty and strength of woollen cloth. But the long wool of which stuffs and worsted goods are made is deprived of its felting properties. This is done by passing the wool through heated iron combs, which takes away the laminæ or feathery part of the wool, and approximates it to the nature of silk or cotton.

Long or combing wool may vary in length from 3 to 8 inches. The shorter combing wools are principally used for hose, and are spun softer than the long combing wools; the former being made into what is called hard, and the latter into soft worsted yarn.

The fineness of the hair or fibre can rarely be estimated, at least for any useful purpose, except by the wool sorter or dealer, accustomed by long habit to discern those minute differences that are quite inappreciable by common observers. In sorting wools, there are frequently 8 or 10 different species in a single fleece; and if the best wool of one fleece be not equal to the finer sort, it is thrown to a 2d, 3d, or 4th, or to a still lower sort, of an equal degree of fineness with it. The best English short native fleeces, such as the fine Norfolk and Southdown, are generally divided by the wool sorter into the following sorts, all varying in fineness from each other: — viz. 1. Prime; 2. Choice; 3. Super; 4. Head; 5. Downrights; 6. Seconds; 7. Fine Abb; 8. Coarse Abb; 9. Livery; 10. Short coarse or breech wool. The relative value of each varies, according to the greater demand for coarse, fine, or middle cloths.

The softness of the fibre is a quality of great importance. It is not dependent on the fineness of the fibre; and consists of a peculiar feel, approaching to that of silk or down. The difference in the value of 2 pieces of cloth made of 2 kinds of wool equally fine, but one distinguished for its softness and the other for the opposite quality, is such, that, with the same process and expense of manufacture, the one will be worth from 20 to 25 per cent. more than the other. Mr. Bakewell showed that the degree of softness depends principally on the nature of the soil on which sheep are fed: that sheep pastured on chalk districts, or light calcareous soils, usually produce hard wool: while the wool of those that are pastured on rich, loamy, argillaceous soils, is always distinguished by its softness. Of the foreign wools, the Saxon is generally softer than the Spanish. Hard wools are all defective in their *felting* properties.

In clothing wool, the colour of the fleece should always approach as much as possible to the purest white; because such wool is not only necessary for cloths dressed white, but for all cloths that are to be pyed bright colours, for which a clear white ground is required to give a due degree of richness and lustre. Some of the English fine woolled sheep, as the Norfolk and Southdown, have black or grey faces and legs. In all such sheep there is a tendency to grow grey wool on some part of the body, or to produce some grey fibres intermixed with the fleece, which renders the wool unfit for many kinds of white goods; for though the black hairs may be too few and minute to be detected by the wool sorter, yet when the cloth is stoved they become visible, forming reddish spots, by which its colour is much injured. The Herefordshire sheep, which have white faces, are entirely free from this defect, and yield a fleece without any admixture of grey hairs.

The cleanness of the wool is an important consideration. The Spanish wool, for example, is always scoured after it is shorn; whereas the English wool is only imperfectly washed on the sheep previously to its being shorn. In consequence, it is said that while a pack of English clothing wool of 240 lbs. weight will waste about 70 lbs. in the manufacture, the same quantity of Spanish will not waste more than 48 lbs. Cleanness, therefore, is an object of much importance to the buyer.

Before the recent improvements in the spinning of wool by machinery, great length and strength of staple was considered indispensable in most combing wools. The fleeces of the long woolled sheep fed in the rich marshes of Kent and Lincoln used to be reckoned peculiarly suitable for the purposes of the wool-comber: but the improvements alluded to have effected a very great change in this respect; and have enabled the manufacturer to substitute short wool of 3 inches staple, in the place of long combing wool, in the preparation of most worsted articles. A great alteration has, in consequence, taken place in the proportion of long to short wool since 1800; there having been in the interim, according to Mr. Hubbard's calculations—(see *post*),—an increase of 132,053 packs in the quantity of the former produced in England, and a decrease of 72,820 in the quantity of the latter.

Whiteness of fleece is of less importance in the long combing than in clothing wool, provided it be free from grey hairs. Sometimes, however, the fleece has a dingy brown colour, called a *winter stain*, which is a sure indication that the wool is not in a thoroughly sound state. Such fleeces are carefully thrown out by the wool sorter; being suitable only for goods that are to be dyed black. The fineness of heavy combing wool is not of so much consequence as its other qualities.

The Merino or Spanish breed of sheep was introduced into this country about the close of the last century. George III. was a great patron of this breed, which was for several years a very great favourite. But it has been ascertained that, though the fleece does not much degenerate here, the carcase, which is naturally ill formed, and affords comparatively little weight of meat, does not improve; and as the farmer, in the kind of sheep which he keeps, must look not only to the produce of wool, but also to the butcher market, he has found it his interest rather to return to the native breeds of his own country, and to give up the Spanish sheep. They have, however, been of considerable service to the flocks of England; having been judiciously crossed with the Southdown, Ryeland, &c.

Deterioration or Change in the Character of British Wool.— It appears to be sufficiently established, by the evidence taken before the House of Lords in 1828, and other authorities, that a considerable deterioration, or rather, perhaps, change, has taken place in the quality of British wool, particularly during the 30 preceding years. The great object of the agriculturist has been to increase the weight of the carcase and the quantity of the wool; and it seems very difficult, if not quite impossible, to accomplish this without injuring the fineness of the fleece. Mr. Culley says, that the Herefordshire sheep, that produce the finest wool, are kept lean, and yield 1½ lb. each; he adds, "if they be better kept, they grow large and produce more wool, but of an inferior quality." This would seem to be universally true. The great extension of the turnip husbandry, and the general introduction of a larger breed of sheep, appears, in every instance, to have lessened the value of the fleece. Speaking of the Norfolk fleeces, Mr. Fison, a wool sorter, says, that 25 years ago the weight was 2½ lbs. a fleece, and that now it is 3 lbs. or 3½ lbs.—(*Report*, p. 356.) But according to a Table furnished by the same gentleman, containing the results of his experience, it appears that of 15 tods, or 420 lbs., of clothing wool grown in Norfolk in 1790, 200 lbs. were *prime*, while, in 1828, the same quantity of Norfolk wool only yielded 14 lbs. prime! —(*Ibid.* p. 207.) The statements of other witnesses are to the same effect.—(*Ibid.* pp. 388. 640. and 644.) According to the estimate in Mr. Luccock's *Treatise on English Wool*, which has always enjoyed the highest reputation, the produce of all sorts of wool in England, in 1800, was 384,000 packs, of 240 lbs. a pack. But Mr. Hubbard, a very intelligent and extensive wool-stapler at Leeds, has shown, that, supposing Mr. Luccock's estimate of the number of sheep to be correct, the quantity of wool produced in 1828 could not, owing to the greater weight of the fleece, be estimated at less than 463,169 packs; and it is now (1844) believed to amount to fully 500,000 packs. It is, therefore, probable, notwithstanding the decline in the price of wool, that, taking into account the greater weight of the carcase, and the greater weight of the fleece, sheep produce more at present to the farmer than at any former period.

Number of Sheep in Great Britain.—It is not possible to form any accurate estimate either of the number of sheep or of the quantity of wool annually produced. With the exception of Mr. Luccock's, most of the statements put forth with respect to both these points seem much exaggerated. But Mr. L.'s estimate, which is considerably under any that had previously appeared, was drawn up with great care; and is supposed to approach near to accuracy. According to Mr. Luccock, the

Number of long woolled sheep in England and Wales in 1800, was	4,153,308	
of short woolled ditto	14,854,299	
Total number shorn		19,007,607
Slaughter of short woolled sheep per annum	4,221,748	
Carrion of ditto	211,037	
Slaughter of long woolled ditto	1,180,413	
Carrion of ditto	59,020	
Slaughter of lambs	1,400,560	
Carrion of ditto	70,028	
		7,140,156
Total number of sheep and lambs		26,147,763

In some parts of England there has been an increase in the number of sheep since 1800, and in others they have decreased. But we have been assured by competent judges, that, on the whole, the number has not materially varied in the interim.

During the last half century a very decided increase has taken place in the number of sheep in Scotland, and a very great improvement in the breed, particularly in the Highlands. In this district, many of the proprietors have let their estates in large farms to *store farmers*, who have introduced the Cheviot breed of sheep, instead of the small black-faced heath breed that was formerly the only one to be met with. We may remark, by the way, that a good deal of unmerited odium has attached to the patrons of this system; for, though it be true that, in a few instances, the peasantry were rudely ejected from their little possessions, there can be no doubt that it has, on the whole, been decidedly advantageous. Besides rendering large tracts of country more valuable to the proprietors and the public generally, the condition and habits of the peasantry have been materially improved. Instead of loitering away more than half their time, as was their former practice, they have now either become the servants of the large farmers, or have resorted to towns and villages, and been metamorphosed into industrious tradesmen, fishermen, &c. A very small proportion of the whole has emigrated; and the country is more populous at present than before the sheep farming system began.

In the *General Report of Scotland* (vol. iii. Appen. p. 6.), the number of sheep is estimated at 2,850,000; and allowing for the increase that has taken place since 1814, we may, perhaps, estimate the total number of sheep in that part of the empire at this moment at 3,500,000. And in consequence of the rapid extension, during the last dozen years, of the practice of turnip-feeding, both the weight of the carcase and of the fleece have been largely increased.

According to Mr. Wakefield, there is not a single flock of breeding sheep in the whole province of Ulster. —(*Account of Ireland*, vol. i. p. 341.) And though there be considerable flocks in Roscommon and other counties, we believe that, if we estimate the whole number of sheep in Ireland at 2,000,000, we shall be a good deal beyond the mark.

On the whole, therefore, if we are right in these estimates, the total number of sheep in Great Britain and Ireland may be taken at about 32,000,000. This estimate is 10,000,000 under that given by Dr. Colquhoun for 1812; but that learned person assigns no grounds whatever for his estimate, which is utterly inconsistent with all the really authentic information on the subject. It is curious enough to observe the German statistical writers referring to Colquhoun's statements, as if they were of standard authority. They would be about as near the mark, were they to quote the "Arabian Nights" in proof of any disputed historical fact.

Number of Sheep and Quantity of Sheep's Wool produced in England, according to Mr. Luccock's Tables, revised by Mr. Hubbard, and made applicable to 1828.

County.	1800. Number of Short Wool Sheep.	1800. Weight of Fleece.	1800. Number of Packs.	1800. Number of Long Wool Sheep.	1800. Number of Packs.	1828. Weight of Fleece.	1828. Number of Packs of Short Wool.	1828. Number of Packs of Long Wool.
Northumberland	538,162	5½	12,333	-	-	5½	6,167	6,166
Durham	159,385	5	3,320	-	-	5½	-	3,818
Ditto	-	9	-	67,200	2,520	8½	-	2,380
Cumberland	378,400	5⅔	5,915	-	-	5	7,883	
Westmoreland	223,725	5½	3,262	-	-	5	4,660	
York, West Riding	383,122	var.	6,678	-	-	5½	4,390	4,389
— East do.	306,240	5	6,380	-	-	6	-	7,656
— North do.	365,326	var.	5,959	-	-	5	5,708	1,902
Holderness	-	8	-	84,000	2,800	8	-	2,800
Other part of Yorkshire	-	8	-	14,310	477	8	-	477
Lancaster	310,000	5½	4,522	-	-	4½	5,812	
Chester	65,000	var.	926	-	-	4½	1,218	
Derby	362,400	3	4,550	-	-	6	-	9,060
Nottingham	255,147	var.	4,112	-	-	6½	-	6,910
Lincoln	123,648	5½	2,833	-	-	6	-	3,091
Ditto, rich land	-	9	-	1,241,625	46,561	9	-	46,561
Ditto, marshes	-	8	-	87,500	2,916	9	-	2,331
Ditto, miscellaneous land	-	8	-	505,857	16,855	6	-	12,641
Rutland	-	5	-	114,000	2,370	6	-	2,850
Northampton	-	6	-	640,000	16,000	6	-	16,000
Warwick	182,962	3	2,287	-	-	6	-	8,574
Ditto	-	5	-	160,000	3,333			
Leicester	20,000	3½	291	-	-	6	-	10,013
Ditto	-	7	-	380,528	11,100			
Oxford	304,584	var.	5,303	-	-	5	-	6,345
Bucks	222,968	3	2,787	-	-	5	-	4,645
Gloucester	355,000	var.	5,400	-	-	6	-	8,875
Ditto	-	8	-	200,000	6,666	8	-	6,666
Somerset	500,700	4½	9,388	-	-	5	5,215	5,216
Worcester	330,504	3½	4,820	-	-	4⅔	-	6,541
Monmouth	177,619	var.	1,431	-	-	4	-	2,969
Hereford	500,000	2	4,200	-	-	4	2,778	5,555
Shropshire	422,034	2½	4,397	-	-	4	2,344	4,960
Stafford	183,120	2	1,526	-	-	4½	-	3,503
Ditto	-	7	-	3,720	115			
Bedford	204,000	5	4,250	-	-	5	-	4,250
Berks	306,600	3½	4,151	-	-	3½	4,471	
Huntingdon	108,000	4½	2,000	-	-	5½	-	4,480
Ditto	-	7	-	87,500	2,552			
Cambridge	67,744	4	1,128	-	-	4½	1,270	
Ditto	-	8	-	41,688	1,390	8	-	1,390
Suffolk	497,000	2½	5,176	-	-	4½	8,801	
Norfolk	683,704	2	5,697	-	-	4½	4,273	8,546
Ditto	-	7	-	38,500	1,123	7½	-	1,205
Essex	519,000	3	6,486	-	-	4	8,650	
Hertford	277,000	4½	5,297	-	-	5	2,885	2,885
Middlesex	45,000	4	750	-	-	5	937	
Kent	524,475	3½	7,000	-	-	4⅔	-	10,380
Ditto, Romney market	-	7	-	185,000	5,400	6½	-	5,010
Ditto, the marsh	-	7	-	108,330	3,160	6½	-	2,954
Surrey	283,000	3	3,540	-	-	3½	4,127	
Sussex, downs	316,800	2	2,540	-	-	3	3,960	
Ditto, lowlands	547,000	3	6,837	-	-	3	6,837	
Hampshire	516,600	3	6,457	-	-	3	6,457	
Isle of Wight	61,000	2½	800	-	-	4	1,016	
Wilts, downs	583,500	2⅔	6,684	-	-	2⅔	6,685	
Ditto, pasture	117,500	3	1,460	-	-	4	1,958	
Dorset	632,240	3⅔	9,880	-	-	3⅔	9,878	
Devon	456,850	4	7,280	-	-	5	2,275	6,826
Ditto	-	8	-	193,750	6,458	8	-	6,458
Cornwall	203,000	4	3,382	-	-	7	-	5,920
Total	14,854,299		193,475	4,153,308	131,794		120,655	263,847

1800—Short fleeces			193,475
Long fleeces			131,794
		325,269	
Short and long, skin and lambs' wool			58,705
		383,974	
Part of Wales not included in the above Tables			9,262
Increase from 1800 to 1828			69,933
		463,169	
1800—Packs of short wool			193,475
1828—Ditto ditto			120,655
Decrease			72,820

1828—Short fleeces			120,655
Long fleeces			263,847
		384,502	
Short and long, skin and lambs' wool			69,405
		453,907	
Wales, taken as before			9,262
		463,169	
1800—Packs of long wool			131,794
1828—Ditto ditto			263,847
Increase			132,053

1800—Total quantity of short wool	193,475	
Ditto ditto of long wool	131,794	
		325,269
1828—Total quantity of short wool	120,655	
Ditto ditto of long wool	263,847	
		384,502
Increase of wool		59,233 fleeces.
Increase of skin and lambs' wool		10,700
Total increase		69,933

N.B. — The wool from slaughtered sheep and carrion not mentioned in this Table; but allowed for above.

British Trade in Wool. — From 1660 down to 1825, the export of wool was strictly prohibited. A notion grew up towards the end of the 17th, and continued to gain ground during the first half of last century, that the wool of England was superior to that of every other country; that long wool could not be produced anywhere else; and that if we succeeded in keeping the raw material at home, we should infallibly command the market of the world for our woollen manufactures. In consequence, innumerable statutes were passed, the enactments in some of which were the most arbitrary and severe that can be imagined, to prevent the clandestine exportation of wool. Mr. John Smith was one of the first who, in his excellent work, entitled *Memoirs of Wool* *, exposed the injustice and absurdity of this system, by proving that whatever advantages the manufacturers might gain by preventing the exportation of wool, were more than lost by the agriculturists. But in despite of Mr. Smith's reasonings, which were enforced by many later writers, and which experience had proved to be in all respects accurate, the prohibition of the exportation of wool was continued till 1825, when Mr. Huskisson happily succeeded in procuring the abolition of this miserable remnant of a barbarous policy. The improvement of machinery, by enabling short or clothing wool to be applied to most of those purposes for which long or combing wool had been exclusively appropriated, had annihilated the only apparently tenable argument on which the prohibition of exportation had ever been vindicated; and even this, it will be observed, applied only to a small proportion of the whole wool produced in England.

Down to 1802, the importation of foreign wool into Great Britain had been quite free; and, being the raw material of an important manufacture, the policy of allowing it to be imported free of duty is obvious. In 1802, however, a duty of *5s.* 3*d.* a cwt. was laid on all foreign wool imported. In 1813, this duty was raised to 6*s.* 8*d.*; and in 1819, Mr. Vansittart raised it to the enormous amount of 56*s.* a cwt., or to 6*d.* per lb. Had English wool sufficed for all the purposes of the manufacture, such a duty would have been less objectionable; but the very reverse was the case. The use of foreign wool had become, owing to the deterioration, or rather, perhaps, to the change in the character, of British wool, and other circumstances, quite indispensable to the prosecution of the manufacture: and as our superiority over the foreigner in several departments of the trade was by no means decided, it is plain that the imposition of a duty which amounted to about 50 per cent. upon the price of a considerable quantity of the wool we were obliged to import, must, had it been persevered in, have ruined the manufacture. It occasioned, indeed, during the period of its continuance, a considerable decline of the exports of woollens, and was productive of other mischievous effects, from which the manufacture suffered for a considerable period after it was repealed.

The evidence as to the absolute necessity of employing foreign wool, taken before the Lords' committee, was as decisive as can well be imagined. Mr. Gott, of Leeds, one of the most extensive and best informed manufacturers in the empire, informed the committee, that, in his own works, he used only foreign wool. On being asked whether he could carry on an export trade to the same extent as at present, if he manufactured his cloth of British wool, Mr. G. replied, that, in certain descriptions of cloth, "*he could not make an article that would be merchantable at all for the foreign market, or even for the home market, except of foreign wool.*" We subjoin a few additional extracts from the evidence of this most competent witness.

"Can you give the committee any information with respect to the competition that now exists between foreigners and this country in woollen cloths?"—"I think the competition is very strong. In some instances the foreigner has, probably, the advantage; and in others, the superiority of the British manufacture, I think, has greatly the advantage; that would apply, I should say, particularly to the fine cloths of Great Britain compared with foreign cloths; in some descriptions of low cloths, the foreigners are nearly on a footing, and in some instances, perhaps, superior to us."

"Speaking of the finer cloths, is the competition such as to render an additional duty on the importation of foreign wool likely to injure the export trade?"—"*I have no doubt,*

* This learned and accurate work contains a great deal of information with respect to the progress of manufactures and commerce in England.

speaking on my oath, that it would be fatal to the foreign cloth trade of the country. I would say further, that it would be equally injurious to coarse manufactures of all kinds made of English wool. The competition now with foreigners is as nearly balanced as possible; and the disturbing operation of attacks of that description would necessarily enable the foreigner to buy his wool cheaper than we should do it in this country: the result would be, that foreigners would, by such a premium, be enabled to extend their manufactures, to the exclusion of British manufactures of all descriptions."

In another part of his evidence, Mr. Gott says,—"If 2 pieces of cloth at 10*s.* a yard were put before a customer, one made of British wool, the other of foreign wool, one would be sold, and the other would remain on hand: I could not execute an order with it. If any person sent to me for cloth of 7*s.* or 8*s.* a yard, and it were made of English wool, it would be sent back to me, and I should resort to foreign wool or foreign mixed with British, to execute that order."

On Mr. Gott being asked whether, in his opinion, the price of British wool would have been higher, had the duty of 6*d.* per lb. on foreign wool been continued, he answered,—"My opinion is, that the price of British wool would have been less at this time; the demand for British wool would have been very much less. *British manufactures would have been shut out of every foreign market;* and the stock of wool would have accumulated, as it will do if ever that duty be imposed again."—(*Mr. Gott's Evidence*, pp. 292, 293.)

The view taken by Mr. Gott of the effect of the importation of foreign wool on the price of British wool was supported by the concurrent testimony of all the manufacturing witnesses examined by the committee. Blankets, flannels of all sorts, baizes, carpets, bearskins, &c. are made principally of English wool; and the command of foreign wool enables the manufacturers to use a considerable quantity of English wool in the manufacture of certain descriptions of cloth, which, if made entirely of it, would be quite unsaleable. On Mr. Goodman, a wool-stapler of Leeds, being asked whether, if a duty were laid on foreign wool, it would force the use of English wool in the manufacture of cloths, from which it is now excluded, he answered,—"Certainly not: we could not get people to wear such a cloth; they want a better, finer cloth; it is so much handsomer in its wear, and so much more durable."—(*Report*, p. 241.) Mr. Francis, of Heytesbury, declared, that there was no demand for cloth made wholly of British wool; that it was principally applicable to the manufacture of blankets, baizes, &c.; and that the exclusion of foreign wool would only injure the manufacture, without raising the price of British wool.—(p. 268.) Statements to the same effect were made by Mr. Webb (p. 270.), Mr. Sheppard (p. 294.), Mr. Ireland (p. 319.), and, in short, by every one of the witnesses conversant with the manufacture.

The history of the manufacture since 1828 has completely confirmed the accuracy of the statements made by Mr. Gott and the other witnesses. Very large quantities of foreign wool have been imported during the interval; but the price of British wool has, notwithstanding, maintained its proper level; and has, in fact, been at an average considerably higher since the reduction of the duty on foreign wool than previously.

Foreign Wool imported into England.—A very great change has taken place, within the course of the present century, both as respects the quantity of foreign wool imported, and the countries whence it is derived. Previously to 1800, our average imports of wool did not much exceed 3,000,000 lbs., mostly brought from Spain; the wool of which long maintained a high character. In 1800, our imports amounted to near 9,000,000 lbs.; and they have since gone on gradually increasing, till they now amount to between 55,000,000 and 75,000,000 lbs.! Instead, however, of being principally derived from Spain, as was the case down to 1814, the greater part by far of this immense supply of foreign wool is at present furnished by Germany, the Australian colonies, and the East Indies. The late king of Saxony, when elector, introduced the breed of Merino sheep into his dominions, and exerted himself to promote the growth of this valuable race of animals. His praiseworthy efforts have been crowned with the most signal success. The Merino sheep seem to succeed better in Saxony and other German states than in Spain; and have increased so rapidly, that the Spanish wool trade has become insignificant compared with that of Germany! The importations of German wool were quite trifling during the war—amounting, in 1812, to only 28 lbs.; but since the peace they have increased beyond all precedent. In 1814, they amounted to 3,432,456 lbs.; in 1820, they were 5,113,442 lbs.; in 1825, they rose to 28,799,661 lbs.; but this being a year of overtrading, they declined in 1826 to 10,545,232 lbs. Subsequently, however, they recovered from this depression, and, in 1836, amounted to 31,766,194 lbs. They have since, however, sunk very rapidly, principally in consequence of the rapidly increasing imports of colonial wool.

The breed of sheep that was carried out to New South Wales and Van Diemen's Land has succeeded remarkably well; and Australia is already, perhaps, the principal wool-growing country of the world. The imports into Great Britain have increased

I. Account of the Values of Woollen and Worsted Goods and Yarn, exported in different Years from 1718 to 1857. (*Baines on Woollen Manufactures.*)

Years.	Manufactured Goods.	Woollen and Worsted Yarn.	Total Woollen and Worsted Exports.	Years.	Manufactured Goods.	Woollen and Worsted Yarn.	Total Woollen and Worsted Exports.
1718 to 1724 Yearly average	(Official value. £2,962,000	£	(Official value.) £2,962,000	1800	£6,917,000		£6,917,000
1740	3,056,000		3,056,000	1810	5,775,000 (Declared value.)		5,775,000 (Declared value.)
1750	4,320,000		4,320,000	1820	5,586,000		5,586,000
1760	5,453,300		5,453,300	1830	4,728,000	£122,430	4,851,000
1770	4,115,000		4,115,000	1840	5,327,000	452,000	5,780,000
1780	2,589,000		2,589,000	1850	8,588,000	1,451,000	10,040,000
1790	5,190,000		5,190,000	1857	10,703,000	2,941,000	15,645,000

II. Return of the Rates of Duty chargeable on Foreign and Colonial Wool, the Quantities imported, and the Prices of Southdown and Kent Long Wool, in each Year from 1818 to 1845.

Years.	Rates of Duty.	Foreign Wool imported.	Colonial Wool imported.	Price of Southdown.	Price of Kent Long.	Years.	Rates of Duty.	Foreign Wool imported.	Colonial Wool imported.	Price of Southdown.	Price of Kent Long.
		lbs.	lbs.	per lb. s. d.	per lb. s. d.			lbs.	lbs.	per lb. s. d.	per lb. s. d.
1818	¾d. per lb.	24,720,139	- -	2 6	2 0	1830	- -	30,303,173	2,002,141	0 10	0 10½
1819	6d. per lb.	6,094,999	- -	1 7	1 3	1831	- -	29,110,073	2,541,956	1 1	0 10½
1820	- -	9,653,566	122,259	1 5	1 1	1832	- -	25,681,228	2,461,191	1 0	0 9½
1821	- -	16,416,896	205,761	1 3	1 1	1833	- -	34,461,522	3,614,886	1 5	0 10½
1822	- -	18,859,265	198,815	1 3	0 11	1834	- -	42,684,952	3,770,300	1 7	1 7½
1823	- -	18,865,886	502,839	1 3½	1 0	1835	- -	37,472,032	4,702,500	1 6	1 6
1824	Dec., 1824, 1d. per lb. of 1s. value - - 1d. per lb. under 1s. value	22,147,540	416,945	1 2	1 1	1836	- -	57,814,771	6,425,206	1 8	1 8½
						1837	- -	38,945,575	9,434,133	1 3	1 3
						1838	- -	42,430,102	10,164,253	1 4	1 5
						1839	- -	44,504,311	12,875,119	1 4	1 5½
						1840	- -	36,198,168	12,938,116	1 3	1 2½
						1841	- -	39,672,155	16,498,821	1 0	0 11
						1842	- -	27,594,920	18,486,719	0 11½	0 10
1825	Colonial free.	43,465,283	351,684	1 4	1 4	1843	- -	26,653,913	21,151,148	0 11½	0 11
1826	- -	14,747,103	1,242,009	0 10	0 11	1844	From June 6, free - -	42,473,228	22,606,296	1 2	1 2
1827	- -	28,552,742	362,592	0 9	0 10½						
1828	- -	28,628,121	1,604,938	0 8	1 0	1845	- -	44,970,793	31,843,762	1 4	1 3
1829	- -	19,639,629	1,577,020	0 6	0 9						

III. Prices of Southdown Fleeces in the Month of July, in each Year, from 1846 to 1853, both inclusive, per Pack of 240 lbs.

Years.	Average Quality, such as the Growths of Surrey, Essex, Herefordshire, &c.		Superior Quality, such as the Growths of Sussex, Wiltshire, part of Kent, &c.	
	Ewe and Wether.	*Tag Fleeces.*	*Ewe and Wether.*	*Tag Fleeces.*
1846	£11 10 0 per pk.	£13 10 0 per pk.	£12 10 0 per pk.	£14 10 0 per pk.
1847	11 10 0 —	12 10 0 —	12 10 0 —	13 10 0 —
1848	9 0 0 —	10 0 0 —	10 0 0 —	11 0 0 —
1849	10 0 0 —	11 0 0 —	11 0 0 —	12 0 0 —
1850	11 0 0 —	12 0 0 —	12 0 0 —	13 0 0 —
1851	10 10 0 —	12 0 0 —	11 10 0 —	13 0 0 —
1852	12 10 0 —	14 0 0 —	13 10 0 —	15 0 0 —
1853	16 0 0 —	17 0 0 —	17 0 0 —	18 0 0 —

IV. Account of the Quantities of Wool (Sheep, Lamb, and Alpaca) imported into the U. Kingdom from various Countries, during each of the 15 Years ending with 1858, specifying the Countries from which it came, and the Quantities brought from each. C

Years.	Spain.	Germany, viz. Mecklenburg, Hanover, Oldenburg, and Hanse Towns.	Other Countries of Europe.	British Possessions in South Africa.	British Possessions in the East Indies.	British Settlements in Australia.	South America.	Other Countries.	Total.
	Lbs.	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*	*Lbs.*
1844	918,853	21,847,684	15,513,087	2,197,143	2,765,853	17,602,247	5,760,063	1,508,851	65,715,761
1845	1,074,540	18,484,756	17,606,515	3,512,924	3,975,866	24,177,317	6,468,538	1,513,619	76,813,855
1846	1,020,476	15,388,705	11,755,601	2,958,457	4,570,581	21,789,546	4,890,275	2,404,023	65,255,462
1847	424,408	12,673,814	7,955,697	3,477,592	5,065,142	26,056,815	7,295,550	1,665,780	62,582,598
1848	106,658	14,429,161	7,024,098	3,497,250	5,997,455	30,054,567	8,851,211	924,487	70,884,847
1849	127,559	12,750,011	11,452,354	5,377,495	4,182,855	35,879,174	6,014,525	1,004,679	76,768,647
1850	440,751	9,166,751	8,705,252	5,709,529	3,475,252	39,018,221	5,296,648	2,518,394	74,326,778
1851	385,150	8,219,256	14,265,156	5,816,591	4,549,520	41,810,117	4,850,048	3,420,157	83,311,975
1852	233,413	12,765,253	13,582,140	6,388,796	7,880,784	45,197,301	6,252,689	3,661,082	93,761,458
1853	154,146	11,584,800	26,861,166	7,221,448	12,400,869	47,076,010	9,740,032	4,557,978	119,596,449
1854	424,300	11,448,518	14,481,485	8,225,598	14,965,191	47,489,650	6,134,554	2,954,921	106,121,995
1855	68,750	6,128,626	8,119,498	11,075,965	14,285,555	49,142,506	7,106,708	5,375,148	99,560,446
1856	55,090	8,687,781	14,480,869	14,505,188	15,386,578	52,052,459	8,076,547	3,167,450	116,241,592
1857	597,258	6,088,002	23,802,520	14,287,828	19,370,741	49,209,655	9,306,886	7,287,028	129,749,898
1858	110,510	10,595,186	17,926,859	16,597,504	17,355,507	51,104,560	10,046,381	5,024,216	126,758,723

The re-exports of foreign wool amounted in 1858 to 26,587,428 lbs. In 1857 the re-exports amounted to 36,356,348 lbs., but that was much above the average.

The price of Colonial Wool in London in April, 1859, was as follows, viz.:—

Australian.			s. d.	s. d.
Clothing and combing, superior	-	- per lb.	0 to 2	9
Fair and good	-	- „	1 8 „ 2	8
Inferior	-	- „	1 3 „ 1	7
Scoured	-	- „	1 8 „ 2	11
Handwashed	-	- „	1 7 „ 1	11
Lambs	-	- „	1 3 „ 2	4
Locks and pieces	-	- „	0 10 „ 1	4
Grease	-	- „	0 9 „ 1	1

			s. d.	s. d.
Skin	-	- per lb.	1 0 „ 1	7½
Cape, average flocks	-	- „	1 2 „ 1	9½
Lambs	-	- „	1 4 „ 2	0
Locks and pieces	-	- „	0 10 „ 1	0
Grease	-	- „	0 7 „ 0	10
East India	-	- „	0 3 „ 0	11
New Zealand	-	- „	1 2 „ 1	11
Grease	-	- „	0 7½ „ 0	9½

with extraordinary rapidity. In 1833 they amounted to 3,516,869 lbs., in 1839, to 10,128,774 lbs., and in 1858 to 51,104,560 lbs. The imports of wool from India only began in 1833, when they amounted to the inconsiderable quantity of 3,721 lbs.; but such has been their increase in the interval, that in 1858 they amounted to 17,333,507 lbs. Of late years Russia has become of primary importance among the wool exporting countries, especially from her ports on the Black Sea. We said in our last edition that provided tranquillity were maintained in S. Africa, the probability was that it would in no very lengthened period rival N. South Wales as a wool exporting country. This anticipation has been more than realised, the imports having increased from 2,197,143 lbs. in 1844, to 16,597,504 lbs. in 1858! Alpaca, and other wools of that sort, come from Peru; goats' wool comes principally from Turkey, but the best is that of Thibet.

WOOLLEN MANUFACTURE, the art of forming wool into cloth and stuffs. This has always ranked as an important branch of national industry; and until surpassed by the cotton manufacture, was decidedly the most important of all the manufactures carried on in England.

Rise and Progress of the British Woollen Manufacture. Exports. — There can be no doubt that the arts of spinning wool, and manufacturing the yarn into cloth, were introduced into England by the Romans, the inhabitants being previously clothed only in skins. From the period of the Romans quitting England, down to the 10th century, there are no notices of the manufacture; and those relating to the period from the 10th to the 13th century are but few and imperfect. It is certain, however, that the manufacture of broad cloths was established soon after the year 1200, if not previously.—(*Smith's Memoirs of Wool*, i. 17.) But the woollen manufactures of Flanders, being at this period, and long afterwards, in a comparatively advanced state, English wool was exported in large quantities to Bruges and other Flemish cities, whence fine cloths and other products were brought back in exchange. Edward III. took the most judicious measures for improving the English manufacture by inviting over Flemish weavers, fullers, dyers, and others, and protecting them from the assaults of the rabble. Shortly after the first immigration of Flemings, or in 1337, an act was passed, prohibiting the wear of any cloths made beyond sea, and interdicting the export of English wool.—(*Ibid.* i. 25.) But in these turbulent times such restraining acts were little better than a dead letter; and this, indeed, was soon after repealed.—(*Ibid.* i. 32. 39.) From this remote period the manufacture has always been regarded as of primary importance, and has been the object of the especial solicitude of the legislature. It may be doubted, however, whether it has derived any real advantage from the numberless statutes that have been passed in the view of contributing to its advancement. With the exception indeed of the prohibition of the export of English wool, which was finally put a stop to in 1660, the other acts, being mostly intended for the regulation of the manufacture, could not be otherwise than mischievous; and the benefit derived by the manufacturers from the prohibition was more apparent than real; inasmuch as it occasioned a diminished growth of wool, at the same time that it was impossible to prevent its clandestine exportation. Mr. Smith has proved that the manufacture made a far more rapid progress during the reign of Elizabeth, when wool might be freely carried out of the kingdom, than it ever did during any equal period subsequent to the restriction on exportation. Foreign wool began to be imported in small quantities in the 13th century.

At first, the manufacture seems to have been pretty equally distributed over the country. In an insurrection that took place in 1525, more than 4,000 weavers and other tradesmen are said to have assembled out of Laneham, Sudbury, and other towns in Suffolk. The manufacture had been previously introduced into Yorkshire. In 1533 an act was passed (34 & 35 Hen. 8. c. 10), reciting, "that the city of York afore this time had been upholden principally by making and weaving of coverlets, and the poor thereof daily set on work in spinning, carding, dyeing, weaving, &c.;" and the manufacture, having spread into other parts, was "thereby debased and discredited;" and enacting, as a remedy for this evil, that henceforth "none shall make coverlets in Yorkshire, but inhabitants of the city of York!" This may be taken as a fair specimen of the commercial legislation of the time. Indeed, it was enacted, nearly at the same period, that the manufacture should be restricted, in Worcestershire, to Worcester and 4 other towns. Worsted goods, so called from Worsted, now an inconsiderable town in Norfolk, where the manufacture was first set on foot, were produced in the reign of Edward II., or perhaps earlier; but Norwich soon after became, and, notwithstanding the competition and superior advantages of Bradford, is still a principal seat of this branch of the manufacture. In an act of Henry VIII. (33 Hen. 8. c. 16.) worsted yarn is described as "the private commodity of the city of Norwich." In 1614 a great improvement took place in the woollen manufacture of the West of England, by the invention of what is called medley or mixed cloth, for which Gloucestershire is still famous. During the

reign of Charles II., there were many, though unfounded, complaints of the decay of the manufacture; and, by way of encouraging it, an act was passed (30 Car. 2. st. i. c. 3), ordering that all persons should be buried in woollen shrouds! This act, the provisions of which were subsequently enforced, preserved its place on the statute book for more than 130 years!

Towards the end of the 17th century, Mr. Gregory King and Dr. Davenant — (*Davenant's Works*, Whitworth's ed. ii. 233)—estimated the value of the wool shorn in England at 2,000,000*l.* a-year: and they supposed that the value of the wool (including that imported from abroad) was quadrupled in the manufacture: making the entire value of the woollen articles annually produced in England and Wales 8,000,000*l.*, of which about 2,000,000*l.* were exported. In 1700 and 1701, the official value of the woollens exported amounted to about 3,000,000*l.* a-year. Owing to the vast increase of wealth and population, the manufacture must have been very greatly extended during last century; but the increase in the amount of exports was comparatively inconsiderable. At an average of the 6 years ending with 1789, the official value of the exports was 3,544,160*l.* a-year, being only about 540,000*l.* above the amount exported in 1700. The extraordinary increase of the cotton manufacture soon after 1780, and the extent to which cotton articles then began to be substituted for those of wool, though it did not occasion any absolute decline of the manufacture, no doubt contributed powerfully to check its progress. In 1802 the official value of the exports rose to 7,321,012*l.*, being a larger amount than any to which they attained for several subsequent years. In 1836 the declared value of the exports rose to 7,639,354*l.*, but it again fell back. The exports during the 3 years ending with 1852 have been nearly stationary, their average amount being 8,562,688*l.* a-year. Although, therefore, it be not true, as has sometimes been contended, that the manufacture, taken as a whole, has declined, it has not increased rapidly; and may, indeed, be regarded as being in a nearly stationary state.

Value of the Manufacture. Number of Persons employed. — The most discordant estimates have been given as to both these points. For the most part, however, they have been grossly exaggerated. In a tract published in 1739, entitled *Considerations on the Running* (Smuggling) *of Wool*, the number of persons engaged in the manufacture is stated at 1,500,000, and their wages at 11,737,500*l.* a-year. Dr. Campbell, in his *Political Survey of Great Britain*, published in 1774, observes,—"Many computations have been made upon this important subject, and, amongst others, one about 30 years since, which, at that time, was thought to be pretty near the truth. According to the best information that can be obtained, there may be from 10,000,000 to 12,000,000 sheep in England, some think more. The value of their wool may, one year with another, amount to 3,000,000*l.*; the expense of manufacturing this may probably be 9,000,000*l.*, and the total value 12,000,000*l.* We may export annually to the value of 3,000,000*l.* though one year we exported more than 4,000,000*l.* In reference to the number of persons who are maintained by this manufacture, they are probably upwards of 1,000,000. Sanguine men will judge these computations too low, and few will believe them too high."—(ii. 158.) But the moderation displayed in this estimate was very soon lost sight of. In 1800, the woollen manufacturers objected strenuously to some of the provisions in the treaty of union between Great Britain and Ireland, and were allowed to urge their objections at the bar of the House of Lords, and to produce evidence in their support. Mr. Law (afterwards Lord Ellenborough), the counsel employed by the manufacturers on this occasion, stated in his address to their Lordships, on information communicated to him by his clients, that 600,000 packs of wool were annually produced in England and Wales, worth, at 11*l.* a pack, 6,600,000*l.*; that the value of the manufactured goods was 3 times as great, or 19,800,000*l.*; that not less than 1,500,000 persons were immediately engaged in the operative branches of the manufacture; and that the trade collaterally employed about the same number of hands.—(*Account of the Proceedings of the Merchants, Manufacturers, &c.*, p. 34.)

It is astonishing that reasonable men, conversant with the manufacture, should have put forth such ludicrously absurd statements. We have already seen that the quantity of wool produced in England and Wales, in 1800, did not really amount to 400,000 packs; and the notion that *three* out of the *nine* millions of people then in the country were directly and indirectly employed in the manufacture, is too ridiculous to deserve notice, though it was generally acquiesced in at the time.—(See *Middleton's Survey of Middlesex*, 2nd ed. p. 644.; *Adolphus's British Empire*, iii. 236, &c.)

Mr. Stevenson, who is one of the very few writers on British statistics to whose statements much deference is due, gave the following estimate of the value of the woollen manufactured goods annually produced in England and Wales, and of the interest, &c. of the capital, and the number of persons employed in the manufacture:

Total value of manufactured articles		£18,000,000
Value of raw material	£6,000,000	
Interest on capital, sum to replace its wear and tear, and manufacturers' profits	2,400,000	
Wages of workmen	9,600,000	
		£18,000,000

Number of people employed, 480,000, or perhaps 500,000.

But even this estimate requires to be materially modified. Taking Scotland into account and allowing for the increase of population and of exportation since Mr. Stevenson's estimate was made, the total value of the various descriptions of woollens annually produced in Great Britain may, at present, be moderately estimated at from 25,000,000*l.* to 27,000,000*l.*, or 26,000,000*l.* at a medium. We have further been assured by high practical authorities, that Mr. Stevenson's distribution of the items is essentially erroneous; and that assuming the value of the manufacture to be 26,000,000*l.*, it is made up nearly as follows: —

Total value of manufactured articles		£26,000,000
Raw material, 110,000,000 lbs. British wool, at 1*s.* 3*d.* per lb., and 60,000,000 do. foreign at 2*s.*	12,875,000	
Wages	7,725,000	
Oil, dye stuffs, soap, &c.	1,200,000	
Profits, sum to replace wear and tear of capital, &c.	4,200,000	
		£26,000,000

But this estimate is exclusive of the value of shoddy stuffs, which may perhaps amount to 2,000,000*l.* or thereby.

The wages of the workpeople amount to about 30*l.* a year, making the total number employed (ex those in the shoddy trade) about 257,500.

Mr. Baines, M. P., has, in his valuable account of the woollen manufactures of the U.K. (*Statistical Journal*, xxiii., p. 33.) given the following elaborate estimate of its value (ex the worsted manufactures) in 1858.

(1.) Raw Material :—		
75,903,666 lbs. Foreign and colonial wool	£4,717,492	
80,000,000 „ British wool, at 1*s.* 3*d.* per lb.	5,000,000	
45,000,000 „ Shoddy and mungo :— 30,000,000 lbs. shoddy, at 2½*d.* per lb. 15,000,000 lbs. mungo, at 4½*d.* per lb.	609,370	
Cotton and cotton warps, $\frac{1}{30}$th of the wool	206,537	
200,903,666 lbs.		
(2.) Dye-wares, oil, and soap		£1,500,000
(3.) Wages—150,000 workpeople, at 12*s.* 6*d.* per week		4,875,000
(4.) Rent, wear and tear of machinery, repairs, coal, interest on capital, and profit, 20 per cent. on the above		3,381,680
Total		£20,290,079

Account of the Quantities and Values of the Woollen and Worsted Manufactures and Woollen Yarn of British Produce exported from the U. Kingdom in each of the 7 Years ending with 1858.

Quantities.	1852.	1853.	1854.	1855.	1856.	1857.	1858.
Woollen manufactures :—							
Cloths of all kinds, coatings, &c. . pieces	628,734	645,372	726,579	522,152	651,246	715,143	565,709
Mixed stuffs, flannels, &c. . yards	77,751,660	76,169,148	66,884,114	57,866,974	66,974,272	75,179,285	76,584,532
Worsted stuffs . pieces	2,191,926	2,331,661	1,901,622	2,219,090	2,268,462	2,568,462	2,349,908
Woollen and worsted yarn . cwts.	129,966	124,687	140,475	182,217	244,109	220,129	214,909
Values.							
Cloths of all kinds, coatings, &c. . .	2,683,395	2,923,515	3,089,334	2,371,324	2,762,622	3,030,788	2,548,394
Mixed stuffs, flannels, &c. . .	3,015,285	3,641,767	3,050,548	2,503,984	3,220,041	3,699,324	3,388,313
Worsted stuffs	2,735,804	3,106,609	2,565,474	2,568,451	2,833,541	3,325,761	3,325,751
Other kinds	298,452	500,291	415,403	474,615	684,254	647,699	513,506
Total . . .	8,730,934	10,172,182	9,120,759	7,718,374	9,500,428	10,703,375	9,776,944
Woollen and worsted yarn . . .	1,430,140	1,456,786	1,557,612	2,026,095	2,889,642	2,941,800	2,966,923

The U. States, the Hanse Towns, Holland and Belgium, but especially the first, are by far the largest markets for our woollen and worsted goods. British N. America, Australia, and China also, take considerable quantities. Yarn is principally sent to the Hanse Towns, Holland, Russia, Hanover, and Belgium.

In 1820 the total exports of yarn amounted to only 3,924 lbs., and in 1825 to 76,961 lbs., whereas in 1858 it amounted to no fewer than 2,966,923 lbs., an increase all but unparalleled in the history of industry.

Account of the Declared Value of the Woollen Manufactures, exclusive of Woollen and Worsted Yarn, exported from the U. Kingdom in the under-mentioned Years.

1820	£5,586,158	1835	£6,840,511	1850	£8,588,690
1825	6,185,648	1840	5,527,853	1851	8,577,183
1830	4,728,666	1845	7,698,118	1852	8,725,695

The different progress of the exports of manufactured goods and yarn depends, no doubt, on various causes; but principally, we believe, on the change, previously noticed, that has taken place in the character of our wool, which fits it much better than

formerly for being made into worsted yarn, which is almost the only description of yarn that is exported. The operation of this change is evinced in a still more striking manner by comparing the export of cloth, properly so called, with that of stuffs, in the undermentioned years.

	1816.	1826.	1840.	1857.
Exports of cloth, pieces - - -	636,368	384,508	215,746	695,063
„ stuffs „ - - -	593,308	1,138,588	1,718,617	2,568,462

It is obvious that this declining or stationary amount on the one hand, and continued and rapid increase on the other, must have been occasioned by the operation of some powerful and permanent cause; and none such can be assigned other than the decreasing suitableness of British wool for being made into cloth, and its increasing suitableness for being made into worsted yarn and stuffs. We do not think that the duty on wool had, when it existed, much influence either one way or the other.

Latterly the stuff trade has made great progress. This has been mainly occasioned by the change of fashion in this and other countries, by which stuffs made of a mixture of cotton and worsted and cotton and silk have been largely substituted for cloths, and the home and foreign demand for them proportionally increased. In so far, indeed, as the extraordinary extension of the stuff trade depends on this change, it cannot, perhaps, be regarded as resting on any very solid foundation. But it is on the whole abundantly obvious that the export trade in cloth has declined; and that it is only in the stuff trade and in the production of yarn that we have decided superiority over foreigners. For an account of the recent history of the woollen trade, see the 2nd vol. of *Bischoff's History of the Woollen and Worsted Manufactures*, a useful work formed on the plan of *Smith's Memoirs of Wool*, but neither so learned nor so able.

Shoddy and Mungo Trade.—The greater number, perhaps, of our readers may never have heard of that branch of the woollen manufacture called the *shoddy and mungo trade*, which has grown up of late years, and is now of very considerable value and importance. It is principally carried on at Batley, where it originated, and at Dewsbury, which has become the head-quarters of the business. Cloths, whether of shoddy or mungo, are made either wholly or in part of old, or worn, wool; the former, or these called shoddy, consisting of the wool of soft goods, such as stockings, flannels, &c.; and the latter, or those called mungo, consisting of the wool of hard goods, that is of the different descriptions of cloth. The latter is more valuable than the former, the price of shoddy averaging about 2½*d.* per lb., whereas the mean price of mungo is about 5*d.* per do. The old cloths or rags having been collected, and subjected to various processes, are torn to pieces by the aid of powerful machinery, and reduced to their original state of wool; and this wool, being respun, either with or without an admixture of fresh wool, is again made into cloth. Formerly this sort of cloth was used only for padding and such like purposes; but now it is made into blankets, flushings, druggets, carpets and table covers, cloth for pilot and Petersham great coats, &c. The clothing of the army, and the greater part of that of the navy, consists in part of the same material, which in fact is occasionally worn by everybody. Large quantities of shoddy cloth are exported. Great improvements have been effected of late years, not only in the fabric of the cloth, but also in the dyes: this is especially seen in the cloth for soldiers' uniforms, which is no longer of a brick-dust colour, but makes a much nearer approach to scarlet. The beautiful woollen table covers are made wholly of old wool, being printed by *aqua fortis* from designs drawn in London and Manchester, and cut on holly and other blocks on the spot.

It must, however, be observed that, though the cloth made from old, may look as well as that made from new, wool, it has neither the strength nor tenacity of the latter. It is seldom, however, that old wool is used singly; generally it is mixed up with new wool in proportions varying from 10 to 50 or 60 per cent., according to the purposes to which it is to be applied; and if the old wool be not in excess, the capacity of the cloth for wear is but little affected.

No honest manufacturer will, of course, substitute old for new wool in the manufacture of any sort of goods without apprising his customers of the fact. But this is all that he is required to do, and there cannot be a doubt that, speaking generally, the substitution of old for new wool is, in very many cases, highly advantageous.

The analogy between this manufacture and that of paper is so striking, that it must force itself on the attention of every one; the vilest and most worthless materials being converted in both into the most beautiful and useful fabrics. The shoddy trade is, in fact, one of the triumphs of art and civilisation.

"The manufacture," says Mr. Baines, "has forced its way, and made Batley, Dewsbury, and the neighbourhood, the most prosperous parts of the woollen district. There are now in Batley alone 50 rag machines in 35 mills, producing no less than 12,000,000 lbs. of rag-wool per annum; and I am assured, on good authority, that three

times this quantity is made in the district. The rags are gathered from all parts of the kingdom, as well as imported regularly from the Continent, America, and Australia. There is now, also, a considerable manufacture of the shoddy, or rag-wool, in Germany, and it is believed that no less than nine or ten million pounds weight were imported last year."

WRECK, in navigation, is usually understood to mean any ship or goods driven ashore, or found floating at sea in a deserted or unmanageable condition. But in the legal sense of the word in England, *wreck* must have come to land; when at sea, it is distinguished by the barbarous appellations of *flotsam, jetsam,* and *lagan.* — (See FLOTSAM.)

In nothing, perhaps, has the beneficial influence of the advance of society in civilisation been more apparent than in the regulations with respect to the persons and property of shipwrecked individuals. In most rude and uncivilised countries, their treatment has been cruel in the extreme. Amongst the early Greeks and Romans, strangers and enemies were regarded in the same point of view. — (*Hostis apud antiquos, peregrinus dicebatur. — Pomp. Festus;* see also *Cicero de Offic.* lib. i. c. 12.) Where such inhospitable sentiments prevailed, the conduct observed towards those that were shipwrecked could not be otherwise than barbarous; and in fact they were, in most instances, either put to death or sold as slaves. But as law and good order grew up, and commerce and navigation were extended, those who escaped from the perils of the sea were treated in a way less repugnant to the dictates of humanity: and at length the Roman law made it a capital offence to destroy persons shipwrecked, or to prevent their saving the ship; and the stealing even of a plank from a vessel shipwrecked or in distress, made the party liable to answer for the whole ship and cargo. — (*Pand.* 47. 9. 3.)

During the gloomy period which followed the subversion of the Roman empire, and the establishment of the northern nations in the southern parts of Europe, the ancient barbarous practices with respect to shipwreck were every where renewed. Those who survived were in most countries reduced to servitude; and their goods were every where confiscated for the use of the lord on whose manor they had been thrown. — (*Robertson's Charles V.*, i. note 29.) But nothing, perhaps, can so strongly evince the prevalence and nature of the enormities, as the efforts that were made, as soon as governments began to acquire authority, for their suppression. The regulations as to shipwreck in the Laws of Oleron are, in this respect, most remarkable. The 35th and 38th articles state, that "pilots, in order to ingratiate themselves with their lords, did, like faithless and treacherous villains, sometimes willingly run the ship upon the rocks, &c.;" for which offence they are held to be accursed and excommunicated, and punished as thieves and robbers. The fate of the lord is still more severe. "He is to be apprehended, his goods confiscated and sold, and himself fastened to a post or stake in the midst of his own mansion house, which being fired at the four corners, all shall be burned together; the walls thereof be demolished; the stones pulled down; and the site converted into a market place, for the sale only of hogs and swine, to all posterity." The 31st article recites, that when a vessel was lost by running on shore, and the mariners had landed, they often, instead of meeting with help, "were attacked by people more barbarous, cruel, and inhuman, than mad dogs; who, to gain their monies, apparel, and other goods, did sometimes murder and destroy these poor distressed seamen. In this case, the lord of the country is to execute justice, by punishing them in their persons and their estates; and is commanded to plunge them in the sea till they be half dead, and then to have them drawn forth out of the sea and stoned to death."

Such were the dreadful severities by which it was attempted to put a stop to the crimes against which they were directed. The violence of the remedy shows better than any thing else how inveterate the disease had become.

But the fact that divines did not scruple to prostitute religious worship by praying that the adjacent coasts might be enriched with shipwrecks, affords, perhaps, the most striking proof of the barbarism of the times referred to. And incredible as it may seem, this practice was continued down to a comparatively recent epoch. "Cependant il y a encore en Allemagne des pays où la coutume de confisquer les biens naufragés n'est point encore abolie. Il y a même des endroits ou les ministres predicateurs ne font pas difficulté de prier Dieu en chaire qu'il se fasse bien des naufrages sur leurs côtes. Et ces prieres, Thomasius a entrepris sérieusement de les justifier; mais par des raisons si singulieres, qu'elles ne valoient pas la peine que Barbeyrac a prise de les refuter."—(*Valin, Commentaire sur l'Ordonnance de* 1681, ii. 586. See also *Puffendorff,* "*Droit de la Nature et des Gens,*" *par Barbeyrac,* ii. 706.)

The law of England, like that of other modern countries, adjudged wrecks to belong to the king. But the rigour and injustice of this law was modified so early as the reign of Henry I., when it was ruled, that if any person escaped alive out of the ship, it should be no wreck. And after various modifications, it was decided, in the reign

of Henry III., that if goods were cast on shore, having any marks by which they could be identified, they were to revert to the owners, if claimed any time within a year and a day. By the statute 27 Edw. 3. c. 13., if a ship be lost and the goods come to land, they are to be delivered to the merchants, paying only a reasonable reward or SALVAGE (which see) to those who saved or preserved them. But these ancient statutes, owing to the confusion and disorder of the times, were very ill enforced; and the disgraceful practices previously alluded to continued to the middle of last century.

A statute of Anne (12 Ann. st. 2. c. 18.), confirmed by the 4 Geo. 1. c. 12., in the view of putting a stop to the atrocities in question, orders all head officers and others of the towns near the sea, upon application made to them, to summon as many hands as are necessary, and send them to the relief of any ship in distress, on forfeiture of 100*l.*; and in case of any assistance given, salvage is to be assessed by 3 justices, and paid by the owners. Persons secreting any goods cast ashore are to forfeit treble their value; and if they wilfully do any act by which the ship is lost or destroyed, they are guilty of felony without benefit of clergy. But even this statute seems not to have been sufficient to accomplish the end in view; and in 1753, a new statute (26 Geo. 2. c. 19.) was enacted, the preamble of which is as follows:—"Whereas, notwithstanding the good and salutary laws now in being against plundering and destroying vessels in distress, and against taking away shipwrecked, lost, or stranded goods, many wicked enormities have been committed, to the disgrace of the nation, and the grievous damage of merchants and mariners of our own and other countries, be it," &c.: and it is then enacted, that the preventing of the escape of any person endeavouring to save his life, or wounding him with intent to destroy him, or putting out false lights in order to bring any vessel into danger, shall be capital felony. By the same statute, the pilfering of any goods cast ashore is made petty larceny.

We regret, however, to have to state that the plunder of shipwrecked property is still by no means uncommon on the British coasts. The committee on shipwrecks in 1843 state, that "there is on many parts of the coast a want of that moral principle which should inculcate a just regard for the rights of such property. It is looked upon as a chance gift, which every one has a right to scramble for as he can, notwithstanding the laws which have been passed, from the earliest period, to prevent or punish such depredations. The plunder of shipwrecked property on the coasts has been carried on to an enormous extent, and this seems to have arisen from there having been no persons on the spot, when a wreck had taken place, to look after the property." The committee state, that the establishment of the coast-guard has done much to repress these abuses. The latter, however, cannot legally interfere, except when the castaway articles are subject to custom duties; and the committee suggest that all abandoned property should be vested in the government in trust for those to whom it may belong, as is done in France and Holland.—(*Report of Committee* of 1843, p. viii.)

Since this report was published the law in regard to shipwreck and salvage has been twice consolidated and embodied; first, in the act 9 & 10 Vict. c. 99, and more recently in the Mercantile Shipping Act of 1854, the 17 & 18 Vict. c. 104. The reader will find in the art. SALVAGE a full account of the rules and regulations laid down in the last-mentioned statute in regard to that important subject; and we now beg to subjoin those which have reference to the conduct to be pursued in regard to wrecks.

Inquiries to be instituted in Cases of Wreck and Casualty.—In any of the cases following, viz.,

Whenever any ship is lost, abandoned, or materially damaged on or near the coasts of the U. K.:
Whenever any ship causes loss or material damage to any other ship on or near such coasts:
Whenever by reason of any casualty happening to or on board of any ship on or near such coasts loss of life ensues:

Whenever any such loss, abandonment, damage or casualty happens elsewhere, and any competent witnesses thereof arrive or are found at any place in the U. K.

It shall be lawful for the inspecting officer of the coast guard or the principal officer of customs residing at or near the place where such loss, abandonment, damage, or casualty occurred, if the same occurred on or near the coasts of the U. K., but if elsewhere at or near the place where such witnesses as aforesaid arrive or are found or can be conveniently examined, or for any other person appointed for the purpose by the B. of Trade, to make inquiry respecting such loss, abandonment, damage, or casualty: and he shall for that purpose have all the powers given by this act to inspectors appointed by the said Board.—§ 432.

Formal Investigation before Justices.—If it appear to such officer or person as aforesaid, either upon or without any such preliminary inquiry, that a formal investigation is requisite or expedient, or if the B. of Trade so directs, he shall apply to any 2 justices or to a stipendiary magistrate to hear the case; and such justices or magistrate shall thereupon proceed to hear and try the same, and shall for that purpose, so far as relates to the summoning of parties, compelling the attendance of witnesses, and the regulation of the proceedings, have the same powers as if the same were a proceeding relating to an offence or cause of complaint upon which they or he have power to make a summary conviction or order, or as near thereto as circumstances permit; and it shall be the duty of such officer or person to superintend the management of the case, and to render such assistance to the said justices or magistrate as is in his power; and, upon the conclusion of the case, the said justices or magistrate shall send a report to the B. of Trade, containing a full statement of the case and of their or his opinion thereon, accompanied by such report of or extracts from the evidence, and such observations (if any) as they or he may think fit.—§ 433.

Power to appoint Nautical Assessor.—In cases where nautical skill and knowledge are required, the B. of Trade shall have the power, either at the request of such justices or magistrate, or at his own discretion, to appoint some person of nautical skill and knowledge to act as assessor to such justices or magistrate; and such assessor shall, upon the conclusion of the case, either signify his concurrence in their report by signing the same, or if he dissent therefrom shall signify such dissent and his reasons therefor to the B. of Trade.—§ 434.

Stipendiary Magistrate to be Member of Local Marine Board, and to be paid.—In places where there is a Local Marine Board, and where a stipendiary magistrate is a member of such board, all such investigations shall, whenever he happens to be present, be made before such magistrate; and there shall be paid to such magistrate in respect of his services under this act such remuneration, whether by way of annual increase of salary or otherwise as H. M.'s secretary of state for the home department, with the

consent of the B. of Trade, may direct; and such remuneration shall be paid out of the mercantile marine fund. — § 435.

Costs of such Investigations. — The said justices or magistrate may make such order with respect to the costs of any such investigation or any portion thereof as they or he may deem just, and such costs shall be paid accordingly, and shall be recoverable in the same menner as other costs incurred in summary proceedings before them or him; and the B. of Trade may, if in any case it thinks fit so to do, pay the expense of any such investigation, and may pay to such assessor such remuneration as it thinks fit. — § 436.

Investigations in Scotland. — In the case of any such investigation being held in Scotland, the B. of Trade may remit the same to the lord advocate to be prosecuted in such manner as he may direct, and in case he so requires, with the assistance of such persons of nautical skill and knowledge as the B. of Trade may appoint for the purpose. — § 437.

Master or Mate may be required to deliver Certificate, &c. — Such justices or magistrate as aforesaid may, or in Scotland such person or persons as is or are directed by the lord advocate to conduct the investigation may, if they or he think fit, require any master or mate possessing a certificate of competency or service whose conduct is called in question or appears to them or him likely to be called in question in the course of such investigation, to deliver such certificate to them or him, and they or he shall hold the certificate so delivered until the conclusion of the investigation, and shall then either return the same to such master or mate, or, if their report is such as to enable the B. of Trade to cancel or suspend such certificate under the powers given to such B. by this act, shall forward the same to the B. of Trade, to be dealt with as such board thinks fit; and if any master or mate fail so to deliver his certificate when so required, he shall incur a penalty not exceeding 50*l.* — § 438.

B. of Trade Superintendents of Wreck, with power to appoint Receivers. — The B. of Trade shall throughout the U. K. have the general superintendence of all matters relating to wreck; and it may with the consent of the commissioners of H. M.'s Treasury appoint any officer of customs or of the coast guard, or of the inland revenue, or, when it appears to such board to be more convenient, any other person, to be a receiver of wreck in any district, and to perform such duties as are herein mentioned, and shall give due notice of every such appointment. — § 439.

Admiral not to interfere with Wreck. — No admiral, vice-admiral, or other person, under whatever denomination, exercising admiralty jurisdiction, shall as such, by himself or his agents, receive, take, or interfere with any wreck except as herein mentioned. — § 440.

Duty of Receiver when any Ship is stranded or in Distress. — Whenever any ship or boat is stranded or in distress at any place on the shore of the sea or of any tidal water within the limits of the U. K., the receiver of the district within which such place is situate shall, upon being made acquainted with such accident, forthwith proceed to such place, and upon his arrival there he shall take the command of all persons present, and assign such duties to each person, and issue such directions, as he may think fit with a view to the preservation of such ship or boat, and the lives of the persons belonging thereto, and the cargo and apparel thereof; and if any person wilfully disobeys such directions, he shall forfeit a sum not exceeding 50*l.*; but it shall not be lawful for such receiver to interfere between the master of such ship or boat and his crew in matters relating to the management thereof, unless he is requested so to do by such master. — § 441.

Powers of Receiver in case of Accident to any Ship or Boat.—The receiver may, with a view to such preservation as aforesaid of the ship or boat, persons, cargo, and apparel, do the following things; (that is to say,)

(1.) Summon such number of men as he thinks necessary to assist him:
(2.) Require the master or other person having the charge of any ship or boat near at hand to give such aid with his men, ship, or boats as may be in his power:
(3.) Demand the use of any waggon, cart, or horses that may be near at hand:

And any person refusing without reasonable cause to comply with any summons, requisition, or demand so made, shall for every such refusal incur a penalty not exceeding 100*l.*; but no person shall be liable to pay any duty of assessed taxes in respect of any such waggon, cart, or horses by reason of the user of the same under this section.—§ 442.

Articles washed on Shore, or lost, &c., to be delivered to Receiver.—All cargo and other articles belonging to such ship or boat, that may be washed on shore, or otherwise be lost or taken from such ship or boat, shall be delivered to the receiver; and any person, whether he is the owner or not, who secretes or keeps possession of any such cargo or article, or refuses to deliver the same to the receiver or to any person authorised by him to demand the same, shall incur a penalty not exceeding 100*l.*; and it shall be lawful for such receiver or other person as aforesaid to take such cargo or article by force from the person so refusing to deliver the same. — § 443.

Receiver to suppress Plunder and Disorder by Force.—Whenever any such accident occurs to any ship or boat, and any person plunders, creates disorder, or obstructs the preservation of such ship, boat, lives, or cargo, it shall be lawful for the receiver to cause such person to be apprehended, and to use force for the suppression of any such plundering, disorder, or obstruction, with power to command all H. M.'s subjects to assist him in the use of such force; and if any person is killed, maimed, or hurt by reason of his resisting the receiver in the execution of the duties hereby committed to him, or any person acting under his orders, such receiver or other person shall be free and fully indemnified as well against the Queen's Majesty, her heirs and successors, as against all persons so killed, maimed, or hurt. — § 444.

Certain Officers to exercise Power of Receiver.—During the absence of the receiver from the place where any such accident as aforesaid occurs, or in places where no receiver has been appointed under this act, the following officers in succession, each in the absence of the other, in the order in which they are named, viz., any principal officer of customs or of the coast guard, or of inland revenue, and also any sheriff, justice of the peace, commissioned officer on full pay in the naval service of H. M., or commissioned officer on full pay in the military service of H. M., may do all matters and things hereby authorised to be done by the receiver, with this exception, that with respect to any goods or articles belonging to any such ship or boat, the delivery up of which to the receiver is herein required, any officer so acting shall be considered as the agent of the receiver, and shall place the same in the custody of the receiver; and no person so acting as substitute for any receiver shall be entitled to any fees payable to receivers, or be deprived by reason of his so acting of any right to salvage to which he would otherwise be entitled. — § 445.

Power in case of a Ship being in Distress to pass over adjoining Lands with Carriages.—Whenever any accident as aforesaid occurs to any ship or boat, all persons may, for the purpose of rendering assistance to such ship or boat, or saving the lives of the persons on board the same, or the cargo or apparel thereof, unless there be some public road equally convenient, pass and repass either with or without carriages or horses over any adjoining lands, without being subject to interruption by the owner or occupier, so that they do as little damage as possible, and may also, on the like condition, deposit on such lands any cargo or other article recovered from such ship or boat; and all damage that may be sustained by any owner or occupier in consequence of any such passing or repassing or deposit as aforesaid shall be a charge on the ship, boat, cargo, or articles in respect of or by which such damage was occasioned, and shall, in default of payment, be recoverable in the same manner as salvage is hereby made recoverable; and the amount payable in respect thereof, if disputed, shall be determined in the same manner as the amount of salvage is hereby in case of dispute directed to be determined. — § 446.

Penalty on Owners, &c., of Land refusing to allow Carriages, &c. to pass over their Land.—If the owner or occupier of any land over which any person is hereby authorised to pass or repass for any of the purposes herein-before mentioned does any of the following things, (that is to say,)

(1.) Impedes or hinders any such person from so passing or repassing, with or without carriages, horses, and servants, by locking his gates, refusing, upon request, to open the same, or otherwise however:
(2.) Impedes or hinders the deposit of any cargo or other article recovered from any such ship or boat as herein-before mentioned:
(3.) Prevents such cargo or other article from remaining so deposited for a reasonable time, until the same can be removed to a safe place of public deposit;

He shall for every such offence incur a penalty not exceeding 100*l.*—§ 447.

Power of Receiver to institute Examination, &c.—Any receiver, or in his absence any justice of the peace, shall as soon as conveniently may be, examine upon oath (which oath they are hereby respectively empowered to administer) any person belonging to any ship which may be or may have been in distress on the coasts of the U. K., or any other person who may be able to give any account thereof or of the cargo or stores thereof, as to the following matters; viz.:

(1.) The name and description of the ship.
(2.) The name of the master and of the owners.
(3.) The names of the owners of the cargo.
(4.) The ports or places from and to which the ship was bound.
(5.) The occasion of the distress of the ship.
(6.) The services rendered.
(7.) Such other matters or circumstances relating to such ship, or to the cargo on board the same, as the receiver or justice thinks necessary.

And such receiver or justice shall take the examination down in writing, and shall make two copies of the same, of which he shall send one to the B. of Trade, and the other to the secretary of the committee of Lloyd's in London, and such last-mentioned copy shall be placed by the said secretary in some conspicuous situation for the inspection of persons desirous of examining the same; and for the purposes of such examination every receiver or justice as aforesaid shall have all the powers given by this act to inspectors appointed by the B. of Trade.—§ 448.

Original or certified Copy of Examination to be primâ facie Evidence.—Any examination so taken in writing as aforesaid, or a copy thereof, purporting to be certified under the hand of the receiver or justice before whom such examination was taken, shall be admitted in evidence in any court of justice, or before any person having by law or by consent of parties authority to hear, receive, and examine evidence, as *primâ facie* proof of all matters contained in such written examination.—§ 449.

Rules to be observed by Persons finding Wreck.—The following rules shall be observed by any person finding or taking possession of wreck within the U. K.; viz.:

(1.) If the person so finding or taking possession of the same is the owner, he shall as soon as possible give notice to the receiver of the district within which such wreck is found, stating that he has so found or taken possession of the same; and he shall describe in such notice the marks by which such wreck is distinguished.
(2.) If any person not being the owner finds or takes possession of any wreck, he shall as soon as possible deliver the same to such receiver as aforesaid.
And any person making default in obeying the provisions of this section shall incur the following penalties; (that is to say,)
(3.) If he is the owner and makes default in performing the several things, the performance of which is hereby imposed on an owner,
He shall incur a penalty not exceeding 100*l.*
(4.) If he is not the owner and makes default in performing the several things, the performance of which is hereby imposed on any person not being an owner,
He shall forfeit all claim to salvage.
He shall pay to the owner of such wreck, if the same is claimed, but if the same is unclaimed then to the person entitled to such unclaimed wreck, double the value of such wreck (such value to be recovered in the same way as a penalty of like amount); and
He shall incur a penalty not exceeding 100*l.*—§ 450.

Receivers to seize concealed Wreck.—If any receiver suspects or receives information that any wreck is secreted or in the possession of some person who is not the owner thereof, or otherwise improperly dealt with, he may apply to any justice of the peace for a warrant, and such justice shall have power to grant a warrant, by virtue whereof it shall be lawful for the receiver to enter into any house or other place wherever situate, and also into any ship or boat, and to search for, and to seize and detain any such wreck as aforesaid there found; and if any such seizure is made in consequence of information that may have been given by any person to the receiver, the informer shall be entitled by way of salvage to such sum not exceeding in any case 5*l.* as the receiver may allow.—§ 451.

Notice of Wreck to be given by Receiver.—Every receiver shall within 48 hours after taking possession of any wreck cause to be posted up in the custom house of the port nearest to the place where such wreck was found or seized a description of the same and of any marks by which it is distinguished, and shall also, if the value of such wreck exceeds 20*l.*, but not otherwise, transmit a similar description to the secretary of Lloyd's aforesaid; and such secretary shall post up the description so sent, or a copy thereof, in some conspicuous place, for the inspection of all persons desirous of examining the same.—§ 452.

Goods perishable or of small Value may be sold immediately.—In cases where any wreck in the custody of any receiver is under the value of 5*l.*, or is of so perishable a nature or so much damaged that the same cannot, in his opinion, be advantageously kept, or if the value thereof is not sufficient to defray the charge of warehousing, the receiver may sell the same before the expiration of the period after mentioned, and the money raised by such sale, after defraying the expenses thereof, shall be held by the receiver for the same purposes and subject to the same claims for and to which the article sold would have been held and liable if it had remained unsold.—§ 453.

Where any Lord of the Manor or other Person is entitled to unclaimed Wreck, Receiver to give him Notice.—In cases where any admiral, vice-admiral, lord of the manor, or other person is entitled for his own use to unclaimed wreck found on any place situate within a district for which a receiver is appointed, such admiral, vice-admiral, lord of the manor, or other person shall deliver to such receiver a statement containing the particulars of his title, and the address to which notices are to be sent; and upon such statement being so delivered, and proof made to the satisfaction of the receiver of the validity of such title, it shall be his duty, whenever he takes possession of any wreck found at any such place, to send within 48 hours thereafter a description of the same and of any marks by which it is distinguished, directed to such address as aforesaid.—§ 454.

Payments to be made to Receiver.—There shall be paid to all receivers appointed under this act the expenses properly incurred by them in the performance of their duties, and also in respect of the several matters specified in the table annexed to this act, such fees, not exceeding the amounts therein mentioned, as may from time to time be directed by the B. of Trade; and the receiver shall have the same lien and be entitled to the same remedies for the recovery of such expenses and fees as a salvor has or is entitled to in respect of salvage due to him; but, save as aforesaid, no receiver appointed under this act shall, as such, be entitled to any remuneration whatsoever.—§ 455.

Sums payable to Receiver to be determined by B. of Trade.—Whenever any dispute arises in any part of the U. K. as to the amount payable to any receiver in respect of expenses or fees, such dispute shall be determined by the B. of T., whose decision shall be final.—§ 456.

Application of Fees.—All fees received by any receiver appointed under this act, in respect of any services performed by him as receiver, shall be carried to and form part of the Mercantile Marine Fund, and a separate account thereof shall be kept, and the monies arising therefrom shall be applied in defraying any expenses duly incurred in carrying into effect the purposes of this act, and in such manner as the B. of T. directs.—§ 457.

For the regulations as to salvage, see art. SALVAGE.

In case of Shipwrecked Property being plundered by a tumultuous Assemblage, Hundred to be liable in Damages.—Whenever any ship or boat is stranded or otherwise in distress on or near the shore of any sea or tidal water in the U. K., and such ship or boat, or any part of the cargo or apparel thereof, is plundered, damaged or destroyed by any persons riotously and tumultuously assembled together, whether

on shore or afloat, full compensation shall be made to the owner of such ship, boat, cargo, or apparel, as follows; viz.:

In England by the inhabitants of the hundred, wapentake, ward, or district in the nature of a hundred, by whatever name denominated, in or nearest to which the said offence is committed, in manner provided by the 7 & 8 G. 4. c. 31. in case of the destruction of churches and other buildings by a riotous assemblage, or as near thereto as circumstances permit:

In Ireland by the inhabitants of the county, county of a city or town, barony, town or towns, parish or parishes, in or nearest to which such offence is committed, in manner provided by the 3 & 4 W. 4. c. 37. s. 72. for the recovery of satisfaction and amends for the malicious demolition of or injury to churches, chapels and other buildings used for religious worship, according to the usage of the United Church of England and Ireland, or as near thereto as circumstances permit.

In Scotland, by the inhabitants of the county, city or borough in or nearest to which such offence is committed, in manner provided by the 1 G. 1. st. 2. c. 5. with respect to prosecutions for repairing the damages of any churches and other buildings, or as near thereto as circumstances permit.

Penalty for plundering in Cases of Shipwreck, &c.—Every person who does any of the following acts, viz.:

(1.) Wrongfully carries away or removes any part of any ship or boat stranded or in danger of being stranded or otherwise in distress on or near the shore of any sea or tidal water, or any part of the cargo, or apparel thereof, or any wreck; or

(2.) Endeavours in any way to impede or hinder the saving of such ship, boat, cargo, apparel or wreck; or

(3.) Secretes any wreck, or obliterates or defaces any marks thereon;

Shall, in addition to any other penalty or punishment he may be subject to under this or any other act or law, for each such offence incur a penalty not exceeding 50*l.*; and every person, not being a receiver or a person herein-before authorised to take the command in cases of ships being stranded or in distress, or not acting under the orders of such receiver or person, who, without the leave of the master, endeavours to board any such ship or boat as aforesaid, shall for each offence incur a penalty not exceeding 50*l.*; and it shall be lawful for the master of such ship or boat to repel by force any such person so attempting to board the same.—§ 478.

Penalty for selling Wreck in Foreign Ports. — If any person takes into any foreign port or place any ship or boat stranded, derelict, or otherwise in distress on or near the shore of the sea or of any tidal water situate within the limits of the U. K., or any part of the cargo or apparel thereof, or anything belonging thereto, or any wreck found within such limits as aforesaid, and there sells the same, he shall be guilty of felony, and be subject to penal servitude for a term not exceeding 4 years. — § 479.

Regulations to be observed by Dealers in Marine Stores. — Every person dealing in buying and selling anchors, cables, sails, or old junk, old iron, or marine stores of any description, shall conform to the following regulations, viz.,

(1.) He shall have his name, together with the words, "Dealer in Marine Stores," painted distinctly in letters of not less than 6 inches in length on every warehouse or other place of deposit belonging to him.

If he does not he shall incur a penalty not exceeding £20.

(2.) He shall keep a book or books fairly written, and shall enter therein an account of all such marine stores as he may from time to time become possessed of, stating, in respect of each article, the time at which and the person from whom he purchased or received the same, adding, in the case of every such last-mentioned person, a description of his business and place of abode.

If he does not he shall incur for the first offence a penalty not exceeding £20, and for every subsequent offence a penalty not exceeding £50.

(3.) He shall not, by himself or his agents, purchase marine stores of any description from any person apparently under the age of sixteen years.

If he does so he shall incur for the first offence a penalty not exceeding £5, and for every subsequent offence a penalty not exceeding £20.

(4.) He shall not cut up any cable, or any similar article, exceeding 5 fathoms in length, or unlay the same into twine or paper stuff, on any pretence whatever, without obtaining such permit and publishing such notice of his having so obtained the same as is after mentioned.

If he does so he shall incur for the first offence a penalty not exceeding £20, and for every subsequent offence a penalty not exceeding £50.

Manner of obtaining Permit to cut up Cables. — In order to obtain such permit as aforesaid a dealer in marine stores shall make a declaration before some justice of the peace having jurisdiction over the place where such dealer resides containing the following particulars, viz.,

(1.) A statement of the quality and description of the cable or other like article about to be cut up or unlaid.

(2.) A statement that he purchased or otherwise acquired the same *bonâ fide* and without fraud, and without any knowledge or suspicion that the same had been come by dishonestly.

(3.) A statement of the name and description of the person from whom he purchased or received the same.

And it shall be lawful for the justice before whom any such declaration is made, or for the receiver of the district in which such dealer in marine stores resides, upon the production of any such declaration as aforesaid, to grant a permit authorising him to cut up or unlay such cable or other like article.—§ 481.

Permit to be advertised before Dealer proceeds to act thereon. — No dealer in marine stores who has obtained permit as aforesaid shall proceed to cut up or unlay any cable or other like article until he has for the space of one week at the least before doing any such act published in some newspaper published nearest to the place where he resides one or more advertisements notifying the fact of his having obtained a permit, and specifying the nature of the cable or other article mentioned in the permit, and the place where the same is deposited, and the time at which the same is intended to be cut up or unlaid; and if any person suspects or believes that such cable or other article is his property, he may apply to any justice of the peace for a warrant; and such justice of the peace may, on the applicant making oath, or, if a person entitled to make an affirmation, making an affirmation in support of such his suspicion or belief, grant a warrant by virtue whereof the applicant shall be entitled to require the production by dealer as aforesaid of the cable or other article mentioned in the permit, and also of the book of entries before directed to be kept by every dealer in marine stores; and, upon such cable or other article and book of entries being produced, to inspect and examine the same; and if any dealer in marine stores makes default in complying with any of the provisions of this section, he shall for the first offence incur a penalty not exceeding 20*l.*, and for every subsequent offence a penalty not exceeding 50*l.* — § 482.

Manufacturers to place Marks on Anchors. — Every manufacturer of anchors shall, in case of each anchor which he manufactures, mark in legible characters on the crown and also on the shank under the stock his name or initials, with the addition of a progressive number and the weight of such anchor; and if he makes default in doing so he shall for each offence incur a penalty not exceeding 5*l.* — § 483.

Foreign Goods found derelict to be subject to the same Duties as on Importation. — All wreck, being foreign goods brought or coming into the U. K. or the Isle of Man, shall be subject to the same duties as if the same were imported into the U. K. or the Isle of Man respectively; and if any question arises as to the origin of such goods, they shall be deemed to be the produce of such country as the commissioners of customs may upon investigation determine.—§ 499.

Goods saved from Ships wrecked to be forwarded to their original Destination. — The commissioners of customs and excise shall permit all goods, wares, and merchandise saved from any ship stranded or wrecked on its homeward voyage to be forwarded to the port of its original destination, and all goods, wares, and merchandise saved from any ship stranded or wrecked on its outward voyage to be returned to the port at which the same were shipped; but such commissioners are to take security for the due protection of the revenue in respect of such goods, wares, and merchandise.—§ 500.

Number of Shipwrecks. — The loss of property by shipwreck is very great. It appears from an examination of *Lloyd's List* from 1793 to 1829, that the losses in the British mercantile navy only amounted, at an average of that period, to about 557 vessels a year, of the aggregate burden of about 66,000 tons, or to above 1-40th part of its entire amount in ships and tonnage. The following accounts contain notices of late disasters:—

The Wreck Register furnishes the following details with regard to losses at sea in some late years. During the five years ending with 1856, the wrecks and casualties were :—

Wrecks and Casualties.	Wrecks.	Collisions.	Total.	Total Lives Lost.
1852	958	57	1,015	820
1853	759	73	832	989
1854	893	94	987	1,549
1855	894	247	1,141	469
1856	837	316	1,153	521
Total	4,341	787	5,128	4,348

The number of casualties in each month of 1856 are thus given in the *Register* for that year :—

	Vessels.		Vessels.
January	149	Brought forward	610
February	154	August	51
March	96	September	98
April	74	October	99
May	57	November	129
June	32	December	166
July	48	Total	1,153
	610		

Representing 229,936 tons, and employing 10,014 hands, of whom 521 perished.

In 1857 the wrecks and casualties were :—

	Vessels.
Totally wrecked	384
Totally lost in collision	53
Seriously damaged	482
Damaged seriously by collisions	224
Total	1,143

The number of disasters for the year is at the rate of more than three per diem.

The number of wrecks in each month of 1857 is thus given :—

	Vessels.		Vessels.
January	281	Brought forward	687
February	64	August	75
March	166	September	65
April	76	October	135
May	33	November	94
June	34	December	86
July	33	Total	1,143
	687		

In this year 532 hands perished.

In 1858 there were 1,170 wrecks, of which 404, including 50 sunk by collision, were total losses. Happily only 340 lives were lost.

Estimating the vessels totally lost with those that have been abandoned and broken up, at 500 a year, and 200 tons burden at an average, and their value, including that of their cargoes, at 20*l.* a ton, the entire loss would amount to 2,000,000*l.*, to which a further and considerable sum must be added to repair the injury done to those ships which have escaped with less, though still serious injury. Hence, apart from the loss of life, which varies from about 500 to 800 and 1000 hands a year, the avoidance or diminution of wrecks is a matter of no little importance.

This result might, in some degree, be effected by building better and stronger ships, supplying them with improved compasses, &c., and by opening harbours of refuge on the parts of the coast where these disasters mostly occur. No doubt, however, the abuse of insurance, with the carelessness, ignorance, and drunkenness of the masters and crews are the great sources of loss; and nothing will do so much to obviate these as the plan now adopted of making the grant of a certificate of fitness, after undergoing an examination by a public board, indispensable to enable any individual to be appointed to the command of a ship (*ante*, p. 852.). Provided always that the examination be properly conducted, if not it will be worse than useless.

During the last war with France, 32 ships of the line went to the bottom, besides 7 fifty-gun ships, 86 frigates, and a vast number of smaller vessels. And the losses sustained by the navies of France, Spain, Holland, Denmark, &c., must have very greatly exceeded those of ours. Hence, as Sir Charles Lyell has observed, it is probable that a greater number of monuments of the skill and industry of man will, in the course of ages, be collected together in the bed of the ocean, than will be seen at one time on the surface of the continents.—(*Principles of Geology*, 7th edit. p. 728.)

Y.

YARD, a long measure used in England, of 3 feet, or 36 inches. (See WEIGHTS AND MEASURES.)

YARN (Ger. *Garn*; Du. *Garen*; Fr. *Fil*; It. *Filato*; Sp. *Hilo*; Port. *Fio*; Rus. *Prasha*), wool, cotton, flax, &c., spun into thread. We export very large quantities of yarn. See arts. COTTON, LINEN, &c.

Z.

ZAFFER, or ZAFRE. After the sulphur, arsenic and other volatile parts of cobalt have been expelled by calcination, the residuum is sold, mixed or unmixed with fine sand, under the above name. When the residuum is melted with siliceous earth and potash, it forms a kind of blue glass, known by the name of smaltz—(see SMALTZ),

—of great importance in the arts. When smaltz is ground very fine, it receives in commerce the name of *powder blue*. Zaffer, like smaltz, is employed in the manufacture of earthenware and China, for painting the surface of the pieces a blue colour. It suffers no change from the most violent fire. It is also employed to tinge the crystal glasses, made in imitation of opaque and transparent precious stones, of a blue colour. It is almost wholly brought from Germany. In 1857 the imports of zafre amounted to 607 cwt., the exports being only 4 cwt. A duty of 1*s.* a cwt. on its being imported was repealed in 1846.

ZEA, INDIAN CORN, or MAIZE. See MAIZE.

ZEDOARY (Ger. *Zittwer*; Fr. *Zédoaire*; It. *Zedoaria*; Sp. *Cedoaria*; Arab. *Judwar*; Hind. *Nirbisi*), the root of a plant which grows in Malabar, Ceylon, Cochin-China, &c., of which there are 3 distinct species. It is brought home in pieces of various sizes, externally wrinkled, and of an ash colour, but internally of a brownish red. Those roots which are heavy and free from worms are to be chosen; rejecting those which are decayed and broken. The odour of zedoary is fragrant, and somewhat like that of camphor; the taste biting, aromatic, and bitterish, with some degree of acrimony. It was formerly employed in medicine; but is scarcely ever used by modern practitioners. —(*Milburn's Orient. Com.*)

ZINC, OR SPELTER (Ger. *Zink*; Fr. *Zinc*; It. *Zinco*; Sp. *Zinco, Cinck*; Rus. *Schpiauter*; Lat. *Zincum*), a metal of a brilliant white colour, with a shade of blue, composed of a number of thin plates adhering together. When this metal is rubbed for some time between the fingers, they acquire a peculiar taste, and emit a very perceptible smell. It is rather soft; tinging the fingers, when rubbed upon them, with a black colour. The specific gravity of melted zinc varies from 6·861 to 7·1, the lightest being esteemed the purest. When hammered, it becomes as high as 7·1908. This metal forms, as it were, the limit between the brittle and the malleable metals. Its malleability is by no means to be compared with that of copper, lead, or tin: yet it is not brittle, like antimony or arsenic. When struck with a hammer, it does not break, but yields, and becomes somewhat flatter; and by a cautious and equal pressure, it may be reduced to pretty thin plates, which are supple and elastic, but cannot be folded without breaking. When heated to about 400°, it becomes so brittle that it may be reduced to powder in a mortar. It possesses a certain degree of ductility, and may, with care, be drawn out into wire. Its tenacity is such, that a wire whose diameter is equal to $\frac{1}{10}$th of an inch is capable of supporting a weight of about 26 lbs. Zinc has never been found in a state of purity. The word zinc occurs for the first time in the writings of Paracelsus, who died in 1541; but the method of extracting it from its ores was not known till the early part of last century.—(*Thomson's Chemistry.*) The compounds of zinc and copper are of great importance.—(See BRASS.)

Manufacture of Zinc, &c.— The material used by the English manufacturer is blende, or black jack, (sulphuret of zinc): it is commonly found with lead, and is procured of the best quality in Flintshire and the Isle of Man. Besides its employment in the manufacture of brass, bell metal, and other important compounds, zinc has of late years been formed into plates, and applied to many purposes for which lead was formerly used, such as the roofing of buildings, the manufacture of water-spouts, dairy pans, &c. Foreign zinc, being less brittle, is better fitted for rolling than that of England.

The duties on spelter, which were formerly prohibitory, were reduced in 1832 to 2*l.* a ton on that formed into plates, or cakes, and to 10*s.* on what is crude. The duty on the latter, after being farther reduced in 1842 to 1*s.* per ton, was repealed in 1845. In consequence of these reductions, considerable quantities are now imported, partly for home use, and partly for re-exportation to India and other countries. Foreign zinc is principally made in Upper Silesia; whence it is conveyed by an internal navigation to Dantzic, Stettin, and Hamburgh. The freight from the latter to Hull and London is nominal merely; the wool-ships being glad to take it as ballast. Hainault, near Namur, has also some part of the spelter trade. A good deal of spelter is shipped from Hamburgh, for France and America.

Zinc is produced in the province of Yunan in China; and previously to 1820, large quantities of it were exported from that empire to India, the Malay Archipelago, &c. But about that time the free traders began to convey European spelter (principally German) to India; and being, though less pure, decidedly cheaper than the Chinese article, it has entirely supplanted the latter in the Calcutta market. In 1850 the exports of foreign and native spelter from this country for India amounted respectively to 569 and 1,740 tons; in addition to which considerable quantities were exported from Amsterdam, Rotterdam, &c.

In 1857 we imported 13,834 tons crude, and 4,167 tons rolled spelter. By far the largest portion was brought from Prussia by the channel of the Hanse Towns, and partly, also, from Belgium. The exports during the same year amounted to 4,504 tons, principally from the E. Indies and Australia.

SUPPLEMENT.

ADELAIDE, a city of S. Australia, cap. of the British colony of that name, about 7 m. S. S. E. from its port, an inlet on the E. side of St. Vincent's Gulph, lat. 34° 57′ S., long. 138° 38′ E. Though founded so recently as 1844, and not well situated, this is a well-built, prosperous town. Some of the houses, and most part of the principal buildings, are of brick and stone. Pop. in 1855, 18,259.

The river Torrens, on which Adelaide is built, loses itself in a marsh before reaching the sea, so that the city is about 7 m. distant from its port, an inlet of St. Vincent's Gulph. This inland situation is a serious drawback on the trade of the city; and it would seem that a mistake was committed in not building it on, or much nearer to, the coast. This, we are aware, has been denied, though, as we think, upon very unsatisfactory grounds. There appears, indeed, to be but little doubt that in no very lengthened period most part of the commerce of the town will be transferred to the port; and that it will be preferred as a residence by all commercial people. In the rainy season the Torrens is much flooded, though it seldom overflows its banks, which are steep and lofty; but in the dry season it has no current, its bed being then formed into a series of pools or tanks.

Port Adelaide, 7 m. N.N.W. from the city, in a low and marshy situation, consists of a number of dwelling houses and warehouses, some of which are of stone with wharves, partly belonging to government, and partly to the South Australian Company. The inlet of the sea, forming the harbour, opposite the entrance to which a light vessel is moored, stretches from the gulph, from which it is separated by a narrow neck of land, for about 8 m. southward, surrounding Torrens Island. At its mouth is a sandy bar with 8 ft. water at ebb and 16 ft. at flood tide; this depth being considerably increased during S. and S. W. winds. Ships of 400 or 500 tons may, consequently, pass the bar in safety, and once over, there is depth enough for the largest ships to the head of the harbour. (*Dutton, S. Australia*, p. 112.) Large vessels are, however, obliged to lie in mid-channel; but projects were recently on foot for improving the harbour, either by carrying out piers into the deep water, or by establishing a new port about 2 m. nearer to the harbour's mouth, where the water in-shore is deeper, and the situation affords greater facilities for the accommodation of shipping. Port Adelaide has a custom-house; but vessels are exempted from all port charges in this and in the other ports of the colony.

Sailing Directions for Port Adelaide. — After making Kangaroo Island, steer E. ¼ N. through Investigator's Straits, between that island and Althorp Island. Should the wind be from the eastward, you will find no difficulty in beating through the straits, nor anything in the way more than is pointed out in Flinder's chart. If bound up Gulph St. Vincent, great care is requisite to avoid Troubridge shoal, situate on the west side of the entrance, as the flood tide through Backstairs passage sets strong (particularly on the change and full of the moon) directly upon the shoal; therefore coming from the westward the course should not be altered until Point Marsden bears S. W. by W. ½ W.; when you will be about 10 miles from *the highland, inside* Cape Jervis, named in Flinder's chart North West Bluff, when you may shape your course for the light-vessel N. N. E. 40 miles distant. For about six leagues up the gulph the land is high and bold, but above that the shore becomes very low with hammocks of sand upon it, and the same description of coast prevails to the head of the gulph. After passing the high coast land the water shoals far out, and in some instances, when within the distance of 10 miles from the light, five fathoms will be found at a distance of four miles from the beach. Be careful of your soundings, particularly at night, and in running up to the light keep as nearly as you can in between five and six fathoms water, not approaching inside five, as within that depth the water shoals suddenly; and if you keep outside six fathoms, you may pass to the westward of the light and not see it. In these soundings you will make the light ahead, which may be seen 12 miles from the deck of a ship. The shoal — called the Bar — at the entrance of the port, bears N. E. one mile from the light-vessel. When you are within a proper distance a boat will be sent to you from the light-vessel with a pilot and to receive all mails and letters. Should you sight the light in the early part of the night, you may anchor anywhere to the southward of it in six fathoms, or keep underweigh until daylight, taking care to be to the southward of the light, and as near it as possible in the morning, as the tide answers early. Where the light-vessel is moored, in lat. 34° 44′ S., there anchorage is safe, but a good full scope of chain is required, never less than 50 fathoms, and, if it blow, a full chain. Never let go the second anchor if you can avoid it; rather give more chain, as your vessel will ride much easier with one anchor down than two.

When bound down the gulph steer from the light-vessel S. S. W., which will keep you in sight of the land on the east side of the gulph, and out of the influence of the tide through Backstairs passage, until you are to the southward of Troubridge shoal; but on no account shape a course that you may fancy will enable you to weather the shoals, thereby laying the ship's broadside exposed to *a rapid tide running* directly upon it, until you are sufficiently to the southward to shape your course down *the strait*.

In beating down the gulph never exceed a distance of 10 miles from the larboard shore (as the opposite side is shoal), and be careful when standing in to have a cast of the lead, as it is shoal a considerable distance off until you get down to the highland. In some places to the northward of Holdfast-bay there are not more than five fathoms, at a distance of four miles from the beach, and the water shoals very quickly within that depth; but where the high land fronts the sea the shore is

steep except a reef that lies a mile off, about three miles to the southward of Holdfast-bay. The flag-staff at Holdfast-bay is in lat. 34° 58′ 28″ S. In moderate weather endeavour to be as close to the land as possible by sunset, when you will be certain of the wind off the land, which will lead you down the coast. Do not allow yourself to be thrown off until you are well down with Cape Jervis, and to the southward of Troubridge shoal, which is an extensive flat, and only in the middle shows a patch of about 200 yards at high water.

Ships bound down Investigator's Straits, meeting a strong westerly wind, and wishing to anchor, will find good holding ground close in on the east side of Point Marsden, in six fathoms of water. Vessels coming from the eastward through Backstairs passage, and bound up the gulf, should night be approaching, must keep on the north side of the passage, and haul round Cape Jervis, all that coast being quite bold. When the gulph is open shape a course N. by E. ½ E. for the light-vessel.

The trade of Adelaide is already extensive; and will continue to increase with the increase of the population and trade of the colony, of which it is the grand emporium. The colony is better suited for tillage than any other portion of the continent, and the exports of flour and grain are become of the first importance. The mines of copper, lead, &c., discovered in the vicinity of Adelaide, are of the richest description, and the ores furnished by them form a principal article of export. In 1852, the imports of copper ore into this country from S. Australia, chiefly from the Burra-Burra mine, amounted to 8,582 tons. The discovery of the gold fields, by attracting many of the labourers from the copper mines, gave a serious check to the progress of the latter; but they have since fully recovered from their depression. In 1856, 2,250 tons copper, worth 248,460*l.*, and 9,468 tons copper ore, worth 156,351*l.* were exported. The exports of flour during the same year were estimated at 22,372½ tons of the value of 496,317*l.*, being considerably more than the value (412,163*l.*) of the wool exported. The total value of the exports was 1,398,367*l.*

Account of the Quantities and Values of the Principal Articles (ex gold) imported into the U. K. from S. Australia in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Copper: ore - - - tons	3,144	2,966	1,652	1,839	£75,456	£66,402	£47,915	£38,619
regulus - - - —	32	28	57	6	1,440	1,447	2,938	250
unwrought - - - —	114	196	675	912	13,680	22,529	68,467	96,558
part wrought - - - —	27	15	46	180	3,445	1,919	5,641	21,510
in plates and copper coin - —	25	-	41	39	2,750	-	4,681	4,283
Hides, not tanned - - cwts.	266	45	565	554	496	100	1,686	1,782
Lead, ore - - - tons	20	135	-	442	220	1,642	-	5,590
Wool, sheep and lambs' - lbs.	4,395,957	5,589,657	5,976,796	7,138,009	329,697	433,781	522,969	464,517
Total value of the above and of all other articles - - -	-	-	-	-	453,763	537,959	661,866	653,180

Account of the Quantities and Values of the Principal Articles of British Produce exported from the U. K. to S. Australia in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Declared Values.			
	1854.	1855	1856.	1857.	1854.	1855.	1856.	1857.
Agricultural implements - value	-	-	-	-	£20,994	£15,211	£14,023	£14,841
Apothecary wares, &c. - —	-	-	-	-	15,388	5,841	7,007	7,378
Apparel, slops, and haberdashery —	-	-	-	-	220,623	86,495	118,804	150,135
Bags, empty - - - dozen	43,905	16,635	37,437	87,407	31,005	10,305	27,174	54,316
Beer and ale - - - barrls.	19,301	9,700	15,976	12,326	65,627	37,232	50,723	47,675
Books, printed - - cwts.	773	794	390	651	11,864	10,919	6,175	9,207
Butter and cheese - - —	1,342	3,153	5,878	1,065	7,878	14,694	18,055	5,121
Coals, cinders, and culm - tons	9,437	12,631	6,905	4,565	7,665	7,521	5,246	4,275
Cottons: entered by the yard - yards	3,530,547	903,396	2,294,367	2,879,137	77,329	19,084	45,661	59,168
at value - value	-	-	-	-	10,980	4,809	7,291	14,545
Earthenware and porcelain - —	-	-	-	-	12,307	9,053	8,875	8,701
Furniture, cabinet and upholstery wares - - —	-	-	-	-	13,456	7,845	6,915	10,079
Glass manufactures - - —	-	-	-	-	20,735	10,845	16,947	16,309
Hardwares and cutlery - cwts.	11,318	6,244	6,152	9,184	58,553	31,057	31,132	36,785
Hats of all sorts - - dozen	7,883	3,115	4,329	9,210	11,645	7,063	7,349	17,160
Iron, wrought and unwrought tons	4,212	4,632	8,146	5,173	93,483	69,264	104,954	80,568
Leather: wrought and unwrought lbs.	202,800	142,795	236,057	403,356	41,656	30,264	47,720	80,848
saddlery and harness - value	-	-	-	-	20,354	11,460	9,567	8,852
Linens, entered by the yard - yards	656,893	224,402	328,099	520,383	21,292	7,732	11,452	19,237
Machinery: steam engines - value	-	-	-	-	30,983	5,051	8,277	5,537
all other sorts - —	-	-	-	-	17,040	26,171	10,817	9,960
Pickles and sauces - - —	-	-	-	-	23,832	11,909	19,989	6,154
Plate, plated ware, &c. - —	-	-	-	-	7,909	4,175	3,234	3,016
Silk manufactures - - —	-	-	-	-	19,672	9,054	9,626	19,634
Soap and candles - - lbs.	567,552	800,856	1,180,166	512,182	15,437	21,168	25,270	13,804
Spirits, British - - gallons	41,174	14,083	58,197	87,108	11,732	5,551	14,549	14,511
Stationery - - value	-	-	-	-	24,190	13,014	19,682	21,917
Woollens: entered by the piece - pieces	19,222	6,492	8,406	18,676	36,414	14,714	14,581	33,930
by the yard - yards	359,106	148,348	283,900	441,427	21,859	8,848	15,998	24,673
at value - value	-	-	-	-	9,738	5,113	3,518	6,466
All other articles - —	-	-	-	-	167,193	104,316	118,876	112,895
Total - -	-	-	-	-	1,146,113	621,788	809,237	913,117

Total Value of Imports and Exports into and from S. Australia, specifying the Value of those from and to each Country in 1854, 1855, and 1856.

Countries.	Imports.			Exports.		
	1854.	1855.	1856.	1854.	1855.	1856.
United Kingdom - -	£1,628,505	£953,677	£855,722	£611,608	£449,284	£633,380
British Colonies - -	392,151	325,232	428,147	708,280	536,907	1,029,856
Foreign States - -	126,451	92,029	82,660	2,934	2,025	2,504
Total - -	2,147,107*	1,370,939*	1,366,529	1,322,822	988,215	1,665,740

* Not including imports re-exported.

Of 430 vessels which entered the ports of S. Australia in 1856, 385 bore the flag of the U. K. The export trade of the colony is distributed as follows: —

Number and Tonnage of Vessels entered and cleared at each Port of S. Australia in 1856.

Ports.	Entered.						Cleared.					
	With Cargoes.		In Ballast.		Total.		With Cargoes.		In Ballast.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Adelaide	352	99,325	45	7,416	397	106,741	330	76,462	56	27,748	386	104,210
Wakefield	10	2,758	7	1,630	17	4,388	30	7,963	3	1,770	33	9,733
Willunga	-	-	10	1,209	10	1,209	11	1,288	-	-	11	1,288
Elliot	1	123	-	-	1	123	2	298	-	-	2	298
Robe	5	1,200	-	-	5	1,200	5	1,200	-	-	5	1,200
Total	368	103,406	62	10,255	430	113,661	378	87,211	59	29,518	437	116,729

Tariff of S. Australia.

Table of Duties levied under Local Act, No. 8. of 1853.

Articles subject to Duty.	Amount of Duty.	Articles subject to Duty.	Amount of Duty.
	£ s. d.		£ s. d.
Apparel and slops, ad valorem	5 per cent.	Oil:	
Bacon and hams, ad valorem	5 per cent.	Black, ad valorem	5 per cent.
Bags and sacks:		Sperm, head matter, or other fish or animal oil, ad valorem	5 per cent.
Corn, ad valorem	5 per cent.	Linseed, rape, hemp, and cocoa nut, ad valorem	5 per cent.
Gunny, and returned, ad valorem	5 per cent.	Olive, castor, and other vegetable oils, ad valorem	5 per cent.
Beef and pork, ad valorem	5 per cent.	Paints, ad valorem	5 per cent.
Beer, porter, ale, cider, and perry, per gallon	0 0 4	Painters' colours and whiting, ad valorem	5 per cent.
Blacking, ad valorem	5 per cent.	Paper, ad valorem	5 per cent.
Boots and shoes, ad valorem	5 per cent.	Perfumery, ad valorem	5 per cent.
Bread and biscuit, ad valorem	5 per cent.	Pipes, tobacco, ad valorem	5 per cent.
Bottles, glass, and stone, ad valorem	5 per cent.	Pitch and tar, per barrel	0 1 0
Bricks, fire and Bath, per 1,000	0 5 0	Potatoes, ad valorem	5 per cent.
Butter, ad valorem	5 per cent.	Provisions and preserved meats, per cwt.	0 3 0
Candles, ad valorem	5 per cent.	Rice, ad valorem	5 per cent.
Canvas, ad valorem	5 per cent.	Rosin, per barrel	0 0 6
Carts and drays, ad valorem	5 per cent.	Saddlery and harness, ad valorem	5 per cent.
Wheeled waggons and timber carriages, ad valorem	5 per cent.	Salt, per ton	0 3 0
Carriages, ad valorem	5 per cent.	Soap, ad valorem	5 per cent.
Casks, empty, ad valorem	5 per cent.	Spices, ad valorem	5 per cent.
Cement, ad valorem	5 per cent.	Spirits, or strong waters of all sorts, viz.:	
Cheese, ad valorem	5 per cent.	For every gallon of such spirits or strong waters of any strength, not exceeding the strength of proof by Sykes's hydrometer, and so in proportion for any greater or less strength than the strength of proof, and for any greater or less quantity than a gallon; also perfumed spirits, not being sweetened, or mixed with any article, so that the degree of strength thereof cannot be exactly ascertained by such hydrometer, per gallon	0 9 0
Clocks and watches, ad valorem	5 per cent.	Spirits, cordials, or strong waters, sweetened or mixed with any article, so that the degree of strength thereof cannot be exactly ascertained by Sykes's hydrometer, per gallon	0 9 0
Coffee, per cwt.	0 6 0	Starch, ad valorem	5 per cent.
Confectionery, ad valorem	5 per cent.	Stationery, ad valorem	5 per cent.
Copper:		Steel, ad valorem	5 per cent.
Sheathing and nails, ad valorem	5 per cent.	Stones:	
Manufactures, ad valorem	5 per cent.	Millstones, ad valorem	5 per cent.
Cordage and rope, ad valorem	5 per cent.	Grindstones, ad valorem	5 per cent.
Corks, ad valorem	5 per cent.	Roofing slates, ad valorem	5 per cent.
Corn, meal, and flour, viz.:		Slabs and flag stones, ad valorem	5 per cent.
Wheat per quarter	0 0 6	Tomb and wrought stones, ad valorem	5 per cent.
Barley, per quarter	0 0 6	Marble, wrought, ad valorem	5 per cent.
Oats, per quarter	0 0 6	Sugar:	
Maize and millet, per quarter	0 0 6	Refined and candy, per cwt.	0 4 0
Peas, beans, and pulse, per quarter	0 0 6	Muscovado, per cwt.	0 2 0
Malt, per quarter	0 3 0	Molasses, per cwt.	0 1 0
Flour and meal, per 100 lbs.	0 0 2	Tea, per lb.	0 0 2
Bran and pollard, per 100 lbs.	0 0 2	Tinware and tin plates, ad valorem	5 per cent.
Cutlery and hardware, ad valorem	5 per cent.	Tobacco:	
Drapery, viz.:		Manufactured, per lb.	0 1 0
Haberdashery, hosiery, millinery, manufactures of silk, linen, cotton, wool, and hair, ad valorem	5 per cent.	Unmanufactured, per lb.	0 0 6
Drugs, ad valorem	5 per cent.	Cigars and theroots, per lb.	0 2 6
Earthenware and china, ad valorem	5 per cent.	Snuff, per lb.	0 1 0
Fish, dry and pickled, ad valorem	5 per cent.	Sulphured and tarred for sheep-wash, per lb.	0 0 1
Fruit:		Turpentine, spirit of, ad valorem	5 per cent.
Dried, of all sorts, per cwt.	0 4 0	Vinegar, ad valorem	5 per cent.
Unenumerated, ad valorem	5 per cent.	Wine, per gallon	0 1 0
Furniture, ad valorem	5 per cent.	Wood, viz.:	
Glass, ad valorem	5 per cent.	Rails and rails, handspikes and poles, per 100	0 1 6
Glue, ad valorem	5 per cent.	Paling, per hundred	0 0 6
Gunpowder, ad valorem	5 per cent.	Shingles and laths, per 1,000	0 0 6
Grindery, ad valorem	5 per cent.	Trenails and spokes, per 100	0 0 2
Groceries and oilmen's stores, ad valorem	5 per cent.	Oars, per 100 feet	0 2 0
Hides, dressed, ad valorem	5 per cent.	Square timber and balks, spars, deals, battens, quartering, planks, boards, and sawn, hewn, or split timber of all kinds, not otherwise enumerated or described, per 40 cubic feet	0 2 6
Hops, per lb.	0 0 2	Wool, manufactures of, ad valorem	5 per cent.
Ink, ad valorem	5 per cent.	Zinc and manufactures of ditto, ad valorem	5 per cent.
Iron, viz.:		Unenumerated articles, viz.:	
Bar and rod, per ton	0 10 0	Raw, ad valorem	5 per cent.
Sheet and hoop, per ton	0 14 0	Manufactured, ad valorem	5 per cent.
Pig, per ton	0 2 6		
Sledges, anchors, anvils, plates, cart-arm, moulds, and articles of wrought iron, heavy, and in the rough, ad valorem	5 per cent.		
Cart-arms and boxes, finished chain, articles of wrought iron finished, ad valorem	5 per cent.		
Camp ovens, pots, boilers, and castings, ad valorem	5 per cent.		
Manufactures, unenumerated, ad valorem	5 per cent.		
Implements and tools, ad valorem	5 per cent.		
Jewellery, plate and plated goods, ad valorem	5 per cent.		
Lead:			
Pig, sheet, and shot, ad valorem	5 per cent.		
Manufactured, ad valorem	5 per cent.		
Leather, ad valorem	5 per cent.		
Lime and lemon juice, and syrup of all sorts, ad valorem	5 per cent.		
Lucifers, ad valorem	5 per cent.		
Machinery, ad valorem	5 per cent.		
Musical instruments, ad valorem	5 per cent.		

Free List.—Animals living, baggage of passengers, printed books, bullion and coin, coals, coke, and other fuel, plants and trees, garden seeds and roots, specimens illustrative of natural history, pictures and prints, works of art, wool, tallow, raw skins and hides, bark, gum, bales for wool, ore bags.

ADEN, a seaport town of Southern Arabia, in the possession of the U. Kingdom, on the Indian Ocean, 118 m. E. from the Straits of Babelmandeb, lat. 12° 46′ 15″ N., long. 45° 10′ 20″ E. It stands on the E. side of a promontory, projecting S. into the ocean, called the Peninsula of Aden. This peninsula, which terminates in a lofty mountain, bearing a striking resemblance to the rock of Gibraltar, is connected with the mainland by a low isthmus about 400 yards in breadth. On the N. and W. the town is overhung by steep and craggy rocks, on which are the remains of old fortifications. The east or outward harbour of Aden, formerly (and apparently at a recent period) large and commodious, is now partly filled up with sand. But the harbour on the W. side of the town, between the promontory on which it stands and another parallel thereto, is a magnificent basin, capable of accommodating the largest fleets. It has a contracted entrance, which might easily be fortified, so as to make it inaccessible to a hostile squadron. From this harbour the approach to the town is over a low ridge of the mountain, the road being in parts cut through the rock.

The site of this town, the best adapted for trade on the whole coast of Arabia, and the key of the Red Sea, has always made it a point of primary importance in the direct trade between Europe and the East. It became at a very early period a celebrated emporium (the *Arabiæ emporium* of Ptolemy). After the Romans obtained possession of Egypt, and Hippalus (A. D. 50) had discovered the direct route to India, they destroyed Aden lest it should fall into hostile hands, and interfere with their monopoly of this lucrative traffic. — (*Vincent's Commerce, &c. of the Indian Ocean*, ii. 327. 528.) It is not known when or by whom it was rebuilt; but from the 11th till the 16th century it was the great, or rather the exclusive, *entrepôt* of Eastern commerce. The discovery of the passage by the Cape of Good Hope was the first great blow to its importance. Simultaneously with the appearance of the Portuguese in India, the Turks, under Solyman the Magnificent, took possession of various Arabic ports, Aden among the number. They erected the fortifications, the ruins of which excite the admiration of every traveller, and which repelled the attacks of the famous Portuguese General, Albuquerque. From this date, however, Aden rapidly declined; nor did the expulsion of the Turks, which took place about the middle of last century, retard its downfall. Its ruin was more complete than could have been anticipated; for its convenient harbours and plentiful supply of water make it, apart from other considerations, a most desirable port.

When first occupied by the British it had not more than 100 houses, with a parcel of wretched huts, and from 3,000 to 4,000 inhabs. It had indeed the ruins of several cisterns and reservoirs cut in the solid rock, and of aqueducts for conveying water from the mountains of the interior, which fully testified its former greatness. But within the last dozen years a vast change has taken place, and the ancient prosperity of Aden bids fair to be again restored. Hotels for the accommodation of passengers by the steamers have been erected; and the population of the vicinity, attracted by the security afforded by the English flag, have flocked to the place, which has now (1858) from 25,000 to 30,000 inhabs.! Some defensive works have already been constructed, and others projected, which, if completed, will make it, (which it should be,) the Gibraltar of the Red Sea.

While its commanding position, excellent port, and abundant supply of water, make Aden an important station in the route from India to Europe by the Red Sea, it is no less favourably situated for becoming an *entrepôt* for the contiguous countries of Arabia and Africa. It owed its former consequence mainly to its natural advantages, and these it still retains. And it can hardly fail again to become an important emporium, and to be of the greatest utility to the surrounding continents. The climate, though hot, is not unhealthy.

The abundant supply of water, for which Aden is remarkable among Arabic towns, is drawn from the ravines and gulleys of the surrounding mountains; and from the land springs, which are abundant on the sea-shore. — (See *Geographical Dictionary*, art. ADEN, and other authorities there quoted.)

We borrow from a report of Captain R. L. Playfair the following details with respect to the trade of Aden, in 1857-8.

"From the occupation by the British in 1839 until 1850, customs' dues were levied in Aden as in India, but it was found that the trade of the new settlement did not increase as rapidly as had been anticipated, and fell far short of the anticipated proportions.

"The remedy for this evil lay in making the port free, which was done in 1850. The result is striking. During the 7 years which preceded the opening of the port, the total agg. value of trade, including imports and exports, was Rs. 1,30,95,578, that of the last year exceeding the first by Rs. 10,17,268. During the 7 years immediately after the port had been opened, the value of trade amounted to Rs. 4,21,97,937, the last year exceeding the first by Rs. 59,07,448.

"In 1844-5 the value of trade was Rs. 14,90,972, in 1857-8 it amounted to Rs. 1,14,55,523, in other words, during the comparatively short space of 13 years, it had increased eightfold, the value of this increase being almost a million sterling per annum.

"The following is a summary of the trade for the official year ending 31st May, 1858.

"Imports: —			Exports: —		
Goods	Rs. 47,78,677		Goods	Rs. 28,36,374	
Treasure	„ 22,41,798		Treasure	„ 15,98,674	
		70,20,475			44,35,048
				Total Rs.	1,14,55,523

"Alkali, an impure carbonate of potash, is manufactured in large quantities in the immediate vicinity of Aden, from the salsolaceous plants which everywhere abound; it is principally used in Aden, but a small quantity is exported.

"Coals form by far the largest item in the column of imports, amounting to nearly ½ of the whole, excluding treasure. In this, owing to the increased steam communication with Aden, there is an advance of rupees 23,351. It is a question whether this item should be exhibited in the trade returns, as it is entirely used by the steamers which ply between Suez and India, Mauritius and Australia.

"Coffee is an important article of trade, and it is satisfactory to observe that there has been a very large increase both in the imports and exports of this commodity, amounting to nearly 6 lacs of rupees. The coffee imported into Aden is principally brought from the Red Sea for exportation to Bombay, France, and America. The difference between the imports and exports, amounting to about 4½ lacs of rupees, indicates the quantity which has reached Aden overland, direct from the coffee country. The total value of the transactions in coffee (Rs. 16,81,834) represents an amount of nearly 60,000 cwt. The best coffee comes from the neighbourhood of Andiam. The trees are cultivated in terraces on the sides of the mountains; for the most part they are watered only by the rain, but some are irrigated from cisterns built to contain rain water; the latter yield crops twice a year, but the second is seldom thoroughly ripe, and is always inferior to the first.

"Cotton is imported from India chiefly for consumption in the country—a very small portion is exported. It is cultivated to a certain extent, but not in sufficient quantities to meet the demand for it.

"Ghee.—There has been a large decrease in ghee; it is difficult to account for this satisfactorily, but the actual is not so great as the apparent decrease. During the entire season of 1855–6 a great part of the Somali coast, including the part of Bera whence most of the ghee is obtained, was blockaded in consequence of an outrage committed upon a British expedition sent there by the government of Bombay. The Somali traders were unable during that year to command a market for their ghee, and in the following season brought the produce of two years to Aden. Thus the exports and imports in 1857–8 must, in this instance, be considered as compared with produce of the two previous years.

"The great outlet for the commerce of Africa is Berbera, situated in Africa, due south of Aden. It is rather an encampment than a town, the inhabitants during the annual fair, or from October to April, living in huts of reeds, mats, and sticks; at other times it is deserted. Nevertheless, it has been a great mart of trade from the earliest ages; in the time of the author of the Periplus, or shortly before the Christian æra, it was much frequented by Greek and Egyptian merchants, who purchased their commodities cheaper there than in the Sabean markets.

"The annual fair is one of the most interesting sights on the coast. Tribes the most remote and diverse meet here for a short time, to be again scattered in all directions; bungalows from Muscat, Soor, Bussora, Baberain, Porebunder, Mandavie, and Bombay, meet those from Aden and the ports in the Red Sea. A perfect babel of confusion reigns, and disputes, which are settled by the spear and dagger, are of daily occurrence; but amidst all this turmoil, the traders are unmolested; each under the protection of his chosen 'Abban' barters the produce of his country for the gums and valuable merchandise of Africa; none are more successful than the fat and wealthy Banians, who by their superior capital, cunning, and influence, rapidly distance all competitors.

"The chief articles of trade which reach Aden from Berbera, are sheep and cattle in great abundance. Indeed, this settlement is entirely supplied with meat from the African coast, ghee and coffee from the neighbourhood of Hurrur, various descriptions of grains and resins, ostrich-feathers, and ivory.

"A similar trade is carried on between Adeff and various other ports on the African coast, but Berbera is the principal emporium.

"During 1857-8 the number of square-rigged sailing-vessels which visited the port, excluding steamers of all descriptions (of which, on an average, about one arrives in every two days), was 161, of the aggregate tonnage of 85,561. Of these 121 were under British colours, 12 American, 14 French, 2 Hamburg, 3 Prussian, 6 Arab, 1 Dutch, 1 Swedish, and 1 Sardinian. With an unimportant decrease under the head of Swedish vessels, there has been a steady increase in the tonnage of every nation, amounting in all to 11,909 tons.

"To this must be added country craft, of which 1,120 vessels, with an aggregate burden of 24,841 tons, arrived during the past year.

"The foregoing comprises the exterior trade of Aden. A large quantity of Arabian produce is, in addition to this, introduced by the daily kaffilas. Of this there is no very accurate return. During the past year 112,803 camel-loads of grain, fodder, vegetables, fruit, coffee, &c., were introduced for the supply of the market.

"If we estimate the produce brought into Aden from the interior at twice the value of the merchandise taken back, which experience has proved to be considerably under the truth, the entire value of trade in 1857-8 will be about as follows:—

"Exterior exports	- -	44,35,048	Exterior imports	- -	70,20,475
Interior do.	- -	2,14,743	Interior do.	- -	4,29,486
		46,49,791			74,49,961
				Total Rs.	1,20,99,752

Or nearly one million and a quarter sterling."

BANKS OF GERMANY.—We borrow from *Hunt's* valuable *Commercial Magazine* the following statements with respect to certain German banks:—

Banks of Germany.—The Bank Royal of Prussia was founded at Berlin in 1765, upon the model of that of Hamburg. So it existed until 1846, when it was re-organised under a new charter, by which more extension was given to its operations. In accordance with this new constitution, which has been in force since the 1st January last, the issue of notes has been carried to fifteen *millions* of thalers (the thaler equal to 2*s.* 10½*d.* sterling). In 1850 this issue is to be raised to twenty-one millions of thalers. The capital of the bank is always to be, in proportion with the notes in circulation, two-sixths in silver, three-sixths in bills discounted, and the rest in loans on securities. The bank notes are from twenty-five to fifty thalers each. The share of the government in the bank amounts, at most, to 500,000 thalers. The shareholders are entitled to an annual interest of 3¼ per cent. upon the capital, and, after deduction of the sum set apart for the reserve or rest, which is not to exceed 30 per cent. of the capital, one moiety of the surplus profits is apportioned to them in addition, and the other goes to the treasury. The bank has branches in a great number of cities, as Breslau, Königsberg, Dantzic, Stettin, Magdeburg, Munster, Cologne, Memel, Posen, Stolpe, Elberfeld, Treves, Aix-la-Chapelle, Dusseldorf, Coblentz, Minden, Erfurt, Frankfort-sur-Oder, Stralsund, Kostin, Liegnitz, and Oppeln, and thus forms a vast network of financial operations through all the kingdom.

The private bank of the noblesse of Pomerania was founded at Stettin, in 1824, by an association of noble proprietors, with a capital of 1,000,000 thalers. After the crisis of 1830, this capital was carried to 1,534,500 thalers. The operations of this bank embrace discount, loans upon lodgments of merchandise, loans upon public and private securities, current accounts, and deposits with interest. Formerly, it issued promissory notes to bearer; but this privilege was withdrawn from it in 1835. There is a circulation of about ninety millions of thalers of mortgage notes in Prussia (these are, in fact, for one hundred and five millions). They have been issued, at different periods, by associations of proprietary nobles of various parts of the kingdom, and carry interest at 3½ per cent.

The National Bank of Vienna was founded in 1815, to re-establish order in the finances of Austria, and more particularly for the re-purchase or the conversion of the paper money in circulation, the value of which was become almost nominal. The different creations of shares have raised its capital to about 89,000,000 florins. This capital is divided into 50,621 shares of 1,500 florins each. The actual operations of the bank are discount; the issue of bank notes, a privilege which it enjoys exclusively throughout the Austrian empire; loans upon deposits, and negotiations of loans. The bank pays an

annual interest of 6 per cent. upon the primitive capital, and a dividend, after deduction of the reserve fund. Its privilege, or charter, extends to the year 1866. It has branches at Prague, Brünn, Troppau, Ogen, Temeswar, Kashan, Lemberg, Trieste, Innspruck, Goritz, Linz, and Hermstadt.

The Bank of Extraordinary Credit of Vienna was constituted in 1846 by imperial decree, and has for its object to devote a part of the sums destined for the redemption of the national debt, to the purchase of certain shares in railway and other enterprises, in order to sustain useful undertakings, and communicate a greater impulse to them.

The Loan and Exchange Bank of Bavaria was founded at Munich, in 1835, by shares, under the surveillance and control of the government. It is privileged for ninety-nine years. The original capital was 10,000,000 florins, with liberty of increase to 20,000,000 florins. In 1846, there was a new emission of shares of 500 florins. The nett profits are divided as follows:—Three per cent. as dividend to the shareholders, and, of the surplus, three-fourths as extra dividend, and the remaining fourth carried to the reserve, until it shall reach to one-tenth of the capital. Three-fifths of the capital are employed in loans on mortgage. The other operations are discounts, loans on securities and ingots; the issue of bank notes, whose amount is limited to four-tenths of the capital, and three-fourths of it to be covered by a value of double the sum in mortgage credits or in silver. The bank has a branch at Augsburg.

The Royal Bank of Bavaria, first established at Ansbach, and now at Nuremberg, is one of the oldest establishments of the kind. Its operations are discounts, deposits, loans upon personal and other securities. The government is entitled to half the profits. It has branches at Ansbach and Bamberg.

The Royal Bank of the Court of Wurtemburg, founded in 1802 at Stuttgardt, limits its operations to discounts and loans.

The Bank of Leipsic was founded in 1839, under the auspices of the government, with a capital of 1,500,000 thalers, divided into shares of 250 thalers, receiving 3 per cent. interest. Its operations are deposits, loans, and discounts. It has the right of issuing notes of 20 and 100 thalers each, of which two-thirds should be guaranteed by values to the amount in specie or ingots.

There exists, besides, at Dresden, a loan bank, which makes advances to land proprietors and farmers for the payment of taxes, tithes, &c. Leipsic has also an institution of this kind under the name of "Union of Credit for the hereditary lands of the Saxon nobility."

BELGIUM (Treaty of Commerce with).

Treaty of Commerce and Navigation between Her Britannic Majesty and the King of the Belgians.
(Signed at London, October 27. 1852.)

Art. 1. There shall be reciprocal liberty of commerce between all the dominions of the two high contracting parties; and the subjects of each of them shall, throughout the whole extent of the territories of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce, which are or may be enjoyed by native subjects.

2. In regard to the duties depending on the nationality of vessels, it is agreed, that goods of every kind, without distinction as to origin, imported into Belgium directly from the United Kingdom of Great Britain and Ireland, its colonies and possessions, under the British flag, shall enjoy the same exemptions, repayments, bounties, or other favours, as if imported under the Belgian flag, and shall not pay respectively any other duties, nor be subject to any other formalities than if imported under the Belgian flag; except in the case which is provided for in Article 5. hereinafter.

3. In regard to the duties depending upon the place from whence vessels have come, it is agreed that goods of every kind, without distinction as to origin, imported into Belgium directly from the United Kingdom of Great Britain and Ireland, its colonies and possessions, under the British flag, shall be admitted at the same rate of duty as if imported under the Belgian flag from the place or in the manner most privileged under the General Tariff of Belgium; except in regard to the goods and in the cases specified in Article 5. hereinafter.

It is understood that the goods to which the present and the preceding Article apply, must have been actually laden in the ports of the United Kingdom of Great Britain and Ireland, or of its colonies and possessions.

4. Goods of every kind, without distinction as to origin, imported into Belgium from elsewhere than the United Kingdom of Great Britain and Ireland, its colonies and possessions, under the British flag, shall enjoy the same exemptions, bounties, or other favours, as if imported under the Belgian flag, and shall not be subject to any other formalities, nor pay any other duties, than if imported under the Belgian flag; except in regard to the goods and in the cases specified in Article 5. hereinafter.

5. The stipulations of the three preceding Articles shall not be applicable to the goods and in the cases hereinafter specified, (that is to say):—

1. So far as relates to the stipulations of Articles 3. and 4.,
   In regard to furniture-woods and dye-woods, rice, sugar, coffee, tobacco, cotton, only when the importation shall take place under the Belgian flag directly from a transatlantic country.
   And as regards fruits, olive oil, raw sulphur, only when the importation shall take place under the Belgian flag directly from the place of production.
2. So far as relates to the stipulations of Articles 2, 3, and 4.
   In regard to salt.
   But with regard to salt, His Majesty the King of the Belgians engages,
   1st. To reduce immediately by two-thirds the duty actually levied on raw salt imported from the United Kingdom of Great Britain and Ireland, under the British flag.
   2nd. To assimilate spring salt imported from the United Kingdom of Great Britain and Ireland into Belgium to raw salt, as regards duty of customs, duty of excise, exemption from excise in case it is destined for manufactories and warehousing. In order to enjoy this advantage spring salt must be accompanied by a certificate delivered by a Belgian consular agent, proving its origin from an English mineral spring.
   3rd. To take off the prohibition which applies to the transit through the Belgian territory of salt imported under the British or the Belgian flag.

6. Goods imported from a transatlantic country, under the British flag, shall pay the same duties, whether they shall have been laden in a transatlantic warehousing port, or in the transatlantic country of production.

7. The repayment, by Belgium, of the duty levied by the government of the Netherlands on the navigation of the Scheldt, under the 3rd paragraph of Article 9. of the treaty of the 19th April, 1839, is guaranteed to British vessels.

8. Goods of every kind, the importation of which into the ports of the United Kingdom of Great Britain and Ireland, its colonies and possessions, is or shall be legally permitted in British vessels, may likewise be imported in Belgian vessels, without being subject to any other or higher duties, of whatever denomination, than if such goods were imported in national vessels.

9. In all that regards exportations, without distinction as to place from whence arriving or as to destination, and in all that regards the bounties, facilities, and drawbacks which the legislation of the two countries has established, or may hereafter establish, the two high contracting parties reciprocally insure to each other national treatment.

10. Articles of every kind arriving from Great Britain, or forwarded to that country, and crossing Belgium by the railroads of the State, shall be exempt from all transit duty: and the prohibition, which in Belgium still applies to the transit of some of those articles, is removed.

The only exceptions to this general rule are in regard to gunpowder and iron; and in regard to the transmission to France of linen thread and tissues, and of coal.

It is understood that the senders will have to conform, generally, and without distinction of nationality to the regulations which are or may be prescribed by the Belgian administration for the prevention of fraud upon the excise.

Belgian commerce shall enjoy in the United Kingdom of Great Britain and Ireland, with regard to transit, the treatment of the most favoured nation.

11. It is expressly understood, that the preceding articles are not applicable to the coasting trade, which each contracting party reserves to itself, and will regulate according to its own laws.

Neither are they applicable to the exemptions from duty, nor to the bounties which may be granted in the dominions of the high contracting parties to national fishery, carried on according to the regulations of each country. With this exception, the two flags shall be assimilated in regard to the importation of fish of all kinds.

12. No duties of tonnage, harbour, lighthouse, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied for the profit or in the name of the government, public functionaries, communes, corporations, or establishments of whatever kind, shall be imposed in the ports of either country, upon the vessels of the other country, from whatever port or place arriving, which shall not be equally imposed in the like cases on national vessels.

13. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of Belgium are to be deemed Belgian vessels, shall, for the purposes of this treaty, be deemed British vessels and Belgian vessels respectively.

14. In all that regards the stationing, the loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the two countries, no privilege shall be granted to national vessels, which shall not be equally granted to vessels of the other country; the intention of the contracting parties being, that in this respect, also, the respective vessels shall be treated on the footing of perfect reciprocity.

15. The vessels of each of the two countries shall be at liberty either to discharge the whole of their cargo at one of the ports of the dominions of the other contracting party, or to discharge part of their cargo at one port, and then to proceed with the remainder to other ports of the said dominions, according as the captain, proprietor, or other person duly authorised to act in the port as agent for the vessel and cargo shall consider advisable.

16. If any vessel of war or merchant vessel of either of the two countries should be wrecked upon the coasts of the other, such vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, as well as all goods and merchandise which shall be saved therefrom, or the proceeds thereof, if sold, shall be faithfully restored to the proprietors or to their agents, on being claimed by them. In case there should be no such proprietors or agents upon the spot, the said articles and goods, or the proceeds thereof, as well as all the papers found on board of any such vessel, shall be delivered to the British or Belgian consul in whose district the wreck shall have taken place: and such consul, proprietors, or agents, shall not be called upon to pay any charge but the expenses incurred in the preservation of the property, and the rate of salvage which would be equally payable in the like case of a wreck of a national vessel. The goods and merchandise saved from the wreck shall not be subject to the established duties, unless cleared for consumption.

17. Each of the high contracting parties shall have the right to name consuls for the protection of trade in the dominions and territories of the other party; and the consuls who may be so appointed shall enjoy, within the territories of each party, all the privileges, exemptions, and immunities which are or may be granted in those territories to agents of the same rank and character appointed by or authorised to act for the government of the most favoured nation.

Before any consul can act as such, he must, however, in the usual form be approved and admitted by the government of the country to which he is sent; and each of the two high contracting parties shall have the right to except from the residence of consuls any particular places which either of them may judge proper to be excepted.

18. The subjects of either of the two high contracting parties residing in the dominions of the other, shall have the same liberty as natives to manage their own affairs themselves, or to commit them to the management of any other persons, as brokers, factors, agents, or interpreters; they shall not be restrained in their choice, and shall not be obliged to pay any salary or remuneration to any person whom they shall not choose to employ in those capacities: buyers and sellers being at perfect liberty to bargain together, and to fix the price of any goods or merchandise imported or destined for exportation, on condition of observing the regulations and the customs' laws of the country.

19. The present treaty shall be in force for 7 years from the 1st day of January, 1852*; and further, until the end of 12 months after either of the two contracting parties shall have given notice to the other of its intention to terminate the same; each of the contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of 7 years, or at any subsequent time.

20. The present treaty shall be ratified, and the ratifications shall be exchanged in London before the 1st day of January, 1852.

In witness whereof, the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Done at London, the 27th day of October, in the year of our Lord 1851.

(L. S.) PALMERSTON.
(L. S.) HENRY LABOUCHERE.
(L. S.) SYLVAIN VAN DE WEYER.

Additional Article. — The Ionian Islands being under the protection of her Britannic Majesty, the subjects and vessels of those islands shall enjoy in the dominions of his Majesty the King of the Belgians, all the advantages which are granted to the subjects and vessels of Great Britain by the Treaty of Commerce and Navigation signed this day between her Majesty the Queen of the U. Kingdom of Great Britain and Ireland and his Majesty the King of the Belgians, as soon as the government of the Ionian Islands shall have agreed to grant to the subjects and vessels of his Majesty the King of the Belgians the same advantages which are granted in those islands to the subjects and vessels of her Britannic Majesty: it being understood, that in order to prevent abuses, every Ionian vessel claiming the benefits of that treaty shall be furnished with a patent signed by the Lord High Commissioner of her Britannic Majesty, or by his representative.

The present additional Article shall have the same force and effect as if it had been inserted, word for word, in the Treaty of Commerce and Navigation signed this day. It shall be ratified, and the ratifications shall be exchanged at the same time as the ratifications of the treaty.

In witness whereof the respective plenipotentiaries have signed the same, and have affixed thereto the seals of their arms.

Declaration made on the Exchange of the Ratification of the preceding Treaty.

1. British spring salt shall be considered as raw salt, on importation into Belgium, only in those cases in which the legislation of Belgium permits the granting of exemption from excise. Those cases, in the present state of things, are:

a. Destination to manufactories of chemical productions.

b. Destination to the manuring of land.

* Altered to April, 10, 1852, by the annexed declaration.

c. Destination to the feeding of cattle.
d. Destination to the curing of fish.

2. If French salt refined in Belgium should, after the 10th of August, 1852, continue to enjoy a deduction of more than 7 per cent. from the general duty of excise, British salt refined in Belgium shall, from and after the same date, enjoy a deduction from the excise, which shall not be inferior by more than 7 per cent. to the deduction granted to French salt.

3. The British flag is assimilated to the French flag in regard to the transport of salt from France into Belgium.

4. There shall be annexed to the present declaration an explanation of the conditions necessary in order that British salt may enjoy the advantages conceded to it, and of the formalities which must be complied with for the same purpose.

The undersigned further declare that the treaty of the 27th October, 1851, shall be carried into operation on either side, from and after the 10th of April, 1852.

The ratifications of the treaty of the 27th of October, 1851, are exchanged subject to the stipulations of the present declaration, which shall be considered as forming an integral part of the said treaty.

Explanation annexed to the above Declaration.

In order that British spring salt may enjoy the advantages which are conceded to it, it must be—

1. Accompanied by a certificate of origin delivered by the Belgian consular agent residing in the locality of its production.

2. Declared, on its entry into Belgium, for one of those destinations which enjoy exemption from excise; and the formalities prescribed for such cases by the law of Belgium must be fulfilled. Those formalities shall be for British spring salt the same as for the raw salt of other countries destined for the same uses.

On compliance with these two conditions, British spring salt shall be admitted free of import duty, if imported under the Belgian flag, and at the duty of fr. 1·40 per 100 kilogrammes, if imported under the British flag; and it shall, moreover, be exempted from duty of excise.

Persons shall be at liberty to warehouse British spring salt on the same conditions which are imposed on the warehousing of raw salt properly so called; and in that case, the formalities above specified shall not be required until it is taken out of bond.

British spring salt forwarded in transit by the railways of the state of Belgium, either directly, or through the bonded warehouses of the country, and whether imported by British ships or by Belgian ships, shall be free from all duty of import, excise, or transit, as well as from all process of alteration; subject, however, to the measures to be taken by the Belgian administration for the prevention of fraud; which measures shall be the same for British salt as for all other salt.

CHAMPAGNE. — An official report, made by the directors of the indirect taxes for the department of Marne, furnishes the following information as to the trade in champagne between the 1st of April, 1846, and the 1st of April, 1847. The produce is distributed among the arrondissements of Chalons, Epernay, and Rheims. On the 1st of April last there were, in the cellars of the wholesale dealers, 18,815,367 bottles of this wine, viz.: Chalons, 4,604,237 bottles; at Epernay, 5,710,753; and at Rheims, 8,500,377. The number of bottles sold and delivered between the 1st of April, 1846, and the 1st of April, 1847, were, at Chalons, 2,497,355; at Epernay, 2,187,553; at Rheims, 4,090,577; making a total of 8,775,485 bottles. These quantities were thus distributed: —

	To go abroad.	To other Depôts.	Within the Depôt.
	Bottles.	*Bottles.*	*Bottles.*
From Chalons	1,074,214	755,175	669,066
Epernay	806,663	586,425	994,465
Rheims	2,831,038	1,215,766	43,773
Total	4,711,915	2,555,366	1,707,304

COAL.

Account of the total Exports of Coal from the U. Kingdom in 1858, distinguishing the Coal Fields from which the Coal was exported, and the Countries to which sent, and the Quantities sent to each.

Countries.	Northern Ports.	Yorkshire Ports.	Liverpool.	Severn Ports.	Scotch Ports.	Total.
	Tons.	*Tons.*	*Tons.*	*Tons.*	*Tons.*	*Tons.*
France	860,839	84,555	24,406	354,364	20,178	1,344,342
Denmark	239,964	29,106	303	19,407	55,887	344,667
Norway	41,079	6,865	- -	2,112	39,294	88,350
Sweden	124,438	8,765	- -	3,865	5,027	142,095
Russia	207,815	33,103	4,261	34,110	27,017	306,506
Austria	32,625	5,849	12,021	38,905	10,023	99,423
Germany	592,637	20,503	- -	38,058	28,066	679,264
Prussia	326,653	13,404	116	7,200	16,126	363,499
Holland	239,262	1,534	- -	2,396	2,560	245,552
Belgium	60,379	2,675	- -	2,018	620	65,890
Spain	115,555	3,099	5,375	125,033	6,401	251,423
Portugal	52,170	670	4,992	13,231	973	72,036
Italy	132,398	8,185	10,737	47,086	10,013	208,419
Mediterranean	61,892	8,369	35,816	144,680	7,777	258,534
Greece	8,062	2,329	3,179	8,774	5,524	27,868
Turkey	87,675	7,247	4,685	75,235	23,191	198,031
Africa	71,537	2,054	15,215	73,920	5,927	166,653
Australia	8,527	- -	11,087	6,241	1,268	27,123
East Indies	99,425	4,977	63,168	85,323	5,914	258,807
West Indies	23,655	2,854	23,964	134,905	32,257	215,615
North America	115,147	2,415	168,441	29,591	42,034	636,628
South America	35,769	5,915	82,071	118,678	28,982	269,415
Channel Islands	54,735	1,094	505	5,269	248	61,851
Heligoland	95	- -	- -	- -	- -	95
Iceland	- -	- -	112	- -	- -	112
Azores	87	540	476	1,782	- -	2,885
Canaries	165	- -	- -	396	- -	561
Madeira	435	- -	305	9,543	151	10,434
Ascension	- -	- -	- -	585	- -	585
St. Helena	- -	- -	300	1,248	309	1,857
New Zealand	- -	- -	- -	- -	515	515
Sandwich Islands	- -	- -	267	- -	- -	267
Society Islands	1,171	- -	- -	- -	- -	1,171
Total exports	3,592,191	253,063	467,802	1,381,953	382,262	6,077,271

COLLISION (Fr. *Abordage*), in a general sense, is the act of any two or more bodies coming forcibly together; but in commercial navigation it means the shock of two ships coming into sudden and violent contact at sea, by which one or both may be more or less injured.

From the great increase of navigation, the risk of accidents by collision at sea has been proportionally augmented. And it is, therefore, of much importance, 1st, to adopt such measures as may be most likely to prevent their occurrence; and 2nd, to determine by whom a loss, when it does occur, should be borne.

In regard to the first and most essential of these objects, it is effected in part, at least, by whatever contributes to the general improvement and security of navigation. At common law, every master of a ship is bound to keep a proper watch at sea, especially in channels much frequented by shipping, and to use every precaution to avoid coming into contact with other vessels. But this matter has been judged too important to be left wholly to depend on the good sense and care of individuals; and with a view to the securing of attention to the subject, and to the obviating of the confusion that would unavoidably arise were shipmasters left to follow their own ideas with respect to it, rules and regulations have been laid down in regard to the courses to be steered when ships are passing each other, the signals to be made during fogs, the number and description of the lights to be exhibited at night, and other particulars. In 1840 the Trinity House promulgated a rule of this sort; and though not in itself law, masters not complying with its instructions were held to be guilty of unseamanlike conduct, and the owners were made responsible for the consequences. Regulations similar to those contained in the Trinity rule have since been enacted by the legislature. The existing statute law on the subject is embodied in the following clauses of the Merchant Shipping Act of 1854, the 17 & 18 Vict. c. 104., as follows, viz.:

Regulations as to Lights and Fog Signals. — The following rules shall be observed with regard to lights and fog signals, viz.:

(1.) The Admiralty shall from time to time make regulations requiring the exhibition of such lights, by such classes of ships, whether steam or sailing ships, within such places and under such circumstances, as they think fit, and may from time to time revoke, alter, or vary the same:

(2.) The Admiralty may, if they think fit, make regulations requiring the use of such fog signals, by such classes of ships, whether steam or sailing ships, within such places and under such circumstances as they think fit, and may from time revoke, alter, or vary the same:

(3.) All regulations made in pursuance of this section shall be published in the London Gazette, and shall come into operation on a day to be named in the Gazette in which they are published, and the Admiralty shall cause all such regulations to be printed, and shall furnish a copy thereof to any owner or master of a ship who applies for the same, and production of the Gazette containing such regulations shall be sufficient evidence of the due making and purport thereof:

(4.) All owners and masters shall be bound to take notice of the same, and shall, so long as the same continue in force, exhibit such lights, and use such fog signals, at such times, within such places, in such manner, and under such circumstances as are enjoined by such regulations, and shall not exhibit any other lights or use any other fog signals, and in case of default the master, or the owner of the ship, if it appears that he was in fault, shall for each occasion upon which such regulations are infringed incur a penalty not exceeding 20*l*.—§ 295.

Rule as to Ships meeting each other.— Whenever any ship, whether a steam or sailing ship, proceeding in one direction, meets another ship, whether a steam or sailing ship, proceeding in another direction, so that if both ships were to continue their respective courses they would pass so near as to involve any risk of a collision, the helms of both ships shall be put to port so as to pass on the port side of each other; and this rule shall be obeyed by all steam ships and by all sailing ships whether on the port or starboard tack, and whether close-hauled or not, unless the circumstances of the case are such as to render a departure from the rule necessary in order to avoid immediate danger, and subject also to the proviso that due regard shall be had to the dangers of navigation, and, as regards sailing ships on the starboard tack close-hauled, to the keeping such ships under command.—§ 296.

Rule for Steamers in narrow Channels. — Every steam ship, when navigating any narrow channel, shall, whenever it is safe and practicable, keep to that side of the fair-way or mid-channel which lies on the starboard side of such steam ship.—§ 297.

If Collision ensues from Breach of the above Rules, Owner not to be entitled to recover.—If in any case of collision it appears to the court before which the case is tried that such collision was occasioned by the non-observance of any rule for the exhibition of lights or the use of fog signals issued in pursuance of the powers before contained, or of the foregoing rules as to the passing of steam and sailing ships, the owner of the ship by which such rule has been infringed shall not be entitled to recover any recompence whatever for any damage sustained by such ship in such collision, unless it is shown to the satisfaction of the court that the circumstances of the case made a departure from the rule necessary.—§ 298.

Breaches of such Rules to imply wilful Default. — In case any damage to person or property arises from the non-observance by any ship of any of the said rules, such damage shall be deemed to have been occasioned by the wilful default of the person in charge of the deck of such ship at the time, unless it is shown, to the satisfaction of the court, that the circumstances of the case made a departure from the rule necessary.—§ 299.

Under the authority given them by the Merchant Shipping Act, the Lords of the Admiralty have issued the following regulations, which are now (1859) in force:

Admiralty Notice respecting Lights and Fog Signals to be carried and used by Sea-going Vessels, to prevent Collision. — By the Commissioners for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.

By virtue of the power and authority vested in us, we hereby revoke, as from and after the 30th day of September, 1858, the regulations made and published by us on

the 1st day of May, 1852, relating to the lights to be carried by sea-going vessels to prevent collision: and we hereby make the following regulations, and require and direct that the same be strictly observed and carried into effect on and after the 1st day of October, 1858.

Steam Vessels.— All sea-going vessels, when under steam, shall, between sunset and sunrise, exhibit the following lights:

1. A bright white light at the foremast head.
A green light on the starboard side.
A red light on the port side.

2. The mast-head light shall be so constructed as to be visible on a dark night, with a clear atmosphere, at a distance of at least 5 miles, and shall show a uniform and unbroken light over an arc of the horizon of 20 points of the compass, and it shall be so fixed as to throw the light 10 points on each side of the ship, viz., from right ahead to 2 points abaft the beam on either side.

3. The green light on the starboard side and the red light on the port side shall be so constructed as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles, and show a uniform and unbroken light over an arc of the horizon of 10 points of the compass, and they shall be so fixed as to throw the light from right ahead to 2 points abaft the beam on the starboard and on the port sides respectively.

4. The side lights are to be fitted with inboard screens projecting at least 3 feet forward from the light, so as to prevent the lights from being seen across the bow.

5. Steam vessels under sail only, are not to carry their mast-head light.

Fog Signals.— All sea going steam vessels, whether propelled by paddles or screws, when their steam is up, and when under way, shall in all cases of fog use as a fog signal a steam whistle, placed before the funnel at not less than 8 feet from the deck, which shall be sounded once at least every 5 minutes; but when the steam is not up, they shall use a fog horn or bell, as ordered for sailing ships.

Sailing Vessels.—1. All sea-going sailing vessels, when under way or being towed shall between sunset and sunrise exhibit a green light on the starboard side and a red light on the port side of the vessel, and such lights shall be so constructed as to be visible on a dark night, with a clear atmosphere, at a distance of at least 2 miles, and shall show a uniform and unbroken light over an arc of the horizon of 10 points of the compass, from right ahead to 2 points abaft the beam on the starboard and on the port sides respectively.

2. The coloured lights shall be *fixed* whenever it is practicable so to exhibit them; and shall be fitted with inboard screens projecting at least 3 feet forward from the light, so as to prevent the lights being seen across the bow.

3. When the coloured lights cannot be fixed (as in the case of small vessels in bad weather), they shall be kept on deck between sunset and sunrise, and on their proper sides of the vessel, ready for instant exhibition, and shall be exhibited in such a manner as can be best seen on the approach of, or to, any other vessel or vessels, in sufficient time to avoid collision, and so that the green light shall not be seen on the port side, nor the red light on the starboard side.

Fog Signals.—All sea-going sailing vessels, when under way, shall, in all cases of fog, use when on the starboard tack a fog horn, and when on the port tack shall ring a bell. These signals shall be sounded once at least every 5 minutes.

Sailing Pilot Vessels are to carry only a white light at the mast-head, and are to exhibit a flare-up light every 15 minutes, in accordance with Trinity House regulation.

Vessels at Anchor.—All sea-going vessels when at anchor in roadsteads or fairways shall between sunset and sunrise exhibit where it can best be seen, but at a height not exceeding 20 feet above the hull, a white light in a globular lantern of 8 inches in diameter, and so constructed as to show a clear, uniform, and unbroken light all round the horizon, at a distance of at least 1 mile.

Given under our hands this 24th day of February, 1858, &c.

It may, however, be proper to state that neither this nor any rule of the sort is to be regarded as inflexible, or to be followed at all hazards. The safety of the ship is the paramount consideration, and no master is justified in abiding by a rule, when by doing so he plainly incurs danger. A. may be in his proper course, but if by pursuing it he will run a great risk of coming into collision with B., who is upon a wrong course, he is bound to alter his course so as to avoid a collision. The fact of one master being ignorant, careless, or in fault, is no reason why another should not use every means in his power to provide for the safety of his ship, and, consequently, of the lives and property entrusted to his care.

The conditions under which cases of collision take place differ extremely. Thus, 1st, it may be merely accidental, or be occasioned by circumstances beyond the power of control, as by the violence of the wind or waves dashing or impelling the ships together, without blame being imputable to either party; or 2nd, it may be owing to the culpable negligence or misconduct of one party; or 3rd, both parties may be to blame. In adjudicating upon losses growing out of collisions that have taken place under such different circumstances, the conclusions must also be very different.

With respect to the first class of cases there is little apparent difficulty: wherever a loss is occasioned by a storm, a fog, or other accidental circumstance, without any blame being ascribable to either party, it would appear to be equitable that it should be borne by the sufferer. And this principle having been embodied in the Roman

law, was subsequently ingrafted into that of England. (*Marshall on Insurance*, cap. 12. § 2.) But other authorities, to whom the greatest deference is due, contend that the loss arising from accidental collisions, however it may affect the parties, should be equally divided between them; and this, in fact, is the rule followed in most maritime states. (*Ordonnance* of 1681, lib. iii. tit. xii. art. 10., with the observations of Valin.) It, also, is the rule sanctioned by the law of England in cases where both parties are to blame, but where the blame cannot be discriminated. Those cases in which the blame is clearly ascribable to either party present no difficulty.

The leading doctrines of the law of England with regard to collisions have been clearly and succinctly stated by Lord Stowell. "In the first place," says his lordship, "a collision may happen without blame being imputable to either party, as when the loss is occasioned by a storm or any other *vis major*. In that case the misfortune must be borne by the party on whom it happens to light; the other not being responsible to him in any degree. Secondly, a misfortune of this kind may arise where both parties are to blame, where there has been a want of due diligence or of skill on both sides: in such a case the rule of law is, that the loss must be apportioned between them, as having been occasioned by the fault of both of them. Thirdly, it may happen by the misconduct of the suffering party only; and then the rule is, that the sufferer must bear his own burden. Lastly, it may have been the fault of the ship which ran the other down, and in this case the innocent party would be entitled to an entire compensation from the other."—(2 *Dodson's Admiralty Reports*, 83.)

We may add, that the rule of the equal division of the damage where both vessels are to blame has been, since Lord Stowell's time, fully recognised and finally established by a decision of the House of Lords, on an appeal from Scotland.

Various authorities have spoken disparagingly of the rule now referred to, and have called it a *judicium rusticorum*. And it would, no doubt, be very desirable in cases of collision where both parties are to blame, that the neglect or culpability of each should be accurately determined, and the damages assessed accordingly. But from the obscurity in which such cases are almost always involved, and the conflicting testimony brought forward by the different parties, the difficulties in the way of this being done are usually quite insuperable; and it is better to adopt a rule which, though, perhaps, less equitable in principle, is fairer in its application than any other that could be adopted. Of its expediency, there can, indeed, be no reasonable doubt. The observations of Valin are, in this respect, quite conclusive. "C'étoit," says he, "le moyen le plus propre à rendre les capitaines ou maîtres des navires extrêmement attentifs à eviter tout abordage, surtout ceux des bâtimens foibles et plus susceptibles d'être incommodés par le moindre choc, en leur rendant toujours présent la crainte de supporter la moitié du dommage qu'ils en pourroient recevoir. Et si l'on dit qu'il auroit été plus simple et plus court de laisser pour le compte particulier d'un chacun le dommage qu'il auroit reçu, comme provenant d'un cas fortuit; la réponse est qu'alors les capitaines des gros navires n'auroient plus craint de heurter les bâtimens d'une beaucoup moindre force que le leurs: rien donc de plus juste que la contribution par moitié."—(*Commentaire sur l'Ordonnance de* 1681, ii. 179. ed. 1776.)

In apportioning the damage in cases where both parties have been in fault, the question occurs, whether the damage done to the cargo shall be taken into account or left out in the estimate on which the apportionment is to be made. This knotty point has been differently decided in different countries. But the rule which limits the liability of owners to the value of the ship and freight, applies to cases of damage by collision. (See art. OWNERS.) For further observations on this curious and important subject, in addition to Valin and the other authorities already referred to, the reader may consult the chapter on collision added by Mr. Serjeant Shee to his edition of Lord Tenterden's work on the Law of Shipping, and the chapter on the same subject in Maude and Pollock's Treatise on the Law of Merchant Shipping.

Number of Collisions at Sea.—A statement has been prepared by Mr. John A. Rucker, underwriter, giving a classification of the number of collisions at sea, reported in Lloyd's lists during the five years from 1845 to 1849 inclusive. It thence appears that the annual numbers were 603, 564, 699, 633, and 565; so that there was a decrease in 1849, notwithstanding the increased traffic of that year. The total collisions of the five years amounted to 3,064. Of these 279 were cases in which a vessel was sunk, run down, or abandoned; 189 were cases in which there was serious damage; 686 in which the damage, although less, was still considerable; and 1,910 in which it was only slight. The average of steamers in contact with steamers during each year is about 11; of steamers in contact with sailing vessels about 37; of sailing vessels in contact with steamers 36; and of sailing vessels in contact with sailing vessels 533. (For further and later details see WRECK.)

COLONIES.

Abstract Account of the Cost of the several Colonies of the British Empire to the British Exchequer for the 5 Years ending with 1857.

	1853.	1854.	1855.	1856.	1857.
Military and maritime stations:					
Gibraltar	£286,398	£315,231	£299,183	£530,451	£423,589
Malta	359,484	1,095,766	1,496,049	642,280	442,722
Cape of Good Hope	602,227	608,499	629,809	1,106,970	682,015
Mauritius	130,740	126,076	130,627	154,983	74,881
Bermuda	149,297	140,125	129,604	167,599	153,061
St. Helena	57,204	61,101	53,238	62,554	62,610
Heligoland	960	931	8,079	933	1,274
Ionian Islands	218,374	216,647	255,486	237,859	199,470
Falkland Islands	4,075	3,948	6,856	3,867	6,523
Hong Kong	88,542	68,766	72,704	87,832	303,735
Plantations and settlements:					
Jamaica	181,164	172,355	168,827	152,082	193,711
Bahamas	31,840	35,317	30,593	28,962	59,045
Honduras	18,585	19,419	25,051	19,356	35,802
West Indies	381,306	297,137	300,957	285,970	305,981
Canada	332,224	199,476	160,053	322,970	256,484
Nova Scotia	154,213	88,073	78,192	216,317	154,605
New Brunswick	1,909	2,197	377	909	9,430
Prince Edward's Island	2,571	2,998	1,500	1,500	1,500
Newfoundland	25,275	25,212	20,455	16,894	20,114
Vancouver's Islan				932	210
West Coast of Africa	84,908	119,444	141,323	125,642	126,039
Ceylon	146,825	115,170	117,320	125,498	119,279
Labuan	9,613	7,913	9,021	6,569	12,415
Australian settlements:					
North Australia			7,537	3,902	5,666
Western Australia	122,077	147,404	100,815	91,276	94,769
South Australia	4,749	8,199	9,277	7,751	9,940
Victoria	20,168	48,038	49,695	43,084	44,113
New South Wales	53,374	42,157	39,522	51,750	59,646
Tasmania	268,956	229,546	156,662	115,157	96,936
New Zealand	90,165	96,918	110,301	129,680	112,395
Sundry colonies	18,111	175,858	199,813	136,468	71,757
Total £	3,845,018	4,466,201	4,804,956	4,877,957	4,115,757

Statement showing the Number of Non-Commissioned Officers and Privates of H. Majesty's Forces in the Colonies in each of the 5 Years ending with 1857.

	1853.	1854.	1855.	1856.	1857.	Average per Annum.
North America:						
Canada	4,036	2,915	1,743	2,775	3,381	2,970
Nova Scotia / New Brunswick	1,889	1,760	1,348	2,060	2,615	1,935
Newfoundland	313	318	251	218	217	263
Australia:						
New South Wales	656	606	572	577	826	647
Victoria	555	644	1,209	974	878	848
Tasmania	636	645	656	563	476	596
South Australia	52	53	67	81	80	67
Western Australia	287	321	322	339	344	323
New Zealand	1,245	1,238	1,388	1,606	1,673	1,430
Mediterranean:						
Gibraltar	3,875	3,853	3,985	5,329	5,144	4,437
Malta	3,517	4,436	4,714	10,619	7,055	6,088
Ionian Islands	3,410	3,291	3,343	3,930	3,428	3,481
Cape of Good Hope	7,108	5,357	5,281	6,939	11,225	7,182
Bermuda	1,214	941	1,049	926	1,128	1,052
Bahamas	260	315	309	296	336	303
St. Helena	467	459	462	412	427	445
Falklands					36	7
West Indies:						
Jamaica	1,649	1,784	1,842	1,743	1,477	1,699
Honduras	180	182	204	217	200	197
Windward and Leeward Islands	3,159	2,805	2,311	2,381	2,265	2,585
Eastern:						
Ceylon	3,541	3,268	2,726	2,636	2,339	2,902
Mauritius	1,553	1,706	1,752	1,456	969	1,487
Hong Kong	969	628	541	651	1,413	840
Labuan	No Queen's troops.					
Western Coast of Africa:						
Sierra Leone	281	304	267	307	340	300
Gambia	351	242	229	317	342	296
Gold Coast	333	331	325	289	287	313
Total	41,614	38,402	36,896	47,651	48,901	42,693

EXCISE.

Account of the Quantities of the several Articles charged with Duties of Excise and Free of Duty, the Quantities Exported; and the Quantities retained for Home Consumption, in England and Wales, Scotland, Ireland, and the U. Kingdom, in the Years ended 31st December, 1857 and 1858.

Articles.	Charged with Duty and free of Duty.		Exported to Foreign Countries on Drawback, and free of Duty.		Retained for Consumption in the United Kingdom.	
	1857.	1858.	1857.	1858.	1857.	1858.
England and Wales.						
Hops - - - lbs.	47,717,561	53,125,101	1,450,104	4,176,315	46,267,457	48,948,786
Malt:						
charged with duty - bushels	37,262,562	38,073,119	1,066,958	1,105,622	36,195,604	36,967,497
used in beer exported (estimated) - ,,						
free of duty for distillation and exportation - ,,	738,309	544,997	218,759	275,105	519,550	269,892
Total - - ,,	38,000,871	38,618,116	1,285,717	1,380,727	36,715,154	37,237,389

Articles.	Charged with Duty and free of Duty.		Exported to Foreign Countries on Drawback, and free of Duty.		Retained for Consumption in the United Kingdom.	
	1857.	1858.	1857.	1858.	1857.	1858.
ENGLAND AND WALES — *continued.*						
Spirits:						
charged with duty - galls.	10,916,517	10,448,572	716,950	419,981	10,199,567	10,028,591
free of duty for exportation - - ,,	1,961,906	277,801	1,961,906	277,801		
Total - - ,,	12,878,423	10,726,373	2,678,856	697,782	10,199,567	10,028,591
Paper - - - lbs.	142,076,282	142,360,168	13,893,893	13,431,101	128,182,389	128,929,067
SCOTLAND.						
Hops - - - ,,	- -	- -	- -	936		
Malt:						
charged with duty - bushels	1,277,022	1,439,873	- -	- -	1,174,839	1,330,920
used in beer exported (estimated) - ,,			102,183	108,953		
free of duty for distillation and exportation - ,,	3,984,745	3,700,319	22,803	35,870	3,962,442	3,664,449
Total - - ,,	5,261,767	5,140,192	124,186	144,823	5,137,281	4,995,369
Spirits:						
charged with duty - galls.	7,150,199	6,836,037	99,376	54,158	7,050,823	6,781,879
free of duty for exportation - - ,,	1,962,203	677,693	1,962,203	677,693		
Total - - ,,	9,092,402	7,513,730	2,061,579	731,851	7,050,823	6,781,879
Paper - - - lbs.	41,673,595	42,612,630	2,133,047	3,099,395	39,540,548	39,513,235
IRELAND.						
Malt:						
charged with duty - bushels	1,758,929	2,092,673	- -	255	1,747,140	2,076,698
used in beer exported (estimated) - ,,			11,789	15,720		
free of duty for distillation and exportation - ,,	945,894	804,005	- -	7,688	945,894	796,317
Total - - ,,	2,704,823	2,896,678	11,789	23,663	2,693,034	2,873,015
Spirits:						
charged with duty - galls.	6,922,435	6,402,142	2,389	- -	6,920,046	6,402,142
free of duty for exportation - - ,,	447,714	140,915	447,714	140,915		
Total - - ,,	7,370,149	6,543,057	450,103	140,915	6,920,046	6,402,142
Paper - - - lbs.	7,971,745	7,875,027	4,125	18,332	7,967,620	7,856,695
UNITED KINGDOM.						
Hops - - - lbs.	47,717,561	53,125,101	1,450,101	4,177,251	46,267,457	48,947,850
Malt:						
charged with duty - bushels	40,298,513	41,605,665	- -	255	39,117,583	40,275,115
used in beer exported (estimated) - ,,			1,180,930	1,230,295		
free of duty for distillation and exportation - ,,	5,668,948	5,040,521	241,062	318,663	5,427,886	4,730,658
Total - - ,,	45,967,461	46,654,986	1,421,992	1,549,213	44,545,469	45,105,773
Spirits:						
charged with duty - galls.	24,969,151	23,686,751	818,715	474,139	24,150,436	23,212,612
free of duty for exportation - - ,,	4,371,823	1,096,409	4,371,823	1,096,409		
Total - - ,,	29,340,974	24,783,160	5,190,538	1,570,548	24,150,436	23,212,612
Paper - - - lbs.	191,721,620	192,847,825	16,031,063	16,548,828	175,690,557	176,298,997

GRIMSBY (GREAT). A borough and sea-port, in the county of Lincoln, on the S. side of the æstuary of the Humber, which at this point is about 7 m. across, 7 m. W. from the lighthouse on Spurn Head, which is in lat. 53° 34′ 44″ N., long. 0° 7′ 9″ E. The long, low, narrow, hooked tongue of land which terminates in the Head protects a capacious roadstead, with good holding ground, extending to within a mile of the new works at Grimsby, and well known as a harbour of refuge to those who navigate the North Sea. The entrance to the river is marked by the lighthouse on Spurn Head, and by two light-ships in the Channel. Grimsby has, in consequence, the double advantage of a secure roadstead and of proximity to the open sea. The utility of this new harbour is evident from the scarcity of ports along this portion of the coast of England; for, if we except the leading port of Hull, which also lies on the Humber, but 15 m. further inland, there is no other port with docks but that of Grimsby, between Hartlepool in Durham and King's-Lynn in Norfolk, a distance of fully 150 m.

Grimsby is a borough of considerable antiquity, and was formerly a port of such importance that in the reign of Edward III. it sent 11 ships to the siege of Calais. Owing, however, to the gradual filling up of its harbour, it latterly sunk into comparative insignificance. In 1802 a new harbour was constructed; but being accessible only at high water, it was not productive of all the advantages that were expected. But, in 1846, a new harbour, on a larger scale, accessible at all times of the tide, was commenced; and in anticipation of its being finished, Grimsby was made the terminus of two important railways.

The old dock or floating basin, constructed in 1802, measures about 17 acres; but being placed at the high-water margin of a flat shore, and being consequently accessible only towards high water, it is of very limited utility.

To secure a proper depth of water at the entrance of the new works was an object of the first importance; and to attain it they have been projected ⅔ of a mile into the æstuary in advance of the old dock, reclaiming at the same time and enclosing 130 acres of land.

The new works comprise a wet dock of upwards of 25 acres in extent, with two entrance locks, having in front a tidal basin of 15 acres. The latter, formed by two timber piers, which are together about 2,000 feet in length, is provided with landing slips. It has a depth of 9 feet at low water springs, and of 12½ feet at low water neaps; the rise of tide at the former being about 18, and at the latter about 12 feet. The facility of ingress and egress afforded by this basin is especially useful to steamers, which, as they usually convey passengers or light merchandise, do not require to enter a dock. Here they lie afloat alongside the piers at all times of the tide.

The new dock, opened in May, 1852, is entered from the basin by two locks, furnished with double sets of gates for ebb and flood tides, the larger of which, constructed (by special agreement with the government) to admit the largest class of war steamers, is of the following dimensions, viz. — Length between the gates 300 feet; breadth from wall to wall 70 feet; depth of water on cill, at low water spring tide, 7 feet; depth of water on cill, at low water neap tides, 10½; depth of water on cill, at high water spring tide, 25½; depth of water on cill, at high water neap tides, 22½ feet. At half tide the average depth of water on the cill of this lock is 16 to 17 feet, and at three-quarters tide 20 to 22 feet.

The smallest or second lock is designed for general purposes. Its length between the gates, 200 feet; breadth, from wall to wall, 45 feet; and its cill, being 9 inches below that of the large lock, it has, at half tide, a depth of 17 to 18 feet water; and, at three quarters tide, of 21 to 22 feet. The lock gates, worked by hydraulic machinery, are opened and closed with ease and rapidity.

The water area of the new dock amounts, as already stated, to upwards of 25 acres, including a timber pond at its upper end; it has never less than 25 feet depth of water at its entrance, shoaling gradually to 20 feet at the timber pond. The dock is filled with fresh water, a circumstance of considerable advantage to steamers. Wharfs or quays extend on both sides of the docks, upwards of 3,600 feet in length. They are traversed by railways, so that trains may be at once loaded from the ships, and the goods forwarded to their destination. The sheds and bonding warehouses erected close to the quays are extensive and convenient.

From the proximity of Grimsby to the mouth of the Humber, both sailing and steam vessels can get to sea from it with the greatest facility. It would seem, indeed, to be well fitted, not only for a commercial port, but, also, for a station for government steamers, and other ships of war, in the event of our being engaged in hostilities with any of the Northern powers. Grimsby is 190 miles from Rotterdam, with which it has regular steam communication, and 220 miles from Antwerp.

A graving dock, for the repair of ships, is to be provided in connection with the wet dock; and it is further intended to open a channel of communication between the old and the new dock, which will add greatly to the utility and value of the former.

But, after all, the value of Grimsby as a commercial port will principally depend on its facilities of communication with the interior. And these are of the most extensive description. A direct branch of the Great Northern Railway, from Peterborough, passing through Boston and the E. parts of Lincoln, and thus opening a rich agricultural country, brings Grimsby within 154 m. distance, or 4 or 5 hours' travelling, of London. The line of the Manchester, Sheffield, and Lincolnshire Railway Company, who are the proprietors of the works at Grimsby, unites it with Manchester (dist. 117 m.) and Sheffield. It intersects in its course two trunk lines to the North, viz. the Midland and the Great Northern.

The agricultural district of Lincolnshire and the Midland counties, the manufacturing and mineral districts of Lancashire and Yorkshire, and the metropolis, are thus brought into direct and easy communication with a port that offers especial advantages for the trade with Holland, the Elbe, and the Baltic; and which is, indeed, extremely well situated for traffic, whether East, North, or South.

A Table of the Rates and Duties charged at the Grimsby Docks, on Vessels trading between the Port of Grimsby and any of the after-mentioned Places, and on Vessels entering the Docks, for Shelter or Repairs.

	s.	d.		s.	d.
For every vessel trading between the port of Grimsby and any port or place in Denmark, Sweden, or Norway, below Elsinore, or in Germany, Holland, Flanders, France, to the Eastward of Ushant inland, the Islands of Guernsey and Jersey, per registered ton -	0	1	For every vessel coming into the docks in ballast to be laid up (such vessel not having made the last preceding voyage from the said port of Grimsby, and paid duty accordingly upon her departure from the said docks, and not being regularly employed in the trade of the said port), for every ton, the sum of - - - -	0	2
For every vessel trading between the port of Grimsby and any port or place in the Baltic Seas, and all other ports or places above the Sound, or between the said port and any island or place or port of Europe to the Westward of Ushant without the Straits of Gibraltar, per registered ton -	0	1½	For each such vessel which shall remain more than six weeks, the further charge per ton per month of - - - - -	0	1
For every vessel trading between the port of Grimsby, and any port or place in the West Indies, North and South America, Africa, Greenland, or any place to the Eastward of the North Cape of Norway, all places within the Straits of Gibraltar, and all islands and places in the Ocean to the Southward of Cape St. Vincent, not before named, per registered ton - - -	0	2	For every vessel exceeding fifty tons burthen entering the said docks for repairs, shelter from storms, or from any other accidental cause, per ton - - - - -	0	1½
Dock rent is not charged on vessels trading as above-named until they have been ten months in the dock; the rate is then one halfpenny per ton per month.			For every such vessel, if remaining more than seven days, the further sum, per ton per week of -	0	0½
			For every vessel not exceeding fifty tons burthen, so entering the said docks, the sum of - -	5	0
			For each such vessel remaining in the docks more than twenty-four hours, the further sum per ton per week of - - - - -	0	0½
			N.B.—Vessels making use of the Grimsby Docks are not subject to corporation dues of any kind.		

GUTTA PERCHA, a vegetable product, in various respects similar to caoutchouc or India rubber, but much harder and less elastic, obtained from trees found in the forests of Borneo, Malacca, Singapore, &c. It does not appear to have been known to the British public previously to 1843; but it has since been largely imported, and is now used for a great variety of purposes. On being immersed in boiling water, or heated, it becomes plastic, and is easily moulded into any shape, recovering, when cold, its original hardness. Being impervious to water, it has been extensively employed in the manufacture of soles for shoes; it is also made into whips, frames for pictures, and mirrors, driving straps for machinery, pipes for conveying water, and various other articles.

The trees from which it is usually obtained, called the Percha (whence its name) and Tuban, are of a large size, being 60 or 70 feet in height, and from 2 to 3 feet in diameter. It might, no doubt, be obtained by periodically bleeding the trees; but the natives cut them down, and then make incisions in the bark, whence the gum exudes into cocoa-nut shells, or other rude instruments placed for its reception. It is stated in an article on Gutta Percha in the Journal of the Indian Archipelago (No. I. p. 24.), that 6,918 piculs (8,235 cwt.) were shipped from Singapore for England in the

interval between the 1st of July, 1845, and the 1st of July, 1847; and that to obtain this quantity, estimating the average produce of a tree at 10 catties (13¾ lb.), no fewer than 69,180 trees must have been sacrificed! It is imported in the shape of blocks and scraps like leather clippings. It is usually adulterated with sawdust, leaves, and other impurities; but these, being merely entangled in its fibres, may easily be separated from the gutta by immersing or softening it in boiling water, and then picking them out.—(See Journal referred to above, and Low's "Sarawak," &c., p. 50.) During 1857 the imports and re-exports of gutta percha respectively amounted to 17,420 and 959 cwts.

INDIA.

Account of the Public Debt of India as it stood on the 1st of May, 1834 and the 1st of May, 1858, showing separately the Amount of each Loan and the Rate of Interest borne by the same; and of all Sums received and of all Sums paid off in respect of such Loans; and also of all Sums transferred from one Loan to another during the Period above referred to (converted into Sterling Money at the Rate of 2s. per Co.'s Rupee).

	Amount of Debt on the 1st May, 1834.	Rate of Interest.	Debts subsequent to 1st May, 1834.	Rate of Interest.	Amount paid off. By Cash.	Amount paid off. By Transfer to other Loans.	Amount subject to Discharge, unclaimed, not bearing Interest.	Amount of Debt on the 1st May, 1858.
Loan transferred from Fort Marlborough	£1,974	10 p. cent.	£		£1,211	£	£	£763
Madras permanent loan	15,400	8 p. cent						15,400
Remittable debt, 30th June, 1822	7,972,491	6 p. cent.			4,694,675	3,277,818		
Loan from the King of Oude	601,503	—			240,780			360,723
Stipend fund of the Bhow Begum	648,455	—			164,198	484,257		
Madras notes under advertisement, 1st May, 1811	90,686	—			90,686			
Madras permanent loan	10,813	—			2,763			8,050
Loan of 31st March 1823	5,004,715	5 p. cent.			2,613,876	2,386,660	4,179	
Loan of 1825-26	8,362,752	—			2,504,382	7,613,988	38,841	
Loan of 1829-30	1,810,859	—					16,400	
Loan from the King of Oude	1,657,563	—			24,000	393,563		1,240,000
Loan from individuals	30,416	—			25,616			4,800
Loan from Mabaruck Ool Nissa Begum	1,735	4 p. cent.			1,735			
Loan of 1824-25	131,317	—				30,737		100,580
Loan of 1828-29	55,595	—				14,644		40,951
Loan of 1832-33	5,445,173	—	4,612,781			977,304		6,080,650
Loan from the King of Oude	336,820	—	170,000		336,820			170,000
Loan from the Charity Fund	30,620	—			620			30,000
Loan of 30th June, 1841			13,896,110	5 p. cent.	1,484,550	12,386,680	24,880	
Public Works loan of 31st March, 1855			2,744,870	—				2,744,870
Stipend fund of the Bhow Begum			497,443	—				497,443
Loan of 28th February, 1857			9,622,935	—				9,622,935
Loan of 28th February, 1857			384,500	4½ p. cent.				384,500
Loan of 31st March, 1836			5,354,373	4 p. cent.		442,950		4,911,123
Loan of 1st February, 1843			14,107,692	—		1,272,152		12,835,540
Loan of 30th June, 1854			12,386,681	—		1,112,021		11,274,660
Transfer loan			2,746,169	—				2,746,169
Stipend fund of the Bhow Begum			484,257	—	3,337	480,920		
Loan of 28th February, 1854			106,480	3½ p. cent.		9,730		£2,750
Stipend fund of the Bhow Begum			480,920	—	21,288	459,632		
Total registered debt £	32,208,887							53,165,051
Temporary loans								475,842
Treasury notes	639,818							1,193,265
Deposits, including the Carnatic and other funds	4,979,010							5,869,374
Total Indian debt at interest £	37,827,715							£ 60,704,084

N.B. At this moment (August, 1859), the debt of India is probably not under, if it do not considerably exceed, 100,000,000*l.*, and the chances are that it will increase rather than diminish, and that eventually it will have to be defrayed by the people of Britain!

IRON TRADE OF SCOTLAND.—This is now one of the greatest branches of industry carried on in the northern portion of the U. Kingdom. It is chiefly confined to the western counties, the great majority of the smelting furnaces and malleable works being in Lanark and Ayr. Glasgow is its central mart.

Notwithstanding its present magnitude, the smelting and manufacture of iron in Scotland is of very recent origin. So late as 1830 there were only 16 blast furnaces in Scotland, the produce of which scarcely reached 40,000 tons. In 1858 there were 132 in full blast, producing 945,000 tons of pig iron, which, at the average price for the year (which was unusually low), represents a value of 2,554,000*l.* Of this quantity there were consumed and exported foreign and coastwise, 810,000 tons. The shipments were as under:—

To Germany, Holland, Denmark, Sweden, and Norway	121,304	tons
France	52,381	,,
Italy	12,294	,,
Spain, Portugal, and other European countries	19,929	,,
United States, and British North America	60,403	,,
South America, India, Australia, &c.	8,160	,,
Total foreign	274,471	,,
Coastwise, and per rail to England	282,529	,,
	557,000	,,
Consumed in local founderies and malleable iron works in and about Glasgow	253,000	,,
	810,000	

With the exception of a small work at Wilson town, which was unsuccessfully attempted there at a somewhat remote period, almost nothing was done in the manufacture of malleable iron till 1839, and even so late as 1842 the produce did not exceed 35,000 tons. During the year 1854, however, the production of malleable iron reached 122,400 tons, and taking the average price of all sorts, including plates for shipbuilding, to have been 10*l.* per ton, the gross amount of the produce would be 1,224,000*l.* The number of men employed in this branch was about 4,000, and the rate of wages paid about 18*s.* In 1858 there was a falling off in the production.

(We are indebted for the foregoing statements to our learned friend, Dr. Strang, Chamberlain of the city of Glasgow, distinguished by his skill in and attention to statistical inquiries.)

The well-informed brokers, Messrs. William Connal and Co., of Glasgow, give the following account of the production, &c., of iron in Scotland during the 14 years ending with 1858. It substantially agrees with and supports the statements of Dr. Strang.

Production, &c. of Iron in Scotland.

Years.	Furnaces extant.	In Blast.	Production.	Shipments.	Estimated Stock.	Prices of 3 5ths and 2-5ths, G.M.B.
			Tons.	*Tons.*	*Tons.*	*s. d.*
1845	109	94	475,000	194,000	240,000	76 0
1846	125	97	580,000	376,000	144,000	75 0
1847	130	89	510,000	370,000	80,000	46 6
1848	140	103	600,000	394,677	98,600	43 0
1849	143	113	692,000	374,431	194,000	47 6
1850	143	105	630,000	324,658	275,000	45 0
1851	142	114	775,000	450,000	350,000	57 6
1852	144	113	780,000	424,000	450,000	72 6
1853	144	114	720,000	620,000	220,000	80 0
1854	149	115	780,000	590,000	150,000	65 0
1855	157	122	820,000	542,000	110,000	74 6
1856	161	128	810,000	506,000	100,000	73 9
1857	165	126	900,000	532,000	168 000	52 6
1858	165	134	950,000	560,000	330,000	54 6

KEY-WEST. A small island from 4 to 5 m. in length, by 1 in width; 56 m. S. W. from Cape Sable in Florida. It is one of the Florida keys, or of that extensive circular range of low islands, banks, and reefs, which fences the coast of Florida, and forms the northern boundary of the Gulph Stream, from the Tortugas islands on the W. round to Cape Florida on the N. A lighthouse erected on the S. W. point of the island, lat. 24° 32′ 32″ N., long. 81° 48′ 30″ W., has a fixed light elevated 67 ft. above the level of the water. The town of Key-West, near the N. W. part of the island, has about 1,600 inhabs., and an excellent harbour, with about 25 ft. water. A safe passage, about 6 m. in length, leads by Key-West from the Gulph Stream to the Gulph of Mexico. It has 12 ft. water at ebb tide, and vessels from the N. bound for New Orleans, Mobile, &c., or from the latter for the former, by passing through it, avoid the delay and danger of the more westerly passage round the Tortugas.

Owing to the frequent accidents to shipping from coming in contact with the banks and reefs in this dangerous vicinity, the American government has organised an establishment at Key-West for the assistance of ships in distress, and made it the seat of an admiralty court for the adjudication of claims for salvage. The former consists of above 20 licensed vessels, with crews of about 10 men each. These are kept constantly cruising about on the look-out for ships in distress or wanting pilots; and as their emolument principally depends on the fees they obtain for their assistance, it may be fairly assumed that it will be rendered with the greatest alacrity. But the desirable thing is to hinder vessels from getting on shore, the assisting them when in that predicament being, though an important, a secondary consideration. The latter, however, and not the former, is the main object which the licensed cruisers of Key-West have in view; and it would be preferable, could means be devised, for making their remuneration depend rather on their success in preventing disasters than, as at present, in mitigating their influence. This, however, is by no means easily done. Shipwrecks will, perhaps, be more effectually prevented by increasing the number of lighthouses, light-vessels, and sea-marks, along the edges of the islands and reefs, than in any other way. We subjoin an account of the ships wrecked, the sums awarded as salvages by the court of Key-West, &c., in each of the 14 years ending with 1857.

Years.	Number of Vessels.	Salvage.	Expenses.	Value of Vessels and Cargoes.
1844	29	$93,712	$169,065	$725,000
1845	26	69,592	105,709	737,000
1846	56	122,592	231,423	1,597,600
1847	37	109,000	200,600	1,624,000
1848	42	125,800	206,500	1,282,000
1849	47	127,870	219,160	1,505,000
1850	30	122,831	200,860	929,800
1851	34	75,852	165,085	941,500
1852	23	80,112	163,000	675,000
1853	57	174,550	250,100	1,975,000
1854	64	88,940	166,365	2,314,000
1855	80	100,495	189,800	2,814,077
1856	71	165,117	262,614	4,797,600
1857	59	101,890	172,984	2,663,150
Total	655	1,556,153	2,683,295	24,359,027

(*Blunt's American Pilot, p.* 25.; *Hunt's Commercial Magazine for February*, 1858, *&c.*)

KURRACHEE, a sea-port of British India at the N. W. extremity of the coast of Sinde, lat. 24° 51′ N., long. 67° 2′ E. Population of town and suburbs in 1853, 22,227. It derives almost all its importance from its being the only safe sea-port on the coast of Sinde, and from its adaptation to serve as the grand W. emporium of the vast territories traversed by the Indus. In this respect it bids fair entirely to supersede Tattah, mentioned in the body of this work. It is situated about 22 miles E. from Cape Monze, on a level piece of ground at the extremity of the Brahooic mountains. The harbour, which is spacious and secure, has a bar at its mouth, on which there are

from 16 to 18 feet water at high-water ordinary tides, and from 20 to 21 feet or upwards at high-water springs. And allowing for the difference in the statements with respect to the depth of water on the bar, still there can be no question that the harbour has been safely entered by ships of from 700 to 800 tons burden or upwards; and it is accessible at all times of the year, even during the season of the monsoons. It appears, indeed, to be sufficiently established that with a properly organised pilot establishment, and the employment for one or more years of two or three powerful steam dredging machines to deepen or remove the bar, the port would be constantly available for ships of from 800 to 1,000 tons.

A railway, certainly the most important for its length (110 miles) of any in India, is now in progress, or is, most probably, completed from Kurrachee to Hyderabad on the Indus, the point at which the latter becomes available for large ships, and from which it may be navigated, for about 570 miles, by steamers built for the purpose. There is, consequently, every prospect of Kurrachee becoming one of the most important of the Eastern emporiums. It would be useless to dwell on the all but boundless extent, the great natural riches and the immense capacities of improvement, of the countries watered by the Indus, and its affluents. And it may fairly be doubted, taking these circumstances into account, whether the anticipations of those who contend that the commerce of Kurrachee is destined, at some future and not very remote period, to equal that of N. Orleans, the emporium of the Mississippi, be really so very wide of the mark, as at the first blush of the matter they may seem to be. It is seen by the subjoined returns, that even at present its trade is far from inconsiderable.

It has two routes to Tattah; and it has been said that there is a water communication between Kurrachee and the Indus; but this has been denied, and is, most probably, a mistake. No doubt, however, it would be easy, from the nature of the ground, to cut a canal between them, and this may, at some future period, be an expedient measure. In the meantime, however, the railway, by bringing Kurrachee into contact as it were with Hyderabad, and the deep water of the Indus, has made it the port of the latter. The telegraph wires from Aden to India are to be carried in the first instance to Kurrachee.

At present the exports consist principally of horses, saltpetre, rice, wheat, and other grain; ghee or clarified butter; oil and oil seeds; wool, which has rapidly increased, and is now by far the most important article; indigo; munjeet or madder; drugs, &c. But when the navigation of the Indus is begun, Kashmere shawls, silk, and a great variety of the most valuable articles will be added to the list of exports.

The imports consist of cotton stuffs and twist, iron, hardware, and machinery; spices, wines, &c.

Account of the Values (in Rupees) of the Principal Articles imported into and exported from Kurrachee in 1855–56 and 1856–57.

Imports.	1855–56.	1856–57.	Imports.	1855–56.	1856–57.
Apparel	Rs. 1,62,181	Rs. 1,01,765	Spices	Rs. 1,57,155	Rs. 2,49,945
Cotton piece goods: coloured	4,51,754	4,47,360	Sugar	2,15,959	1,64,776
plain	22,17,957	21,72,070	Wines and spirits	1,94,596	2,65,247
other kinds	75,545	59,109	Treasure	3,00,578	2,09,488
Twist and thread	2,03,227	1,91,481	Fruit	1,31,060	2,56,283
Grain	2,32,947	5,37,561	Railway stores		5,63,462
Metals: raw	2,16,952	3,17,247	Other articles	13,48,678	12,84,702
manufactured	1,06,453	95,881			
Silk, raw	1,47,794	56,577	Total	Rs. 62,89,137	68,56,655
Silk and woollen piece goods	1,36,704	85,697	Or	£ 628,913 8s.	685,665 14s.

Exports.	1855–56.	1856–57.	Exports.	1855–56.	1856–57.
Horses	Rs. 3,39,060	Rs. 4,31,850	Seeds, sursee	Rs. 4,76,335	Rs. 3,18,600
Dyes: indigo	4,23,881	3,94,655	Other kinds of seeds	3,32,013	94,606
munjeet	68,944	4,40,552	Silk, raw	3,761	3,20,174
Other dyes and drugs	1,60,675	1,30,949	Wool, sheep's	22,13,107	31,15,903
Grain, wheat	3,08,299	10,672	Other articles	4,25,244	6,03,873
Other kinds of grain	2,56,195	1,57,337			
Ghee	2,53,672	1,56,107	Total	60,44,403	73,48,371
Saltpetre	2,12,004	3,75,472	Or	604,440 6s.	734,837 2s.
Seeds, jingly	5,91,215	8,57,721			

Account showing the Countries with which Kurrachee traded in 1855–56 and 1856–57, with the Value of the Imports from and Exports to each.

	Imports.		Exports.	
	1855–56.	1856–57.	1855–56.	1856–57.
Bombay	Rs. 55,81,212	52,27,429	53,74,320	66,97,546
Calcutta				13,074
Concan	2,464	4,510		
Cutch	74,986	72,425	1,12,401	1,38,310
England	1,57,800	7,73,835	35,139	1,446
France				95,390
Goa and Demaun	4,632	10,064		251
Guzerat	57,998	1,41,787	11,747	15,647
Katiawar	1,29,322	2,01,954	1,21,485	64,597
Malabar	97,632	90,388	1,69,154	1,15,933
Mauritius	1,894	8,950	17,568	28,538
Mekran	11,065	13,528	35,895	24,062
Persian Gulph	1,79,619	3,12,007	1,66,694	1,32,445
Total Rs.	62,89,137	68,56,655	60,44,403	73,48,571

We have been indebted for these details, partly to the art. Kurrachee in Thornton's excellent *Gazetteer of India*, but more to the work of Mr. Andrew on the *Indus and its Provinces*. The latter has too much the appearance of having been written to recommend the Sinde railway and the undertakings connected with it. But, despite this circumstance, it contains a great deal of most valuable information, and well deserves the attention of those who take any interest in the state and prospects of the fertile and extensive countries of which it treats.

LABUAN, a small island off the N. W. coast of Borneo, a dependency on the British crown, about 6 m. distant from the nearest point of the mainland, and 30 m. N. from the city of Borneo or Bruni, lat. 5° 12′ N., long. 115° 19′ 36″ E. It is from 25 to 30 m. in circuit, flat, and covered with wood. The anchorage, on the S. side of the island, is protected by a greater and three smaller islands; and the town of Victoria has been commenced at the embouchure of a rivulet in a small bay, at the head of the anchorage. Coal of good quality is found on the island, and it is well supplied with fresh water. It was ceded by the Sultan of Borneo to Great Britain in 1844; and Sir James Brooke, who negotiated its cession, was afterwards appointed its governor. When it came into our possession it was uninhabited; but its situation is such that, provided it be moderately healthy, it can hardly fail to become an important emporium. It lies near the best route for shipping from the Straits of Singapore to China, and, while it is extremely well situated for carrying on trade with the W. and N. coasts of Borneo and the Philippine Islands, it will serve as a harbour of refuge, and as a convenient station for the steamers and other ships of war required to put down the piracy that has been, to the great injury of commerce, carried on to so great an extent from the ports and rivers of Borneo, and of some of the adjacent islands. In this respect its abundant supply of coal will be of the greatest service. In war the possession of Labuan will give us the entire command of the Chinese sea. (Brooke's Journal, and a paper by Mr. Craufurd in Keppel's Borneo, ii. p. 144. and p. 209.)

Borneo, or Bruni, on the adjacent shore of the mainland, the residence of the Sultan of Borneo Proper, has been termed the Venice of the East. It contains from 30,000 to 40,000 inhabitants, mostly Malays, and really seems as if it floated on the waves. It is situated on an æstuary, and though built with little regard to regularity, it is intersected crosswise by two main streets, which divide it into four portions, one only of which stands on dry land. The houses in the other three parts are of wood built on piles, which support them above the water, with streets, if so they may be called, to admit the passage of canoes. The steamer which conveyed Sir James Brooke to Borneo, when Labuan was ceded, anchored in the main street in the centre of the town! "The greatest novelty at Bruni," says Mr. Marryat, from whom we have borrowed these details, "is the floating bazaar. There are no shops in the city, and the market is held every day in canoes. These come in at sunrise every morning from every part of the river, laden with fresh fruit, tobacco, pepper, and every other article which is produced in the vicinity; a few European productions, such as handkerchiefs, check-cotton prints, &c., also make their appearance. Congregated in the main street, the canoes are tacked together, forming lanes through which the purchasers in their own canoes paddle, selecting and bargaining for goods with as much convenience as if the whole were transacted on *terra firma*. Iron is here so valuable that it is used as money. One hundred flat pieces an inch square are valued at a dollar, and among the lower classes these iron pieces form the sole coin. They are unstamped, so that any person appears to be at liberty to cut his own iron into money; but whether such is really the case, I cannot vouch." (Marryat's *Borneo, &c.*, p. 113.)

But though deficient in iron, the gold mines of Borneo are said to be of the richest description. Sir Stamford Raffles estimated that in his time about 32,000 Chinese labourers were employed in these mines on the W. coast of Borneo; and it is not easy to say how productive they might become, were the miners in a condition to prosecute their undertakings in safety, and to bring the resources of science and capital to their aid. Antimony is also found in abundance in Borneo, especially in the district of Sarawak, of which Sir James Brooke is rajah; and the diamonds of Borneo rival those of India and Brazil. But independently of its coal, and of its precious and other metals, its vegetable products might alone furnish the materials of an extensive commerce. The sago palm grows in great perfection in many parts of the island, and sago is largely exported in a rough state to Singapore. The areca nut, rattans, gutta percha, gum-benjamin, camphor, birds' nests, &c., are also considerable articles of export; and sugar, pepper, and all the products of tropical regions, might, with a little care, be raised to any extent in most parts of this vast island. The numbers and ferocity of the savages by whom it is occupied, present, indeed, innumerable obstacles to its improvement. But civilisation is beginning to make its way amongst them; and, though probably slow, its progress cannot well be arrested.

LAGUNA DI TERMINOS, OR LAGUNA DI CARMEN, a sea-port on the S. shore of the Gulph of Mexico, State of Yucatan, lat. 18° 38′ 44″ N., long. 91° 51′ 22″

W. It derives its name from being situated about 1 mile within the S.W. extremity of Carmen island, on the most westerly of the straits or entrances leading into the basin or lagoon of Terminos. Population about 3,000.

The port, which is secure and one of the best on the gulph, has from 12 to 14 feet water over the bar at the entrance to the lagoon. Vessels of greater draught load and unload by means of lighters, outside the bar, in from 3 to 4 fathoms, with good holding ground.

To enter the Port.—Run in over the bar with Xicalango Point, bearing by compass S. ¾ E., till Point Sacatal bears S.E. ¼ S., and then steer for it; and when the north side of the island begins to shut in haul up for the anchorage off the town. The lead is a safe guide on the W. side of the channel, but not on the E.

The chief trade of the town consists in the shipping of logwood, known in foreign markets by the name of Campeachy wood, from its having been originally cut down in the vicinity of that port and shipped from it. But Campeachy has ceased to be an *entrepôt* for logwood. It is now principally cut down on the mainland adjoining the lagoon of Terminos; and being thence conveyed to Laguna in coasting schooners, is sent from it to all parts of the world.

Vessels arriving with cargoes must bring a general manifest and invoice in triplicate, certified by the Mexican consul at the port of departure. Those arriving from a foreign port in ballast, must produce a clearance either from the Mexican consul or the authorities of the place from whence they came, showing that they bring no cargo.

Pilotage 1 dollar 75 cents per foot; other port charges, such as harbour master's fees, anchorage, board of health, &c., about 25 dollars each vessel. Ships arriving direct from a foreign port pay 1 dollar 50 cents per ton for tonnage dues.

Statement of the Exportation of Dyewoods from the Port of Laguna di Terminos during the Years 1850, 1851, and 1852, specifying also the Vessels in which they were shipped and the Ports to which they belonged.

Ports.	1850.			1851.			1852.		
	Vessels.	Quintals Logwood.	Quintals Fustic.	Vessels.	Quintals Logwood.	Quintals Fustic.	Vessels.	Quintals Logwood.	Quintals Fustic.
Liverpool	19	97,725	1,891½	23	100,908	4,491	21	96,311½	-
Havre	17	99,678½	-	12	73,845	520	15	88,703	1,000
Hamburg	12	42,369	-	9	32,539	2,897	14	47,377	3,084
Cork, and market	15	70,940½	1,474	7	31,563½	-	7	30,010	2,012
Bordeaux	8	26,849	-	10	24,164	-	7	17,058	12,277
New York	4	20,280	9½	2	5,014	1,929	4	21,071½	
Bremen	1	4,511½	-	5	27,482	-	6	44,227	50
Marseilles	2	14,029	523	3	22,638	1,177	5	31,534	
Antwerp	1	5,197	-	2	7,364	1,201½	6	34,510	40
Stettin	2	17,718	-	2	15,102	630			
Genoa	2	6,321	-	2	7,606	-	4	15,603	
Petersburg	3	17,059½	4,440	1	5,966½				
Boston	2	8,535	-	1	2,100	-	2	8,461½	1,114
New Orleans	1	500	-	3	1,591	-	2	1,000	
Barcelona	-	-	-	-	-	-	1	2,480	
Gibraltar, and market	-	-	-	-	-	-	1	8,673½	
Elsineur, and market	-	-	-	1	7,481				
Cadiz	1	1,500	-	-	-	-	1	1,678	
Nantes	-	-	-	1	6,011				
Havana	1	1,400	-	-	-	-	1	389½	
Lancaster	-	-	-	-	-	-	1	3,972	
Cebe	-	-	-	1	2,231				
In ballast to sundry ports	10	-	-	3		-	6		
	101	434,611	8,338	88	371,406	12,845½	104	455,059½	19,577

We are indebted for this article to a gentleman of Laguna.

MELBOURNE, the cap. of the British colony of Victoria, formerly Port Phillip in Australia, occupying the S. E. portion of that continent, stretching through 9 degs. of long., from Cape Howe on the E. to the Glenelg river on the W. The town is situated on the N. bank of the Yarra-Yarra river, about 9 m. (following its windings) from its mouth in the basin of Port Phillip, lat. 37° 49′ 5″ S., lon. 144° 58′ 35″ E. It was founded in 1837, and extends along the banks of the river. In 1851 it had a pop. of 23,000; and such has been the immigration consequent on the discovery of the gold fields, that inc. suburbs it had on the 24th April, 1854, 71,188 inhabs., and in the interval this number is said to have been sometimes exceeded. A considerable portion, however, of this immense population is to be regarded as migratory only, and as residing in town merely till their ultimate destination has been decided upon. The sudden increase of population raised house rents to an unparalleled height; and for some considerable time a large proportion of the population was not housed, but encamped under tents! But partly through the extraordinary stimulus which was thus given to building, and partly through the mercantile failures consequent to the overtrading of 1853 and 1854, there has been a very heavy fall of rents, which do not now (1858) exceed half their amount in 1852. The site of the town is unfortunate; for the river being obstructed by a bar and shallows, it is not generally navigable for vessels of more than 60 tons burden; and it has the further disadvantage of being low, and liable to be flooded by the overflowing of the river during the wet season. Melbourne was, also, till lately, very ill supplied with fresh water. But this defect has been remedied by the construction of works that do credit to the colony. The reservoirs are of great magnitude, so as to afford an adequate supply in periods of drought. It has been proposed to facilitate the trade of the town by removing the bar at the mouth of the river, and deepening its channel; but this would be a very expensive undertaking, and one of which the success would be not a little doubtful. The excavation of a ship canal from

the deep water in the bay to Melbourne has also been proposed; and it, probably would be the preferable plan; but in the meantime a railway has been completed, which has obviated many of the inconveniences which were experienced. It seems, however, not unlikely that the trade of the town, and the greater part, perhaps, of its population, will ultimately centre at Williamstown, a village a few miles distant, on a headland extending into the bay, opposite to which all large vessels coming to Melbourne are obliged to anchor. The principal objection to Williamstown is the scarcity and bad quality of the fresh water; but this objection might, perhaps, be obviated by sinking wells, or conveying hither a supply of water from some of the adjacent streams, as has been done at Melbourne.

In consequence of the discovery in 1851 of the extraordinarily rich gold-fields situated in this colony, its progress has been since quite unprecedented. The population, for example, which amounted to about 90,000 in 1851, had increased to above 232,000 in 1854, and to 485,769 in 1858, of whom 308,983 were males, and only 176,786 females. The trade, navigation, &c., of the colony have increased in something like the same proportion. But it is a curious fact that the production of gold appears to have attained its maximum in 1852, and has not been so great since.

Account of the Total Value of Imports into and Exports from Victoria in 1854, 1855, and 1856, with the Amounts from and to each Country.

Countries.	Imports.			Exports (inc. Gold).		
	1854.	1855.	1856.	1854.	1855.	1856.
	£	£	£	£	£	£
United Kingdom	10,942,375	5,617,149	7,691,995	10,276,213	11,359,145	12,825,254
British colonies	4,467,549	4,621,554	5,218,000	1,372,107	2,087,549	2,501,057
United States	1,027,598	758,704	1,180,496	50,933	28,863	7,004
Other foreign states	1,221,529	1,030,532	871,778	75,951	17,979	156,445
Total	17,659,051	12,007,939	14,962,269	11,775,204	13,493,538	15,489,760

Account of the Quantities and Value of the Principal Articles imported into Victoria in 1854, 1855, and 1856.

Principal Articles.		Quantities.			Value.		
		1854.	1855.	1856.	1854.	1855.	1856.
					£	£	£
Apparel and slops	packages	34,203	8,957	12,868	801,031	369,485	504,850
Beer and cider	value	-	-	-	725,439	594,588	644,518
Butter and cheese	tons	3,289	3,511	5,603	352,181	477,257	660,065
Flour and bread	,,	31,161	37,181	43,670	903,787	1,545,191	1,136,419
	packages	-	-	50			
Grain, oats	bushels	1,017,537	1,554,687	1,247,879	502,960	609,179	400,493
Haberdashery	packages	44,130	9,723	17,429	1,339,490	501,869	1,005,240
Hardware, ironmongery, and cutlery	value	-	-	-	879,637	251,451	437,596
Leather	packages	27,335	13,328	31,779	520,179	354,314	790,307
	tons	-	5	1			
Specie	value	-	-	-	87,480	457,074	676,545
Spirits	,,	-	-	-	832,978	510,890	959,325
Sugar	,,	-	-	-	430,287	241,009	547,155
Timber	,,	-	-	-	1,481,050	537,295	459,729
Wine	,,	-	-	-	411,229	256,430	359,800

Table showing the Monthly Returns of Imports and Exports at the Port of Melbourne for the Years ending November, 1857 and 1858.

Months.	Imports.		Exports.	
	1856-7.	1857-8.	1856-7.	1857-8.
December	£1,562,666	£1,418,127	£1,281,798	£1,307,345
January	1,383,009	1,186,375	1,187,557	1,000,397
February	924,208	1,196,919	921,747	1,208,137
March	1,409,802	1,042,628	1,160,024	828,626
April	1,241,262	1,311,288	1,253,247	1,524,473
May	1,025,866	872,925	1,024,406	1,067,987
June	1,087,403	883,771	818,110	1,249,149
July	1,497,551	1,298,291	1,345,282	771,609
August	1,034,778	721,320	1,185,231	1,014,955
September	1,355,225	1,287,178	1,069,837	995,355
October	1,402,282	825,356	1,618,755	997,544
November	1,260,498	1,329,558	1,185,743	1,266,211
Total	15,182,550	13,373,736	14,054,537	13,231,788

Account of the Number and Tonnage of Vessels entered at and cleared from Victoria in 1856, specifying the Countries to which they belonged.

Countries.	Entered.		Cleared.	
	Vessels.	Tons.	Vessels.	Tons.
United Kingdom	214	197,033	65	57,037
British colonies	1,552	274,794	1,705	384,489
United States	55	35,328	4	1,049
Other foreign countries	99	31,454	185	95,787
Total	1,920	538,609	1,959	538,362

Account of the Number and Tonnage of the Vessels entered and cleared at each Port of Victoria in 1856.

Ports.	Entered.		Cleared.	
	Vessels.	Tons.	Vessels.	Tons.
Melbourne	1,535	468,949	1,571	464,978
Geelong	200	37,194	208	40,705
Portland	59	12,531	52	11,321
Port Fairy	15	2,425	16	3,198
Port Albert	102	16,575	108	17,412
Warrnambool	9	955	4	550
Total	1,920	538,609	1,959	538,362

It is seen from these Tables that the imports of flour, grain, butter, &c., are very large indeed. And notwithstanding the extension of agriculture, it is probable that this will continue to be the case for many years to come. The general inferiority of the land, and still more the extravagantly high price that is set upon it, are the principal causes of this state of things.

Consumption of Spirits.—Despite the heavy duty (10*s.* a gallon) on spirits, their consumption in the colony is very considerable; though not greater, perhaps, than might, under the circumstances, have been anticipated.

An Account of the Deliveries of Spirits for Home Consumption at Melbourne, for the 12 Months ending with November, 1858.

Months.	Brandy.	Gin.	Rum.	Whiskey.	Cordials & Perfd. Spirits.	Other Spirits.	Totals.
1857.	*gals.*	*gals.*	*gals.*	*gals.*	*gals.*	*gals.*	
December	38,204	20,089	18,664	10,021	759	2,413	90,150
1858.							
January	38,867	21,897	19,146	9,279	450	2,771	92,410
February	39,061	20,290	14,639	7,034	526	3,137	84,687
March	35,087	18,694	13,996	7,044	512	3,757	79,090
April	51,066	27,406	19,460	10,956	775	4,878	114,541
May	41,294	22,657	17,715	9,201	429	2,683	95,979
June	47,855	27,168	23,447	12,344	635	2,598	114,347
July	46,483	27,455	23,896	15,068	896	4,265	118,053
August	31,089	20,559	14,215	22,145	1,274	2,066	85,148
September	30,991	21,118	16,562	9,858	419	3,478	82,226
October	33,703	20,686	15,869	9,843	626	2,933	83,660
November	45,558	27,145	18,910	12,116	842	3,194	105,765
Total	477,258	275,264	216,319	132,819	8,143	38,173	1,148,056

Trade of the U. Kingdom with Victoria.

Account of the Quantities and Values of the Principal Articles, ex Gold, imported into the U. K. from Victoria in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
					£	£	£	£
Copper: ore — tons	64	277	6,069	4,182	1,536	6,207	176,014	88,217
unwrought — ,,	10	89	363	896	1,200	10,208	36,895	94,864
Gum, unenumerated — cwts.	1,516	1,908	288	6,082	2,424	2,544	382	6,158
Hides: not tanned — ,,	9,966	14,126	22,985	56,399	18,623	31,494	64,477	157,084
tanned, tawed, curried, or dressed — lbs.	22,271	78,130	47,802	145,441	1,313	3,163	2,443	8,683
Skins, sheep, undressed — no.	13,518	29,217	50,877	68,810	1,183	2,799	8,109	12,900
Tallow — cwts.	8,504	9,602	8,558	25,288	25,512	25,443	22,464	68,797
Tin, ore — tons	53	49	356	816	4,240	3,266	24,920	48,960
Wool, sheep and lambs' — lbs.	19,769,141	21,225,788	18,836,594	19,239,307	1,482,686	1,647,210	1,648,202	1,902,019
Total value of the above and of all other articles					1,651,649	1,798,790	2,033,654	2,472,479

Account of the Foreign and Colonial Produce and Manufactures exported from the U. K. to Victoria in each of the 4 Years ending with 1857.

Principal Articles.	Quantities.				Computed Values.			
	1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Coffee — lbs.	259,758	14,956	192,351	113,987	£5,539	£418	£4,843	£3,006
Corn, wheatflour — cwts.	8	—	785	8	—	—	807	25
Currants — —	5,885	4,255	16,119	13,773	6,401	13,687	44,536	25,536
Gloves of leather — pairs	113,598	19,186	100,158	217,008	7,294	1,199	7,685	18,412
Hats or bonnets of straw — lbs.	6,010	950	6,496	15,462	18,029	2,048	15,184	26,476
Raisins — cwts.	8,577	2,896	6,706	3,654	13,509	4,217	15,229	8,566
Rice, not in the husk — —	4,545	15,102	11,705	7,532	5,199	9,555	6,292	4,299
Silk manufactures of Europe: —								
broad stuffs and ribbons — lbs.	7,647	510	5,501	4,443	23,027	1,290	8,645	9,816
Spirits: rum — proof galls.	328,261	188,805	412,735	435,952	59,277	26,677	51,241	62,063
brandy — —	338,507	307,240	785,475	495,485	139,634	147,220	397,523	312,540
Geneva — —	12,217	2,701	10,923	10,341	1,735	383	1,593	1,400
Sugar, refined — cwts.	3,401	461	123	1,232	4,826	788	218	2,828
Tea — — lbs.	4,121	143	27,315	16,980	266	9	1,650	1,234
Tobacco, manufactured, and cigars — —	512,139	626,447	389,177	174,260	53,881	56,771	51,891	29,406
Wine — — galls.	387,373	256,675	650,359	381,394	129,695	89,723	265,567	155,721
Wood: sawn or split — loads	18,499	9,281	13,523	16,901	81,184	37,546	45,067	50,944
planed or dressed, in bond —	—	—	—	5,036	—	—	—	37,771
All other articles — value	—	—	—	—	134,464	64,659	104,018	110,089
Total					681,968	456,012	1,021,981	861,824

Account of the Quantities and Values of the Principal Articles of British Produce exported from the U. K. to Victoria in each of the 4 Years ending with 1857.

Principal Articles.		Quantities.				Declared Values.			
		1854.	1855.	1856.	1857.	1854.	1855.	1856.	1857.
Apothecary wares, &c.	value	-	-	-	-	£57,828	£19,670	£36,386	41,884
Apparel, slops, and haberdashery	—	-	-	-	-	1,100,971	304,500	793,085	1,030,240
Bacon and hams	cwts.	10,963	19,210	34,040	28,309	43,980	75,930	142,779	115,893
Bags, empty	dozen	53,532	15,285	51,545	101,592	44,019	15,914	40,915	74,890
Beer and ale	barrels	75,367	51,034	95,903	113,151	261,697	194,841	355,173	428,653
Books, printed	cwts.	4,613	2,526	5,314	4,569	68,137	48,665	49,229	56,533
Butter and cheese	—	32,924	48,774	91,155	56,229	145,038	223,801	422,487	266,552
Confectionery	—	9,661	5,277	8,388	7,400	47,018	25,013	42,218	39,486
Corn, grain, meal, and flour	value	-	-	-	-	160,393	179,884	103,885	182,091
Cottons: entered by the yard	yards	11,755,888	3,191,511	12,501,345	15,612,139	241,059	70,680	276,563	304,524
at value	value	-	-	-	-	58,036	14,995	55,262	61,170
Earthenware and porcelain	—	-	-	-	-	52,409	6,858	52,608	85,244
Furniture, cabinet and upholstery wares	—	-	-	-	-	100,028	30,226	39,894	76,736
Glass manufactures	—	-	-	-	-	112,669	50,443	114,974	174,352
Hardwares and cutlery	cwts.	60,520	23,747	46,800	64,440	285,615	114,584	209,813	279,267
Hats of all sorts	dozen	30,075	7,346	27,458	37,352	63,940	17,666	53,194	77,460
Iron, wrought and unwrought, including unwrought steel	tons	20,677	19,839	26,913	42,266	424,936	225,915	349,340	569,179
Lead and shot	—	1,973	783	1,026	1,276	51,247	19,271	26,988	32,505
Leather: wrought and unwrought	lbs.	1,997,716	1,236,690	3,155,396	3,958,306	317,583	204,792	580,338	797,992
saddlery and harness	value	-	-	-	-	86,631	31,976	50,557	73,327
Linens, entered by the yard	yards	2,426,015	923,551	1,427,952	1,334,205	96,658	35,391	53,020	46,720
Machinery: steam engines	value	-	-	-	-	25,459	22,797	28,072	60,088
all other sorts	—	-	-	-	-	57,206	47,853	36,738	60,171
Musical instruments	—	-	-	-	-	26,984	11,659	19,352	20,567
Pickles and sauces	—	-	-	-	-	140,980	81,124	141,188	111,704
Plate, plated ware, jewellery, and watches	—	-	-	-	-	100,009	39,980	50,843	37,691
Silk manufactures	—	-	-	-	-	77,640	12,349	76,809	155,883
Soap and candles	lbs.	2,403,174	3,689,987	5,455,863	3,329,297	55,777	106,419	184,950	148,701
Spirits, British	gallons	243,525	128,887	724,457	679,755	65,687	31,895	180,469	113,965
Stationery	value	-	-	-	-	159,254	66,384	93,089	113,331
Wooden wares	—	-	-	-	-	59,687	7,758	4,856	9,620
Woollens: entered by the piece	pieces	64,134	12,730	49,247	78,316	149,963	26,128	105,571	146,190
by the yard	yards	1,842,104	455,105	1,255,372	1,847,919	133,094	41,976	88,313	127,332
at value	value	-	-	-	-	67,621	19,716	51,806	66,279
Total value of the above and of all other articles		-	-	-	-	5,741,315	2,789,776	5,495,761	6,619,986

SCALE OF COMMERCIAL CHARGES,

Adopted at a Special General Meeting of the Melbourne Chamber of Commerce, 15th May, 1854.

COMMISSIONS:

On cash payments when not in funds	5 per cent.
On cash payments when in funds	2½ ,,
On purchase and shipment of gold-dust	1 ,,
On purchase and shipment of gold-dust, if drawn against	2½ ,,
On the amount of invoice in either case.	
On purchase and shipment of merchandise and on other purchases when not in funds	5 ,,
Ditto ditto when in funds	2½ ,,
On private sales, including the purchase of bills for remittance	5 ,,
On guarantee of sales, including remittances	5 ,,
On goods received for sale and reshipped, and on consignments of merchandise withdrawn, on invoice value	2½ ,,
On debts, rents, and other accounts collected, recovered, and remitted	5 ,,
On granting of letters of credit	2½ ,,
On letters of credit acted upon, an additional charge of	2½ ,,
On freight or charter procured for vessels, and freight or passage-money collected	5 ,,
On freight paid at port of departure	2½ ,,
On ship's disbursements and outfits when not in funds	5 ,,
Ditto ditto when in funds	2½ ,,
On guarantee of captains' drafts on owners, taken for balance of ships' disbursements	5 ,,
On money obtained on bottomry or respondentia	5 ,,
On insurance effected, or orders written for insurance, on the assured value	½ ,,
On insurance losses, partial or total, settled, or on premiums recovered	5 ,,

All sales of goods understood to be guaranteed, unless there be special orders to the contrary.

Guarantee on security for contracts	5 per cent.
Acting as trustee on assignments	5 ,,
On advances on produce for shipment	2½ ,,
Auctioneer's commission and brokerage to be charged when incurred.	
Advances and current accounts not liquidated at the end of the season, March 31st, the balance to be charged as a fresh advance, subject to a commission of	5 ,,

INTEREST:

On advances for duty, freight, and lighterage, and on accounts current per annum	10 ,,

CHARGES:

For passing accounts with the government for emigrant ships	£21 0*s*
For entering ship inwards at the Custom House, when the original port of departure is Australia, Van Diemen's Land, or New Zealand	£2 2*s*.
For clearing ship outwards when the port of destination is in the same places as above	£2 2*s*.
For entering ship inwards from other ports	£5 5*s*.
For clearing ship outwards	£5 5*s*.
For attending delivery of cargo from lighters, and giving notice to consignees	15*s*. per day
Fee for each surveyor within the city	£1 1*s*.
Fee for survey of hatches and stowage of cargo	£1 1*s*.
Fee for survey of hull of vessel	£5 5*s*.
On wool, for receiving, weighing, marking, and delivering	½d. per lo.
In addition to the tare on wool, an allowance for draft of	1 lb. per cwt.

Pilotage Rates.

	Sailing Vessel.	Steamer.	Maximum.	Minimum.
From without the Heads to Melbourne or Geelong, and *vice versâ*, per ton	*s. d.* 1 3	*s. d.* 0 10	£ 100	£ 15
From within the Heads to Melbourne or Geelong, and *vice versâ*, per ton	0 9	0 6	60	10
Into, or out of, Port Albert, per ton	0 9	0 6	60	5
Into, or out of, all other ports	0 6	0 4	40	4
Between Melbourne and Geelong	0 6	0 4	40	4

The above rates include two removes by the pilot.

EXEMPTIONS.

All ships belonging to Her Majesty, all ships outfitting to or refitting from the fisheries, all ships employed in the coasting trade, all ships regularly trading between any port of Victoria and of any of the colonies of New South Wales, Van Diemen's Land, New Zealand, Western and South Australia, (the master of such ship holding a certificate from the Pilot Board that he is competent to act as pilot to such trader,) unless the services of a pilot shall have been actually received; and all ships not having actually received the services of a pilot.

TARIFF OF VICTORIA.

Passed 8th December, 1854.

Ale, porter, spruce, and other beer, cider, and perry, the gallon, 6*d*.
Cigars, 3*s*. the pound.
Coffee and chicory, the pound, 2*d*.

Molasses and treacle, 5*s.* the hundred weight.
Spirits or strong waters of any strength, not exceeding strength of proof by Sykes' hydrometer, and so in proportion for any greater or less strength than the strength of proof, the gallon, 10*s.*
Spirits, cordials, liqueurs, or strong waters, sweetened or mixed with any article, so that the degree of strength cannot be ascertained by Sykes's hydrometer, the gallon, 10*s.*
Spirits, perfumed, the gallon, 10*s.*
Sugar, raw and refined, and sugar-candy, the hundred weight, 6*s.*
Tea, the pound, 6*d.*
Tobacco and snuff, the pound, 2*s.*
Wine, the gallon, 2*s.*
All other goods, wares, and merchandise, free.
Gold, the oz., when exported, 2*s.* 6*d.*

GUNPOWDER.

All vessels arriving in the ports of Victoria, having gunpowder on board exceeding 30 pounds, shall hoist the Union Jack at the main, and remain at an anchor outside the regular anchorage off the point, until such gunpowder be landed.

Twelve hours after anchorage allowed for landing whatever gunpowder there may be on board, whether as cargo or stores, at the appointed magazine.

Gunpowder to be landed or removed only between sunrise and sunset, at the expense of the proprietor or importer, and under the supervision of the inspector of water police, who, upon application, sends an officer in charge of powder boat.

The basin of Port Phillip, which receives the Yarra-Yarra and other rivers, is a large circular bay, or inlet of the sea, whence the colony derived its former name. It has a narrow entrance, not more than $1\frac{3}{4}$ m. in width, partly occupied with rocks and shoals. A lighthouse has been erected near the extremity of Point Lonsdale, near the W. side of the entrance, lat. 38° 16′ S., long. 140° 40′ E., and another on Point Gellibrand, near the head of the bay, between Williamstown and the mouth of the Yarra-Yarra river, lat. 37° 52′ S., long. 144° 55′ E. The bay is about 40 m. in depth from S. to N., and where widest is about 40 m. from E. to W. It is said to cover an area of above 800 sq. m., and might accommodate all the navies of all the countries in the world.

The whole trade of the colony, which is already very extensive, and is continuing to increase, is at present carried on from this basin. And from its advantageous situation, and its stretching so far inland, it is probable it will always continue to engross the largest share of the trade, though, no doubt, it will be partly, also, carried on from other ports. Geelong, at the head of a deep bay on the W. side of the basin, had on the 30th April, 1854, a population of 20,115, and a very considerable trade. For farther details see the *Victoria Commercial and Nautical Almanac* for 1855, a very meritorious publication.

Prospects of the Colony. — Of these it would be hazardous to speak with much confidence. The produce of gold, which amounted to above 4,247,000 oz. in 1852, amounted to only 2,421,000 oz. in 1853. But it is impossible to say whether the decline will be permanent, or whether the produce will not again rise to or above its old level. The excitement caused by the discovery of the gold fields was not confined to the colonists or the diggers, but acted with such force on the commercial world that the value of the imports into Victoria, which amounted to 1,056,437*l.* in 1851, rose to 15,182,530*l.* in 1856–7. And this excessive importation occurring simultaneously with a diminished supply of gold, a ruinous revulsion necessarily followed, accompanied by an all but universal bankruptcy, and a vast sacrifice of property.

These, however, are but evanescent difficulties. The system that has been adopted in regard to the disposal of the land, and the results to which it has led, are the grand difficulties with which the colony has to contend. It is impossible, indeed, to condemn too severely our policy in this respect, both in this and our other colonies. It is fitted only to injure them, and to turn the tide of emigration from their shores to the U. States. To set a price of 20*s.* an acre upon the unoccupied pasture lands of Australia, several acres of which are required to feed a single sheep, may be regarded as the triumph of political quackery. While, however, it prevented the sale of land, it necessarily led to its being let in vast tracts at low rents with certain rights of pre-emption, and to its being exclusively occupied by squatters; and through the discovery of the gold fields and the influx of population, these parties have become a leading class. There can, it is affirmed, be no doubt that their interests are opposed to those of the bulk of the colonists; and it is believed that under the constitution lately given to the colony they will command a majority in the legislature.

In consequence of this preposterous system, which, in a colony where large fortunes have been made, has restricted the purchase of lands to a very small part of their extent, the country can in no proper sense of the word be said to be occupied. The population has no power of diffusing itself over the surface, but is congregated into the large towns of Melbourne, Geelong, and the camps at the diggings. There are neither villages, farms, nor farm steadings. A man of moderate means may as soon think of getting land in Middlesex as in Victoria. And hence it is that the vast majority of those who make money in the colony hasten to leave it; some proceeding to England, and many to the U. States, where they may invest the whole or a portion of their earnings in superior lands sold for the low price of $1\frac{1}{4}$ dollar an acre. We do not presume to cast the horoscope of a policy which has such results; but we hardly suppose that, even in this region of anomalies, a suicidal system of this sort can be immortal.

MOROCCO. — Convention of commerce and navigation between Her Britannic Majesty and the Sultan of Morocco:—

Article 1. There shall be reciprocal freedom of commerce between the British dominions and the dominions of the Sultan of Morocco. The subjects of Her Britannic Majesty may reside in and trade to any port of the territories of the Sultan of Morocco to which any other foreigners are or shall be admitted.

They shall be permitted to hire houses, and to build houses, stores, or warehouses, as stipulated in Article 4. of the general treaty of this date.

They shall enjoy full protection for their persons and properties, as specified in Article 4. of the general treaty; they shall be allowed to buy from, and to sell to, whom they like, all articles not prohibited in Article 2. of this convention, either by wholesale or retail, at all places in the Moorish dominions, without being restrained or prejudiced by any monopoly, contract, or exclusive privilege of purchase or sale whatever, except the articles of export and those of import enumerated in Article 2.; and they shall, moreover, enjoy all other rights and privileges which hereafter may be granted to any other foreigners, subjects or citizens of the most favoured nation.

The subjects of the Sultan of Morocco shall, in return, enjoy in the dominions of Her Britannic Majesty the same protection and privileges which are or may be enjoyed by the subjects or citizens of the most favoured nation.

2. The Sultan of Morocco engages to abolish all monopolies or prohibitions on imported goods, except tobacco, pipes of all kinds used for smoking, opium, sulphur, powder, saltpetre, lead, arms of all kinds, and ammunition of war; and further to abolish all monopolies of agricultural produce, or of any other article whatsoever in the dominions of the Sultan, except leeches, bark, tobacco, and other herbs used for smoking in pipes.

3. No tax, toll, duty, or charge whatsoever, beside the export duty hereinafter mentioned, shall, under any pretext or on any account, be imposed by any person whatsoever, in any part of the dominions of Morocco, upon or in respect of any goods or produce whatsoever which may have been purchased for exportation by or on behalf of any British subject; but the said goods or produce, when so purchased, shall be conveyed from any place in Morocco to, and embarked from, any port therein, absolutely free and exempt from all other taxes, tolls, duties, or charges whatsoever. No permit, or any similar document, shall be requisite to enable them to be so conveyed or embarked, nor shall any officer or subject of the Sultan offer any impediment to, or lay any restriction on, the conveyance or embarkation of such goods (except those goods or produce which the Sultan of Morocco shall prohibit from being exported, as arranged in Article 5.), or on any pretext demand or receive any money in respect or on account of such goods; and should any such officer or subject act contrary to this stipulation, the Sultan shall immediately punish with severity the governor, officer, or other subject who shall have been guilty of such misconduct, and render full justice to British subjects for all injuries or losses which they may duly prove themselves to have suffered thereby.

4. The subjects of Her Britannic Majesty within the dominions of His Majesty the Sultan shall be free to manage their own affairs themselves, or to commit those affairs to the management of any persons whom they may appoint as their broker, factor, or agent; nor shall such British subjects be restrained in their choice of persons to act in such capacities; nor shall they be called upon to pay any salary or remuneration to any person whom they shall not choose to employ; but those persons who shall be thus employed, and who are subjects of the Sultan of Morocco, shall be treated and regarded as other subjects of the Moorish dominions. Absolute freedom shall be given in all cases to the buyer and seller to bargain together, and no interference on the part of the Sultan's officers shall be permitted. Should any governor or other officer interfere in the bargains between British and Moorish subjects, or place any impediments in the lawful purchase or sale of goods or merchandise imported into, or to be exported from, the Sultan's dominions, His Sherifian Majesty shall severely punish the said officer for such misconduct.

5. Should the Sultan of Morocco at any time think proper to prohibit the exportation of any kind of grain or other article of commerce from his dominions, British subjects shall in no manner be prevented from embarking all the grain or other articles which they may have in their magazines, or which may have been bought previously to the said prohibition; but they shall be allowed to continue to export all they may have in their possession, during the term of six months from the time the prohibition was publicly made known; but on the day when the order of the Sultan of Morocco regarding the prohibition shall arrive, and shall be published to the merchants, British subjects shall, within the term of two days, declare and give proofs of the amount of produce they shall possess in their stores, on which the prohibition is imposed, and they shall also present legal certificates regarding the amount of the said produce which they shall have bought in the interior or elsewhere, previously to the promulgation of the order for the prohibition. No prohibition, either as to the exportation or importation of any article, shall apply to British subjects, unless such prohibition shall apply to subjects of every other nation.

6. Merchandise or goods, except the articles enumerated in Article 2., imported by British subjects in any vessel, or from any country, shall not be prohibited in the territories of the Sultan of Morocco, nor be subject to higher duties than are levied on the same kind of merchandise or goods imported by the subjects of any other foreign power, or by native subjects, after the date of this Convention.

All articles, except those enumerated in Article 2., the produce of Morocco, may be exported therefrom by British subjects in any vessels, on as favourable terms as by the subjects of any other foreign country, or by native subjects.

7. In consideration of the favourable terms upon which the produce of Morocco is admitted into the territories of Her Britannic Majesty, and with a view to the extension of commercial intercourse between Great Britain and Morocco, for their mutual advantage, His Majesty the Sultan of Morocco hereby agrees that the duties to be levied on all articles imported into the territories of His Majesty by British subjects, shall not exceed ten per cent. in cash on their value, at the port of their disembarkation; and that the duties to be levied on all articles exported from the territories of His Majesty by British subjects, shall not exceed in amount the duties marked in the following tariff: —

TARIFF OF EXPORTS.

Articles.		Dollars.	Ounces.
Wheat	strike fanega	1	
Maize and dura	full fanega	½	
Barley	strike fanega	¼	
All other grain	cantar	½	
Flour	,,		30
Birdseed	,,		12
Dates	,,		40
Almonds	,,		35
Oranges, lemons, and limes	1000		12
Wild majoram	cantar		10
Cummin seed	,,		20
Oil	,,		50
Gums	,,		20
Henna	,,		15
Wax	,,		120
Rice	,,		16
Wool (washed)	,,		80
Wool (in grease)	,,		55
Hides, sheep and goat-skins	,,		36
Tanned skins called felaly, zawany, and cochinea	,,		100
Horns	1000		20
Tallow	cantar		50
Mules	head	25	
Donkeys	,,	5	
Sheep	,,	1	
Goats	,,		15
Fowls	dozen		22
Eggs	1000		51
Slippers	100		70
Porcupine quills	1000		5
Grasool	cantar		15
Ostrich-feathers	lb.		36
Baskets	100		30
Carraway seed	cantar		20
Combs of wood	100		5
Hair	cantar		30
Raisins	,,		20
Woollen sashes called karazy	100		100
Tackwat (a dye)	cantar		20
Tanned fleeces	,,		36
Hemp and flax	,,		40

The Sultan of Morocco has the right of prohibiting any article of exportation; but when a prohibition on any article shall be imposed, it shall be in conformity with what is arranged in Article 5.; but upon the exportation of articles the prohibition of which shall be taken off, the duties noted in the tariff shall alone be paid. With regard to wheat and barley, should the Sultan think proper to prohibit the exportation of these articles, but should desire to sell to merchants the grain which belongs to government, it shall be sold at the price the Sultan thinks proper to impose. Should the Sultan augment or diminish the price of the grain, there shall be granted to the purchaser for exporting that which he shall have bought, the term stated in Article 5.; but should the grain be free for exportation, the duties imposed thereon shall be in conformity with what is stated in the tariff.

Should the Sultan of Morocco think proper to reduce the duties on articles of exportation, His Majesty shall have the right of doing so, on condition that British subjects shall pay the lowest duty that shall be paid by any other foreign or native subjects.

8. Should a British subject, or his agent, desire to convey by sea, from one port to another in the dominions of the Sultan of Morocco, goods upon which the ten per cent. duty has been paid, such goods shall be subject to no further duty, either on their embarkation, or disembarkation, provided they be accompanied by a certificate from a Moorish administrator of customs.

9. If any article of Moroquine produce, growth, or manufacture, except the articles enumerated in Article 2, be purchased for exportation, the same shall be conveyed by the British merchant, or by his agent, free of any kind of charge or duty whatsoever, to a convenient place of shipment. Subsequently, on exportation, the export duty according to the tariff in Article 7. shall alone be paid on it.

10. No anchorage, tonnage, import, or other duty or charge, shall be levied in the dominions of the Sultan of Morocco on British vessels, or on goods imported or exported in British vessels, beyond what is, or may be, levied on national vessels, or on the like goods imported or exported in national vessels; they shall not, however, exceed in amount the rates of the following scale, viz.:

Six moozoonats per ton shall be levied upon every British vessel (except steam-vessels) that does not exceed 200 tons in measurement. Upon every vessel (not a steam-vessel) measuring more than 200 tons, the following charge shall be made, viz., 6 moozoonats per ton shall be paid for 200 of her tons, and 2 moozoonats per ton for the remainder. Should the administrator of customs have any doubt regarding the tonnage of a British vessel, as declared by the master, the British consul or vice-consul shall, on appeal being made to him, cause the ship's papers, whereon the tonnage is formally stated, to be exhibited. The same charges shall be made in all the ports of Morocco except Rabat and Laraiche, at which ports 4 moozoonats per ton shall be paid for pilotage into the river, should the vessel enter the river, and 4 moozoonats per ton for pilotage out of the river; 3 moozoonats per ton shall also be levied upon each vessel entering the river, on account of anchorage. Should a vessel, however, not enter the river, the same charges shall be levied upon her as those which are paid at the other ports. At Mogadore, 4 moozoonats per ton shall be paid on British vessels for pilotage on their entering the port only, and 6 moozoonats per ton for anchorage.

Should the master of a British vessel require, at any other port, a pilot, he shall pay for him at the rate of 2 moozoonats per ton; but this charge shall not be exacted except when the master of a vessel requires a pilot.

The sum of 16 dollars shall be levied, on account of anchorage, on a steam-vessel entering a port in the Moorish dominions for the purpose of discharging or embarking cargo. If, afterwards, the said steam-vessel proceed from that port to any other port or ports in the Moorish dominions, and on her arrival at the latter embark or discharge cargo, the aforesaid charge of 16 dollars for anchorage shall again be levied; but if the said steam-vessel, on her return voyage, should enter a Moorish port at which the said anchorage dues shall have already been paid, no further charge on account of anchorage shall be levied upon her unless the said steam-vessel depart on a second voyage to a Moorish port, or unless during her return voyage she shall have touched at any port other than a port of the Moorish dominions, in which case the aforesaid charge of 16 dollars shall again be levied. The charge, however, for anchorage on a steamer of 150 tons burthen, or less, shall not exceed what is due from a sailing-vessel of the same size.

The masters of all vessels shall pay, in addition to the aforesaid charges, the following sums to officers of the ports, but no other payments shall be demanded of them; viz.:—

A vessel measuring 25 tons or less, 20 ounces; a vessel exceeding 25 and not over 50 tons, 40 ounces; a vessel exceeding 50 and not over 100 tons, 60 ounces; a vessel exceeding 100 and not over 200 tons, 80 ounces; a vessel exceeding 200 tons, 100 ounces.

In addition to these charges, the master of every British vessel visiting the port of Tetuan shall pay 10 ounces for the messenger who shall convey the ship's papers from the port of Marteen to Tetuan; 5 ounces to the trumpeter who shall announce the arrival of the vessel; and 3 ounces to the public crier; but no other payments shall be demanded at the port of Tetuan. No charge for anchorage shall be levied on account of British vessels which may enter the ports of Morocco for the purpose of seeking shelter from the weather, and which do not embark or discharge cargo, nor shall any charge for anchorage be levied upon fishing-vessels.

And, in like manner, no anchorage, tonnage, import, or other duty or charge, shall be levied in the British dominions on Moorish vessels, or on goods imported or exported in Moorish vessels, beyond what is or may be levied on national vessels, or on the like goods imported or exported in national vessels.

11. Should British subjects desire to embark in or discharge goods from vessels arriving in the ports of Morocco, they shall employ the Moorish government boats for that purpose; but if within two days after the arrival of a vessel the Moorish government boats are not placed at their disposal for the aforesaid purpose, the British subjects shall have the right of employing private boats, and shall not pay, in such case, to the port authorities more than one half of what would have been paid, had they employed the government boats. This regulation shall not be applicable to the ports of Tangier and Tetuan, inasmuch as there is a sufficient number of government lighters at those two ports.

The charges now paid for lighterage at the different ports of Morocco shall not be augmented, and the administrator of customs at each port of Morocco shall deliver to the British vice-consul a tariff of the charges now demanded for lighterage.

12. The articles of this convention shall be applicable to all the ports in the empire of Morocco; and should His Majesty the Sultan of Morocco open the ports of Mehedea, Agadeer, or Wadnoon, or any other ports within the limits of His Majesty's dominions, no difference shall be made in the levying of duties, or anchorage, between the said ports and other ports in the Sultan's dominions.

13. If a British subject be detected in smuggling into the Moroquine territories goods of any description, the goods shall be confiscated to the Sultan; and such British subject shall, on conviction before the British consul-general, consul, vice-consul, or consular agent, be liable to be fined in an amount not exceeding treble the amount of duties leviable on such goods, or in case of goods not admitted to importation, treble the value of the goods at the current price of the day; and failing payment of such fines, such British subject shall, on conviction before the British consul-general, consul, vice-consul, or consular agent, be liable to be imprisoned; or, without being fined, any British subject on conviction as aforesaid may be imprisoned, but in either case for a time not exceeding one year, in such place as the consul-general, consul, vice-consul, or consular agent may determine.

14. In order that the two high contracting parties may have the opportunity of hereafter treating and agreeing upon such other arrangements as may tend still further to the improvement of their mutual intercourse, and to the advancement of the interests of their respective subjects, it is agreed that at any time after the expiration of five years from the date of the exchange of the ratifications of the present convention of commerce and navigation, either of the high contracting parties shall have the

right to call upon the other to enter upon a revision of the same; but until such revision shall have been accomplished by common consent, and a new convention shall have been concluded and ratified, the present convention shall continue and remain in full force and effect.

Done at Tangier, the 9th of December, in the year 1856, corresponding to the Moorish date of the 10th of Rabbea the second, in the year 1273.

(L.S.) J. H. DRUMMOND HAY.
(Arabic signature of)
(L.S.) SEED MOHAMED KHATEEB.

NICARAGUA (SAN JUAN DE), a seaport town at the mouth of the river of the same name, state of Costa Rica, on the W. shore of the Caribbean Sea, lat. 10° 55′ N.; long. 83° 43′ W. The port is excellent, and is considered the best on this side of the coast. Till lately the town was quite inconsiderable, and consisted of little else than a cluster of huts; but latterly it has no doubt been improved.

This place has risen into importance from its being at the W. extremity of a proposed line of water communication between the Caribbean Sea and the Pacific Ocean. This line is to consist partly of the river San Juan, flowing from the Lake of Nicaragua E. to the sea at San Juan, partly of the lake, and partly of a canal to be constructed from the latter to the Pacific Ocean. This project has been often mooted; but the discovery of the extraordinary mineral riches of California, and the consequent emigration to and intercourse with that country, have given it an incomparably greater interest than it formerly possessed. The country appears to present greater facilities for effecting this great work than any other part of Central America, except the Isthmus of Darien or Panama. The river San Juan, about 90 m. in length, is said to have been occasionally navigable throughout its entire course for sea-going vessels, till the Spaniards, to protect themselves from the attacks of the buccaneers, sunk vessels loaded with stone in its bed. In consequence of the interruption thus given to the stream, a considerable portion of the water was carried off by a new channel called the Rio Colorado. (*Chevalier, L'Isthme de Panama, &c.*, p. 84.) The San Juan is still, however, navigated, though with much difficulty, in the rainy season, by steamers and other vessels drawing little water.

The lake itself has deep water throughout, and is adapted for ships of the largest burden. The distance between its S.W. shore and the Gulph of Papagayo, on the Pacific, is only 29,880 yards, or 15¾ m.; and though the intervening country be laid down in many maps as mountainous, the greatest actual height of any part of it above the level of the lake is only 19 ft.; at least, such is the result given by a series of 347 levels, about 100 yds. apart, taken in 1781. (*Thompson's Guatemala, Append.* pp. 512—520.) The surface of the lake is 128 ft. 3 in. (Engl.) above the level of the Pacific; an ascent which might be overcome by a succession of locks. The difference in the level of the two oceans, formerly supposed to be so serious an obstacle to the undertaking, is said by Humboldt not to exceed 20, or, at most, 22 ft. (*Nouv. Espagne*, i. 223. ed. 1825.) At its western extremity, the Lake of Nicaragua is connected by a small river, the Tipitapa, with the Lake of Leon or Managua. The latter, 55 m. in length by nearly 30 in breadth, is also said to have deep water throughout. And the plan which appears to be at present preferred is, to make the channel uniting these two lakes navigable, and to excavate a canal from the latter to the port of Realejo on the Pacific. Mr. Squier, late *chargé d'affaires* for the U. States at Nicaragua, has published the following statements in regard to this route.

Length of the route by Lake Nicaragua, &c. across the American Continent from the Atlantic to the Pacific Ocean:—

River San Juan	90 m.
Lake Nicaragua, necessary to be traversed	110 „
River Tipitapa	18 „
Lake Managua or Leon	55 „
From Lake Managua to Realejo	40 „
	303 m.

Height of the various lakes to be passed, and the elevation of land:—

	Above Atlantic.	Ab. Pacific.
Height of Lake Nicaragua	147 ft. 9 in.	128 ft. 3 in.
„ Managua	176 5	156 11
Highest point of land to be passed	231 11	212 5

But great doubts are entertained whether this or any other route by the Lake of Nicaragua can be made practicable for moderate-sized vessels, that is, for vessels of from 400 to 500 tons and upwards. The river San Juan runs from end to end through a dense and unhealthy jungle. No labourers are to be had in the country, and it affords nothing for the subsistence of those that may be imported from a distance. And though, one should think, it would be no very difficult matter to clear it of the obstructions made to oppose the buccaneers, it is plain from the difference of level between the Lake of Nicaragua and the Atlantic, that others of a much more formidable character must be in the way, and that a great deal of lockage would be required to enable vessels of any considerable burden to reach the lake. And after it has been reached, many difficulties have to be surmounted. And that they may be surmounted,

and a navigable channel formed between the two oceans, is not, certainly, impracticable; but we are persuaded that it is visionary to imagine that ships of 1,000 or 1,200 tons should ever, as has been stated, get across the Continent by its means; and on whatever scale it may be made, the anticipations of advantage to result from it will, we apprehend, be found to be greatly exaggerated. The construction of a railway or canal, or both, across the Isthmus of Panama, a distance of less than 40 m., appears to be a far less doubtful and more practicable project, and we believe, also, will be infinitely more serviceable. *See* PANAMA (ISTHMUS OF).

On the 19th of April, 1850, the British and American governments entered into a treaty binding themselves to promote the construction of a ship canal between the Caribbean Sea and the Pacific Ocean, by way of the Lake of Nicaragua; and renouncing at the same time any exclusive right to or control over such canal.

The port of REALEJO, on the Pacific, lat. 12° 34′ N., long. 87° 4′ W., to which it is proposed to bring the canal from Lake Leon, is said to be one of the best that is anywhere to be met with. It is protected by a long narrow island, which forms a natural breakwater. We borrow from the "Times" the following notice of this harbour, derived from a late resident there:—

"I may confidently say that the port of Realejo is, at least, as good a port as any in the known world. I have seen Portsmouth, Rio de Janeiro, Port Jackson, Talcujana, Callao and Guayaquil, and to all these I consider it decidedly superior. It is a salt-water creek, into which several small streams of water empty themselves. The entrance is protected by an island about two miles long, which leaves at each end a channel where ships can enter the harbour, but extending opposite the mainland, forming the port in such a manner as to protect it entirely from any wind that could possibly blow, and also entirely breaking the swell which enters the outer bay of Conchagua from the ocean. The north entrance is about a quarter of a mile wide, and that at the south of the island rather narrower, both being entirely free from rocks or hidden dangers, and having in no part less than five fathoms depth of water. At one of these openings vessels can at all times enter with a leading wind, from whatever quarter it may blow. The inside consists of a noble basin of water, nowhere less than four fathoms deep, with a bottom of mud, where two hundred ships of the line might lie at all times in the most perfect security. One of the branches of the creek extends inland to within three leagues of the Lake of Leon or Managua. The intermediate country is a gentle slope, where undoubtedly should enter one of the ends of the canal to connect the Pacific and Atlantic oceans. The difficulties to be encountered in crossing the chain of hills between the Lake of Nicaragua and San Juan del Sud would be entirely avoided by bringing the canal through the Lake of Leon (connected as it is with that of Nicaragua by a river that might be rendered navigable at a moderate cost) into the above-named branch of the Realejo harbour, thus securing the great advantage of an excellent harbour at each end of the canal, besides many others which are certainly not to be met with either at Panama, Tehuantepec, or any other place.

"The town of Realejo is about two leagues distant from the part of the creek where vessels lie; but there is sufficient depth for small vessels to come within a mile of the town, and a very little labour would make it accessible to large ships; but an enlightened government would probably prefer moving the town to the opposite side of the reach, where vessels lie, where there is a site extremely suitable for the purpose, and where a quay might easily be erected capable of accommodating any number of ships. In the time of the Spanish government several vessels, some of 300 to 400 tons, were built at Realejo; where the wood is very superior and durable.

"The port of San Juan del Sud, to which place it was proposed to bring the canal, seems inferior to Realejo in most respects. The Gulph of Papagayo, where the port is situated, is very difficult to enter for a sailing vessel for five months in the year."

OPORTO.

The port charges, including tonnage duties, on a vessel of 300 tons, amount to about 50 dollars. Vessels sailing without a cargo pay for lights 200 reis per cent., instead of 50 reis, in order to encourage the export trade. Commission 2½ per cent., and *del credere* 2½ per cent.

PILOT REGULATIONS.—These were published at Oporto in 1841. They declare that the navigation over the bar of the Douro must be conducted by pilots regularly appointed, and their number shall be nineteen of the first and second classes, besides supernumerary pilots.

The outward and inward pilotage of every vessel over the bar to be confined to the nineteen pilots of the first and second classes; the pilotage in the river by the supernumerary pilots.

Pilots are prohibited to stipulate for the sum to be received when they board vessels in distress, and are bound to give immediate assistance, under pain, in case of the slightest delay, of suspension from their functions; or, in case of misconduct, to more severe punishment.

The pilots are obliged to reside at St. Joas de Foz; and all vessels, except small craft, are bound to take over the bar a supernumerary pilot.

When a supernumerary pilot is on board a vessel exercising his functions, and cannot bring it into port, he must remain on board such vessel; the master or owner of which to pay him the whole of his due, and a ration per day, until he is landed at Oporto. In case of dispute, the Portuguese consuls are required to make the foreign master fulfil the above regulation.

The pilotage rates for the entrance or the departure of vessels, in ordinary cases, are fixed as follows:—

	Reis.	*Dolls. Cts.*
Small craft	800 =	0 90
Fishing boats	1,200 =	1 36
Steam vessels	2,400 =	2 71
Sloops	3,500 =	3 96
Three masted schooners and brigs	4,000 =	4 52
Also to each pilot boat (including the crew)	2,400 =	2 71
To each supernumerary pilot boat	1,200 =	1 36
To each pilot, per day, outside the bar	800 =	0 90

The gratification to pilots is optional. The remuneration due, in extraordinary cases, to pilot boats outside the bar, to be rated in accordance to the difficulty of the pilotage and the danger incurred.

The first pilot, and in his absence the second, will be charged to hold council with the others as to the possibility of the entrance or departure of the vessels, and decide by the majority of voices. A pilot who, in the execution of the decision of the council, does not conform to such decision, will immediately be suspended from his functions, and be respon-

sible for all indemnifications, and subject also to corporeal punishment.

When an accident happens on account of a pilot refusing to conform to the above results, the pilot cannot demand, for his defence, the opposition of the captains or proprietors of vessels to the free exercise of his functions, except this opposition was manifested with violence; in which case the pilot must immediately protest, so as to cover his responsibility.

The first pilot is bound to sound the bar at least every fourteen days, and to make known the result to the intendant of the marine, as well as any change that may take place in the river.

Any pilot losing a vessel, in consequence either of intemperance or incapacity, will be punished according to the full extent of the law. Every pilot is bound to have by him the regulations of signals appropriated for the service of the Douro.

PANAMA, a city and sea-port of Colombia, on the Pacific, 38 m. S. E. Chagres, lat. 8° 56′ N., long. 79° 31′ 2″ W. Pop. 7000? It stands on a rocky peninsula, projecting into the bay of Panama, and has an imposing aspect from the sea. Its streets are well ventilated, and it is said to be cleaner than most Spanish American cities. It is encircled by irregular and not very strong fortifications, constructed at different periods. The houses are partly of wood, straw, and other fragile materials; but many are substantially built of stone, the larger having court-yards, or *patios*, in the old Spanish style; and no doubt it has been much improved within the last two or three years. Its roadstead is one of the finest in the world. There are a number of islands a short distance from the main land, which afford secure anchorage for ships of any burden, and from which supplies of provisions, including excellent water, may easily be obtained. The tides daily rise and fall from 20 to 27 ft., so that it is peculiarly well fitted for the repair and building of ships.

Previously to 1740, when the trade with the Pacific first began to be carried on round Cape Horn, Panama was the principal entrepôt of trade between Europe and W. America. From that period, however, it fell off; and its decay was peculiarly rapid after the independence of S. America, and the opening of the other ports of the Pacific. But since the occupation of California by the Americans, and especially since the discovery of the auriferous deposits in that country, it has again rapidly increased. And now that a railway is carried across the isthmus, it will in all probability attain to greater commercial distinction than ever. At present (1859) great numbers of steamers are employed in the trade between Panama and San Francisco, Vancouver s Island, &c.

Passage across the Isthmus of Panama or Darien.—Latterly, or since the discovery of the mineral riches of California, the isthmus has become a great thoroughfare, vast numbers of individuals having crossed from the port of Chagres on the Caribbean Sea to Panama on the Pacific Ocean, and conversely.

The port of Chagres is within the mouth of the river of that name, in lat. 9° 18′ 6″ N., long. 79° 59′ 2″ W. A bar at the mouth of the river has only from 10 ft. to 12 ft. water, though within the bar the river deepens to from 4 to 6 fathoms. It is probable that the bar might be deepened without much difficulty, and a canal might be cut from the bottom of the bay of Manzanilla to the river, from which it is only 3 m. distant. A short while ago the town (if so it might be called) was a mere cluster of huts, unhealthy, and without any accommodation for passengers. But having latterly become one of the starting points in the nearest and shortest route from the E. to California, it has been greatly improved.

A railway from or near Chagres, at the bottom of Manzanilla bay to Panama, a distance of about 34 or 35 miles, has been constructed by a joint stock company of New York, and reflects great credit on American enterprise and perseverance. The difficulties to be overcome were of a very formidable description, partly from the nature of the ground, which not unfrequently consisted of deep marshes, but more from the luxuriance and strength of the vegetation through which it was necessary to penetrate, and the heat, moisture, and unhealthiness of the climate. Unluckily, the desire to accomplish their task in the shortest time and at the least expense, tempted the engineers to execute the work in a superficial manner, substituting bridges, viaducts, pillars, &c., of wood for those of stone, mortar, and iron. In a country where the decomposition of vegetable matter is so very rapid, this was as false and spurious a species of economy as can well be imagined. Already many miles of the railway have had to be repaired, or rather reconstructed, by the substitution of *lignum vitæ* and other hard woods for the softer ones that were first used. This, however, will do little more than palliate the evil; and there can be no doubt that eventually stone and iron bridges and viaducts will have to be used instead of wooden ones everywhere along the line.

Trains take about 3 hours in passing from sea to sea; but were the railway properly finished, the passage might be performed in less than 2 hours. A station, called Aspinwall, has been erected on Manzanilla island in the Caribbean Sea. But it is extremely unhealthy, and there is little prospect of its ever becoming a place of much importance.

But supposing (which is not the case) that this railway were everything that could be desired, still it is plain that the grand desideratum is the carrying across the isthmus of a water communication between the Atlantic and Pacific Oceans. We do not mean by this a canal suitable only for coasters, or vessels of comparatively small burden. Such a channel would be of little use, except to the countries contiguous to its termini.

What is really wanted is a canal that will admit ships of the largest burden, and bound on the longest voyages. The advantages that would result from having the isthmus perforated by such a channel cannot be easily exaggerated. No other project that appears to be within the limits of possibility, perhaps not even the carrying of a ship canal across the Isthmus of Suez, would give so great a stimulus to commerce and navigation. It would remove the barrier which renders the navigation between the eastern and western coasts of America so tedious and difficult. And, by doing this, it would enable ships from Europe to reach the latter and the Pacific in less than half the time they do at present, while it would greatly facilitate the voyage to Australia and China.

And a grand project of this sort is on foot. It is proposed to cut a canal that shall admit ships of 1,000 tons burden and upwards, between Porto Escoces (lat. 8° 5′ N., long. 77° 21′ W.), near Point Caledonia, in the Gulph of Darien, on the Caribbean Sea, and the Rio Savana, which falls into the Gulph of San Miguel, on the Pacific. The intervening space (about 38 or 40 miles) is said to be comparatively flat; the ports at each extremity are easy of access, and have deep water; and it is proposed that the canal should be constructed throughout on the same level, and have no locks. The cost of the project is estimated at from 12 to 15 millions sterling. And considering the vast importance of such a work to the U. States, to this country, and, indeed, to all maritime nations, this expense, heavy as it may appear, should be reckoned a subordinate matter. Were the country through which it is to pass in the possession of England or the U. States, it would, most probably, have been undertaken. But the unsettled state of Central America, and the knotty questions that might eventually arise as to the property and management of the canal, are serious obstacles to its being proceeded with.—(See for ample details on this interesting subject the work of Dr. Cullen, entitled *Isthmus of Darien Ship Canal.* The learned doctor is, probably, a little too sanguine in favour of the project, but despite this excusable bias, his work is instructive and valuable.)

PAPAL DOMINIONS (TRADE WITH.)—The *Gazette* of the 6th January, 1853, contained the following declaration on the part of Great Britain, establishing a system of perfect reciprocity in trade and navigation with the Papal States. The declared value of our exports to these States amounted in 1858 to 409,475*l.*; and were they reasonably well governed their trade would be greatly increased.

Declaration.—The undersigned, her Britannic Majesty's Chargé d'Affaires at the court of Tuscany, having received from his Eminence the Cardinal Antonelli, Secretary of State to his Holiness Pope Pius IX., the assurance that no other or higher duties or charges are levied in the ports of the Papal States on British vessels than are payable on national vessels, nor on goods imported or exported in British vessels than are payable on the like goods imported or exported in national vessels, has received the commands of H. Majesty to declare:

1. That no duties of tonnage, harbour, lighthouse, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied in the name or for the profit of the government, public functionaries, corporations, or establishments of whatever kind, shall be imposed in British ports upon Papal vessels, from whatever port or place arriving, which shall not be equally imposed in the like cases on national vessels, and that no duty, charge, restriction, or prohibition shall be imposed upon, nor any drawback, bounty, exemption, or allowance withheld from, goods imported into or exported from British ports in Papal vessels, which shall not be equally imposed upon or withheld from such goods, when so imported or exported in national vessels.

2. That no other or higher duties shall be imposed on the importation into the dominions of her Britannic Majesty of any article the growth, produce, or manufacture of the Papal States, than are or shall be payable on the like article being the growth, produce, or manufacture of any other foreign country. That no other or higher duties or charges shall be imposed in the British dominions on the exportation of any article to the Papal States, than such as are or may be payable on the exportation of the like article to any other foreign country; and that no prohibition shall be imposed upon the importation of any article the growth, produce, or manufacture of the Papal States into the British dominions, nor upon the exportation of any article from the British dominions to the Papal States, unless such prohibition shall extend to all other nations.

3. That Papal vessels shall be at liberty to import into British ports any article legally importable, and to export from British ports any article legally exportable, on payment of the same duties, and with a right to the same bounties and drawbacks as are or may be payable or allowable in respect of the same articles if imported or exported in national vessels.

4. That all vessels which, according to the laws of the Papal States, are to be deemed Papal vessels, shall, for the purposes of this declaration, be deemed Papal vessels.

5. That the following stipulations shall not apply to the coasting trade, which is reserved exclusively to national vessels.

6. That if any ship of war or merchant vessel of the Papal States shall be wrecked on the coasts of the British dominions, such ship or vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, and all goods and merchandise which shall be saved therefrom, or the produce thereof, if sold, shall be faithfully restored to the owners, upon being claimed by them or by their duly authorised agents. If there are no such owners or agents on the spot, then the said ships or parts of ships, furniture, appurtenances, goods, and merchandise, or the proceeds thereof, if sold, as well as all papers found on board such wrecked ships or vessels, shall be delivered to the Papal consul or vice-consul in whose district the wreck may have taken place, upon being claimed by him; and such consul, vice-consul, owners, or agents shall pay only the expenses incurred in the preservation of the property, together with the salvage or other expenses which would have been payable in the like cases of a wreck of a national vessel. The charge for such salvage and other expenses shall be made and settled immediately, subject to such right of appeal on the part of the person paying the same, as may exist in the British dominions. The goods and merchandise saved from the wreck shall not be subject to duties unless cleared for consumption, in which case they shall be liable to the same duties as if they had been imported in a British ship.

7. That the foregoing concessions are granted on condition of a perfect and entire reciprocity in favour of British vessels in the ports of the Papal States. They shall come into operation from and after the date of the present declaration, and shall remain in force for seven years, and further until the expiration of 12 months after notice shall have been given by the British government, or by the Papal government, for terminating such reciprocal arrangement.

In witness whereof the undersigned has signed the present declaration, destined to be exchanged against a similar declaration on the part of his Eminence the Cardinal Secretary of State, and has affixed thereto the seal of his arms.

Done at Florence, the 17th day of November, 1853.

P. CAMPBELL SCARLETT.

The "similar declaration" of Cardinal Antonelli is given with the foregoing in the *Gazette*. It is the exact counterpart of that made by Mr. Scarlett.

PARTNERSHIPS WITH LIMITED LIABILITY.—We have previously made (see COMPANIES) some general remarks on this subject, to which we would beg to refer the reader. We there endeavoured to show the extremely objectionable nature of such partnerships, and that there was nothing in the circumstances peculiar to this country which either required or excused their introduction. The opinion of the greater, if not the better informed part of the public being, however, for a while at least strongly in their favour, they were established by the Act 19 & 20 Vict. c. 47., amended by the 20 & 21 Vict. c. 14.

A schedule is annexed to the first of these statutes, which comprises a summary of the various proceedings connected with the formation and management of companies with limited liability, of which we beg to annex a copy.

Memorandum of Association of the "Eastern Steam Packet Company, Limited."

1st. The name of the company is "The Eastern Steam Packet Company, limited."

2d. The registered office of the company is to be established in England.

3d. The objects for which the company is established are, "the conveyance of passengers and goods in ships or boats between such places as the company may from time to time determine, and the doing all such other things as are incidental or conducive to the attainment of the above object."

4th. The liability of the shareholders is "limited."

5th. The nominal capital of the company is 200,000*l.* divided into 1000 shares of 200*l.* each.

WE, the several persons whose names and addresses are subscribed, are desirous of being formed into a company, in pursuance of this memorandum of association, and we respectively agree to take the number of shares in the capital of the company set opposite our respective names.

Names and Addresses of Subscribers.		Number of Shares taken by each Subscriber.
1. John Jones of	in the County of -	200
2. John Smith of	in the County of -	25
3. Thomas Green of	in the County of -	30
4. John Thompson of	in the County of -	40
5. Caleb White of	in the County of -	15
6. Andrew Brown of	in the County of -	5
7. Cæsar White of	in the County of -	10
Total Shares taken - - - - -		325

Dated the 22d day of November 1856.

Witness to the above signatures,

A.B., No. 13, Hute Street, Clerkenwell, Middlesex.

Regulations for Management of a Limited Liability Company.

Shares.—No person shall be deemed to have accepted any share in the company unless he has testified his acceptance thereof by writing under his hand, in such form as the company from time to time directs.

The company may from time to time make such calls upon the shareholders in respect of all monies unpaid on their shares as they think fit, provided that 21 days' notice at least is given of each call, and each shareholder shall be liable to pay the amount of calls so made to the persons and at the times and places appointed by the company.

A call shall be deemed to have been made at the time when the resolution authorising such call was passed.

If before or on the day appointed for payment any shareholder does not pay the amount of any call to which he is liable, then such shareholder shall be liable to pay interest for the same at the rate of 5*l.* per cent. per annum from the day appointed for the payment thereof to the time of the actual payment.

The company may, if they think fit, receive from any of the shareholders willing to advance the same all or any part of the monies due upon their respective shares beyond the sums actually called for; and upon the monies so paid in advance, or so much thereof as from time to time exceeds the amount of the calls then made upon the shares in respect of which such advance has been made, the company may pay interest at such rate as the shareholder paying such sum in advance and the company agree upon.

If several persons are registered as joint holders of any share, any one of such persons may give effectual receipts for any dividend payable in respect of such share.

The company may decline to register any transfer of shares made by a shareholder who is indebted to them.

Every shareholder shall, on payment of such sum, not exceeding one shilling, as the company may prescribe, be entitled to a certificate, under the common seal of the company, specifying the share or shares held by him, and the amount paid up thereon.

If such certificate is worn out or lost, it may be renewed, on payment of such sum, not exceeding one shilling, as the company may prescribe.

The transfer books shall be closed during the 14 days immediately preceding the ordinary general meeting in each year.

Transmission of Shares.—The executors or administrators of a deceased shareholder shall be the only persons recognised by the company as having any title to his share.

Any person becoming entitled to a share in consequence of the death, bankruptcy, or insolvency of any shareholder, or in consequence of the marriage of any female shareholder, or in any way other than by transfer, may be registered as a shareholder upon such evidence being produced as may from time to time be required by the company.

Any person who has become entitled to a share in any way other than by transfer may, instead of

being registered himself, elect to have some person to be named by him registered as a holder of such share.

The person so becoming entitled shall testify such election by executing to his nominee a deed of transfer of such share.

The deed of transfer shall be presented to the company, accompanied with such evidence as they may require to prove the title of the transferror, and thereupon the company shall register the transferree as a shareholder.

Forfeiture of Shares. — If any shareholder fails to pay any call due on the appointed day, the company may, at any time thereafter, during such time as the call remains unpaid, serve a notice on him, requiring him to pay such call, together with any interest that may have accrued by reason of such nonpayment.

The notice shall name a further day, and a place or places, being a place or places at which calls of the company are usually made payable, on and at which such call is to be paid: it shall also state that in the event of nonpayment at the time and place appointed the shares in respect of which such call was made will be liable to be forfeited.

If the requisitions of any such notice as aforesaid are not complied with, any share in respect of which such notice has been given may be forfeited by a resolution of the directors to that effect.

Any share so forfeited shall be deemed to be the property of the company, and may be disposed of in such manner as the company thinks fit.

Any shareholder whose shares have been forfeited shall notwithstanding be liable to pay to the company all calls owing upon such shares at the time of the forfeiture.

Increase in Capital. — The company may, with the sanction of the company previously given in general meeting, increase its capital.

Any capital raised by the creation of new shares shall be considered as part of the original capital, and shall be subject to the same provisions in all respects, whether with reference to the payment of calls, or the forfeiture of shares on nonpayment of calls, or otherwise, as if it had been part of the original capital.

General Meetings. — The first general meeting shall be held at such time, not being more than 12 months after the incorporation of the company, and at such place, as the directors may determine.

Subsequent general meetings shall be held at such time and place as may be prescribed by the company in general meeting; and if no other time or place is prescribed, a general meeting shall be held on the first Monday in February in every year, at such place as may be determined by the directors.

The above-mentioned general meetings shall be called ordinary meetings; all other general meetings shall be called extraordinary.

The directors may, whenever they think fit, and they shall upon a requisition made in writing by any number of shareholders holding in the aggregate not less that one-fifth part of the shares of the company, convene an extraordinary general meeting.

Any requisition so made by the shareholders shall express the object of the meeting proposed to be called, and shall be left at the registered office of the company.

Upon the receipt of such requisition the directors shall forthwith proceed to convene a general meeting: if they do not proceed to convene the same within 21 days from the date of the requisition, the requisitionists, or any other shareholders holding the required number of shares, may themselves convene a meeting.

Seven days' notice at the least, specifying the place, the time, the hour of meeting, and the purpose for which any general meeting is to be held, shall be given by advertisement, or in such other manner, if any, as may be prescribed by the company.

Any shareholder may, on giving not less than 3 days' previous notice, submit any resolution to a meeting beyond the matters contained in the notice given of such meeting.

The notice required of a shareholder shall be given by leaving a copy of the resolution at the registered office of the company.

No business shall be transacted at any meeting except the declaration of a dividend, unless a quorum of shareholders is present at the commencement of such business; and such quorum shall be ascertained as follows; that is to say, if the shareholders belonging to the company at the time of the meeting do not exceed 10 in number, the quorum shall be 5; if they exceed 10 there shall be added to the above quorum 1 for every 5 additional shareholders up to 50, and 1 for every 10 additional shareholders after 50, with this limitation, that no quorum shall in any case exceed 40.

If within 1 hour from the time appointed for the meeting the required number of shareholders is not present, the meeting, if convened upon the requisition of the shareholders, shall be dissolved: in any other case it shall stand adjourned to the following day, at the same time and place; and if at such adjourned meeting the required number of shareholders is not present, it shall be adjourned sine die.

The chairman (if any) of the board of directors shall preside as chairman at every meeting of the company.

If there is no such chairman, or if at any meeting he is not present at the time of holding the same, the shareholders present shall choose some one of their number to be chairman of such meeting.

The chairman may, with the consent of the meeting, adjourn any meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

At any general meeting, unless a poll is demanded by at least 5 shareholders, a declaration by the chairman that a resolution has been carried, and an entry to that effect in the book of proceedings of the company, shall be sufficient evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution.

If a poll is demanded in manner aforesaid the same shall be taken in such manner as the chairman directs, and the result of such poll shall be deemed to be the resolution of the company in general meeting.

Votes of Shareholders. — Every shareholder shall have one vote for every share up to 10; he shall have an additional vote for every 5 shares beyond the first 10 shares up to 100, and an additional vote for every 10 shares held by him beyond the first 100 shares.

If any shareholder is a lunatic or idiot he may vote by his committee, curator bonis, or other legal curator; and if any shareholder is a minor he may vote by his guardian, tutor, or curator, or any one of his guardians, tutors, or curators, if more than one.

If one or more persons are jointly entitled to a share or shares the person whose name stands first in the register of shareholders as one of the holders of such share or shares, and no other, shall be entitled to vote in respect of the same.

No shareholder shall be entitled to vote at any meeting unless all calls due from him have been paid, nor until he shall have been possessed of his shares 3 calendar months, unless such shares shall have been acquired or shall have come by bequest, or by marriage, or by succession to an intestate's estate, or by the custom of the city of London, or by any deed of settlement after the death of any person who shall have been entitled for life to the dividends of such shares.

Votes may be given either personally or by proxies: a proxy shall be appointed in writing under the hand of the appointor, or if such appointor is a corporation, under their common seal.

No person shall be appointed a proxy who is not a shareholder, and the instrument or mandate

appointing him shall be deposited at the registered office of the company not less than 48 hours before the time of holding the meeting at which he proposes to vote; but no instrument or mandate appointing a proxy shall be valid after the expiration of 1 month from the date of its execution.

Directors.—The number of the directors, and the names of the first directors, shall be determined by the subscribers of the memorandum of association.

Until directors are appointed, the subscribers of the memorandum of association shall for all the purposes of this act be deemed to be directors.

Power of Directors. — The business of the company shall be managed by the directors, who may exercise all such powers of the company as are not by this act or by the articles of association, if any, declared to be exercisable by the company in general meeting, subject nevertheless to any regulations of the articles of association, to the provisions of this act, and to such regulations, being not inconsistent with the aforesaid regulations or provisions, as may be prescribed by the company in general meeting; but no regulation made by the company in general meeting shall invalidate any prior act of the directors which would have been valid if such regulation had not been made.

Disqualification of Directors.—The office of director shall be vacated,—

If he holds any other office or place of profit under the company;

If he becomes bankrupt or insolvent;

If he is concerned in or participates in the profits of any contract with the company;

If he participates in the profits of any work done for the company:

but the above rules shall be subject to the following exceptions: that no director shall vacate his office by reason of his being a shareholder in any incorporated company which has entered into contracts with or done any work for the company of which he is director; nevertheless he shall not vote in respect of such contract or work; and if he does so vote his vote shall not be counted, and he shall incur a penalty not exceeding 20*l*.

Rotation of Directors. — At the first ordinary meeting after the incorporation of the company the whole of the directors shall retire from office; and at the first ordinary meeting in every subsequent year one-third of the directors for the time being, or if their number is not a multiple of three then the number nearest to one-third, shall retire from office.

The one-third or nearest number to retire during the first and second years ensuing the incorporation of the company shall, unless the directors agree among themselves, be determined by ballot: in every subsequent year the one-third or other nearest number who have been longest in office shall retire.

A retiring director shall be re-eligible.

The company at the general meeting at which any directors retire in manner aforesaid shall fill up the vacated offices by electing a like number of persons.

If at any meeting at which an election of directors ought to take place no such election is made, the meeting shall stand adjourned till the next day, at the same time and place; and if at such adjourned meeting no election takes place, the former directors shall continue to act until new directors are appointed at the first ordinary meeting of the following year.

The company may from time to time, in general meeting, increase or reduce the number of directors, and may also determine in what rotation such increased or reduced number is to go out of office.

Any casual vacancy occurring in the board of directors may be filled up by the directors, but any person so chosen shall retain his office so long only as the vacating director would have retained the same if no vacancy had occurred.

Proceedings of Directors. — The directors may meet together for the despatch of business, adjourn, and otherwise regulate their meetings as they think fit, and determine the quorum necessary for the transaction of business: questions arising at any meeting shall be decided by a majority of votes: in case of an equality of votes the chairman, in addition to his original vote, shall have a casting vote: a director may at any time summon a meeting of the directors.

The directors may elect a chairman of their meetings, and determine the period for which he is to hold office; but if no such chairman is elected, or if at any meeting the chairman is not present at the time appointed for holding the same, the directors present shall choose some one of their number to be chairman of such meeting.

The directors may delegate any of their powers to committees consisting of such member or members of their body as they think fit: any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may be imposed on them by the directors.

A committee may elect a chairman of their meetings: if no such chairman is elected, or if he is not present at the time appointed for holding the same, the members present shall choose one of their number to be chairman of such meeting.

A committee may meet and adjourn as they think proper: questions at any meeting shall be determined by a majority of votes of the members present; and in case of an equal division of votes the chairman shall have a casting vote.

All acts done by any meeting of the directors, or of a committee of directors, or by any person acting as a director, shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such directors or persons acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such person had been duly appointed and was qualified to be a director.

The directors shall cause minutes to be made in books provided for the purpose,—

(1.) Of all appointments of officers made by the directors;

(2.) Of the names of the directors present at each meeting of directors and committees of directors;

(3.) Of all orders made by the directors and committees of directors; and,

(4.) Of all resolutions and proceedings of meetings of the company, and of the directors and committees of directors,

and any such minute as aforesaid, if signed by any person purporting to be the chairman of any meeting of directors, or committee of directors, shall be receivable in evidence without any further proof.

The company, in general meeting, may, by a special resolution, remove any director before the expiration of his period of office, and appoint another qualified person in his stead. The person so appointed shall hold office during such time only as the director in whose place he is appointed would have held the same if he had not been removed.

Dividends.—The directors may, with the sanction of the company in general meeting, declare a dividend to be paid to the shareholders in proportion to their shares.

No dividend shall be payable except out of the profits arising from the business of the company.*

The directors may, before recommending any dividend, set aside out of the profits of the company such sum as they think proper as a reserved fund to meet contingencies, or for equalising dividends, or for repairing, or maintaining, the works connected with the business of the company, or any part

* But in § 14 of the Act, on which this abstract is founded, it is laid down, that if the directors shall declare and pay any dividend when the company is known to them to be insolvent, they shall be liable for all the then existing debts of the company. But nothing is said in regard to dividends not being payable except out of profits.

thereof; and the directors may invest the sum so set apart as a reserved fund upon such securities as they, with the sanction of the company, may select.

The directors may deduct from the dividends payable to any shareholder all such sums of money as may be due from him to the company on account of calls or otherwise.

Notice of any dividend that may have been declared shall be given to each shareholder, or sent by post or otherwise to his registered place of abode, and all dividends unclaimed for 3 years, after having been declared, may be forfeited by the directors for the benefit of the company.

No dividend shall bear interest as against the company.

Accounts.—The directors shall cause true accounts to be kept,—

Of the stock in trade of the company;

Of the sums of money received and expended by the company, and the matter in respect of which such receipt and expenditure takes place; and,

Of the credits and liabilities of the company:

Such accounts shall be kept, upon the principle of double entry, in a cash book, journal, and ledger: the books of account shall be kept at the principal office of the company, and, subject to any reasonable restrictions as to the time and manner of inspecting the same that may be imposed by the company in general meeting, shall be open to the inspection of the shareholders during the hours of business:

Once at the least in every year the directors shall lay before the company in general meeting a statement of the income and expenditure for the past year, made up to a date not more than 3 months before such meeting.

The statement so made shall show, arranged under the most convenient heads, the amount of gross income, distinguishing the several sources from which it has been derived, and the amount of gross expenditure, distinguishing the expense of the establishment, salaries, and other like matters: every item of expenditure fairly chargeable against the year's income shall be brought into account, so that a just balance of profit and loss may be laid before the meeting; and in cases where any item of expenditure which may in fairness be distributed over several years has been incurred in any one year the whole amount of such item shall be stated, with the addition of the reasons why only a portion of such expenditure is charged against the income of the year.

A balance sheet shall be made out in every year, and laid before the general meeting of the company, and such balance sheet shall contain a summary of the property and liabilities of the company arranged under the heads appearing in the form annexed to this table, or as near thereto as circumstances admit.

A printed copy of such balance sheet shall, 7 days previously to such meeting, be delivered at or sent by post to the registered address of every shareholder.

Audit.—The accounts of the company shall be examined and the correctness of the balance sheet ascertained by 1 or more auditor or auditors to be elected by the company in general meeting.

If not more than 1 auditor is appointed, all the provisions herein contained relating to auditors shall apply to him.

The auditors need not be shareholders in the company: no person is eligible as an auditor who is interested otherwise than as a shareholder in any transaction of the company; and no director or other officer of the company is eligible during his continuance in office.

The election of auditors shall be made by the company at their ordinary meeting, or, if there are more than one, at their first ordinary meeting in each year.

The remuneration of the auditors shall be fixed by the company at the time of their election.

Any auditor shall be re-eligible on his quitting office.

If any casual vacancy occurs in the office of auditor, the directors shall forthwith call an extraordinary general meeting for the purpose of supplying the same.

If no election of auditors is made in manner aforesaid the Board of Trade may, on the application of one-fifth in number of the shareholders of the company, appoint an auditor for the current year, and fix the remuneration to be paid to him by the company for his services.

Every auditor shall be supplied with a copy of the balance sheet, and it shall be his duty to examine the same, with the accounts and vouchers relating thereto.

Every auditor shall have a list delivered to him of all books kept by the company, and he shall at all reasonable times have access to the books and accounts of the company: he may, at the expense of the company, employ accountants or other persons to assist him in investigating such accounts, and he may in relation to such accounts examine the directors or any other officer of the company.

The auditors shall make a report to the shareholders upon the balance sheet and accounts, and in every such report they shall state whether, in their opinion, the balance-sheet is a full and fair balance sheet, containing the particulars required by these regulations, and properly drawn up so as to exhibit a true and correct view of the state of the company's affairs, and in case they have called for explanations or information from the directors, whether such explanations or information have been given by the directors, and whether they have been satisfactory; and such report shall be read, together with the report of the directors, at the ordinary meeting.

Notices.— Notices requiring to be served by the company upon the shareholders may be served either personally, or by leaving the same or sending them through the post in a letter addressed to the shareholders at their registered places of abode.

All notices directed to be given to the shareholders shall, with respect to any share to which persons are jointly entitled, be given to whichever of the said persons is named first in the register of shareholders; and notice so given shall be sufficient notice to all the proprietors of such share.

All notices required by this act to be given by advertisement shall be advertised in a newspaper circulating in the district in which the registered office of the company is situate.

	£	s.	d.
Table of fees.—For registration of a company whose nominal capital does not exceed 1,000*l.*	5	0	0
For every 1,000*l.* of nominal capital, or part of 1,000*l.*, after the first 1,000*l.* and up to 100,000*l.*, an additional fee of	0	5	0
For every 1,000*l.* or part of 1,000*l.* after the first 100,000*l.* an additional fee of	0	1	0
For registration of any increase in the capital of a company, for every 1,000*l.* or part of 1000*l.* up to 100,000*l.* in the whole	0	5	0
For every 1,000*l.* or part of 1,000*l.* beyond the first 100,000*l.*, an additional fee of	0	1	0
For registration of any existing company, except such companies as are by this act exempted from payment of fees in respect of registration under this act, the same fee as is charged for registering a new company.			
For registering any document hereby required or authorised to be registered, other than the memorandum of association	0	5	0
For making a record of any fact hereby authorised or required to be recorded by the registrar of companies, a fee of	0	5	0

N.B. We have not thought it necessary to lay before the reader any abstract of that part of the statute (19 & 20 Vict. c. 47) which refers to the winding up of companies, and to the legal proceedings connected therewith. Such abstract would we think have been of little or no use; for in such cases lawyers must be employed, and not merely the exact words of the statute, but also the interpretation given to them by the courts of law, must be referred to. It is most probable too that the law on this subject will be speedily modified. At present it is in a most discreditable state. It should be rendered not only clearer and more precise, but more in accordance with sound principles. The act 20 & 21 Vict. c. 14. principally refers to the winding up of companies.

Form of Balance Sheet referred to above.

Dr. Balance Sheet of Co. made up to 18 . Cr.

Capital and Liabilities.			£ s. d.	£ s. d.	Property and Assets.			£ s. d.	£ s. d.
I. Capital -	1.	Showing: The total amount received from the shareholders; showing also: (a.) The number of shares (b.) The amount paid per share - - - (c.) If any arrears of calls, the nature of the arrear, and the names of the defaulters. Any arrears due from any director or officer of the Company to be separately stated. (d.) The particulars of any forfeited shares.			III. Property held by the Company -	4.	Showing: Immovable property, distinguishing - - (a.) Freehold land - - (b.) „ buildings - (c.) Leasehold „ -		
						5.	Movable property, distinguishing (d.) Stock in trade - - (e.) Plant. - - - The cost to be stated with deductions for deterioration in value as charged to the reserve fund or profit and loss.		
II. Debts and Liabilities of the Company		Showing:			IV. Debts owing to the Company -		Showing:		
	2.	The amount of loans on mortgage or debenture bonds.				6.	Debts considered good for which the Company hold bills or other securities.		
	3.	The amount of debts owing by the Company, distinguishing - (a.) Debts for which acceptances have been given. (b.) Debts to tradesmen for supplies of stock in trade or other articles. (c.) Debts for law expenses. (d.) Debts for interest on debentures or other loans. (e.) Unclaimed dividends. (f.) Debts not enumerated above.				7.	Debts considered good for which the Company hold no security.		
						8.	Debts considered doubtful and bad. Any debt due from a director or other officer of the Company to be separately stated.		
					V. Cash and Investments		Showing:		
						9.	The nature of investment and rate of interest.		
						10.	The amount of cash, where lodged, and if bearing interest.		
VI. Reserve Fund -		Showing: The amount set aside from profits to meet contingencies.							
VII. Profit & Loss - -		Showing: The disposable balance for payment of dividend, &c.							
Contingent Liabilities -		Claims against the Company not acknowledged as debts. Monies for which the Company is contingently liable.							

It may be supposed, perhaps, to be needless, after the statements we have already laid before the reader (see art. COMPANIES), to make any further remarks upon this subject. But the system is in all respects so objectionable, and has already led, and must continue to lead, to such mischievous results, that we may be excused for making one or two additional statements with respect to it.

Objections to Companies with Limited Liability.— In countries like France, where the people are mostly in narrow circumstances, and unaccustomed to, and afraid of, speculative enterprises, there may perhaps be some ground for permitting the formation of partnerships *en commandite*. And if they were confined to undertakings that admitted of being carried on according to a system of routine, such as railways, canals, fire and life insurances, gas-works, and so forth, we do not know that they would be open to much objection. But in a country like this, where capital is abundant, and where all enterprises, however hazardous, that promise anything like a reasonable return are eagerly undertaken, all extraordinary inducements to make capitalists come forward are unnecessary, and therefore objectionable. We admit, indeed, that in the case of companies of the special class now alluded to, though nothing be gained, there is no great hazard of much being lost by the shareholders being endowed with the privilege of limited liability. Such companies are not easily perverted to improper purposes; and though the capital of the shareholders may be unprofitably expended, yet, as it is most commonly laid out on visible, permanent, and sometimes valuable works, there is a fund on which the creditors, in the event of the concern failing, may fall back. But modifying circumstances of this sort have very rarely any place in companies formed for conducting ordinary industrial or commercial businesses. In their case the entire capital of the association may be lost or embezzled, without a farthing being left to the creditors. And it is, moreover, if anything can be, a contradiction and an absurdity to suppose that ordinary industrial pursuits can be so well managed by great associations of any sort, whether the partners be indefinitely responsible or not, as they will be by individuals or small associations. The latter act on their own account, and reap all the advantages of superior skill, attention, and economy, at the same time that they are indefinitely responsible for all the losses they may incur, and for all the mistakes into which they may fall, whether in the contrivance or the execution of their projects.

But though great public companies be unsuitable for the conduct of all save routine businesses, the fair presumption, or rather we should say, the certainty is, that those in which the responsibility of the partners is limited, will be much more unsuitable, and more productive of mischievous results, than those in which there is no such limitation. It must, indeed, be conceded, that, despite the heavy responsibility under which the partners in ordinary associations or partnerships now act, they too often display an inexcusable degree of foolhardiness. It is probable, indeed, that the late experience of the ruin that may result from placing too much confidence in directors will lead to an improvement in this respect, and that the character and conduct of these functionaries will be more carefully inquired into. But without insisting farther on considerations of this sort, if parties will every now and then be careless of their interests, and forget or decline to adopt the necessary precautions to guard against abuse and loss when everything they have is staked on the result, their carelessness, it is obvious, will be immeasurably increased when they may limit their liability at pleasure, and speculate without any fear of the consequences. Can any one doubt that, under such circumstances, wild projects of all sorts will be very greatly increased; and that the number of those extensive bankruptcies which are productive of so much misery will be largely augmented? To suppose the contrary is to suppose what is plainly contradictory. It is equivalent to supposing that a man cares as much for 1,000*l.* as for 5,000*l.* or 10,000*l.*, or any greater sum; or is as anxious about a small part as about the whole of his fortune, how large soever it may be.

The affairs of not a few of the non-liability companies that have been set on foot in England during the last two or three years, have already come before the courts of law; and if we took these for samples of the others, we should have to regard them as little better then mere swindling engines. But it would not be fair to conclude from the instances referred to that such was their uniform character. A good many have no doubt been honestly got up; and the greater number of these being for routine purposes, such as the supply of towns with water and gas, it may be assumed that they will be fairly conducted, and will succeed. But there are very many of a totally different character. And it would be childish to suppose that in any case the same consideration will be given either to their formation in the first instance, or to their future management, that would be given were the partners indefinitely liable. Hence, while the system operates to the prejudice even of the best schemes, it holds out every temptation to set on foot projects with the intention of deceiving and victimising the public.

The contrivers of the new system tell us that, whatever it may really be, it is at all events popular with the public; and in proof of this, they refer to the great number of companies that have been already formed with limited liability. But no such reference was needed to enable any one to foresee that if a plan were set on foot to enable parties to contract debts without being bound to pay them, it would be eagerly grasped at. Gambling-houses are at present prohibited; but if they were to be licensed, does any one doubt that numbers of them would be opened in most considerable towns? And we should be told that this was a conclusive proof that the prohibition of gambling was disapproved by the public, and that it required the healthy excitement furnished by the newly opened places of entertainment! But whatever may be the case with this or that institution, one should think that the former facilities for swindling might have sufficed, without giving them further encouragement.

But however powerful the deleterious influence of the non-liability system (for such it is when the shares are paid up) on the formation and conduct of companies, we are assured that it will be more than countervailed by the greater caution it will infuse into those who may deal with them. The names and the number of shares held by the partners in such associations, and the magnitude of their capital, or of the "fund" to which their creditors have to look, are all to be made known; so that those who transact business with them will be really aware of what they have to depend upon. But we take leave to say that they will have no such knowledge. Suppose that a non-liability company had a capital of 50,000*l.* or 100,000*l.*, and that it was wholly paid up when it was established: it may have been greatly reduced, or wholly lost, in the next or in any subsequent year; and yet, as the public can know nothing, or nothing certain, of its losses, and may, on the contrary, suppose it has been successful, its credit may not be impaired, and it may go on extending its business and adding to its obligations after it is really insolvent. Ordinary partnerships, unless they consist of parties of very questionable solvency or character, have seldom any considerable difficulty in obtaining large amounts of credit; and companies, it matters not of whom composed, which are reported to have some 10,000*l.*, 20,000*l.*, or 50,000*l.* of paid-up capital, will be sure to obtain loans to a much greater extent and with still greater readiness. In their case we have a kind of authorised guarantee for the possession of wealth. And this, it will

be said, precludes all room for distrust; so that, unless we had access to peculiar sources of information, it might be not a little dangerous to question the solidity of such an association. And yet the whole thing may be a snare and a delusion. The assurance, whether official or otherwise, that a certain amount of capital has been paid up, is really not worth a farthing. But the chances are, that it will, notwithstanding, serve its purpose with the million. It will make that appear to them to be gold which may not even be copper, and enable parties without a shilling to borrow large sums, and to trade or speculate on the means of others. In such cases the public is helpless. There is nothing on which it can rely; and when the imposture is discovered by the bursting of the bubble, no one is to be responsible for anything.

However it may be accounted for, there is nothing that is so lavishly and inconsiderately bestowed as credit. Frequently, indeed, it is rather thrust upon than given to individuals and firms. And it would be ludicrous to suppose that this is a case in which we can place any dependence on the caution of the public. The only real security is in the discretion, good sense, and, more than all, in the unlimited liability of the partners. They know, or may know, what they are worth, and what they are about, which no one else can know. And in the vast majority of cases they farther know that they will be bankrupts and beggars unless they act prudently and circumspectly. Hence our late legislation is precisely the reverse of what it ought to have been. Instead of diminishing, we should have increased the responsibility of partners, by abstaining from all interference with their indefinite liability, and giving additional stringency to the bankruptcy laws.

That increased caution on the part of the public which it is said will be a result of the new system is really, therefore, no better than moonshine. It can have no practical influence. The only security which in such matters is worth a pinch of snuff consists in the responsibility of partners. It is not to those who deal with this or that house, but to the houses themselves—to the guarantees under which they have been placed—that we must look for protection against foolhardiness and fraud.

It may therefore be reasonably concluded, that in ordinary businesses,—that is, in all businesses for carrying on branches of agriculture, manufacture, or trade,—partnerships with limited liabilities can be neither more nor less than unmixed nuisances. If honestly conducted, they must fail in their competition with private parties; and if otherwise, they will only add to the means, which were already sufficiently extensive, of wasting capital and fleecing the public.

In the scheme laid down by Providence for the government of the world there is no shifting or narrowing of responsibilities, every man being personally answerable for all his actions. But the advocates of limited liability proclaim in their superior wisdom that the scheme of Providence may be advantageously modified, and that debts and obligations may be contracted which the debtors, though they have the means, shall not be bound to discharge. Borrow, say they, as much as you please, and pay as little as you like,—the less, it would seem, the better! And can it be doubted that the adventurous, the needy, the unprincipled, and the desperate, will be eager to avail themselves of such extraordinary privileges? The reckless speculation, and the consequent bankruptcy and ruin, that have on former occasions overspread the kingdom have been trifling compared with the revulsions which may be anticipated, should the new system be allowed to spread its roots and scatter its seeds on all sides. Even the soberest individuals may be tempted to embark in hazardous projects; for, by limiting the risk, they in great measure secure themselves against loss by failure, at the same time that they reap all the advantages of success. Were Parliament to set about devising means for the encouragement of speculation, over-trading, and swindling, what better could it do than to carry out the non-liability system?

But we shall perhaps be told that these results, though apparently probable, cannot happen, inasmuch as Parliament has provided, by the Joint Stock Companies Act, the 19 & 20 Vict. c. 47. s. 14. that in the event of the directors of a company declaring and paying a dividend when the company is known by them to be insolvent, they are to repay the same out of their own pockets.* Perhaps the reader may be inclined to think that those who are disposed to trust to a security of this sort are rather easily satisfied. A body of directors who would, under any circumstances, declare a dividend when they knew that the concern over which they presided was bankrupt, will not be kept in the right path by the threat now referred to. The declaration of dividends when there is nothing to divide is not the way in which dishonest directors would be most likely to defraud their constituents and the public. They would make loans to

* This is the statement in the body of the act; but in the "regulations for the management of companies" attached to it (see *ante*, p. 1466.), we are told that "no dividend shall be payable, except out of the profits arising from the business of the company." We of course do not presume to decide whether this or the other statement be the more correct; but their contradictory nature affords a curious illustration of the slovenly slipshod style in which the most important statutes are often compiled.

each other, or if that be prohibited or apt to excite suspicions, they may do the same thing indirectly by the intervention of third parties. The capital and credit of the institution may be perverted, abused, and dissipated in a thousand ways before the circumstance becomes known to the public.

Some who are friendly to the principle of limited liability, but who are at the same time aware of the abuses to which it cannot fail to lead if the liability be limited to the mere amount of the shares, say that they would not object to its increase. It has, in consequence, been proposed to fix the liability at double or treble the amount of the shares; so that when a limited company failed, the subscribed capital of which had been fully paid up, the partners would not, as is now the case, be relieved of all responsibility, but would be obliged to make a further payment, if that were required, equal to the amount of their shares, or to double that amount, as might be decided upon. This plan has been enforced in Canada and in some other countries. And it is undoubtedly a very great improvement upon the system existing here; for, while it raises the character of the partners in limited associations, and makes them more careful in regard to the individuals they choose for directors, and more disposed to watch their proceedings, it makes them contribute to the entire or partial relief of those whom they might otherwise have involved in total ruin. If, therefore, the system is to be continued, we should strongly recommend that the liability of the partners should be raised to at least double the amount of their shares. This would add to its solidity, and divest it of some of its worst features.

But, after all, this is only paltering with or mitigating an evil which should be cut up by the roots. Every sound principle is outraged when a man who has the means of paying his just debts does not pay them. Whether they are contracted by himself directly, or in company with others, is of no importance. He is in either case bound to pay them; and to pass laws to protect him in declining to pay them is to give a legislative sanction to dishonesty and villany.

It is alleged, however, that these representations are fallacious; that it is a manifest encroachment on the great principle of the freedom of industry to hinder individuals from engaging in partnerships under such conditions as they may choose to lay down; that in the event of these conditions being publicly declared, and everybody made aware of what they are, they cannot be justly objected to; for as it is optional to deal or not deal with the association, those who dislike the conditions upon which it is established may keep aloof from it. But sophistry of this sort is too transparent to deceive any one, and might, in truth, be employed to excuse almost any sort of jugglery or delusion. The question is not whether limited liability be consistent with this or that abstract principle, but what are its practical results — what its probable influence over that public well-being, to promote which either is or should be the object of all legislation? It is with its operation in this respect, and with it only, that we have to deal. Now, if there be one principle which more than another conduces to the public advantage, and may be said to constitute the foundation of all dealings between man and man, it is the obligation to discharge one's debts and engagements. And it is the bounden duty of government strictly to enforce the rule of unlimited liability, unless in cases, if such there be, when it can be clearly made out that the public interests will be better promoted by its relaxation or suspension. If a case of this sort be satisfactorily established, then undoubtedly the rule referred to should be waived in as far as it is concerned. But we entirely deny that, when tried by this test, it either has been or can be shown that partnerships *en commandite* are publicly advantageous. On the contrary, we have seen that they are in the last degree injurious, and that their extensive introduction must necessarily give an immense stimulus to fraud and reckless speculation.

In dealing with ordinary firms or associations, people trust, or believe they may trust, to the reputation for skill and integrity, and to the presumed wealth, of one or more of the partners. Such presumptions are not, indeed, always to be depended upon. In these, as in other matters, people may be misled by appearances, and may place an unmerited degree of confidence in earnest though insincere professions and promises. But how deceptive soever, the presumptions or indications referred to afford not merely the best, but the only guarantees that can really be had for upright conduct. Most people engaged in business, as hitherto carried on, are impressed with the well-founded conviction that their interests will be best promoted by their preserving an unblemished reputation; and when they act under the heaviest responsibility, the chances are ten to one that they will behave discreetly and honourably. But we have no such guarantees for the conduct of the partners of a society *en commandite*. Character is in their case of little, or rather of no consequence. Instead of being responsible, they are all, or may be all, but irresponsible. A, who is worth 50,000*l.* or 100,000*l.*, has not more, perhaps, than some 1,000*l.* or 2,000*l.* vested in the society. Whether he lose or gain by

such investment is a matter about which he probably cares very little. Most likely he has joined the association that he might engage, without fear or apprehension, in the boldest speculations. But whether this be or be not his object, it is an insult to common sense to suppose that associations of this description will be as carefully and skilfully conducted as those in which the partners are indefinitely liable for their proceedings.

It would be the easiest thing imaginable, were it at all necessary, to corroborate the previous statements by illustrations drawn from the United States, where the principle of limited liability has been long established. But these must be familiar to almost all our readers. Everybody knows that, notwithstanding the peculiarly favourable circumstances under which the Americans are placed, from their free institutions, their enterprising character, the lowness of their public burdens, and the boundless extent of their fertile and unoccupied lands, bankruptcy is ten times more prevalent among them than in England. The revulsions by which we are sometimes visited, though sufficiently severe, are gentle in the extreme compared with those that periodically devastate the United States. In various instances, one of which is of very recent occurrence, every banking company in the Union has stopped payment, while great numbers have been totally destroyed. And it is the same with associations of all sorts. A spirit of overtrading, or a determination, at all hazards, to "go a-head," is universally prevalent, and bears there, as here, its legitimate harvest of bankruptcy and disaster. So much so, indeed, is this the case, and such and so violent are the convulsions referred to, that it is no exaggeration to affirm that monied fortunes and personal property are more secure in Austria and Russia than in the United States. The national character has suffered through this miserable system. Those repudiations which have so justly damaged the credit of the Americans originated in their attempting to limit their responsibilities in their public as well as in their private capacity. And it could hardly, indeed, be expected that people who may contract debts to their neighbours which they are not bound to pay should be disposed to make an exception in the case of their foreign creditors.

We sometimes hear the rather unwarrantable assertion, that, unless their liability be limited, neither the poorer nor the richer classes are generally disposed to engage in extensive partnerships! But if it really had the effect of tempting the poorer classes to engage in them, that alone would be a very sufficient reason why all associations with limited liability should be suppressed. The condition of these classes will never be improved by withdrawing their attention from the businesses to which they have been bred, and in which they are engaged, to fix it on joint-stock adventures. The spirit of gambling and speculation is already quite enough diffused, without seeking to spread its baneful influence among the lower classes. Nothing should be done which it is possible to avoid to divert their attention from the pursuits of sober persevering industry. Their surplus earnings may be far more beneficially invested in savings-banks, in loans, and in contributions to friendly societies, than in joint-stock adventures.

And while, on the one hand, it would be very wrong to tempt by immunities of any sort the labouring classes to engage in such schemes, it is, on the other, quite superfluous in the case of their richer brethren. They are already much too prone to embark in them. Even in those businesses, the hazard of which is extreme, there is no good reason for exempting those by whom they are carried on from the fullest responsibility. If the demand for gunpowder were doubled, the supply would very shortly be increased in an equal degree. Wherever there is extra risk it is compensated by extra profits; and, practically, it is not found that the cost of gunpowder, or of any like article, is in any degree increased from capitalists being disinclined to face the hazard of its production.

Cautious men are content with moderate profits, and encounter only moderate risks; while those who are sanguine and adventurous, whether they be rich or poor, eagerly grasp at the highest profits, and to realise them do not hesitate to run the greatest hazards. Now, there is nothing surely to object to or amend in this. And yet the whole doctrine of limited responsibility proceeds on the contrary assumption — on the principle, if we may so call it, that profit and risk shall be divorced from each other; that speculators may undertake adventures, having, on the one hand, the chance of making unlimited profits if they turn out well, and on the other, of escaping, though they may ruin others, with a comparatively trifling loss if they turn out ill. In that peculiar class of cases in which it would seem at the first blush of the matter that limited responsibility would be least objectionable, it will be found to be most pernicious; for it will give an unnatural stimulus to what certainly does not require it, that is, to hazardous enterprises and desperate adventures.

On the whole, nothing but mischief can be legitimately anticipated from the establishment of partnerships with limited liability, or *en commandite*. It was not by the aid of

the principles which they involve, by shirking responsibility, and evading the risks inseparable from all undertakings, that we have attained to our pre-eminence in character, in wealth, and in manufacturing and commercial industry. But are we well assured that the adoption of a contrary system will not mark the æra of our decline?

Application of Limited Liability to Banking.—The limited liability system was not applied in the outset to the business of banking. But this exemption was of short continuance, a statute having been passed in the course of 1858, 21 & 22 Vict. c. 91., which authorised banking companies, not issuing notes, to be established with limited liability. It was successfully alleged in defence of this measure that there should be no exception to the general rule; and that Parliament having introduced the system of limited liability into other businesses, was bound, in consistency, to extend it to banking. But if this sort of reasoning is to have any influence in such matters, it would not justify merely, but require, that the system should be extended to all companies, however small the number of partners, and even to all individuals. Why is a privilege to be conceded to ten or twelve persons, and denied to six, to four, or to one? Where, may we ask, is the justice of such a proceeding? Why should not Mr. A. be permitted to limit his liability; to declare, *à priori*, that whatever debts he may contract, he shall be liable only to the extent of some 500*l.* or 1,000*l.*; and that it is to this "fund," and not to his estates, his factories, or his consols, that his creditors have exclusively to look? But everybody knows, or ought to know, that there is something more than mere logical sequence to be attended to in public affairs. When a law has been enacted which affects certain businesses or certain individuals, the question, whether it should be extended to others, depends in no degree on hypothetical notions about the symmetry of legislation, but on the fact whether it is a beneficial law, and whether it is fitted to promote the interests of those to whom it is proposed to extend its operation. When the cook has ascertained that a particular sauce is good for the goose, she may then, but not till then, think of applying it to the gander. But limited liability is not a sauce which is suitable for anything. It has not a single good quality to recommend it; and instead of being extended, the sphere of its operation should be contracted as much as possible. In so far, however, as banks are concerned, we incline to think that its extension to them will not have much influence either one way or other; for we cannot believe it possible, if an ordinary bank limit its liability, that half-a-dozen individuals will be found foolhardy enough to entrust their money to its keeping. If they do, they will well deserve the fate which may be expected to await them — that is, to lose their entire deposits. If such bank attempt, as it will probably do, to allure loans by the offer of a comparatively high rate of interest, that will make its ruin more certain and immediate, and is a bait that will be swallowed by those only whose ignorance is even greater than their voracity. We therefore have little doubt that the device of limited liability will be rejected by such banking companies as have any pretensions to character, or that have any wish to possess and deserve any portion of the public confidence. We subjoin an abstract of the act referred to.

Repeal of so much of 20 & 21 *Vict. c.* 49. *as prohibits Banking Companies from being registered with Limited Liability.*— So much of the joint stock banking companies act, 1857, as prohibits a banking company from being formed under that act with limited liability, or prohibits an existing banking company from being registered under that act with limited liability, shall be repealed, subject to the following proviso, that no banking company claiming to issue notes in the U. K. shall be entitled to limited liability in respect of such issue, but shall continue subject to unlimited liability in respect thereof, and that, if necessary, the assets shall be marshalled for the benefit of the general creditors, and the shareholders shall be liable for the whole amount of the issue, in addition to the sum for which they would be liable as shareholders of a limited company.—§ 1.

Registration of Banking Companies.— The registration of a banking company under the joint stock banking companies act, 1857, or under any other act, shall not prejudice the right of such company to register itself again as a limited company under the said joint stock banking companies act, 1857, and the acts incorporated therewith.—§ 2.

On Re-registration with Limited Liability Notice to be given to Customers.— Provided that every company so registering itself again as a limited company, and every existing banking company which shall register itself as a limited banking company, shall, at least 30 days previous to obtaining a certificate of registration with limited liability, give notice that it is intended so to register the same to every person and partnership firm who shall have a banking account with the company, and such notice shall be given either by delivering the same to such person or firm, or leaving the same or putting the same into the post addressed to him or them at such address as shall have been last communicated or otherwise become known as his or their address to or by the company; and in case the company shall omit to give any such notice as is herein-before required to be given, then as between the company and the person or persons only who are for the time being interested in the account in respect of which such notice ought to have been given, and so far as respects such account and all variations thereof down to the time at which such notice shall be given, but not further or otherwise, the certificate of registration with limited liability shall have no operation.—§ 3.

Banking Company to annex a Statement to their Memorandum of Association.— Every limited joint stock banking company shall, before it commences business, or, if a banking company at the time carrying on business with unlimited liability, before it avails itself of the provisions of this act, and also on the 1st of February and 1st of August in every year during which it carries on business, make a statement in the form contained in the schedule hereto annexed, or as near thereto as circumstances will admit, and a copy of such statement shall be put up in a conspicuous place in the registered office of the company, and in every branch office or place where the banking business of the company is carried on; and if

default is made in due compliance with the provisions of this section, each director shall be liable to a penalty not exceeding 5*l.* for every day during which such default continues, and such penalties shall be recovered in a summary manner.—§ 4.

How Limited Banking Companies are to be wound up. — Limited joint stock banking companies shall be wound up in the same manner and under the same jurisdiction as that in and under which joint stock banking companies other than limited are required to be wound up by the joint stock banking companies act, 1857.—§ 5.

Schedule referred to in the foregoing Act. — Form of Statement to be published by a Limited Joint Stock Banking Company.

The liability of the shareholders is limited.
The capital of the company is 1,000,000*l.*, divided into 10,000 shares of 100*l.* each.
The number of shares issued is 10,000.
Calls to the amount of 20*l.* per share have been made, under which the sum of 180,000*l.* has been received,
The liabilities of the company on the first day of January (or July) were,

	£ s. d.
Notes issued	
Deposits not bearing interest	
Deposits bearing interest	
Seven day and other bills	
Total	

The assets of the company on that day were,

Government securities	
Bills of exchange	
Loans on mortgage	
Other loans	
Bank premises	
Other securities, exclusive of unpaid calls on shares	
Total	

Dated the 1st of August, 1859.

PERNAMBUCO, a city and sea-port of Brazil, inferior only to Rio Janeiro and Bahia in commercial importance: cap. prov. of its own name, on the Atlantic, at the mouth of the Capabaribe, 210 m. N. E. Bahia; lat. of light-house 8° 3′ 25″ S., long. 34° 52′ W. Population estimated, 1857, at from 100,000 to 120,000.

It consists of the separate towns of Olinda, Recife, Boa-Vista, and St. Antonio; the first of which is on the mainland, and the others lie S. from it on a succession of low sandy banks, separated by salt-water creeks and different arms of the river, but connected with each other by two bridges. Recife, or Pernambuco proper, the most southerly, about 4 m. S. W. Olinda, is defended by the principal forts, and comprises the dock-yard and the large merchants' warehouses. In St. Antonio are the governor's palace, formerly the Jesuits' convent; the treasury, town-hall, prison, barracks, with convents, churches, and several good squares. A long embankment connects this town with the mainland. Boa-Vista is extensive, but irregularly laid out; it has one handsome street, and comprises the residences of many of the richer inhabitants of the city, with gardens, various churches and convents, &c. Olinda, though beautifully situated, is in a state of decay, having been deserted by many of its population for Recife and other parts of the city.

The harbour of Pernambuco is defended from the swell of the ocean by an extensive reef (*recif*), which, according to Koster, continues along the whole coast from Maranham, at a variable distance from the shore, and has numberless breaks, through which ships approach the land. This reef, which is said to be of coral, "is scarcely 16 ft. broad at top; it slopes off more rapidly than the Plymouth breakwater, to a great depth on the outside, and is perpendicular within to many fathoms."—(*Graham, in Modern Traveller*, xxx. 228.) This natural breakwater forms the harbour; for though at high water the waves beat over it, they strike the quays and buildings of the town with diminished force. Along the sandy neck of land between Olinda and Boa-Vista, however, which is not covered by the reef, the surf is very violent; but the harbour itself is quite safe for vessels that are well found and well moored. It consists of two parts: the Poco, capable of receiving vessels of 400 tons and upwards, entered across a bar on which there are from 17 ft. to 30 ft. water; and the Mosqueiras, much better protected than the former, but on the bar of which there are but 7 ft. water at ebb tide. Vessels trading with Pernambuco should not, however, draw more than from 10 ft. to 12 ft. water.—(*Blunt's American Coast Pilot*, 519.) The harbour is defended by several strong military works, the principal being the stone forts of Do Buraco and Do Brum. The lighthouse on a reef at the entrance to the harbour has a revolving light.

Exports.—The great articles of export consist of sugar, cotton, hides, rum, rice, tobacco, &c. Of these, sugar, which is by far the most important, amounts to about 50,000 tons a year, the exportation from the province being about 70,000 tons; cotton from the city, 7,000,000 lbs; with large quantities of hides, &c. Total value of provincial exports about 1,400,000*l.* or 1,500,000*l.* a year.

Imports.—The principal articles imported from Europe and America may be classed as follows: namely, from

"*Great Britain.*—Manufactures of cotton, linen, wool, silk, and the different mixtures of these staples, hardware, machinery, arms, earthenware, codfish, butter, coals, &c. *France.*—Manufactures of silks, wine, perfumery, bijouterie, butter, &c. *United States.*—Manufactures of cotton, flour, tea, ice, &c. *Spain.*—Wine and fruits. *Portugal.*—Wine, fruits, hams, and sausages. *Sweden.*—Iron, pitch, tar, and planks. *Denmark.*—Pitch, tar, and planks. *Sardinia.*—Perfumery, flour, paper, and olive oil. *Prussia.*—Wine and planks. *Hanse Towns.*—Manufactures of cotton and linen, cordage, gin, &c. *Buenos Ayres.*—Dried beef.

"The annual average value of the imports for the last six years has been 1,558,443*l.* 3*s.*; and of those from Great Britain nearly a million, their total value, in 1855, having amounted to 964,674*l.* 16*s.*

"This commerce was carried on by 482 vessels, of 122,882 tons, and 5,779 men. Of these, 208 vessels of 56,468 tons and 2,696 men, were British. In addition to these, 520 vessels, of 44,276 tons and 3,643 men, are engaged in the coasting trade."

"Although the whole revenue of the country is derived from its custom-houses, the laws relating to commerce in Brazil are extremely liberal. The rare occasions upon which foreigners may have well-grounded causes of complaint arise rather from vexations caused by subordinate authorities, than from defects in the laws themselves. Indeed, throughout Brazilian legislation there is a mildness and absence of severity well worthy of imitation. The tariff is based upon an *ad valorem* duty of 30 per cent., and no exclusive privileges are afforded to native vessels, either in regard to duties or port charges. The sole exception to this rule is, the prohibition to foreign vessels to engage in the coasting trade. The amount

of import duties received within the Consulate, during the last 5 years, reaches the annual average of 450,000*l.*"—(*From the excellent Report of Mr. Cowper, Consul at Pernambuco.*)

In 1858, 287 British ships, of the aggregate burden of 72,046 tons, entered, and 294 do., aggregate burden 72,867 tons, cleared from Pernambuco. Total entries during the same year, 680 ships, aggregate burden 170,894 tons; total clearances, 692 ships, burden 171,912 tons.

We subjoin, from a late official return, the following statement with regard to the province of Pernambuco.

The sugar produced in the province of Pernambuco amounts to about 80,000 tons a year, of which 60,000 are exported to foreign countries, 5,000 coastwise, and 15,000 are retained for home consumption. There are about 1,000 Eugenhos or sugar estates; 257 of which have been established within the last 10 years; they average in extent about 2 sq. miles, and their crops vary from 200 tons as a maximum to 30 as a minimum, or at an average of about 75 tons each; very few Eugenhos possess 150 slaves, and the smallest not more than 10 or 12; the average number of slaves employed on each Eugenho is about 50, so that 50,000 may be said to be here employed in sugar cultivation. They are badly treated and hard worked.

Pernambuco has many of the privileges of a sovereign state; it has its own president, provincial and municipal chambers, levies a portion of its own taxes, and maintains a militia which cannot be removed from the province. It sends 4 senators and 15 representatives to the Imperial Government; elected, the former for life, and the latter for 4 years, by almost universal but indirect suffrage. The Imperial revenue levied within the province in 1849-50 amounted to 542,423*l.* 10*s.* 5*d.*; in 1850-51, to 690,526*l.* 5*s.* 1*d.*, and as these sums are derived chiefly from imports and exports, and no additional duties have been imposed, the increase is a proof of its commercial prosperity.

Provincial taxes are levied upon sugar, coffee, tobacco, cattle, horses, spirits, passports, licences for potteries, saw mills, cigar shops, auctions, &c., upon houses, legacies, inheritances, slaves, the tolls of bridges, &c. &c. Total amount, in 1850-51, 173,997*l.* 5*s.* 0*d.*

PORTO-RICO. — We subjoin a statement of the rates of anchorage and pilotage dues in the various ports of the island of Porto-Rico, both for the entry and clearing of vessels, as fixed in 1848.

PORT OF SAN JUAN.

Anchorage Dues.

	Piastres.	*Reals.*
National and foreign vessels, entry	3	0
Ditto, departure	3	0
Coasters, entry and departure	11	6
Long-voyage vessels and foreigners compelled to cast anchor, entry and departure	6	0
Non-decked vessels of more than eight tons, or sailing beyond the jurisdiction of the district, arrival and departure	0	4
Office fee for expediting all vessels, foreign or native	1	0

Pilotage Dues.

Every national or foreign vessel, entry fee	4	0
Ditto, departure fee	4	0
For pilot-boat	2	0
For every sailor, 1 piastre, together	7	0
For every movement of the vessel in port	2	0

PORTS OF MAYAGUEZ, PONCE GUIANA, NAGUABO, AGUADILLA, AND THEIR SUB-DISTRICTS.

Anchorage Dues.

	Piastres.	*Reals.*
National and foreign vessels, on coming in	3	0
Ditto, on going out	3	0
Coasters coming in and going out	0	6
Long voyage vessels, foreign and national, when compelled to put in, entry and departure	6	0
Certificate of expedition	1	2
Open boats of more than 8 tons, when going beyond the jurisdiction of the district	0	4
For the boat for the naval visit, when it does not belong to the Local Administration or the Board of Health	1	4

Pilotage Dues.

National or foreign vessels, in or out	6	0
For the pilot boat	1	0
For the sailors	3	0

N.B. 1. Long-voyage vessels, which, either for convenience or otherwise, shall pass from one port to another, after being furnished with the requisite permission, must pay at every port they enter the same dues as for a fresh arrival.

2. Coasters, which shall take merchandise to any of the neighbouring islands, will be charged the same as vessels of the long voyage. If previous to their sailing for their destination, they are ordered to put into one or more of the national ports, they will be required to pay at the port to which they are first bound the same dues as those imposed upon vessels of the long voyage; but at any intervening ports the dues payable by coasters; and lastly, at the port they last quit for the neighbouring island, the dues payable by vessels of the long voyage.

3. Vessels compelled to enter by circumstances, and belonging to one of the ports of colony, will only pay on their departure the pilotage dues, and for the assistance that may have been rendered them. Those which are forced to enter, and shall have completed their entire or partial discharge or shall have taken passengers, will have to pay all the other dues.

4. Vessels which are off, and shall send a boat on shore either for information or to receive or deliver letters, will pay no dues.

5. When a vessel is off and in sight, the pilot is bound to hail it; if the master can dispense with his services, he will be required to pay only one-half of the ordinary pilot dues upon his entry into the port.

RAILWAYS.

Table showing for the Railways in the principal European States and in America at the end of the year 1853, the Length of Railway open, the Total Capital expended, and the Capital expended per Mile, together with the Receipts, the Working Expenditure, and the Nett Receipts during the Year reduced to a Mileage Rate, and the Proportion per Cent. which the Working Expenses bear to the Receipts, and which the Nett Receipts bear to the Total Capital expended.—(*Report on Railways*, 1858.)

Name of Railway.	Mean Length of Line open.	Capital expended.		Receipts.			Total Expenditure in working Railways.	Nett Receipts.	Per mile of Line open.			Proportion per Cent. of working Expenses to Receipts.	Proportion per Cent. of Nett Receipts to Capital expended.
		Total.	Per Mile of Line open.	From Passengers.	From Goods, &c.	Total.			Receipts.	Expenditure.	Nett Receipts.		
	M.	£	£	£	£	£	£	£	£	£	£		
Austria -	955	15,122,540	15,835	649,348	1,218,287	1,867,635	1,073,591	794,044	1,955	1,124	831	57·48	5·25
Belgium -	388	6,754,737	15,358	339,895	422,923	762,818	388,401	374,417	1,966	1,001	965		5·56
France -	2,486	63,827,954	25,675	3,040,884	3,830,302	6,871,186	2,958,188	3,912,998	2,763	1,189	1,574	43·00	6·28
Germany (ex Prussia and Austria) -	1,611	21,078,940	13,084	762,184	1,068 394	1,830,578	953,365	877,213	1,136	591	545		4·16
Grand Duchy of Baden -	181	2,745,696	15,169	105,061	130,484	235,545	118,269	117,276	1,301	683	618		4·27
Great Britain	7,554	264,462,590	35,102	8,561,077	9,474,802	18,035,879	8,116,146	9,919,733	2,393	1,077	1,316	45·00	3·75
Massachusetts	1,528	12,355,739	8,086	904,190	889,098	1,793,288	1,058,412	734,876	1,174	692	482	59·02	5·91
New York -	2,232	20,543,087	9,204	1,471,121	1,371,329	2,842,450	1,391,091	1,451,359	1,273	623	650	48·90	7·06
Prussia -	1,880	25,377,501	13,498	1,036,714	1,688,818	2,745,550	1,334,280	1,411,280	1,460	709	751	48·60	5·50
Sardinia -	89	3,794,380	42,639	81,922	72,056	154,008	75,721	78,287	1,729	851	878	49·20	2·05
Switzerland	17	189,048	11,120	8,148	687	8,819	4,752	4,065	518	279	239	53·91	2·14
Total -	18,901	436,232,722	23,078	16,980,574	20,167,158	37,147,752	17,472,216	19,675,516	1,965	924	1,041	47·02	4·91

Considered as a financial speculation, the railways in France in 1853 have produced the largest receipts and nett receipts per mile, and the greatest amount of interest, in proportion to the total capital expended.

Considered as a means of transport, the greatest number of passengers were conveyed in England, and the largest amount of goods in France, during that year.

Considered as an *economical* means of transport, which is to be estimated by the average fare per mile charged per passenger and per ton of goods,—for the former it is found to be the lowest in the Grand Duchy of Baden, the highest in Great Britain; and for the latter, the lowest in France, and the highest in the German States.

ROSES (OIL, ESSENCE, OR ATTAR OF), an oil obtained by distilling the leaves of damask roses. It is limpid, of a light orange colour, and has an extremely grateful and powerful perfume. This, which is the most expensive article of Oriental luxury, used to be principally made at Tunis and Ghazipore in India. But though it be still very extensively produced at these places, and more especially at the latter, what may be called the foreign demand for the oil is now almost wholly supplied by the districts of Eski Zara and Hassanlik in Bulgaria. There the culture of roses is carried on upon a very large scale. Inasmuch, however, as it is said to require about 300,000 roses to yield an ounce of oil, the quantity produced does not exceed 4,500 lbs. in a good and 3,000 do. in an ordinary year. The genuine article fetches an enormous price; and is in consequence very generally, or rather, we should say, uniformly adulterated. When the adulteration is effected by means of the oil of geraniums and other fine volatile oils, the fraud is not easily detected except by *connoisseurs*, unless the foreign matter be in excess. Sometimes it is alleged that attar of roses has been sold as genuine when above 80 per cent. of other oils was mixed up with it. That which is hawked about the streets of Constantinople and Smyrna is seldom anything better than olive oil scented with roses. Some of the more expert dealers in the article will tell within 2 per cent. the foreign oil in any parcel given them to examine. The value of the exports of this curious product from Turkey has been estimated at from 400,000 to 500,000 dollars a year.—(*Blanqui, Voyage en Bulgarie*, p. 230.; *Hunt's Commercial Magazine*, November, 1853.)

SAN FRANCISCO, a city and sea-port of the U. States, in California, on the S. promontory, dividing the great bay of San Francisco from the Pacific, inside the bay, and a short way to the S. of its entrance. The latter, now called the Golden Gate, little more than a mile in width, has, on its S. side, an old Spanish fort, or *presidio*, in lat. 37° 48′ 30″ N., long. 122° 27′ 23″ W. Having passed the fort the course to the town is nearly E. for 3 to 4 m., and then S. and W., about as much more. The city is situated at the bottom of a bay, skirted by extensive flats, some of which are now being formed into docks. Its growth has been quite extraordinary. In the early part of 1848, it consisted only of a few rude cabins; whereas it has now an exchange, a theatre, a custom-house, sundry churches and other public buildings, with great numbers of private houses, many of which are of wood, but many also, of *adobe* (sun-dried) and burnt bricks, with a vast number of attached tents and booths. And while such is the metamorphosis on shore, her waters, which were formerly quite deserted, are crowded with ships and steamers from all parts of the world! San Francisco is indebted, as every one knows, for this all but miraculous transformation, to the discovery of gold deposits in the beds of the tributaries of the San Joaquin and Sacramento rivers, which fall into her bay, and in the quartz of the contiguous mountains.

To obviate the shallowness of the water close to the town a wharf 2,300 feet in length has already been projected into the bay, and to it all sorts of vessels are safely moored. The construction of extensive docks has, also, been commenced; and every effort is being made to provide the accommodation necessary for the rapidly increasing trade of the town.

San Francisco stands on a sandy level; and, during the wet season, when it is most crowded, the streets were at first mere puddles, into which carriages sunk to the axles; while, in the dry season, the annoyance from dust was all but intolerable. But these inconveniences have been to a great extent obviated by flooring the streets, or covering them with stout planks, a process which has been carried to a great extent, and has had the most complete success. The city has suffered much from fires, by which, indeed, it has been repeatedly laid waste. These, however, have been speedily repaired; and, in a few weeks, no traces are seen of the most destructive conflagrations. According, however, as houses of brick or stone are substituted for those of wood and for tents, fires will become less frequent and less destructive.

The pop. of San Francisco is the most motley that can be imagined; for, though Americans predominate, a large admixture is to be seen of adventurers from all parts of the world. Gambling is very prevalent; and is, perhaps, carried on to a greater extent here, during the rainy season, than in any other place either of the New or the Old World. But this is the natural result of the circumstances under which the pop. has been brought together; and the passion has abated, and will, no doubt, continue to

abate, as the circumstances in which it originated change or lose their influence. Lynch law was here reduced to a system, and carried to a greater extent than anywhere else. And, despite the abuses to which it unavoidably leads, it is the general opinion that it could not have been dispensed with. A sense of its necessity led, not only to its being adopted, but to its being generally approved. And though once frightfully numerous, yet considering the many desperate characters in the place, the temptations in their way, and the weakness of the civil power, it is believed that crimes would have been still more abundant but for the promptitude and severity of the punishment with which they are mostly followed.

Nowhere in the world was there so great a disparity between the sexes as in San Francisco, there formerly being at least from 3 to 5 men for one woman. But this disparity is materially lessened, and with it some of the worst features in the condition of the population.

The population of the city differs widely at different periods, being crowded in the wet, and comparatively deserted in the dry season. Though by far the largest and most important town in the State, it is not its capital. That distinction has been conferred on San José, because of its more central situation.

The newspaper press is as active and flourishing in San Francisco as in the other great cities of the Union. The *Alta California*, and some of the other papers, display considerable ability.

The bay of San Francisco, though, as already stated, it has a narrow entrance, expands within into one of the noblest basins that is anywhere to be met with, having a coast line of about 275 m. The town has already become the seat of a very extensive trade, and will, most likely, be the grand emporium of the vast territory belonging to the U. States on the Pacific. The trade with China, Australia, the Eastern Archipelago, and the Polynesian islands, is already very extensive, and several ships have been fitted out for the whale-fishery, though, latterly, it has declined. At present, however, the principal trade of the city is with Panama, Vancouver's Island, and other ports along the W. coast of America, and with E. America and Europe by Cape Horn.

For some years after the discovery of the gold fields, and the consequent influx of immigrants, almost the whole of the corn, flour, and other articles required for the subsistence of the population, had to be imported, and their prices were often quite extravagant. But now, thanks to the excellence of the soil and climate, and the easy terms on which land may be acquired, the progress of agriculture has been such that, besides supplying the home demand, considerable quantities of these articles are exported, at the same time that their prices have become comparatively moderate. Thus the barrel of flour, which cost in 1852 no less than 40 dolls., had fallen in April this year (1859) to 9 dolls.; and the barrel of beef and pork had in the same period fallen, the former from 17 to 12½ dolls. and the latter from 54 to 21 dolls. It is a mistake to suppose that the prosperity of California is dependent on its supplies of gold. These, no doubt, gave it at the outset an extraordinary stimulus: but though they were to fall off, or entirely to cease, the advantageous situation of the State, its mild temperature, its great natural riches, and aptitude for all sorts of industry, would ensure its continued prosperity.

The gold deposits were discovered late in May or early in June, 1848, and since then the immigrants arrived by sea and the exports of gold have been: —

Years.	Passengers Arrived.	Gold Exported.	Years.	Passengers Arrived.	Gold Exported.
1849 - -	91,405	$4,921,250	1855 - -	29,198	$43,080,211
1850 - -	36,462	27,676,546	1856 - -	28,119	48,887,543
1851 - -	27,182	42,582,695	1857 - -	22,990	48,592,715
1852 - -	66,958	46,586,134	1858 - -	43,259	47,452,307
1853 - -	33,235	57,351,024			
1854 - -	47,531	51,528,653	Total -	426,567	418,438,906

But in addition to the exports by sea large quantities of gold, of which no account is taken, are conveyed away by parties returning to the Eastern States, China, Mexico and Europe; and a branch mint is now also established in the city. And taking these and other circumstances into account, it is certain that to get the total of gold we may safely add 20 or 25 per cent. to the shipments.

In January, 1849, the population of the State was estimated at 26,000, whereas in 1858 it was as follows, viz.: —

Males between 18 and 45 years .	185,000	Foreigners—French . .	15,000	Chinese . . .	33,687
Males over 45 years, or disabled .	42,500	English . .	2,000	Coloured . . .	2,000
Females, white . . .	85,000	Irish . .	10,000	Indian . . .	65,000
Children between 4 and 18 years	85,000	Germans . .	10,000		
Children under 4 years . .	18,500	Mexicans . .	15,000	Total population .	538,002
		Various . .	15,000		
Total American population	365,315		67,000		

The exports of Californian produce, ex gold, from San Francisco have been :—

Articles.		1854.	1855.	1856.	1857†	1858.
Barley	sacks	15,600	73,100	4,884	182,602	182,670
Beans	bags	-	-	-	2,218	20,770
Bread	bbls. & cases	-	-	-	4,708	4,036
Flour	bbls.	58,115	115,716	76,260	9,005	16,330
Hides	no.	43,000	112,770	147,839	170,447	168,933
Horns	,,	-	-	-	114,000	77,371
Lumber	M. feet	4,500	-	8,900	10,650	6,326
Marble	pieces	-	-	-	-	2,233
Oats	sacks	3,184	49,306	9,428	68,811	176,476
Potatoes	,,	25,910	16,671	-	10,000	16,049
Quicksilver	flasks	20,965	25,965	23,024	27,262	26,212
Salmon	pkgs.	2,500	447	-	2,141	1,612
Skins and furs	,,	-	-	-	27,000	1,480
Tallow	,,	-	539	1,700	1,068	918
Wheat	sacks	4,967	86,413	22,840	3,781	-
Wine	bbls. & cases	-	-	-	-	1,230
Wool	lbs.	175,000	360,000	600,000	1,100,000	1,428,351
Value		$1,491,761	$2,753,147	$2,279,942	$2,719,266	$2,551,690

The value of the foreign trade of San Francisco is as follows: —

Years.	Imports.	Exports.		
		Foreign Goods.	Domestic Goods.	Total.
1856	$7,299,859	$715,512	$10,002,562	$10,718,074
1857	9,137,414	2,225,182	12,210,719	14,435,901
1858	8,989,733	3,003,854	12,035,393	15,039,247

Shipping.— There belonged to San Francisco on the 30th June, 1858, 79,814 tons shipping.

The departures from the port, (ex the coasting trade to domestic ports on the Pacific) have been as follows, viz. : —

		1855.	1856.	1857.	1858.
Domestic Atlantic ports	tons	-	6,002	16,814	12,456
Great Britain	,,	-	-	-	3,284
Europe	,,	-	900	-	-
China	,,	-	72,734	38,313	43,809
East Indies	,,	-	46,425	23,561	19,241
South America	,,	-	65,075	65,815	28,347
Mexico	,,	15,870	6,873	23,977	31,809
Australia	,,	15,732	12,588	10,188	20,735
Vancouver's Island	,,	-	638	2,052	65,120
Pacific Islands	,,	13,683	17,526	9,086	27,387
Whaling grounds	,,	2,555	3,855	1,333	2,706

Port Charges. — Pilotage outside Farralones, $10 ; inside Farralones, $8 per foot; — tonnage dues, 4 cents per ton; dockage, 3 to 6 cents per ton per day; stevedore's charges, 75 cents per ton; shipping men $5 each; ballast, — rough stone, $2 25 per ton; cobblestone, $2 75; sand, $1 50. Water, 1½ cents per gallon. Day labour, $5. Port warden, $40 to 75.

Rate of Interest on Money. — By an act passed March 13, 1850, the rate of interest on money was fixed at 10 per cent. where there was no special contract, but "parties may agree in writing for the payment of any rate of interest whatever on money due, or to become due on any contract. Any judgment rendered on such contract shall conform thereto, and shall bear the interest agreed upon."

Rates of Commission, Charges, &c., adopted by the Chamber of Commerce at San Francisco, California, Dec. 3, 1851.

Schedule First.

Rates of Commission, on business with Foreign Countries and with the Atlantic States, when no special arrangement exists : —	
Commission on the sale of merchandise, with or without guarantee	*per cent.* 10
Commission on purchase and shipment of merchandise with funds in hand	5
Do. do. without do.	10
Commission on goods received on consignment and afterwards withdrawn — on invoice cost	5
Commission for indorsing bills	2½
Commission for purchase or sale of vessels	5
Commission for purchase or sale of specie, gold dust, or bullion	1
Commission for collecting	5
Commission for collecting general claims	5
Commission for entering, clearing, and transacting ship's business on vessels with cargoes from foreign ports — dolls.	200
Do. do. from United States ports do.	50
Do. do. on vessels in ballast do.	50
Commission for collecting and remitting moneys on sums over 400 dolls.	5
Commission for collecting and remitting delayed or litigated accounts	10
Commission for receiving and paying or remitting moneys from which no other commission is derived	2½
Commission for landing and re-shipping goods from vessels in distress — on invoice value, or in its absence, on market value	5
Commissions for receiving, entering at custom-house, and forwarding goods, on invoice amount	2½
Commission for effecting marine insurance, on amount insured	1

Schedule Second.

Rates of Commission on business within the State, where no special agreement exists.	
Commission on the sale of merchandise, with or without guarantee,	*per cent.* 10
Commission on purchase and shipment of goods, with funds or security in hand	
Commission on purchase and shipment of goods, without funds or security in hand	10
Commission on purchase or sale of specie, gold dust, or bullion	1
Commission on sales of bills of exchange with indorsement	3½
Commission on selling bills of exchange	1
Commission on sale or purchase of vessels	5
Commission on chartering of vessels, or procuring freight	5
Commission on procuring or collecting freight	5
Commission on outfits of vessels or disbursements	5
Commissions on collecting moneys, when no other commission is earned	5
Commission on receiving and forwarding goods	2½
Commission on bills protested, or delayed litigated accounts	10
Brokerage	2½

Schedule Third.

RATES OF STORAGE ON MERCHANDISE. — Measurement goods, per month, 2½ dol. per ton of 40 cubic feet : heavy do. 2 dol. per ton of 2240 lbs. The consignee to have the option of charging by weight or measurement. A fraction of a month to be charged as a month.

Schedule Fourth.

Concerning delivery of merchandise, payment of freight, &c.

When no express stipulation exists, per bill of lading, goods are to be considered as deliverable on shore.

Freight on all goods to be paid or secured to the satisfaction of the captain or consignee of the vessel prior to the delivery of the goods.

Goods must be received by the consignee, after notice being given of the ship's readiness to discharge, in ten days, when not otherwise stipulated in the bill of lading.

After the delivery to the purchaser of merchandise sold, no claims for damage, deficiency, or other cause, shall be admissible, unless made within 5 days, and no such claims

shall be admissible after goods, sold and delivered, have once left this city.

Schedule Fifth.

Concerning rates of tare.

To be as allowed by custom in New York.

Table of Custom House Fees, San Francisco.

Registered Vessels.

	$ cts.
Admeasurement not exceeding 100 tons, 1 cent per ton	
exceeding 100, not exceeding 200 tons	1 20
200 tons	2 35
Certificate of registry, $2 00—Bond, 25 cts.	2 25
Endorsement of register	1 00
Clearance (from foreign ports) under 100 tons	1 50
100 tons and upwards	2 50
Clearance (to foreign ports) under 100 tons	1 50
100 tons and upwards	2 50
List of crew 25 cts.—Bond, 40 cts.	0 65
Bill of health	0 50
Post entry	2 00
Entrance from other districts, including permit to land	1 50
Clearance, including permit to proceed from district to district	1 50

Enrolled and licensed Vessels.

Admeasurement, 5 and under 20 tons	0 50
20, not exceeding 70 tons	0 75
above 70 not exceeding 100 tons	1 00
above 100 tons	1 50
Certificate of enrolment	0 50
Licence not above 20 tons	0 25
above 20, not above 100 tons	0 50
100 tons	1 00
Endorsement on enrolment or licence	0 20
Entrance, including permit to land, under 50 tons	0 25
above 50 tons	0 50
Clearance, including permit to proceed from district to district	0 25
above 50 tons	0 50

Vessels carrying on the Fishery.

Permit to trade at a foreign port	0 25
Report and entry of goods (foreign) imported in such vessels	0 25

Miscellaneous.

	$ cts.
Permit for foreign vessel from another district to unload or proceed from district to district	2 00
Permit for lading goods for exportation (entitled to drawback)	0 50
Debenture certificates	0 20
Permit to land goods	0 20
Protection American seamen	0 25
Bonds taken officially	0 40
Official documents of every description not enumerated	0 20

Fees received by the Surveyor, exclusively, in addition to the above.

Entrance of vessels from foreign ports, having dutiable merchandise, under 100 tons	1 50
Entrance of vessels from foreign ports, having dutiable merchandise, 100 tons and upwards	3 00
Entrance of vessels from foreign ports having no dutiable merchandise	0 67

Weighing.—1½ cts. per 112 lbs.

Gauging.—Casks, 6 cts. each; casks and baskets, 4 cts. each; ale, porter, &c., ½ cts. per dozen bottles.

Measuring.—Coal, 90 cts. per 100 bushels; chalk, brimstone, &c., 90 cts. per 100 bushels; salt, 75 cts. per 100 bushels; potatoes, seeds, grain and all other measurable articles, 40 cts. per 100 bushels.

Measuring.—Marble, mahogany, cedar wood, &c. the actual expense incurred.

Note.—The expenses of weighing, gauging, measuring, &c., are chargeable to the importer in the following cases, viz.:

1. When the importer states, at the time of making his entry, his wish to have the actual quantity ascertained, for the purpose of having the duty liquidated thereon.

2. When the importer states, at the time of making his entry, his wish to have the duties assessed on the quantity specified in the invoice, and the actual quantity is ascertained to exceed that so specified. Under these circumstances, the penalty will also be enforced.

3. When there is no invoice, or when the invoice does not specify the quantity contained in each package.

4. When application is made for allowance for damage or deficiency.

Also.—For marking spirits, wines, &c., 2½ cts. per package.—Issuing certificates (spirits only) 25 cts. per package, when requested by importer.

We have borrowed most part of these statements from a valuable article on San Francisco in *Hunt's Commercial Magazine* for July, 1850.

SARDINIA.—We subjoin a copy of the Treaty of Commerce and Navigation between Her Majesty and the King of Sardinia, signed at London, 27th February, 1851.

Her Majesty the Queen of the United Kingdom of Great Britain and Ireland, and His Majesty the King of Sardinia, being desirous of giving to the commercial relations between the countries which Providence has placed under their care the utmost possible development; and being persuaded that this desirable object can be obtained only by removing every impediment to commerce and navigation; they have resolved reciprocally to secure to their respective subjects, by means of a treaty, the full extent and consequence of the benefits resulting from the two legislative acts respectively passed in England on the 26th of June, 1849, for the amendment of the Navigation Laws, and in the Sardinian States on the 6th of July, 1850, for the abolition of differential duties, have agreed upon the following articles:—

Article 1. There shall be reciprocal liberty of commerce between all the dominions of the two high contracting parties; and the subjects of each of them shall, throughout the whole extent of the territories of the other, enjoy the same rights, privileges, liberties, favours, immunities, and exemptions, in matters of commerce, which are or may be enjoyed by native subjects.

2. All merchandise and articles of commerce, the produce or manufacture either of the kingdom of Sardinia or of any other country, which are or may be legally importable into the ports of the United Kingdom of Great Britain and Ireland, its colonies and possessions, in British vessels, may likewise be imported into those ports in Sardinian vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise or productions were imported in British vessels; and reciprocally, all merchandise and articles of commerce, the produce or manufacture either of the United Kingdom of Great Britain and Ireland, its colonies and possessions or of any other country, which are or may be legally importable into the Kingdom of Sardinia in Sardinian vessels, may likewise be imported into those ports in British vessels, without being liable to any other or higher duties, of whatever denomination, than if such merchandise or productions were imported in Sardinian vessels.

The said reciprocal equality of treatment shall take effect without distinction, whether such merchandise come directly from the place of origin, or from any other place.

3. The same reciprocal equality of treatment shall take effect in regard to all that concerns exportation and transit, without distinction as to origin or destination; and also in regard to bounties, facilities, and drawbacks, which are or may hereafter be granted by the legislation of the two countries.

4. Her Majesty the Queen of the United Kingdom of Great Britain and Ireland engages that the commerce of Sardinian subjects in the dominions of Her Britannic Majesty shall not suffer any interruption, nor be in any manner affected by any monopoly, contract, or exclusive privilege of sale or purchase, so that Sardinian subjects shall have full and entire liberty to sell and buy wherever they may think fit, and in any manner which may be deemed convenient by the seller or buyer, and without being subject to any prejudice in consequence of any such monopoly, contract, or exclusive privilege of sale or purchase: and His Majesty the King of Sardinia engages that a like freedom from restraint in regard to sale and purchase shall be enjoyed by British subjects in the Sardinian dominions, the existing crown monopolies of tobacco, salt, gunpowder, ball and shot, and playing cards, being excepted.

5. No duties of tonnage, harbour, lighthouse, pilotage, quarantine, or other similar or corresponding duties, of whatever nature or under whatever denomination, levied in the name of or for the profit of the government, public functionaries, *communes*, corporations, or establishments of whatever kind, shall be imposed in the ports of either country upon the vessels of the other country, from whatever port or place arriving, which shall not be equally imposed in the like cases on national vessels; and in neither country shall any duty, charge, restriction, or prohibition, be imposed upon, nor any drawback, bounty, or allowance, be withheld from, any goods imported into or exported from such country in vessels of the other, which shall not be equally imposed upon or withheld from such goods, when so imported or exported in national vessels.

6. All vessels which according to the laws of Great Britain are to be deemed British vessels, and all vessels which according to the laws of the Kingdom of Sardinia are to be deemed Sardinian vessels, shall, for the purposes of this treaty, be deemed British vessels and Sardinian vessels respectively.

7. In all that regards the stationing, the loading, and unloading of vessels in the ports, basins, docks, roadsteads, harbours, or rivers of the two countries, no privilege shall be granted to national vessels

which shall not be equally granted to vessels of the other country; the intention of the contracting parties being that in this respect also the respective vessels shall be treated on the footing of perfect reciprocity.

8. The vessels of each of the two countries shall be at liberty either to discharge the whole of their cargo at one of the ports of the dominions of the other contracting party, or to discharge part of their cargo at one port, and then to proceed with the remainder to other parts of the said dominions, according as the captain, proprietor, or other person duly authorised to act in the port as agent for the vessel and cargo shall consider advisable.

9. It is expressly understood that the preceding articles do not apply to the coasting trade, which each contracting party reserves to itself, and shall regulate according to its own laws.

10. If any vessel of war or merchant vessel of either of the two countries should be wrecked upon the coasts of the other, such vessel, or any parts thereof, and all furniture and appurtenances belonging thereunto, as well as all goods and merchandise which shall be saved therefrom, or the proceeds thereof, if sold, shall be faithfully restored to the proprietors or to their agents, on being claimed by them. In case there should be no such proprietors or agents upon the spot, the said articles and goods, or the proceeds thereof, as well as all the papers found on board of any such vessel, shall be delivered to the British or Sardinian consul in whose district the wreck shall have taken place; and such consul, proprietors, or agents, shall not be called upon to pay any charge but the expenses incurred in the preservation of the property, and the rate of salvage which would be equally payable in the like case of a wreck of a national vessel. The goods and merchandise saved from the wreck shall not be subject to the established duties, unless cleared for consumption.

11. In all that relates to duties of customs and of navigation, the two high contracting parties engage that any privilege, favour, or immunity which either of them may grant to any other power, shall be also and at the same time extended to their respective subjects, gratuitously, if the concession in favour of that other state shall have been gratuitous, or on giving a compensation as nearly as possible of equal value and effect, to be adjusted by mutual agreement, if the concession shall have been conditional.

It is, however, expressly agreed, that the reduction in the duties of customs which have been conceded by Sardinia to Belgium by the treaty concluded with that power at Turin on the 24th of January, 1851, and which are specified in the table annexed to the present treaty, shall, from and after the 1st of June, 1851, be extended to Great Britain, in compensation for the advantages granted to Sardinia by the present treaty.

12. Each of the high contracting parties shall have the right to name consuls for the protection of trade, to reside within the dominions and territories of the other party; and the consuls who may be so appointed shall enjoy, within the territories of each party, all the privileges, exemptions, and immunities which are or may be granted in those territories to agents of the same rank and character appointed by or authorised to act for the government of the most favoured nation.

Before any consul can act as such, he must, however, in the usual form, be approved and admitted by the government of the country to which he is sent; and each of the two high contracting parties shall have a right to except from the residence of consuls any particular places which either of them may judge proper to be excepted.

13. The subjects of each of the high contracting parties may freely dispose by will, donation, or otherwise, of all the property which they may legally acquire and possess in the territories of the other; and their lawful representatives, although subjects of the other contracting party, may succeed to such property either by will or *ab intestato*, and may, in due course of law, take possession of the same, either in person, or by persons acting on their behalf; and they may dispose of the same at their pleasure, paying only such imposts, taxes, or duties, as the inhabitants of the country in which such property is situated are liable to pay in similar cases.

In case of the absence of any representatives, the same rule shall be observed as is prescribed in the like case with regard to the property of natives of the country, until the owner shall have made the necessary arrangements for taking possession of the property.

If any dispute should arise between different claimants with respect to the right which they may have to the property, such disputes shall be decided by the judges according to the laws of the country in which the property is situated and without further appeal than is provided for by those laws.

14. The subjects of either of the two high contracting parties residing in the dominions of the other shall have the same liberty as natives to manage their own affairs themselves, or to commit them to the management of any other persons, as brokers, factors, agents, or interpreters; they shall not be restrained in their choice, and shall not be obliged to pay any salary or remuneration to any person whom they shall not choose to employ in those capacities; buyers and sellers being at perfect liberty to bargain together, and to fix the price of any goods or merchandise imported or destined for exportation, on condition of observing the regulations and customs laws of the country.

15. The present treaty shall be in force for twelve years from the date of the exchange of the ratifications thereof; and further, until the end of twelve months after either of the two contracting parties shall have given notice to the other of its intention to terminate the same; each of the contracting parties reserving to itself the right of giving such notice to the other at the end of the said term of twelve years, or at any subsequent time.

PALMERSTON.
HENRY LABOUCHERE.
V. E. D'AZEGLIO.

Declaration made on the Exchange of the Ratifications of the preceding Treaty.

The Ionian Islands being under the protection of Her Britannic Majesty, the subjects and vessels of those islands shall enjoy, in the dominions of His Majesty the King of Sardinia, all the advantages which by the above-mentioned treaty are granted to the subjects and vessels of Great Britain, as soon as the government of the Ionian Islands shall have agreed to grant to the subjects and vessels of His Sardinian Majesty the same advantages which are granted in those islands to the subjects and vessels of Her Britannic Majesty; it being understood that, in order to prevent abuses, every Ionian vessel claiming the benefits of that treaty shall be furnished with a patent signed by the Lord High Commissioner, or by his representative.

TERRA JAPONICA. The commercial name of catechu (cutch) and gambir, described in the DICTIONARY under the former name. It is there stated that it is obtained by boiling the wood of the trees of which it is a product. But cutch is, also, obtained direct from the tree by tapping in the same way as caoutchouc (India rubber). Terra japonica gives out the large portion of tanoin which it contains more readily than oak bark or most other substances, and is, therefore, preferred by those tanners who work on the quick process. Latterly, also, it has been extensively used as a dye,

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F.R.J.S.